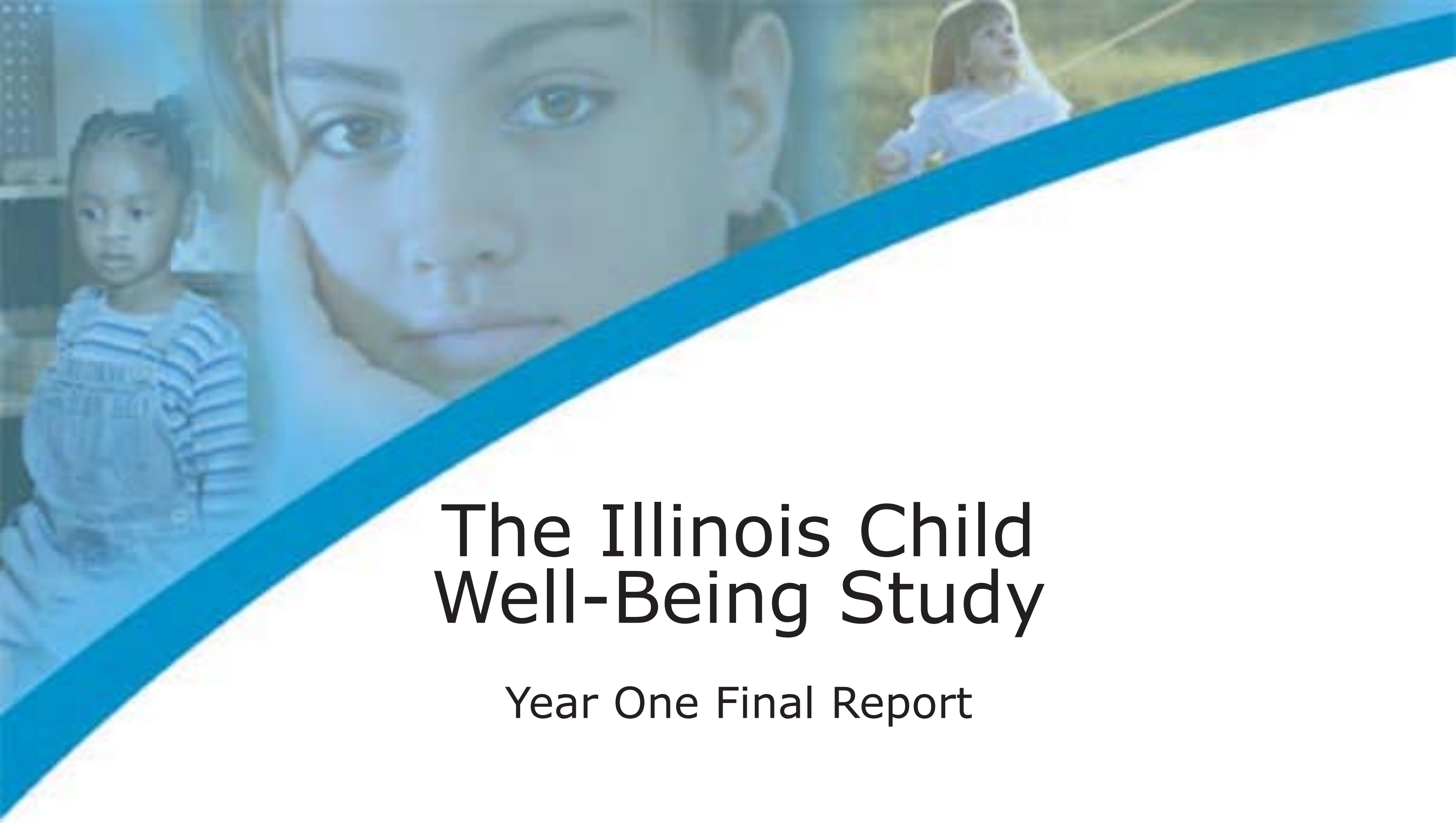

The Illinois Child Well-Being Study

Year One Final Report

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Introduction

by John Poertner, Ph.D.

Child Well-Being: A Brief History, Definitions and New Frontiers

As the Department of Health and Human Services (DHHS) began implementing the provisions of the Adoption and Safe Families Act (ASFA), they identified safety, permanency and well-being as the desired outcomes for children served by public child welfare agencies (DHHS, 1999). These were also identified as the outcomes to be assessed through the DHHS's state-by-state assessment of the nation's child welfare services (United States Government Printing Office, 10/1/03). For the purposes of the child and family service review (CFSR) child and family well-being was defined as:

- Families have enhanced capacity to provide for their children's needs.
- Children receive appropriate services to meet their educational needs.
- Children receive adequate services to meet their physical and mental health needs.

Many people would argue that the receipt of services by children is not an outcome, but rather the outcome is the result of these services. In addition, the process by which the areas of education, physical and mental health were determined to be the critical dimensions of child well-being is unclear. While DHHS published measures and standards for child safety and permanency and invited public comment, standards for measurement of for child well-being were not consensus-based.

The Foster Care Independence Act of 1999 also contains child well-being provisions. This Act calls for developing outcome measures that are neither safety nor permanency but appear to be what many people would consider to be well-being. This Act charges the Secretary of DHHS to develop outcome measures including: measures of educational attainment, high school diploma, employment, avoidance of dependency, homelessness, nonmarital childbirth, incarceration, and high-risk behaviors, all of which can be used to assess the performance of States in operating independent living programs. (H.R. 3443, Sec. 477, (f) (1) (A)).

To date there is a lack of consensus on how child well-being should be defined and measured as well as child welfare's mandate in this area. However, historically, the public has been concerned regarding a variety of outcomes for selected children. In Illinois, the first children identified as of concern were those who were poor. In fact the first poverty program in Illinois targeted children. This early approach was to apprentice youth so that they would have a trade upon turning 21 years of age (Breckinridge, 1939). Breckinridge (1939, p. 59) even found provisions for apprenticing poor youth in Edgar County that specified that the people to whom children were bound out were to "raise, educate, and clothe them and give them $100 when of age."

Another milestone was 'The Act to Regulate the Treatment and Control of Dependent, Neglected and Delinquent Children' that established the first juvenile court in the county in Cook County in 1900. This Act codified the concept of the state acting in the place of a parent by including language that the care of children under its jurisdiction should "approximate as nearly as may be that which should be given by its parents" (Hurley, 1976). This was further reinforced in 1919 by the Illinois Legislature's modification of licensing standards for boarding homes which were to include the care, treatment and discipline of the children, as far as practicable equivalent to that given children of worthy parents in the average normal family (Law of Illinois, 1919, p. 249).

Currently Illinois law defines child welfare services as those directed at accomplishing several purposes including protecting and promoting the health, safety and welfare of children (20 ILCS 505). The Child Abuse and Neglect Reporting Act includes the provision that the Department is to "protect the health, safety, and best interests of the child" (325 ILCS 5/2). While it is not clear what is meant by welfare, best interest or worthy parents in the average normal family, it is clear that public concern, as expressed through the Congress of the Illinois Legislature, was for children under the care of the state care to achieve or maintain some status that can be labeled well-being.

Defining Child Well-Being Defining, measuring and reporting on child well-being are more problematic. When the Children and Family Research Center began its outcome reporting activities, staff took two approaches to define well-being. The Center first engaged a variety of interest groups in a consensus building process to identify dimensions of child well-being. Each of these groups quickly agreed that physical health, mental health and education were important dimensions of child well-being. While they also thought that these dimensions were insufficient, they could not agree on what additional factors ought to be included.

The second approach was to conduct a literature review to identify what the child welfare field considered to be child well-being (Poertner, 1998). This review resulted in identification of health status including both physical and mental health as dimensions of well-being. In the area of mental health, the literature included examination of cognitive functioning, developmental delay, behavioral disturbance and emotional disturbance. Education was also identified as a well-being outcome as were resilience and coping. While health and education were both included in most writers' conception of child well-being, there was little agreement beyond that.

Another indication of the lack of a consensus about what to include in the definition of well-being is reflected in the current work of Child Trends. Child Trends is a nonprofit, nonpartisan research organization dedicated to improving the lives of children by conducting research and providing science-based information to improve the decisions, programs, and policies that affect children and their families (www.childtrends.org). Child Trends maintains a databank on child well-being that includes 80 indicators. A concept that broad is in danger of losing rather than gaining meaning. However the inclusion of education, physical health and mental health in nearly everyone's definition suggests that these areas are a good starting point for measurement and reporting.

New Frontiers Even if there is agreement that education, physical health and mental or behavioral health are the aspects of child well-being that are important to assess as child welfare outcomes, there are significant challenges. These include measurement, data collection and establishing standards. While DHHS agrees that child well-being includes education, physical and mental health, these concepts are defined in terms of receiving appropriate services to meet the child's needs rather than results. This may be, in part, because child development is a process and it is difficult to identify results. Children need an education, but education is a life long process. What are the results? The 'No Child Left Behind Act of 2001' provides a useful way of thinking about educational results. Education is directed to focus on yearly achievement in key academic areas such as reading, language arts, math and science (http://www.ed.gov/nclb). This could be as simple as a child in the third grade reading at that grade level.

Measurement of child physical and mental health is more difficult. What constitutes a healthy child? As is the case with educational development, physical and mental development benchmarks change as children grow. While there is general agreement in education that reading and mathematics are important, it is more difficult to find agreement on a few critical dimensions of child health and mental health.

Even when there is agreement on how to define child well-being, collecting the data is the next challenge. Current measures of safety and permanency can be derived from administrative data-bases that do not require significant additional resources. However, most of these databases do not include data that can be used to derive measures of child well-being. One alternative is individual assessment of each child in care on a regular basis. This is an expensive endeavor that is difficult to justify, as it is perceived as taking resources from needed services. Another and perhaps more reasonable alternative is to select a random sample of cases and conduct an assessment of each child in the sample. While the Child and Family Services Review conducted by DHHS moved in this direction, the review unfortunately uses samples of only 50 cases per state, which is insufficient to draw conclusions about the population of children in state care. Statisticians have determined that the size of a sample sufficient to generalize to a population of a given size is normally 300 or more cases. Assessing a random sample of children is a less expensive alternative than assessment of each child in care; however it still requires substantial resources.

Reporting on the educational achievement, physical and mental health of children in state custody raises important questions about standards. We know that children come into care with significant developmental delays as well as health and mental health problems. Standards or comparisons of child well-being for those in care need to be made in consideration of the conditions of the children upon entering care as well as lengths of time in care. For example, what does it mean if 40 percent of the children in state custody are below grade level in reading? Specifically, we know that upon entering care, children in non-kinship foster care have IQ scores ten points below that of the general population with minority children and those from lower socioeconomic levels scoring significantly lower (Dumart, 1985; Fanshel & Shinn, 1978; Fox & Arcuri, 1980). Finally, how much can a child's reading skills improve if that child is in care for a short period of time? Establishing standards for children's well-being is complex and requires substantial research to produce meaningful comparisons.

Introduction

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Chapter I

EXECUTIVE SUMMARY

Mary Ann Hartnett
Christina M. Bruhn

Introduction

In 2001, the judge overseeing the B.H. Consent Decree called for a comprehensive study of the current state of the well-being of children in foster care in Illinois to determine if the Department of Children and Family Services was meeting minimal standards. The Children and Family Research Center undertook the *Illinois Child Well-Being Study* to measure children's functioning in the domains of safety, permanence, health, mental health, and education. The study incorporates three separate rounds of data collections and analyses for three random samples of children in placement. The results of Round I of the *Illinois Child Well-Being Study* are presented in this volume.

The Executive Summary below provides an overview of key findings and a brief discussion of each well-being domain. In Round I of the study, groups of children were compared for significant well-being differences by gender, age, race, time in care, type of placement, and region. Following are the key findings:

Summary of Mental Health Findings

- Interviews with caseworkers indicated mental health conditions for 42.5 percent of children in the sample; an additional 28 percent of children were reported as having behavior problems. Caseworker reports of behavioral and emotional problems were largely validated by the Child Behavior Checklist (CBCL) which indicated that 45 percent of children in the sample scored in the clinical or borderline range.

- Caregivers reported that 46% of the children surveyed had emotional or mental health problems; and case records indicated that 42% of children had a diagnosed mental health condition.

- The likelihood of having an identified mental health diagnosis is strongly associated with: older age, male gender, and placement in specialized, group or residential care. Children living in kinship care were the least likely to be identified.

- Caregivers were asked about behavior (as opposed to formal mental health diagnoses). There is little difference in caregiver-reported rates of behavior problems across children placed in kinship care versus traditional foster homes.

- Epidemiologically, the largest group of children in foster care is African American and, correspondingly the largest group of children with mental health needs is African American.

- Attention deficit disorders were the most frequent mental health diagnoses for children in care (11 percent with a formal diagnosis), followed by depression (8 percent with a formal diagnosis). Twice as many boys as girls were identified as having an attention deficit disorder (which is consistent with national estimates, although many experts claim that Attention Deficit/Without Hyperactivity is under-diagnosed in girls).

- Approximately 68 percent of wards who are perceived by caregivers as having emotional or mental health problems are receiving mental health services. Fifty-seven percent (57%) of children living in specialized foster care who are identified as having mental health conditions are receiving services to address the condition.

- The top two personal supports requested by caregivers of children with mental health conditions are respite care and specific instruction on how to manage and help specific children with mental health conditions living in their homes.

- Ninety-seven percent (97%) of children in DCFS care were *not* named in a juvenile court delinquency petition, as compared to 98 percent of non-wards.

- Children who have strong emotional support from family members living outside the foster home report significantly better mental health status. Teens, as opposed to young children, and females more so than males, report having emotional connections with and support from family members living outside the foster home.

We find it interesting that there is no significant difference in the length of time a child has been in placement and the likelihood of an identified mental health condition. The implication is that assessment and treatment are as important for new entrants into the system as for children who have been in care for several years. As with other areas of well-being and consistent with the literature, more boys than girls are identified as having mental health conditions.

Mental health professionals with expertise in child psychological evaluation are needed to sort out whether a child is experiencing organic attention deficit disorder and/or post-traumatic stress and/or depression or other emotional conditions. Such evaluation needs to include information from several sources: observations of children, self-reports from older children, interviews with close relatives and significant others, histories of developmental growth, medical issues, school performance, work habits, and psychiatric issues. Knowing which dynamic or combination of dynamics is at work for an individual child has important treatment implications, particularly where medication decisions are relevant. For all children with a mental health condition, it is critical to track whether they are receiving on-going intervention from a mental health professional or licensed clinical social worker, trained in childhood and family psychiatry or psychology, who can provide psychotherapeutic intervention and input around medication decision.

Obtaining this information in and of itself is a very complex undertaking. Ensuring that 18,000 children in placement in Illinois have adequate access, if needed, to qualified psychiatrists, psychologists and therapists who can assess and treat omnipresent mental health needs is an extremely demanding responsibility. Since 2001, the Department's Integrated Assessment System and Illinois's System of Care have been put into place to address these complexities. We recommend close monitoring of these systems to determine the extent to which mental health service needs are being met for children. In sites where the Integrated Assessment System is in place, this could be accomplished by tracking and evaluating Integrated Assessment findings against case service plans, and case service plan service specifications against actual services that are received by children and families.

Aside from formal services, there is another dimension of mental health intervention which is to support foster parents in caring for children who have mental and behavioral challenges. Accommodations in the home may help foster parents help children in their care. These children also will very likely need accommodations in school and other social situations to support their well-being. Accommodations can be numerous and varied according to the child's particular mental health needs. They may include special social and academic arrangements with the school to reduce a child's frustration and increase his/her confidence; behavior modification programs; the establishment of written agreements and contracts that are within the child's current repertoire; the incremental increasing of responsibilities; child-specific arrangements in the home designed to create an environment of safety, comfort, and acceptance; regular connection with relatives and other important adults; group involvement in which the child has an opportunity to help others; connections with art, music, and creative hobbies; connection with a mentor; connection with animals; and numerous other creative solutions. There is also empirical evidence that demonstrates that daily exercise has a positive effect in ameliorating depression.[1]

Given the large numbers of African American children in the foster care system in Illinois, we recommend that the DCFS Integrated Assessment System be evaluated in terms of its cultural sensitivity in appropriately identifying mental health needs and interventions across culturally diverse populations. Local DCFS staff and private agency staff need to be evaluated as to their skill and success in matching identified need with culturally appropriate and effective services. This will require formal research evaluation.

Just as it is important to conduct ongoing assessment of the progress made with individual children and families, so too must the entire system of service providers be evaluated to assess their degree of mental health outcome achievement. We recommend that more in-depth studies of smaller samples of children (by agency or type of care), their caregivers, and their caseworkers occur on a routine basis to provide important qualitative data on the status of child well-being. It is especially important to interview children over the age of seven and systematically analyze and report what they have to say about their well-being across a range of domains.

Summary of Health Findings

- The children in the sample who have health conditions (49%) present with a wide variety of maladies.

- Of all children in the sample, the largest group is physically healthy African American children (42%). The next largest group (38%) is African American children with health conditions that range from minor illnesses to severely medically complex conditions.

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[1] Since the *Illinois Child Well-Being Study* found higher than average body weights for age in our sample of children, daily physical activity could also play an important role in gaining better physical and mental health.

- The identification of health conditions varies by region and placement type. Children in downstate regions are more likely to be identified and, not surprisingly, children in specialized foster homes and group and residential care are more likely to be identified as having health conditions.

- When looking at the co-morbidity of physical health conditions, mental health conditions, and developmental delay, only 29 percent of the sample children were free of any of these conditions. Of children with ICD-09 codes, the vast majority of them had a combination of medical, mental and developmental conditions that, if untreated or under-treated, could jeopardize their current and future well-being.

- The great majority of children who have medical conditions are receiving treatment for them (83%). The remaining 17 percent either do not require current care or are being under-served.

- Children in placement are not getting all of the dental care they need. Twenty-one percent (21%) of youth interviewed said they had not been to a dentist in over 12 months. Annual or six-month exams are the norm for healthy children. Caregivers reported that 8 percent of sample children have some form of dental problem. Of these children, 28 percent are not receiving services for these dental problems. Also, out of the 96 children who are age-eligible, 23 percent need braces, and only 30 percent of them receive braces.

The delivery of dental care for children in placement could be improved by addressing the payment rates through Medicaid. For children who live long distances from dental providers, special transportation arrangements need to be made. Also for children with special needs who need to be sedated in order to tolerate dental care, transportation to a qualified dentist in an appropriate setting needs to be arranged. Straightened teeth have become mainstream for middle class America. Financial arrangements need to be created so that orthodontists will welcome DCFS children into their offices.

Integrating local nurses into the assessment, planning and follow-up monitoring for children with health conditions could have a positive impact. Social workers are not necessarily medically trained to be able to make competent and informed decisions about the care of sick children; they do not have the necessary skills to articulate health services needs or to interpret information about the conditions of children given by the foster parents. The DCFS nurses made the following specific recommendations:

- Routinize and systematize the role of nurses in DCFS case practice.

- Involve nurses during the investigation stage if there is a medical issue. This is particularly important if a child with medical issues is to remain in the home.

- Involve nurses in the placement decision for children with medical issues. Nurses can make assessments about how suitable caregivers and caregiver settings are for the child's particular medical needs.

- Allow nurses, rather than caseworkers, to make the decision of whether a nurse needs to be involved in a case

- Train caseworkers about the differences between the role of doctors and the role of nurses regarding the safety and care of children.

- When nurses make a recommendation, caseworkers should be required to document it. Medical recommendations should not be left to the discretion of a caseworker or supervisor.

- Give nurses ready access to the children's case files so that they have existing medical information on the child and family.

A better system of ensuring that copies of up-to-date Health Passports are maintained in the case file is needed. The Health Passport should also be incorporated into a separate medical section in the case folder so that medical information in the case folder is well-organized and readily accessible. This will help caseworkers track medical issues and will help DCFS and private agency nurses communicate about and monitor needed health care services. With the high rates of caseworker turnover, it is especially important to maintain medical information and track any medical threats to a child's health and well-being.

Summary of Education Findings

- Forty-one percent of wards age 5 and older are behind a grade or more for their age, and boys are more than twice as likely to be over-age-in-grade as girls. Children over the age of 13 are also more likely to be over-age-in-grade.

- Sixty-seven percent (67%) of wards function below grade level on standardized tests of math, and 58 percent function below grade level in reading on standardized tests.

- For children attending Chicago Pubic Schools, 15 to 20 percent more children with a history of having been placed in out-of-home care score below grade level on standardized tests of math and reading than do children without a placement history. Two years prior to entering foster care, future DCFS wards score at this same lower level.

- Twenty-one percent (21%) of all children in the sample were reported to have developmental delays.

- Wards miss an average of one and one half days per quarter; wards over the age of 13 miss an average of 6 days per quarter. In 46% of cases, however, these data are based on reports reflecting attendance over two or fewer school quarters or on reports that did not specify the period of time over which absences took place. These data, therefore, should be interpreted conservatively.

- Thirty-nine percent (39%) of wards receive special education.

The findings regarding education are of concern with regard to the issue of preparedness of youth to transition successfully to adult living. Given that fewer than half of students are performing at or above grade level as measured by standardized tests of math and reading and that only slightly more than a third can be expected to graduate from high school, most wards can be expected to leave care without adequate educational preparation to function independently. Males, children fourteen years of age and older, and children living in group or residential care are at the greatest risk for experiencing educational deficits. Many of the causes for these deficits are known, and appropriate responses have already been incorporated into DCFS policy and practice in many cases.

In most cases, children enter care already experiencing educational deficits. Placement instability and accordant school transfers can contribute to children falling progressively further behind over time. Efforts have been made and continue to be made to reduce unnecessary moves and to keep children in the closest proximity possible to their homes and schools of origin. In terms of recommendations for new policy and practice, the findings from this study are instructive in that they cast light on the issue of grade retention. Over forty percent of wards in this study were over-age-in-grade. A child being over the chronological age expected at his or her grade can be the result of such factors as late entry into school, school transfers, elopement from placement, and grade retention (CCWE, 2005). Finally, results of this study suggest that universal screenings for developmental delays, such as those carried out by the Early Childhood Unit, are much more effective in producing proper identification of developmental delays than are traditional systems.

Summary of Findings from Youth Interviews

- Eighty-two percent (82%) of youth interviewed (N=45 youth) reported feeling significant support from their caregivers.

- Eighty-seven percent (87%) reported feeling very safe in the foster home.

- Seventy-eight percent (78%) reported feeling a strong sense of belonging to the foster family.

- Sixty-six percent (66%) reported feeling a significant connection to their biological mother and 27 percent reported feeling a significant connection to their biological father.

- Sixty percent (60%) reported few or no health problems.

- Seventy-five percent (75%) reported few or no mental health problems.

- Children and youth who have strong emotional support from family members living outside of the foster home report significantly better mental health.

- Females and teens, as opposed to pre-teens, were more likely to have emotional support from family members living outside the home.

The majority of children surveyed reported positive well-being states. A core group of approximately 9 percent reported inadequate well-being on most of the 140 questions in the survey. Children such as these should be flagged in the system, routinely evaluated and monitored to ensure that effective services are in place to meet their needs.

Connections with family members outside the home are very important for all children in care, and especially older youth for whom DCFS has not identified a permanent home. Yet again, we found worse well-being states for males than females. Boys were less likely than girls to have connections with family members (or other adults) outside the foster home who provide them with emotional support. There is ample developmental literature that shows the critical importance of positive, close relationships between young males and other men and boys in their life. DCFS currently has a small, yet successful program called Intensive Relative Search, which is designed to train caseworkers on how to connect and/or reconnect youth with relatives. Some relatives may not be able or willing to provide a placement for a youth, but they are able to provide advise, resources, emotional support, and inclusion in many aspects of family life. Based upon the Center's favorable 2004 evaluation of the program, we encourage expansion and broader implementation of the Intensive Relative Search program.[2] There were documented cases of male youth who made significant and lasting connections with fathers, step-fathers, and brothers.

Stability and Permanence

Reunification In regards to reunification, our findings demonstrate that only length of time in care – not mental health[3], not physical health, and not disability – plays a role in predicting the likelihood of reunification. In other words, children with impaired well-being in any of these areas are just as likely as not to be reunified. However, only 12 percent of children and youth in the sample experienced reunification in a four-year observation period. The findings could be interpreted in many ways: perhaps biological parents have a high degree of tolerance for the behavioral concerns. Perhaps connectedness with a biological parent mitigates against severity of mental health condition and children and youth going home, while equally as likely to be identified as having a mental health condition, are exhibiting less severe behavioral disturbances.

Adoption and guardianship Unlike reunification, impaired well-being has an impact on adoption and guardianship outcomes. Children with mental health conditions were significantly less likely to be adopted. Physical health conditions and developmental delays, however, were not found to be associated with likelihood of adoption. Both age and type of placement were strongly associated with likelihood of adoption or guardianship such that increasing age and increasing level of placement restrictiveness were both associated with a reduced likelihood of adoption or guardianship.

None of the 39 (weighted) children in group or residential settings during a four-year observation period (2001-2004) had been adopted or placed into permanent subsidized guardianship homes. This is likely to be partially a function of the fact that children and youth in

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[2] Stacey Champagne, April Curtis, Onie Riley, and Mary Ann Hartnett, *Evaluation of the Intensive Relative Search Project*, January, 2005.

[3] "Impaired mental health" for our sample is defined as having a clinical or borderline level of behavior as per the Child Behavior Checklist.

group and residential care are older than children in other care types. In addition, children and youth in group care are more likely to exhibit clinical levels of behavioral disturbance. However, children and youth exhibiting these same levels of behavioral disturbance were adopted from other care settings, albeit at lower rates than children and youth without such conditions (with the exception of children and youth in relative care, who were adopted at essentially the same rates whether or not they were identified as having behavioral disorders).

Non-permanence Likelihood of exit from the system with non-permanence status was not found to be associated with well-being indicators. Youth with mental and/or physical health conditions or disability were as likely as children without such conditions to be discharged from care without a permanent home established by the Department. In terms of demographic and placement characteristics, exiting the system with non-permanence status was associated with age and placement type. Over 44 percent of youth leaving the system with non-permanence status did so from a home of relative, and 24 percent of such youth left from a group or residential setting.

Placement stability Children with impaired well-being in the area of mental health were significantly more likely to experience placement instability. Children with health conditions and educational deficits were no more or less likely to experience placement stability that children without these conditions. In addition to children with mental health conditions, older children, children with longer lengths of time in care, and those in more restrictive settings were the more likely to have histories of instability. The documented relationships of age, time in care, and child behavior with the achievement of placement stability and permanence reinforce several principles already embraced by the Department. These include the importance of early, universal screening of all children and youth in care for emotional, behavioral, or mental health issues and prompt provision of high-quality mental health services to those children and their families in order to promote positive outcomes for children in terms of behavioral and mental health as well as in terms of placement stability and maximizing opportunities for permanence.

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In Conclusion

The *Illinois Child Well-Being Study* provides a unique opportunity to quantify and report on the well-being status of children in substitute care. The findings enable stakeholders and policy-makers to have more precise knowledge and understanding of individual and collective well-being issues that affect thousands of children in care in Illinois. The study also provided a unique opportunity to link the well-being findings to administrative outcome data so as to examine the role that well-being plays in achieving permanence and stability. While assumptions are often made concerning the roles that mental and physical health and freedom from disability play in driving permanence and stability outcomes, opportunities to validate those assumptions are rare.

The Illinois Department of Children and Family Services is to be applauded for directing funds to the support of a study of child well-being. While other state systems are grappling with major safety and permanency achievement issues, the Department, in collaboration with the

Children and Family Research Center and other university-based research programs, has established superior methods of measuring and tracking these outcomes.[4] Remarkable gains in achieving safety and permanence for Illinois children have been made in the past ten years. We encourage the Department to continue its leadership role in the examination of child well-being.

The great majority of children who enter placement come to the Department with impaired well-being in one or multiple domains. IDCFS is well aware of this and has responded by creating an infrastructure which includes Integrated Assessment, a community-based System of Care, gate-keeping for residential care, and the Lifelong Approach, all of which are designed to maintain and promote well-being for children. A next step would be to systematically use the information gathered by the Integrated Assessment to develop and monitor a set of well-being indicators for children in care. As the IA database is populated with data over time, the Department will be able to cull pertinent well-being information and use it to determine how children are faring longitudinally. This is especially important for those children who end up remaining in care for long periods of time.

It is also essential for the Department to continue its very successful performance in the achievement of permanence. Even though the constitution of the population of children currently in care has shifted, as many fewer children are entering placement, permanence, while perhaps more difficult to achieve, must still be aggressively pursued. The one factor that shows up time after time in studies of childhood resilience is the involvement of a committed, consistent, and loving caregiver in a child's life. We postulate that permanency, whether through reunification, adoption or subsidized guardianship, is the most likely way to secure this relationship constancy for children in care. So long as permanency planning and outcome-oriented practice are woven into the fabric of daily casework practice, we believe that high rates of permanence can continue to be achieved for children in the Department's care.

Chapter I Executive Summary

References

Champagne, S., Curtis., Riley., Hartnett., *Evaluation of the Intensive Relative Search Project: Final Report*. Children and Family Research Center, January, 2005.

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[4] See the Children and Family Research Center website at http://cfrcwww.social.uiuc.edu

CHAPTER II

Overview of the Literature

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Mental Health

Prevalence of Mental Health Problems

Children in foster care have been repeatedly documented as having more emotional and behavioral problems than children in the general population. However, results from these studies are not always strictly comparable. A variety of scales have been used to assess the percentages of children in foster care with such problems; examples include the Louisville Behavior Checklist (Hochstadt, Jaudes, Zimo, & Schachter, 1987), the Achenbach Child Behavior Checklist (Dubowitz, Zuravin, Starr, Feigelman, & Harrington, 1993) or the Achenbach and the Rutter's Teacher's Questionnaire of Child Behavior (Moffatt, Peddie, Stulginskas, Pless, & Steinmetz, 1985), the Standardized Clinical Information System (based on the Achenbach) (Stein, Evans, Mazumdar, & Rae-Grant, 1996), and "psychiatric testing" (Swire & Kavaler, 1977). Percentages of children experiencing some type of mental health problem cited range from 30 to 80% (Stein et al., 1996). Studies reviewed here also included a range of figures indicating prevalence of mental health conditions. Researchers identified 29.0% of children as having psychosocial diagnoses (Schor, 1982), 35% "having potential emotional problems", (Moffatt et al., 1985), 35% overall with "behavior problems" (Dubowitz et al., 1993) "nearly half" displaying characteristics of a psychological disorder (McIntyre & Keesler, 1986), 56.9% with probable psychological treatment needs (Hochstadt et al., 1987), and a mere 4% unimpaired mentally with 35% having moderate impairment and 35% having marked-to-severe impairment (Swire & Kavaler, 1977). Authors of one study determined that children in foster care showed clinical behavior at two and a half times the rate of community levels (Clausen, Landsverk, Ganger, Chadwick, & Litrownik , 1998). The rates of psychological or psychiatric problems in children in the general population are reported at around 10% (Department of Health and Human Services, 2000).

Some suggestion has been made that the rates of children identified as having psychological problems seem to be rising. Reasons cited as potentially contributing to this rise include deinstitutionalization and greater public awareness (McIntyre & Keesler, 1986) and that children in care now may have more problems (Stein et al., 1996).

Contributors to Mental Health Problems

Hulsey and White's 1989 report clearly identified three conditions that have been explored with regard to association with psychosocial problems of children in foster care:

conditions leading to placement, separation, and conditions associated with placement. Other studies have identified additional contributors.

Conditions leading to placement

Concerning conditions leading to placement, both types of maltreatment and differences in child and family characteristics pre-placement as contributors to the development of mental health problems among children have been explored (Hulsey & White, 1989). Each has been found to have an association with likelihood of mental health problems among children studied.

Reason for placement

Swire and Kavaler (1977) reported that children "placed in foster care for reasons of 'severe neglect or abuse' were evaluated as significantly more impaired (49%) than children placed for any other reason" (p. 646). This finding is consistent with that of Garland, Landsverk, Hough, and Ellis-MacLeod (1996) that children placed in care due to physical or sexual abuse were more likely to receive psychological treatment than children placed due to neglect or dependency. They note, however, that likelihood of receiving treatment varies by reason for placement even when severity of mental health problem is controlled for, suggesting that some bias may contribute to the decision to seek treatment on the part of the child. Egeland, Sroufe, and Erickson (1983) found that the type of maltreatment that children are subjected to is related to the type of behavior they develop. The results of the study showed that both abused and neglected children developed some form of inadequacy either socially, behaviorally or both. Results suggested that children who were similarly maltreated exhibited similar behaviors (Egeland et al., 1983). On measures of behavior only, children placed as a result of physical abuse consistently demonstrate greater pathology than children placed for other reasons (Dubowitz et al., 1993). In a comparison study of neglected and abused children, Wodarski, Kurtz, Gaudin, Jr., and Howing (1990) determined that children who had been abused displayed social and emotional impairments at much higher levels than those children who had been neglected (Wodarski et al., 1990).

Vivian Shaw Lamphear (1985) conducted an extremely meticulous and thorough review of literature concerning the impact of maltreatment on children's psychosocial adjustment. Studies were classified as either cross sectional or longitudinal, and evaluations of methodologies were offered. Results varied according to study, but the picture to emerge from the review imparts the strong suggestion that physical maltreatment is associated with a variety of negative outcomes including aggression, "aversive behavior", problematic self concept and socialization, poor establishment of trust and coping with separation, lack of empathy, maladjustment, lowered social competence, delayed or low normal intelligence and communication skills, poor social skills, and poor school adjustment among others. Neglect was not found to be associated with such outcomes. Results were not unanimous, as one study matching abused children to child victims of traumatic accidents found no differences. The conclusion of that study was that the lower socioeconomic status common to all children in that study might be as powerful in imparting vulnerability as abuse. The weight of the evidence points to the conclusion that reason for placement is an important indicator in the analysis of psychosocial adjustment.

Child characteristics

Foster children followed retroactively were found to have more behavioral problems than matched peers even prior to placement (Lambert, Essen, & Head, 1977). Age has repeatedly been found to be associated with increases in behavioral problems (Hochstadt et al., 1987, Dubowitz et al., 1993, and others), and male children have been found to demonstrate a higher degree of psychiatric symptomatology than female children (Stein et al., 1996, Dubowitz et al., 1993). Recent findings have contributed to discussions of the role of gender in determining psychosocial adjustment by providing indications that males exposed prenatally to cocaine score significantly higher on behavior problem indices than do females (Delaney-Black et al., 2004). However, McIntyre and Keesler (1986), using the CBCL, found no significant effect of either age or gender. The measure they used was “proportion of children (in each group) manifesting disorders” (p. 300). A review of their printed results, however, suggests that differences in the number and/or range of disorders may exist across both age and gender. Race has been found to be related to manifestation of behavior problems such that African American children were more likely to be described as having behavior problems than Caucasian children (Dubowitz et al., 1993).

Family characteristics

The voluminous literature that comprises the knowledge base for several different disciplines involving family dynamics and their relationship to the development of child psychopathology cannot be reviewed at length here. Numerous factors including familial and community violence, maternal depression or other mental illness in a primary caregiver, and others clearly play a role in the development of adaptive or maladaptive social and emotional functioning. For example, family characteristics such as receipt of social assistance and parental criminal history were found to be associated with a greater incidence of psychiatric disorders in both foster children and those children not in foster care (Stein et al., 1996). Other studies have produced similar findings indicating that criminality on the part of parents is associated with child behavior problems (Pardeck, 1983). Furthermore, parents of foster children have been noted to accumulate greater average numbers of criminal charges than other parents (Hulsey and White, 1989). Notably, the Hulsey and White (1989) study also indicated that, when relevant psychosocial variables controlled for, foster children experience behavioral problems at the same rate as other children.

Additional work suggests relationships between family characteristics and child behavior problems. For instance, parental substance abuse has been associated with behavioral problems in children (Pardeck, 1983). Maternal abuse of drugs or alcohol or exposure to other toxins while pregnant also clearly has the potential to result in later behavioral problems on the part of the child (i.e. Chasnoff, 1998) (see Developmental Delay, below for additional details).

Studies have also produced indications that the home environment has a role in driving mental health outcomes among abused and neglected children. For instance, Giblin and colleagues (1984) studied effects of the home environment on abused children. Abused children who lived in homes that lacked play materials and maternal involvement were noted to exhibit more negative behaviors and socialization inadequacies than abused children whose environments were more enriched.

Separation

Hulsey and White (1989) mention separation as one factor that might precipitate behavioral disturbance in foster children. They mention three studies relating to this issue. However, each of the studies is considerably dated. More recent information on the impact of separation may be found in area of attachment. The attachment literature, which is based on well-validated measures and has been replicated in a variety of circumstances, indicates that children who are maltreated are more less likely to experience secure attachments. Attachment is important because it provides a child with a model for human interaction that becomes internalized and acts as a framework upon which future expectations are built. Attachment is theorized to take one of four forms ranging from secure to disorganized/disoriented (Main & Solomon, 1990). In comparing maltreated and non-maltreated infants, Carlson, Cicchetti, Barnett, and Braunwalt (1989) found that 82% of maltreated infants exhibited disoriented/disorganized attachment, in comparison to 19% of non-maltreated infants. The construct of attachment is correlated with physical measures as well; for example, infants with disoriented/disorganized attachment have been demonstrated to exhibit elevated levels of cortisol during the Strange Situation Test (Hertsgaard, Gunnar, Erickson, & Nachmias, 1995). Attachment disruptions may also result from placement into foster care, which may result in additional vulnerability to mental health problems. Children in care may experience enduring trauma that stems from the bonds broken through placement into care. (Kenrick, 2000; Milan & Pinderhughes, 2000; Stoval-McClough & Dozier, 2004).

Conditions associated with placement

Number of placements

Higher numbers of foster care placements have consistently been linked to behavioral declines in children. Swire and Kavaler (1977) noted that children who had experienced three or more placements were significantly more likely to be identified as having marked to severe behavior problems. Pardeck (1983) conducted a study which indicated that children who came into care as a result of behavioral or emotional problems were more likely to experience multiple placements, and that this relationship did not change over time. However, this study fails to fully elucidate the causal relationship between psychological problems and multiple placements, as it looked at a very narrow sample. In the time since this study was conducted, reasons for entry to care have changed such that children are now seldom if ever placed into substitute care as a direct result of emotional or behavioral disturbance. Recent work on the relationship between problem behaviors and the number of placements comes from Newton, Litrownik and Landsverk (2000). Their results show an interaction effect between the behavior of the child and the number of placements the child experiences. They found that "volatile placement histories contribute negatively to both internalizing and externalizing behavior" and "initial externalizing behaviors proved to be the strongest predictor of placement changes" (p. 1363). Those authors conclude that "behavior problems are both a cause and a consequence of placement disruption" (p. 1363).

Type of placement

The only study found to address this topic as the focus of a study was conducted by Dubowitz and colleagues (1993) and focused on children in kinship care. They evaluated the percentages of children in kinship care with elevated scores on the CBCL and found the percentages to be comparable to those found in other studies evaluating the entire foster care population. They did not find their study to be strictly comparable to others given differences in instrumentation but suggested that kinship care may not be significantly protective in terms of preventing or ameliorating behavioral disturbance. A second study (Landsverk, Davis, Ganger, Newton, & Johnson, 1996) included this variable and identified problems with psychosocial functioning as being less prevalent among children in kinship care. The authors suggested that a type of selection bias might be at work in that potential kinship foster parents have prior familiarity with children in the extended family and the opportunity to decline to care for a child, and that they might choose not to care for children with serious behavior problems.

Placement into certain types of care may reasonably be determined by whether or not a child has a disorder. A study by Barth, Courtney, Berrick, and Albert (1994) documented evidence supporting widely-held beliefs that those children that have been considered to have "emotional disorders" were more likely to be placed into group homes than those without disorders, emotional or physical. While it is presumably not the only factor involved, type of placement is also, predictably, partially a function of mental health status.

Duration of placement

Fanshel and Shinn (1978), in their classic longitudinal study of children in foster care, found decreases in behavior problems over time in foster care. However, this study was conducted in a different social and economic era, and the results may not hold true if, in fact, problems of children entering foster care are worsening.

Other contributors

Some additional studies found other factors to be associated with incidence of behavior problems of children in foster care. For example, Dubowitz and colleagues (1993) found that foster parent view of the child as difficult to care for was unsurprisingly associated with escalated behavior checklist scores, as were foster parent uncertainty of future placement plans and the frequency of foster parent/ caseworker contacts. Clearly child behavior problems could influence assessment of behavior, certainty of future plans, and contacts with caseworkers, so the causal relationship between these constructs is not clear.

One study by Stein and colleagues (2001) suggested that exposure to violence, even after a child is placed in foster care, increases a child's level of distress. Findings reveal that 85% of children in foster care are witnesses to violence and 51% are victims of violence (Stein et al., 2001). While the violence did not necessarily take place in the foster home or involve the family of origin (Stein et al., 2001), the impact the exposure has on children's mental health remains compelling.

Consequences of Mental Health Problems

Consequences for safety and permanence

It has been hypothesized that reunification with biological parents of children in foster care is affected by mental health problems of the child. A study by Lawder, Poulin, and Andrews (1986), produced findings indicating that an increased number of behavior problems was associated with a decreased likelihood of return of the child to the home of origin. This finding is consistent with that of Landsverk and colleagues (1996) indicating that emotional and behavioral problems predict reduced likelihood of reunification for children placed in foster care but not for those placed in kinship care.

Of interest is a conflicting finding by Leathers (in press) indicating that behavior problems are unrelated to likelihood either of reunification or adoption. Her results indicate that strong relationships between the foster parents and children in care are predictive of adoption.

While re-entry into foster care of children with mental health problems does not appear to have been examined in the empirical literature, findings demonstrated thus far would seem to indicate that children with mental health problems might be at greater risk for failed trial home visits or subsequent re-abuse and re-entry.

Consequences for placement stability

Studies have shown that increased numbers of placements are associated with a greater incidence of mental health problems (Swire & Kavaler, 1977, Pardeck, 1983). A study on children in foster care in Illinois revealed that children with mental health needs were significantly less likely to maintain stable foster care placements (Hartnett, Falconnier, Leathers, & Testa, 1999). Additionally, children who experienced stability were more likely to receive services. As indicated previously, the study by Newton and colleagues (2000) also produced evidence indicating that mental health problems are both a cause and a consequence of repeated placement moves.

Service Issues

As the abundance of literature shows, children in foster care are at increased likelihood for developing behavioral and emotional inadequacies consequent of their experiences. Other authors reiterate these findings and go on to suggest the importance of identifying each child's specific mental health needs (Clausen et al., 1998). The body of research documents overwhelming deficits among children in foster care, not only in behavior but in social and adaptive skills as well, bringing to bear a focus on the necessity to address the mental health needs of children in care on an individual basis (Clausen et al., 1998). Incumbent upon providers is the responsibility to ensure not only that children in foster care receive services but also that they receive appropriate services.

Additional findings suggest the need to consider not only the adequacy of services provided, but also to whom they are provided. Garland, Landsverk, and Lau (2003) reveal that minorities in foster care receive mental health services at much lower rates than their non-minority counterparts. Caucasian children received mental health services at 14 times the rate of African American children and 25 times the rate of Latino children. Another study demonstrated that males in foster care had significantly more visits to a mental health service provider than females (Leslie et al., 2000). Garland and colleagues (1996) found that children placed in care due to physical or sexual abuse were more likely to receive psychological treatment than children placed due to neglect or dependency.

Even with the high rates of children in foster care having emotional or behavioral problems, studies suggest that only about half of children in foster care receive any type of mental health service. Garland and colleagues (1996) determined that 56% of their sample had received services, and another study by Zima, Bussing, Yang, and Belin (2000) found that 51% received services in a sample where 80% of the children had psychiatric diagnoses. Another study determined that 78% of children in foster care had a mental health diagnosis, impairment or both and received services more often than children living in poverty who did not have contact with the child welfare system (Farmer, Burns, Chapman, Phillips, Angold, & Costello, 2001). The authors openly state that "service use" was not necessarily defined as ongoing treatment for the purposes of the study, so findings should be used with caution. Further study on services for children with mental health concerns in foster care produced findings indicating that one-fourth of children with behavioral problems received no referrals for assistance (Kinard, 2002). While referrals for services may have been made for the remaining three-fourths, it cannot be said that the children actually received the services.

Developmental Delay

Prevalence of Developmental Delays

Understanding the prevalence of developmental delay in children involved with the child welfare system requires first understanding what a developmental delay is. While developmental delays are often thought of as synonymous with cognitive delays, in fact, as defined in the Individuals with Disabilities Education Act, developmental delays are generally understood to encompass as any measured delay in physical, cognitive, social/emotional, or adaptive development (34 CFR 300.7, 1997). Children with developmental delays do not reach developmental milestones before or within the expected time period. The term "developmental delay" is most often used with regard to children ages zero through five years. Developmental delays, however, are different from developmental disabilities. A developmental disability arises when a mental or physical impairment results in substantial limitation in three or more specified areas of functioning, is manifested before the age of 22, and is likely to continue indefinitely, resulting in specific or lifelong extended care (Developmental Disabilities Assistance and Bill of Rights Act, 2000).

Assessment for developmental delays involves application of a standardized assessment protocol by trained assessors. Few empirically based publications concerning developmental delay in children in foster care were found to rely upon standardized systems of evaluation. One such study was conducted by Horowitz, Simms, and Farrington (1994). Children ranging in age from one to seven and being served by a foster care clinic were evaluated using the Connecticut Infant/Toddler Developmental Assessment. Findings indicated that 53% of children were demonstrating developmental delays. Most children were delayed in only one functional domain (i.e. personal-social, adaptive, motor, communications, or cognitive). However, 25% of children identified as having delays were found to be delayed in all domains. In the general population, the rate of developmental delay has been estimated at up to 10% (First & Palfrey, 1994).

Other researchers have employed quicker methods requiring less interviewer training in the effort to identify developmental delays. These methods involve the use of screening instruments such as the Denver Developmental Screening Test (DDST). This test was used in a study by Chernoff, Combs-Orme, Risley-Curtiss, and Heisler (1994). The authors found abnormal or suspect results in 23% of children under the age of five years who were living in foster care at the time of the assessment. However, in applying the DDST II, Leslie, Gordon, Ganger, & Gist (2002) found that 62% of children taken into care due to alleged abuse or neglect scored as suspect. Of these, 34% of children evaluated for developmental delay using the Bayley Scales of Infant Development II were found to have delays.

While results have varied, these findings, taken into consideration in light of other findings concerning the physical and mental health and cognitive development of children in foster care, suggest that developmental problems are far more common among this population of children than in the general population.

Contributors to Developmental Delays

Developmental delays in children in out-of-home care cannot always be linked to a single cause or to a group of potential causal factors. However, developmental delays have been linked both to abuse and neglect and to other conditions and problems associated with abuse and neglect. These conditions and problems include conditions associated with the prenatal development of infants, including economic deprivation leading to poor nutrition and medical care, substance abuse, and familial violence.

Abuse and neglect

Abuse and neglect function in different ways to produce or exacerbate developmental delays and other compromises to child well-being. Evidence suggests that a large number of the children who enter the child welfare system with delays are experiencing those delays due to some combination of prenatal and antenatal environmental factors. The physical and environmental assaults to healthy development that arise from abuse and neglect will be addressed briefly here.

Physical abuse may impact not only physical development but cognitive and psychosocial development as well. Understanding how abuse can affect physical development is not difficult. For example, in approximately 25% of cases, shaken baby syndrome results in death (Torpy, Lymn, & Glass, 2003). Other physical consequences in shaken babies can include visual impairment (65%) (King, MacKay, & Sirnick, 2003) and microcephaly (approximately 94%) (Lo, McPhillips, Minns, & Gibson, 2003). Cognitive consequences of neurological injury resulting from shaken baby syndrome include damage of varying degrees to the ability to think and learn (55%) (King, MacKay, & Sirnick, 2003).

While the link between abuse and the physical injury that can alter a child's developmental course is clear, quantifying the number of cases in which abuse leads directly to developmental delays is difficult. A child's developmental trajectory prior to an instance of abuse is seldom known, nor is the duration, frequency, or intensity of the abuse. However, while the exact magnitude of the impact of abuse on child development may not be known, some indicators of the extent of the problem and of the severity of the potential consequences for those children are evident in the literature. One study, for example, indicated that, among children with cerebral palsy, the cause of the disability in 9% of cases was physical abuse (Jaudes & Diamond, 1985),

Neglect also has the potential to lead to serious physical, mental, and emotional consequences for children, although the link is seldom as direct as that observed with regard to physical abuse. Neglect can affect child development in at least three ways. The first has to do with physical development and the way that development is dependent upon the provision of adequate nutrition, attention to medical needs, shelter and clothing, and protection from potential physical harm. The second has to do with cognitive development. Cognitive development is dependent upon the same basic provision for physical needs that physical development is but also depends on appropriate environmental stimulation. The third aspect of child development affected by neglect is psychosocial development, as alluded to earlier in this chapter. These three aspects of development are interdependent, and an assault to any one of them can affect all three.

Other factors associated with child developmental delays

Economic deprivation

Economic deprivation has been demonstrated to have a strong association with the likelihood of child welfare system involvement (e.g. Massat, Gleeson, & Weagant, 1993). Economic deprivation may also be associated with other factors that can lead to delays in development in young children. These factors could include prenatal maternal malnutrition and antenatal nutrition, inadequate prenatal care leading to complications with pregnancy, and inadequate medical follow-up of infants and young children among others. Economic deprivation is also associated with residence in substandard housing, which can increase the risk of exposure to lead and other toxins. Children later placed in foster care were found in a retrospective study to have been nearly twice as likely as children in the general population to have elevated blood lead levels (Chung, Webb, Clampet-Lundquist, & Campbell, 2001).

Substance abuse

The findings concerning the effects of drug exposure on children are not entirely consistent from study to study. A major factor that contributes to the inconsistency is variation in the definition of drug exposure, which could refer to exposure to tobacco, alcohol, marijuana, cocaine, heroin, other substances, or any combination of substances. The outcomes of exposure to each of these substances are not necessarily the same, and studies reasonably tend to be organized around examination of the effects of specific substances. However, even findings of studies including a focus on the same class of drugs are not entirely definitive. One very carefully designed study by Chasnoff et al. (1998) resulted in conclusions that "exposure to cocaine and other drugs is not directly related to later IQ scores, but that an indirect effect is mediated through the quality of the home environment" (p. 10). Their second major finding was that exposure to drugs prior to birth had a significant effect on a child's behavioral characteristics. Barth and Needell (1996) did not find differences in health or behavioral characteristics for drug-exposed children four years post-adoption with the exception that drug-exposed children were more likely to be described as hyperactive. However, the authors did report substantial differences between a group of drug-exposed children and a group of children not exposed to drugs on physical in medical disabilities, learning disabilities, and behavioral or emotional problems at intake. Drug-exposed children were more likely to be identified as having these problems.

The effects of alcohol exposure seem to be more deleterious and to include growth deficits and behavior problems and intellectual problems (Jacobson & Jacobson, 1999; Fried, Watkinson, & Gray, 1992; Streissguth, Barr, Sampson, & Bookstein, 1994). Taken as a whole, these studies suggest that the effects of drug exposure may vary by type of exposure and are likely to be mediated by environmental variables. The action of the exposure may be direct, via neuroanatomical impact, or indirect, via ongoing impact of a home environment compromised by continued drug involvement. In some cases, the outcomes are extremely severe, but a great deal of variability of outcome seems evident. Nevertheless, increased levels of drug use and of drug exposure of children seems likely to impact the numbers of children with disabilities in foster care to some extent.

Exposure to violence in the home

Domestic violence can impact children directly (Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003), indirectly via intermediate variables such as family functioning, caregiver's health and well-being, and the quality of a caregiver's interaction with a child (English, Marshall, & Stewart, 2002), or both (Levendosky & Graham-Bermann, 2001). Domestic violence potential is known to be correlated with child abuse potential, although measuring the co-occurrence of types of familial violence is problematic. Most work has indicated that domestic violence alone impacts the emotional and behavioral adjustment of children, and that these problems can be exacerbated when domestic violence co-occurs with child abuse (Wolfe et al., 2003). Domestic violence can impact child development via physical and neuropsychological mechanisms as well. One study indicated that a pregnant woman's exposure to battering was significantly associated with the likelihood of pre-term labor (Berenson, Wiemann, Wilkinson, Jones, & Anderson, 1994), and premature birth is associated with a host of risks in terms of development.

Consequences of Developmental Delays

Consequences for safety and permanence

With regard to permanence, a study by Horowitz et al. (1994) indicated that developmental problems, even when controlling for relevant potential contributor variables, made an independent contribution to predicting length of stay. Development interacted with both age and race in predicting length of stay such that children who were non-white, were over two years of age, and had identified developmental problems were 1.93 times more likely to remain in foster care than children without such characteristics.

Consequences for placement stability

The consequences of developmental delay for foster care placement are largely unknown. A 1990 study by James Bell Associates, Inc. and Westat, Inc. indicated that the percentage of foster parents willing to care for a "handicapped" or seriously ill child had fallen by nearly 10 percentage points in the previous decade, to 30.9%. A similar percentage were unwilling to care for drug exposed infants or infants with Fetal Alcohol Syndrome. However, a significant amount of time has elapsed since that study was conducted, and at present, the dynamics at the national level with regard to availability of foster care placements for children with these types of challenges are uncertain.

The impact of developmental delay on placement stability is similarly unknown. Whereas the impact of both emotional disturbances and serious health problems on placement stability has been evaluated, no studies evaluating placement change as a function of developmental status were found.

Service Issues

The issue of service delivery for children with developmental delays is inexorably linked to the issue of identification of developmental delays by caseworkers. West, Richardson, LeConte, Crimi, and Stuart (1992) conducted a study involving record reviews in an attempt to evaluate the availability of health and developmental information. They found that 11% of children receiving services from a county child welfare agency were known to have developmental delays. However, based on information in the records, they indicated that an additional 23% were "likely to be identified as such with further evaluation" (p. 224). In a more general study of identification of "handicapping conditions," Schilling, Kirkham, and Schinke (1986) found that, of 53 caseworkers interviewed, 43 could not recall any children with such conditions on their caseloads, which averaged 30 cases each. Given even a highly conservative estimate of a rate of disability at 10%, at least 3 children per worker or over 150 children altogether should have been identified as having disabilities. Leslie and colleagues (2003) documented, in the context of a national study, the fact that only 42.6% of entities surveyed, primarily counties, provide comprehensive physical, mental health, and developmental evaluations to all children entering out-of-home care. Horowitz, Owens, and Simms (2000) clearly demonstrated that using a targeted program of assessment and evaluation resulted in a rate of identification of developmental delay of 56.5%, whereas the rate of identification of developmental delay of customary care providers was 8.6%.

The low rates of identification of developmental delay and disability are likely to be associated with low rates of delivery of specialized services to promote the development of young children. A 1995 study by the General Accounting Office of young children in urban settings resulted in findings indicating that fewer than five percent of children in foster care received early intervention, therapeutic foster care, or Head Start services. In Los Angeles County and New York City, the percentage of young children in kinship care placements who were receiving special education services was essentially zero. These dynamics are very likely to be affected by the fact that delivery of early intervention services to children with developmental delays in the general population is also problematic. Numerous sources site barriers to service delivery that stem from a variety of factors including philosophical, cultural, or systems factors and practical factors including availability, eligibility, financial, location, scheduling, language, and so forth. A study by Bruhn (2003) suggests that similar factors operate as barriers to delivery of developmental services within the context of the child welfare system but that some of the barriers encountered by caregivers seeking services for children are particular to the child welfare system. These services are vital for promoting the developmental opportunities for young children in foster care, and the fact that service delivery in the context of the child welfare system is likely to be delayed or that services may fail to be put in place altogether has dire implications for the developmental outcomes of affected children.

Health

Prevalence of Health Problems

Articles dating back to 1977 document the high prevalence of health problems in children in foster care. For all the studies to be presented, sampling issues exist such that children included in the study were not drawn at random from the entire population of children receiving services. The representativeness of these studies is therefore not known, and the findings may not be strictly generalizable.

Twenty-six percent of examined foster children were found to be “other than well” by Swire and Kavaler in their 1977 study. The authors contrasted their findings to the Health Examination Survey (HES), a national study that they identified as representative of the general population. The findings of the HES indicated that only 11% of children in the general population were classified as other than well. Forty-five percent of children examined in the Swire and Kavaler study were identified as having at least one chronic problem. The chronic problems identified represent a range of health concerns, not all of which would be considered illnesses or injuries. For example, conditions such as speech disorders would be considered to be health problems according to this system of measurement. This scheme of classification is consistent with that documented in the International Classification of Diseases, Clinical Modification (ICD-9-CM), which is used to code and classify morbidity data from the inpatient and outpatient records, physician offices, and most National Center for Health Statistics (NCHS) surveys.

A subsequent study by Horowitz et al. (1994) generated similar results, including the finding that 26% of children examined at a foster care clinic had at least one significant medical problem. Medical problems were considered in this study were also considered to include a variety of conditions such as hearing loss (18%), neuromuscular disorders (10%), congenital abnormalities (9%), and risk due to prenatal drug or alcohol exposure (6%), as well as illnesses. A study in Illinois focusing on all children entering care in Cook County in August of 1984 produced findings indicating that only 13% of children examined were entirely normal and that half had multiple physical abnormalities. The most commonly identified abnormalities related to growth, development, behavior, and the skin (Hochstadt, Jaudes, Zimo, & Schachter, 1987).

At the high end of the range of estimates of prevalence, 86% of children examined in a study by Moffatt, Peddie, Stulginskas, Pless, and Steinmetz (1985) were found to have a "health problem." These problems included mental retardation, psychiatric disorders, cerebral palsy and muscular dystrophy (musculoskeletal disorders), asthma, dysmenorrhea, and learning problems amongst others. Schor (1982) documented the average number of problems per foster child rather than the number of children with at least one problem. Chart reviews for foster children recently enrolled in a regional health plan resulted in the identification of 2.3 chronic problems per child. Some of the chronic conditions related to factors other than physical health. These problems included psychological, behavioral, and educational problems. In addition, "chronic problems" included physical growth and development problems, which were identified in 12% of children, and musculoskeletal disorders, which were identified in 9% of children (Schor, 1982). The counts of chronic problems also included opthomologic, otologic, and dental problems.

Findings reported in the literature concerning extent to which rates of health problems in children in foster care are different from those in other disadvantaged populations are not historically been completely consistent. Swire and Kavaler (1977), for example, while reporting that children in their sample differed significantly from the general population in regards to psychosocial, physical, and developmental problems, found that the "level of pathology was roughly comparable to that of other disadvantaged populations." However, Blatt and Simms (1997) found the rate of chronic health conditions in foster children to be three to seven times higher than that of other children living in poverty. A more definitive study confirming the findings of Blatt and Simms involved a comparison of children entering foster care to a matched sample of Medicaid-eligible children living with their parents. Researchers identified significantly more health and developmental problems in children in foster care than in the comparison group (Hansen, Mawjee, Barton, Metcalf, & Joye, 2004).

While an exact determination of rates of various types of health problems in foster children using current data and defining health problems narrowly was not found, a few basic conclusions concerning the topic of health problems of children in foster care may be drawn. First, rates of health problems in foster children are high – they are certainly higher than those found in the general population and most likely higher than those of other disadvantaged populations. Second, foster children clearly present a great range of health problems upon entering the child welfare system.

Prevalence of central nervous system abnormalities

Increasingly over the course of the last 10 years, researchers have brought to bear a focus on the neuroanatomy (brain structure) and central nervous system responses (hormonal and electric responses) of children who have experienced abuse, neglect, other trauma, and exposure to adverse environmental circumstances including maternal depression. The findings from this class of studies are considered provocative in that they offer a potential explanation for the mediating pathway between abuse or neglect and the types of mental health, developmental, and educational outcomes experienced by this population as described in the other two sections of this chapter. While the literature on these topics has become voluminous, this review will focus briefly on some key findings regarding brain structure, hormones related to the stress response, and other central nervous system abnormalities.

Neuroanatomy

Structural changes in the brains of children who have experienced abuse or neglect and adults who experience abuse or neglect as children have been identified by a number of separate researchers. Early studies on this topic focused on head circumference. As indicated by Perry, head size is a reasonable measure of brain size in young children. His research group identified a group mean head circumference below the 8th percentile in globally neglected children (1997). Neuroimaging studies have brought additional evidence to bear. De Bellis et al. (1999) found, in a study of maltreated children with Post-traumatic Stress Disorder and matched controls, that the maltreated children demonstrated 7% smaller cerebral volume than the controls. In addition, the total area of the corpus collosum, which is the network of nerves joining the two halves of the brain, was smaller, and the volumes of cerebro-spinal fluid were larger in the brains of maltreated children. Certain other areas of the brain were also disproportionately affected. Children who experienced the earliest abuse and the abuse of longest duration had the smallest brains. Measured intelligence and brain size are positively correlated; the association between child maltreatment and reduced brain size may have implications for interpreting findings regarding well-being outcomes.

Additional studies involved adults and focused around the hippocampus, which is a brain structure primarily responsible for the integration of memories. A number of separate studies have documented a decreased hippocampal volume in adult survivors of physical and/or sexual abuse. The measurement of volume reduction ranged from 5% (Stein, Koverola, Hanna, Torchia, & Mclarty, 1997) to 12% (Bremner et al., 1997). In each case, the decrease was found in the left hippocampus only. The left hippocampus is primarily responsible for verbal memory, whereas the right hippocampus is responsible for visual memory (Glaser, 2000). The implications of these findings are unclear, as in each case, the memories of subjects were found to be unimpaired. This seeming contradiction may be due to the fact that the neural plasticity of children allowed other brain structures to assume functions normally associated with the left hippocampus or to the possibility that the degree of volume attenuation does not affect memory. However, subjects either all or predominantly suffered from PTSD, and 71% of subjects in the Stein study suffered from dissociative disorder. The sizes of the hippocampi of these subjects were negatively correlated with the severity of their symptoms.

Neurological functioning

Both the structure and the functioning of the brains of children may be affected by complex interactions between biology and the environment. Children who have been abused and neglected display a range of indicators of abnormal neurological functioning. These fall into two broad categories defined here as electrical activity and hormonal responses. Numerous additional avenues of inquiry are not elucidated here but add meaningful dimensions to the consideration of physical effects of abuse and neglect.

Electrical activity

Electrical activity in the brain is generally measured in one of two ways. The first is with the use of EEG's, or electroencephalographs. These are used to measure overall patterns of electrical activity in the brain. The other is with the use of ERP's, or event-related potentials. These are used to measure very specific types of electrical activity at specific sites. These types of electrical activity have been demonstrated to have an association with the brain's response to certain types of stimuli; for example, by examining ERP's, researchers can determine whether or not a subject perceives a particular stimulus as novel. Studies have demonstrated that maltreated and non-maltreated children present differently with regard to both EEG's and ERP's. Studying a group of psychiatrically hospitalized children, researchers identified an association between maltreatment histories and abnormal EEG readings specific to the left frontal and temporal lobes (Ito, Teicher, Glod, & Ackerman, 1998). In evaluating difference in response to images of happy and angry faces among maltreated and non-maltreated nine-year olds, researchers found that maltreated children responded more slowly in identifying the images. Furthermore, maltreated children demonstrated ERP's of higher amplitudes when responding to angry faces (Pollack, Cicchetti, Klorman, & Brumaghim, 1997). The implications of these findings are not necessarily clear although they represent entrenched patterns of functioning and responding.

Hormonal and cortisol responses

Glaser (2000) presents an excellent summary of the function of the hypothamic-pituitary-adrenal (HPA) axis as well as of many of the studies referred to here. She refers to Chrousos and Gold (1992) concerning structure and function of the HPA axis. A brief summary will be offered in order to clarify the meaning of some of the findings presented. The HPA connects the brain to the adrenal cortex, which secretes cortisol. The release of two separate hormones is required to relay an impulse to the adrenal cortex. Several studies have identified abnormalities in the functioning of this system in child victims of maltreatment. The majority of studies identified suggest that a history of abuse or neglect may be consistent with a dulling of the HPA response. Hart and colleagues (1995) and DeBellis and colleagues (1994) both produced findings suggestive of this phenomenon. Hart and colleagues found that, in comparison to non-maltreated children, maltreated children failed to show elevations in cortisol in response to socially stressful situations (1995). DeBellis and colleagues identified a blunted response in one of the hormones necessary to trigger cortisol release upon introduction of the other required hormone (1994). Hart, Gunnar, and Cicchetti (1996) found that the salivary cortisol levels of maltreated children are elevated in the afternoon in comparison to those of non-maltreated children. The most common pattern is for cortisol levels to be higher in the morning and to attenuate throughout the day. They also found a different pattern of responding among maltreated children who were classified as depressed in that these children demonstrated lower-than-normal morning cortisol levels. These findings have several implications. First, systems evolutionarily designed to protect humans by preparing them to react to dangerous situations may have been down-regulated and may not function normally in some children who have experienced abuse or neglect. Second, maltreated children may not be treated as a unit for purposes of analysis with regards to neurobiological effects of abuse and neglect, as responses may differ by additional relevant characteristics such as level of depression.

Contributors to Health Problems

The etiology of health problems of children in out-of-home care is very similar to the etiology of developmental problems. A variety of factors to which children in foster care are disproportionately exposed, including abuse and neglect, poor nutrition and medical care both prenatally and in developmental years, and economic deprivation resulting in poor housing and safety conditions, can lead to harms to health. The degree to which each of these etiologic agents contributes to the incidence of health problems in children in out-of-home care is unknown, and public health implications are uncertain.

Consequences of Health Problems

The consequences of health problems for children in out-of-home care are not clear. The type of problem, onset, severity, duration, chronicity, amenability to treatment, and other factors play important roles in determining the impact of any given health problem for any given child. These factors will also, in part, determine the burden of care experienced by the caregiver, which could be considered as one of the factors determining stability of placement. However, findings from the Placement Stability Study (Hartnett, Falconnier, Leathers, & Testa, 1999) indicate that medical needs are not predictive of placement instability; to the contrary, increased severity of medical needs among children in specialized foster care was actually predictive of greater placement stability. The relationship of health factors to permanence has been addressed in the general literature, but in the cases of the studies reviewed, health problems were defined in such a manner that they actually encompassed mental health problems. For example, an analysis conducted by Barth, Courtney, Berrick, & Albert (1994) of 8,748 cases from the administrative database in California indicated that children with health problems (defined as easily identifiable physical, mental, or emotional problems) have a significantly decreased likelihood of reunification compared to children without health problems. However, children initially placed with kin did not experience this reduced likelihood. The aggregation of health problems with mental health problems in studies such as this results in an uncertainty as to the factors driving the findings.

Service Issues

A number of studies have examined the issue of use of medical services by children in out-of-home care in comparison to use by children whose medical care is reimbursed by Medicaid. The findings of these studies are unanimous in indicating that children in care consume Medicaid services at a higher rate than children in the general Medicaid-eligible population. A study evaluating Medicaid claims data in Washington State revealed that the average cost of health care for foster children in that state was $3,075, whereas the average cost for children of AFDC recipients who were living in their own homes was $543. The same study produced other, similar findings including that children in foster care were twice as likely to be hospitalized or to use medical equipment or specialist services as other children receiving Medicaid reimbursable services (Takayama, Bergman, & Cornell, 1994). Rates of service utilization do not necessarily reflect rates of need – specifically, children in the child welfare system may receive higher rates of service due to a variety of factors, including payment availability, provider availability, treatment mandates, and oversight of foster parents by caseworkers and licensing agencies. However, the enormous differences in service utilization identified seem unlikely to stem only from the influence of the child welfare system. A more recent study took place in Illinois and produced consistent findings. Children in HealthWorks in Illinois had greater odds of service receipt for all services than children in the Aid to Families with Dependent Children program. The only exception was general inpatient hospitalization, which was equally as likely among both groups. Despite the assignment of primary care physicians to children in HealthWorks, the odds of emergency room utilization remained 12% higher in this group (Jaudes, Bilaver, Goerge, Masterson, & Catania, 2004).

National findings indicate that children in foster care represent between one and three percent of Medicaid-enrolled children but between four and eight percent of Medicaid expenditures. Most children in foster care were enrolled in Medicaid prior to entry into foster care, but they are at high risk of losing this coverage when they leave care. Finally, a great deal of variation between states is evident with regard to both diagnoses and health care utilization (Rosenbach, 2001).

Findings concerning rates of service utilization are more compelling given the fact that health problems of foster children may go untreated or may be inadequately treated. Moffatt et al. (1985) found that, while major “handicapping conditions” were generally well cared for, minor conditions were more likely to be unattended, and coordination efforts were “lacking.” Other instances of this circumstance can be found in the literature as well. For example, Swire and Kavaler (1977) documented that 61% of children with glasses had inadequate vision correction. The General Accounting Office’s (1995) report on Services for Young Foster Children indicated that, despite elevated incidence of serious physical health problems in young foster children as a group, 12% of foster children received no regular health care, and 32% of foster children had unmet health care needs. This trend was amplified for children in kinship foster care. Children in relative care received fewer health care services of all kinds, which authors linked to an earlier finding that kinship placements receive less monitoring and fewer casework services.

Education

Prevalence of Educational Problems

Educational status can be thought of in a number of different ways (Freagon, 2001 – see also Appendix C). The ultimate outcome of a successful educational experience would be the successful transition to post-secondary education or into the workforce. For this reason, standardized test scores, which are generally intended to measure achievement, are most commonly used to measure educational outcomes. However, considerable controversy exists about whether or not those tests really measure achievement, which tests do so best, and how culture factors into the validity of scores. Moreover, achievement tests are often administered without corresponding measures of a child's aptitude. Given a measure of aptitude, achievement scores can be interpreted in a meaningful context. A child performing in a manner consistent with his or her potential can be considered to be achieving well; however, a child performing in a manner inconsistent with his or her potential, even when achievement is moderate, might be considered to be educationally at risk.

Other educational outcome variables include class grades, graduation rates and whether or the child is in the appropriate grade based on their age. No one measure of outcomes really captures the universe of a child's educational experiences and gives a valid and reliable indicator of his or her achievement. Therefore, a consideration of education from a variety of perspectives is important.

Aptitude

Fanshel and Shinn (1978) in a longitudinal study of three measures of IQ, originally demonstrated that school-aged foster children were, generally, functioning on the low end of the average range of intelligence. However, the authors demonstrated that children who remained in foster care showed significant gains in "verbal, nonverbal, and total IQ" (p.199) and that "benefits…accrued to the children remaining in care when …compared to those who.. returned home" (p.226). One additional study (Osborn & St. Claire, 1987) used cognitive development as an outcome measure. That study involved measures of cognition and behavior when the children were five and later ten years old. Those findings indicated that children who had been in foster care prior to the age of five and children who entered after the age of five performed similarly with regard to cognitive measures, and their results were considerably behind those of children who had never entered foster care.

Several studies that were not longitudinal in nature also included cognitive functioning as an outcome. Fox and Arcuri (1980) found that the mean IQ of foster children tested in the low average range (average IQ of children taking age-appropriate

Wechsler Intelligence Tests was 90.18). Sawyer and Dubowitz (1994) obtained measures of cognitive functioning of children in kinship care. The authors reported that the mean score of children in kinship care was significantly below the mean score for children in the general population.

Achievement

The Fanshel and Shinn (1978) study, while dated, represents one of the few studies published in the academic literature to take a longitudinal approach to measuring educational outcomes. A longitudinal approach is important because measures of educational outcome can be influenced by proximal events. That is, the lives of children in care are often marked by instability: children enter and leave care and may then re-enter care, and they may also experience moves from placement to placement while in care. These events may impact the performance of children on standardized tests. Thus, when representing these children's academic outcomes, a repeated-measures approach allows for a better representation of the true abilities of the children. Fanshel & Shinn (1978) found that over fifty percent of children were performing below age level at each point at which data were gathered. They used teacher reports (primarily standardized testing scores) of achievement in all school subjects to measure performance. They found girls to be performing better than boys, but they also found that many children improved over time. During the first two and one-half to three years, 47% of children showed improvement, but the remaining children showed significant enough declines that the overall trend was one of decline. In the later period, that of two and one-half to five years in out-of-home care, 58% of children showed gains large enough to result in an overall improvement. Girls were more likely to experience gains in achievement.

Other studies also produced reports that children in foster care are more likely to perform below grade level than children in the general population. For example, Pasztor, Clarren, Timberlake, & Bayless (1986) reported that 45% of children in foster care were performing below grade level, and Fansel, Finch, & Gundry (1990), reported that one-third were performing below grade level.

More recent studies have also reported that children in out-of-home care are performing below average in school. Zima, Bussing, Yang, and Belin (2000) found that 23% of children in out-of-home care were performing at or below the *first percentile* in either reading or math on standardized tests. The authors included multivariate analysis of the factors associated with the children's performance. When controlling for a variety of factors they found that African American children and children who had experienced more placements were performing the worst on standardized tests of achievement. The authors warn against quick interpretation of these results given the possibility that the tests are racially biased.

Some of the focus in recent studies has been on how far below average most students are functioning. The Vera Institute of Justice (Conger & Rebeck, 2001) published a study reporting data derived from a matching of New York City school records and Administration for Children's Services (ACS) records. These results also indicate that foster children were performing below average as compared to other children in the same grades in New York City. Foster children performed approximately one-half of a standard deviation below average on reading and math tests prior to entering care and improved only slightly after entering care. The Washington Institute for Public Policy (Burley & Halpern, 2001) found that children in foster care function, on average, at 16 to 20 percentage points below other students on standardized tests. This study used an average of reading, language, and math test scores. They also found that foster care alone accounts for a 7 to 8 percentage point decrease in test scores.

Impact of social background and maltreatment history on educational outcomes

Thus far this review demonstrates that children who are placed in out-of-home care are at extreme risk for below-average school performance. Other questions remain: 1) how the performance of children in foster care compares to that of similarly economically disadvantaged children not in care and 2) how the performance of children in foster care compares to other children who have been maltreated but are not in foster care.

Very few studies have utilized a comparison group comprised solely of children in low-income circumstances. While researchers have undertaken matching of children in foster care to children not in foster care on relevant demographic characteristics such as age, gender, and race (Blome, 1997) and have attempted to control for other factors beyond foster care that contribute to educational outcomes (Burley & Halpern, 2001), controlling for confounding variables is challenging. Studies that have been conducted utilizing such a methodological design used a variety of outcome measures. Osborn and St. Claire (1987) employed an extremely large, representative sample representative of the general population but containing indicators of foster care, residential placement history, social background, and cognitive and behavioral performance to examine the role of socioeconomic factors (SES) relative to foster care in determining educational outcomes. The study design allowed for comparison of children in care at less than five years of age, children in care between the ages of five and ten, children never in care, and children who had been adopted while controlling for socioeconomic circumstance. They found that children in foster care at any point achieved poorer results on cognitive measures than children who had not been in foster care but that social background accounted for a great deal more variance than foster care status did.

Fox and Arcuri (1980) utilized a comparison group of low-income students, and they found no significant differences between the test scores of children in foster care and those not in care. Essen, Lambert, & Head, 1976, in a national longitudinal study, also took into account the effect of SES. Children who had been in foster care, 3.4% of the study population, were compared to children who had not been in care. Children in foster care were more likely to have come from economically disadvantaged backgrounds and to have had a single parent. Children taken into care before age seven were nearly two years behind in reading and math achievement, and children who came into care later were one year behind. Even when multivariate analysis was used to control for other factors, foster care status was found to result in an educational lag of over one year. The authors are careful to point out that foster care alone is unlikely to be responsible for the delays given that placement in foster care is highly correlated with home conditions that could also lead to educational delays. Similarly, Smithgall, Gladden, Howard, Goerge, and Courtney (2004) found that, once demographic characteristics and school are controlled for, the lag of child welfare system involved children behind non-involved children in the Chicago Public Schools (CPS) dropped from over a year to less than half a year. They conclude that, "the weaker academic performance of students in care is partially attributable to students in care attending lower achieving elementary schools and the existence in CPS of general achievement inequities along race and socio-economic lines" (p.1). Together these studies suggest that SES plays a powerful role in determining educational outcomes, but that contact with the child welfare system is associated with an additional, non-negligible effect on educational outcomes.

There have been only limited efforts to compare the educational performance of children in foster care to that of children who have been maltreated but are not in care. Conger and Rebeck (2001) reviewed these studies. The first study (Dumaret, 1985) involved a comparison of maltreated children who were placed in three different settings (adoptive home, foster home, home of parent). The outcome variables were IQ and school failure. Only 28 families of origin were involved, but the sample contained 102 children. An effort was made to control for this threat to validity by removing children who were functioning the most poorly from the sample. Results indicated that children who had been adopted were functioning better than both other groups of children, and that there was no difference between children in foster care and children who remained home. The second study included a matched sample of children in foster care and children who remained home following maltreatment (Runyan & Gould, 1985). The study only controlled for race, sex, age, and date of maltreatment. Results indicated that children in foster care had better attendance records, but grade point average was equivalent between the two groups. The final study (Heath, Colton, & Aldgate, 1994) was more robust in terms of available measures, but the small sample was subdivided according to permanency outcome (remained home, returned home, remained in foster care, adopted), sub-groups were too small to allow for reliable conclusions. In sum, these studies suggest that foster care does not reliably produce improvements in school outcomes; however, neither does it produce additional deficits.

Other measures of educational outcome

Blome (1997) compared the grades of children in foster care with those of children not in care. Matching them on demographic characteristics and standardized test scores, she noted that grades were not significantly different between the groups. However, children in care were more likely to be receiving "general" educational services. Also, 30% of children not in care were enrolled in college preparatory classes, whereas only 15% of foster children were enrolled in such classes. Blome's study was longitudinal and included information about how many students anticipated dropping out of high school and how many actually did. She found that, at the sophomore year, significantly fewer youth in foster care expected to graduate than did youth in the general population. She also found that even as seniors, youth in foster care expressed less disappointment at the idea of not graduating. The results showed that 16% of the comparison group left high school prior to completion, whereas 37% of youth in foster care did so.

Class grades were evaluated by other researchers as well. Comparing children in foster care with children who reportedly were abused or neglected but remained at home, Runyan and Gould found that the performance of the children in foster care held steady over time in terms of the number of children maintaining average or above average grades during the year, while the performance of those remaining at home deteriorated (1985). However, there was no statistically significant difference in grade point average between the groups.

Zima and colleagues (2000) evaluated the number of children in foster care who had repeated one or more grades and the factors associated with grade retention. They found that 13% of children had repeated at least one grade (16% of these had been retained more than once), and when controlling for a variety of potential confounding factors, the only factor associated with grade retention was placement in a congregate care setting. Sawyer and Dubowitz (1994), evaluated grade retention of children in kinship care. They found that 41% of those children had been retained at least once, and 4% had repeated two or more grades. Grade retention varied by age; 34% of children under age twelve and 63% of children ages twelve and older had repeated a grade. However, very few older students were included in the sample. Runyan and Gould (1985) found that children in foster care were no more or less likely to experience grade retention than children who had been abused or neglected but had remained in the homes of their biological parents.

Contributors to Educational Problems

Abuse and neglect

The research presented thus far, in summary, depicts fairly grim prospects for children who have experienced abuse or neglect. Children in this group tend to have IQs that are slightly lower than those of children who have not experienced abuse or neglect. The differences in IQ appear to be substantially but not completely explained by social and economic differences between the two groups of children. Children who have been abused or neglected demonstrate markedly lower rates of academic achievement, more grade repetitions, possibly poorer grades, fewer aspirations for educational achievement, and increased rates of high school dropout. Placement in foster care may be associated with some gains in achievement, but not for all children. Osborn and St. Claire (1987) suggest that only a dramatic improvement in social situation and educational support will lead to notable gains in achievement for children in care.

The directionality of the association between abuse and neglect and poor educational attainment is not in question, but the mechanism of the association is. Most would agree that abuse and neglect do, directly or indirectly, cause problems related to educational achievement. The ways in which abuse and neglect impact education, however, have not been clearly elucidated or even explicitly addressed in the literature.

Abuse or neglect could impact educational performance in any number of ways. First, abuse and neglect are associated with entry into care, which can create a number of potential problems in terms of educational progress. Second, abuse and neglect are associated with cognitive delays and disabilities as elaborated upon previously in this review. Third, abuse and neglect have a psychological impact that can greatly affect readiness to learn and behavior in educational settings, which can also affect learning.

Behavioral disturbance

Children who have been abused or neglected are at a greatly increased risk for emotional and behavioral disturbances. Several authors have addressed the way these emotional and behavioral problems manifest themselves in the school setting and the corresponding disciplinary issues that arise for children in this population. Zima and colleagues (2000) documented that 27% of foster parents in their study indicated that their foster child had major behavior problems (based on the Achenbach Child Behavior Checklist), and 34% of teachers indicated that the children had behavior problems (based on the Teacher-Child Rating Scale). However, foster parents and teachers did not always agree about which children had problem behaviors; in fact, the authors reported an inverse correlation. Kendall-Tackett and Eckenrode (1996) found that maltreated children had more disciplinary referrals than children who had not been maltreated. They also found that, for non-maltreated students, the number of disciplinary referrals leveled off after junior high school, but for the abused and/or neglected students, the number of referrals continued to increase through high school. They also found that maltreated students had significantly more school suspensions than their non-maltreated peers. Kurtz, Gaudin, Wodarski, and Howing (1993) found that physically abused children displayed both severe socioemotional and academic problems whereas neglected children displayed academic problems only. Other authors have documented a higher rate of disciplinary referrals among maltreated children. However, some assert that these rates are due not only to a greater incidence of behavioral concern in children in out-of-home care, but to discrimination by educational institutions (Carlen, Gleeson, & Wardhaugh, 1992).

Barnett, Vondra, and Shonk (1996) have attempted to examine the ways that the maltreatment experiences of children interact with their psychological status to impact educational performance. Those researchers found poor motivation and school performance among children reared in poverty, both maltreated and non-maltreated. However, the psychological status of the non-maltreated children appeared to interact with school performance in a different manner than for maltreated children. Specifically, teacher ratings of effort and intrinsic motivation were positively correlated with self-ratings on the part of non-maltreated children but negatively correlated with self-ratings on the part of maltreated children.

Attendance

Research has demonstrated that, generally, placement in out-of-home care results in an improvement in school attendance rates (i.e. Runyan & Gould, 1985; Conger and Rebeck, 2001). However, students in foster care relate having to miss school frequently for doctors' appointments and due to the need to take care of younger siblings who are ill or lacking daycare arrangements (Finkelstein, Wamsley, & Miranda, 2002).

Placement type and number of placements

Placement type has been examined in several studies either as the focus of a research question or as a potential covariate. Sawyer and Dubowitz (1994) conducted a study which included only a sample of children living in kinship care settings. Comparisons with children living in other placement settings could not be made on the basis of this study, limiting its contribution. However, the study was instrumental as a first look at the academic functioning of children living in kinship care. When controlling for gender; years in care; age at first placement; reason for placement; number of placements; and the caregiver's age, view of the child, educational level, employment status, and relationship with the child as well as number of other children in the home, authors found that only age at first placement and number of other children in the home predicted academic achievement for children in kinship care. Children who had been placed first at the age of twelve years or older were functioning significantly better than children placed at less then five years.

Zima and colleagues (2000) used a random sample of 302 children in care, aged six through twelve years old. Interviews were carried out with the children and their caregivers and teachers. Here, placement type was not found to be strongly associated with educational outcomes except for those children living in group home care. Group home care was found to be strongly associated with the likelihood of having repeated at least one grade, even when taking into account the number of substitute care placements a child had experienced. Conger and Rebeck (2001) found that children in group care settings had better attendance relative to children in other care settings and that placement in foster care was associated with increased school mobility. However, they found no association between placement type and test scores.

In a qualitative study, Jackson (1989) evaluated the educational experiences of children in residential care. One important finding emerging from this analysis was that children in residential care may attend a local school en masse, resulting in stigmatization and often the need to band together with other children from their residence in self defense against non-resident children. While children in residential care benefited from regular school attendance, they were often taken out of school for medical, dental and other appointments specific to child welfare (the review was conducted in England – local analogues include court and case review meetings). Jackson (1989) points out that the cumulative effect of those absences and the light regard of the importance of attendance may have a greater impact than is commonly realized. She also noted the difficulty in managing contacts between the school and the residential home when no single individual is exclusively responsible for the education of the children. Activities such as field trips, parents' evenings, concerts, theatrical performances, and sports events, when available, may be disregarded in residential settings. Additionally, homework may not be a focus in residential settings where priority is often given to domestic tasks and behavioral management, and the child care staff may not be familiar with the material being studied in the school.

Number of placements was included in several studies: Sawyer and Dubowitz (1994), Zima and colleagues, (2000), Conger and Rebeck (2001), and Burley and Halpern (2001); however, none reported an association between the number of placements a child experienced and educational attainment. Conger and Rebeck (2001) did find that having at least one move in placement was associated with a slight decrease in attendance.

School mobility

Eckenrode, Rowe, Laird, and Brathwaite (1995) showed that children with histories of maltreatment experienced twice as many residential moves and/or school transfers as those without maltreatment histories. Eckenrode and colleagues, (1995) found that mobility accounted for 15 % of the effect of maltreatment on test scores, 19% of the effect on grade repetitions, and 33% of the effect on class grades. Smithgall and colleagues (2004) found that initial placement in out-of-home care and placement changes, in addition to residential instability with biological or foster parents, drove school mobility among children in out-of-home care. This study discredited a theory that school mobility dynamics among foster children are primarily or exclusively a function of higher rates of residential mobility among families with fewer economic resources.

Length of time in care

Researchers have found that, in Chicago Public Schools alone, of children entering care, two-thirds are either over age in grade or in the bottom quartile in reading. Nearly a quarter of children entering care are both. Over time, children in care remain behind their peers in terms of performance on standardized tests, but the lag is constant, neither significantly increasing nor decreasing over time. For children who have spent the entirety of their elementary school tenure in care, however, a slight widening of the gap between wards and non-wards is evident over time (Smithgall et al., 2004).

"Distractions and thoughts of home" (Finkelstein, Wamsley, & Miranda, 2002, p. 17)

Finkelstein and colleagues (2002) conducted qualitative interviews with 25 children in the Bronx public schools. The students identified their concerns for the future and the issues that they felt impacted their ability to succeed in school, which included: missing their biological parents and siblings; worries about the well-being of family members; and confusion about the status of their child welfare cases. Numerous students indicated that they tried to conceal their foster care status because of the stigma attached to it. In a substantial number of cases, children indicated that they had only one friend or no friends because they felt they were unable to trust their peers with information regarding foster care. The stigmatization of foster care and resulting treatment by teachers and peers was also documented by Carlen and colleagues (1992).

Foster parent engagement/availability of supportive adults

Qualitative interviews with youth in foster care also revealed that, while most youth in kinship foster care indicated that they would go to their caregivers with problems, they would not seek assistance with homework. The reasons the children gave included the caregiver's age, lack of education, or lack of proficiency in English.

However, many youth did relate having a positive relationship with someone in the school (Finkelstein et al., 2002).

Poor coordination between social service and educational systems

Smithgall and colleagues (2004) analyzed qualitative and quantitative data documenting both the number of schools with which caseworkers must interact and the numbers of caseworkers with whom schools must interact. They found that a major source of miscommunication about school issues stemmed from perceptions about who is responsible for communicating what to whom. This finding is resonant with that reported in the Jackson (1989) study previously presented.

Consequences of Educational Problems

The potential consequences of educational delays for children in the child welfare system are severe. Several studies have involved examination of outcomes for youth in foster care who "age out" of the system. Those studies demonstrate that aging out youth are very unlikely to experience positive employment outcomes, and approximately 65% were in need of safe and stable housing at the time they left the care of the state (Goerge, Bilaver, Lee, Needell, Brookhart, & Jackman, 2002; California Department of Social Services, 2002). In a longitudinal study of youth exiting foster care in Wisconsin who had been living independently for one year to 18 months, researchers found that 37% had not completed high school or a GED (Courtney, Piliavin, & Grogan-Kaylor, 2001). Forty-four percent had problems accessing health care most or all of the time, and less than half of those receiving mental health services while in care continued to receive those services while living on their own. Eighteen percent had been arrested, and the same percentage had been incarcerated. Twelve percent of the sample had been homeless at some point. The poor outcomes for these youth have not been empirically linked to failure to complete high school, poor achievement, attendance, school behavior, or poor educational quality. However, a related study (Zingraff, Leiter, Johnsen, & Myers, 1994) demonstrated that the link between child maltreatment and delinquency is mediated by school performance such that good grades, good attendance, and good school behavior are associated with a reduction in the likelihood of formal court involvement.

Service Issues

Service issues, in terms of education, tend to be discussed in terms of those services guaranteed by the Federal government for students with disabilities. A fuller discussion of what those service entitlements are and confluence of the child welfare and educational systems is presented in Appendix A.

Very few researchers have reported on special education and foster care, and the studies that have been conducted have all been cross-sectional. Moreover, none of the studies reviewed provide specific information about special education service venue (i.e. inclusion with support, partial mainstreaming, self-contained classroom, etc.), the specific services delivered, the amount of time devoted to each service weekly, when special education services were initiated for each child, and so forth.

Goerge, Van Voorhis, Grant, Casey, and Robinson (1992) authored the groundbreaking study in special education and child welfare, matching state databases from the child welfare system to those from the state educational system to identify children placed in foster care who were also receiving special education services. The study produced several important findings. The first finding was that the child welfare system grossly under-identified the disabilities of children in care. Second, they found that 29.1% of children in the child welfare population were receiving special education services; however, only 13.7% of children in the general population were receiving those services. Children in major urban settings were proportionately less likely to receive special education services (26.3% of children in foster care in Cook County vs. 32.2% of children outside Cook County). Additionally, children in foster care were far more likely to be receiving services due to emotional disturbance (over 50% of children receiving special education services) than the average child receiving special education services (10% of children receiving special education services). Only 13% of children of the total foster care population were identified within the school system as having emotional disturbances. The authors point out that this figure, while higher than that representative of the general school-aged population (2%), probably continues to represent an under-identification of emotional disturbances among children in care. Children in foster care were also more likely to be identified as having mental retardation but were less likely to be identified as having learning disabilities or physical disabilities. Finally, children in care who were receiving special education services were more likely to be placed in group or residential homes and less likely to be placed with kin than other children in foster care.

The conclusions that can be drawn from this study are 1) special education is provided to foster children at higher rates than to children in the general population; 2) emotional disturbances, rather than cognitive deficits or learning disabilities, are the primary reason why children in care receive special education services; and 3) rates of provision of special education services to children in care vary by location and placement of children. A follow-up study involving children in the Chicago Public Schools in 2004 found that the discrepancies between the population of children in foster care and children in the general population with regard to receipt of special education services had increased. In that study, nearly half of all 6th through 8th grade students in out-of-home care were receiving special education services, indicating that children in foster care were more likely to receive special education services than children in the general population, children who exited care to a permanent setting, and children abused or neglected but not in care. (Smithgall et al., 2004). Whether or not this over-representation of children in foster care among the population of children receiving special education services should be viewed with alarm is uncertain. Given the rates of disability among children in out-of-home care reported in this review, higher rates of provision of services to allow children to function educationally in least restrictive environments are reasonable. However, provision of special education services is also associated with increased stigma and consequent higher rates of school drop out. This concern is endemic to the school system as a whole but is particularly salient with regard to the intersection between child welfare and educational systems.

Other studies contributed to the understanding of the educational challenges of children in out-of-home care. Smucket and Kauffman (1996) reported that children in foster care who were receiving special education services due to emotional disturbances had more serious problems in school than both other foster children not receiving special education services and other children not in care who were receiving special education services due to emotional disturbances. A qualitative analysis of negative comments about special education students recorded in school files found that children in foster care had more serious behavior problems, more immaturity, and more excessive emotional needs than the children not in care (Smucket and Kauffman, 1996). This study suggests that both the numbers of students in the child welfare population receiving special education services and the severity of the problems they present are important areas of focus. However, this study used very small sample groups, and replication would strengthen their findings.

Sawyer and Dubowitz (1994) reported on the provision of special education services to children in care placed with relatives in Baltimore. They found that 30% of children in kinship care were receiving special education services. However, unlike Goerge and colleagues, they found that, in most cases, teachers identified these children as learning disabled (17% of the sample) not emotionally disturbed (6%). The differences between the results in the two studies could be due to the fact that Sawyer and Dubowitz only sampled children in kinship care, or they could be due to regional variation.

Chapter II Overview of the Literature

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CHAPTER III

METHODOLOGY

Mary Ann Hartnett
Christina M. Bruhn

Introduction

In the past several years, the field of child welfare has made major advancements in the measurement and tracking of the safety of children and the degree of permanence achieved for children. The development of indicator definitions for safety and permanency, while certainly open to interpretation, are relatively straightforward to establish as they are based upon events, e.g., a recurrence of abuse, a reunification, or an adoption. The data for using events and other demographic information has been available in most states' management information systems and available for indicator development and analyses.

Unlike safety and permanency, the area of well-being has challenges which make it much more difficult to measure. First there is no consensus on the definition of "well-being" for children in foster care; there is great latitude in the number and types of domains that could be included to portray the well-being status of children in foster care. Second, even when definitions are developed, the constructs, such as "mental health" and "physical health" must be measured in reliable and valid ways using age-appropriate, in-person assessments of children, in addition to secondary data. Existing management information systems typically contain few data elements that can be used to construct such measures of well-being. Qualitative information must be gathered and analyzed at the individual child and family level in order to draw valid conclusions about an individual's well-being status. Survey instruments, including standardized assessments, need to be administered. And even after reliable and valid data have been collected and analyzed, many evaluative questions remain regarding what is "very good" well-being, what is "adequate" well-being and what would be considered "inadequate" well-being. Child welfare agencies are now confronting these substantial challenges as the Federal *Child and Family Services Review* requires states to report on the well-being of children in their care.

The research design for the current study began by selecting the major domains of well-being to be investigated. The selected domains include mental health, physical health, educational performance, developmental status, stability and permanence.

We then selected a suite of instruments that would measure various aspects of well-being across each of these domains. Next, we identified data sources for each selected instrument. Table 1 below illustrates the data collection strategy.

Table 1
WELL-BEING DOMAINS AND DATA SOURCES

DATA SOURCE	**DOMAIN**					
	Mental Health	Physical Health	Education	Development	Stability	Permanence
Caseworker Interview	X	X	X	X		
Caregiver Interview	X	X	X	X		
Youth Interviews (ages 7 and older)	X	X	X		X	X
Case File Record Abstraction	X	X		X		
School Records Abstraction			X	X		
DCFS Integrated Database					X	X

An Advisory Board comprised of the following people was convened to comment on all aspects of the research design.

Cheryl Cesario	DCFS Legal Counsel
Donna DelPrincipe	DCFS Legal Counsel
Sharon Freagon	Center for Child Welfare and Education
Barbara Greenspan	State's Attorney's Office
Dr. Paula Jaudes	DCFS Medical Advisor
Jess McDonald	DCFS Director
Jack Tebes	Yale University
Christina Tchen	Scadden, Arps, Slate, Meager & Flom Law Office
Ben Wolf	American Civil Liberties Union

Although the merits of conducting a longitudinal study were considerable, the study budget enabled a cross-sectional sample of 350 children each year for three years. Data were collected by the following agencies:

- The Children and Family Research Center (UIUC) oversaw all aspects of consent and data collection, and performed the interviews of children.
- Education Advisors at the Center for Child Welfare and Education (NIU) trained record abstractors and coordinated the collection of data from school records.
- WESTAT, Inc. provided technical assistance with the child surveys.
- The Public Opinion Laboratory (NIU) conducted the telephone interviews with caregivers and caseworkers.
- Nurses at DCFS conducted health audits of case records.

Children in the Sample

A sample base of 450 children was drawn from the population of children who met the following sampling criteria. Children who were in currently open, placement cases were eligible for selection. Children living in intact family cases were not eligible for sampling. The sample was partitioned into children who entered placement for the first time in the past three years (two-thirds of the sample) and children who had been in care more than three years (one third of the sample). Children must have been in placement a minimum of three months to be eligible. This was done to ensure caregivers and caseworkers would have adequate knowledge about the child and so that there would be information in the case file. Siblings of selected children were ineligible for sample selection and only one child per caregiver was eligible for selection. This was done to reduce the survey burden on caregivers.

We stratified the sample on the current age of the child and over-sampled older children to ensure adequate numbers of school-age children in the study. The study initially drew 450 children into the sample to counteract sample attrition due to adoption, subsidized guardianship and reunifications (total of 5%). Sample attrition also occurred due to a lack of DCFS guardian consent for children to participate in the study (12%), respondent refusals (14%), and un-locatable telephone numbers (13%). DCFS guardian consents were not obtained for two reasons; either the guardian denied consent or the caseworker did not complete the one-page evaluation form indicating the child's fitness to participate in the survey. Because the caseworker evaluation form is required by the DCFS guardian, the latter group of cases were not able to be submitted to the guardian for consent.

Sample Demographics

The table below provides post-data collection demographic information on the children in the final *Illinois Child Well-Being Study* sample. The data are weighted so that the sample reflects the population of all children in placement in Illinois in 2001. There were no significant differences in terms of age, gender, race, region or length of time in care between the full original sample of 450 children and the final sample for which data were collected.

TABLE 2
DEMOGRAPHIC CHARACTERISTICS OF CHILDREN IN THE CHILD WELL-BEING STUDY

AGE AT CASE OPENING	
0 – 5	61%
6 – 13	33%
14 and older	6%
Age at Time of Study	
0 – 5	28%
6 – 13	42%
14 and older	30%
Number of Years in Substitute Care	
< 6 Months	18%
1 Year	23%
2 Years	22%
3 Years	14%
4 Years or More	23%
Number of Years in Current Placement	
< 6 Months	9%
1 Year	28%
2 Years	24%
3 Years	11%
4 Years or More	28%
Gender	
Female	51%
Male	49%
Ethnicity	
African American	80%
White	14%
Hispanic	6%

Region	
Cook Regions	79%
Downstate Regions	21%
Placement Type	
Home of Relative	35%
Traditional Foster Care	30%
Specialized Foster Care	23%
Group Home or Residential Care	12%
Provider Type	
DCFS Case	32%
Private Agency Case	68%
Number of Other Foster Children in the Home	
0 Other Foster Children	32%
1 – 2 Other Foster Children	44%
3 – 4 Other Foster Children	12%
> 4 Other Foster Children	12%
Living with a Caregiver Who Has Been a Foster Parent	
Less Than 1 Year	12%
2 – 3 Years	13%
4 – 5 Years	20%
> 5 Years	55%
Living with a Caregiver who	
Fosters alone	63%
Fosters with Another Adult	37%
Living with a Caregiver who is	
Never Married	18%
Married	34%
Unmarried Couple	1%
Separated	10%
Divorced	20%
Widowed	17%
Living with a Caregiver who has	
Less Than a High School Education	14%
High School Diploma or GED	37%
Some College/Tech School	25%
Tech or Associate's Degree	10%
Bachelor's Degree	8%
Post-Graduate Degree	6%
Living with a Caregiver who works outside the home	56%
Living with a Caregiver who is	
African American	75%
White	22%
Hispanic	2%
American Indian or Asian	<1%

Sample Weights

A detailed discussion of the sampling weights and survey weights is contained in Appendix B. The weights adjust for sample design effect and response rate effects. All analyses were conducted on weighted data and results are representative of all children in care in 2001.

The Consent Process

All adult participants were informed via advance letters that participation was voluntary, that the information given would remain confidential, and that they may refuse to participate in the survey or refuse to answer any questions without penalty. Prior to the telephone interviews with caregivers and caseworkers, information about voluntary participation, confidentiality and the right to refuse participation was read to the respondent. The interviewer did not proceed with the interview unless the respondent formally agreed to participate.

The DCFS Guardian Administrator (legal guardian of the sampled minors) gave consent for the participation of sampled minors after the child's caseworker had been contacted to verify the capacity of the child to be interviewed. All minors 12 years of age and older were asked to give written assent prior to the interview. The assent form explained to the child that he/she has the right to refuse to participate and to refuse to answer any questions without any penalty. The Assent Form further explained that there were certain conditions under which we would report one or more of the child's answers to DCFS. It was stated that information would be reported if it indicated that there was an immediate safety issue and/or the child was an immediate danger to himself or others. If the minor refused to give assent, he/she was not interviewed. The assent form was written in clear, age appropriate language, and was translated into Spanish as needed.

Data Sources and Response Rates

Table 3 on the next page shows the response rates by instrument and the instrument completion pattern for all completed cases. Note that for a number of reasons, not all instruments would be completed on all cases, for example, children under the age of 5 would not have a school record abstraction.

TABLE 3

INSTRUMENT COMPLETION PATTERN

Caseworker Interview Complete	Caregiver Interview Complete	Medical Record Abstraction Complete	Educational Record Review Complete	Number of Cases with Data
x	x	x	x	66
x	x	x		81
x	x		x	27
x		x	x	26
	x	x	x	13
x	x			19
x		x		26
x			x	12
	x	x		25
	x		x	6
		x	x	4
x				11
	x			8
		x		18
			x	6
				3
258	235	249	160	351
78%	71%	75%	100%*	100%

* 100% of children meeting protocol specifications

Caseworker Interviews

Interviews with caseworkers were conducted by trained interviewers from the Northern Illinois University Public Opinion Laboratory (POL) which was responsible for development and execution of a previous survey of DCFS caseworkers. The Caseworker Interview took an average 15 minutes to administer over the telephone. The Caseworker Interview addresses the following issues:

- Child’s Mental Health
- Child’s Physical Health
- School Performance and Adjustment
- Services
- Foster Parent and Placement Characteristics

Northern Illinois University’s POL was responsible for recruiting and training interviewers. An additional training module was offered by the Child and Family Research Center concerning contacting caseworkers. Staff members from CFRC provided assistance in identifying currently assigned caseworkers for each child in the sample, and additional assistance in working with agencies to obtain approvals for interviews if necessary. Interviews were conducted by telephone utilizing a computer aided telephone interview format (CATI), which is intended to reduce question administration errors and improve data quality.

Interviews with Caregivers

The Public Opinion Laboratory (POL) at Northern Illinois University, which has conducted prior foster parent interviews for the Department, conducted the telephone interviews with caregivers. Caregivers received an advance letter that described the Caregiver Interview and requested their participation in the study. The contact letter notified caregivers that a POL interviewer would be calling them and that they could complete the survey when they were called or schedule an appointment to complete the survey at another time. Caregivers were given a $20 gift certificate as an incentive to participate in the study.

The Caregiver Interview posed questions about the following topics:

- Behavior and Emotional Status of the child;
- The Achenbach Child Behavior Checklist was administered;
- School Performance Special Education Classes, and Social Adjustment, and;
- Services Received and Needed But Not Received.

As noted above, the Achenbach System Child Behavior Checklist (CBCL) was administered to foster parents about the child in their current care. The CBCL incorporates measures appropriate for children ages 1½ to 18 years. The instrument is widely used and norms are available for comparison purposes. The instrument is furthermore available in Spanish. Administration time was approximately 15 minutes. Interviewers from the Northern Illinois University Public Opinion Lab were given special training on the administration of the CBCL.

Medical Information from Case Files

CFRC trained DCFS nurses to conduct the abstraction of medical information from the case records. Cases were distributed to DCFS nursing staff who traveled to private agencies and DCFS field offices to collect the data from case files. DCFS nurses received debriefing and feedback on the quality of their audits. Field retrievals were conducted, as needed, to obtain any missing data. Information gathered from the in-person abstraction of the case record by DCFS nurses includes:

- Whether the child is enrolled in Healthworks;
- Information from the Health Passport;
- The receipt of health care services, such as, immunizations, health screenings, and evaluations and dental care;
- For children with a diagnosis other than "well child," information on the condition, any referrals, services, medications and equipment recommended and/or received, and;
- ICD-09 Diagnosis Codes and DCFS Disability Codes.

Interviews with Children Ages 7 - 18

We used the child interview developed by WESTAT for the Illinois Subsidized Guardianship Waiver Demonstration Study conducted by CFRC and WESTAT. Commonly known as an Audio-CASI (Computer Assisted Self-Administered Interview), children used a touch-screen laptop computer and headphones to move from question to question (i.e., screen to screen) as they heard each question and all possible responses read aloud. They were able to go back and forth, change incorrect answers, and skip questions they did not wish to answer. The entry of their answers remained confidential and out of the view of parents, caregivers and data collectors

At the time of the *Illinois Child Well-Being Study*, the A-CASI had been extensively tested on DCFS wards and well-developed training materials were available for our use. Feedback from children indicates that the A-CASI is easy to use, not too time-consuming, somewhat boring at times, and questions are understood and not experienced as overly intrusive. While easy help keys are built into the A-CASI, children were nonetheless encouraged to ask for assistance from the data collector at any time. if needed. The Audio-CASI was used only for children who are over the age of 8; a paper/pencil version of the instrument was administered by a trained interviewer to children ages 7 and 8. The instrument asks children to self-report on the following 12 domains of well-being:

1. Constellation of persons in the child's current home
2. Connectedness with community
3. School
4. Relationship to caregiver and significant others (including emotional support in home, emotional support outside home, caretaker support, monitoring, conflict, expectations, and attitudes and perceptions of continuity)
5. Relationship with biological parents
6. Physical health
7. Mental health
8. Illegal drug use
9. Runaway and lock-out experiences
10. Competency and self-efficacy
11. Life skills
12. Permanency

A four-day training was provided by WESTAT and CFRC to the NIU interviewers. Training included:

- The purpose and importance of the study;
- Gaining the cooperation of the caregiver;
- Locating children and setting appointments;
- Contacting children in institutional settings: group homes, detention;
- Creating rapport with children;
- Maintaining confidentiality;
- Use of the A-CASI;
- Teaching children to use the A-CASI;
- Administering the paper and pencil interview;

- Sending data to WESTAT;
- Reporting suspected child abuse.

Use of Educational Records

An evaluation of educational outcomes considers the relationship between a child's *achievement* and his or her *aptitude*. In cases where children with great aptitude perform poorly, educational systems can be considered not to have delivered adequate services. In cases where children with lower aptitude scores perform well, educational systems can be considered to be performing in an exemplary fashion. Many children come to the attention of the Department of Children and Family Services with histories that predispose them to vulnerabilities in academic settings. The real concern is whether or not parents, teachers, and communities are able to nurture their strengths so that children are able to perform to the best of their abilities.

Northern Illinois University's Center for Child Welfare and Education (CCWE) was responsible for developing the methods, procedures, and instruments for securing, reporting, and interpreting data contained in students' school records. Additional training was provided for record abstractors by the Education Advisors, who also assisted in locating children who had moved and in accessing the records of children that may have been withheld by the school or district. Staff members from CCWE identified appropriate schools and districts and current contact persons, and tracked any changes and their causes. Part of the preparation involved anticipating potential procedural resistances and chokepoints, and preventing or minimizing them with preliminary telephone contacts to the school district superintendents and with a designated staff contact and telephone line at CCWE for responses and problem-solving. All of the anticipated problems did, in fact, occur and were handled through the contact and information procedure established. Consequently, researchers faced few delays in accessing the school records.

CCWE had already developed educational rules and procedures for DCFS that had been integrated into DCFS operations (Rules and Procedures), information systems (SACWIS), assessment protocols (integrated assessment), case review processes (ACR), numerous program reviews (residential schools), and special projects (transitional issues for students entering high school). These were based upon eight variables determining school and early childhood success that had been identified and organized into a process matrix by Center Director Sharon Freagon (see Appendix C). CCWE record abstractors and analysts based their data collection systems on these variables. This integrated Departmental practice with the current research in uniquely congruent, complementary, and directly applicable ways (Freagon, 2001).

Data collected from administrative records by CCWE record abstractors addressed the following issues:

- The child's age and grade level - if the child is placed at the expected grade level;
- Educational programs (general education, special education);
- IEP classification (LD, BD etc.);
- Type of classroom: a mainstreamed classroom with/without support, a self-contained classroom, mixed setting, or an alternative educational setting;
- For children receiving special education services, plans for transition to adult living;
- Grades or other indicators of academic performance and standardized test scores;
- Number of school transitions and number of placement changes;
- Behavior in school - disciplinary action including detention, suspension, and expulsion;
- School attendance - number of days missed in the past school year and, of those missed days, number of excused absences;
- Information about the educational level of foster parents was collected in another component of the study.

Developmental Assessment of Children up to Age Five

Children five years of age and younger may have undiagnosed delays in development. These delays are often detected only after children enter school. Early detection of delays is necessary in order to arrange early intervention to mitigate risk of delay and maximize opportunities for developmental gains. The Early Childhood Unit at DCFS screens all children five years of age and younger in care in Cook County using *Ages and Stages*, a standardized screening. Those found to have delays are referred for services and those found to be developing normally are re-screened every six months so that emerging delays may be detected. Results of the child's most resent *Ages and Stages* screening were collected by DCFS nurses when they conducted the medical abstraction of the case records. If the screening had not been done or the results were not in the child's case file, we asked the Early Childhood Unit to repeat the screening. We worked with the Early Childhood Unit to develop a protocol to have the sampled children in this age group located outside of Cook Country screened using *Ages and Stages*.

Use of the DCFS Integrated Database

The DCFS Integrated Database was used for analysis of stability and permanence. The permanency indicators include: children maintained at home, returned home, adopted and children who exited care through private guardianship. For the current study, we provided stability and permanency measures for sample children. The Center continues to explore ways of obtaining well-being data from administrative data such as that available from the Chicago Public Schools, the Illinois State Board of Education and Medicaid claims data.

Data Warehouse

Once all data from each instrument were entered, cleaned, post-coded and de-identified, a single integrated database containing all available data for each child in the final sample was created. This database was used for the analysis stage of the study. As noted previously, the data were weighted so that results correctly represent the population of children in DCFS care in 2001.

Chapter III Methodology

References

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CHAPTER IV

CHILDREN'S MENTAL HEALTH

Mary Ann Hartnett
Christina M. Bruhn

Introduction

Mental health is a fundamental component of the well-being of children, particularly those who are in state custody due to abuse or neglect. Children in placement typically have histories of trauma, deprivation, and loss which can compromise their chances for healthy growth and development in all areas of their lives. Prior research has shown that children in out-of-home care demonstrate levels of need across all dimensions of well-being that are much higher than those of comparable children who have not lived in foster care (see literature review in Chapter III). The identification of mental health needs and the provision of effective interventions are therefore paramount for children in substitute care.

This chapter of the *Illinois Child Well-Being Study* Final Report is divided into five sections. The first section addresses the reporting of mental health conditions across different data sources. The second section reports on the characteristics of children who are reported as having mental health conditions. The third section discusses service delivery issues. The fourth section presents a summary of the findings and the final section discusses conclusions and recommendations.

The Identification of Mental Health Conditions

There is no straightforward way to obtain a complete and accurate picture of the current status of the emotional lives of children in placement. The best conclusions that can be made are based on data collected across several sources, then combined and compared to construct a portrait of indicators of how well each child is functioning emotionally.

For the *Illinois Child-Well-Being Study*, three major sources of information were tapped: caseworkers, caregivers, and case file records:[1]

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[1] A fourth source, interviews with children in which they were asked a series of questions about their current emotional functioning, is discussed in Chapter V of the Illinois Child-Well-Being Study Final Report.

- Caseworkers reported on specific mental health diagnoses (made by a mental health professional) and whether they judged the child as having serious behavior problems (N=255 cases).
- Caregivers completed the Child Behavior Checklist (N=235 cases).[2] They also indicated whether or not they believed the child in their care had an emotional or mental health problem.
- DCFS nurses abstracted mental health diagnoses (made by a mental health professional) from children's case records and reported ICD-09[3] diagnostic codes (N=255 cases).

There were only small variations in the percentages of mental health needs identification across these three sources is as shown below.

- Nurse audits indicate that **42 percent** of children have a mental health diagnosis;
- Interviews with caseworkers indicated mental health conditions for **42.5 percent** of children; an additional **28 percent** of children were reported as having behavior problems;
- Interviewed caregivers reported "emotional or mental problems" for **46 percent** of children;
- CBCL scores (from caregiver interview) occurred in the clinical or borderline range for **45 percent** of children.

There is consistency across the sources of information in the overall percentages of children identified as having mental health conditions. The range among each of the four sources was 42-46 percent. Although one would not expect perfect agreement for all individual children between the above sources for the identification of mental health conditions, the study found a significant level of agreement (for the same children) across reporting sources as Table 1 below indicates.

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[2] Caregivers were administered over 100 age-appropriate questions about the child's current and recent behavior. The CBCL indicates whether children have serious behavior problems. While serious behavior problems may be correlated with mental health conditions, the CBCL does not directly measure "mental health conditions."

[3] International Classification of Diseases, 9th Revision.

TABLE 1

AGREEMENT RATES BETWEEN SOURCES FOR IDENTIFICATION OF A MENTAL HEALTH CONDITION

		Caseworker Identification	**Caregiver Identification**	**Child Behavior Checklist**
Nurse Audits of Case Records	Agreement Rate N	**76.3%** 109 cases	**77.0%** 91 cases	**76.1%** 92 cases
Caseworker Identification	Agreement Rate N		**75.5%** 98 cases	**70.0%** 99 cases
Caregiver Identification	Agreement Rate N			**80%** 125 cases

The highest correlation was between the caregiver and the CBCL (80% agreement). Since the caregiver is the reporter for the CBCL, this seems expected. The second highest agreement was between caregivers and case records (77%). Caseworkers were only in slightly less agreement with the case records (76.3%) than were caregivers. The agreement rate between the CBCL and caseworker identification was 70.0 percent; only 13 percent of children identified by the CBCL as having serious behavior problems were *not* identified by the caseworkers as having a mental health condition (and/or serious behavior problem). Measures of well-being were constructed based on indicators from any and all of the available information obtained for each individual child.

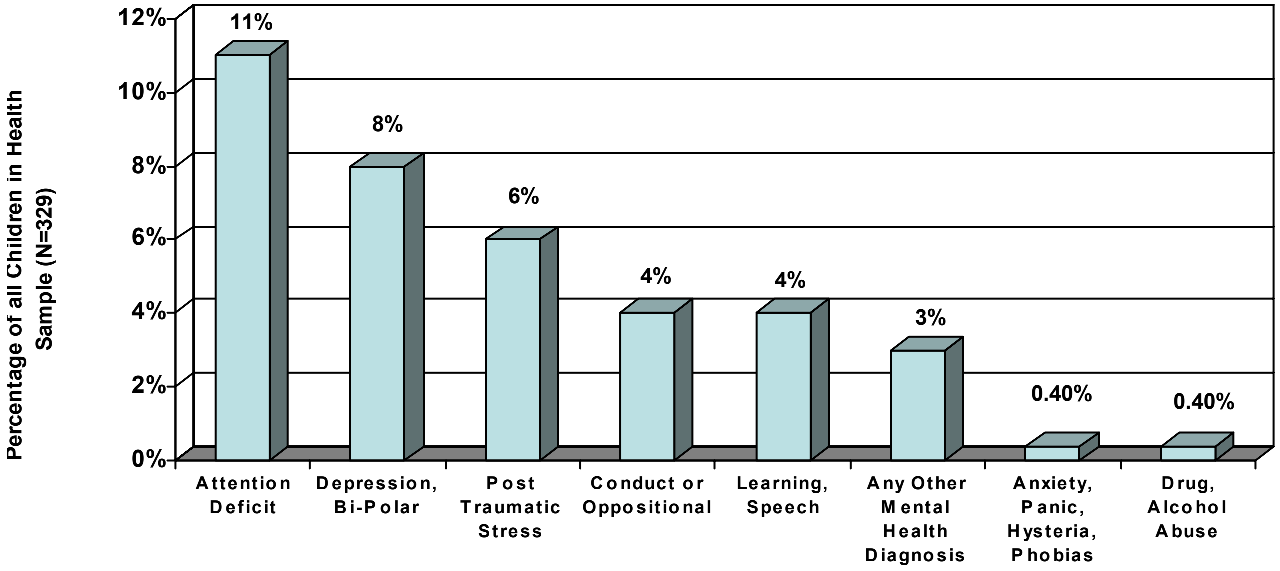
Based on the number and type of instruments completed for individual children: 39 percent had three opportunities to be reported for a mental health condition; 39 percent had two opportunities; and 17 percent had one opportunity.

Mental Health Conditions

Children in a sample had a variety of different mental health diagnoses (see Figure 1). Attention-Deficit/Hyperactivity Disorder was the most prevalent diagnosis; 11 percent of the children in the study sample have a diagnosis of ADHD.[4] Eight percent (8%) have a diagnosis of Depression or Bi-Polar Disorder; 6 percent are diagnosed with Post-traumatic Stress Disorder; 4 percent with a Conduct Disorder or Oppositional Disorder; 4 percent with a Learning Disability or Speech disability; 3 percent have some other diagnoses, and; very small percentages have diagnoses of Anxiety, Panic, Phobias, Hysteria, and Alcohol or Drug Use. These are based on diagnoses that were documented in the case record and/or existing diagnoses reported by a caseworker. Actual prevalence rates may well be higher due to incomplete records and failure to diagnose children who would be identified if evaluated.[5]

FIGURE 1

MOST FREQUENT MENTAL HEALTH DIAGNOSES ARE ATTENTION DEFICIT, DEPRESSION, POSTTRAUMATIC STRESS, CONDUCT AND OPPOSITIONAL DISORDERS



Data Source: Case records and caseworker interviews.

Looking at the relatively high percentage of children who have an Attention-Deficit/Hyperactivity Disorder diagnosis (which is almost double the national rate of 6%), it is difficult to say whether these children actually have this condition, which is organic in nature, or

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[4] ADHD occurs in an estimated 6 percent of children. Daniel Amen, Healing ADD, Berkley Books, New York, 2001.

[5] For example, a study conducted by Casey Family Programs, Harvard Medical School and the State of Washington Office of Children's Administration Research shows that rates of Traumatic Stress Disorder (PSDT) among adults who were formerly placed in foster care, were up to twice as high as U.S. war veterans.

whether their emotional reactions to trauma and loss are being viewed as Attention-Deficit/Hyperactivity Disorder. It is possible that a combination of dynamics is at work. First, there is some evidence that children with disabilities (including children with ADHD) experience higher rates of abuse, neglect, and placement than other children.[6] Second, early deprivation and abuse have been shown to cause or exacerbate ADHD (see text below). And third, children who are suffering the impact of trauma, loss, separation from family and multiple placements may be outwardly manifesting many of the same symptoms of ADHD, such as restlessness, seeking distraction through higher levels of activity, tuning out, and inability to concentrate. In particular, several symptoms of grief due to loss (e.g. inability to concentrate, starting off into space) are also common symptoms of ADHD.[7]

> *"Both physical and emotional neglect and abuse contribute to ADD. The brain needs nurturing and appropriate stimulation to develop properly. When a baby is neglected or abused, the brain cannot develop properly and is put at great risk for learning and behavioral problems. . . . Emotional or physical abuse causes a rush of stress hormones and chemicals that poison a baby's or child's brain. Stress hormones damage the memory centers, and chronic stress causes the brain to become hyperalert, leading to severe distractibility and an inability to filter out extraneous stimuli." Amen, Healing ADD, pp, 25-26.*

Children's Behavior as per Caseworker

According to caseworkers, a sizable minority of children in the sample have serious behavior problems. Most of these children have a mental health condition and 7 percent (of the entire sample of children) have one or more of the following diagnosis.

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[6] Department of Health and Human Services 1995. Sullivan and Knutson (1998) and (2000). Davis, L. (2001).

[7] James and Friedman, 2001.

TABLE 2

CHILDREN'S BEHAVIORS

Behavior	**Percent of children exhibiting the behavior**
Child has behavior problems as school	36%
Child is depressed or anxious	34%
Child is extremely needy of time and attention	31%
Child is or can be physically aggressive with other children in the placement	22%
Child doesn't get along with other children in his/her placement	19%
Child destroys property	17%
Child is or can be physically aggressive with adults	15%
Child has run away in the past	13%
Child has been in trouble with the police	11%
Child was suicidal	9.5%
Child was sexually acting out	9%
Child has forced or coerced someone to do something sexual	5%
Child is currently on run	0.7%

Children's Behavior According to the Child Behavior Checklist

As noted above, 45 percent of the children in the sample scored in the clinical or borderline range on the Achenback Child Behavior Checklist. 32.7 percent scored in the clinical range for Internalizing Behaviors (withdrawal, lethargy, etc.) and 48 percent scored in the clinical range for Externalizing Behavior (fighting, arguing, etc.).

Who is Reported as Having a Mental Health Condition: Bi-Variate Analysis

We find that the diagnosis of a mental health condition is not uniformly distributed across all of the children in the sample. The occurrence of a mental health diagnosis varies significantly by three factors: age of child, gender, and current type of placement in which the child resides (See Table 3). While there were no statistically significant differences in mental health identification within race, time in care, or region, each of these characteristics is discussed below.

Table 3 shows that children over the age of 5 are more likely to have a mental health diagnosis than younger children. Of children under the age of 5, 38.2 percent have a mental health condition. Of children ages 6-21, 67 percent have a mental health diagnosis ($\chi^2 = 13.69$, df = 2, p =.001).

Male Children were significantly more likely to have a mental health diagnosis than female children (68.8% and 50.0% respectively) ($\chi^2 = 7.13$, df = 1, p =.008). It is unclear whether the actual incidence rate of mental health issues is lower for girls, or whether girls are under-identified. Alternatively, the ways in which boys manifest behaviors and emotions may draw more attention from caregivers, caseworkers and teachers, and thereby lead to more frequent formal identification.

As shown in Table 3, and not surprisingly, children in more intensive levels of care where much more likely to have a mental health diagnosis (82.2% - 95.8%) than children in traditional foster care (50.8%) or in homes of relatives (38.2%) ($\chi^2 = 49.53$, df = 3, $p < .000$). Children in kinship care are identified at two-thirds the rate of children in traditional foster care. This could be due to an under-identification of mental health need in kinship care or to actual higher rates of need in traditional foster care.

While there is a higher percentage of children with mental health conditions in downstate regions (62.8%) than in Cook Regions (57.5%), the difference is not statistically significant. Also insignificant is the total length of time that children have been living in substitute care placement. The hypothesis that the longer children remain in care, the greater likelihood of mental health problems is not supported by this data.

TABLE 3

FACTORS INFLUENCING WHO HAS A MENTAL HEALTH CONDITION: BI-VARIATE ANALYSIS

Variable	Percent within group having a mental health condition	Statistics		
		X^2	df	$p<$[8]
Age of child (at time of data collection)		13.69	2	.001
Ages 0-5:	38.2			
Ages 6-13:	67.1			
Ages 14-21:	67.2			
Gender		7.13	1	.008
Males:	68.8			
Females:	50.0			
Race		3.46	1	.063
African American:	55.4			
White or Hispanic:	71.8			
Placement Type		37.28	3	.000
Home of Relative	38.2			
Traditional Foster Care	50.8			
Specialized Foster Care	82.2			
Group/Residential Care	95.8			
There were no differences in the factors below				
Time in Care		0.84	1	.358
Less than 3 years:	61.8			
3 years or more:	55.3			
Region		0.385	1	.535
Cook:	57.5			
Downstate:	62.8			

Based on the race of the child, there is not a significant difference in the identification of mental health conditions. A somewhat higher percentage of white or Hispanic children (71.8%)

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[8] Given the small sample size, a significance level of .10 was used.

than African American children (55.4%) were identified as having a mental health condition. Note that the significance level of .06 just missed statistical significance at the .05 level. With a larger sample size, and therefore more statistical power, we suspect that more white and Hispanic, than African American children are identified as having mental health conditions.

Logistic Regression Results

A regression model was developed to identify which characteristics predict mental illness among children in substitute care placement. In the regression analysis, each selected independent variable is weighed in relation to the impact of each of the other independent variables.

Placement type, while highly associated with mental health condition, was removed from the model because we conceptualize level of placement as a service intervention rather than as a predictor of mental health conditions. The variables entered into the model are: child's age at the time of study, length of time in care at time of study, gender, ethnicity, Cook or downstate region, presence of physical health condition. Controlling for each variable in the model, children most likely to be identified as having a mental health condition are older, males, white children, and those who have a physical health condition. (See Table 4.) Once age is controlled for, time in care is not significant, and once ethnicity is controlled for, region is not significant. That is, children from Cook Country are as likely children from Downstate Regions to be identified as having a mental health condition.

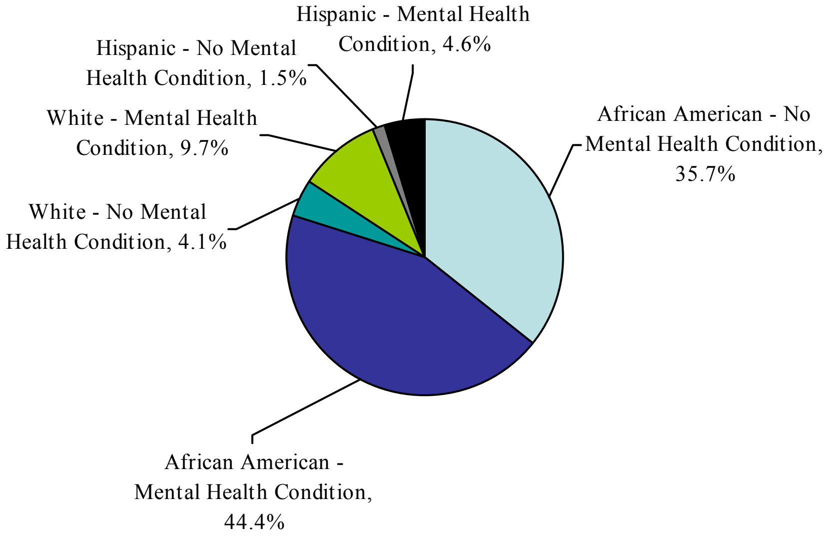
TABLE 4
SUMMARY OF LOGISTIC REGRESSION ANALYSIS PREDICTING PRESENCE OF A MENTAL HEALTH CONDITION(S)

Variable	B	S.E.	Wald	Exp (B)
Age	.099	.037	7.258**	1.104
Time in Care	-.044	.056	.600	.957
Male	.633	.322	3.861*	1.883
African American	-.772	.449	2.960	.462
Cook Region	-.080	.452	.031	.923
Has a physical health condition	.742	.322	5.318*	2.101
Constant	-.380	.568	.477	.684

*p < .05. ** p < .01.

Looking at the racial demographics of the entire sample of children partitioned by having or not having a mental health condition, we see that African American children, by far, make up the largest group of children in the sample, and correspondingly, the largest group of children with mental health conditions.[9] The largest slice of the pie (44.4%) is African American children who have mental health conditions. DCFS is largely in the business of caring for African American children, and the majority of them have mental health conditions. The need for culturally sensitive interventions by culturally competent providers for African American children in care is therefore paramount.

FIGURE 2
PERCENTAGES OF CHILDREN WITH AND WITHOUT MENTAL HEALTH CONDITIONS



Service Delivery

We now turn to the issue of service intervention for children with mental health conditions and/or serious behavioral and emotional problems identified by caregivers. Because accurate social service data is difficult to come by in case records, we relied upon caregivers to tell us whether children were currently receiving mental health services.

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[9] African American children make up 19 percent of the population of children in Illinois; African American children

Psychotropic Medication

For 68 percent of the entire sample, caregivers reported that some form of mental health services (including medication) were received by the child. Not counting medication as a form of therapy, 48.7 percent of children in the sample was receiving psychotherapy. Of all children who received mental health therapy, 55.6% were also receiving psychotropic medication. Only 1 child in the sample was receiving psychotropic medication and no other form of mental health treatment.

Currently taking psychotropic medication was 26 percent of children in the sample. Of all children receiving psychotropic medication, 91.7 percent had not only a mental health diagnosis, but also a medical diagnosis or with only a developmental delay diagnosis, or with no health problems who was receiving psychotropic medication. The conditions most likely to be treated with psychotropic medication were Attention-Deficit/Hyperactivity Disorders and Depression.

The results of the logistic regression below indicate that some, but not all, of the predictors of mental health are predictive of who receives medication for mental conditions. As with mental health predictors, older children, males and children with physical/medical problems are most likely to receive psychotropic medication. However, dissimilar to the mental health predictors, ethnicity was not significant. There is no significant difference among African American, white and Hispanic children in the receipt of psychotropic medication. Children in Cook County regions, however, are significantly less likely to receive psychotropic medication than children in downstate regions. This is an interesting finding given that the likelihood of a mental health diagnosis does not significantly vary by Cook/non-Cook regions.

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make up 65 percent of the foster care population in 2004.

TABLE 5
PREDICTORS OF RECEIPT OF PSYCHOTROPIC MEDICATION

	B	S.E.	Wald	Exp(B)
Age	.087	.048	3.216	1.091
Time in care	.095	.072	1.749	1.100
Male(1)	1.047	.497	4.440*	2.849
African American(1)	-.444	.559	.630	.642
Cook Region(1)	-.961	.543	3.134	.383
Any physical health condition	1.203	.519	5.365*	3.329
Constant	-2.967	.860	11.900	.051

*p < .05.

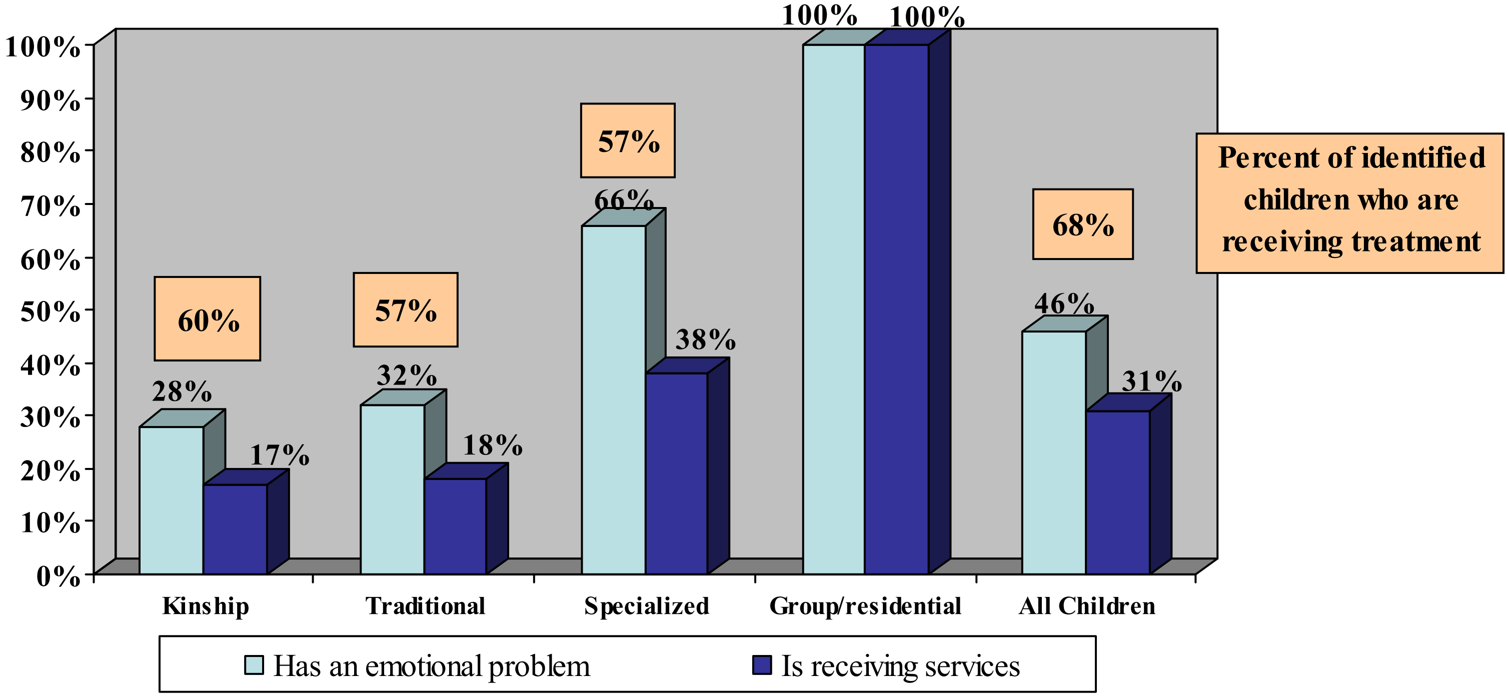
Other Mental Health Services

Caregivers were asked whether the child living in their home received any type of counseling and/or any psychotropic medication to treat and emotional or behavioral problems. Receipt of any type of mental health service or treatment varies significantly by the placement type alone (x^2 = 7.85, df = 3, *p* =.049); age, race, gender, time in care and region were not determining factors in whether children received treatment for mental health conditions.

Figure 3 below illustrates that not all children receive treatment for identified emotional and mental health needs. All children living in group or residential care who were identified as having a mental health condition were reported to be receiving mental health services. Mental health service receipt for children with identified mental health needs (by caregivers) in non-residential placements hovers near 60 percent. Sixty percent (60%) of children living in kinship care who are identified as having mental health conditions and 57 percent of such children living in traditional care are reported to be receiving services for the condition. Similarly, 57 percent of children living in specialized foster care who have identified mental health conditions are reported as receiving services for the condition. Across all placement types, 68 percent of children who are identified as having a mental health condition were reported as receiving mental health services.

FIGURE 3
NOT ALL CHILDREN RECEIVE TREATMENT FOR EMOTIONAL OR MENTAL HEALTH NEEDS
(Source: caregiver interview)

Overall, 68% of children needing mental health treatment receive it



Regarding specialized foster care, one would speculate that, given the more formal identification system and the higher agency payments for specialized services, more children with mental health conditions would be receiving mental health services. In addition, although a lower proportion of children in kinship and traditional foster care are identified as having mental health and emotional problems, these two placement types house the majority of children in care statewide. Thus, extrapolating to the state level, the total number of children who have a mental health condition and/or a serious behavior problem identified by a caregiver and not receiving mental health service is considerable.

The above finding raises questions regarding the reasons why children with mental health conditions are not receiving services. It is possible that some of these children are getting their needs met through accommodations in the home and school, and via less formal methods than traditional counseling and/or medication. Another possibility is that service barriers keep services from reaching the children who need them.

When asked what mental health services foster parents felt the child needed and were not provided, 95 percent said counseling and the remaining 5 percent said [psychological] evaluation. Foster parents were then asked the reasons why these mental health services (which they deemed necessary) were not being provided for the child. The reasons reported are as follows.

N=13	Behavior problems judged by agency as not serious enough
N=5	Evaluation and/or counseling is being arranged, has not started yet
N=3	Caseworker has not gotten around to it yet, referral not yet made
N=2	Child on waiting list
N=2	Child has not been evaluated
N=2	Caseworker and supervisor are not responding to foster parents' requests
N=1	No psychologist in area to treat ADHD
N=1	Does not know why

The chief barrier is a difference in perception between the caregiver and the caseworker on the seriousness of the children's behaviors and/or emotional statuses. One foster parent reports being told that there is no treatment for the child's attachment disorder. Another foster parent repots being told that the child would recover on his own. Another foster parent repots that the physician she consulted said "time would treat the problem." In other cases, a shortage of local resources was a barrier.

Foster parents were asked if there was any support they would like to have as a foster parent that they are not getting now. Forty percent (51 out of 128) responded that there were supports that they would like to have.

The supports that were related to child mental health that foster parents desire are:

- Greater caseworker responsiveness; greater caseworker honesty regarding the extent of child's problems; more information on the child and/or the progress family is making. (n=17, 33%)

- Counseling; more frequent counseling; higher quality counseling; psychiatric help (for child). (n=11, 22%)

- Support for foster parent in handling behavior problems, hyperactivity, and developmental delay issues. (n=8, 12%)

Foster parents want caseworkers to respond to their communication, keep in closer touch, provide more information upfront about the child's mental health problems, and inform the foster parent about the progress the bio-family is making (so that they have a sense of how long the child will be in their care). Twenty-two percent of foster parents who expressed a desire for supports wanted counseling for their foster child or more sessions or a more competent therapist. Twelve percent want support, guidance and information on how to handle difficult behaviors in the home.

Given the percentage of children identified as having a mental health condition and/or serious behavior problem, it is very important to determine the nature and extent of these needs, as well as the geographic availability and any other barriers to mental health services.

Juvenile Delinquency

We now turn to the issue of juvenile delinquency among DCFS wards. The occurrence of a child or youth being named in a juvenile delinquency petition is an inverse measure of child well-being. It is safe to assume that children who are allegedly breaking the law are in need of some of attention, re-direction and guidance from adults who care about their welfare and who have the maturity and integrity to act as a role model for them. Figure 4 shows that the percentages of DCFS wards who have *not* been named in a juvenile delinquency petition have improved over time from 95.2 in FY95 to 97.3 in FY00.[10] Still, in spite of the improvement, non-wards consistently show higher rates of non-involvement in juvenile delinquency petitions.

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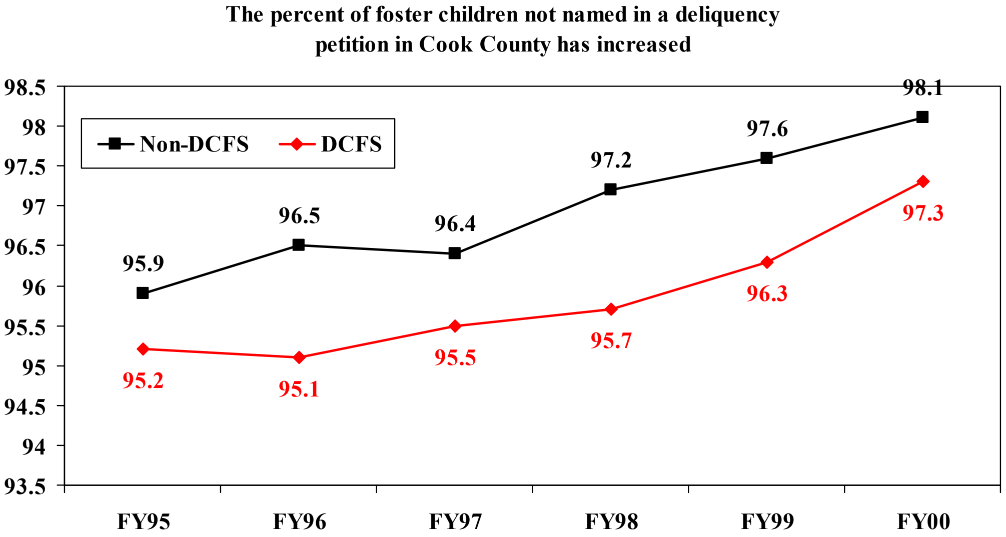
[10] Ryan, J. P., & Testa, M. F. (2005) Child Maltreatment and Juvenile Delinquency: Investigating the Role of Placement and Placement Instability. *Children and Youth Services Review.* Vol. 27, 227 – 249.

FIGURE 4

CHILDREN NOT NAMED IN A JUVENILE DELINQUENCY PETITION



Pregnancy

Our final child well-being indicator looks at the rate of pregnancy and, for males, impregnation. The data for this indicator comes from the self-reported data from the Youth Survey (for youths age 12 and over) used in the *Illinois Child-Well-Being Study*.[11] A total of 45 youths completed the survey. Girls were asked if they have ever been pregnant and boys were asked if anyone has ever been pregnant with their baby. Nine out of 18 girls who answered the question reported that they had been pregnant; eight of these girls have given birth to a child. Seven of the girls reported that they have two children, and one girl reported that she has three children. Two out of the 12 boys who answer the question have impregnated a girl; one of the boys reported that he has four children.

Because the sample size of the Youth Survey is low, we cannot claim that these results are representative of pregnancy rates for all wards over the age of 11. Nonetheless, there are well-being issues around being pregnant, giving birth, and parenting a child at a young age. Youth may need extra services such as special health care, nutrition counseling, planned parenthood information, parenting support, day care, flexible school and work schedules, and greater social supports from relatives and other important people in their lives.

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[11] The Youth Survey instrument developed by Westat for the Illinois Subsidized Guardianship Study was used.

Mental Health Summary

- The likelihood of having an identified mental health diagnosis is strongly associated with: older age, male gender, and placement in specialized, group or residential care. Children living in kinship care were the least likely to be identified.

- Epidemiologically, the largest group of children in foster care is African American and, correspondingly the largest group of children with mental health needs is African American.

- Attention-Deficit/Hyperactivity Disorder was the most frequent mental health diagnoses for children in care (11 % with a formal diagnosis), followed by Depression (8 % with a formal diagnosis). Twice as many boys as girls were identified with Attention-Deficit/Hyperactivity Disorder (although for the US population there is no difference in the 6 % incidence rate of ADHD among males and females).

- Caseworker reports of behavior problems were largely validated by the Child Behavior Checklist (CBCL) scores. Only 13 percent of children who had CBCL scores in the clinical or borderline range were *not* identified by caseworkers.

- There is little difference in caregiver-reported rates of mental health and/or behavior problems across children placed in kinship care versus traditional foster homes. Nor do the rates of receipt of mental health services differ across these two placement types.

- Approximately 58 percent of wards living in traditional, relative and specialized placements who are perceived by caregivers as having emotional or mental health problems are receiving mental health services. Sixty-six percent (66%) of children living in specialized foster care are identified as having mental health conditions and only 38 percent of them are receiving services to address the condition.

- Ninety-seven point three percent (97.3%) of children in DCFS care were *not* named in a juvenile court delinquency petition, as compared to 98.1 percent of non-wards.

Implications for Policy, Practice and Recommendations

Identification Issues

In our sample, there was no significant difference in the length of time a child had been in placement and the likelihood of an identified mental health condition. The implication is that assessment and treatment are equally important for new entrants into the system as for children who have been in care for several years.

Regarding the issue of Attention-Deficit/Hyperactivity Disorder, mental health professionals with expertise in child psychological evaluation are needed to sort out whether organic ADHD and/or other disorders (such as Posttraumatic Stress Disorder, Depression and/or Bi-Polar Disorder) are presenting conditions for individual children.[12] Such evaluation needs to include information from several sources: self-reports (from children who are old enough), interviews with close relatives and significant others, and histories of developmental growth, medical issues, school performance, work habits, and psychiatric issues. Knowing which dynamic or combination of dynamics is at work for an individual child has important treatment implications, particularly where medication decisions are relevant. There is ample empirical evidence that a combination of medication and environmental accommodations at home and at school can result in positive behavioral, educational and social outcomes for children with ADHD.[13]

Service Delivery Issues

While experts agree that initial and ongoing mental health assessment is needed, such assessment is insufficient to guarantee that mental health service needs will be met. In fact, according to Jeanne Rivard:[14]

> *"Despite the strong associations between child maltreatment and psychological disorders in childhood and adulthood, there is evidence that child victims of abuse and neglect do not routinely receive mental health treatment specifically targeted to prevent or ameliorate potential negative mental health outcomes. In addition, there are few empirical studies documenting outcomes of mental health interventions for abused and neglected children."*

Identification is the first step in the process of determining what issues need to be addressed, what intervention are needed, who will deliver services, and for how long. Our data shows that even when children are assessed and identified as having mental health needs, the assessment did

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[12] See Carlson, et al, 1998 and Geller and Luby, 1997, for a discussion of the diagnosis and mis-diagnosis of childhood bipolarity.

[13] Amen, 2001; Zaff, Calkins, Bridges, and Margie, 2002; National Center of Birth Defects and Developmental Disabilities, 2003; National Institute of Mental Health.

[14] Rivard et al., 2004

not guarantee that services would be received. We recommend an examination of the array of mental health services available to children across all geographic areas of Illinois and an examination of how well these services match with the mental health and cultural needs of children in placement. The Dartington method, for example, provides a structured method for sorting and matching children's and families' needs to services in local communities.[15]

For all children with a mental health condition, it is critical to track whether they are receiving on-going intervention from a mental health professional, trained in childhood and family psychiatry or psychology, who can provide medication consultation and psychotherapeutic intervention. These children also will very likely need accommodations in the home, in school, and other social situations to support their well-being. Accommodations can be numerous and varied according to the child's particular mental health needs. They may include special social and academic arrangements with the school to reduce a child's frustration and increase his/her confidence; behavior modification programs; the establishment of written agreements and contracts that are within the child's current repertoire; the incremental increasing of responsibilities; child-specific arrangements in the home designed to create an environment of safety, comfort, and acceptance; regular connection with relatives and other important adults; group involvement in which the child has an opportunity to help others; connections with art, music, and creative hobbies; connection with a mentor; connection with animals; and numerous other creative solutions. There is also empirical evidence that demonstrates that daily exercise has an equivalent effect on Depression as anti-depressant medication.[16]

Based upon caregiver-reported provision of services to children residing in non-residential foster care, a large percentage (40-43%) of children who have been identified as having mental health needs are not receiving mental health services. We recommend that a special investigation be undertaken to determine the extent to which mental health service needs are being met for children in non-residential placements, in particular specialized foster care where a high percentage (82%) have an identified mental health condition. In sites where the Integrated Assessment System is in place, this could be accomplished by tracking and evaluating Integrated Assessment findings against case service plans, and case service plan service specifications against actual services that are received by children and families.

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[15] Matching Needs and Services, Dartington Social Research Unit, England, 1995.

[16] DiLorenzo, Bargman, Stucky-Roff, Brassington, Frensch, and LaFontaine, 1999; Greist, Klein, Eischens, Gurman and Morgan, 1979; Martinsen, Medhus, and Sandvik, 1985.

In addition to using a "medical model" to address DSM-diagnosable conditions, we recommend multi-component mental health strategies that address:

1. Mitigation of the developmental impacts of emotional and physical neglect:
2. Recovery from childhood trauma:
3. Intervention to address the grief and loss associated with removal from family and placement into foster care: and,
4. Accommodations in the home and school to create an environment of safety, comfort and belongingness.

There is ample evidence that trauma-based interventions are effective in treating the sequelae of child abuse and neglect. The Grief Recovery Institute has a curriculum to train specialists to work with parents (including foster parents) on how to talk with children about their grief due to many kinds of losses.[17] Also Pieper and Pieper (1999 and 1992) have developed an empirically validated curriculum for training parents and foster parents on how to respond to children who are experiencing emotional pain and behavior difficulties.[18]

Service Quality Issues

Given the large numbers of African American children in the foster care system in Illinois, we recommend that the DCFS Integrated Assessment System be evaluated in terms of its cultural sensitivity in appropriately identifying mental health needs and interventions across culturally diverse populations. Local DCFS staff and private agency staff need to be evaluated on their skill and success in matching identified need with culturally appropriate and effective services. This will require formal research evaluation.

By "culturally sensitive" we mean

- The engagement of service providers who are knowledgeable and have skilled staff who understand the nature of the cultural diversity in the communities they serve. Such agencies provide training to their staff to understand and incorporate the ethnic cultures present in the communities they serve.
- Teams of service providers who themselves mirror the ethnic make-up of the community.
- Assessment tools and services reflect the values of the community.
- Specific strengths of local ethnic groups are reflected in assessment, problem definition and service modalities.
- Knowledge of the "cultures" within the local elementary and high schools and the special

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[17] James, Friedman and Landen, 2004; also see The Grief Recovery Institute at grief-recovery.com.

[18] Heinemann-Pieper and Pieper, 1999 and 1992. Heinemann, J. et al. 2002.

challenges and strengths they bring.
- Schools, churches, extended kinship networks, and local community entities are included in service planning.

Linkage to evidence-based, culturally sensitive, child-specific and environment-specific services must be achieved for children with mental health problems in all placement types. Otherwise, worsening behavior problems and emotional states can lead to placement instability, escalation into more restrictive settings, and delayed or non-permanence. Continuous evaluation and treatment of the emotional well-being of children in care may stem from placement instability, enhance well-being, and result in greater permanency rates. Also greater caregiver support to educate and provide assistance when needed may be helpful.

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In Conclusion

Children in foster care face multiple challenges to their mental health and well-being. These challenges are present both upon entry into foster care and subsequent to placement. Better monitoring of child well-being is needed for all children in substitute care in Illinois. The Department needs to develop an array of measures to quantitatively track how well the health and educational needs of children are being met. Such data could be maintained in the Department's MIS and used to routinely report on the status of children's current well-being and how aggregate level child well-being profiles over time.

Just as it is important to conduct ongoing assessment of the progress made with individual children and families, so too must the entire system of service providers be evaluated to assess their degree of mental health outcome achievement. We recommend that more in-depth studies of smaller samples of children (by agency or type of care), their caregivers, and their caseworkers occur on a routine basis to provide important qualitative data on the status of child well-being. It is especially important to interview children over the age of seven and systematically analyze and report what they have to say about their well-being across a range of domains.

Chapter IV Children's Mental Health
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CHAPTER V

YOUTH SURVEY FINDINGS

Mary Ann Hartnett
Teresita Fawcett

Introduction

The voices of youth constitute an important source of data on child well-being. Forty-five youth completed the study's well-being survey. While the results of the analyses are not generalizable to the population of children in care in Illinois, the findings do shed light on the current status of mental health, community involvement, social life, relationships with caregivers and others, feelings of safety, and involvement in enrichment activities for this group of youth.

Respondents ranged in age from 8 to 21; most were between 10 and 16. Gender was evenly split between male and female. Each child interviewed used an Audio-CASI device (Computer Assisted Self-Administered Interview) to respond to questions. The Audio-CASI allowed children to use a touch-screen laptop computer and headphones to move from question to question (i.e., screen to screen) as they heard each question and all possible responses read aloud. They were able to easily go back and forth, change incorrect answers, and skip questions they did not wish to answer. The Audio-CASI increases privacy and is intended to improve question level response rate.

The youth survey was developed by Westat, Inc in conjunction with the Illinois Subsidized Guardianship Waiver Demonstration which was an experiment to study the effects of Subsidized Guardianship on permanency rates in Illinois. The instrument asks children to self-report on the following twelve domains of well-being:

1. **Constellation of persons in the child's current home** Grandparents, foster and adoptive parents, biological, foster, and adoptive siblings, other adults.

2. **Connectedness with community** How often child attends religious services, sports events, youth recreation center, after-school activities, clubs, organizations, employment, and engagements with friends.

3. **School** Grades, attitudes about school, attendance, suspensions, college plans.

4. **Relationship to caregiver and significant others** Emotional support in the home, emotional support outside home, caregiver support, monitoring, conflict, expectations, and child's perceptions of continuity.

5. **Relationship with biological parents** Visitation, importance of seeing mother/father, fear of biological parent, desires around seeing biological parent more or less.

6. **Physical health** Rates self-health, how often child sees a doctor and dentist, frequency of illness, meals, pregnancy, has children.

7. **Mental health** Feelings about life, happy, sad, depressed, worried or nervous.

8. **Drug use** Cigarettes, alcohol, and drug use, frequency, missed school, fights, and or blackouts due to this use.

9. **Runaway experiences** Frequency of running away, being thrown out or locked out of the home.

10. **Competency and self-efficacy** Activities child is good at and self-expectations.

11. **Life skills** Household chores, cooking, knowledge of emergency actions to take.

12. **Permanence** Knowledge of what permanency is, child's desire for permanent home, adoption, legal guardianship.

Emotional Support

The analysis of emotional support includes questions about the child's primary caregiver, other adults living in the home, and family members who live outside the home, such as aunt, uncles, grandparents, and siblings.[1] The questions posed about caregivers are:

How often does your caregiver let you know she/he cares about you?
When something is bothering you, how often do you talk to your caregiver about it?
How often does caregiver scold you?
How often does your caregiver criticize you?
How often does caregiver help you with your problems?

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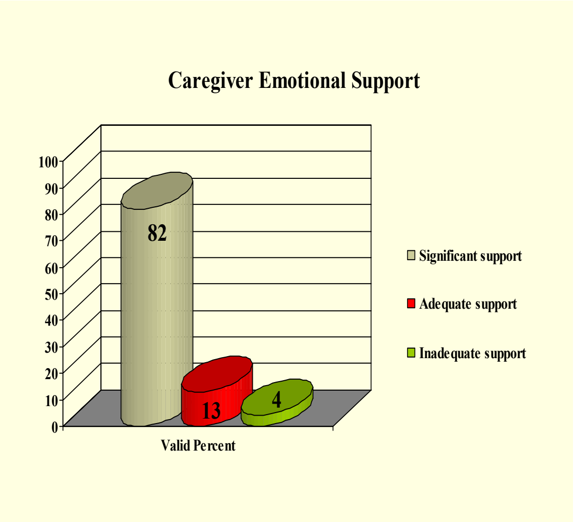
[1] See the Methodological Notes at the end of this chapter for the methods used to combine the individual items in each module.

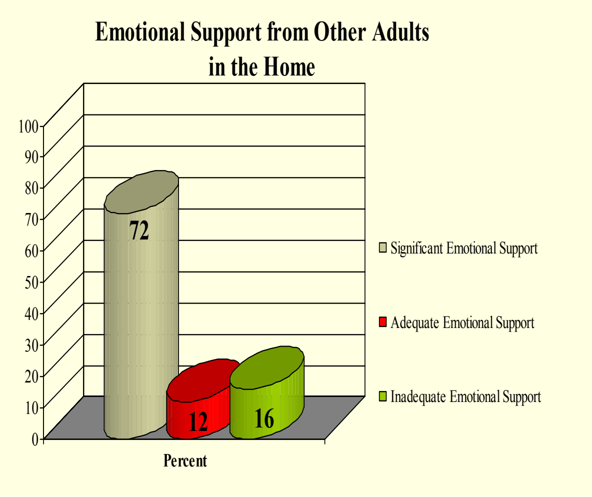
How often do you argue or fight with your caregiver?
Can you count on your caregiver to make sure no one hurts you?
Can you count on your caregiver to comfort you if you are scared or upset?



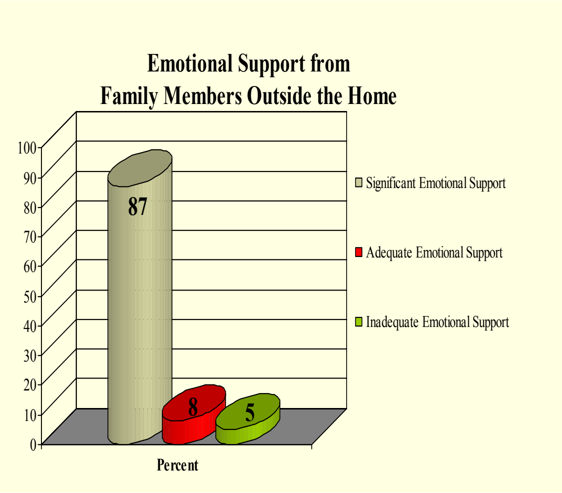
All the participants answered the caregiver questions, 82 percent of children reported receiving significant emotional support, 13 percent reported receiving adequate emotional support, and 4 percent reported receiving inadequate emotional support.

The questions concerning other adults living in the child's current home are:

Do any other adults in your home let you know they care about you?
Are there any adults in your home you talk to when something is bothering you?
Do any adults in your home help you with your problems?
Can you count on any adults in your home to make sure no one hurts you?
Can you count on any adults in your home to comfort you if you are scared or upset?



The results show that 72 percent of those who responded to the question (twenty children did not have other adults in the home) feel they are receiving significant emotional support, 12 percent report receiving adequate emotional support, and 16 percent feel they are receiving inadequate emotional support from other adults living in the home.



The highest level of emotional support reported was from family members living outside the placement home. Eighty-seven percent (87%) feel they are receiving significant emotional support, 8 percent report receiving adequate emotional support, and 5 percent of those who responded are receiving inadequate emotional support from relatives outside the home. Seven children did not answer the question.

Safety Children were asked whether they were scared of someone who lives in their home and how safe they felt outside in their neighborhoods. The data show all forty-five participants answered the safety questions. Eighty-seven percent (87%) responded that they feel significantly safe, 9% feel adequately safe, and 4% feel inadequately safe in their home and/or neighborhood. Children who reported feeling unsafe due to another adult in the home were reported to DCFS.

Monitoring This module asked questions about setting rules for telling someone when and where the child was going, for being home at a particular time, and having their friends approved by their caregiver. The results indicate that 80% of the forty who answered the question feel that they are significantly monitored, while 20% feel they are inadequately monitored.

Conflict Questions around conflict within the child's home included the child being hit or spanked and whether any adults in the home hit each other. For the most part, most children reported that they experience little or no conflict in the home in which they live. Of the 44 children who answered the conflict questions, 93 percent feel that they experience no conflict, 5 percent experience some conflict, and 2 percent experience a significant amount of conflict in their current home.

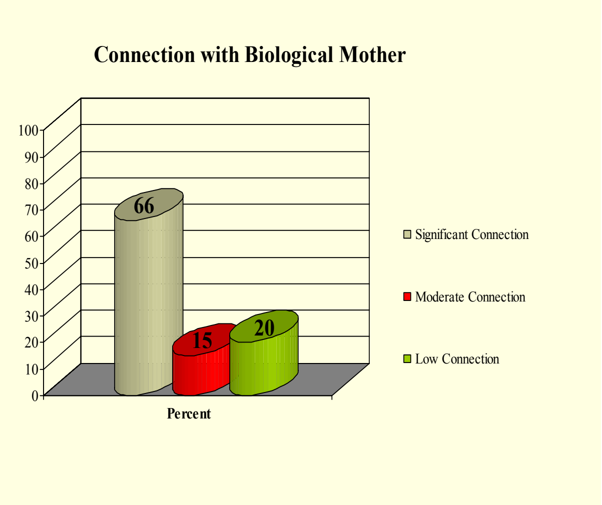
Expectations This module consisted of several questions about the expectations that caregivers have for the child. Questions asked whether caregivers expected the child to graduate from high school, to get a job when they are adults, to stay out of trouble with the law, to refrain from using cigarettes and alcohol, to act respectful to older people, and to do ‘what's right.’ All children answered the expectation questions and 100 percent expressed that they feel high expectations from their caregivers.

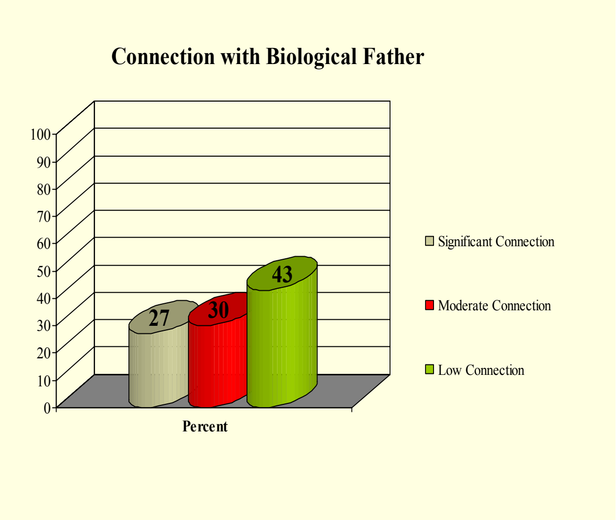
Connectedness with Community Youth were asked if, in the past 30 days, they had attended church, participated in youth sports or activities at a recreation center, had gone bowling or shopping, or had performed community service. Overall, 48 percent of children reported that they were involved in these types of community activities.

Belongingness The survey measures belongingness with questions that ask how often the child has moved to live with a different family, how many times they have changed schools in the past twelve months, whether they like the people they are living with now, and whether they feel part of the family. Seventy-eight percent (78%) of all the youth feel they have a strong sense of belonging, 18 percent feel a moderate sense of belonging, and 4 percent feel a low sense of belonging.

Relationship with Biological Parents This module asked whether and how often the child sees their biological parents. A set of questions asked if they did fun activities with their parents, whether they talk to a parent about their problems, and if they were afraid of a parent. Sixty-six percent (66 %) of those who responded (forty-one children) stated they have a significant connection with their biological mother, 15 percent reported a moderate connection, and 20 percent reported a low connection with their biological mother.

The results for youths' relationships with their biological fathers were very different than for their biological mothers. Only 27 percent responded that they feel they have a significant connection with their biological father, 30 percent have a moderate connection, and 43 percent have a low connection. Fifteen out of forty-five participants choose to not answer the question.



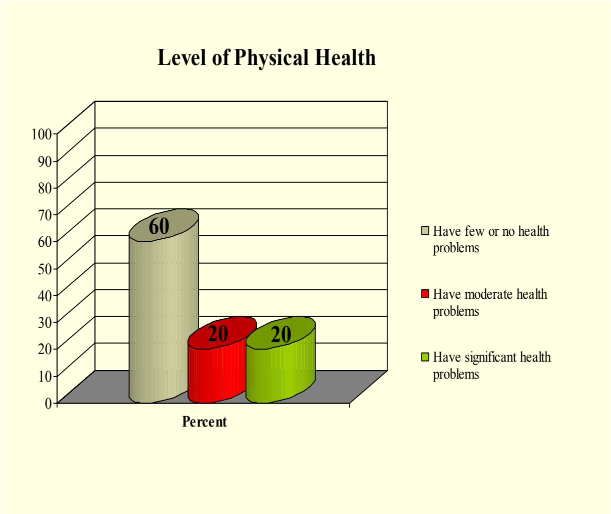


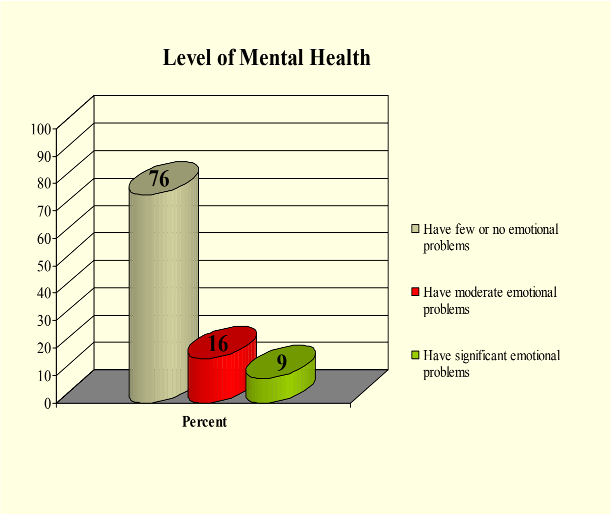
Physical Health Youth were asked questions about being sick, seeing a doctor and dentist, having enough food, and being pregnant and having children. The data indicates that 60 percent of the youth feel they have few or no health problems, 20 percent feel they have moderate health problems, and 20 percent feel they have significant health problems. Four youth did not answer the question.

In terms of their physical health, youth reported the following:

What is your level physical health?	Percentage
Have few or no health problems	59.8
Have moderate health problems	20.2
Have significant health problems	20.0
When is the last time you went to the doctor?	
Within the past 12 months	90.7
More than 12 months ago	7.0
I have never been to the doctor	2.3
When is the last time you went to the dentist?	
Within the past 12 months	78.6
More than 12 months ago	21.4
Are you sick a lot?	6.7

Mental Health The emotional health questions asked if they felt they were headed in the right direction, happy with their life, how often felt sad or depressed, nervous or worried, or felt they did not want to go on living. All the children answered these questions and the results indicate that 76 percent feel they have few or no problems, while 15 percent feel they have moderate problems, and 9 percent feel they have significant mental health problems.





Some children reported feeling sad, depressed, nervous and/or worried.

- 18% said that they were sad and depressed most of the time.
- 11% said that they felt nervous and worried most of the time.
- 7% said that they did not want to go on living most of the time.[2]
- 4% reported that there were no adults in the home or outside of the home they could count on to comfort them when they were scared or upset.[2]

High-Risk Behavior Youth were asked about their use of cigarettes, alcohol, and other drugs. Another set of questions asked if they had missed school or gotten into fights due to the use of alcohol or drugs. A further question asked if they have ever been arrested. The data show that all forty-five of the participants in the study answered the questions about risk behaviors.

- 26 percent indicated that they have been arrested.
- 33 percent have smoked cigarettes at one time.
- 22 percent have tried alcohol.
- 4 percent indicated that they have used drugs to get high.

We note that nearly 78 percent of participants did not answer the following questions:

- *In the past 30 days, have you missed work or school because of drinking or drugs?*
- *In the past 30 days, have you gotten into fights because of drinking or drugs?*
- *In the past 30 days, have you had blackouts because of alcohol or drugs?*

Youth may have felt that this information could get back to their caregiver and result in consequences for them. In the Assent Form that youth signed, it is indicated that confidentiality would be broken if the youth provided information that she/he is a danger to himself or others, so their caution is understandable.

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[2] These cases were reported to the DCFS Clinical Division and received follow-up intervention.

Run Away – Locked out This module consisted of two questions. One asks whether they had ever run away from the family they lived with for overnight or longer. The other asks if they had ever been thrown out or locked out of the home they were living in now (for overnight or longer). All the participants in the study answered the question; 84 percent indicated that they have never runaway from their current family, 2 percent stated they had runaway once, and 13 percent indicated that they had runaway more than once.

Ninety-five percent (95%) of participants responded that they had not been thrown out or locked out of their current homes; 5 percent stated they have been thrown and/or locked out of their current home. One child chose not to answer the question.

Self- Efficacy This module focuses on how well the children feel they handle problems and challenges, their sureness of their ability to complete a task and not give up, and how much they feel they can they depend on themselves. The data indicate that all the participants chose to answer these questions and that 42 percent feel they have significant self-esteem, 49 have adequate self-esteem, and 8 percent have inadequate self-esteem. In other words, more than half the youth do not have a high self-esteem.

School Youth were asked a series of questions about school.

- 80% were currently attending school (the others had dropped out or were working).
- 73% reported that it was very important to them to get good grades.
- 86% reported that the things they learned in school were important.
- 51% feel good about how they are doing in school all the time; 30% most of the time, and; 19% sometimes or hardly ever.
- 69% of children in the sample reported that they had ditched school one time in the past 30 days; all remaining youth reported ditching 2 or 5 days in the past 30 days.
- 40% had ever gotten an out-of-school suspension.
- 91% believe they will go to college.

Life Skills The Life Skills section concentrates on skills needed while in the home and after they leave the home as young adults. Such skills included chores around the home, cooking dinner, help with grocery shopping, cleaning up the home, and knowing how and who to call in case of an emergency. All the participants answered these questions; 91 percent feel that they hold significant life skills; 7 percent feel they have adequate life skills, and 2 percent reported inadequate life skills. The youth generally have a very positive assessment of how well they are currently equipped with life skills. This is not consistent with research that shows that a large proportion of foster youth are poorly prepared to take on the many tasks of daily living.

Permanence Youth were asked if they wanted their current home to become their permanent home, and if not, why not.

- 49% stated that they want their current home to become permanent.
- The reasons for wanting this included feeling safe there (86%), not having to move again (77%), having someone to depend on (77%), being part of a family (55%), being with siblings (68%), not having a caseworker anymore (36%).
- The predominant reason for not wanting their current home to become permanent, is that youth want to live with their biological family, or be able to visit them more often.

Correlations After completing the descriptive analyses of the data, a correlation analysis on various sets of variables was conducted to determine if there were any significant relationships among key variables. The focus of this analysis was to determine whether children of different ages, gender, and mental health self-rating received differential levels of perceived emotional support and other positive well-being outcomes. The scale for how mentally healthy thy child feels is a composite from 7 questions. The two age categories are pre-teens (ages 8-12) and older youth (ages 13-21).

There was only one significant relationship observed. "*Emotional Support from Relatives Outside the Home*" was significantly correlated with how mentally healthy the child reported feeling (x^2 =15 .97, df = 4, p =.003). This is a key finding that speaks to the strong need to keep foster children connected to important relatives in their family of origin.

TABLE 1

CHI-SQUARE CORRELATIONS

		X^2	*DF*	$p<$
Caregiver Emotional Support	How Mentally Healthy Child Feels	2.51	4	.642
Emotional Support from Other Adults in the Home		3.87	4	.423
Emotional Support from Relatives Outside the Home		15.97	4	.003**
Child's Age		.061	2	.970
Child's Gender		5.18	2	.075
Caregiver Emotional Support	Child's Age	2.50	2	.286
Emotional Support from Other Adults in the Home		.988	2	.610
Emotional Support from Relatives Outside the Home		4.11	2	.128
Extent of Monitoring		.402	1	.342
Extent of Conflict		1.13	2	.568
Sense of Belonging to Foster Family		1.84	2	.399
Sense of Safety		4.07	2	.130
Caregiver Emotional Support	Child's Gender	2.67	2	.263
Emotional Support from Other Adults in the Home		2.18	2	.335
Emotional Support from Relatives Outside the Home		5.68	2	.058
Extent of Monitoring		.902	1	.342
Extent of Conflict		.935	2	.626
Sense of Belonging to Foster Family		.507	2	.776
Sense of Safety		1.21	2	.546

**Significant at the .01 level.

While there were no significant differences detected on age or gender, gender was *nearly* significantly correlated with "*How Mentally Healthy Child Feels*," (X^2 = 5.18, df = 2, p =.075) and "*Emotional Support From Relatives Outside the Home*" (X^2 = 5.68, df = 2, p =.058). This data indicate that a larger percentage of boys in care than girls have mental health challenges and a lower percentage of boys in care than girls have connections with family members outside their placement home. Had the sample size been larger (and thus the statistical power greater), these relationships *may* have been statistically significant. We note that, as discussed in Chapter IV of this report (Children's Mental Heath), more boys (69%) have a mental health diagnosis than girls (50%).

Summary and Conclusions

The majority of children surveyed reported positive well-being outcomes. However, a core group of approximately 9% reported inadequate well-being on many of the 140 questions in the survey. These children need to be identified by caseworkers and caregivers, and continuously evaluated and monitored to ensure that effective services are in place to meet their needs. Mirroring the findings in this report's Health chapter, some children report that they have not seen a dentist in over 12 months.

POSITIVE OUTCOMES	AREAS OF CHALLENGED WELL-BEING
Children receive emotional support from their caregivers and feel a sense of belonging.	20% of youth feel inadequately monitored by their caregivers.
Other adults in the placement home play a significant role in contributing the emotional support of the child.	21% of youth surveyed have not seen a dentist in over 12 months.
Relatives living outside the home provide the highest level of emotional support.	5% of surveyed youth report being thrown out or locked out of their current placement.
Children feel safe in their placements.	15% have run away from a placement.
Children report little or no conflict in their current placement homes.	Overall, youth report low self-esteem.
Children feel that their caregivers have very high aspirations for them.	19% frequently feel badly about how they are doing in school.
The vast majority of youth feel that they will attend college.	While 91% of youth report having very good life skills, research in this area is clearly to the contrary.
Most youth are still connected to their biological mothers.	Almost half of the youth are disconnected from their fathers.
Youth are optimistic about their mental health.	Although low in numbers, a small minority of youth report severe emotional distress.

It comes as no surprise that some children runaway from their placements. The reasons vary and may not be related to disliking their current placement home. Caseworkers, with support from their supervisors, need to pay close attention to these children and seek to understand what is prompting them to run and the extent to which their needs are being met in their placement of choice.

Being thrown out or locked out of a placement home is alienating to a foster child. It is unclear from this study how often this actually happens. If and when it does occur, support services would be beneficial to foster parents so that they can respond positively when situations become highly challenging to their own well-being.

The discontinuity between the youth's high self-appraisal of their life skills and the empirical evidence from foster care alumni studies is cause for concern. It appears that the youth surveyed did not know what they did not know. A structured curricular approach to teaching life skills needs to be provided for all youth in care ages 13 and above.

Surveyed youth also reported low levels of self-esteem. While this may be typical for children who have been abused, neglected, or abandoned, interventions to enhance the children's sense of worth and competency need to be provided. Interventions may take the form of counseling, involvement in enrichment classes and sports, and through age-appropriate developmental support of the child by the foster parent.

Some youth also reported feeling badly about how they were doing in school. Evaluations at schools need to be conducted to determine the nature of the educational deficits and appropriate special education provided where needed. In addition, tutoring can effectively target areas in need of remediation.

Overall, children reported that they were still in connection with their biological mothers and just over half were still in connection with their biological fathers. The role of a father in a child's life is undeniably important and wherever possible, should be actively encouraged so long as it is in the child's best interest. Parents need not function in a care-giving role to have an ongoing relationship with the child. Regardless of whether the parental relationship is mediocre, minimal, or fraught with disappointment, foster children need to come to terms with their relationship with their mothers and with their fathers so that these often wounded relationships can be meaningfully integrated into their lives.

The survey also revealed that:

- Children and youth who have strong emotional support from family members living outside of the foster home report better mental health.
- Females are more likely than males to report having significant support from family members living outside of the foster home.

Given that the support of other family members outside the child's foster home is significantly related to the child's sense of mental well-being, it is recommended that the Department of Children and Family Services and private agencies broaden their scope of services to provide effective ways of enhancing and strengthening the connections that foster children have with child's larger kinship network. The positive evaluation of the Department's program "*Intensive Relative Search*" would suggest a large-scale expansion of this program such that the methods of finding outside family members and connecting foster children to them becomes integrated into daily casework practice. These family connections become increasingly important as youth approach the age of emancipation from the Department. It is important too, to develop the support of the caregivers to encourage (where it benefits the child) increased contact with relatives.

CHAPTER VI

CHILDREN'S HEALTH

Mary Ann Hartnett
Christina M. Bruhn

Introduction

This chapter presents the results of the health portion of the *Illinois Child-Well-Being Study*. The first section of the chapter discusses the findings on rates of identification of children with medical conditions. Reporting rates across different sources of information are discussed. The second section presents bi-variate and multivariate analyses of child characteristics and system factors that were associated with children reported as having medical conditions. Section three discusses the types of medical conditions that children in the sample have. The fourth section discusses the receipt of health care services for all children in the sample and a sub-analysis of services provided for children with medical conditions. Dental care is also discussed in the fourth section. The final section of the chapter presents a summary of findings, the conclusions we draw, and our recommendations.

Rates of Identification Across Different Reporters

Three sources of information on physical health were tapped: caseworkers, caregivers, and case file records. Caseworkers reported on physical health diagnoses made by an MD (N=255 cases). Caregivers were asked in telephone interviews to identify any health problems experienced by children in their care (235 cases). While caregivers may not be a reliable source from which to obtain actual diagnoses, the caregiver findings may provide a better overall picture of the extent of current illness and conditions in this sample because they see the children every day. DCFS nurses abstracted physical health diagnoses (made by an MD) from children's case records and reported ICD-09[1] diagnostic codes among other health information (N=255 cases).

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[1] International Classification of Diseases, 9th Revision.

- Caseworkers reported physical health problems for **39 percent** of children in the study.
- Caregivers reported physical health problems for **42 percent** of children.
- The nurse audit of case records indicated that **24 percent** of children had a physical health diagnosis.

There is variation in the identification of physical health conditions across the different data sources, with the case record showing the lowest percentage (24%) and caregivers reporting the highest percentage (42%). Some of the variation is due to having some differences in which cases had completed which instruments, i.e., all three instruments were not competed for all cases. The instrument completion pattern is shown in Table 1 below.

Based on the number and type of instruments completed for individual children, 41 percent had opportunities to be reported for a physical health condition from three sources (caseworkers, caregivers and case records), 41 percent had opportunities from two sources, and 18 percent had one opportunity from a single source.

TABLE 1
COMPLETED INSTRUMENT PATTERN

Caseworker Interview complete	Caregiver Interview complete	Case Record Abstraction complete	Number of cases
X	X	X	137
X	X		46
X		X	52
	X	X	38
X			23
	X		14
		X	22
			334

For a number of reasons, one would not expect perfect agreement between the different information sources for the identification of physical health conditions. First, as shown above, not all instruments were competed for all children, so there are slightly different groups of children represented by each data source. Second, different questions about health were asked in the different instruments. Third, it is likely that different reporters have different levels of knowledge about the child's medical history and current health status.

Looking at the *same* children across the various data sources on whether the child was reported to have a physical health condition, the study found a high of 67.1 percent agreement between caseworkers and records, and a low of 53.8 percent agreement between caseworker and caregivers (see Table 2). Perhaps caregivers know more about the child's current health status, and unless caseworkers had the children's case files in front of them during the interviews, they may have had less than perfect recall of the children's health conditions.

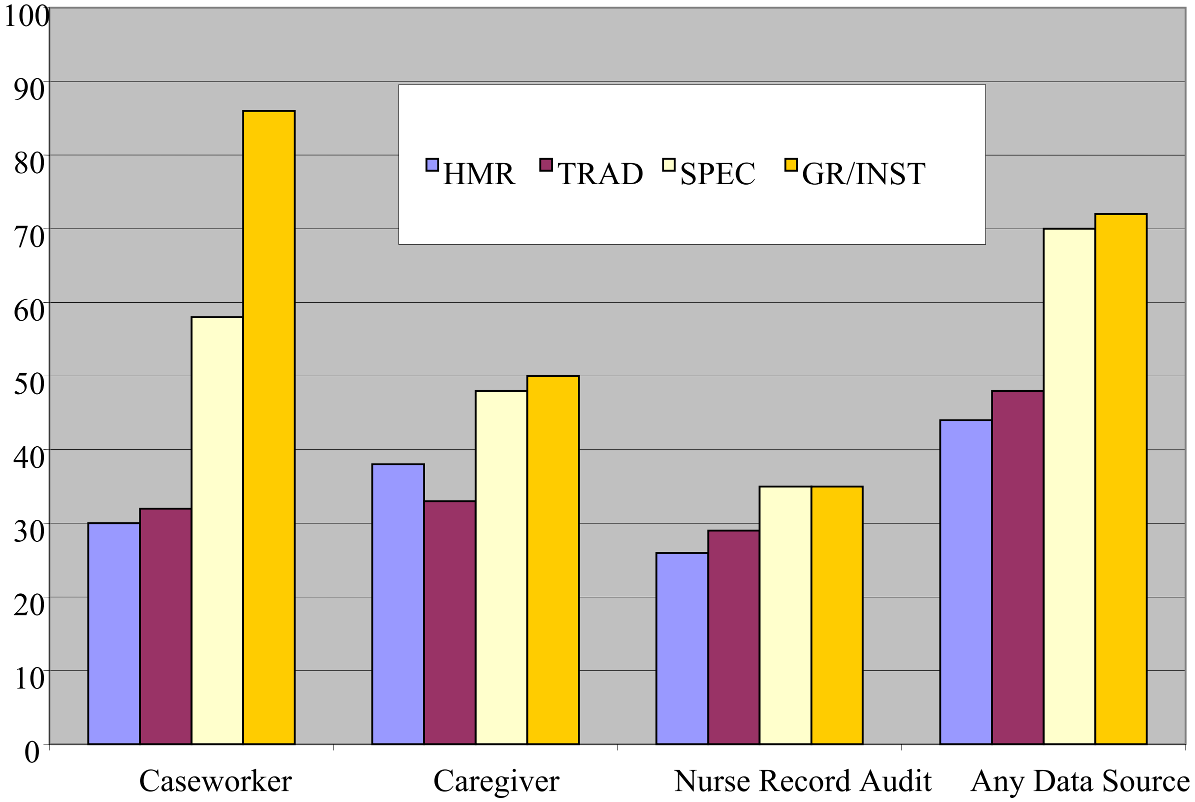
TABLE 2
AGREEMENT RATES BETWEEN SOURCES FOR IDENTIFICATION OF A PHYSICAL HEALTH CONDITION

		Caseworker Identification	Caregiver Identification
Nurse Audits of Case Records	Agreement Rate N	67.3% 110 cases	67.1% 137 cases
Caseworker Identification	Agreement Rate N		53.8% 158 cases

In Figure 1 we look at the variation in the reporting of a physical health condition across different living arrangements. We used all data sources for this analysis. Reporting for children in traditional foster care was the most consistent across data sources. There was more variation in reporting for children in the homes of relatives with caregivers reporting the highest rates of illness/conditions, but not much higher than caseworkers. The greatest variation is seen among children in specialized foster care, group homes and institutions, with the case record again yielding the lowest rates and caseworkers reporting the highest rates. Caseworkers reported much higher rates for children living in group homes and institutions, much higher than the caregiver who was interviewed at the residential placement (χ^2 = 6.13, df = 2, p =.04).

The hypothesis that caregivers over-report health problems is not supported by this data. Overall, the reporting from case records was the lowest and is much lower than other sources for specialized, group and institutional care. This suggests that records do not contain the full compliment of health status information. Furthermore, the data from the case records is based on physical health *diagnoses* and from the caregivers it is based on physical health *conditions* (a more inclusive category).

FIGURE 1
IDENTIFICATION OF A PHYSICAL HEALTH CONDITION BY DATA SOURCE AND PLACEMENT TYPE



Bi-Variate Analysis of Who was Identified

We find that the diagnosis of a physical health condition is not uniformly distributed across all of the children in the sample. The occurrence of a physical health diagnosis varies significantly by four factors: age of child, race of child, type of placement in which the child resided at the time of data collection, and region of the state. While there were no statistically significant differences in physical health identification within gender and time in care, each of these characteristics is discussed below.

Table 3 shows a bi-modal distribution for the identification of physical health problems. Over half of children ages 0-5 (54.4%) and children ages 14-21 (58.1%) have identified physical health problems. For children ages 6-13, however, the percentage identified with a physical health condition is 39.1 percent ($\chi^2 = 6.13$, df = 2, $p = .04$). In debriefing sessions, DCFS nurses suggested this pattern may be due to very sick, substance-affected infants for whom there is heightened medical care and health status information and to adolescents who typically have more health issues around accidents, high-risk behaviors, pregnancy, substance abuse, and sexually transmitted diseases. Nurses suggested that the group of children ages 6-13 have outgrown the fragility of infancy and early childhood and have not yet entered [or are just beginning] adolescence.

As shown in Table 3, and not surprisingly, children in specialized and group settings were much more likely to have a physical health diagnosis (61.7% and 80%, respectively) than children in traditional foster care (41.9%) or in homes of relatives (36.6%) ($\chi^2 = 18.23$, df = 3, $p < .000$). Children who have more intensive physical health needs are more likely to be in more intensive placement settings which contractually provide greater access to a wider range of services to the child. Because placement into more restrictive settings requires additional assessments, children in these settings are more likely to come to the attention of medical staff and to be diagnosed. The lower rate of physical conditions for children in kinship care could be due to actual lower rates and/or an under-identification of physical health conditions in kinship care.

There is a higher percentage of children with identified physical health conditions in downstate regions (65.1%) than in Cook Regions (44.8%) ($\chi^2 = 5.63$, df = 1, $p < .02$). DCFS nurses offered several explanations for this finding. One is that there are fewer children in placement downstate and there is "better" reporting on them and/or a greater inclination on the part of agencies to assess them as "in need of specialized care." They also speculate that there are fewer health resources downstate than in Cook regions and health problems may therefore be getting worse over time. Nurses also reported that, while the numbers of children in pediatric nursing care facilities is low, children in Cook regions who need nursing home care are often sent to downstate facilities. And lastly, nurses are seeing more children affected by parental methamphetamine abuse, for which there are serious environmental and intra-uterine health risks.[2]

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[2] DCFS nurses have observed respiratory illness from inhaling toxic fumes, fetal damage, and risk of injury due to the physically dangerous and often unsanitary environments, and medical neglect and sexual abuse due to the combination of unsupervised children and unknown visitors to the meth site. Also see Wendy Haight et al. 2004.

TABLE 3
FACTORS INFLUENCING WHO HAS A PHYSICAL HEALTH CONDITION

Variable	Percent within group having a physical health condition	Statistics		
		x^2	df	$p<$
Age of child (at time of data collection)				
Ages 0-5:	54.4	6.13	2	.04
Ages 6-13:	39.1			
Ages 14-21:	58.1			
Race				
African American:	47.3	6.54	2	.04
White	69.0			
Hispanic:	30.8			
Placement Type				
Home of Relative	36.6			
Traditional Foster Care	41.9	18.23	3	.000
Specialized Foster Care	61.7			
Group/Residential	80.0			
Region				
Cook:	44.8	5.63	1	.02
Downstate:	65.1			
There were no differences in the factors below				
Time in Care				
Less than 3 years:	48.3	.03	1	.86
3 years or more:	49.6			
Gender				
Males:	54.5	2.12	1	.15
Females:	44.3			

Based on the race of the child, white children are much more likely (69%) than African American children (47.3%) or Hispanic children (30.8%) to be identified as having physical health problems. However, looking at the racial demographics of the entire sample of children partitioned by having or not having a physical health condition shown in Figure 1, we see that African American children, by far, make up the largest group of children in the sample, and correspondingly, the largest group of children with physical health conditions.[3] Because the study sample is weighted to accurately represent all children in substitute care in 2002, the pie mirrors the population of all children in care in Illinois. DCFS is largely in the business of caring for African American children and nearly half of them have physical health conditions.

While the data show a higher percentage of boys (54.5%) than girls (44.3%) were identified a having physical health conditions, this difference is not significantly different. Also insignificant is the relationship between the child's length of time in substitute care and incidence of health conditions. The hypothesis that children who remain in substitute care for longer periods of time are more likely to have physical health problems, is not supported by this data.

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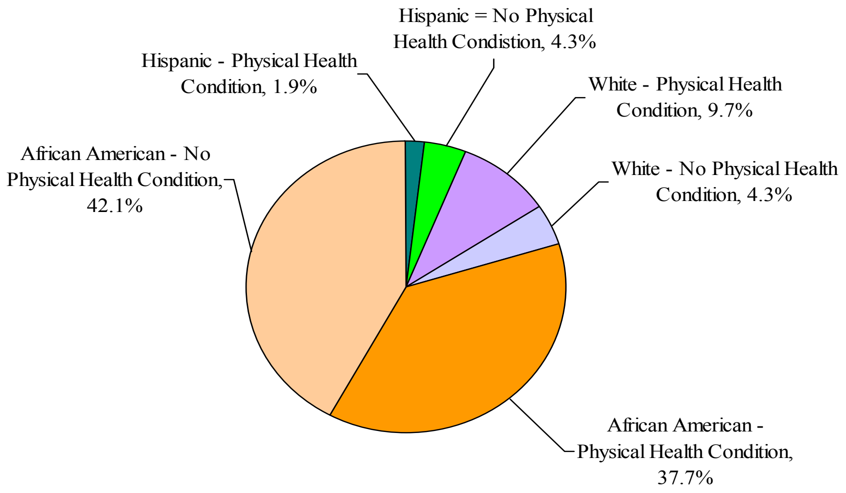
[4] While African American children make up 19 percent of the population of children in Illinois, African American children made up 69 percent of the population of children in foster care in Illinois in 2002 and 65 percent in 2004.

FIGURE 2
PERCENTAGES OF CHILDREN WITH AND WITHOUT PHYSICAL HEALTH CONDITIONS BY RACE



Logistic Regression Results

A regression model was developed to identify which characteristics predict physical illness (from any of the three data sources) among children in substitute care placement. In the regression analysis, each independent variable is weighed in relation to the impact of each of the other independent variables. We find that controlling for each variable in our model, that only more intensive levels of placement (specialized, group, and residential care) and geographic region are significant.[4] That is, children from Cook County are significantly less likely to be identified with a medical condition than children from downstate regions. Once region is controlled for, race is no longer a significant predictor. Also, once placement type is controlled for, age is no longer a significant predictor. As in the bi-variate analysis, gender and length of time in care have no bearing on the types of children who are identified as having a physical health condition (see Table 4).

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[4] Given the small sample size, we used a significance level of .10 for this analysis.

TABLE 4
PREDICTORS OF CHILDREN WITH PHYSICAL HEALTH CONDITIONS

Variable	B	S.E.	Wald	Exp(B)
Age	-.002	.036	.005	.998
Time in Care	.057	.054	1.134	1.059
Male	.211	.307	.475	1.235
African American	-.048	.404	.014	.953
Cook Region	-.932	.435	4.597*	.394
Specialized Placement	.760	.420	3.282*	2.139
Residential Placement	1.537	.628	5.995*	4.649
Home of Relative Placement	-.203	.398	.259	.817
Constant	.090	.522	.030	1.094

* $p < .05$.

What medical conditions do the children have?

DCFS nurses across the state abstracted information from children's case records. Records were obtained on-site at DCFS offices and private agency offices. Nurses recorded each physical health diagnosis made by a physician that was documented in the case file. The ICD-09 system of coding and classifying diseases was used to record and analyze children's physical health conditions.

Table 5 below shows the percentage of sample children who are identified as having a diagnosis (or diagnoses) in the listed category.[5] The two most common health conditions are respiratory illnesses which affect 12% (within this category asthma was found to affect 7.3 percent) of sample children and substance-affected infant issues which affect 10% of sample children. Diseases of the musculoskeletal system affect 8 percent of children, and disorders of the nervous system including cerebral palsy and epilepsy affect 7.2% of the children. A variety of other serious illnesses affect smaller percentages of children in the sample.

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[5] The percentages in this table are from the nurse audit of case records only. As the case records yielded lower rates of medical conditions than either caseworkers or caregivers, the actual prevalence of these disorders among children in placement is likely to be higher than shown.

TABLE 5

CHILDREN'S DIAGNOSES IN CASE RECORDS[6]

Total Physical Health Diagnoses Identified	117
Percent of Children With A Physical Health Diagnosis	24%
Percent of Diagnosed Children With Multiple Physical Health Conditions	45%
Percentage of All Children in the Sample with Each Type of Condition	
Diseases of the Respiratory System (Asthma comprises 7.2% of this category)	12%
Substance-Affected Infant	10%
Diseases of the Musculoskeletal System	8%
Disorders of the Nervous System including Cerebral Palsy and Epilepsy	7%
Congenital Anomalies	7%
Disorders of the Eye	6%
Failure to Thrive	6%
E and V Codes (accidents, injury, head trauma, burns, other abuse, lead poisoning and communicable illnesses)	4%
Disorders of the Thyroid, Endocrine, Nutritional, Metabolic, Immune System, Obesity	3%
Complications of Pregnancy and Childbirth (for older wards)	3%
Diseases of the Digestive System	2%
Diseases of the Circulatory System	2%
Diseases of the Genitourinary System	1%
Diseases of the Ear	1%
Infectious and Parasitic	1%
Perinatal Conditions	1%
Diseases of the Skin	0.4%

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[6] Caseworker and caregiver reports of medical conditions are not included in this table.

Table 6 below provides more detail on the conditions that were documented in the case files and reported by caregivers.

TABLE 6
MEDICAL PROBLEMS REPORTED BY CAREGIVERS AND ICD-09 CODES IN CASE FILES[6]

- Asthma
- Obesity
- Cerebral Palsy
- Epilepsy
- Blindness/Visual Impairment
- Substance-Affected Infant
- Hydrocephalus
- Seizure Disorder
- Lead Poisoning
- Hemophilia
- Tuberculosis
- Failure to Thrive
- Sickle Cell Anemia
- Enuresis
- Burns
- Deafness
- Urinary Tract Infection
- Hepatitis-B
- Pulmonary Dysplasia
- Asperger's Syndrome
- Scoliosis
- Brain Injury
- Allergy
- Bronchitis
- Bladder Dysfunction
- Chronic headaches
- Atopic Dermatitis
- Rabies
- Cleft Palette
- Enlarged heart

Of children who were diagnosed with a physical health condition, 45 percent had more than one diagnosis; 25% had two medical diagnoses, 16% had 3 medical diagnoses, and 4% had 4-7 diagnoses. See Figure 3 on the next page.

FIGURE 3[7]

45% OF CHILDREN WITH MEDICAL CONDITIONS HAVE MORE THAN ONE MEDICAL DIAGNOSIS

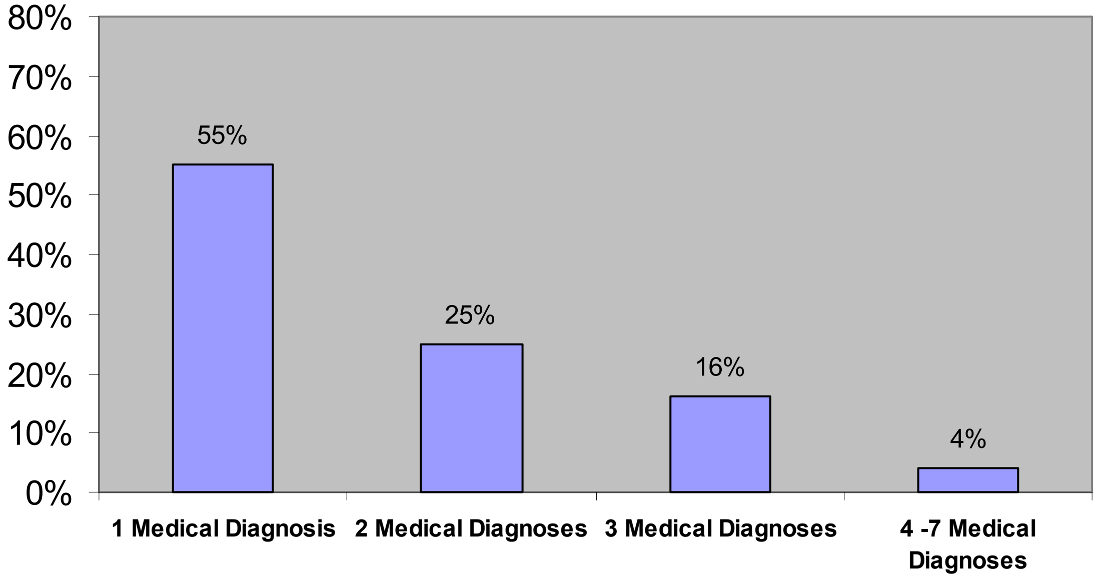

Figure 4 on the following page shows co-morbidity among physical health, mental health, and developmental delay conditions. Only 28.6 percent of the children in the sample have no cognitive, physical or emotional/behavioral conditions. The largest group of children in placement (39.9%) is dealing with a combination of cognitive, physical, and emotional challenges to their health and well-being. Typically a physical health problem is accompanied by a mental health condition and/or developmental delay; only 6.8% of children present with physical health problems only. A sizable group (21.7%) manifests only mental health conditions. The smallest group (3%) presents with only developmental delay.[8] It is possible that developmental delay conditions have not yet manifest and/or are misdiagnosed or under-diagnosed.

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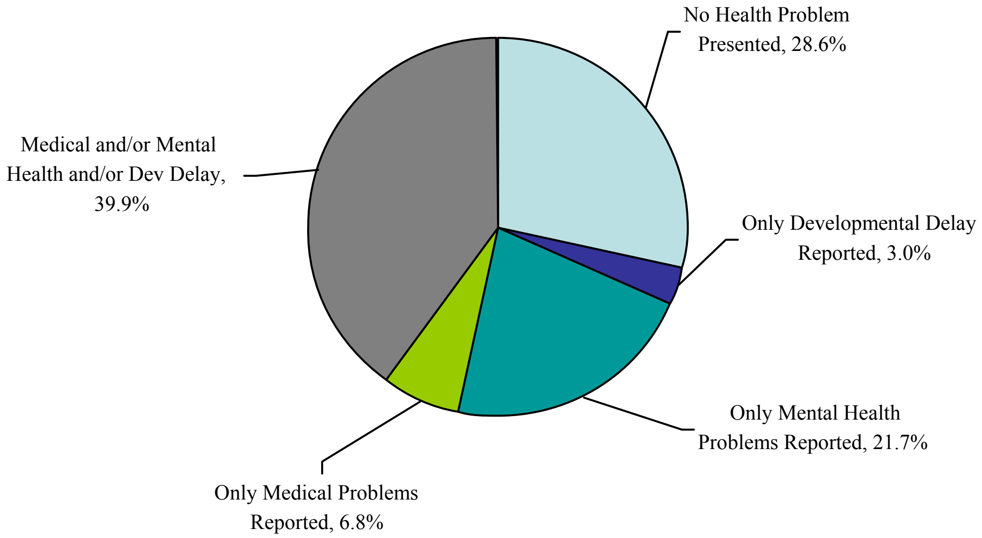
[7] In debriefings with nurses they reported that they have worked with children who have the following conditions: Fragile X, Neurofibromatosis, Prader Wille, ulcerative colitis, autism, lupis, PKU, children who need corrective surgery for injuries, burns, and cleft palates, children who need transplants (kidney, liver, heart, and bowel).

[8] Chapter VII, Education and Child Development, discusses the issue of developmental delay.

FIGURE 4
PHYSICAL HEALTH, MENTAL HEALTH, AND DEVELOPMENTAL DELAY: CO-MORBIDITY



Treatment Issues

General Health

In Table 7, we look across all children in the sample for whom case record and caregiver information were collected and report the percentages of children who receive different types of medical attention. It is quite possible that actual health care provision is greater than what is listed below, as not all medical visits and treatments are recorded in the case record.

TABLE 7
HEALTH CARE INTERVENTIONS FOR SAMPLE CHILDREN

Immunizations are complete	80% (97%)[9]
Child received a comprehensive health exam	61% (75%)
Child is enrolled in Healthworks	77%
Name of primary care physician is in file	70%
A copy of Health Passport is in file	26%
Child received annual physicals / well-child care	67%
File contained a physical health or mental health ICD-09 code	39%
For children under age 6:	
Name of medical case manager is in file	60%
Medical case manager has submitted health summaries	45%
And health portion of client service plan	67%
For children over age 3, there is documentation of:	
- a current vision exam	13%
- a current hearing exam	40%
- a current dental exam	46%

Receipt of Treatment

Addressing the issue of whether health needs are being met is a complex undertaking that raises many questions. How is "health need" defined? Who has the expertise to determine a health need? Do all health conditions require health services? Where is the best source of information on children's health needs? Addressing the subsequent question regarding whether health needs are satisfactorily met is equally, if not more complex. Who is to determine if the current set of services is meeting the child's health need and whether they are deemed inadequate, adequate, or ideal? How shall service delivery be measured?

The investigation of these questions could have easily become its own separate study. However, the *Illinois Child-Well-Being Study* Round 1 takes only a preliminary look at the extent to which children with health conditions are receiving any type of services for that condition.[10] We do not attempt to evaluate the appropriateness or efficacy of medical services that were provided. Because the case records contained scant information and detail on the services that children are currently receiving, we looked to caregivers to describe what services

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[9] Percentages in parentheses are per the caregiver.

[10] The Child Well-Being Study Rounds 2 and 3, which use the interview instruments from the National Study of Child and Adolescent Well-Being, will provide greater information on health need and health service provision.

the child was currently receiving. While caregivers are not the ideal source of health service information on the child, we feel that they are perhaps the better choice over caseworkers and records. The caregiver sees the child every day and knows when and where the child is receiving health services.

We defined an "unmet health need" as follows. We asked caregivers to describe any health problems that the child currently has. We then asked caregivers to identify the general services (not specific procedures) that they believed were required to address each identified health condition. Caregivers were then asked if the child was receiving any of those services. Recall that in 67 percent of cases, the caregiver identification of a problem was consistent with the case record review identification of health problems. Of the 42 percent reported by caregivers as having a physical health problem, 17 percent were not receiving any services for the condition. When asked what services were needed, but not being received, only four caregivers reported a service need. The needed services were: for child to be in special education, child to be in a vocational training program, and counseling. None of these services are medical services. It is possible that some children's medical conditions have stabilized and no medical services are currently needed.

TABLE 8
SERVICES PROVIDED FOR CATEGORIES OF HEALTH ISSUES (AS REPORTED BY CAREGIVERS)

	Problem Reported	Percent that received treatment
Medical Problems	22%	71%
Eye Problem	20%	92%
Developmental Problem	8%	70%
Gynecological	12%	100%

Table 9 lists the services that were currently being provided for children in the sample.

TABLE 9
SERVICES RECEIVED BY SAMPLE CHILDREN

Occupational, Physical, Speech Therapy
Medication
Physical therapy
Nursing home care
Hospital treatments for complex medical problems
Seizure management
Neurological care
Orthotics
Surgery
Ear tubes
Nebulizer treatments
On-going burn care
Wheelchairs
Quadriplegic care
Prenatal care
Inhalers
Glasses
Oxygen
Diagnostic services

In the surveys of youth (see Chapter V), 7 percent of youth said they had not been to a doctor in over 12 months and 2 percent said they had never been to a doctor. Furthermore, 6.7 percent of youth stated that they were “sick a lot.” All youth reported having enough food to eat.

Of girls age 12 and older, 39 percent reported that they had been pregnant. For boys age 12 and older, 10.5 percent reported that someone had been pregnant with their baby. Of this group of girls and boys, 75 percent of them had children; most had 2 children, 11 percent had 3 children and 11 percent had four children. As noted above in the caregiver analysis of services, 100% of girls needing prenatal care received it.

Dental care

Caregivers were asked about the dental health of the children in their care. Caregivers reported that most children get annual dental exams. Only 4% of children over the age of 3 are *not* getting annual dental check ups according to caretakers.

There are, however, gaps in dental care treatment. Caregivers reported that 8.4 percent of sample children have some form of dental problem. Of these children, 28 percent are not receiving services for these dental problems. This constitutes 2.4% of the sample. When asked about dental care, 21 percent of youth stated that it had been over 12 months since they had seen a dentist. Also, out of the 96 children in the sample who are age-eligible, 23 percent need braces and only 30 percent receive them.

DCFS nurses report that it is difficult to find providers willing to take the Medicaid payment rate for orthodontic treatment and/or to find providers who are willing to treat special-needs children who need to be sedated in order to tolerate dental treatment. These children must go to a hospital where there are reportedly long waiting lists due to hospitals accepting only a certain quota of "Medicaid patients" per month.

Conclusions and Recommendations

Summary of findings:

The identification of health conditions varies by region and placement type. Children in downstate regions are more likely to be identified and, not surprisingly, children in specialized, group and residential care are more likely to be identified as having health conditions.

Of all children in the sample, the largest group is physically healthy African American children (42%). The next largest group (38%) is African American children with health conditions that range from minor illnesses to severely medically complex conditions.

When looking at the co-morbidity of physical health conditions, mental health conditions, and developmental delay, only 29% of the sample children were free of any of these conditions. Of children with ICD-09 codes, the vast majority of them had a combination of medical, mental and developmental conditions that if untreated or under-treated could jeopardize their current and future well-being.

The great majority of children who have medical conditions are receiving treatment for them (83%). The remaining 17 percent, according to caregivers, did either do not require current health care.

A small percentage of children in placement are not getting all of the dental care they need. Caregivers reported that 2.4 percent of sample children have some form of dental problem and are not receiving services for these dental problems. Twenty-one percent (21%) of youth interviewed said they had not been to a dentist in over 12 months. Annual or six-month exams are the norm for healthy children. Also, out of the 96 children who are age-eligible, 23 percent need braces and 30 percent of them receive braces.

Recommendations:

The delivery of dental care for children in placement could be improved by addressing the payment rates through Medicaid. For children who live long distances from dental providers, special transportation arrangements need to be created. Also for children with special needs who need to be sedated in order to tolerate dental care, transportation to a qualified dentist needs to be arranged. Straightened teeth have become mainstream for middle class America. Financial arrangements need to be created so that orthodontists will welcome DCFS children into their offices.

Integrating local nurses into the assessment, planning and follow-up monitoring for children with health conditions could have a positive impact. Social workers are not medically trained to be able to make competent and informed decisions about the care of sick children; they do not have the necessary skills to articulate health services needs or to fully interpret health information given by the foster parent about the child. The DCFS nurses made the following specific recommendations to better serve children's health needs:

- Routinize and systematize the role of nurses in DCFS case practice.
- Involve nurses during the investigation stage if there is a medical issue. This is particularly important if a child with medical issues is to remain in the home.
- Involve nurses in the placement decision for children with medical issues. Nurses can make assessments about how suitable caregivers and caregiver settings are for the child's particular medical needs.
- Allow nurses, rather than caseworkers, to make the decision of whether a nurse needs to be involved in a case.
- Train caseworkers on the differences between the role of doctors and the role of nurses regarding the safety and medical care of children.
- When nurses make a recommendation, caseworkers should be required to document it. Medical recommendations should not be left to the discretion of a caseworker or supervisor.
- Give nurses ready-access to the children's case files so that they have existing medical information on the child and family.

A better system is needed to ensure that copies of up-to-date Health Passports are maintained in the case file. The integration of the Health Passport should also be incorporated into a separate medical section in the case folder so that medical information in the case folder is well-organized and readily accessible. This will help caseworkers track medical issues and will help DCFS and private agency nurses communicate and monitor needed health care services. With the high rates of caseworker turnover, it is especially important to maintain medical information and track any medical threats to a child's health and well-being.

Chapter VI Children's Physical Health

References

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CHAPTER VII

EDUCATION AND CHILD DEVELOPMENT

Christina M. Bruhn

Martin Nieto

"The main thing that will help me achieve my goals is an education."
Foster youth M. S.

"Don't give up on your education, because it's your life and your future."
Foster youth L.N.

Education

Introduction

Education is unlike other well-being indicators in that education itself is not really an outcome but rather a service. Health is a state of being. Problems with health can be prevented by environmental factors such as good nutrition, exercise and proper rest, safe homes and neighborhoods, and preventative health care. When problems with health do occur, in many cases they can be corrected with health services, and in other cases, further deterioration can be prevented or slowed. Education is not a state of being. Nonetheless, delivery of successful educational services is a desirable outcome in that educated youth are more likely to be successful in transitioning to adult living.

Many prerequisites are necessary in order for education services to adequately prepare youth for adult living. These include intellectual aptitude as well as motor, and social/emotional development that is not grossly delayed. States of adequate physical and mental health can promote good educational outcomes, whereas physical and mental health problems can in some cases derail educational trajectories. All these states are affected by environmental factors in the home, community, and school. Educational outcomes are therefore difficult to explain.

Education outcomes are also difficult to measure. A great deal of disagreement exists as to which achievement tests should be delivered and when and how the results should be interpreted and used. Some agreement exists, however, concerning the idea that measuring achievement alone is not sufficient. A more ideal situation involves measurement of both aptitude and achievement. Where a state of high aptitude and high achievement exists, educational services can be said to have been successful. This is also the case where states of low aptitude and high achievement or even low aptitude and moderate achievement exist. However, in cases where high aptitude and low achievement co-exist, educational services are said to have failed. Unfortunately, most educational testing is not done in this fashion, and interpretation of results is thereby further hampered. This is the case of the testing that was found during review of educational records that constituted the data source for the Well-being study and of the administrative data used for Chicago Public Schools analyses.

This chapter is presented in four sections. The first three sections cover data gathered during the course of the *Illinois Child Well-Being Study*, Round I. The fourth section covers analyses of administrative data from the Chicago Public Schools. The first section includes a brief description of the sample of children for whom educational record reviews were collected and the methodology for obtaining these data. The second section addresses identification of youth experiencing educational problems based on reviews of educational records conducted during the course of the Well-Being Study. The third section addresses delivery of services, also based on educational record reviews. As education is a service, this section also considers delivery of exceptional services for youth unable to take advantage of standard educational services. This section will also consider other factors that promote or support positive educational outcomes, such as attendance. The final section covers test scores, high school completion, and dropout based on Chicago Public Schools' data.

Sampling and Methodology

General sampling and weighting procedures for the study are described in detail in Chapter II of this volume. This section addresses the characteristics of children for whom educational record reviews were collected, as this group constituted a subsample of children in the general sample.

Table 1 provides a brief summary of demographic information about the children in the education sub-sample of the Child Well-Being Study sample. The data are weighted so that the sample reflects the population of all children in placement in Illinois in 2001.

TABLE 1
CHARACTERISTICS OF CHILDREN IN THE EDUCATION SAMPLE

Age at case opening	
0 – 5	53.0%
6 – 13	41.8%
14 and older	5.2%
Age at Time of Study	
0 – 5	6%
6 – 13	67%
14 and older	27%
Number of Years in Substitute Care	
< 6 Months	0.8%
1 Year	19.2%
2 Years	17.1%
3 Years	8.1%
4 Years or More	54.8%
Gender	
Female	54%
Male	46%
Race/Ethnicity	
African American	81%
White	11%
Hispanic	8%
Region	
Cook Regions	79%
Downstate Regions	21%
Placement Type	
Home of Relative	35%
Traditional Foster Care	25%
Specialized Foster Care	27%
Group Home or Residential	13%
Provider Type	
DCFS Case	32%
Private Agency Case	68%

Educational record reviews were carried out by the Center for Child Welfare and Education (CCWE) at Northern Illinois University under the direction of Dr. Sharon Freagon. The following description of data collection efforts is adapted from Freagon, Shumow, Baron-Jeffrey, and Cole (2005) and Freagon, Baron-Jeffrey, Cole, and Shumow (2001). State-wide reviews were undertaken by Educational Advisors working with the Educational Access Project and by substitute teachers hired specifically for the study and trained carefully in the study protocol. Locating the schools of each of the 160 students in the final educational sample proved to be a very challenging endeavor, as this information was not available from the DCFS administrative database at that time. Information from a variety of sources, including caseworkers, caregivers, maps, and school districts, was utilized in the locating effort. The effort was complicated further by the fact that the students in the educational sample were enrolled in schools in a total of 82 school districts. Certified letters were sent to the superintendents of each of these districts in order to comply with and establish documentation of having adhered to legal requirements concerning notification of intent to review a record. A hotline was established at CCWE for school district and school representatives seeking additional information about the project or about the involvement of a specific student. Consents for release of information were signed for every student under DCFS guardianship by the Guardianship Administrator, D. Jean Ortega-Piron, and these consents were carried by record reviewers to the schools. Record reviews were conducted in person, on the premises of the schools by record reviewers. Information was recorded from records onto a standard form. Based on variables identified by Sharon Freagon (Freagon, 2001), CCWE developed the research instruments for the educational portions of the study. CFRC conducted the corresponding literature review, received the data gathered and entered by CCWE and adjusted and analyzed the data for its research purposes. Simultaneously, CCWE analyzed the data for its audiences and purposes.

Identification

Identification of educational problems was based on the following three measures found in educational records: over-age-in-grade, class grades, and test scores.

Grade Level Relative to Chronological Age

A student's grade level relative to his or her chronological age is one of the most important factors in predicting school dropout (Jimmerson, Anderson, & Whipple, 2002). Research is conclusive in this regard, even when achievement status and a variety of other salient potential predictor variables are taken into consideration. While exact estimates of the impact of retention vary, Mann (1987) reported that students who were retained in one grade were 40 to 50% more likely to drop out of school, and students retained in two grades were 90% more likely to drop out of school than those who had not been retained. The situation resulting from starting school late or having experienced retention due to lack of educational progress, or having had to repeat a grade for other reasons, is referred to as "over-age-in-grade," which indicates that a child is chronologically older than his or her same-class peers. Over-age-in-grade was examined for the sample of children in the Well-Being Study for whom educational records were obtained. Results of the study indicate that 41.1% of DCFS wards are not in the grade that would be expected based on their chronological age. The likelihood of being over-age-in-grade did not vary significantly by a child's race, time in care, location, or placement type. As reflected in Table 2, the likelihood of being over-age-in-grade did vary significantly by gender ($X^2 = 11.66$ (1, $N = 104$), $p = .001$) with males more likely to be over-age-in-grade. This relationship is quite striking, as males in this sample were found to be more than twice as likely to be over-age-in-grade as were females. The likelihood of being over-age-in-grade also varied significantly by age ($X^2 = 8.00$ (2, $N = 105$), $p = .018$). Of the entire sample, while 35.5% had repeated a grade only once, 5.9% had done so twice, and 2.3% had done so three times.

TABLE 2
ASSOCIATION BETWEEN BEING OVER-AGE-IN-GRADE AND PREDICTOR VARIABLES

Predictor variable	Percent over-age-in-grade
Age*	
5 to 8 years	31.0%
9 to 13 years	32.7%
14+ years	63.0%
Race/Ethnicity	
African American	38.8%
White	58.3%
Hispanic	25.0%
Gender**	
Male	57.4%
Female	24.6%
Placement type	
Home of relative	24.3%
Traditional foster care	50.0%
Specialized foster care	39.3%
Residential or group Home	61.5%
Time in care	
< 3years	46.2%
≥ 3 years	36.4%
Region	
Cook	37.4%
Non-Cook	47.6%

**p<.01

* p <.05

Logistic regression models were fitted to available data in order to estimate the effects of each independent variable on likelihood of having experienced grade retention while controlling for the effects of all remaining independent variables. A model estimating over-age-in-grade (yes or no) as predicted by age at the time of case opening, gender, time in care (continuous), African American racial status, and placement type (referenced to traditional foster care), and region was fitted using forward selection and an entry criterion of .05. The results of the equation are reported in Table 3.

TABLE 3
LOGISTIC REGRESSION ANALYSIS OF PREDICTORS OF OVER-AGE-IN-GRADE

Predictor variable	Unstandardized logit coefficients	S.E.	Odds ratio	Wald X^2
Age at opening*	.19	.07	1.20	7.13
Gender**	1.52	.47	4.58	10.40
Placement type HMR*	-1.60	.70	.20	5.20

**$p<.01$
* $p < .05$

Table 3 indicates that, with each sequential increase in age of one year, the likelihood of repeating a grade increases 1.2 times for this sample. Furthermore, males are 4.6 times more likely than females to have repeated at least one grade. However, children and youth placed with relatives are less likely to have repeated grades than children in traditional foster care. Children in home of relative care were 4.95 times less likely to have repeated a grade.

"You need an education to get that good paper. You can change your life around if you put your mind to it and put your all into your goals."
Foster youth L.N.

Class Grades

Class grade scores were calculated by taking the number of classes in which a student was receiving a grade below 'C' and dividing it by the total number of classes the student was taking. This was done because there was great variation in the number of classes students were taking. For example, failing one class out of a total of two classes has a different magnitude that failing two classes out of ten. The average student was receiving a grade below a 'C' in 26.1% of his or her classes. The percentage of classes in which students were receiving grades below 'C' did not vary by gender, race, time in care, location, or placement type, as reflected in Table 4. The percentage of grades below 'C' did vary by age group such that older children were receiving much higher percentages of grades below 'C' (F (2, 77) = 4.523, p = .014)

TABLE 4
ASSOCIATION BETWEEN PERCENTAGE OF GRADES BELOW ‘C’ AND PREDICTOR VARIABLES

Predictor variable	Percentage of grades below ‘C”
Age*	
5 to 8 years	18.1%
9 to 13 years	20.3%
14+ years	43.1%
Race	
Black	25.2%
White	24.2%
Hispanic	22.3%
Gender	
Male	24.5%
Female	25.1%
Placement type	
Home of relative	20.3%
Traditional foster care	35.2%
Specialized foster care	19.5%
Residential or group Home	31.5%
Time in care	
< 3years	30.7%
≥ 3 years	21.7%
Region	
Cook	22.0%
Non-Cook	35.5%

*$p<.05$

Mulitvariate analyses were not able to be conducted for this variable. The ratio of classes wherein a student earned a grade below ‘C’ to the total number of classes was only calculated in cases where a student had a report card in his or her record and received letter grades – this tends to be the case of students in middle schools and high schools but not of children in elementary schools. Hence, this value was only present for 78 cases (weighted).

Test Scores

Test scores were not found in the educational records of every child in the study. Those test scores that were found represented a wide variety of different types of tests. Test scores were present in only 61% of cases (weighted) of children 6 years and older. In the case of records of children 8 years and older, 67% of records contained test score data. A total of 13 different types of tests were found. The comparability of these tests can be questioned, but given that each test is meant to be a reliable indicator of achievement relative to grade level, the grade equivalent scores or stanine scores generated by each test were used to compute a metric for each child. The metric indicated whether a child was performing above grade level, at grade level, or below grade level. Very few children were performing above grade level, and they are reported with the group of children performing at or above grade level. Overall, based on test scores that were found in the records, only 33.2% of students were found to be performing at or above grade level in math, and 42.3% were found to be performing at or above grade level in reading.

Performance in math did not vary by gender, race, time in care, or location, as reflected in Table 5. Performance in math did vary significantly by age ($X^2 = 11.29$ (2, $N = 65$), $p = .004$) and placement type ($X^2 = 12.62$ (3, $N = 65$), $p = .006$). Older children were generally more likely to perform below grade level on standardized tests of mathematics achievement, although children 9 to 13 years of age performed similarly to children over the age of 14. Children in placement settings associated with more intensive services were also more likely to perform below grade level on standardized mathematics tests. Children in the homes of relative performed worse than children in traditional foster care homes, but both groups performed substantially better than children in specialized and group care settings.

Scores on standardized tests of reading achievement did not vary by gender, race, time in care, or location. These scores did vary by both age ($X^2 = 7.425$ (2, $N = 65$), $p = .024$) and placement type ($X^2 = 11.58$ (3, $N = 65$), $p = .009$). Variation in test scores by demographic and placement characteristics is depicted in Table 6. Older children are clearly less likely to perform well on standardized tests of reading achievement. Children in placement settings associated with more intensive service needs were also less likely to perform well on standardized tests of reading achievement. As was the case with regard to math scores, no student in group or residential care was found to be performing at or above grade level. Children in kinship care were performing best on standardized tests of reading achievement.

TABLE 5
ASSOCIATION BETWEEN SCORES ON STANDARDIZED MATHEMATICS TESTS AND PREDICTOR VARIABLES

Predictor variable	Percentage below grade level
Age*	
5 to 8 years	28.6%
9 to 13 years	75.7%
14+ years	78.6%
Race/Ethnicity	
African American	63.6%
White	80.0%
Hispanic	83.8%
Gender	
Male	69.0%
Female	63.9%
Placement type**	
Home of relative	58.3%
Traditional foster care	41.2%
Specialized foster care	88.9%
Residential or group Home	100%
Time in care	
< 3years	54.2%
≥ 3 years	73.8%
Region	
Cook	65.5%
Non-Cook	70.0%

**$p<.01$

*$p<.05$

TABLE 6
ASSOCIATION BETWEEN SCORES ON STANDARDIZED READING TESTS AND PREDICTOR VARIABLES

Predictor variable	Percentage below grade level
Age**	
5 to 8 years	35.7%
9 to 13 years	54.1%
14+ years	85.7%
Race	
Black	54.5%
White	50.0%
Hispanic	100.0%
Gender	
Male	65.5%
Female	52.8%
Placement type**	
Home of relative	37.5%
Traditional foster care	52.9%
Specialized foster care	77.8%
Residential or group Home	100.0%
Time in care	
< 3years	58.3%
≥ 3 years	57.1%
Region	
Cook	56.4%
Non-Cook	70.0%

**p<.01

Multivariate analysis of predictors of test score was not attempted because test score was present in fewer than half of records, and those records for which test score is present may not be representative of all records.

Services

"The school got tired of my negative behavior and put me out of the program and labeled me…they soon put me in special education classes to "help" me, but that only made things worse. I was embarrassed that I was in that class because people thought I was slow or retarded. Other students would make fun of me and put me down." Foster youth M.S.

Educational program

One of the variables examined in the course of the well-being study that proved to be particularly informative about the educational status of wards is educational program. Overall, 39.4% of children in the study were found to be receiving special education services. Whereas many educational indicators, including attendance, grades, and test scores, were closely associated with age, special education status was actually found not to be associated with age. Special education status was also not associated with time in care or location. However, every other explanatory variables examined, including gender ($X^2 = 13.55$ (1, N = 107), $p = .000$) and type of placement ($X^2 = 34.24$ (3, N = 108), $p = .000$), did play a role in predicting special education status. These relationships are captured in Table 7. Educational program also appears to differ by race ($X^2 = 9.165$ (2, N = 108), $p = .010$); however, these results cannot be spoken of with certainty due to the effectively low numbers of both Hispanic (weighted $N = 7$) and White (weighted $N = 12$) students in the sample. Males are more likely to receive such services than females, and the differences are striking; males are over twice as likely to receive special education services as females. White children appear to be more likely to receive these services than African American children, and Hispanic/Latino children appear to be least likely to receive these services. Placement was found to have a strong association with receipt of special education services such that children in kinship care were relatively unlikely to receive these services, and nearly all children in group and residential care were found to be receiving these services.

TABLE 7
ASSOCIATION BETWEEN RECEIPT OF SPECIAL EDUCATION SERVICES AND PREDICTOR VARIABLES

Predictor variable	Percentage receiving special education services
Age	
5 to 8 years 9 to 13 years 14+ years	30.0% 36.0% 50.0%
Race*	
Black White Hispanic	36.4% 75.0% 12.5%
Gender**	
Male Female	57.1% 22.4%
Placement type**	
Home of relative Traditional foster care Specialized foster care Residential or group Home	13.9% 22.2% 53.3% 93.3%
Time in care	
< 3years ≥ 3 years	35.9% 40.6%
Region	
Cook Non-Cook	37.2% 40.9%

**$p<.01$

*$p<.05$

Multivariate analyses to examine the relative predictive power of each independent variable were conducted. A logistic regression equation predicting special education status (special education = 1, general education = 0) based on gender, race (African American was the reference category, White and Hispanic children were grouped), placement type (traditional care was the reference category), age, time in care and region was developed using forward selection and an entry criterion of .05. Group care as a placement type had to be dropped from the equation because there was an extremely high degree of correlation between group care and educational program (in the first attempt to run this model, results suggested that children living in group or residential care were 76.9 times more likely to be in a special education program). The results of the equation are reported in Table 8.

TABLE 8
LOGISTIC REGRESSION ANALYSIS OF PREDICTORS OF EDUCATIONAL PROGAM

Predictor variable	Unstandardized logit coefficients	S.E.	Odds ratio	Wald X^2
Gender**	1.64	.52	5.16	9.99

** *p*<.01

Table 8 indicates that males are 5.3 times more likely than females to be receiving special education services when all other variables are taken into consideration. When group or residential placement was deleted from the model, home of relative placement and specialized foster care placement failed to appear as predictor variables. Race did not appear as a significant predictor in the final model.

Reasons for delivery of special education services

The reason for delivery of special education services was taken directly from the child's Individual Education Plan (IEP). IEP's were obtained for nearly all children receiving special education services. The most common reason for receipt of special education services was presence of an emotional disorder. This category was identified as a reason for receipt of special education services for 11.3% of children in the educational record review sample and 56.1% of children receiving special education services. The second most common reason for receipt of services was presence of a specific learning disabilities, identified in 9.2% of children in the sample and 45.2% of children receiving special education services. The third most common was presence of a speech or language impairment (5.8%, 28.6%). All other categories of need occurred with much lower frequency.

A metric was calculated to indicate whether the child was receiving services due to an emotional/behavioral disorder, an other reason (these included autism, mental impairment, specific learning disabilities, speech and language disorders, orthopedic impairments, other health disorder, and multiple disabilities), or both. Results indicate that 29.7% of children receiving special education services are receiving them for emotional or behavioral disorders only, 36.0% are receiving them for a non-emotional/behavioral disability only, and 34.4% are receiving them for both reasons. The breakdown by gender was considered to be salient, as the question of why males are over-represented to such a great degree among the special education population remains open. The results are represented in Table 9.

TABLE 9
REASONS FOR RECEIPT OF SPECIAL EDUCATION SERVICES BY GENDER

Gender	Emotional or behavioral disorder only	Other disability	Both emotional or behavioral disorder and other disability
Male	33.3%	50.0%	16.7%
Female	26.9%	30.8%	42.3%

The results indicate that females are more likely to be receiving services for disabilities other than emotional or behavioral disturbances only than males and that males are more likely to be receiving services for both emotional or behavioral disorders and other disabilities than females. However, these results do not reach the level of statistical significance.

Attendance

Attendance is not a service. However, in order to obtain an education in a school setting, children and youth must be present in that setting; therefore, factors such as attendance must be considered when evaluating educational outcomes. To calculate attendance, the number of days of school missed was standardized to number of days missed within 45 school days. The reason for this was that some rates of attendance were reported per quarter, some per semester, some per trimester, and some per year. Number of days missed ranged from 0 to 25. Both the median and the mode were at 1.5 days of school missed per 45 day quarter. Attendance was found to vary sharply by age such that children over fourteen miss much more school than children six to twelve years old ($F(2, 88) = 8.072$, $p = .001$), as reflected in Table 10.

TABLE 10
ASSOCIATION BETWEEN ATTENDANCE AND PREDICTOR VARIABLES

Predictor variable	Average days missed per quarter
Age**	
5 to 8 years	1.8
9 to 13 years	2.5
14+ years	6.5
Race	
Black	3.3
White	2.8
Hispanic	1.9
Gender	
Male	2.6
Female	3.6
Placement type	
Home of relative	3.6
Traditional foster care	3.4
Specialized foster care	2.2
Residential or group Home	3.7
Time in care	
< 3years	3.8
≥ 3 years	2.8
Region	
Cook	2.7
Non-Cook	4.8

**$p<.01$

"Transferring affected my learning because instead of learning, I had to fight. I was new and people wanted to know if you have sugar in your tank."
Foster youth R.N.

"I attended three different schools in one year. The reason why I did not like going to a different school was because of the people…"
Foster youth Y.S.

Transfers

School transfers can have a profound effect on a student's educational trajectory. Reliable information concerning school transfers, however, was difficult to abstract from educational records. While records did, in many instances, contain evidence of transfers having taken place, the reasons for those transfers and, in some case, the timing of the transfers, was not entirely clear. In some cases, the transfers from school to school were those that children who were not involved with the child welfare system would also have experienced, such as those necessitated by grade promotions (for example, moving from eighth grade to high school entails entering a new school building). In some cases, transfers were initiated by caregivers' families moving from one residence to another. In some cases, the transfer was initiated by the school for non-promotional reasons. The relative frequency of each transfer type, to the greatest degree discernable from educational records, is reflected in Table 11. Table 12 reflects the association of each demographic and placement variable examined with transfers of all types. Transfer types are not disaggregated in subsequent analyses due to the assumption that children and youth will experience promotional transfers at the same rate regardless of demographic or placement characteristics.

Overall, 60.0% of children in the study were found to be have experienced at least one school transfer within the past two years. The rate of school transfers over the course of the two years preceding the record reviews was found not to be associated with age, gender, or time in care. However, placement type ($X^2 = 13.64$ (6, $N = 108$), $p = .034$) demonstrated a significant association with likelihood of school transfer. In addition, region ($X^2 = 6.98$ (2, $N = 106$), $p = .030$), demonstrated a significant association. Likelihood of school transfer also appears to differ by race ($X^2 = 10.09$ (4, $N = 106$), $p = .039$); however, these results cannot be spoken of with certainty due to the effectively low numbers of both Hispanic (weighted $N = 8$) and White (weighted $N = 11$) students in the sample. The relationship between placement type and school transfers appears to be driven by the relative stability of both home of relative and group/residential placements with regard to minimization of school mobility. Children living in non-Cook regions were more likely to experience school transfers than children living in Cook County. Conversations with administrative personnel suggest that this is due to a high rate of movement overall in these regions, which may be related to a scarcity of specialized resources. Finally, White children were at the greatest risk of school transfer, followed by African American children. Hispanic children appeared to be only minimally at risk of school transfer. Findings related to race in this context are not considered to be reliable due to extremely low representation of non-African American children.

TABLE 11
NUMBER OF TRANSFERS BY TRANSFER TYPE

Number of transfers	Total	Non-school initiated	School-initiated promotional	School-initiated non-promotional	Unknown
0	40.6%	82.2%	85.4%	91.3%	76.9%
1	40.0%	9.1%	14.6%	7.3%	15.1%
2	13.5%	7.5%		1.4%	5.1%
3+	5.9%	1.2%			2.9%

TABLE 12
ASSOCIATION BETWEEN SCHOOL TRANSFERS AND PREDICTOR VARIABLES

Predictor variable	0 transfers	1 transfer	2 + transfers
Age			
5 to 8 years	46.7%	33.3%	20.0%
9 to 13 years	36.0%	48.0%	16.0%
14+ years	44.4%	33.3%	22.2%
Race*/Ethnicity			
African American	37.9%	43.7%	18.4%
White	27.3%	36.4%	36.4%
Hispanic	87.5%	12.5%	0%
Gender			
Male	38.8%	44.9%	16.3%
Female	42.1%	36.8%	21.1%
Placement type*			
Home of relative	37.8%	54.1%	8.1%
Traditional foster care	44.4%	18.5%	37.0%
Specialized foster care	36.7%	40.0%	23.3%
Residential or group care	50.0%	42.9%	19.4%
Time in care			
< 3years	47.4%	34.2%	18.4%
≥ 3 years	37.7%	42.0%	20.3%
Region*			
Cook	44.7%	41.2%	14.1%
Non-Cook	23.8%	38.1%	38.1%

* $p<.05$

Chicago Public Schools' Data

The educational records reviewed in person for the Well-Being Study did not contain sufficient test score information to warrant multivariate analyses. Data concerning test scores, dropout, and high school graduation rates among DCFS involved children and youth in the Chicago Public Schools are presented in the next section in an effort to augment the data presented to this point. The Chicago Public Schools (CPS) currently maintain a data-sharing agreement with DCFS and affiliated researchers. The CPS databases were matched with DCFS databases in manners which are described in the following section in order to generate data for these analyses.

Test Scores

Data used for the Chicago Public Schools (CPS) analyses were drawn by matching the CPS database with the DCFS integrated database from 1996 through 2000. Any child who was enrolled in the Chicago Public Schools and was in out-of-home care at any time prior to the end of the school year was included in each year's sample. Test scores are based on percentile results from the Iowa Test of Basic Skills for children in grades 3rd to 8th and the percentile results from the Test of Achievement and Proficiency for grades 9th to 12th. The percentiles for the years used are based on the 2000 norms. Children are considered scoring at or above national norms if their score is in the 50th percentile or higher.

The data demonstrate that, while test scores have improved over time for both children who experienced out-of-home care and for children who did not, the scores of children who experienced out-of-home care remain consistently lower. Fluctuations over time are similar for both groups of children, but the number of children who placed below grade level, on average, was 15 to 20% higher among children who had been in out-of-home care. This was true both for reading and for math, as reflected in Figures 1 and 2. This analysis was replicated using test scores of children in grades 3 through 8. The figures are not presented here in the interests of avoiding duplication, as the trends noted in this subsequent analysis were entirely consistent with those demonstrated in the first analysis.

FIGURE 1: CHANGES IN SCORES ON STANDARDIZED TESTS OF MATH OVER TIME FOR CHILDREN IN DCFS CARE AND CHILDREN NOT IN DCFS CARE

The percent of Chicago Public School foster children in grades 9-12 that scored at or above math norms has improved but remains below that of children not in care

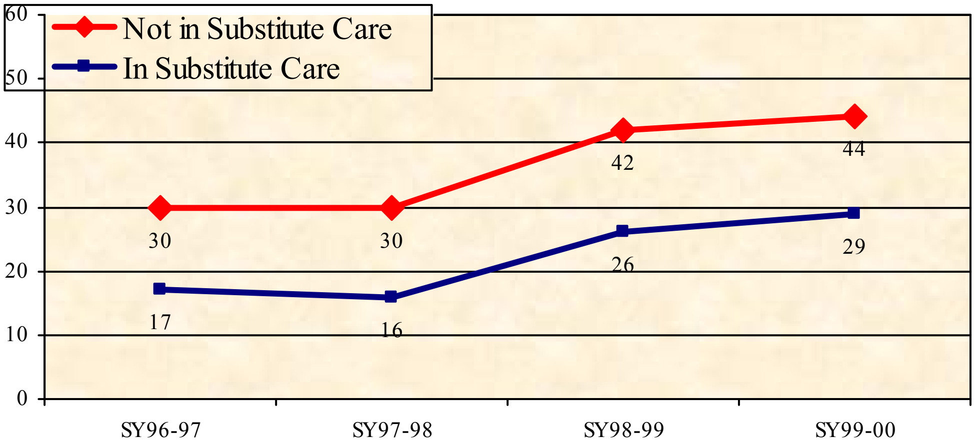
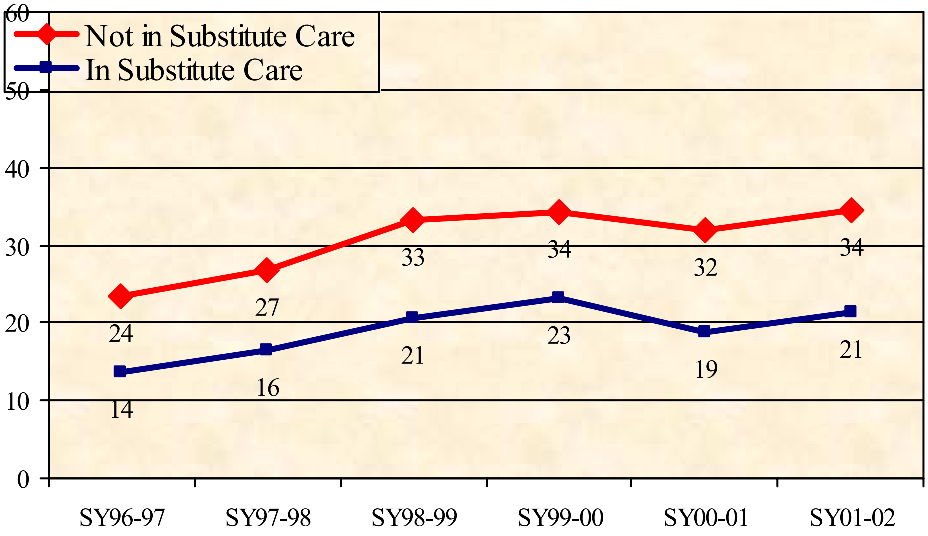


FIGURE 2: CHANGES IN SCORES ON STANDARDIZED TESTS OF READING OVER TIME FOR CHILDREN IN DCFS CARE AND CHILDREN NOT IN DCFS CARE

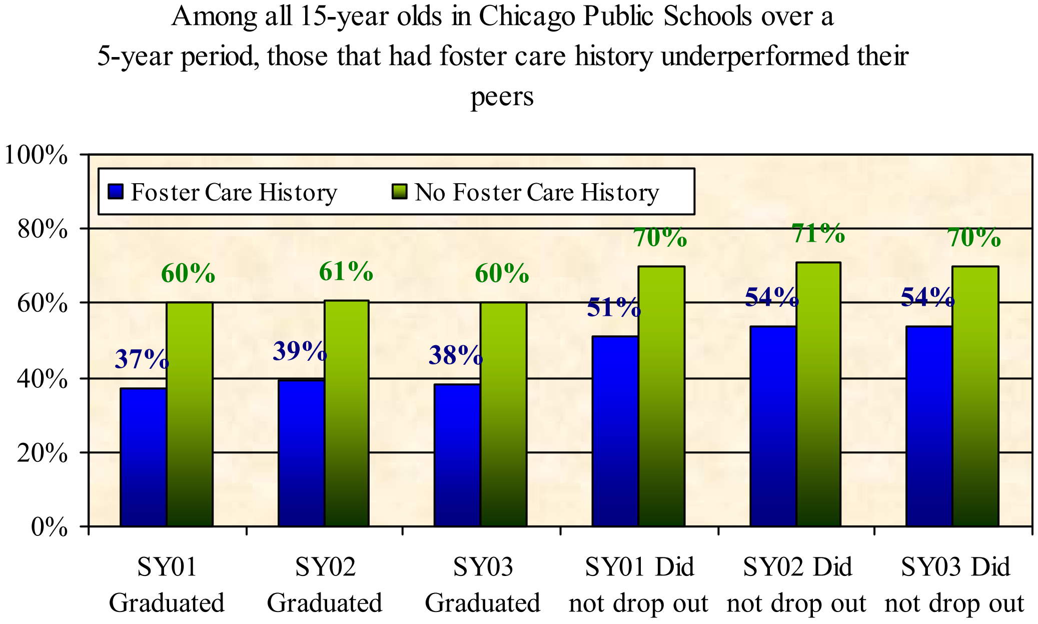
The percent of Chicago Public School foster children in grades 9-12 that scored at or above reading norms has improved but remains below that of children not in care



Graduation and Dropout

Figure 3 demonstrates the percentage of children who did and did not experience out-of-home care within each noted year and the outcomes for those children in terms of graduations and dropping out of school. To calculate outcomes for each year noted, a cohort of children who were 15 years old prior to the beginning of the school year 5 years previous were selected. Hence, children in the outcome year 2003 were 15 years old by September of 1998. The percentages depicted from year to year are fairly stable and indicate that, as is the case with test scores, children who experience out-of-home care consistently manifest poorer outcomes than peers who did not experience out-of-home care. Over 20% fewer children who have been in out-of-home care graduate from high school, and close to 20% fewer stay in school.

FIGURE 3
GRADUATION AND DROPOUT RATES AMONG CHILDREN WITH AND WITHOUT FOSTER CARE HISTORIES



Developmental Disabilities in Children and Youth in the Child Welfare System

The term “developmental disability” is often confused with the term “developmental delay.” Developmental delays, in turn, are often thought of as synonymous with cognitive delays. In fact, as defined in the Individuals with Disabilities Education Act, developmental delays are generally defined as any measured delay in physical, cognitive, social/emotional, or adaptive development (34 CFR 300.7, 1997). Children with developmental delays do not reach developmental milestones before or within the expected time period. The term “developmental delay” is most often used with regard to children ages zero through five years. However, the Federal definition of developmental disability extends this condition to any severe, chronic disability that is attributable to a mental impairment, a physical impairment, or both; is manifested before an individual attains the age of 22; is likely to continue indefinitely; results in substantial functional limitation in three or more areas of life activity; and reflects an individual’s need for specialized services. The special interest in developmental disabilities and developmental delays as they manifest themselves in younger children is primarily prompted by the fact that such conditions are substantially less likely to be identified in children not of school age. Data sources related to potential cognitive delays will be addressed in this section. Physical health conditions are covered in Chapter VI, and mental health and emotional conditions are covered in Chapter IV.

Several sources of data gathered throughout the course of the Well-Being Study address the topic of developmental disabilities. The first is the caseworker survey. Caseworkers were asked specifically, “Is (child) developmentally delayed?” They were also asked to describe the developmental delays. They were also asked if the child was receiving special education services at school, although they were not asked the reason for those services. The second source of information is the nurse audit. Nurses identified International Classification of Diseases (ICD-09) codes for mental retardation as they applied to each child for whom a record review was conducted. The final source of information was from the Early Childhood Unit (ECU) at DCFS.

Developmental Delay

Caseworkers indicated that, overall, 21.2% of children in the study have developmental delays. This question was asked of caseworkers of children of all ages. As reported, the association of developmental delay with gender was marginally significant ($X^2 = 3.788$ (1, $N = 143$), $p = .052$). Associations with age ($X^2 = 10.488$ (2, $N = 155$), $p = .005$), and placement type ($X^2 = 17.080$ (3, $N = 154$), $p = .001$) were clearly significant. These relationships are captured in Table 13.

The finding related to gender is consistent with that reported in the professional literature. Interpretation of the finding related to age is open. The finding that children in the 6 to 13 year age range are the least likely to be identified by caseworkers as having developmental delays may be explained in any of several ways. First, given that the term "developmental delay" is most commonly applied to younger children, caseworkers may not think of the social, emotional, physical, and cognitive delays of latency-aged children in these terms. However, the finding may reflect a serious concern related to under-identification, as the percentages in other age categories reported as having developmental delays are much closer to what would be expected with this population. The finding related to placement type is clear. The rate of developmental delay in children in traditional foster care is almost double that in children in kinship care, and the rate of developmental delay in children in specialized and group/residential care is more than double that in children in traditional foster care according to caseworker identification. At the surface, this suggests that children and youth with developmental delays are either under-identified in less restrictive settings or that they are quickly moved from these settings when they are identified, as they cannot be cared for adequately there. However, while an examination of the association between caseworker-identified behavioral or mental health diagnoses and caseworker-identified developmental delay reveals no statistically significant relationship, this examination does reveal that 78.1% of children and youth with developmental delays, according to caseworkers, are also diagnosed with behavioral or mental health disorder. Examination of these relationships by way of logistic regression did not add any explanatory power. Placement in specialized or group/residential care remained predictive of identification of developmental delays by caseworkers when mental health status was controlled for. These findings are reflected in Table 14. Developmental delay was not found to be associated with race, duration in care, or region.

TABLE 13
ASSOCIATION BETWEEN DEVELOPMENTAL DELAY AND PREDICTOR VARIABLES

Predictor variable	Percent identified as having a developmental delay
Age**	
5 years or younger 6 to 13 years 14+ years	34.1% 9.2% 26.5%
Race/Ethnicity	
African American White Hispanic	20.0% 18.2% 28.0%
Gender*	
Male Female	27.3% 14.5%
Placement type**	
Home of relative Traditional foster care Specialized foster care Residential or group Home	7.8% 13.3% 37.5% 38.9%
Time in care	
< 3years ≥ 3 years	20.0% 22.2%
Region	
Cook Non-Cook	22.2% 15.8%

**p<.01

TABLE 14
LOGISTIC REGRESSION ANALYSIS OF PREDICTORS OF DEVELOPMENTAL DELAY

Predictor variable	Unstandardized logit coefficients	S.E.	Odds ratio	Wald X^2
Age*	-.153	.063	1.165	.858
Placement type *SPEC	1.472	.640	4.357	5.285
Placement type GRP*	2.011	.845	7.473	5.663

*p<.05

The nurse audit was another source of information concerning developmental delays. The first element of the nurse audit examined related to diagnosis. Diagnosis is difficult to map to the concept of developmental delay directly because the nature and extent of any delays in social, emotional, physical, or cognitive development attendant upon the diagnosis are generally not known based solely on the presence of the diagnosis. Consequently, for this review, examination of diagnoses was restricted to diagnoses of mental retardation. This did not prove to be a fruitful avenue of inquiry, as only five individuals were reported as having mental retardation of any degree. The second element of the nurse audit examined for relevance to the topic of developmental delays was the series of questions concerning developmental delay. Nurses were asked if each child had been screened for developmental delays. Of children who were under the age of 6 at the time of study fielding and for whom a nurse audit was available, 54% were reported as having been screened for developmental delays. Of these, 22% were reported as having developmental delays. A variety of screening instruments were identified, and they were competed by a variety of different individuals. Given that the total number of cases was low (approximately 10 weighted cases), bivariate analyses were not conducted to examine the distribution of this variable. The totals in each cell, particularly for multinomial nominal variables, would have been too low to allow for meaningful interpretations.

The Early Childhood Unit at DCFS, at the time when this study was fielded, was charged with conducting, recording, and following up on in-person screenings of all children who entered care at the age of less than three years in Cook County. This mandate was initiated as of November, 1998. A total of 20 children in the Well-being study sample met these criteria. Of those children, three children had aged out of the mandate (had reached three years of age). For four children, no information was available because the cases had been closed, and upon case closure, the information in the ECU database is cleared. The fact that these data are cleared creates a substantial disadvantage in terms of information availability, should those children re-enter care at a later date, as well as complicating research efforts. Of the children for whom data were available, a total of 15.5% were found to be developing normally, 26.4% were referred to enrichment programs to address suspect development, and 58.1% were found to have a high likelihood of having developmental delays and were referred for full evaluations. Given the fact that the numbers available were very low, only limited conclusions can be drawn from these findings. However, given the fact that the sample was drawn at random and appropriately weighted, that the instruments used were reliable and valid, and that functionally 100% of eligible children were screened and had data available, the assertion that rates of developmental delay in young children are, in fact, much higher than the rates being reported by caseworkers can be made with confidence. To further examine the effects of mandatory screening, cases of children who entered care at the age of less than three years after November of 1998 but outside of Cook County were identified. Rates of caseworker identification of developmental delay of the two groups, the Cook County sample eligible for mandatory screening and the non-Cook sample not eligible for mandatory screening, were compared. Differences did not reach the level of statistical significance, possibly due to inadequate power associated with a small sample size. However, some important differences are evident. Of children eligible for mandatory screening, caseworkers identified developmental delays in 58.0% of cases. In cases of children not eligible for mandatory screening, caseworkers identified developmental delays in 20.0% of cases. Data from the second and third rounds of the Well-being study will provide additional opportunities to explore these dynamics. One additional concern arose during examination of the data available concerning universal screening. Nurse auditors were asked to provide copies of all developmental screenings located in case records. When findings are made concerning the need for a referral for developmental evaluation and/or services, screening forms are intended to be provided to caseworkers by the ECU for inclusion in case records. However, in 7 cases of children who had been identified as having high probabilities of developmental delay, no screenings of any kind were found in the records, and in an additional 4 cases, other types of screenings were found, but ASQ screenings were not. In 6 cases, ASQ forms were found in the records. The pattern was similar for children who had been referred to enrichment programs.

These observations suggest that the process for transmitting screenings to caseworkers might be reviewed for potential improvements.

Conclusions and Recommendations

Findings that have emerged in recent years are clear in demonstrating that many of the educational deficits noted in children in out-of-home care were present before those children ever came into care. Given that observation, the role of the Department of Children and Family Services in assuring the remediation of those deficits in order to arrive at a state of "well-being" for each child in care may be reasonably deliberated. The Department stands in the role of a parent with regards to children in care, not as a provider of educational services. As a parent, the Department's role can reasonably be considered to be restricted to ensuring that children and youth have the best educational opportunities available and the resources and services necessary for them to take advantage of those opportunities. The Well-being Study is most instructive in this regard in demonstrating which students are succeeding given their present opportunities, resources, and services and where additional support might be needed.

One of the most important findings and the one with the clearest ramifications to emerge from the educational component of the Well-being study concerns over-age-in-grade. A total of 41.1% of children and youth in care, as represented by the well-being sample, were at least one grade behind what would be expected on the basis of chronological age alone. Age and male gender are predictive of increased likelihood of being over-age-in-grade, and placement with kin appears to be a protective factor in this regard, as it is predictive of a reduced likelihood of being over-age-in-grade. Grade retention is not the only explanation for this finding. Research has clearly demonstrated that children in out-of-home care may be over-age-in-grade for a number of reasons. These include late entry into school, school transfers, and running away from home as well as retention (Center on Child Welfare and Education, 2005). However, the education literature is clear concerning the fact that retention in grade is one of the most important predictors of high school dropout. The literature does not conclusively document any benefits to students resulting from grade retention. The implications are several. First, efforts to ensure that all children between the ages of 3 and 5 who are in the custody of the Department are afforded early education opportunities and enrolled in school in a timely manner are critical, and continued movement toward these objectives should be the subject of sustained attention. Second, efforts to ensure that placement moves be confined to periods between school years in order to avoid disruption of educational continuity should continue to be encouraged. Finally, educational progress not consistent with grade expectations should be noted and addressed immediately in order to avoid unnecessary grade retention.

Grade and test score data were not available from all school records, in part due to the age of some of the children in the sample (i.e. children in elementary school often do not receive letter grades for each class, and tests are only given in certain grades). However, those data that were recorded by educational record reviewers indicate that the average student is receiving a "D" or lower in over a fourth of his or her classes, that 33.2% of students were found to be performing at or above grade level in math, and that 42.3% of students were found to be performing at or above grade level in reading. Age and placement type were strongly associated with both math and reading scores such that increasing age and increasing restrictiveness of placement setting were associated with lower scores. An analysis of data concerning all DCFS-involved children and youth in the Chicago Public Schools indicates that children in out-of-home care under-performed their peers at a fairly consistent rate between 1996 and 2002. While test scores of children in out-of-home care went up, test scores in the general population went up as well. The lag demonstrated by test scores reported for children in out-of-home care amounts to approximately 16 test points for math and 12 test points for reading. The information provided concerning test scores is not surprising given that findings from other research have indicated that children tend to enter out-of-home care already demonstrating deficits in educational achievement. However, the finding that 100% of youth in group and residential care scored below grade level on both reading and math is concerning, particularly given the identification by caseworkers of 82% of children in group and residential care as having learning disabilities and the finding that 93% of children in group or residential care are receiving special education services. This group of children appears to be at extremely high educational risk.

Special education programming is being delivered to 39.4% of children under DCFS guardianship as represented by the Well-being Study sample. Based on the results of this study, males in care are over five times more likely to be receiving special education services than females. While male over-representation in special education has been identified in the literature as a characteristic of the general population, the degree of over-representation identified based on this study exceeds that cited in any reports concerning special education in the general population. Placement was also associated with receipt of special education services such that children in group and residential care were much more likely to be receiving such services. Children in home of relative care were least likely to receive special education services. Again, children in relative care appear to be functioning better educationally than children placed in other care settings although concerns regarding potential under-identification remain. The implications concerning special education are that males may be over-identified as needing specialized educational services of this nature, or females may be under-identified.

With regard to attendance, number of days missed per quarter ranged from 0 to 25 with the most common absence report being one and one-half days of school missed. Average days of school missed varied sharply by age with children 14 years of age and older missing an average of 6.4 days of school per quarter. Given that age was also associated with increased likelihood of being over-age-in-grade and with performing below grade level on standardized tests of math and reading, the issues of supports for older students and attention to how to prevent younger students from experiencing increasing educational deficits as they age come into focus. Relevant to these concerns are the issues of rates of high school dropout and non-graduation. Analysis of data concerning children in out-of-home care who are enrolled in the public schools indicated that an average of 38% of students with a foster care history graduated between 2001 and 2003, and an average of 53% did not drop out. These findings have profoundly negative implications for the futures of youth leaving the system, particularly given current economic and sociological trends resulting in reductions in unskilled labor opportunities and the lag of rates of increase in hourly wages behind inflation.

The data available concerning developmental delay are not definitive, but important findings do emerge from this evaluation. The most significant finding relates to the issue of universal screening. A thorough review of the literature concerning developmental disabilities among children in foster care suggests that 30 to 50% of young children in the care of the child welfare system might be expected to have developmental delays. The average rate of identification of developmental delay in children five years of age and under by caseworkers was 34.1%. When universal screening practices were employed by the Early Childhood Unit, however, the rate of identification of likely developmental delay was 58%. The Early Childhood Unit was very effective in reaching eligible children and carrying out screenings, and the results, while still not conclusive due to low numbers, appear to indicate that their processes are effective both in identifying developmental delays that might otherwise go undetected and in conveying appropriate information to caseworkers so that they can follow through with ensuring that appropriate services are put in place.

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CHAPTER VIII

PERMANENCE AND STABILITY IN THE ILLINOIS CHILD-WELL-BEING STUDY SAMPLE

Christina M. Bruhn

The Federal government specified six child welfare outcomes to which state child welfare systems are increasingly held. They are:

- 6.1% or less of all children who were victims of indicated child abuse or neglect during a reporting period will experience another indicated report within a 6-month period
- .57% or less of all children in foster are during the reporting period will be subjects of indicated maltreatment by a foster parent or facility staff
- 8.6% or less of all children who entered care during the reporting period will re-enter care within 12 months of a prior foster care episode
- 86.7% or more of children currently in care did not move two or more times within the most recent 12-month period
- 76.2% or more of all children who are reunified with their parents will reunify less than 12 months from the time of latest removal
- 32% or more of children who exit care to a finalized adoption will exit care within 24 months

The first three outcomes were not considered at length due to minimal incidence. For example, given the rate of maltreatment in foster care reported in the most recent Illinois CFSR results, 2 children in the Well-being sample would have been expected to fall into this category. Re-entries of all children in the Well-being sample who subsequently were returned home were calculated based on data drawn from the DCFS administrative database: a total of 9 children experienced re-entry into foster care post reunification. These numbers are too small to permit any further analysis; the first three outcomes, therefore, were not considered further. The final three outcomes constitute the basis of the analyses presented in this chapter.

Reunifications

The Well-being sample was evaluated for presence of any reunification that occurred between the time of fielding of the study (May, 2001) and the last date for which data were available in the administrative database (December, 2004). A total of 50 children experienced reunification during this period of time, representing a weighted estimate of 12.05% of children in care. Demographic and placement factors associated with likelihood of reunification were examined, as were well-being factors. The results of demographic and placement cross-tabulations with reunification (yes or no) are presented in Table 1.

TABLE 1
ASSOCIATION BETWEEN REUNIFICATION AND PREDICTOR VARIABLES

Predictor variable	**Percent reunified**
Age*	
5 or younger	14.0%
6 to 13 years	14.9%
14+ years	6.3%
Race/Ethnicity	
African American	11.0%
White	8.3%
Hispanic	17.2%
Gender	
Male	14.0%
Female	10.4%
Placement type	
Home of relative	11.1%
Traditional foster care	12.9%
Specialized foster care	14.9%
Residential or group Home	8.0%
Time in care**	
< 3years	21.1%
≥ 3 years	5.1%
Region	
Cook	12.2%
Non-Cook	11.6%

**$p<.01$

Table 1 demonstrates that the only demographic or placement factor affecting the likelihood of return home is time in care ($X^2 = 12.24$ (1, *N* = 207), *p* = .000). The likelihood of return home, while not high to begin with, plummets rapidly as a child remains in care over time. Returns home were also examined as having a potential association with well-being characteristics. The three elements of well-being examined as potential predictors of reunification were mental health as measured by clinical or borderline score on the Child Behavior Checklist, health as measured by any identification of a physical health diagnosis within case records, and developmental delay as measured by receipt of special education for reasons other than emotional or behavioral disorder or by identification by the caseworker. Table 2 demonstrates associations of these measures with the likelihood of reunification.

TABLE 2
ASSOCIATION BETWEEN REUNIFICATION AND WELL-BEING

Predictor variable	Percent reunified
Clinical/borderline	
Yes	13.8%
No	12.9%
Physical health diagnosis	
Yes	9.4%
No	16.2%
Developmental delay	
Yes	5.8%
No	15.9%

None of the associations presented in Table 2 were significant. When identification of a mental health problem from any source (including case records or caseworker identification of a mental illness) was substituted for CBCL score, the results varied little with 11.9% of children identified as having mental health problems experiencing reunification and 13.6% of those not so identified experiencing reunification. When identification of developmental delay by a caseworker was substituted for receipt of special education for reasons other than emotional or behavioral disturbance, the results changed very little (12.5% so identified were reunified, 13.9% of those not so identified were reunified), and the differences remained statistically insignificant. The likelihood of reunification was also unaffected by total number of case openings and by number of placement moves within the current spell in out-of-home care.

Adoptions and Guardianships

The Well-being sample was evaluated for presence of any adoption or guardianship that occurred between the time of fielding of the study (May, 2001) and the last date for which data were available in the administrative database (December, 2004). A total of 105 adoptions and 26 guardianships were completed for children in the sample during this period. This represents a weighted estimate of 31.1% of children in care and 5.8% of children in care respectively. Demographic and placement factors associated with likelihood of adoption or guardianship were examined, as were well-being factors. The results of demographic and placement cross-tabulations with adoption or guardianship (yes or no) are presented in Table 3.

TABLE 3
ASSOCIATION BETWEEN ADOPTION/GUARDIANSHIP AND PREDICTOR VARIABLES

Predictor variable	**Percent experiencing adoption/guardianship**
Age**	
5 or younger	57.1%
6 to 13 years	44.8%
14+ years	6.6%
Race/Ethnicity	
African American	38.2%
White	34.5%
Hispanic	25.0%
Gender	
Male	32.0%
Female	41.5%
Placement type**	
Home of relative	38.9%
Traditional foster care	54.8%
Specialized foster care	29.2%
Residential or group Home	0%
Time in care	
< 3years	40.4%
≥ 3 years	34.2%
Region	
Cook	48.8%
Non-Cook	33.7%

**p<.01

Table 3 demonstrates that demographic or placement factor affecting the likelihood of adoption or guardianship include placement type ($X^2 = 24.59$ (3, $N = 207$), $p = .000$) and age ($X^2 = 37.01$ (2, $N = 205$), $p = .000$). Region was marginally significant at $p = .07$. Placement type as a predictor of adoption or guardianship is significant in that *none of the children in group or residential placement at the time of the study had been adopted or placed in guardianship arrangements close to three years later.* Clearly likelihood of placement in group or residential care is also correlated with age, which is also identified here as having an association with likelihood of adoption.

Adoption and guardianship were also examined as having a potential association with well-being characteristics. The three elements of well-being examined as potential predictors of adoption or guardianship were mental health as measured by clinical or borderline score on the Child Behavior Checklist, health as measured by any identification of a physical health diagnosis within case records, and developmental delay as measured by receipt of special education for reasons other than emotional or behavioral disorder or by identification by the caseworker. Table 4 demonstrates associations of these measures with the likelihood of adoption or guardianship.

TABLE 4
ASSOCIATION BETWEEN ADOPTION/GUARDIANSHIP AND WELL-BEING

Predictor variable	Percent experiencing adoption/guardianship
Clinical/borderline*	
Yes	22.4%
No	40.0%
Physical health diagnosis	
Yes	34.3%
No	37.5%
Developmental delay	
Yes	38.6%
No	38.3%

*$p < .05$

Identification of having a clinical or borderline level behavioral disorder by a caregiver was associated with a significantly reduced likelihood of adoption or guardianship ($X^2 = 4.506$ (1, *N* = 128), *p* = .034). Disaggregating the effect of behavior and the effect of group placement on adoption or guardianship by way of multivariate analysis is impossible given the fact that none of the children in group placement achieved permanence by way of adoption or guardianship. Approximately 80% of children in group and residential care and 70% of children in specialized foster care are identified as having clinical or borderline level behavioral concerns. Table 5 documents the association between adoption or guardianship and living arrangement while controlling for behavior. This table would seem to indicate that, for children in homes of relatives, behavior has little bearing on permanency outcome. For children in traditional foster care, behavior has weak relationship with permanency outcome, and for children in specialized foster care, behavior has a stronger association with outcome. Placement is likely to be a marker for the severity of the behavior exhibited, and the impact of behavior on adoption or guardianship from specialized foster care may be due to the fact that the degree of the behavioral problems exhibited by some children in these placement settings breaches a threshold beyond which potential adoptive parents or guardians are not willing to make a commitment. For children in group care, numbers of children exhibiting behavior problems, the likely severity of these problems, and the facts that children in these settings are unlikely to come into contact with potential adoptive parents or guardians conspire to effectively eliminate adoption and guardianship as potential permanency outcomes.

TABLE 5
RELATIONSHIP BETWEEN ADOPTION/GUARDIANSHIP AND LIVING ARRANGEMENT CONTROLLING FOR BEHAVIOR

Living arrangement	No clinical/borderline behavior		Clinical/borderline behavior	
Permanency status	Not adopted*	Adopted	Not adopted	Adopted
Home of relative	67.7%	32.3%	62.1%	37.9%
Traditional foster care	46.9%	53.1%	60.6%	39.4%
Specialized foster care	65.6%	34.5%	84.0%	16.0%
Group or residential care	100%	0%	100%	0%

* "adopted" refers to adoption or guardianship

When identification of a mental health problem from any source (including case records or caseworker identification of a mental illness) was substituted for CBCL score, the association between mental health and likelihood of adoption became insignificant with 32.2% of children identified as having mental health problems experiencing adoption/guardianship and 42.7% of those not so identified experiencing adoption/guardianship. The reason for this is uncertain. Perhaps some of the mental illnesses identified by caseworkers and in case records are not attended by behaviors that caregivers find troubling, or perhaps some of those documented are historical and not a present concern. When identification of developmental delay by a caseworker was substituted for receipt of special education for reasons other than emotional or behavioral disturbance, the results changed very slightly, but the relationship did not reach the level of statistical significance (50.0% so identified were adopted or placed in guardianship arrangements, and 39.2% of those not so identified were adopted or placed in guardianship arrangements). The likelihood of adoption or guardianship was unaffected by total number of case openings. However, number of placement moves within the current spell in out-of-home care was associated with adoption and guardianship ($X^2 = 13.376$ (3, $N = 206$), $p = .004$). This relationship is depicted in Table 6. Number of placement moves has been demonstrated in the past to have a strong association with behavior of children and youth in out-of-home care, and behavior may be driving both placement moves and adoption dynamics rather than moves predicting adoption.

TABLE 6
RELATIONSHIP BETWEEN ADOPTION/GUARDIANSHIP AND PLACEMENT MOVES

Number of moves during current spell	No adoption/guardianship	Adoption/guardianship
0	41.2%	58.8%
1	64.2%	35.8%
2	62.0%	38.0%
3+	73.0%	27.0%

Other System Exits

A total of seven system status codes are available via the DCFS administrative database. Percentages of children and youth with each status code listed as of the date of the last database transmission are listed in Table 7.

TABLE 7
SYSTEM EXITS OF CHILDREN IN THE WELL-BEING SAMPLE

Censor	Percentage
Reunification	12.1%
Adoption	38.1%
Case open	28.6%
Case closed	2.1%
Subsidized guardianship	5.8%
Independent living	17.5%
Other/RNY/MIS	2.8%

Other than the permanency outcomes previously addressed, the most notable system exit dynamic reflected by these figures is the very high percentage of children leaving the system to independent living. Given the recent focus on outcomes for children leaving care without permanent living arrangements, a brief profile of the youth leaving care to independent living was conducted. Characteristics of these youth are reflected in Table 8.

TABLE 8
PROFILE OF YOUTH LEAVING CARE TO INDEPENDENT LIVING

Demographic/placement characteristics	Percent in Well-being sample	Percent in independent living
Race		
Black	79.8%	92.9%
White	13.9%	1.8%
Hispanic	6.2%	5.4%
Gender		
Male	41.4%	61.2%
Female	48.6%	38.8%
Placement type**		
Home of relative	34.8%	44.5%
Traditional foster care	30.2%	11.4%
Specialized foster care	23.0%	20.1%
Residential/group care	12.0%	24.0%
Time in care**		
< 3years	43.3%	9.2%
≥ 3 years	56.7%	90.8%
Region		
Cook	79.1%	87.1%
Non-Cook	20.9%	12.9%

** p <.01

Youth exiting care without permanent living arrangements are disproportionately likely to be Black, male, living in homes of relatives, in care for more than three years, and living in Cook County. Of these relationships, placement type ($X^2 = 11.690$ (3, $N = 206$), $p = .008$) and time in care ($X^2 = 20.577$ (1, $N = 206$), $p = .000$) reach the level of statistical significance at the alpha = .05 level (race, $p = .09$, gender, $p = .10$). Likelihood of exit to independent living was not associated with any of the well-being indicators considered including mental health, physical health, and developmental delay.

Placement Stability

Number of placement moves for children and youth in the Well-being Sample was determined based on data from the DCFS integrated database. Moves that involved a return to an immediately previous care provider within 30 days were removed. The number of moves identified ranged from 0 to 21 within the current spell in out-of-home care (0 to 22 ever).

TABLE 9
ASSOCIATION BETWEEN PLACEMENT MOVES AND WELL-BEING

Predictor variable	**Number of moves in current spell**			
Age**	0	1	2	3+
5 or younger	38.6%	21.1%	15.8%	24.6%
6 to 13 years	18.2%	10.2%	13.6%	58.0%
14+ years	11.1%	20.6%	14.3%	54.0%
Race				
Black	20.0%	17.0%	15.8%	47.3%
White	31.0%	13.8%	13.8%	41.4%
Hispanic	23.1%	7.7%	0%	69.2%
Gender				
Male	24.0%	18.0%	16.0%	43.0%
Female	19.8%	15.1%	12.3%	52.8%
Placement type**				
Home of relative	30.6%	13.9%	12.5%	43.1%
Traditional foster care	29.0%	21.0%	19.4%	30.6%
Specialized foster care	6.3%	18.8%	16.7%	58.3%
Residential/group care	4.2%	8.3%	4.2%	83.3%
Time in care**				
< 3years	30.3%	20.2%	13.5%	36.0%
≥ 3 years	14.5%	13.7%	14.5%	57.3%
Region				
Cook	19.6%	15.3%	15.3%	49.7%
Non-Cook	27.9%	18.6%	11.6%	41.9%

**$p<.01$

Placement moves are not associated with gender, race, or region in a statistically significant way but are associated with age ($X^2 = 23.775$ (6, $N = 208$), $p = .0081$) and placement type ($X^2 = 29.952$ (9, $N = 206$), $p = .000$), and time in care ($X^2 = 12.043$ (3, $N = 206$), $p = .007$). Placement moves were also examined as a potential function of mental health status, physical health status, and developmental delay. Results of these analyses are presented in Table 10.

TABLE 10
ASSOCIATION BETWEEN PLACEMENT MOVES AND WELL-BEING

Predictor variable	Number of moves in current spell			
Clinical/borderline*	0	1	2	3+
Yes	13.3%	18.8%	9.9%	58.0%
No	23.2%	17.7%	24.1%	35.0%
Physical health diagnosis				
Yes	18.8%	15.9%	13.8%	51.5%
No	24.4%	16.8%	14.6%	44.2%
Developmental delay				
Yes	4.4%	14.1%	13.1%	68.4%
No	20.5%	12.0%	12.8%	54.7%

*$p < .05$

Of the associations presented in Table 10, only the relationship between behavior and placement moves was significant ($X^2 = .049$ (3, $N = 128$), $p = .029$). When identification of a mental health problem from any source (including case records or caseworker identification of a mental illness) was substituted for CBCL score, the results were nearly identical with 60.1% of children identified as having mental health problems experiencing three or more placement moves. Interestingly, when only case records were considered as a source of information concerning identification of a physical health diagnosis, the relationship between physical health and placement stability became statistically significant, but in the opposite direction of that between mental health and placement stability. Presence of a physical health diagnosis as identified via nurse audits was associated with a higher degree of placement stability. This finding is consistent with those reported in the Placement Stability Study. When identification of developmental delay by a caseworker was substituted for receipt of special education for reasons other than emotional or behavioral disturbance, the association remained statistically insignificant.

Conclusions and Recommendations

The findings presented in this chapter are not startling or novel; however, they are important. While assumptions are often made concerning the roles of mental and physical health and freedom from disability play in driving permanency and stability outcomes, opportunities to validate those assumptions are rare. The Illinois Study of Well-being offers an exceptional opportunity to link data from the DCFS administrative database representing outcomes for children with reliable and valid data concerning mental and physical health and developmental delay.

In regards to reunification, findings demonstrate that only length of time in care – not mental health, not physical health, and not disability – plays a role in predicting the likelihood of reunification. However, only 12.1% of children and youth in the sample experienced reunification. The findings could be interpreted in many ways: perhaps biological parents have a high degree of tolerance for the behavioral concerns that impact likelihood of other types of permanency outcomes. Perhaps connectedness with a biological parent mitigates against severity of mental health condition and children and youth going home, while equally as likely to be identified as having a mental health condition, are exhibiting less severe behavioral disturbances.

Adoption and guardianship were associated with different demographic and placement variables than reunification was. Both age and type of placement were strongly associated with likelihood of adoption or guardianship such that increasing age and increasing level of placement restrictiveness were both associated with a reduced likelihood of adoption or guardianship. None of the children in group or residential settings during the study fielding period in early 2001 had been adopted by the time of the data draw for this analysis, at the end of 2004. This is likely to be partially a function of the fact that children and youth in group and residential care are older than children in other care types. In addition, children and youth in group care are more likely to exhibit clinical levels of behavioral disturbance. However, children and youth exhibiting these levels of behavioral disturbance were adopted from other care settings, albeit at lower rates than children and youth without such conditions (with the exception of children and youth in relative care, who were adopted at essentially the same rates whether or not they were identified as having behavioral disorders). Physical health and developmental delays were not found to be associated with likelihood of adoption, although mental health as measured by both Child Behavior Checklist score was significantly associated with the likelihood of adoption such that children and youth with such conditions were significantly less likely to be adopted.

The cases of youth exiting the system to independent living were examined in order to determine the characteristics of youth most likely to leave the system in this manner. In terms of demographic and placement characteristics, leaving the system to independent living was associated with age and placement type. However, most of the children in this sample who left the system to independent living did so from a home of a relative. Over 44 percent of youth leaving the system to independent living did so from a home of relative arrangement, and only 24 percent of such youth left from a group or residential setting. Likelihood of exit to independent living was not found to be associated with well-being indicators.

Placement stability was associated with the same factors as adoption and guardianship were with the addition of time in care. The number of placements documented within the current placement spell ranged from 0 to 21. Placement stability was associated with age of the child, time in care, type of placement, and child behavior. Age and time in care were associated with increasing instability in placements, as were more restrictive placement settings. Clinical or borderline levels of behavior and mental health diagnoses were also associated with increasing placement instability. The documented relationships of age, time in care, and child behavior with placement instability and likelihood of system exit to adoption or guardianship reinforce several principles already embraced by the Department. These include the importance of early, universal screening of all children and youth in care for emotional or behavioral concerns or mental health diagnoses and prompt provision of high-quality mental health services to those children and their families in order to promote positive outcomes for children in terms of behavioral and mental health as well as in terms of placement stability and maximizing opportunities for permanence.

APPENDIX A

An Overview of Special Education in Public Schools

Nicholas A. Pittner
Christina M. Bruhn

This overview is intended to function as an introduction to the provisions of federal legislation for services to children in public schools who experience developmental, physical, or mental health conditions that prevent them from being able to take advantage of traditional educational services. The information presented is relevant to services to come to the attention of the child welfare system, particularly as those children tend to be disproportionately eligible for special education services. Given that the federal legislation is extensive, complicated, and not easily available to lay persons, this introduction encapsulates key provisions for brief review. These provisions are implemented as codified in state laws, administrative rules, and agency policies.

First enacted by Congress in 1975, the Education for all Handicapped Children Act ("EHA"), PL 94-142, included a broad-scale pronouncement of educational rights for children with disabilities who are attending the nation's public schools. The legislation represented a national rejection of the earlier practices of "warehousing" children with disabilities by denying them all but a minimal opportunity to receive a public education. The EHA has since been reenacted as the Individuals with Disabilities Education Act ("IDEA") with the most recent legislation, H.R.1350, having been signed by the President on December 3, 2004, effective July 1, 2005. The EHA was initially presented as a combination of federal and state legislation, together with federal funding for those states choosing to participate, by enacting state-law versions of the EHA. Initially, all but two states did participate and later revisions made participation mandatory for all states. At the same time, many observers believe that the relative levels of federal funding have since declined, leaving the states to assume the bulk of the cost of providing the rights afforded by the Act.[1]

The current provisions of the IDEA, (hereafter, the "Act") can be summarized in three separate categories. First is the duty to engage in affirmative "child-find" programs

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[1] Notwithstanding the original congressional intent to reach "full funding" by 1981, current federal funding levels fund 18.6% of the costs of mandated special education services (Apling, 2005).

to identify pupils who are potentially eligible for special education services. In this regard, affirmative duties are imposed both on states (SEA)s and local school districts (LEA)s to identify pupils suspected as having disabilities at the earliest possible time. Second is the duty to conduct multi-factored assessments of pupils suspected as having disabilities. The assessments must include a range of measures to ensure that no single test can determine the eligibility of a pupil for special education services. Pupils with disabilities eligible for special education and related services are those aged 3 through 22. However, as described below, under the new legislation, services must now be made available for at-risk infants and toddlers as well. The third, and most significant of the rights established by the Act mandates that all qualified pupils with disabilities receive a free, appropriate public education program and related services ("FAPE"). One of the significant components of FAPE is the requirement that services be provided in the least restrictive environment; that is, the environment that most closely reflects the educational setting in which services would be received by the child but for the disability. The components of FAPE are incorporated into an individualized educational program ("IEP") designed to meet the educational needs of the pupil. The IEP is developed by a team of individuals including the child's parents and his or her regular and special education teachers. Children who do not have parents must are entitled to the appointment of surrogate parents to act on their behalf. Surrogate parents cannot be either state agencies or employees of state agencies. IEPs are reviewed periodically, or more often as needed. Significantly, school districts are required to provide those educational programs and related services identified as necessary, regardless of the cost. Thus, the Act has the effect of creating two classes of pupils, special education pupils who are entitled by law to appropriate programs and services, and non-special education pupils who have no such entitlement.

Parents are not only afforded the right to participate in the IEP process, they also have the right to challenge any proposed educational program or placement that does not appropriately respond to the needs of the child. The process for presenting such a challenge, termed "Due Process" under the Act, includes the right to an administrative appeal heard by a neutral hearing officer. School Districts and parents participating in Due Process hearings also have the right to pre-hearing disclosure of documents and the identity of witnesses as well as the right to examine and cross-examine witnesses and to be represented by legal counsel in the hearing. Due Process hearing decisions may be appealed to state-level review and ultimately into either the federal or state judicial system. In appropriate circumstances, parents who are "prevailing parties" can recover attorneys' fees incurred in connection with Due Process proceedings. Recognizing that even the supposedly-expedited hearing procedures of the Act can require an extended period of time, the Act includes a "stay put" provision prohibiting school districts from changing an educational program or placement while a hearing or appeal is pending.

The extensive rights afforded pupils with disabilities under the Act have also resulted in the recognition of two classes of pupils for discipline purposes. Regular education pupils, though entitled to procedural due process before being removed from school, have no guarantee of any continuation of their educational programs if they are suspended or expelled from school for conduct violations. Special Education pupils, on the other hand, may generally not be disciplined for conduct that is an outgrowth of their disabling conditions. In addition, suspension from school for an extended period (usually ten school days or more) may constitute a change in placement and trigger additional rights on the part of the pupil.[2] Even if properly expelled from school, pupils with disabilities have a right to the continuation of their special education programs and services (albeit at some other location) during the period of expulsion.

There is a great deal of overlap between the very specific requirements of the IDEA and the broader mandates of the Rehabilitation Act of 1973 ("Section 504"), which prohibits discrimination on the basis of "handicap" in any program or activity receiving Federal assistance (20 U.S.C.1405; 29 U.S.C. 794). Regulations implementing Section 504 with respect to public school pupils impose many requirements that are similar to those imposed by the IDEA. School Districts, generally, satisfy their obligations by complying with the IDEA, in the case of pupils who are eligible for services under the IDEA, even though those pupils may also be "handicapped" for purposes of Section 504. However, Pupils who experience disabling conditions that do not entitle them to services

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[2] It should be noted, however, that certain types of conduct may trigger the removal of a disabled pupil to an interim alternative educational setting, regardless of whether the conduct was attributable to the disability. Conduct warranting such a change in placement includes the possession of a weapon at school, the possession or sale of illegal drugs, or the infliction of serious bodily harm on another while at school or at a school function.

under the IDEA may be entitled to special education and related services under Section 504.[3]

The IDEA, as reauthorized, continues and expands the opportunities for services to infants and toddlers during the first three years of life (H. R. 1350, Part C). Programs are intended to serve "at risk" infants or toddlers (those under three years of age) who would be at risk of experiencing a substantial developmental delay if early intervention services were not provided. "Early Intervention Services" include a potentially wide range of developmental services that are: A) provided under public supervision B) are provided at no cost except where, by law, payments are provided for C) are designed to meet the developmental needs of an infant or toddler with a disability in one or more of the following areas: (i) physical development (ii) cognitive development (iii) communication development (iv) social or emotional development or (v) adaptive development. Services potentially available under the Act include family training and home counseling visits, special instruction, speech-language pathology services, (now including sign language and cured language services), occupational therapy, and physical therapy. Additionally, psychological services, diagnostic medical services, early identification, screening and assessment services, social work services, vision services, assistive technology devices and services as well as transportation services may potentially be available. All services are provided pursuant to an Individualized Family Service Plan. In some states, children receiving services as infants and toddlers will now be eligible to continue to receive those services at age three and beyond with additional educational components (promoting school readiness, pre-literacy, language, and numeracy skills) as an alternative to receiving services under Section 619 (ages three to kindergarten). The new provisions now appear to contemplate a seamless continuation of services from infancy through age 22 for eligible pupils.

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[3] By way of example, a pupils suffering from a physical condition such as, for example, Juvenile Diabetes, which would qualify the pupil as "handicapped", could be eligible for services under Section 504 even though there was no adverse impact on the pupil's ability to participate fully in the educational programs of the school district.

Appendix A

References

Apling, R.N. (February 11, 2005). Individuals with Disabilities Education Act (IDEA): Current funding trends. *Congressional Research Service Report for Congress*, Order Code RL32085.

APPENDIX B

Sample Weights

John Rogers
Edited by Mary Ann Hartnett

The following is a description of the calculation of the sampling weights for the Year One sample survey and Year One replicate weights which were developed by John Rogers, a senior statistician at Westat Inc.

The weighted estimates could be improved slightly by creating separate weights for each survey component and possibly creating weights for combinations of survey components that are being compared. Such weights would allow estimation of the number of children in the population with specific characteristics. However, creating these weights would take additional time with relatively little improvement.

Stratified Jackknife (JKn) replicate weights were created for estimating variances. As with the analysis weight, additional work could be done to improve the replicate weights and variance estimates. However, that work would also be time consuming with relatively little improvement.

Sample Selection Weights, and Weighting for Analysis

Given various constraints on the sample selection, it may not be possible to design a multiple step sample such that all sampling steps are independent. In this case the “right” approach is to calculate the overall probability of selection (possibly difficult). In some cases the “right” approach is close enough to assuming independence that the independent assumption is adequate.

Non-response is similar to an additional sampling step, only it is not controlled by the sample design. For example, if data are collected on 60% of the sampled children and assuming the reasons for non-response are unrelated to characteristics of the children, the results are essentially the same as if a random subsample of the sample was taken with a probability of selection of 0.60 and data were collected on all of the subsample (100% response rate for the subsample). The assumption that response rates are independent of characteristics of the children is generally not correct or reasonable. However, if we can identify characteristics of the children that define subsets for which the response rates are different (maybe older children are harder to contact), we can pretend the subsample was stratified by the child’s characteristics with differing probabilities of selection among strata.

Ultimately, adjusting for non-response requires selecting strata within which the probability of response (response rate) is assumed to be constant, independent of any other characteristics of the children. Adjusting for non-response becomes a problem of identifying strata or factors that predict the non-response probability. The non-response adjustment strata can be defined based on experience (such as past surveys or comments from the interviewers), or data analysis. Data analysis (logistic regression) is often used because it provides a measure of significance. Using logistic regression, the predicted probabilities can be used as if they were probabilities of selection in an additional sampling step. However, problems can arise using this approach, particularly if there are many factors that are significant or the sample sizes are small. Note, the non-response strata must be defined using data for all children in the sample, not just the respondents. In some cases, very little information is available for the non-respondents.

If the non-response adjustment strata are too small the resulting non-response adjustment weights may be very variable due to random factors affecting how many children (or items) fall into each stratum. In this case, the variance of the estimates may be inflated due to the non-response adjustment. If the strata are too large such that the response probability is not reasonably constant within the strata, the weights may not properly reflect the response probabilities and the estimates may be biased. As a result, there is an art to non-response adjustment.

The fact that non-response adjustment involves art is not necessarily a problem. The data themselves generally have the most influence on the results. The weights can be thought of as secondary. Errors in the weights have much less effect on survey results than errors in the data.

Eligibility is very different than non-response. For respondents we have data. For ineligible children we have all the data we need, that is, we know that they are ineligible. Non-respondents are children that we know are eligible for the survey and for which we have no data. For a random sample of children the weight is N/n (see above). For an eligible child, the weight is the number of *eligible* children in the population represented by the sampled child. For an ineligible child, the weight is the number of *ineligible* children in the population represented by the sampled child.

Whether a child is ineligible or a non-respondent depends on the definition of the population. In the case of the BH study, if the population for a particular survey component is all children but guardian consent is required for data collection from some children, then lack of consent is non-response. If the population is children for whom consent is obtained, then lack of data consent indicates ineligibility. Guardianship status (or eligibility) can change over time. In this case the definition of eligibility must include a specification of the time (such as, in guardianship on January 1) or a less specific procedural definition, such as eligible at the time data collection is attempted.

In some cases the eligibility of some children is never determined (perhaps because the child was not home during the data collection period to answer the eligibility questions). In this case the general approach is to assume that the proportion of eligible children among those with unknown eligibility is the same as the proportion among those with known eligibility, and adjusting the weights accordingly.

The Sample Design for the BH Year 1 Survey

After reviewing the available files and discussing the sampling with the Children and Family Research Center, the apparent sample design was as follows:

> Starting with a file with 28296 records, a stratified sample of apparently 421 children was selected. Those children were reviewed by DCFS. Approximately 372 of the 421 were found to still be in custody at that time. To increase the sample size an additional 40 children were selected. Of those, approximately 37 were still in DCFS custody. The total number of sampled children in DCFS custody at the time of sampling was 409 (372+37). After further review and data collection, 351 children were found to be eligible for data collection. The apparent sample size is 461 (421+40, assuming no children in the supplemental sample were in the original sample) or less. the 409 children who were sampled and were in DCFS custody at the time of sampling can be identified from the files.

The sampling of children is apparently documented by the Sample2.sas program. When this program is applied to the bhsample.sas7bdat file, the following steps are completed:

1) Cases with prvregion in 5A, 11, 25, 32, 61, or missing are removed. Cases with AgeAtSpell less than or equal to 0 or greater than 18 are removed. Cases with prvstate not equal to 'IL' are removed. Only children with race of BL, HI, or WH are kept. After applying these criteria, there are 26028 records.
2) Children are classified by strata within each family (defined by clusid). I will call these groups family-strata.
3) Within each family, one family-stratum is selected with probability proportional to the number of children in the strata.
4) Pool all children within the selected family-strata by strata.
5) Using the pooled file, randomly select a specified number of children from each stratum.
6) In families in which more than one child was selected, randomly select one child per family.

The primary documentation for the sample design for the year 1 survey is

1) A data file (bhsample.sas7bdat) that is apparently the data file used for selecting the sample,
2) A spreadsheet with counts of children within strata for what is described as the "entire frame", "frame after applying sampling criteria" and "sample". The spreadsheet describes a sample of 421 children.
3) A data file with 40 records that is a supplemental sample selected because more children than expected were ineligible in the initial sample. (Added sample id's for John Rogers.xls)
4) A file with all initially eligible sampled children (409 children for the BH sample plus additional children for a clone sample) (bh_sample_frame.sas7bdat),
5) A file with indications of which survey data collection components were completed for each of the 351 sampled and eligible children (Field.sas7bdat).

The primary assumptions include:

1) The bhsample.sas7bdat file is the file used for sampling.
2) The Sample2.sas program is the program used for selecting the primary and supplemental sample, with modifications to the desired sample size in each stratum. I assume the resulting sample can be treated as if it resulted from one run of the Sample2.sas program.
3) The total number of children sampled is unknown; however the number that was sampled and initially eligible is known to be 409. For calculating approximate weights, I assume the sample size was 461, of which 409 were initially eligible and that the eligibility rate for each stratum was the same.

Construction of the Sampling Weights

Based on the assumptions above the following describes the construction of the sampling weights. In general, we recommend that the sampling weights be constructed at the time the sample is drawn. In this case we are constructing a set of weights that approximate the sampling weights as best as possible given uncertainties in how the sampling was performed.

The first step in the sample selection removed some cases resulting in a file of 26028 records. This was the frame for the sample selection. Table 1 shows the number of records by strata in the frame. However, there were some duplicate children in the file. After removing records for duplicate children there were 24872 children. Table 2 shows the number of unique children, by strata. This is the population to be described by the survey.

Table 1 Frame count of records by strata

Years In Care	Age at 1st spell	Frame
< 3 years	0 to 3	4416
< 3 years	3 to 5	1131
< 3 years	5 to 9	2084
< 3 years	9 to 18	3071
>=3 years	0 to 3	5238
>=3 years	3 to 5	2181
>=3 years	5 to 9	4005
>=3 years	9 to 18	3902
Total		26028

Table 2 Frame count of unique children by strata

Years In Care	Age at 1st spell	Frame
< 3 years	0 to 3	4371
< 3 years	3 to 5	1100
< 3 years	5 to 9	2000
< 3 years	9 to 18	2796
>=3 years	0 to 3	5171
>=3 years	3 to 5	2126
>=3 years	5 to 9	3844
>=3 years	9 to 18	3464
Total		24872

For each stratum, the sampling weights for the sampled children should add up to the number of children in the frame, i.e., the numbers in the last column in Table 2. However, this is not directly useful because 1) children were selected with different probabilities, and 2) we do not have a list of the sampled children.

Different Probabilities of Selection

The sample design had three steps, 1) selecting family-strata within each family, 2) selecting records (children) within each pooled strata, and 3) selecting one child in families in which more than one child was selected.

In the first step, one family-stratum was selected within each family. The probability of selection was proportional to the number of children in the family-strata. Thus child k within the family was selected with a probability proportional P_k = number of records in the family-strata / number of records in the family. For example, if the children in a family are 4, 6, 7, and 8 years old and all have been in care for less than three years then there are three children in the "<3 years, 5 to 9" strata and one child in the "<3 years, 3 to 5" strata. There are two family-strata in the family. One of the two is selected randomly, with probability proportional to the number of children in the family-strata. Thus there is a 25% chance that the one child in the "<3 years, 3 to 5" stratum is selected and a 75% chance that all three children in the "<3 years, 5 to 9" stratum are selected (as a group).[1]

In the second sampling step, the children in the selected family-strata were pooled into strata. From the pooled strata, the probability of selection depended on the number of children in the strata and the fixed number of children to be sampled. However, the number of children in a stratum depended on which family-strata were selected in the previous sampling step. Thus the probability of selection in the second step is not strictly independent of the selection in the first step. Because the number of records in the pooled strata does not vary much between samples, I will assume the probability of selection in the second sampling step can be considered to be constant and independent of the first step. Thus, the probability of selection of a child after the second sampling step is proportional to P_k within each stratum. However, the proportionality factor differs among strata. The proportionality factor used for sampling is not known. However, if will be approximated from the data.

For families in which more than one child is selected for the pooled strata, one of those children is randomly selected in the third sampling step. Adjusting the sampling weights for the restriction that only one child is selected in a family is relatively complicated. The probability of selection in the third step is not independent of the selections in the previous steps. The sample is roughly 2% of the sample frame. So on average each child has a 2% probability of selection. If a family has two children in different strata there is no chance that both will be selected because only one family-stratum is selected in each family. If both children (say A and B) are in the same strata, consider the probability that a specific child, A, is sampled. The probability that A is sampled and B is not is 0.02*0.98. The probability that both are initially selected is .02*.02. Then the probability that A is sampled in the second within-family sample is 0.5. The overall probability of selecting child A is about 0.02*0.98 + 0.02*0.02*.5 = 0.0198. If there are three children in the family-strata, the probability of sampling child A is 0.019603. Using these approximations, the probability of selecting a specific child, given that the family-strata containing the child is selected, is roughly constant at about 0.02 regardless of the number of children in the family-strata. The subsequent calculations will therefore ignore the effect on the probability of selection of multiple children from the same family. Thus, the probability of selection of a child after the third sampling step is assumed proportional to P_k within each stratum.

Up to this point the discussion has tacitly assumed that each record in the file is a different child (designated by k). However, some children (identified by the caseid and caseno variables) are in the frame file multiple times. The probability of selecting a unique child within a family is proportional to the number of times the child is duplicated in the family-strata. Because the definition of a family was based on the clusid variable, a unique child (defined by caseid and caseno) might appear in multiple families. Therefore the overall probability of selection of a child (defined by caseid and caseno) is proportional to the sum of P_k across all records that are the same child. If Q_j is the probability of selection of a unique child j,

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[1] There are sometimes reasons to use PPS (probability proportional to size) sampling. For example, if we select children within families with probability proportional to the number of children in the familty and then select one child per family then 1) the probabilities of selection are independent, 2) there is one child per family, and 3) the sampling weight for all children is the same (this is advantageous). I do not know why PPS sampling was used here.

$$Q_j = \sum_{\text{Record k is child j}} P_k$$

$$W_j = \frac{1}{Q_j}$$

Estimating the Proportionality Factor

We do not have the probabilities of selection for each sampled child, just the relative within stratum probabilities (Q_j). The relative sampling weight for each child is $W_j = 1/Q_j$. We need a scaling factor to convert those relative probabilities into approximate probabilities of selection. We do not have a list of the sampled children. However, we have 1) a list of the 409 initially eligible sampled children (sample children that were still in the DCFS system at the time of sampling), 2) the total relative sampling weight for the 409 children, by strata, and 3) an approximate estimate of the number of sampled children. The approximate weight adjustment factor for stratum h is:

$$S_{409,h} = \sum_{\text{Child j in 409 and Strata h}} W_j$$

$$A_h = \frac{N_{24872,h}}{S_{409,h} \frac{461}{409}}$$

Where $N_{24872,h}$ is the number of children in the frame (of 24872 children) in strata h and $S_{409,h}$ is the sum of the relative weights (W_j) for the initially eligible children in strata h. The ratio of 461 to 409 is an approximate factor to adjust for the proportion of the sample that was not initially eligible. This ratio is approximate and is applied to make the weights for the sampled children (even though they cannot all be identified) total (approximately) to the number of children in the population. As long as the weights are used for calculating means and proportions instead to totals, this scaling of the weights makes no difference. For totals, the weights are at best approximate. The values for these calculations are shows in Table 3.

Table 3 Values used for calculating weights.

Strata, h				
Years In Care	Age at 1st spell	$N_{24872,h}$ Frame (no dups)	$S_{409,h}$ Sum relative weights	A_h Weight Adjustment Factor
< 3 years	0 to 3	4371	119.7667	**27.5488**
< 3 years	3 to 5	1100	86.5	**10.6658**
< 3 years	5 to 9	2000	40.84524	**41.4143**
< 3 years	9 to 18	2796	111.5405	**20.1174**
>=3 years	0 to 3	5171	62.21923	**62.9439**
>=3 years	3 to 5	2126	35.5	**43.3607**
>=3 years	5 to 9	3844	20.91667	**134.1798**
>=3 years	9 to 18	3464	38.16667	**57.4442**
	Total	24872		

The estimated sampling weight for child j ($BaseWt_j$) is the relative sampling weight (W_j) times the weight adjustment factor:

$$BaseWt_j = W_j A_{h(j)}$$

where $A_{h(j)}$ is the weight adjustment factor for the stratum with child j. These weights are referred to as the base weights. They are the sampling weights before adjusting for non-response.

Adjusting for Non-response

There were six different components to the data collection:

1) Caregiver interview
2) Caseworker interview
3) Nurse audit of case records
4) Educational record review
5) In-person examination of development, and
6) Child interview

Data for the first three components were to be collected for all children. Data for the last three components were to be collected for a subset of the children. The following discusses non-response patterns for each of these instruments. For all components, stepwise logistic regression was used to identify factors that were significant predictors of non-response. Possible dependent factors in the logistic regression models were the strata variables, year in care (,3 or >=3 years), age at first spell (0-3, 3-5, 5-9, 9-18) and race (WH, BL, HI), sex, (F, M), and provider region (variables prvregion).

Caregiver interview data was obtained for 235 of 351 eligible children, for an average response rate of 67%. No factors were significant predictors of non-response. As a result, the non-response adjusted weights would equal $BaseWt_j/0.67$.

Caseworker interview data was obtained for 258 of 351 eligible children, for an average response rate of 73.5%. The only significant predictor of non-response was race (p=0.015), with response rates of 69%, 75%, and 86% for BL, HI, and WH respectively. Nonresponse adjusted weights can be calculated by dividing $BaseWt_j$ by the response rate for the respondent's race.

Nurse audit data was obtained for 248 of 351 eligible children, for an average response rate of 70.7%. The only significant predictor of response rate for the nurse audit information in prvregion (p=0.032). Response rates by region vary from 53% for region 2B to 94% for region 4A. Nonresponse adjusted weights can be calculated by dividing $BaseWt_j$ by the response rate for the respondent's prvregion.

The education record review data was to be collected for children who were 6 years of age or older on September 1, 2001 and who had a record consent. The response rates were calculated using the stated eligibility criteria. Education record data were obtained for 160 of 160 eligible children, for an average response rate of 100%. No factors were significant predictors of non-response. As a result, the non-response adjusted weights would equal $BaseWt_j/0.804$.

The in-person development examination data was to be collected for children who were less than 3 years of age after November 1998 and in Cook County. Given how the data are recorded, calculating response rates depends on how responses are counted. However, data were collected for essentially all eligible children. As a result, the non-response adjusted response rates would be equal to BaseWt_j.

The child interview was to be collected for children who were 9 years of age or older on September 1, 2001 (?) and for whom there was consent. Using this definition, there was data for 29 of 52 children, for a response rate of 55.8%. There as also a procedure for getting interviews for children that were 7 or 8, and apparently some of those interviews were conducted. As a result, calculating response rates depends on the definitions used. Nonetheless, there appear to be no significant predictors of non-response (in part due to the small number of respondents). As a result, the non-response adjusted weights would be proportional to the base weights (BaseWt_j) and roughly equal to $\text{BaseWt}_j/0.558$.

The final non-response adjusted weights were calculated as $\text{BaseWt}_j/0.70$. The same weights would be used for all response measures. The logic for this approach is as follows. For calculating the number of children, the sum of the weights across all respondents should approximate the number of children in the population represented by those respondents. For calculating percentages, the weights need only be proportional to the weights needed for calculating numbers of children. For the caregiver interview, educational record review, in-person development examination, and the child interview, there are either no significant predictors of non-response or inadequate information to identify significant predictors, in which case the best non-response adjusted weights are proportional to BaseWt_j. For the caseworker interview the response rates vary by race. However the difference among races is relatively small and the differences are not highly significant. As a result, ignoring those differences has relatively little effect on the final estimates. For the nurse audit, response rate vary by provider region. The differences among regions are not highly significant, however the response rate among regions differ by almost a factor of 2. At the same time there are relatively few respondents in many regions so the estimated response rate is not very precise. The improvement in the estimates due to adjusting for non-response by region may be offset be increased variance due to imprecise estimates of response rate. Having one set of weights greatly simplifies the computation and comparison of results from different data collection components. Finally, there is some uncertainty in the calculation of the base weights and the response rates. I am reluctant to do excessive weight adjustment based on uncertain estimates. On balance, I recommend calculating only one set of weights. For calculating those weights I recommend using an assumed response rate of 70%. This is close to the response rate for the three components for which all children were eligible.

Therefore, the final weights are:

$$FinalWt_j = \frac{BaseWt_j}{0.70}.$$

Construction of the Weights for Variance Estimation

Calculation of the variance (or confidence intervals) of the survey estimates using WesVar requires replicate weights. Replicate weights can be calculated in different ways. The sample selection can be approximated by a stratified random sample with unequal probabilities of selection within each stratum. As a result, I recommend using stratified jackknife replicate weights (referred to as JKn weights in WesVar). The weight file has two variables, VarStrat and VarUnit. VarStrat is a number from 1 to 8 identifying the strata. VarUnit is just a sequential number within each stratum identifying each respondent. The VarStrat and VarUnit variables can be used to create replicate weights in WesVar or for variance estimation in other programs. I have already constructed the replicate weights; they are FRep1 to FRep351 in the weight file. Note that I have also included the base weights before non-response adjustment, in case you ever want a different adjustment for non-response. Do not use the BaseWt variable when estimating variances.

These replicate weights will provide variance estimates with the most possible degrees of freedom (i.e., precision) for estimating variances of means and proportions. The same weights can be used for all survey components. However, the weights will take up about 1 MB of memory in the analysis file. If for some reason the file sizes or calculation times are unacceptable, I could consider various approaches to reducing the number of replicate weights.

In WesVar, the full sample weight is FinalWt, the replicate weights are FRep1-FRep351. After saving the weights you must also read in the JKn factors using “Attach Factors” on the Data menu. Click on the column header “JKn Factors”, select “Open”, set file type to “.txt” and locate the JKnFac.txt file.

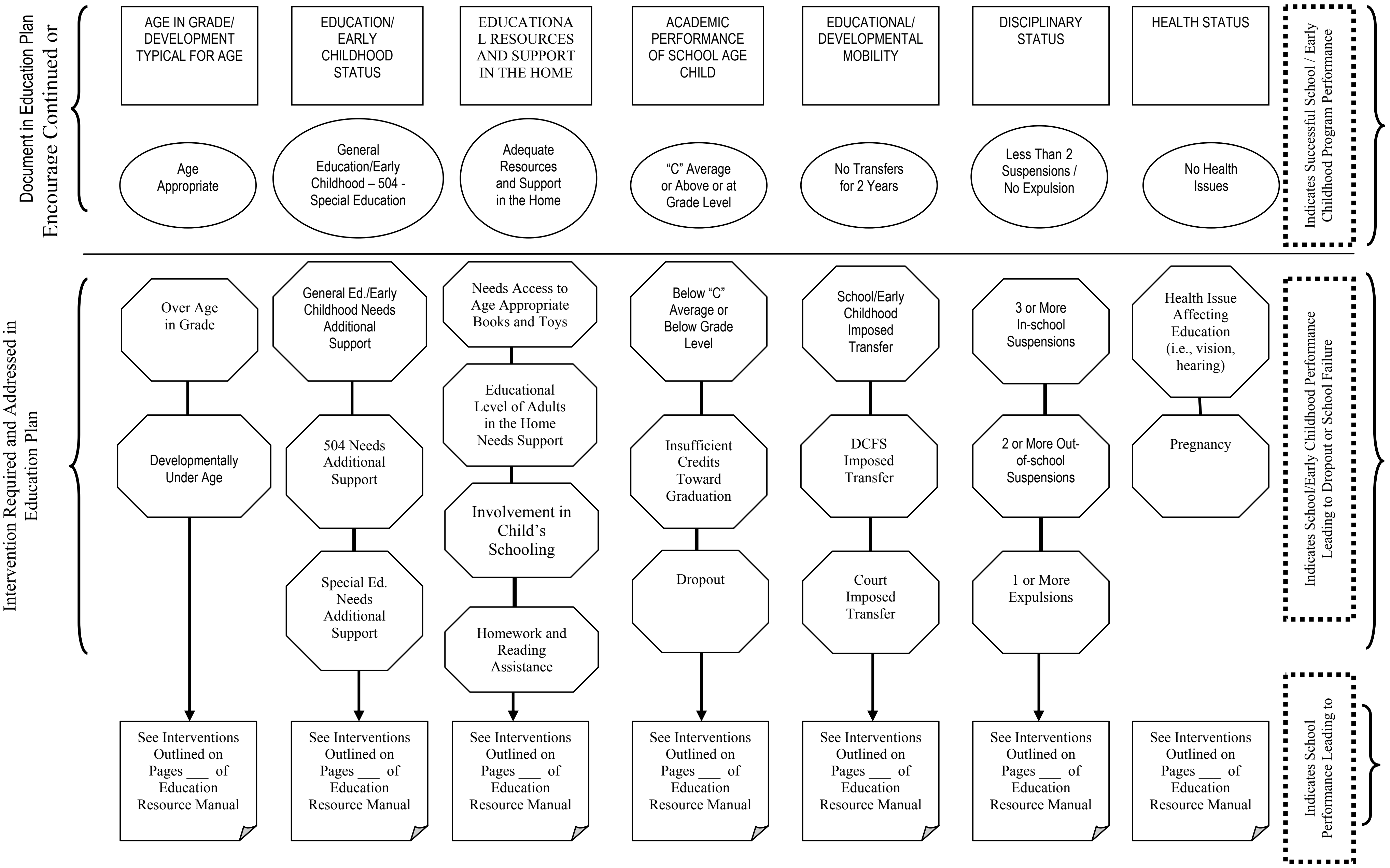
In WesVar you should specify the degrees of freedom to use for calculating confidence intervals. Unless you specify another value, WesVar will set the degrees of freedom to the number of weights (351). However, the degrees of freedom will never be more (and usually is less) than the number of respondents contributing to the calculation (which is always less than 351). For some components, the number of respondents is much lower. Because the value of the t-statistic used to calculate the confidence interval width is relatively insensitive to the degrees of freedom when the degrees of freedom is greater than 30, it does not matter a whole lot what you use. I recommend setting the degrees of freedom to 50.

APPENDIX C

Variables Determining School and Early Childhood Success

Sharon Freagon

VARIABLES DETERMINING SCHOOL AND EARLY CHILDHOOD SUCCESS



Document in Education Plan
Encourage Continued or

AGE IN GRADE/ DEVELOPMENT TYPICAL FOR AGE
Age Appropriate

EDUCATION/ EARLY CHILDHOOD STATUS
General Education/Early Childhood – 504 - Special Education

EDUCATIONA L RESOURCES AND SUPPORT IN THE HOME
Adequate Resources and Support in the Home

ACADEMIC PERFORMANCE OF SCHOOL AGE CHILD
"C" Average or Above or at Grade Level

EDUCATIONAL/ DEVELOPMENTAL MOBILITY
No Transfers for 2 Years

DISCIPLINARY STATUS
Less Than 2 Suspensions / No Expulsion

HEALTH STATUS
No Health Issues

Indicates Successful School / Early Childhood Program Performance

Intervention Required and Addressed in
Education Plan

Over Age in Grade
Developmentally Under Age
See Interventions Outlined on Pages ___ of Education Resource Manual

General Ed./Early Childhood Needs Additional Support
504 Needs Additional Support
Special Ed. Needs Additional Support
See Interventions Outlined on Pages ___ of Education Resource Manual

Needs Access to Age Appropriate Books and Toys
Educational Level of Adults in the Home Needs Support
Involvement in Child's Schooling
Homework and Reading Assistance
See Interventions Outlined on Pages ___ of Education Resource Manual

Below "C" Average or Below Grade Level
Insufficient Credits Toward Graduation
Dropout
See Interventions Outlined on Pages ___ of Education Resource Manual

School/Early Childhood Imposed Transfer
DCFS Imposed Transfer
Court Imposed Transfer
See Interventions Outlined on Pages ___ of Education Resource Manual

3 or More In-school Suspensions
2 or More Out-of-school Suspensions
1 or More Expulsions
See Interventions Outlined on Pages ___ of Education Resource Manual

Health Issue Affecting Education (i.e., vision, hearing)
Pregnancy
See Interventions Outlined on Pages ___ of Education Resource Manual

Indicates School/Early Childhood Performance Leading to Dropout or School Failure

Indicates School Performance Leading to

INTERVENTIONS AND PROJECTED OUTCOMES SUCCESSFULLY ADDRESSED IN EDUCATION PLAN

SOURCE: S. Freagon (2001), Center for Child Welfare and Education, Northern Illinois University - DeKalb