

CHILDREN AND FAMILY RESEARCH CENTER

The Levels of Care Project: Final Report

April, 1998

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This project was supported by the Children and Family Research Center, School of Social Work, University of Illinois at Urbana-Champaign, which is funded in part by the Department of Children and Family Services.

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I. Background

The Levels of Care Project was initiated by the Office of the Research Director, the Clinical Division, and the Office of Quality Assurance to address concerns raised by earlier research reported in ‘Specialized Foster Care Review Study.’¹ This research suggested that while scores obtained using the old Levels of Care (LOC) form correlated with external measures of special need (as indicated by Medicaid claims, Special Education, and CYCIS computer files), there were significant problems of low inter-rater reliability and indications that the cut-point of 25 was set too high. To address these issues, the Levels of Care Project was conducted in the summer and fall of 1997.

The Levels of Care Project involved two phases:

- 1) The revision of the LOC form, the development of structured supplemental materials to be used to document specific needs, and the development of a manual and a training curriculum;
- 2) Testing of reliability and validity in collaboration with private agencies and staff previously employed by the Pediatric Ecology Program at Grant Hospital.

Comprehensive clinical assessments have been completed by Grant Hospital staff on 187 children randomly selected from the specialized foster care population in Cook County (see Appendix A for a description of methods). These independent assessments are used as the ‘gold standard’ for judging the validity of the revised LOC assessment form. We have received revised LOC assessment materials for 183 children randomly selected from specialized care.

¹Sonya Leathers and Mark Testa. *Specialized Foster Care Review: Validity, Inter-Rater Reliability, and Recommended Revisions of the Level-of-Care Assessment Forms and Process*. Office of the DCFS Research Director, Illinois Department Of Children and Family Services. February, 1997. In addition, we have collected LOC materials for 69 children in home of relative (HMR) foster care, 69 children in traditional foster care, and 29 children who applied for specialized foster care during the fall of 1997 in Cook South.

This report presents the findings of the Levels of Care Project. In the second section, the questions that this research will address are outlined. Included in the third section are findings summarized in ‘The Levels of Care Project: Preliminary Findings,’² additional findings regarding the needs of children in traditional and specialized foster care, and the results of validity testing of the Levels of Care Assessment materials. In the fourth section, recommendations are made regarding scoring and implementation of the revised Levels of Care Assessment materials.

²Sonya Leathers, Mark Testa, and Lydia Falconnier, *The Levels of Care Project: Preliminary Findings*, Office of the DCFS Research Director, Illinois Department of Children and Family Services, January, 1998.

II. Purpose

The data we have collected enable us to address the following questions:

- 1) What is the inter-rater reliability of the scoring of the revised LOC assessment materials and the effectiveness of training?
- 2) What is the severity of special needs among children in specialized foster care as determined through professional in-person, clinical assessments of the children (the ‘gold standard’)?
- 3) How adequately are children served in the current specialized foster care system?
- 4) How does the scoring process provided by the revised LOC assessment form and supplemental materials correspond to the clinical ‘gold standard’?
- 5) What are the appropriate weighting of items and the cut-off scores which should be used to distinguish different levels of care?

Preliminary answers to questions 1-3 were presented in ‘The Levels of Care Project: Preliminary Findings.’ This report addresses questions 1-3 more comprehensively and also addresses questions 4 and 5. Specific recommendations regarding implementation of the LOC materials throughout the state are then presented.

III. Results

Question 1: What is the inter-rater reliability of the scoring of the revised LOC assessment materials and the effectiveness of training?

The old LOC form had low inter-rater reliability, with raters disagreeing on the correct category 25-30% of the time. **Inter-rater reliability for the new form is good, but it**

requires a brief in-person training on how to complete the revised form. Inter-rater reliability is much lower when only the manual is read.

The mental health section demonstrated very good inter-rater reliability, with raters disagreeing only 3 times out of 60 (kappa's alpha = .91). The inter-rater reliability of other sections was also good, with the exception of the medical section. For the medical section, raters who were mental health professionals lacked the medical backgrounds necessary to consistently categorize diagnoses and assess whether the medical hours listed were realistic. Using nurses as raters did not improve the reliability. As discussed below, low inter-rater reliability may have reduced the validity of the medical section. Training and inter-rater reliability testing will need to be repeated by RNs for this section once the medical sections of the forms have been revised.

Question 2: What is the severity of special needs among children in specialized foster care as determined through professional in-person, clinical assessments of the children (the 'gold standard')?

Severity of Needs Among Children With Mental Health Special Needs

Eighty-nine children aged six to 20 years old were reported by private agencies to have mental health special needs and were clinically assessed by psychologists and social workers hired from the Pediatric Ecology Program at Grant Hospital. **Among these children, 21.3% did not currently have a significant mental health or other type of special need.** For one of these children, the clinical evaluator's report suggests that interventions and/or medications have stabilized a child with a history of a serious mental disorder who will continue to need special services.



Fifty-one percent of children who were identified by agencies as having mental health needs were categorized as having ‘Level 2’ needs. This level corresponds to mild behavior, mood or adjustment problems and a requirement for increased services which may be as simple as administering medication once a day, or may involve providing services such as counseling or a daily behavior modification program. The distribution of mental health levels is shown in the preceding graph. (Some children with Level One mental health needs have other types of special needs. The percentage of children in Level One as shown in above graph does not correspond to the percentage of children without any special needs.)

In our preliminary report, it appeared that adolescents identified as having mental health needs might be more likely than younger children to have no significant mental health needs. However, after controlling for other types of needs, such as mental retardation and pregnancy or parenting, we found no difference in the percentages of teens and 6-12 year olds who appear to have no significant needs requiring specialized care. Still, **the needs of teens who did have mental health needs were less severe than those of younger children: only 16.8% of teens had level 3 or level 4 mental health needs, while 29.2% of children 6-12 years old had level 3 or level 4 mental health needs.** This suggests

that the specialized foster care system may not have sufficiently developed resources for teens with moderate to severe mental health needs. Additionally, teens may not be good candidates for step down because of higher risks for placement disruption due to difficulties in placing adolescents in family foster care. These issues will need to be carefully considered in implementing a revised Levels of Care Assessment procedure.

Types of Mental Health Special Needs

It is important to understand children's specific mental health special needs. Different types of problems have been shown to respond to different types of treatments. Children identified by agencies as having mental health needs were most likely to have behavior problems. **Fifty-two percent of children in the sample have significant behavior problems** which impair functioning at school, in the foster home, or in the community. An additional **22% have no behavior problems, but have other types of mental health special needs such as depression, anxiety, or Posttraumatic Stress Disorder**. The specific types of emotional and behavioral problems among the children assessed are shown in the table below. Because of the small number of children who were found to have rare types of problems, such as bipolar or psychotic disorders, these percentages are not a precise estimate of the number of children in the specialized foster care population who have these types of problems.

**Types of Mental Health Special Needs Which
Significantly Impair Functioning Among Children
Aged 6-21 in Specialized Foster Care Sample (N=89)**

Attention-Deficit Disorder without Hyperactivity	22%
Attention-Deficit Disorder with Hyperactivity	15%
Moderate Behavior Problems (defiant, often loses temper, argumentative, etc.)	19%
Serious Behavior Problems (theft, destroying property, physically aggressive, etc.)	11%
Posttraumatic Stress Disorder	13%
Separation Anxiety Disorder	8%
Obsessive-Compulsive Disorder	7%
Generalized Anxiety and other anxiety disorders not listed above	13%
Major Depression	10%
Mild, long-term depression	6%
Mild Manic Depression or Manic Episode	2%
Psychotic symptoms	3%
Adjustment Disorder	1%

Many children who had mental health problems often were found to have multiple types of problems. For example, a child with Attention-Deficit Disorder might also be depressed, or a seriously depressed child might also have Posttraumatic Stress Disorder. The percentages of children with more than one type of problem are shown below. Having more than one type of mental health problem does not necessarily correspond to a more severe need for specialized services. For example, a child with just one very severe type of need may need much more intensive services than a child with two types of mild needs. However, multiple needs do suggest greater complexity in assessing a child's needs and in formulating an appropriate treatment plan.

Percentages of Children With More Than One Type of Mental Health Special Need (N = 89)

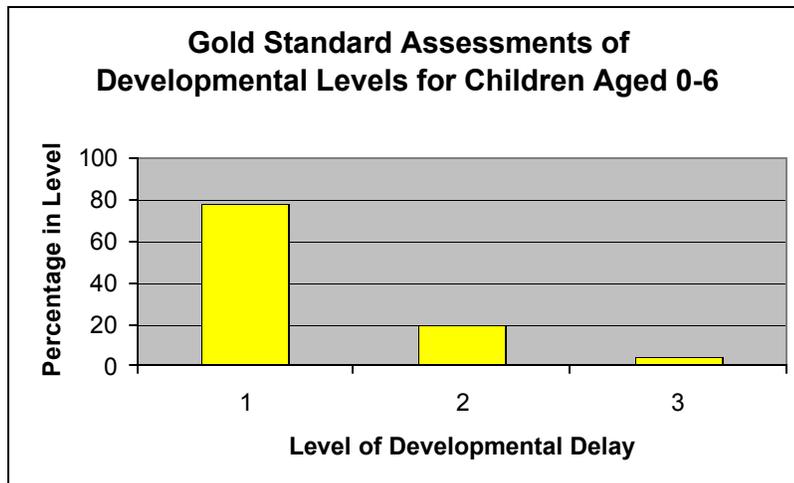
No Significant mental health needs	26%
One type of Mental health need	33%
Two types of mental health needs	19%
Three or more types of mental health needs	22%

Severity of Needs Among Young Children Identified as Having Mental Health or Developmental Special Needs

Thirty-eight children were identified by private agencies as having developmental or mental health special needs and were younger than six years old. For these children, developmental specialists conducted a developmental screening test with the child. For all children two years and older, a behavioral checklist was administered with the child's foster mother. **A large proportion (36.8%) of these children were assessed to have no significant developmental or mental health needs.** The distribution of young children's mental health special needs is shown below.



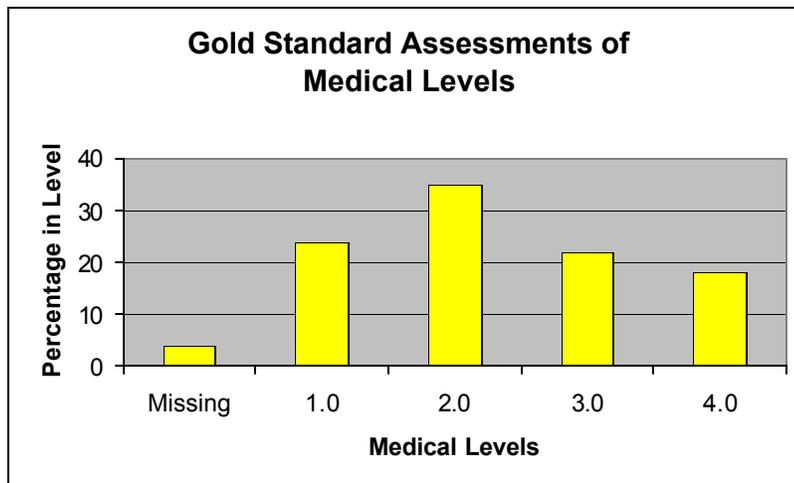
Even fewer children had developmental special needs. The distribution of young children's developmental special needs is shown on the next page.



Severity and Types of Needs Among Children With Medical Special Needs

Among the fifty-six children³ reported to have special medical needs, **19.2% did not currently have medical needs necessitating a specialized foster care placement.** An additional three children did not currently have medical needs, but did have severe or profound mental retardation which necessitates specialized foster care. The physical conditions most often identified as currently presenting a need for specialized care were cerebral palsy, moderate or severe asthma, and HIV infection.

As shown in the next graph, the severity of medical needs was found to be more evenly distributed across the four levels than with mental health needs.



³ As children with medical needs were over-sampled in order to estimate the severity of medical needs, these children do not reflect the true proportion of children reported to have medical needs in the specialized foster care population. Approximately 19% of children selected in the weighted sample were reported by private agencies to have medical needs as their primary type of special need. An additional 3% were reported to have mental retardation as a primary type of special need.

All but one of the children currently without significant medical needs were born substance exposed. While these children may have had medical complications at birth, they were now reported to have no medical, developmental, or behavioral special needs. Although almost all of the children with no significant medical needs were reported to be substance exposed at birth, some substance exposed children continued to have medical complications. Overall, 45% of the 60 children reported to have medical special needs were born substance exposed. Two thirds of these substance exposed infants had other medical conditions such as cerebral palsy which continued to present medical complications as they grew older.

However, these findings cannot be used to extrapolate that two thirds of all children placed in specialized foster care due to SEI status continue to have special medical needs. Many children placed as substance exposed infants may not have been identified by private agencies as currently having special medical needs. As described in the next section, a large proportion of young children identified by agencies as having developmental or behavioral issues do not currently have significant mental health or developmental needs. Many of these younger children may have been initially placed in specialized foster care due to SEI status. Further analyses will be needed to estimate the proportion of all children placed due to SEI who currently have no significant needs.

Other Types of Special Needs

Few children sampled had significant primary special needs other than mental health or medical special needs. Two adolescents were parenting custodial children in their foster homes. One of these adolescents also had level 2 mental health needs. Six children had mental retardation as their primary special need, and three of these children also appeared to have level 2 mental health special needs as well.

Question 3: How adequately are children served in t/re current system of specialized foster care?

Services provided to specialized foster children with mental health needs from Cook County are inadequate. Only 40% of children receive adequate services, and about 40% of children receive no services at all. Few services other than therapy are provided to any children. Unfortunately, the services which are provided are often not provided to the children who currently have significant needs, suggesting problems with service allocation as well as service availability and provision.

Children with medical needs appear to receive appropriate medical services. Only 6.3% of children with medical needs were identified as having possibly inadequate medical services.

Adequacy of Services to Children Six and Older With Mental Health Special Needs

Fifty-nine percent of the children identified by agencies as having mental health special needs need additional services. For all children, a survey about services was completed (see Appendix B). After completing the clinical assessment, clinicians administered this survey and recorded children's needs for increased services when applicable. Any unmet service needs were assessed to be mild, moderate, or severe, depending on the nature of the unmet need. Examples of unmet service needs follow the table below.

**Severity of Need for Services Not Currently
Provided to Children Over Six Years Old (N=89)**

No Unmet needs	40.6%
Mild needs	29.6%
Moderate needs	22.2%
Severe needs	7.5%

Examples of mild unmet service needs include a need for counseling, dental work, or a speech assessment. Examples of moderate unmet service needs are a need for a psychiatric consultation, a continuation of medication, or intensive therapy. Severe service needs were assessed for a suicidal adolescent girl who had not reported that she was suicidal to anyone and was receiving little treatment, and for a six-year old boy who does not speak, is completely withdrawn, and had not been assessed for treatment. In cases of severe unmet services needs which posed a risk to the child, the agency was notified.

There is an inverse relationship between level of mental health needs and adequacy of services. Children with more severe mental health needs had more unmet service needs. Fifty-eight percent of children with no mental health needs received adequate services, while only 40% of children with level 2 mental health needs and 32% of children with level 3 mental health needs received adequate services. None of the children with level 4 mental health needs had adequate services.

Most children older than six were found to be receiving few treatment services.

Given the prevalence of unmet service needs, it is not surprising that children were also reported to be receiving few mental health services. Psychotherapy or counseling was the most frequently reported service. Fifty-seven percent of children older than six who were reported by agencies to have mental health special needs had seen a therapist or counselor once or more often in the past three months, but **only 42% received therapy once a week or more often.**

Medication was the second most frequently reported treatment. **Sixteen percent of the older children were reported to be taking psychoactive medication.** The most frequently prescribed medication was Ritalin.

Therapy and medications may not be indicated for many children with special mental health needs, but children were not likely to receive any other services. Only 15.6% of foster parents reported ever having received respite care in the past three months, and **only 9.5% received an hour or more of respite care each week.**

Behavior modification programs were found to be even more rare than respite care. Although 52% of children with significant needs had Attention-Deficit/Hyperactivity Disorder or other behavior disorders, **only 2.4% of children (N= 2) were receiving behavior modification in the foster home.** No child was currently receiving an intensive behavior modification program at home.

Children were also unlikely to attend support groups or group therapy. **Only 5% (N= 4) had attended a support group once or more often in the past three months.**

Services are not more likely to be provided to more needy children. Half of children with no significant mental health or other type of special need had received therapy at least once in the past three months. Only a slightly higher 56% of children with level 1, 2 or 3 mental health needs had received any therapy. Medication was the only type of treatment which was more likely to be provided to children with significant mental health needs. No child who did not have significant mental health needs was taking psychoactive medication.

Overall, 42% of children aged 6-20 who were classified by agencies as having mental health needs had received no treatment interventions at all in the past three months. An additional 5% received very few services (i.e., one session of counseling a month or less than an hour of respite each week). Thus, **47% of the 89 children interviewed received few or no treatment services.**

Most foster parents reported that they were required to complete a special training in order to become a specialized foster parent. **Only 25% of foster parents reported that they had not been required to complete any type of special training.** On-going training was also required of 72% of foster parents. However, the number of hours that were required appeared to vary greatly, with some foster parents only recalling a few hours of training, and others reporting as many as 80 hours. **Nineteen percent of foster parents rated the amount of training that they had received as somewhat or very inadequate.**

Adequacy of Services to Children Younger Than Six

The needs among children under six who were identified as having mental health or developmental needs are significantly less severe than the needs of older children, so the adequacy of services was analyzed separately for the younger children. Slightly fewer young children were found to have unmet service needs, as shown on the next page.

**Severity of Need for Services Not Currently
Provided to Children Under Six Years Old (N=38)**

No unmet needs	44.7%
Mild needs	23.7%
Moderate needs	28.9%
Severe needs	2.7%

Although the adequacy of services overall was better for children younger than six years old, they were even less likely to receive treatment services than older children: only 19.4% received therapy twice a month or more often, 7.9% took a psychoactive medication, 5% (n = 2) received respite care an hour or more a month, and 5% (n = 2) had an in-home behavior modification program in place. Most young children received no treatment services.

A similar amount of training to become a specialized foster parent was reported by the foster parents of young children as by foster parents of older children. Only 23.7% reported receiving no training initially, while 31.6% reported no on-going training. Eighteen percent of foster parents rated the amount of training that they had received as somewhat or very inadequate.

Adequacy of Services to Children With Medical Special Needs

Children with medical special needs appear to have fewer unmet service needs than children reported to have mental health needs. Only 6.3% of children were found to be receiving possibly inadequate medical services, and none were found to have significantly inadequate medical services.

Only a few children were found to have a need for more supportive services such as physical therapy, occupational therapy and speech therapy: 4.2% were receiving possibly inadequate supportive services, while 4.2% were receiving significantly inadequate supportive services. Some foster parents of medically complex children were found to need more training about how to best meet the needs of their children. **One third of foster parents were assessed to have received only fair or poor training on how to best meet their foster child's needs.**

Adequacy of Medical Training of Foster Parents Caring for Children Identified as Medically Complex (N=60)

Excellent	25.7%
Good	28.5%
Fair	25%
Poor	8.3%
<i>Missing Info</i>	12.5%

Although some foster parents may have needed additional medical training, overall the foster parents of medically complex children had received somewhat more training than the foster parents of children identified as having mental health or developmental needs, as shown below.

Number of Hours of Training Reported to be Required Each Year by Foster Parents Caring for Children With Different Types of Needs

	Initial Training	On-going Training
Six and older, MH	20.8	11.3
Younger than 6, MH or DD	13.4	10.2
Medically Complex	23.9	15.6

Foster parents of medically complex children were found to receive significantly more respite care than foster parents caring for children with mental health special needs. Forty-nine percent reported receiving respite care. The average number of hours received for medically complex children was 23.3 hours per month, while the average number of hours received for children six and over with mental health needs was 3.2 and children under six with no medical needs received 1.5 hours per month.

Foster parents of children with significant medical needs also receive more money to care for their foster children. The average amount of money received to care for a medically complex child in the sample was \$1010, while the average amount received to care for a child under six without medical needs was \$620 and for a child over six identified by an agency as having mental health needs was \$698.

Question 4: How does the scoring process provided by the revised LOC assessment form and supplemental materials correspond to the clinical ‘gold standard’?

The validity of the revised Levels of Care Assessment materials was tested by comparing the severity of need determined by the revised materials with the severity identified by the in-person assessment ‘gold standard.’ It was expected that some over-reporting would occur, such that a greater percentage of children would be identified as having significant needs using the levels of care materials (which rely on the agency and the foster parent as informants) than the gold standard (which relies on an external reviewer).

The revised LOC materials were returned from private agencies for 183 children currently in specialized foster care, 69 children in traditional foster care, and 69 children currently in home of relative foster care. For 118 of these children a ‘gold standard’ assessment was also completed. Comparison of the severity of needs assessed by the gold standard and the LOC materials for these children was used to assess validity of the revised materials.

For this comparison to be a meaningful test, the levels assigned by both the gold standard assessment and the levels of care materials should correspond to different levels of difficulty of care as described by foster parents; for each high level, greater difficulty of care should be described. To test how relevant the levels determined by both the gold standard and the Levels of Care materials are to foster parents, answers to a burden of care survey were compared across the levels assigned by both the gold standard and the revised levels of care materials. These comparisons provide an external criterion through which to judge the relevance of both the gold standard and the revised levels of care determinations.

Validity of the Mental Health Section for Children Six and Older

The validity of the revised LOC materials varied for children with different types of needs. **For children who were six and older and identified by agencies as having significant mental health needs, the assessment materials performed well.** Materials were returned for 70 children who had been clinically assessed. Although children were assessed using the levels of care materials as much as three months after the gold standard assessment, the revised LOC results correlated very strongly with the gold standard results ($R = .57$). Use of the clinician's report in conjunction with a review process was also found to significantly improve the correspondence between the LOC review and the gold standard assessment, improving the correlation from .47 to .57.

Over-reporting of needs did appear to occur for some children: three children (4.3%) identified as having moderate to severe (level 3) mental health needs by the revised LOC materials were found to have no significant needs during their in-person assessments. An additional two children (2.9%) were reported to have severe needs in the revised LOC materials, but were found to have mild to moderate (level 2) mental health needs by the gold standard. Thus, **significant over-reporting of mental health needs occurred for approximately 7.1% of all children over six.** Under-reporting also occurred. For 7.1%

(N = 5) of all children, needs appeared to be significantly under-reported, such that mental health needs appeared to be less than during the gold-standard interviews. Some of the inability of the revised assessment materials to detect needs adequately appears to have been due to insufficient documentation in the LOC materials submitted.

The levels assigned by both the gold standard and the LOC materials were also shown to capture aspects of care which were highly relevant to the foster parents who were interviewed in person. A standardized, validated burden of care questionnaire⁴ was administered to all foster parents during the gold standard assessments. **For each higher mental health level, foster parents reported greater objective burden of care.** For the most part, increased difficulty of care was associated with greater disruption within the foster family and the emotional strain caused by the foster child's problems. However, foster parents caring for more disturbed children also reported that their work routines were more likely to be disrupted and that their families were more likely to have to do without things, as shown on following page. Both of these burdens may be associated with financial as well as emotional burden.

⁴Brannan, A.M., Heflinger, C.A., and Bickman, L. *The Burdens of Care Questionnaire: measuring the impact on the family of living with a child with serious emotional problems*, 1995. Unpublished.

Burdens of Care Described Significantly More Often for Children Assigned Higher Gold Standard Levels ($p \sim .05$, $N = 89$)

- ~~///~~ Someone in family has to do without things.
- ~~///~~ Missing work or other duties is a problem.
- ~~///~~ Less attention is paid to a family member because of attention given to the foster child.
- ~~///~~ Relationships within the family are disrupted or upset.
- ~~///~~ Family routines are disrupted.
- ~~///~~ Foster parent feels tired or strained.
- ~~///~~ Foster child gets in trouble with neighbors, the community, or law enforcement.
- ~~///~~ Child is more difficult to care for than others the same age.

The same pattern of increased burden was found across the levels assigned by the revised materials. ‘Child is more difficult to care for than others the same age’ remained highly significant, even after the time had passed between the administration of the gold standard and the LOC materials, and ‘family having to do without things,’ ‘disruption of family routines,’ ‘missing work or other duties,’ and ‘less attention paid to a family member’ also remained statistically significant.

Validity of the Developmental and Mental Health Sections for Children Two to Six Years Old

Levels of care decisions for children with developmental or mental health needs were based on behavioral reports provided by foster parents during structured in-person interviews by the child's caseworker using levels of care materials, and by diagnostic information provided by licensed mental health professionals. These materials were reviewed by LOC clinicians, who assigned children to levels based on the needs they presented.

To check the validity of the LOC decisions for children aged three to five years, in-person evaluations were conducted by developmental specialists with 38 children and their foster parents. To assess mental health needs, foster parents completed the Achenbach Child Behavior Checklist (CBCL). Unfortunately, Levels of Care materials were only received for a total of 18 children who had in-person evaluations completed by the developmental specialists. The CBCL scores of four and five year olds were strongly correlated with the scores they received in the LOC materials using the Vineland behavior checklist ($R = .7$, $N = 12$), suggesting that the materials adequately reflected the child's level of need for this small group of children. However, the scores of three year olds did not correspond as well with the CBCL scores, suggesting that the Levels of Care materials may be inadequate in assessing the mental health needs of three year olds ($R = .59$ when computing for all children under six, $N = 18$). Further work with a larger sample of children will be needed to determine the best methods to assess the mental health needs of very young children. In implementing the new assessment procedures, all very young children with serious mental health special needs will need to be reviewed on a case-by-case basis as the best methods for assessing their needs are developed.

As with children six years and older, the levels determined by the in-person assessment were highly relevant to foster parents. Because of the small number of children with significant mental health needs, the burdens associated with the care of two groups of children were compared: those with level 1 or level 2 needs, and those with level 3 or level 4 needs. Children with level 3 or level 4 needs were shown to present significantly more burden to their foster families than those with level 1 or level 2 needs. The burdens described more often for children with level 3 or 4 mental health needs are shown on next page.

Burdens of Care Described Significantly More Often for Children Assigned Gold Standard Levels of 3 or 4 ($p = .05$, $N = 38$)

- ~~///~~ Someone in family has to do without things.
- ~~///~~ Someone in the family is at a greater risk of harm.
- ~~///~~ Personal time is interrupted.
- ~~///~~ Less attention is paid to a family member because of attention given to the foster child.
- ~~///~~ Relationships within the family are disrupted or upset.
- ~~///~~ Family routines are disrupted.

Burdens of Care Described Significantly More Often for Children Assigned Gold Standard Levels of 3 or 4 ($p = .05$, $N = 38$)

- ~~///~~ Foster parent feels tired or strained.
- ~~///~~ Foster child gets in trouble with neighbors, the community, or law enforcement.
- ~~///~~ Child is more difficult to care for than others the same age.

A developmental screening instrument, the Denver II, was administered to screen for developmental delays. Unfortunately, only 16 of the in-person evaluations correspond to LOC supplemental materials received to date. This number is too small to make a final determination regarding the validity of the LOC process for this sample of children. We will continue to analyze this data as additional materials are received. Developmental information was available for only 13 of the 16 corresponding cases. The LOC process corresponded to the developmental screen in all but one case; however, the variance was too small to make this result meaningful.

Validity of the Medical Section

The medical section of the revised materials does not yet have an adequate level of validity. The revised Levels of Care Assessment materials determine level of medical needs based on two separate reports: the foster parents' account of the number of hours required to meet the child's medical and personal care needs, and the report of a nurse or MD documenting the child's medical diagnosis and procedures required to treat the child at home. Both of these reports were reviewed by LOC clinicians, and children were assigned to a level of care based on their diagnosis and the number of hours required to meet their medical and personal care needs.

To validate the medical and personal care sections of the Caregiver Report, a pediatric nurse practitioner independently interviewed by telephone the foster parents of medically complex children in specialized foster care. She then assigned the child to a personal care level and a medical level, based on her diagnostic impressions from the interview. These levels were the 'gold standard' against which to measure the LOC process.

A comparison between the 'gold standard' levels and levels assigned after reviewing the LOC supplemental materials revealed that the LOC process tended to under-report needs. Forty-five children were assigned levels using both systems. For the medical score, the LOC system determined that 15.5% (N = 7) children did not have special needs that the 'gold standard' assigned to a level of special need. For two children (7%), the 'gold standard' assessed no special needs when the LOC system scored them as having special needs. In addition, the system appears to have difficulty distinguishing between 'no' special needs and 'mild' special needs. This problem might be addressed by changing the cut points; however, the problem with under-reporting remains.

For the personal care score, the LOC system determined that 3 children (7%) did not have special needs that the 'gold standard' would have assigned to a level of special need. Additionally, for 3 different children (7%), the 'gold standard' determined that they did not have special needs when the LOC system assigned them to a level of special need.

To determine if the problem with under-reporting was with the reviewers, who were mental health professionals, a pediatric nurse re-scored a sample (42 children) of the supplemental materials submitted for medically complex children, using the LOC process. Using a nurse reviewer did not improve the validity of the scores assigned, indicating that a process other than counting medical hours and personal care hours must be used to determine the severity of medical needs.

Because the validity of the revised LOC system for assessing medically complex-children is still too low, the medical section of the Caregiver Report will need to be revised and tested before it can be used to make levels of care decisions. During the implementation phase, interviews with foster parents and chart reviews will be used to assure that the decision-making process is uniform during the testing phase.

Question 5: What is the appropriate weighting of items and the cut-off scores which should be used to distinguish different levels of care?

Weighting of Individual Items

The weighting of individual items must reflect the severity of children's need for enhanced services which may or may not include specialized foster care. The weighting of individual items is important, as these items will be summed to produce the total score which will be used to determine whether a child qualifies for a specialized rate. The Levels of Care Assessment form measures two dimensions associated with severity of need: the severity of particular conditions, and the intensity of the interventions associated with these conditions. As discussed in the previous sections, many children received few or no services. Additionally, services were often not provided to the most needy children, as demonstrated by only a weak correlation between the frequency that services were provided and severity of need.

Accordingly, **we found that the services currently provided were a poor predictor of appropriate levels of care.** In fact, in multivariate analyses with children over six who received in-person mental health evaluations, services currently provided to a child are not at all predictive of the appropriate 'goal-standard' level of care which a child should receive. Instead, only the severity of unmet service needs and the severity of mental health needs as measured by the Levels of Care materials predicts the appropriate level of care, even for children currently in specialized foster care. If children are inadequately served, they are penalized and potentially denied placement in a program which could meet their needs.

This issue will need to be addressed for both children currently placed in specialized foster care as well as for children applying for specialized foster care. For children currently placed in specialized care, we should consider creating a probationary status which is assigned to children who require specialized care but do not qualify due to the lack of services provided to them.

For children applying for a specialized rate, it is proposed that the agency applying be required to submit a structured, detailed service plan which demonstrates that all dimensions of the child's special needs will be met by his or her foster care program. This plan will then be used to rate the intensity of services to be provided, using a structured protocol in order to assure that intensity of services can be monitored reliably. Children with different levels of mental health, medical, or other needs will be expected to receive services within a distinct range of intensity and inadequate service plans will be modified through consultation with clinical reviewers. During six month reviews which will be coordinated with Administrative Case Reviews, clinical reviewers can then monitor both the change in a child's special needs status and the adequate provision of all components of that service plan. This method will assure that children are adequately served and equitably identified as having a need for specialized services and programs.

The following weights are suggested for the severity of need items and the intensity of services items:

Weights of Severity of Needs and Intensity of Services

Severity of mental health, medical, or developmental needs	Points assigned for severity of need	Corresponding range of points for intensity of service to be provided at this level of need	Total score range
Level One: no significant needs	0	0-10	0-10
Level Two: mild needs	10	1-14	11-24
Level Three: moderate needs	15	10-24	25-39
Level Four: Severe to profound needs	25	15-30	40-55

Children with needs in multiple categories (mental health, medical, developmental, pregnant or parenting) will not receive additional points for each type of need. Multiple types of need will result in an assessment of severity of need which is at most one level of severity greater than the child's primary type of special need. In not all cases will mild needs in two categories qualify a child for an increase in level. For example, a child with a mild medical condition such as mild asthma and mild depression would not be assigned to a higher level than level two.

Determining the Appropriate Cut-Off Score for Each Level

To set the cut-off scores which determine which children are assigned to levels two and three requires consideration of both the clinical presentations of children currently in specialized foster care and the clinical presentations of children in relative or traditional foster care.

Our previous results suggested that approximately 24% of children should be classified in the basic category and were good candidates for step down. Our current results suggest that this estimate is accurate. When considering the entire sample of 183 children who were evaluated in-person, 25% have no special needs.

The Levels of Care Assessment materials which were returned for 183 children in specialized foster care suggest that a slightly higher proportion of children should be eligible for step-down to a traditional rate: 29.5% were identified as having no significant mental health, medical, or developmental needs. An additional 23.5% have mild to moderate mental health, medical, or developmental needs, such as mild asthma or stabilized attention deficit disorder. It is likely that many of these needs can be addressed through the provision of additional services in the context of traditional foster care; however, these children will need to be reviewed on a case-by-case basis to assure that they would not be de-stabilized by step-down.

These results suggest that 2,887 children currently in a home receiving a specialized rate can be stepped down from specialized foster care to traditional care : 2,065 children with no significant needs can be stepped down and conservatively, at least fifty percent of children with level two mental health, medical, or developmental needs are candidates for step-down as well (N = 822).

To determine the proportion of children in traditional or home of relative care who would qualify for a specialized rate given different cut-off scores, the Levels of Care Materials

which were filled out for children in traditional and HMR placements (N = 138) were scored. The distributions of these scores were examined in order to determine the number of children who would qualify for each level of care if every child were suddenly assessed using the revised materials. As expected, these results indicate that children in specialized foster care have significantly greater mental health and medical needs than children in either traditional or HMR placements. However, a proportion of children from both traditional and HMR placements were found to have significant needs which were comparable to those of children currently placed in a specialized foster care setting:

- 1) In the population of traditional foster children, 10% appeared to have needs comparable to those of children rated as having level three or four mental health, medical, or developmental needs. The majority of these children exhibit mental health special needs. An additional 20.8% appeared to have level two needs. **Thus, if every child were to apply for a specialized rate all at once, approximately 1,100 children would be expected to qualify for a specialized rate from the traditional population if the score of 25 is maintained as the cut-off score for obtaining a specialized rate.**
- 2) In the entire population of HMR foster children, 14% appear to have needs comparable to those of children rated as having level three or four mental health, medical, or developmental needs.⁵ Again, the majority of these children exhibit mental health special needs. However, 45% of HMR placements will be ineligible to receive a specialized rate because they are unlicensed. **If they were to apply, a total of 1,848 children currently in HMR placements are expected to qualify for a specialized rate if the score of 25 is maintained.**

⁵The difference in the proportion of children potentially eligible from traditional and HMR placements is due to differences in the age distributions of children in each type of care. Because children in HMR placements are older, a greater proportion have mental health needs than in traditional care. When controlling for age differences, children in HMR placements have slightly less severe needs than children in traditional placements.

If the cut-off score is held at 25, a nearly equal number of children will be expected to eventually enter specialized placements as the number initially exiting. Over time, changes in the population of children served in specialized foster care placements can be monitored and the cut-off score can be adjusted as needed to address the needs of children in care.

IV. Recommendations

- 1) **It is recommended that the revised Levels of Care Assessment procedures be used to determine levels of care.** The revised Levels of Care Assessment process has good inter-rater reliability overall, and good validity for assessing mental health needs, which are presented by more children than any other type of need. This indicates that the revised levels of care materials can be used to create equitable assessment procedures.
- 2) **It should be assured that children with level two or ‘intermediate’ needs receive adequate services, such that their needs are stabilized rather than exacerbated over time.** Some children who are appropriate candidates for step-down will need continued services in order to assure that they do not become destabilized. Additionally, many children with mild needs who are currently in traditional or HMR placements should receive services to prevent an eventual need for specialized care.
- 3) **Further development of the Levels of Care Assessment process for medically complex children is needed,** as the current system has not yet achieved adequate inter-rater reliability.

- 4) **It is recommended that the administration of the revised system be centralized and administered by experienced clinicians who have primary responsibility for assessing severity of needs and need for specialized care,** in order to reduce training burden and increase the inter-rater reliability and validity of the revised assessment procedures. Like any assessment materials, the revised assessment materials must be carefully rated by trained reviewers. Reviewers must have both clinical expertise and specific, in-person training on how to rate the materials. Use in sites in which reviewers are continually shifting and do not have clinical expertise is unlikely to result in equitable scoring, as inter-rater reliability and validity will be reduced.
- 5) **It is recommended that clinical reviewers who rate the revised materials be given responsibility for monitoring both need for specialized foster care and appropriate provision of services.** The severity of unmet service needs is the most disturbing finding of this project. To increase the quality of care that children in specialized foster care receive, clinicians should review the service plans of all children placed in specialized foster care. This review should occur in conjunction with the Administrative Case Review, in order ensure comprehensive, coordinated service delivery.
- 6) **For children applying for specialized care, scoring of the LOC Assessment form should be based on services to be provided, not those currently provided.** For children whose needs are not being met at the point of assessment, basing scores on services provided underestimates their true need. By scoring the form using the service plan or rehabilitation plan which has been developed for a particular child, the structuring of a specific clinical plan to meet a child's needs will be initiated early while in placement and can be reviewed both at entry and during six-month reviews by clinical reviewers.

- 7) **For the specialized foster care system to be able to meet the needs of its population, expertise in maintaining and treating children with more severe needs must be developed.** Overall, the severity of problems exhibited by children in specialized foster care will increase if this resource is appropriately allocated. Some agencies do not appear to have the expertise to treat the children currently served. Additionally, the placement disruption rates within specialized foster care suggests that expertise must be developed such that the needs of specialized children and their foster families are met. Successful agencies should be enlisted to develop best practice models so that other agencies will have models to use in re-structuring their programs for children with special needs.

Appendix A: Study Methods

Psychologists, social workers, developmental specialists, and a nurse previously employed by the Grant Hospital Pediatric Ecology Program completed assessments for a random sample of 200 children in Cook County currently placed in specialized foster care. A total of 187 assessments were completed.

The types of assessments completed varied depending on the types of special needs children were reported to have. All children identified by agencies as having mental health needs were given mental health assessments involving two hour semi-structured interviews with the child and the child's foster parent. Younger children (two to five years old) were given in-person developmental screening and a behavioral checklist was administered. For children with physical conditions or special medical needs, the nurse from the project completed a telephone interview with children's foster parents and called caseworkers as necessary to determine the severity of medical needs. Finally, for every child assessed, a services survey and an assessment of services needs was completed.

Private agencies and DCFS caseworkers were also requested to complete the revised Levels of Care Assessment materials for all children selected for the project, in order to estimate the correspondence between the two methods of assessment. Additionally, the Levels of Care materials were requested for a random sample of 200 children in home of relative and traditional placements, in order to assist in the determination of appropriate thresholds for each level of care.

The project also involved training staff from the 25 largest agencies providing specialized foster care in Cook South and Cook Central on how to complete the revised Levels of Care materials. Additionally, all smaller agencies were contacted by phone to answer questions about the completion of the revised materials. This training was completed in order to facilitate the accurate completion of the revised Levels of Care materials for both

children selected for the random sample and children applying for specialized foster care rates in either Cook South or Cook Central during the pilot testing phase.

Eighty-nine in-person assessment interviews of children aged six or older, thirty-eight developmental and behavioral screens of children aged two to six, and fifty-six telephone interviews with foster parents of medically complex children were completed with children in POS supervised placements. No interviews with foster parents and children in DCFS supervised placements have been completed, because of difficulties in obtaining foster parent phone numbers and addresses from caseworkers. Although supervisors, field service managers, and many caseworkers were given in-person training and clear deadlines by their region administrators, few were able to meet these deadlines.

The revised Levels of Care Assessment materials were returned for 350 children: 183 in specialized placements, 69 in traditional placements, and 69 in HMR placements.