

# Nurturing Families Network 2009 Annual Evaluation Report

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# Nurturing Families Network: 2009 Annual Evaluation Report

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# **Nurturing Families Network Annual Evaluation Report, 2009 Executive Summary**

The Nurturing Families Network, funded by the Connecticut Children's Trust Fund, is a statewide system of continuous care designed to promote positive parenting and reduce incidences of abuse and neglect. The program focuses on high-risk, first-time mothers and starts working with them at or before birth.

In this year's evaluation report, we provide descriptive and outcome data on all families who received services during the 2008 calendar year, including the 1,909 families who received Nurturing Connection services (telephone support and referral services), the 1,162 families who received home visiting services and the 594 parents who attended Nurturing Parenting Groups.

Since its inception in 1995, evaluation has shown that the program has consistently reached a vulnerable population, provided them with intensive services, and overall, has yielded positive results. On average, across program years 1995 through 2008, 71% of families have remained in the program for at least six months, 50% have remained in the program for at least 1 year, and 31% have remained in the program for at least 2 years. These rates are comparable to national retention rates for similar home visiting models. During the course of program participation, mothers have made statistically significant improvements in their attitudes and expectations of their children as measured by the Child Abuse Potential Inventory. These outcome data indicate that families significantly reduced their risk for poor parenting and abuse even when active in the program for only one year.

Moreover, the annualized rate of maltreatment for the past eight years for the NFN population have ranged from a little over 1% to a little over 6%, and compares favorably to rates found for other home visiting programs nationally. The annual rate of child maltreatment this year, 1.3%, is a sizeable decrease in the 2007-2008 time period as compared to the rate of 4.4% during the 2006-2007 time period.

The number of families screened for services each year for the past 4 years has increased significantly. The biggest increases occurred with the expansion in Hartford (2005), and a similar expansion in New Haven (starting late 2007 and continuing through 2008). There are now 42 program sites across the state and in 2008, there was a total of 8,499 mothers who were screened for services. Enrollment data for Hartford participating mothers indicate that NFN services permeate the city. As designed, families are effectively being recruited and engaged in all the Hartford residential areas. However, the percentage of Hartford families who are offered home visitation services has declined from 98% in 2005 to 69% in 2008, indicating that many of the Hartford NFN programs are reaching capacity and that programs may be screening more families than they are equipped to serve.

Overall, for both statewide programs and NFN urban programs, the percentage of families who were offered services in 2008 and who accepted services have both decreased compared to the prior 3 years (for both low risk and high risk families). In response to this trend, the Children's Trust Fund has worked with sites to better structure the process of offering the program and a new intake form has been developed to track these refined enrollment processes. It is important to also note that rates of program acceptance as well as rates of retention are higher for mothers screened at the prenatal stage than mothers screened postpartum indicating that

first-time mothers may be more receptive when offered services during their pregnancy versus after they have their babies.

Child health data for 2008 show that rates of premature births among NFN mothers are comparable to, or only slightly higher than statewide rates for the general population. However, the rate of babies born with low birth weight is higher: 11%, 14%, and 12% for statewide NFN participants, Hartford NFN participants, and New Haven NFN participants respectively, as compared with the statewide rate of 7.7% for the general population. We have just started collecting these data on an annual basis; these findings warrant further inspection.

Consistent with analyses in prior years, statewide data on mothers who participated in the home visiting program for one and two years as of the end of 2008 showed that they made statistically significant improvements on the CAPI-Rigidity subscale indicating they have less rigid expectations of their children and are less likely to treat their children forcefully. Hartford mothers also showed some improvement on this scale but did not show statistically significant change. Rigidity scores in Hartford are also noticeably higher at program entry compared to statewide scores. For 2008, the average score for Hartford participants was 28.5 at program entry versus 23.8 for participants statewide. Relatedly, our expanded analysis of the risk profiles of Hartford mothers, as measured by the Kempe, show that many of these mothers have past experiences of child maltreatment, social isolation, depression, and multiple stresses. Similar preliminary data is reported on for New Haven families but given that many of the New Haven programs are just starting and there are only small sample sizes, these data should be interpreted with caution.

Several new initiatives were started in 2008: In an effort to more closely monitor sites' delivery of services, data on a number of process and outcome variables are compared across program sites using a Quality Assurance (QA) chart. This QA chart gives program leaders a mechanism for routinely monitoring program services across the state, assessing information on the different ways the program is implemented, and ensuring model fidelity. It also allows program leaders to examine variation in critical outcomes across all program sites.

In July, 2008, the NFN father involvement study was launched. As programs increasingly see positive outcomes for mothers, there is growing interest, both locally and at the national level, in understanding fathers' experiences, and learning how to engage and involve fathers in program services. This is a three year study that involves conducting a series of interviews with participating fathers over time.

The high prevalence of maternal depression and trauma history in home visiting populations and the challenges these issues present are also a relatively new programmatic and research focus. Starting in August 2009, after almost two years of planning, we will conduct a clinical trial of In-Home Cognitive Behavioral Therapy for first-time mothers in the Nurturing Families Home Visiting Program who meet the criteria for major depression. This is replication of an intervention model that is showing considerable promise for effectively treating depressed mothers receiving home visitation while simultaneously augmenting the benefits derived from home visitation for the mother and child.

# Introduction

## Overview of Report

This report is divided into six sections. The first section, **NFN Program Overview, 1995-2008**, gives a brief description of the evolution and components of the program including Nurturing Connections, Home Visitation, and Nurturing Parenting Groups, and reports on *NFN's aggregate* data for all families who participated in NFN since program inception.

The second and third sections report on *NFN's 2008 annual data*. Section two, **NFN Statewide Annual Evaluation, 2008**, reports on data across all program sites statewide. Section three, **NFN Urban Focus, 2008**, reports on the progress of the ten program sites in Hartford, the first city to go to scale in 2005, and the eight program sites in New Haven, the second city to go to scale in 2007. In these sections, enrollment, descriptive, and outcome data are examined for low-risk families who received Nurturing Connections services and high-risk families who received home visitation.

In the fourth section, **State Reports of Child Maltreatment, 2007/2008**, we report on both substantiated and unsubstantiated reports of abuse and neglect for NFN home visitation families, statewide. We also take a closer look at the discipline methods used by Hartford families in this section as measured by the Parent-Child version of the Conflict Tactics Scale (CTS-PC).

The fifth section, **Statewide Nurturing Parenting Groups**, reports on NFN's community-based parenting education and support groups offered to both low-risk and high-risk families.

The sixth section, on new **Evaluation and Research Initiatives**, describes a new method for assessing the quality of program implementation (Quality Assurance Program Chart) and gives an update on two NFN studies, the Fatherhood Involvement Study, begun in July 2008, and the Depression Improvement Study, scheduled to begin in August, 2009.

## Analyses of data

Where applicable, family profiles, program participation rates, and outcome data are compared across several years showing trends over time. By charting program performance in the same areas over time, the performance history serves as a basis for judgment; that is, prior performance serves as a benchmark for current performance. In addition, we use a pre-post design and analyze change in the areas that the program is attempting to impact by testing mean scores (or averages) at different points in time for statistical significance using a repeated measures analysis of variance test. Key findings from analyses are highlighted for the following sections: aggregate data across time (since program inception), statewide annual data, Hartford annual data, and New Haven annual data. Findings from the examination of abuse and neglect reports are also summarized.

# NFN Program Overview

## 1995-2008

In this section we describe the Nurturing Families Network, the different components of the program and how families are enrolled.

- We compare data across program years on the number of first time mothers who have been screened for services and the number of families who received home visitation by program site.
- Risk profiles and participation and retention rates are also compared across program years.
- Analyses of outcome data, specifically change in parents' attitudes over time, is presented for all families who participated in the program since program inception.

# NFN Statewide System of Care

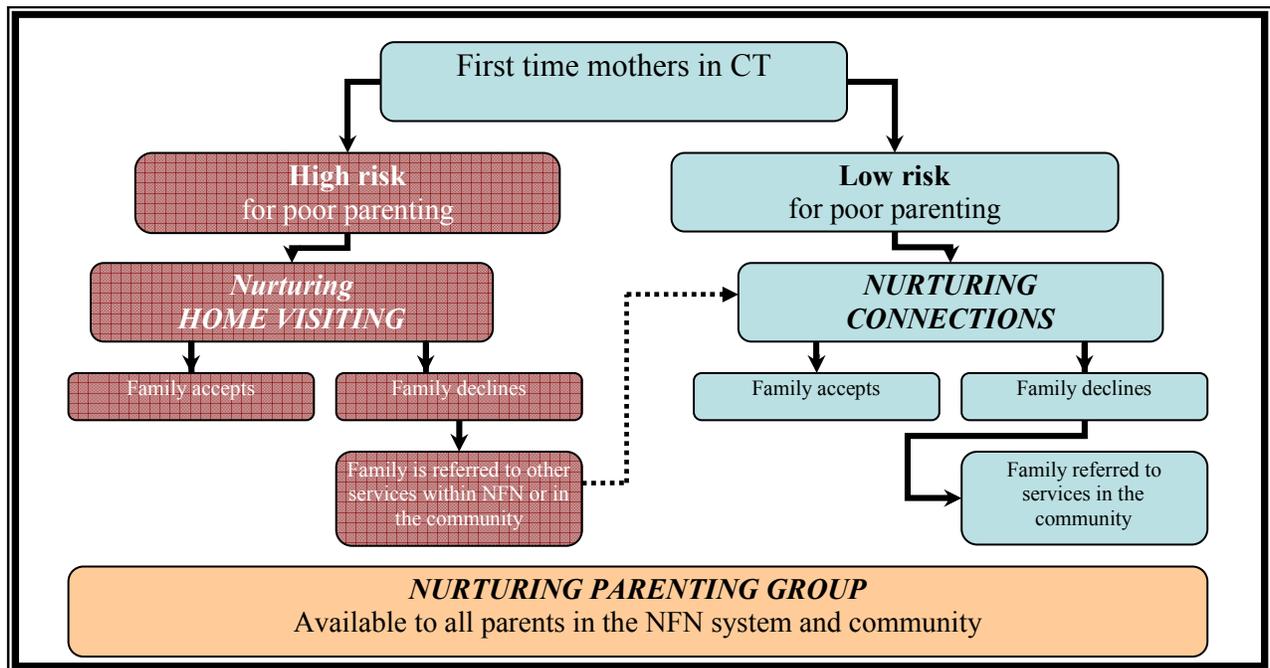


Figure 1. NFN System of Care

The Nurturing Families Network is designed to provide a continuum of services for families in the state. The flowchart illustrates how families enter the NFN system and the various paths they may follow. All NFN services are voluntary, thus there are many steps at which families can either refuse services or be referred to other community services.

## NFN Program Components

NFN’s mission is to work in partnership with first-time parents by enhancing strengths, providing information and education, and connecting them to services in the community when needed. It is made up of three components:

- **Nurturing Connections** Nurturing Connections staff conduct the screening of all first-time mothers, identifying parents at low risk or high risk for poor parenting and child maltreatment. Nurturing Connections staff also provide telephone support and referral services for low-risk mothers.
- **Nurturing Home Visiting** All high-risk families are referred to Nurturing Home Visiting for intensive parent education and support in the home, and home visitors help link families with needed resources and assistance for up to five years.
- **Nurturing Parenting Groups** Community-based parenting education and support groups offered to all families at various risk levels, including all parents who enter the NFN system as well as parents in the community.

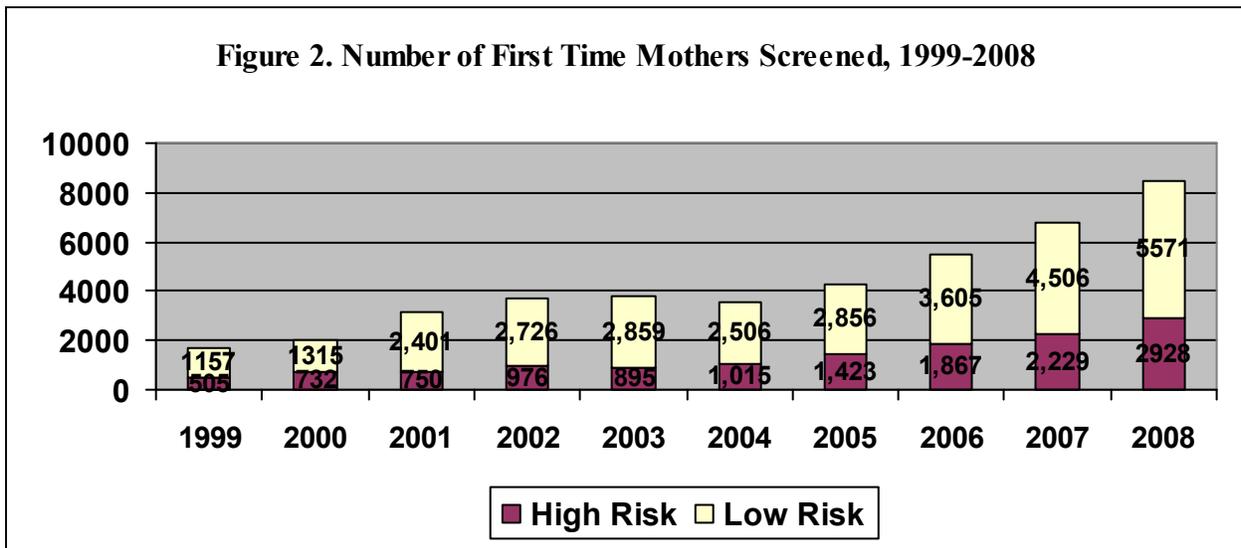
# Nurturing Connections: Screening First Time Mothers 1999-2008

The Nurturing Connections component was first established in 1999 as an initial step in providing universal screening of all first-time mothers in Connecticut. It is operating out of all 29 birthing hospitals. Screenings are also conducted in clinics and community agencies, and the current goal is to reach as many families as possible at the prenatal stage. As shown, the Revised Early Identification (REID) screen, used to determine eligibility, consists of 17 items that research has shown increases the probability of child maltreatment. In order to screen positive (i.e., high risk) on the REID, a person must have either (a) three or more true items, or (b) two or more characteristics if one of them is item number 8, 11, 14, or 15, or (c) have eight or more “unknown” items (i.e., information on at least 8 items is not available).

The percentages of first-time mothers that scored as high risk by year are as follows: 1999– 30%, 2000– 36%, 2001– 24%, 2002– 26%, 2003– 24%, 2004– 29%, 2005– 33%, 2006– 34%, 2007– 33%, and 2008–34%. On average, 32% of these families have been identified as high risk. In 2008, 8,499 first-time mothers were screened; 5,571 were identified as low risk, and 2,928 were identified as high risk.

Figure 2 shows that as the program sites expanded across the state, there has been a comparative increase in screenings. The biggest increases occurred with the expansion in Hartford (2005), and a similar expansion in New Haven (starting late 2007 and continuing through 2008).

<b>The Revised Early Identification (REID) Screen for Determining Eligibility</b>
1. Mother is single, separated, or divorced
2. Partner is unemployed
3. Inadequate income or no information
4. Unstable housing
5. No phone
6. Education under 12 years
7. Inadequate emergency contacts
8. History of substance abuse
9. Late, none, or poor prenatal care
10. History of abortions
11. History of psychiatric care
12. Abortion unsuccessfully sought or attempted
13. Adoption sought or attempted
14. Marital or family problems
15. History of, or current depression
16. Mother is age 18 or younger
17. Mother has a cognitive deficit



## Program Sites and Families Served Since 1995

Table 1 shows that by the end of 2008, there was a total of 42 home visiting sites statewide and 5,669 families have received home visiting services since NFN program inception in 1995. (Note that the total number of families served at NFN sites excludes 98 families who received services at more than one site.) As of the end of 2008, there were 1,162 families who were active participants.

**Table 1. Number of Families Served at Each Program Site Statewide**

Program Sites	First Year Of-fered Services	Number of Families Served	Active Families as of end of 2008
Hartford VNA	1995	541**	71
WellPath (Waterbury)	1995	425**	42
So. Central VNA (New Haven)**	1996	387**	62
Bridgeport Child Guidance Center*	1996	501*	34
ECHN (Manchester)	1996	401	36
Lawrence & Memorial Hospital (New London)	1998	181	17
Yale/New Haven Hospital**	1998	276	55
Families Network of Western CT (Danbury)	1998	239	32
Family Strides (Torrington)*	1999	255*	44
Generations, Inc. (Willimantic)	1999	202	32
Hartford Hospital	1999	Connections & Group services only	
Family & Children's Agency (Norwalk)	2000	154	34
Madonna Place (Norwich)	2000	170	19
Hospital of Central Connecticut (New Britain)	2000	141	32
Family Centers (Stamford)	2000	118	25
St. Francis Hospital**	2000	155	30
Community Health Center (Meriden)	2002	126	47
Middlesex Hospital	2002	103	26
StayWell Health Center (Waterbury)	2002	134	23
Day Kimball Hospital (Putnam)	2005	79	22
Family Centers (Greenwich)	2006	40	19
Bristol Hospital	2006	57	25
4C's (New Haven)	2006	92	38
Asylum Hill (Hartford)	2005	80	23
El Centro (Hartford)	2005	66	27
Hispanic Health Council (Hartford)	2005	52	29
MIOP (Hartford)	2005	111	37
Parkville (Hartford)	2005	74	25
RAMBUH (Hartford)	2005	70	31
Southside (Hartford)	2005	107	32
Trust House (Hartford)	2005	67	29
New Milford VNA	2007	17	12
UCONN Health Center (Farmington)	2007	51	31
Johnson Memorial Hospital (Somers)	2007	19	16
City of New Haven Health Department	2007	34	22
Children's Community Programs (New Haven)	2007	30	15
Fair Haven (New Haven)	2007	30	21
Hill Health (New Haven)*	2007	48	25
St. Raphael's Hospital (New Haven)	2008	36	22
TOTAL		5,767	1,162
* These sites cover two hospitals/service areas ** This site have more home visitors than other sites			

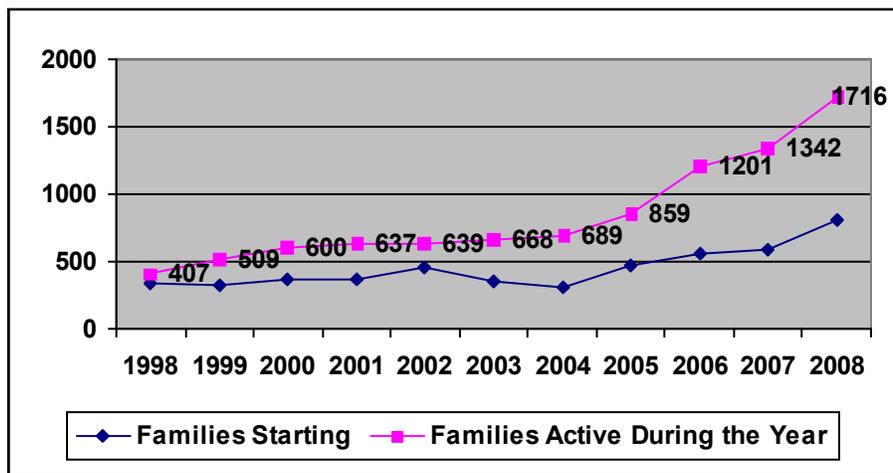
# Engaging Families

## NFN Home Visitation, 1995-2008

### Home Visiting Participation by Year Since 1998

As the program sites expanded across the state, there has been a comparative increase in screenings and participation in the home visiting program. Since 1999, a total of 41,965 first-time mothers have been screened for services. Across the years 1999 to 2008, 32% or 13,325 of the first-time mothers who were screened, were identified as high risk for poor parenting and abuse and neglect and eligible for home visiting services. Figure 3 shows the biggest increases in participation occurred with the expansion in Hartford in 2005 and a similar expansion in New Haven in 2007/2008.

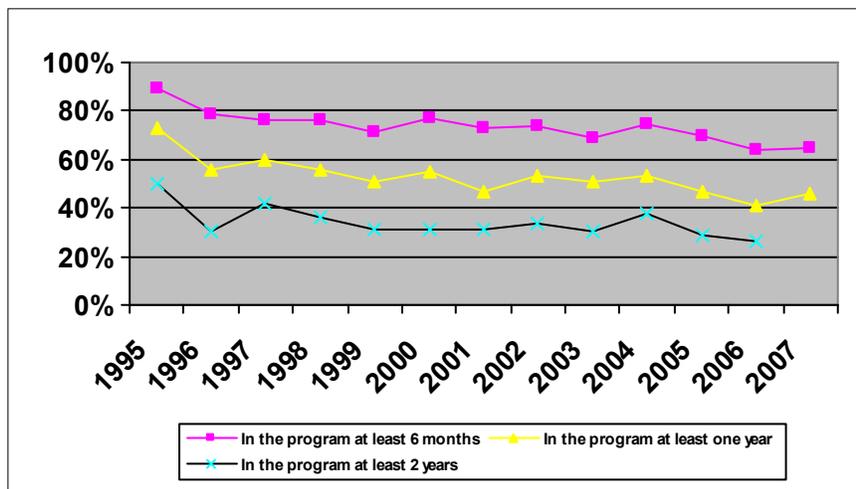
**Figure 3. Home Visiting Participation Rates by Year Since 1998**



### Program Retention Rates: 6 Months, 1 Year, 2 Years.

Families can receive intensive services in the home for up to 5 years. Figure 4 shows 6 month, 1 year and 2 year retention rates for each cohort for every program year since its inception in 1995. On average, 71% of families have remained in the program for at least six months, 50% have remained in the program for at least one year, and 31% have remained in the program for at least two years. About 9% have taken advantage of the program for the full five years.

**Figure 4. Program Retention Rates by Year of Program Entry**



## Change in Parenting Attitudes Over Time, NFN Home Visitation, 1995-2008

**Table 2. Change in Parenting Attitudes for 1, 2 3, 4 and 5 Year Participants, 1995-2008**

1 Year CAPI Scores N=1248	Program Entry	1 Year				
Abuse (Total)	149.9	134.8***	<p>In Table 2 we present outcome data on the Child Abuse Potential Inventory (CAPI), a self-report standardized instrument designed to measure someone's potential to maltreat children, for all families who participated in NFN since program inception in 1995.</p> <p><b>Outcome data indicate that families significantly reduced their risk for poor parenting and abuse even when active in the program for only one year.</b></p> <p>Data on the total Abuse scale and each of the subscales were analyzed separately (in a repeated measures analysis of variance) for all mothers who were active for one, two, three, four, and five years and who had completed the CAPI for each year that they participated.</p> <ul style="list-style-type: none"> <li>There was a significant decrease in the average total Abuse score from entrance to final year of participation for each analysis and the average total score dropped for five year participants from 147.1 to 100.0 (scale average for general population is 91). Further, there was a drop in the total Abuse score for each year of participation, indicating that the longer families stay in the program, the more they benefit.</li> <li>For the Rigidity and Distress subscales specifically, there were significant decreases in average scores from entrance to every subsequent year of analysis.</li> </ul>			
Distress	84.6	74.0***				
Rigidity	25.6	19.6***				
Unhappiness	15.1	16.9***				
Problems with child & self	1.2	1.6**				
Problems with family	11.2	10.9				
Problems from others	11.8	11.0***				
2 Year CAPI Scores N=586	Program Entry	1 Year	2 Year			
Abuse (Total)	150.6	135.9	123.1***			
Distress	85.5	74.3	66.1***			
Rigidity	24.5	19.7	17.1***			
Unhappiness	14.7	16.5	16.1**			
Problems with child & self	1.3	1.5	1.7			
Problems with family	11.3	11.7	10.5			
Problems from others	11.8	11.3	10.4***			
3 Year CAPI Scores N=301	Program Entry	1 Year	2 Year	3 Year		
Abuse (Total)	142.1	128.8	118.3	119.0***		
Distress	86.6	69.6	62.9	62.5***		
Rigidity	23.6	18.5	16.3	16.5***		
Unhappiness	13.9	16.4	15.5	17.5**		
Problems with child & self	1.4	1.7	1.8	2.1		
Problems with family	10.3	11.1	11.0	10.0		
Problems from others	11.2	10.9	10.1	9.6*		
4 Year CAPI Scores N=160	Program Entry	1 Year	2 Year	3 Year	4 Year	
Abuse (Total)	141.3	127.8	115.1	114.5	113.2**	
Distress	78.8	68.5	60.5	58.7	59.1**	
Rigidity	22.8	17.9	15.8	16.4	15.0***	
Unhappiness	14.2	16.0	14.9	16.9	16.7	
Problems with child & self	1.7	1.9	2.1	2.5	2.8	
Problems with family	10.8	10.9	10.7	9.5	10.2	
Problems from others	11.7	11.1	10.3	9.1	9.3**	
5 Year CAPI Scores N=82	Program Entry	1 Year	2 Year	3 Year	4 Year	5 Year
Abuse (Total)	147.1	132.9	120.9	113.6	115.6	100.0**
Distress	83.5	73.8	66.0	59.2	61.8	51.4*
Rigidity	23.1	17.8	15.8	16.1	15.9	14.9**
Unhappiness	14.4	16.4	14.6	16.5	15.4	14.0
Problems with child & self	1.9	1.7	1.8	2.2	2.9	1.9
Problems with family	10.7	10.6	10.6	9.0	10.2	9.4
Problems from others	12.8	11.9	10.9	8.8	9.3	8.8**

\*p<.05    \*\*p<.01    \*\*\*p<.001

# Program Overview, Summary of Key Findings, 1995-2008

## Screenings and Program Participation

The Nurturing Families Network, a system of care that provides a continuum of services to first-time mothers, has expanded across the state over the past 12 years. With this expansion there has been a comparative increase in screenings and program participation.

- In 1995 there were two program sites and 1,662 first time mothers who were screened for services; by 2008 there were 42 program sites across the state and 8,499 mothers who were screened for services.
- The Nurturing Connections component, first established in 1999 as an initial step in providing universal screening of all first-time mothers in Connecticut, is operating out of all 29 birthing hospitals. Screenings are also conducted in clinics and community agencies, and the current goal is to reach as many families as possible at the prenatal stage. Since 1999, a total of 41,965 first-time mothers have been screened for services. Across the years 1999 to 2008, 32% or 13,325 of the first-time mothers who were screened, were identified as high risk for poor parenting.
- A total of 5,669 families identified as high risk have received home visitation services since 1995. There were 1,162 active participants at the end of the 2008 program year, a 31% increase since the end of 2007.

## Risk Profiles, Retention Rates, and Outcome Data

The program has consistently reached a vulnerable population, provided them with intensive services, and overall , has yielded positive results.

- On average, 71% of families have remained in the program for at least six months, 50% have remained in the program for at least 1 year, and 31% have remained in the program for at least 2 years.
- During the course of program participation, mothers have made statistically significant improvements in their attitudes and expectations of their children as measured by the Child Abuse Potential Inventory. These outcome data indicate that families significantly reduced their risk for poor parenting and abuse even when active in the program for only one year.

# Statewide NFN Annual Evaluation, 2008

In this section of the report we provide 2008 annual data across all NFN programs in the state:

- Screening, enrollment, and services for both low-risk and high-risk families are examined.
- Family profiles, including risk factors, social demographic characteristics, household data, and education and employment information are described for families receiving home visitation services.
- Data on program participation and rates of retention as well as parent outcomes are analyzed.

# Nurturing Connections Services for Low Risk Families Statewide Data, 2008

## Disposition of Nurturing Connections Screens

In 2008, 3,529 out of 5,413 mothers identified as low risk (60%) were offered telephone support and referral services, and of those offered, 1,804 (55%) accepted services. Table 3 shows that the number of families screened each year for the past 4 years has increased, however, the percentage of low risk mothers who were offered services in 2008 and who accepted services has decreased.

## Nurturing Connections: Program Services

Nurturing Connections staff made an average of 5.8 calls to each of the participating families (see Table 3), a noticeable increase from the previous two years. Eliminating the 321 families whom staff were unable to contact after they left the hospital, they reached a total num-

ber of 1,588 who started services in 2008 and provided 2,072 referrals, mostly to Infoline, WIC, HUSKY, Mom's Parenting Group, and Help Me Grow. As shown in Table 4, rate of follow up (families making initial contact with the service they were referred to) on referrals was considerably lower in 2008 and 2007 when compared with the two previous years.

## NC Participant Characteristics

For 2008, Nurturing Connections mothers were, on average, 27 years of age at the time of the child's birth, slightly younger than the average age of fathers (30 years). Slightly more than one-half of mothers and fathers are White, 52% and 55% respectively, and about one-quarter are Hispanic. Table 5 show these data are similar with findings from the prior three years.

**Table 3. Disposition of NFN Families Identified as Low Risk, Statewide Data, 2005-2008**

Families Identified as Low Risk	2005	2006	2007	2008
	N=2856	N=3605	N=4506	N=5413
Offered Nurturing Connections	2319 (81%)	2851 (79%)	2946 (65%)	3529 (60%)
Accepted Nurturing Connections	1597 (69%)	1861 (65%)	1767 (60%)	1804 (55%)

Table 4. Nurturing Connections Program Services 2005-2008	2005	2006	2007	2008
Number of Families Who Participated	1782	1198	1712	1909
% of Families Unable to Reach	14%	21%	22%	17%
Avg. # of Calls Attempted per Family	8.8	6.3	7.7	10.2
Avg. # of Contacts-Calls per Family	5.2	3.5	4.6	5.8
# of Referrals to Resources	2005	2006	2007	2008
Infoline	279	47	105	265
WIC	236	45	125	176
HUSKY	208	9	105	142
Nurturing Group	16	14	18	18
NFN Home Visiting	19	15	23	51
Care 4 Kids	22	5	22	9
Mom's Parenting group	30	39	67	158
Department of Social Services	18	31	10	5
La Leche League	13	13	25	22
Help Me Grow	14	7	97	140
Other	782	389	629	1086
Total	1637	614	1226	2072
Rate of Follow-up on Referrals	70%	62%	29%	31%

**Table 5. NC Participant Characteristics 2005-2008**

Mother's Age	2005	2006	2007	2008
Under 16 years	<1%	<1%	1%	<1%
16-19 years	12%	10%	12%	12%
20-22 years	16%	16%	14%	19%
23-25 years	15%	14%	15%	13%
26-30 years	26%	30%	30%	27%
Over 30 years	31%	30%	29%	28%
Mean Age	27 yrs	27 yrs	27 yrs	27 yrs
Mother Race/Ethnicity	2005	2006	2007	2008
White	51%	62%	53%	52%
Hispanic	22%	19%	21%	25%
African American	14%	9%	11%	13%
Native American	0%	<1%	<1%	0%
Asian	3%	3%	3%	4%
Multi-racial	<1%	<1%	<1%	1%
Other	7%	7%	8%	5%
Father's Age	2005	2006	2007	2008
Under 16 years	<1%	0%	<1%	<1%
16-19 years	5%	4%	6%	5%
20-22 years	10%	10%	8%	12%
23-25 years	14%	11%	12%	13%
26-30 years	24%	26%	29%	26%
Over 30 years	47%	50%	46%	44%
Mean Age	30 yrs	31 yrs	31 yrs	30 yrs
Father's Race/Ethnicity	2005	2006	2007	2008
White	54%	62%	56%	55%
Hispanic	23%	19%	22%	27%
African American	11%	9%	11%	8%
Native American	0%	0%	<1%	<1%
Asian	3%	3%	3%	4%
Multi-racial	<1%	<1%	1%	1%
Other	9%	7%	8%	5%

# High Risk Families and Enrollment in Home Visitation Statewide Data, 2008

## Disposition of High Risk Screens in 2008

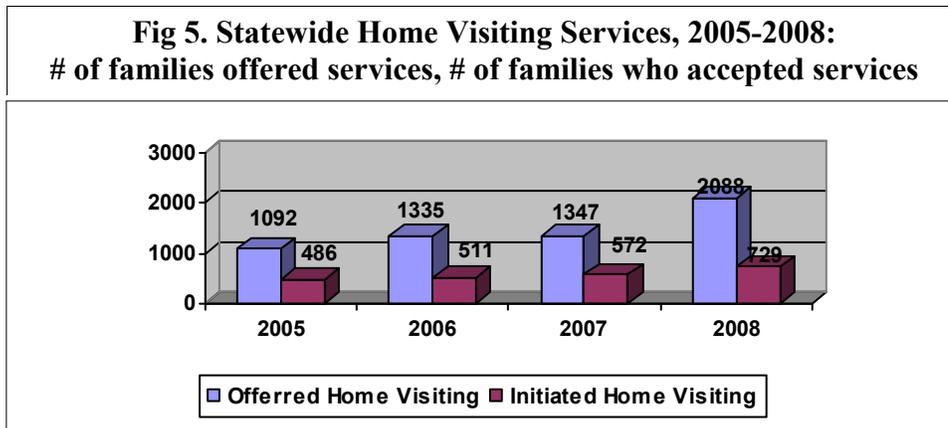
The Revised Early Identification (REID) screen is used to determine eligibility for home visiting services.

- There were 7,642 first-time mothers screened in 2008 and of those, 2,835 (37%) were identified as high risk.
- Services are offered based on program capacity. Table 6 shows that for 2008, services were offered to 2,088 (74% of families screened at high risk), and of those who were offered services, 729 (35%) first-time mothers and families initiated services.
- In situations where home visitation was filled to capacity, an additional 732 mothers who were identified as high risk were offered Nurturing Connections services (telephone support and referral information) and 420 (57%) of these first-time mothers accepted services.

<b>Table 6. Disposition of NFN Families Identified as High Risk, Statewide Data, 2005-2008</b>				
<b>High-Risk Families Offered Home Visiting</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Number Identified	<b>N=1423</b>	<b>N=2021</b>	<b>N=2229</b>	<b>N=2835</b>
Offered Home Visiting	1092 (77%)	1476 (73%)	1347 (60%)	2088 (74%)
Initiated Home Visiting	486 (45%)	579 (39%)	572 (42%)	729 (35%)
<b>High-Risk Families Offered Nurturing Connections</b>				
Offered Nurturing Connections	349 (24%)	403 (22%)	533 (24%)	732 (26%)
Accepted Nurturing Connections	286 (82%)	361 (90%)	346 (65%)	420 (57%)

## Enrollment rates for program years 2005-2008

- Table 6 and Figure 5 compare last year's data with the prior three years. Although there was an increase in screenings in 2008 and an increase in the number of families initiating services, the percentage of families who initiated services decreased (42% in 2007 to 35% in 2008). In the past year, program leaders have held statewide discussions on how the program is presented and offered to families, focusing specifically on engaging the high-risk families. In turn, the intake form was updated to track additional details on how the program is offered.



## Risk Profiles: Mothers' Kempe Scores and REID Screens, Statewide 2008

The Revised Early Identification (REID) screen is used to determine eligibility for home visiting services. However, data gathered using the Kempe Family Stress Inventory (Kempe) (administered during the first couple of home visits) provides a more nuanced profile of participating families.

- As shown in Table 7, the two subscales that show the greatest risk are Childhood History of Abuse/Neglect subscale, and Multiple Stresses, with 40% and 39% of mothers scoring at severe risk respectively.
- A little less than one-half (44%) of first time mothers scored moderate to severe risk on the History of Crime, Substance Abuse, Mental Illness subscale and 84% scored moderate to severe risk on the Low Self-Esteem/Social Isolation/Depression subscale.

In Table 8, we compare the percentage of mothers scoring positive on items on the REID screen across risk levels on the Kempe (i.e., low, moderate, high, and severe risk).

- There was little variation between the percentages of mothers who were single, unemployed, had inadequate income, had less than a high school education and were 18 or younger (as determined by the REID screen) across the risk levels on the Kempe.
- Not surprisingly, however, mothers who scored positive on the REID screen for having a history of substance abuse, history of psychiatric care, current depression, and marital/family problems were more likely to score at high or severe risk on the Kempe.
- Further analyses (not shown here), found that mothers who have a history of substance

	<b>0 Low Risk</b>	<b>5 Moderate Risk</b>	<b>10 Severe Risk</b>
1. Childhood History of Abuse/Neglect (N=744)	45%	15%	40%
2. History of Crime, Substance Abuse, Mental Illness (N=746)	56%	22%	22%
3. CPS History (N=736)	94%	3%	3%
4. Low Self-esteem/ Social Isolation/ Depression (N=749)	24%	54%	22%
5. Multiple Stresses (N=748)	23%	38%	39%
6. Potential for Violence (N=723)	77%	8%	14%
7. Unrealistic Expectation of Child (N=740)	64%	30%	5%
8. Harsh Punishment (N=731)	85%	10%	5%
9. Negative Perception of Child (N=723)	93%	6%	1%
10. Child Unwanted/ Poor Bonding (N=746)	20%	74%	6%

<b>REID SCREEN</b>	<b>Low Risk</b>	<b>Moderate Risk</b>	<b>High Risk</b>	<b>Severe Risk</b>
Single/Div/Sep	89%	91%	94%	100%
Partner Unemployed	43%	51%	51%	42%
Inadequate Income	82%	81%	90%	88%
Ed. Under 12 yrs	47%	53%	55%	43%
MOB 18 or younger	34%	39%	41%	38%
Hx Substance Abuse*	6%	12%	25%	20%
Hx Psych Care*	13%	21%	38%	59%
Mar/Fam Problems*	25%	41%	52%	60%
Hx/current depress*	26%	42%	51%	67%
* significant difference between percentages across risk levels				

- abuse are more likely to have a history of psychiatric care and depression. However, these variables are not correlated with single parenting, income, education, or age.
- These analyses indicate that there may be two groups among NFN participants: One group of participants that are vulnerable and at risk for poor parenting as

a result of the stress related to being single, poor, young, and with limited education; and another group of participants who are perhaps at higher risk given their more complicated life histories and experiences with substance abuse and mental illness.

# Home Visitation Families at Program Entry

## Statewide Data, 2008

### Mothers' Household and Demographic Information

Home visitors document families' demographic characteristics within the first month of program services.

- Table 9 shows 87% of the parents had never been married and 49% were teen mothers.
- Mothers were living with their mothers in 41% of these families, and fathers were living in 34% of the households.
- As reported by the mothers at

**Table 9. Household Data, Statewide, 2008**

<b>Families Screened Prenatally (N=813)</b>	46%
<b>Mother's Marital Status (N=699)</b>	
Single, never married	87%
Married	11%
Divorced, separated, widowed	2%
<b>Mother's Race/Ethnicity (N=696)</b>	
White	20%
African American	24%
Hispanic	46%
Other (e.g., multi-racial)	11%
<b>Mother Age at Baby's Birth (N=681)</b>	
Under 16 years	6%
16-19 years	43%
20-22 years	22%
23-25 years	13%
26 years and older	16%
Median Age	20 years
<b>Maternal Grandmother Living in the Household (N=678)</b>	41%
<b>Father Living in the Household (N=679)</b>	34%
<b>Father's Involvement With Child (N=428)</b>	
Very involved	58%
Somewhat involved	12%
Sees child occasionally	6%
Very rarely involved	4%
Does not see baby at all	20%

program entry, seventy percent of the fathers were at least somewhat involved, and more than half of the fathers (58%) were very involved.

- As with former years, NFN families are racially diverse with Hispanic families representing the largest racial/ethnic group (46%), followed by African American (24%), Whites (20%), and Other, including multi-racial (11%). The 2008 cohort has a larger percentage of African American mothers (24% compared to 14% in 2007) and a smaller percentage of families categorized as other (11% compared to 23% in 2007).

### Mothers' Social/Risk Factors

- As shown in Table 10, home visitors considered 69% of mothers to have financial difficulties and 34% to be socially isolated at time of program entry.
- Although only 10% of mothers received TANF at program entry, 41% of households (e.g., maternal grandmother) received TANF.

### Mothers' Pregnancy & Birth Information

This is the first full year that we have health information for the statewide NFN population.

- Health data in Table 11 indicate that 14% of NFN children were born with serious medical problems.
- Nine percent of the mothers smoked cigarettes during pregnancy.
- Twelve percent of children were born premature, which

**Table 10. Mothers' Social Problems/Risk Factors, 2008**

<b>Mother's Social Isolation, Arrest Histories, and Financial Difficulties</b>	<b>2008 (N=813)</b>
Mothers socially isolated	34%
Mothers with arrest history	16%
Mothers with financial difficulties	69%
Mothers receiving TANF	10%
Mothers receiving food stamps	22%

is slightly higher than the statewide rate of 10.1% (*National Vital Statistics Report, 2003*).

- Eleven percent of the NFN children had a low birth weight, which is higher than the national rate of 7.7% (*Kids Count Data Book, Casey Foundation, 2004*).
- Almost all the children have a pediatrician (98%). These rates are comparable with the 2007 rates.

**Table 11. Mothers' Pregnancy & Birth Information, 2008 (N=813)**

Mother smoked cigarettes during pregnancy	9%
Mother drank alcohol during pregnancy	3%
Mother used illicit drugs during pregnancy	5%
Child born with serious medical problems	14%
Born Prematurely (before 37 weeks gestation)	12%
Born Low Birth weight (under 5 lbs 8 oz)	11%
<b>Child has a Pediatrician</b>	
Yes	98%
No	<1%
Unknown	2%

# Education and Employment Rates at Program Entry

## Statewide Data, 2008

### Mothers' Life Course Information

<b>Table 12. Mothers' Life Course, Statewide, 2008</b>	<b>19 and younger</b>	<b>20 and older</b>
<b>Mother Education</b>	<b>(N=329)</b>	<b>(N=340)</b>
Eighth grade or less	8%	5%
More than 8 <sup>th</sup> grade, < high school	65%	19%
High school degree or GED	19%	39%
Some vocational training or college	7%	28%
College degree or graduate work	1%	10%
<b>Mother Enrolled in School</b>	<b>(N=327)</b>	<b>(N=346)</b>
Yes	45%	11%
<b>Employment Status</b>	<b>(N=327)</b>	<b>(N=346)</b>
Mother not employed	87%	68%
Mother employed	14%	32%
Full-time	4%	20%
Part-time job or occasional work	10%	12%
<b>Employed Prior to Pregnancy</b>	<b>(N=312)</b>	<b>(N=323)</b>
Yes	34%	78%

Mothers' education and employment data are presented in Table 12, separating mothers who were 19 years or younger when they had their child from those who were 20 and older. These data were separated due to different expectation in employment and education based on mother's ages.

- As expected, 73% of the younger cohort of mothers had less than a high school education at program entry; however, 45% were still enrolled in some type of school. In comparison, 24% of the older cohort had not completed high school.
- Thirty-four percent of the younger cohort of mothers were employed prior to pregnancy; only 14% remained employed around the time of birth. For the older cohort, 78% were employed prior to pregnancy and only 32% of these older mothers were employed at program entry.

### Fathers' Life Course Information

<b>Table 13. Fathers' Life Course, Statewide, 2008</b>	<b>19 and younger</b>	<b>20 and older</b>
<b>Father Education</b>	<b>(N=98)</b>	<b>(N=222)</b>
Eighth grade or less	3%	6%
More than 8 <sup>th</sup> grade, < than HS	66%	21%
High school degree or GED	26%	51%
Some vocational training or college	4%	14%
College degree or graduate work	1%	9%
<b>Father Enrolled in School</b>	<b>(N=101)</b>	<b>(N=258)</b>
Yes	43%	8%
<b>Employment Status</b>	<b>(N=99)</b>	<b>(N=256)</b>
Father not employed	51%	31%
Father employed	49%	69%
Full-time	24%	49%
Part-time job, occasional work, or working more than one job	22%	16%
<b>Fathers With an Arrest History</b>	<b>(N=79)</b>	<b>(N=218)</b>
Yes	51%	39%
<b>Fathers Currently Incarcerated</b>	<b>(N=75)</b>	<b>(N=216)</b>
Yes	5%	3%

Our data on fathers are limited, primarily because home visitors mostly rely on mothers to provide information on fathers (if the father is not part of the home visits). However, in the 2008 year, there has been an increase in the percentage of fathers for whom we have data. As with mothers' data, we analyzed employment and educational data by father's age at baby's birth (see Table 13)

- For the younger cohort, 69% of the fathers had less than a high school education, however, 43% were still enrolled in school. For the older cohort, 27% had less than a high school education and 8% were enrolled in school; 23% of the older cohort of fathers had some post-secondary education (either vocational training or a college degree).
- Fifty-one percent of the younger cohort and 31% of the older cohort of fathers were not employed.
- Of the fathers that we have data on, 51% of the younger cohort and 39% of the older cohort had an arrest history, and 5% and 3% respectively were incarcerated at the time of program entry.

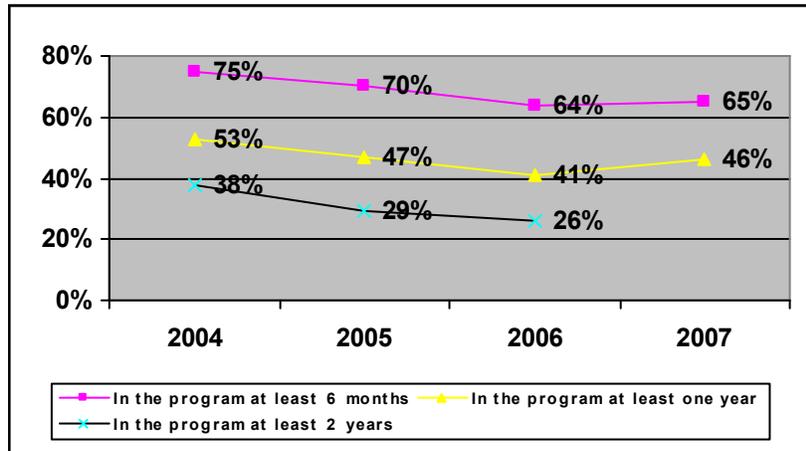
# Home Visitation Participation, Statewide Data, 2008

**Table 14. Program Participation Rates, 2005-2008**

Frequency of Home Visits & Program Participation	2005 N=931	2006 N=1176	2007 N=1342	2008 N=1716
Average # of attempted home visits	2.0	2.7	2.9	2.9
Average # of completed home visits	1.4	2.0	2.1	2.1
Average # of office/out of home visits	0.2	0.2	0.2	0.1
Average # of NFN social events attended	0.2	0.1	0.1	0.1
Total # of visits completed	1.8	2.3	2.4	2.3

As of the end of 2008, there were 1,162 families who were active at the program sites.

**Fig 6. Six month, 1 year, and 2 year Program Retention Rates**



## Program Participation Rates

Program services consist mostly of home visits and, on average, families receive two visits per month as shown in Table 14. Rates of program participation in 2008 are similar to the previous 2 years.

## Program Retention Rates

Six month, one year, and two year retention rates for 2008 are shown in Figure 6 by year. For mothers who entered the program in 2007, 65% remained in the program for 6 months and 46% remained in the program for 1 year, a slight increase from the 2006 cohort. Going back to 2006 for the 2 year retention rate, 26% of mothers entering the program participated for 2 years, a slight decrease from the 2005 cohort.

## Average Retention Rate Across Program Sites

The average retention rate across all program sites that initiated services at least 5 years ago (maximum program time) was calculated. On average, families participated for 22 months, which is the same as 2007.

**Table 15. Reasons Families Leave the Program, 2005-2008**

Reasons Families Left NFN Home Visiting	2005 N=343	2006 N=541	2007 N=560	2008 N=608
Family moved out of service area	16%	20%	15%	16%
Unable to locate mother	23%	28%	32%	36%
Discharged, family was noncompliant	6%	1%	0%	0%
Family decided to discontinue services	16%	16%	15%	16%
Mother is working or in school full-time, no time for home visits	11%	14%	15%	13%
Goals were met/family graduated	12%	3%	9%	8%
Baby removed from home by DCF	4%	3%	3%	2%
Discharged, family was not appropriate for the program	1%	1%	1%	1%
Other family member did not approve of services	1%	1%	1%	<1%
Home visitor left the program	0%	1%	1%	2%
Other	6%	7%	8%	4%

## Reasons Families Leave the Program

As shown in Table 15, the main reasons families leave the program is because the family moved without informing program staff (and were unable to be located) or they informed staff they were moving but it was out of the service area. Families also leave the program when the mother is not available for services (working or in school) or the family otherwise made a decision to leave the program (for unspecified reasons), and because the family met program goals (as documented by the home visitors).

# Home Visitation Participation by Prenatal Status, 2008

By operating out of all 29 birthing hospitals, NFN program staff can facilitate services during the immediate postpartum period. However, when possible, the goal is to reach families at the prenatal stage when first-time mothers are perhaps more receptive to services, and NFN staff can help families position themselves for better care for their children.

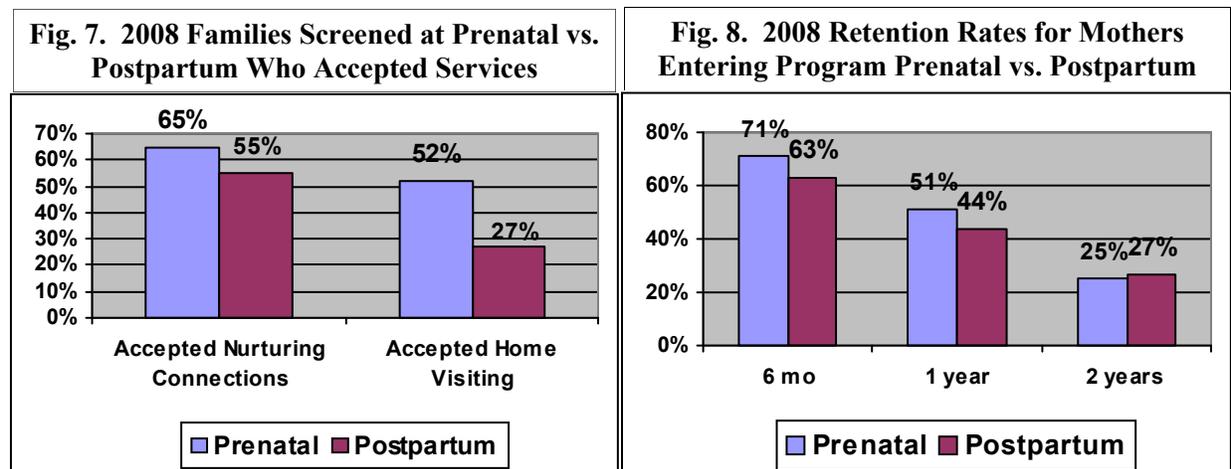
## Enrollment Rates by Prenatal Status

- Table 16 shows that 247 mothers identified as low risk in 2008 were screened at the prenatal stage (vs. 5,166 screened postpartum). Out of those who were offered telephone support and referral services, 65% accepted in comparison to 55% of mothers who were screened during the immediate postpartum stage (see Figure 9).
- Table 17 shows that for mothers identified as high risk, 717 were screened at the prenatal stage (vs. 2,118 screened postpartum), and 52% of mothers screened at the prenatal stage initiated home visiting compared with 27% of the mothers who were screened at postpartum (see Figure 7).

Table 16. 2008 Enrollment Rates: Low Risk Mothers Entering Program Prenatally vs. Post Partum			Table 17. 2008 Enrollment Rates: High Risk Mothers Entering Program Prenatally vs Postpartum		
2008 Negative Screens	Prenatal	Postpartum	2008 Positive Screens	Prenatal	Postpartum
Total # of Negative Screens	247	5166	# of Positive Screens	717	2118
Offered Nurturing Connections	190 (77%)	3069 (59%)	Families Offered Home Visiting	631 (88%)	1,457 (69%)
Accepted Nurturing Connections	124 (65%)	1680 (55%)	Initiated Home Visiting Services	330 (52%)	399 (27%)

## Program Retention Rates by Prenatal Status

- Figure 8 compares 6 month, 1 year, and 2 year retention rates as of 2008 for mothers who started the program at the prenatal stage versus immediate postpartum. For mothers who entered the program during the prenatal stage, 71% remained in the program for 6 months, 51% remained in the program for 1 year, and 25% for 2 years compared with 63%, 44%, and 27%, respectively, for mothers who entered the program postpartum.



## Change in Utilization of Community Resources Statewide Parent Outcomes, 2008

### Community Life Skills Scale

- The Community Life Skills (CLS) scale is a self-report standardized instrument that measures someone's knowledge and use of resources in his/her community. The CLS produces an overall score as well as scores on six subscales: Transportation, Budgeting, Support Services, Support Involvement, Interests/Hobbies, and Regularity/Organization/Routines. The overall (Total) score on the CLS ranges from 0-33, with higher scores indicating more effective use of community resources.
- As shown in Table 18, data on the Total CLS scale and each of the subscales were analyzed separately (repeated measures analysis of variance) for mothers who completed the survey for each year they participated and were active for 1 year (N= 220) and for 2 years (N=114).
- Analyses for both one and two year participants showed statistically significant changes on the Total scale and on the majority of the subscales.
- Significant improvement in community skills was documented in the areas of transportation, budgeting, accessing support services, involving support from others, and personal interests and hobbies. These data indicate families are becoming more aware of and accessing services within their communities.
- Improvement on the support/involvement scale specifically, means that mothers are more connected to others, and report on changes such as increased visiting with others, and having reciprocal relationships with friends and exchanging favors such as babysitting services.

<b>Table 18. Change in Mean Scores on the Community Life Skills for 1 &amp; 2 Yr Participants</b>			
<b>Community Life Skills Scale (N=220)</b>	<b>Program Entry</b>	<b>1 Year</b>	
<b>Total</b>	24.2	25.9***	
<b>Transportation</b>	3.1	3.4**	
<b>Budgeting</b>	3.3	3.7***	
<b>Support services</b>	4.2	4.5***	
<b>Support/Involvement</b>	4.4	4.9***	
<b>Interests/Hobbies</b>	2.7	2.9*	
<b>Regularity/Organization/Routines</b>	6.5	6.7*	
<b>Community Life Skills Scale (N=114)</b>	<b>Program Entry</b>	<b>1 Year</b>	<b>2 Year</b>
<b>Total</b>	23.8	26.0	26.3***
<b>Transportation</b>	3.2	4.1	3.5
<b>Budgeting</b>	3.1	3.6	3.9***
<b>Support services</b>	4.1	4.5	4.5***
<b>Support/Involvement</b>	4.4	4.9	5.0***
<b>Interests/Hobbies</b>	2.6	2.9	2.9*
<b>Regularity/Organization/Routines</b>	6.5	6.7	6.7
*p<.05    **p<.01    ***p<.001			

# Change in Mothers' Life Course Outcomes

## Statewide Data, 2008

Home visitors complete a questionnaire annually for each family active in the program from which we derive life course outcomes. As shown in Table 19, change in each of the life course outcomes was analyzed separately (in a repeated measures analysis of variance) for mothers who completed the questionnaire each year they participated and were active for one year and two years. (Note: Different N size is due to missing data.)

### Education, Employment, Independent Living

- Mothers who received one year of service, made significant progress in life course outcomes: rates of high school completion, employment, independent living and state support increased.
- Mothers who received two years of service

also made significant progress in education and employment.

### Financial Difficulties

- Rates of mothers who experience financial difficulties increased after one year, although there was no significant change after two years.
- Use of government assistance increased for 1 year participants but remained stable after two years.

### Social Isolation

- Mothers' isolation, one of the strongest predictors of child abuse and neglect, significantly decreased for both 1 year and 2 year participants.

<b>Table 19. Change in Mothers' Life Course Outcomes for 1 &amp; 2 Year Participants, Statewide Data</b>				
<b>Mothers' Living Circumstances: 2007-2008</b>	<b>N</b>	<b>Entry</b>	<b>1 Year</b>	
Mothers with at least a high school education	225	49%	56%**	
Mothers employed	244	22%	39%***	
Mothers employed full-time	244	11%	12%	
Mothers receiving child support (formal or informal)	95	13%	18%	
Mothers enrolled in school	241	32%	29%	
Mothers experiencing financial difficulties	226	66%	74%*	
Mothers socially isolated	233	30%	24%*	
Mothers living independently of family	205	38%	49%**	
Mothers receiving TANF	214	10%	19%**	
Mothers receiving Food Stamps	209	23%	35%**	
Mothers receiving WIC	209	86%	87%	
<b>Mothers' Living Circumstances: 2006-2008</b>	<b>N</b>	<b>Entry</b>	<b>1 Yr</b>	<b>2 Yr</b>
Mothers with at least a high school education	111	54%	59%	66%***
Mothers employed	114	25%	41%	48%***
Mothers employed full-time	111	15%	10%	13%
Mothers receiving child support (formal or informal)	52	15%	23%	27%
Mothers enrolled in school	118	31%	31%	28%
Mothers experiencing financial difficulties	105	73%	70%	70%
Mothers socially isolated	105	46%	23%	22%***
Mothers living independently of family	110	41%	50%	45%
Mothers receiving TANF	98	10%	19%	17%
Mothers receiving Food Stamps	98	27%	46%	48%***
Mothers receiving WIC	98	81%	87%	82%
*p<.05    **p<.01    ***p<.001				

## Change in Fathers' Life Course Outcomes Statewide Data, 2008

### Father Life Outcomes

As already noted, our data on fathers are limited primarily because information is often collected from the mothers if fathers are not part of the home visits. For this reason, the data should be interpreted with caution.

- Separate analyses were conducted for families receiving 1 year and 2 years of service by the end of 2008, and for whom data was collected on fathers for each year of participation.
- Similar to data collected on mothers, Table 20 shows change in fathers' living circumstances. Information collected on fathers also includes their involvement with their children, (not at all, rarely, occasionally, somewhat, very involved), most often rated by the mothers. Past research has shown that mothers tend to rate father involvement lower than fathers do (see Life Stories Report, 2004).

### Education and Employment

- For families that participated for one year and two years as of 2008, there were no significant improvements in fathers' rates of employment. Father's education, however, did increase significantly after one year.

### Financial Difficulties

- Rates of fathers who experience financial difficulties decreased after two years, although not significantly.

### Social Isolation

- Fathers' isolation remained low for both 1 and 2 year participants.

### Involvement with Children

- Fathers' involvement with their children range from 73% at program entry to 62% for 1 and 2 year participants.

**Table 20. Change in Fathers' Life Course Outcomes for  
1 & 2 Year Participants**

<b>Fathers' Living Circumstances, 2007-2008</b>	<b>N</b>	<b>Entry</b>	<b>1 Year</b>
Fathers with at least a high school education	148	60%	64%*
Fathers employed	172	65%	72%
Fathers employed full-time	172	24%	41%***
Fathers enrolled in school	171	15%	11%
Fathers with financial difficulties	123	59%	59%
Fathers socially isolated	122	6%	7%
Fathers at least somewhat involved with their children	161	73%	70%

<b>Fathers' Living Circumstances, 2006-2008</b>	<b>N</b>	<b>Entry</b>	<b>1 Year</b>	<b>2 Year</b>
Fathers with at least a high school education	63	60%	63%	65%
Fathers employed	71	65%	76%	73%
Fathers employed full-time	71	15%	21%	38%**
Fathers enrolled in school	76	17%	11%	13%
Fathers with financial difficulties	46	75%	67%	65%
Fathers socially isolated	42	12%	12%	12%
Fathers at least somewhat involved with their children	63	70%	62%	62%

\*p<.05    \*\*p<.01    \*\*\*p<.001

## Change in Mothers' Attitude & Potential for Abuse Statewide Data, 2008

As stated earlier, the Child Abuse Potential Inventory (CAPI) is a widely used and well-researched instrument. It produces an overall Abuse score as well as six subscale scores: Distress, Rigidity, Unhappiness, Problems with Child and Self, Problems with Family, and Problems with Others.

In this section we report on data for mothers who had been active in the program for one year (N=153) and two years (N=63), by the end of 2008 and who had completed the CAPI for each year that they participated. The total Abuse scale and each of the subscales were analyzed separately in a repeated measures analysis of variance.

### Rigidity Subscale

A significant decrease on the Rigidity subscale reveals that a mother is less likely to feel that her children should *always* be neat, orderly, and obedient. Mothers who have less rigid expectations of their children are less likely to treat their children forcefully.

- As shown in Table 21, mothers who participated in the program for one and two years made statistically significant improvements on the Rigidity subscale.

### Abuse & Distress Subscales

- In addition there was positive change on the total Abuse scale and the Distress scale for both 1 and 2 year participants, but the change was not statistically significant.

### Unhappiness & Problems with Child & Self Subscales

- For each of the analyses, there is change in the undesired direction on the Unhappiness and Problems with Child & Self subscales, although it is only significant on the Unhappiness subscale after 1 year.

**Table 21. Change in Means Scores on the Child Abuse Potential Inventory for 1 and 2 year participants, Statewide Data, 2008**

CAPI Scores (N=153) 2007-2008	Entry	1 Year	
<b>Abuse (Total)</b>	118.3	108.5	
<b>Distress</b>	61.8	55.8	
<b>Rigidity</b>	23.8	18.8***	
<b>Unhappiness</b>	13.5	16.5**	
<b>Problems with child &amp; self</b>	0.9	1.5	
<b>Problems with family</b>	8.8	7.6	
<b>Problems from others</b>	9.9	8.3*	
CAPI Scores (N=63) 2006-2008	Entry	1 Year	2 Year
<b>Abuse (Total)</b>	133.1	127.9	123.7
<b>Distress</b>	74.0	68.7	66.5
<b>Rigidity</b>	24.7	22.1	19.1*
<b>Unhappiness</b>	13.7	17.2	18.1
<b>Problems with child &amp; self</b>	0.9	1.1	1.6
<b>Problems with family</b>	9.2	8.1	7.8
<b>Problems from others</b>	10.5	10.4	10.4
*p<.05    **p<.01			

# Statewide NFN Evaluation, Summary of Key Findings

## **Nurturing Connections**

- The number of families screened for services each year for the past 3 years has steadily increased. However, the percentage of low risk mothers who were offered services in 2008 and who accepted services has decreased compared to the prior 3 years. In response to this trend, the Children's Trust Fund has worked with sites to better structure the process of offering the program and we have also developed a new intake to track these refined enrollment processes.
- Program staff reached 1,588 low risk families who entered the program in 2008. On average, families received six calls, which represents an increase over the past two years.
- Nurturing Connection Staff made 2,072 referrals on their behalf, mostly to Infoline, WIC, HUSKY, Mom's Parenting Group, and Help Me Grow. Rate of follow up on referrals made by staff for 2007 and 2008 was considerably lower this year compared to the prior two years - 31% in 2008 and 29% in 2007, versus 62% in 2006 and 70% in 2005, a finding that warrants examination.

## **Nurturing Home Visitation**

### *Risk Profiles*

- Home visitation services were offered to 2,088 (74% of families screened at high risk), and of those who were offered services, 729 (35%) first-time mothers and families initiated services.
- Comparative analyses of data on REID screens and the Kempe indicate that there may be two sub-groups of NFN participants: One group of participants that are vulnerable and at risk for poor parenting as a result of the stress related to being single, poor, young, and with limited education and experience; and another group of participants who are perhaps at higher risk given more complicated life histories and experiences with substance abuse and mental illness.

### *Retention Rates*

- We saw a slight increase in the 6-month and 1-year retention rates in 2008, but also a slight decrease in the 2-year retention rate. The rates are comparable to national retention rates for similar home visitation models (Gomby, 2007), which also average 2 visits per month. In addition, families participate in home visitation, on average, 22 months across all program sites that have provided services since at least 2003 (the maximum five-year program time).
- Rates of program acceptance and retention are higher for mothers screened at the prenatal stage than mothers screened postpartum indicating that first-time mothers may be more receptive when offered services during their pregnancy versus after they have their babies.

### *Program Outcomes*

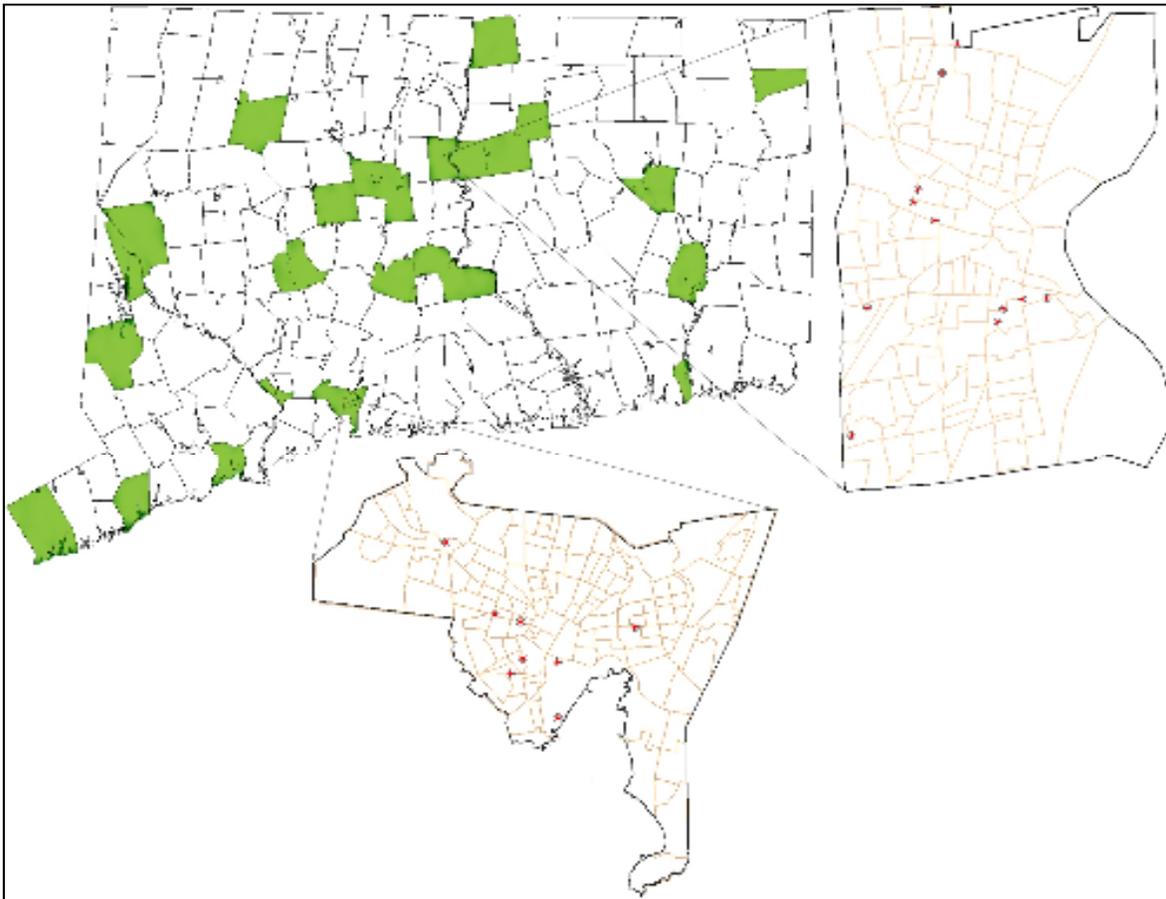
- Mothers who received 1 and 2 years of home visits made statistically significant improvement in community life skills in the areas of transportation, budgeting, accessing support services, involving support from others, and in the organization and regularity of routines. They also made significant progress in life course outcomes including education, employment, and independent living.
- Documentation on fathers' outcomes are limited primarily because information is often collected from the mothers; these data are therefore difficult to interpret. However, there were significant increases in education after one year and significant increases in full-time employment at one and two years.
- Consistent with analyses in prior years, mothers who participated in the program for one and two years made statistically significant improvements on the CAPI-Rigidity subscale indicating they have less rigid expectations of their children and are less likely to treat their children forcefully.

# NFN Urban Focus, 2008

In 2005, Hartford was targeted as the first city in Connecticut to “go to scale”- that is, to screen all first-time mothers for home visitation services in the city. Accordingly, the NFN home visitation program was expanded from two to ten program sites within Hartford. Six of these sites are also run by Neighborhood Family Centers funded by the Hartford Foundation for Public Giving. At the end of 2007, New Haven was the second city to go to scale, from three to eight program sites (also see Table 1). This strategy is an attempt to target parenting practices among vulnerable families who often reside in resource-deprived neighborhoods. We also compare urban data with statewide data on a variety of measures. This is done to highlight any differences in demographics that may explain differences in family outcomes.

In the following sections we will report on enrollment, descriptive, and outcome data for families participating in home visitation within the Hartford and New Haven NFN sites.

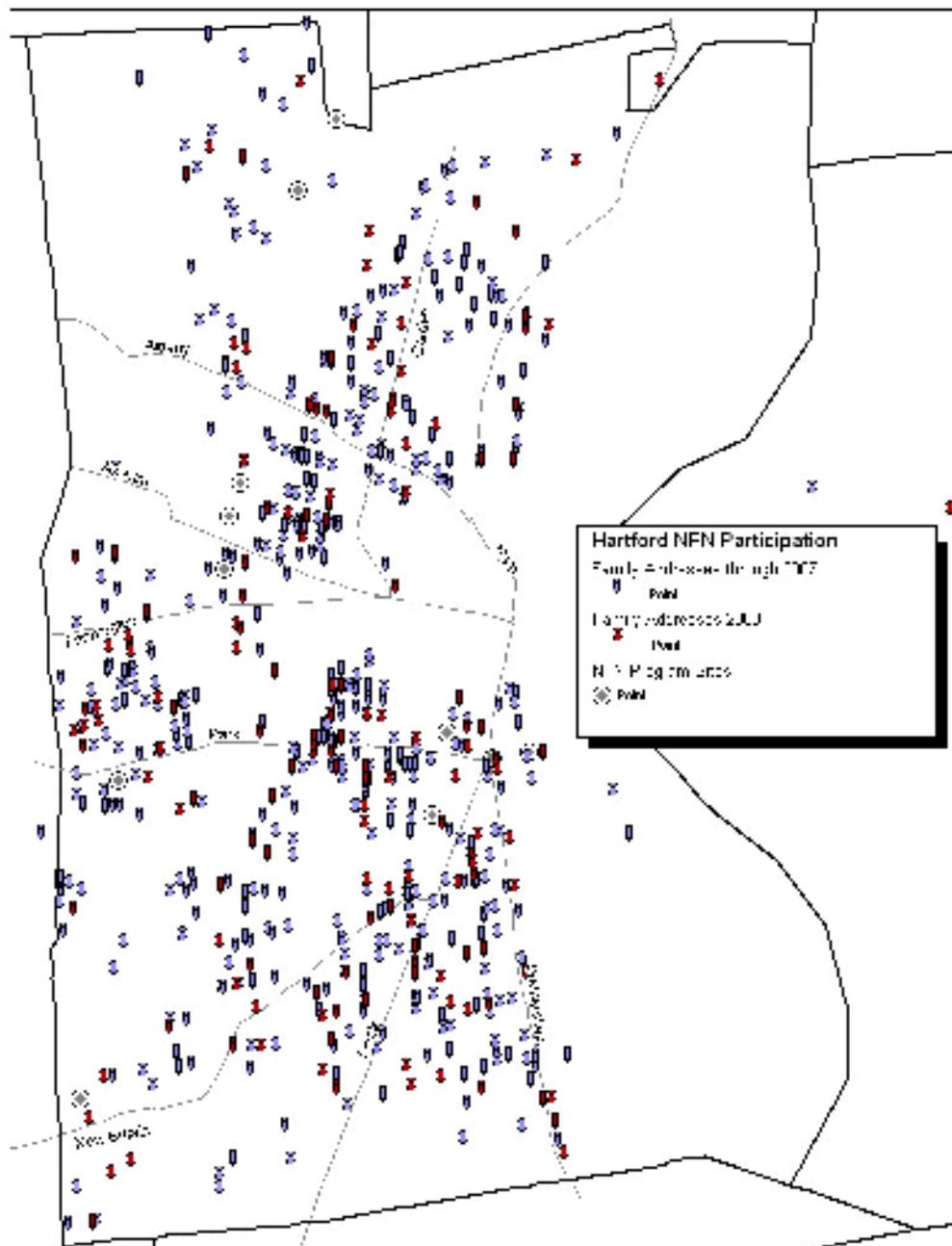
**Figure 9. Enhanced Program Services in Hartford and New Haven**



## Residences of Families Who Have Received Hartford Home Visitation Services

There are a total of 804 families who either participated in Hartford NFN in the past or who are currently receiving services. As Figure 10 shows, NFN services permeate the city of Hartford, with participating families spread fairly evenly across the residential areas of the city. There are, however, particularly dense concentrations in Asylum Hill, Frog Hollow and the West End, smaller clusters of NFN families in Clay Arsenal and Upper Albany, and a large number of NFN families who are spread throughout the Northeast neighborhood.

Figure 10. Hartford NFN Program Sites and Families



# High Risk Families and Enrollment in Home Visitation Hartford Data, 2008

## Screening

As shown in Table 22, there were 2,163 initial screens completed in Hartford in 2008 and 1,449 families were screened as low risk. Of the 1,449 families, 23% were offered Nurturing Connections services, and of those, 59% accepted.

Of the 2,163 screens completed in Hartford in 2008, 714 (or 33%) of these first-time mothers were identified as high risk for poor parenting. Generally, services are offered based on program capacity. As compared with previous three years, Table 23 shows that the percentage of families offered services has declined from 98% in 2005 to 69% in 2008. These data indicate that the Hartford programs may be screening more families than they are able to serve (for both low and high risk families).

The acceptance rate for home visiting services also decreased this year (from 47% to 39%), which mirrors the statewide trend. However, about the same number of families, a little less than 200, initiated services in 2008 in Hartford as compared to 2007.

**Table 22. Screening in Hartford, 2008**

<b>Total # of screens</b>	2163
<b># Low Risk</b>	1449
Offered Nurturing Connections	327 (23%)
Accepted Nurturing Connections	192 (59%)
<b># High Risk</b>	714
Offered home visiting	495 (69%)
Initiated services	193 (39%)

**Table 23. Disposition of Families Identified as High Risk, Hartford Data, 2005-2008**

<b>Families Identified as High Risk</b>	<b>2005 (N=526)</b>	<b>2006 (N=1164)</b>	<b>2007 (N=1796)</b>	<b>2008 (N=2163)</b>
# of Positive Screens	300	548	564	714
Offered Kempe (2nd screen)	295 (98%)	505 (92%)	—	—
Offered Home visiting (no 2nd screen)	—	—	412 (73%)	495 (69%)
Initiated services	155 (53%)	221 (44%)	194 (47%)	193 (39%)

# Risk Profiles: Hartford Mothers' Kempe Scores, 2005-2008

## 2008 Hartford Mothers' Kempe Scores on Individual Items

The Kempe Family Stress Inventory (Kempe) is scored across 10 items, with each item scored either 0 (no/low risk), 5 (moderate risk), or 10 (severe risk), to indicate presence and severity. Each of these items, however, includes a larger set of criteria from which judgments are made, and these criteria provide a much better description of risk. As part of our enhanced research design in Hartford, we report on these data for families who scored in the severe range focusing on items with the highest rates of severe risk:

- As shown in Table 24, the two subscales that show the greatest risk are Childhood History of Abuse/Neglect subscale, and Multiple Stresses, with 39% and 49% scoring as severe on each, respectively. A little less than one-half of first time mothers scored moderate to severe risk on the History of Crime, Substance Abuse, Mental Illness subscale and 84% scored moderate to severe risk on the Low Self-Esteem/Social Isolation/Depression subscale.
- *Childhood History of Abuse/Neglect (N=195)* Thirty-eight percent, 75 of these mothers, were identified as experiencing severe forms of abuse or neglect as children. Of these 75 moth-

ers, 42% experienced severe beatings and 36% were raised by parents who were alcoholics or drug addicted; 57% were raised by *more* than 2 families and 34% were removed from their home or abandoned by their parents.

- *Low Self-esteem/Social Isolation/Depression (N=196)* Twenty percent (40 mothers) scored at severe risk on this multiple construct item. More than half of these mothers reported that they were socially isolated (rarely saw other people and when they did, they did not find it enjoyable); 50% reported that they had a history of child maltreatment without resolution; 47% had a history indicative of limited coping; 48% reported feeling very unhappy or depressed with life; 41% indicated they were not close to their family; and 27% could not name any lifelines.
- *Multiple Stresses (N=196)* Forty-eight percent (95) indicated severe levels of multiple stresses. Twenty-eight percent of these mothers reported being in constant conflict and 28% experienced continual crises which they felt unable to handle; 72% reported that financial difficulties were related to much of their stress.

	<b>0</b>	<b>5</b>	<b>10</b>
1. Childhood History of Abuse/Neglect (N=195)	41%	20%	39%
2. History of Crime, Substance Abuse, Mental Illness (N=195)	57%	22%	21%
3. CPS History (N=201)	94%	3%	3%
4. Low Self-esteem/ Social Isolation/ Depression (N=201)	16%	66%	18%
5. Multiple Stresses (N=202)	14%	38%	49%
6. Potential for Violence (N=202)	71%	12%	16%
7. Unrealistic Expectation of Child (N=202)	62%	33%	5%
8. Harsh Punishment (N=201)	78%	14%	9%
9. Negative Perception of Child (N=199)	96%	4%	1%
10. Child Unwanted/ Poor Bonding (N=202)	21%	72%	7%

# Home Visitation Families at Program Entry Hartford Data, 2008

## Health Related Risk Factors

Health data provided in Table 25 indicate that:

- 11% of NFN children were born with serious medical problems, 4% were born premature and 14% with low birth weight.
- Rate of premature births in Hartford in 2008 (4%) is lower than the NFN state-wide rate (12%), and the state rate of 10.1%.
- The rate of children born with low birth weight, however, is about double the state NFN rate of 7.4%, and national rate of 7.7%. Addition-

	2008
<b>Prenatal Screens (N=195)</b>	56%
<b>Mother's Marital Status (N=194)</b>	
Single, never married	86%
Married	10%
Divorced, separated, widow	4%
<b>Mother's Race/Ethnicity (N=194)</b>	
White	6%
African American	21%
Hispanic	69%
Other (includes multi-racial)	4%
<b>Mother age at Baby's Birth (N=193)</b>	
Under 16 years	6%
16-19 years	49%
20-22 years	17%
23-25 years	12%
26 years and older	16%
Median Age	20 yrs
<b>Maternal Grandmother Living in the Household (N=188)</b>	46%
<b>Father Living in the Household (N=188)</b>	28%
<b>Father's Involvement W/ Child (N=101)</b>	
Very involved	67%
Somewhat involved	14%
Sees child occasionally	3%
Very rarely involved	2%
Does not see baby at all	14%

Health Related Risk Factors	2005 N=108	2006 N=124	2007 N=127	2008 N=127
Mother smoked cigarettes during pregnancy	8%	4%	4%	9%
Mother drank alcohol during pregnancy	1%	3%	0%	5%
Mother used illicit drugs during pregnancy	4%	5%	2%	6%
Child born with serious medical problems	13%	6%	12%	11%
Premature Birth (before 37 weeks gestation)	7%	15%	10%	4%
Born Low Birth Weight (under 5 lbs 8 oz)	5%	17%	11%	14%
<b>Child has a Pediatrician</b>				
Yes	98%	98%	97%	99%
No	0%	2%	1%	0%
Unknown	2%	0%	2%	1%

ally, the 14% rate is higher than the Hartford city-wide rate of 11.4% (CT DPH Provisional Tables).

## Family and Household Data

Profiles of Hartford mothers were similar to profiles of mothers statewide with the exception that all but 6% were nonwhite (see Table 26).

- 86% of Hartford NFN mothers were single/never married (86% statewide)
- Median age at child's birth was 20 yrs.
- Slightly more mothers were living with their mothers in Hartford (46% vs. 41% statewide), and fathers were less likely to be living in Hartford NFN households (28% vs. 34% statewide).
- Rates of father involvement were higher in Hartford (81% at least somewhat involved) compared to statewide (70%).

## Financial and Social Risk Factors

- As shown in Table 27, home

visitors considered 72% of mothers to have financial difficulties at time of program entry.

- Home visitors perceived 17% of Hartford mothers to be socially isolated, compared with 34% statewide. However, Table 29 also shows that 48% of mothers' self-ratings on the Center for the Epidemiological Studies scale (CES-D) indicate they were experiencing significant levels of depression.

	2008
Socially isolated (N=186)	17%
Arrest history (N=185)	17%
Financial difficulties (N=183)	72%
Receiving TANF (N=187)	10%
Receiving Food Stamps (N=176)	28%
Mean CES-D Depression Score (N=138)	16.8
% of Mothers Scoring Above the CES-D Cutoff	48%

# Education and Employment Rates at Program Entry Hartford Data, 2008

## Hartford NFN 2008:

### Mothers' Life Course Information

Mothers' education and employment data are presented in Table 28, separating mothers who were 19 years or younger when they had their child from those who were 20 and older. These data were separated due to different expectation in employment and education based on mother's ages

- Eighty-four percent of the younger cohort of mothers had less than a high school education at program entry (compared to 79% in 2007). Forty percent of young mothers were enrolled in school, which was similar to the 41% in 2007. In comparison to the statewide population, the older Hartford cohort had similar education: 28% had less than a high school degree versus 24% statewide; 39% had some post secondary education versus 38% among the statewide population.
- Rates of employment for Hartford mothers (9% for the young cohort and 37% for the older cohort) were somewhat similar to the statewide population with slightly lower employment rates for the young Hartford mothers (14% for the younger cohort and 32% for the older cohort), .

## Hartford NFN 2008

### Fathers' Life Course Information

We also analyzed father's employment and educational data by father's age at baby's birth. These data should be interpreted with caution; home visitors often rely on mothers to provide information. Also, analyses are based on a small sample size and may not be representative of all the fathers.

- For the younger cohort, 60% of the fathers had less than a high school education and 42% were enrolled in school; 29% of the older cohort had less than a high school education and 26% had at least some post secondary education. These data are comparable to the statewide fathers.
- Sixty-three percent of the younger group and 33% of the older Hartford cohorts were unemployed. Among the state population these rates were 51% and 31%, respectively.
- Younger fathers were incarcerated at higher rates in Hartford: 18% of the younger cohort and 3% of the older in comparison to 5% and 3% for statewide, respectively.

Mother Life Course Indicators	19 and younger	20 and older
<b>Education</b>	(N=107)	(N=86)
Eighth grade or less	14%	6%
More than 8 <sup>th</sup> grade, < high school	70%	22%
High school degree or GED	10%	34%
Some vocational training/college	5%	33%
College degree or graduate work	0%	6%
<b>Enrolled in School</b>	(N=106)	(N=86)
Yes	40%	9%
<b>Employment Status</b>	(N=106)	(N=86)
Mother not employed	91%	63%
Mother employed	9%	37%
Full-time	3%	30%
Part-time job or occasional work	6%	7%
<b>Employed Prior to Pregnancy</b>	(N=103)	(N=82)
Yes	23%	77%

Father Life Course Indicators	19 and younger	20 and older
<b>Education</b>	(N=25)	(N=82)
Eighth grade or less	0%	9%
More than 8 <sup>th</sup> grade, < high school	60%	20%
High school degree or GED	36%	46%
Some vocational training/college	4%	16%
College degree or graduate work	0%	10%
<b>Enrolled in School</b>	(N=24)	(N=87)
Yes	42%	7%
<b>Employment Status</b>	(N=24)	(N=87)
Father not employed	63%	33%
Father employed	38%	67%
Full-time	17%	43%
Part-time job, occasional work, Or working more than one job	21%	24%
<b>Fathers With an Arrest History</b>	(N=24)	(N=77)
Yes	58%	40%
<b>Currently Incarcerated</b>	(N=22)	(N=80)
Yes	18%	3%

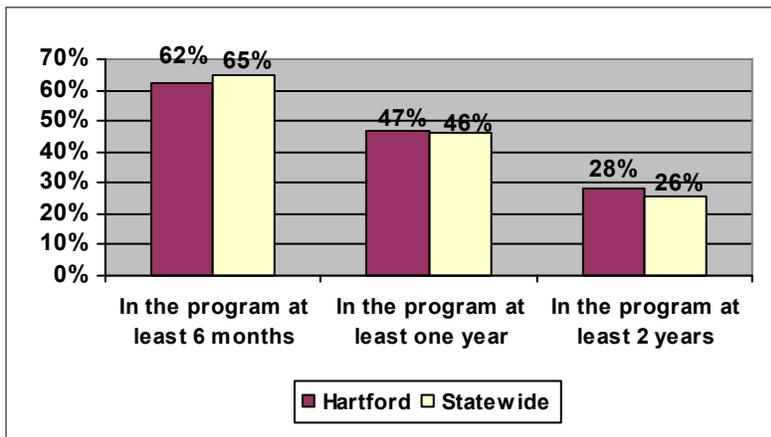
- Young Hartford fathers were also incarcerated at higher rates than statewide fathers (18% vs. 5%, respectively, although the arrest history rates were fairly comparable).

# Home Visitation Participation, Hartford Data, 2008

**Table 30.**  
**Hartford Program Participation, 2005 - 2008**

Frequency of Home Visits	2005 N=104	2006 N=313	2007 N=420	2008 N=474
Average # of attempted home visits	3.1	2.9	3.2	3.0
Average # of completed home visits	2.1	1.9	2.1	2.0
Average # of office/out of home visits	0.2	0.2	0.2	0.2
Average # of NFN social events attended	0.1	0.2	0.1	0.1
Total # of visits completed	2.4	2.3	2.4	2.3

**Figure 11.**  
**6 month, 1 year, and 2 year Program Retention Rates  
Hartford compared with Statewide Data**



**Table 31.**  
**Reasons Hartford Families Leave Home Visiting, 2005 - 2008**

Reasons Hartford Families Left the Program	2005 N=29	2006 N=159	2007 N=157	2008 N=147
Family moved out of service area	24%	18%	15%	18%
Unable to locate mother	17%	31%	37%	42%
Discharged, family was noncompliant	0%	0%	0%	0%
Family decided to discontinue services	45%	23%	21%	21%
Mother is working or in school full-time, no time for home visits	3%	20%	21%	10%
Goals were met/family graduated	0%	0%	0%	1%
Baby removed from home by DCF	0%	1%	1%	3%
Discharged, family was not appropriate for the program	0%	0%	1%	1%
Other family member did not approve of services	0%	1%	2%	1%
Home visitor left the program	0%	0%	0%	0%
Other	10%	6%	4%	5%

## Participation Rates

- Similar to the statewide population, families, on average, receive 2 visits per month (see Table 30). However, the average number of attempted visits have been slightly higher in Hartford than statewide for the past three years: average number of attempted visits have been 2.9, 3.2, and 3.0 for 2006, 2007, and 2008 program years respectively versus 2.7, 2.9, and 2.9 statewide.

## Program Retention Rates

- Six month, one year, and two year retention rates for Hartford and Statewide are shown in Fig. 11. All of these rates are comparable, with 62% receiving services at least six months, 47% one year, and 28% for two years in Hartford.

## Reasons Families Leave the Program

- The foremost reason Hartford families stop participating is because they relocate without informing staff. This rate is higher compared to statewide, 42% vs. 36%, respectively. Also, 18% of families who discontinued services moved out of the service area (and informed staff). In addition, families decide to leave the program for "unspecified reasons" at higher rates in Hartford than statewide (21% vs. 16%).

# Utilization of Community Resources Hartford Parent Outcomes, 2008

## Community Life Skills Scale (CLS)

Data on the Total CLS scale, and each of the subscales were analyzed separately (in a repeated measure analysis of variance) for mothers active for 6 months (N=106), one yr. (N=65) and two years (N=46).

- Table 32 shows that statistically significant changes in mean scores were documented on the Total CLS scale and several subscales. Specifically, there was improvement in the areas of transportation, budgeting and accessing support services.

<b>Table 32. Change in Mean Scores on the Community Life Skills Scale 6 mo, 1 and 2 Yr Participants, Hartford, 2008</b>				
Community Life Skills	Entry (N=106)	6 Mo		
<b>Total</b>	23.8	25.7***		
<b>Transportation</b>	3.3	3.6***		
<b>Budgeting</b>	3.1	3.6***		
<b>Support services</b>	4.1	4.4**		
<b>Support/Involvement</b>	4.3	4.7**		
<b>Interests/Hobbies</b>	2.7	2.8*		
<b>Regularity/Organization/Routines</b>	6.5	6.6		
Community Life Skills	Entry (N=65)	6 Mo	1 Yr	
<b>Total</b>	23.2	25.1	25.5***	
<b>Transportation</b>	3.2	3.5	3.4*	
<b>Budgeting</b>	3.0	3.5	3.5**	
<b>Support services</b>	3.9	4.4	4.7***	
<b>Support/Involvement</b>	4.2	4.5	4.6	
<b>Interests/Hobbies</b>	2.5	2.7	2.8	
<b>Regularity/Organization/Routines</b>	6.5	6.5	6.6	
Community Life Skills	Entry (N=46)	6 Mo	1 Yr	2 Yr
<b>Total</b>	23.7	25.1	26.1	26.7*
<b>Transportation</b>	3.3	3.7	5.3	3.7
<b>Budgeting</b>	2.9	3.4	3.5	3.9***
<b>Support services</b>	4.1	4.3	4.7	4.6***
<b>Support/Involvement</b>	4.5	4.8	4.6	4.8
<b>Interests/Hobbies</b>	2.6	2.8	3.0	3.0
<b>Regularity/Organization/Routines</b>	6.2	6.1	6.5	6.6
*p<.05    **p<.01    ***p<.001				

<b>Table 33. Number and Type of Community Referrals, Hartford Data, 2008</b>			
Type of Referrals 2008 (N=474)	#	%	Follow-Up Rate
WIC	9	1%	44%
DSS	50	5%	82%
Social Security	6	1%	50%
Food needs	199	22%	86%
Doctor/medical services	26	3%	65%
Housing needs	133	15%	64%
Legal needs	14	2%	64%
Household needs	181	20%	93%
Early intervention/day care	41	4%	66%
Mental health/counseling	17	2%	59%
Crisis intervention	0	NA	NA
Parenting class/program	11	1%	36%
Domestic violence	9	1%	33%
Substance abuse	2	<1%	50%
Employment/education	75	8%	60%
Dept of Children & Families	5	1%	40%
Recreation	27	3%	37%
Cultural/religious	0	NA	NA
Other	107	12%	74%
<b>TOTAL</b>	<b>912</b>	<b>100%</b>	<b>75%</b>

### Community Referrals

Community referrals are documented in Hartford, a city with a very high poverty rate, to assess resources and service networks that are available for NFN families.

- As shown in Table 33, home visitors made 912 referrals on behalf of families, mostly for food (22%) and household needs (20%), and follow up rates on these referrals (i.e., family contacted the program/agency) were high. Overall, families followed through with about three-quarters of referrals, an increase from the 2007 rate of 66%.

# Change in Symptoms of Depression and Change in Parenting Attitude, Hartford Outcomes, 2008

## Center for the Epidemiological Studies Depression Scale (CES-D)

The CES-D is used to assess the prevalence of depression in the Hartford sample. It is a widely used self-report scale intended for the general population. The instrument measures depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, loss of appetite, sleep disturbances, and psychomotor retardation. Data for the CES-D were analyzed separately (in a repeated measures analysis of variance) for mothers active for six months (N=68), one year (N=38), and two years (N=35) as of the end of the 2008 program year. These data showed no significant change over time. However, further analysis showed that of the 30 mothers that scored at or above the cutoff on the CES-D (16) at program entry, there was a significant decrease in scores after six months from 22.8 at program entry to 18.0 after 6 months (still above the cutoff point, however).

## Child Abuse Potential Inventory, Rigidity Subscale (CAPI-R)

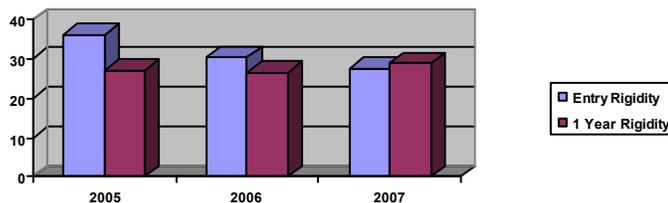
In Table 34, we present outcome data on the Child Abuse Potential Inventory Rigidity Scale (CAPI-R), a self-report scale that measures the rigidity of attitudes and beliefs about the appearance and behavior of children. The subscale is based on the theoretical assumption that rigid attitudes and beliefs lead to a greater probability of child abuse and neglect. Hartford parents complete the CAPI-R at program entry, six months, and then on annual anniversaries of their start-date in the program.

**Table 34. Child Abuse Potential Inventory - Rigidity Subscale Hartford Outcome Data, 6 Month, 1 and 2 Year Participants**

6 mo CAPI (N=92)	Program Entry	6 Months		
Mean Rigidity Score	27.5	26.1		
1 yr CAPI (N=53)	Program Entry	6 Months	1 Year	
Mean Rigidity Score	28.5	28.5	30.1	
2 yr CAPI (N=42)	Program Entry	6 Months	1 Year	2 Year
Mean Rigidity Score	29.6	25.2	24.9	23.0
*p<.05   **p<.01   ***p<.001				

- Data for the CAPI-R were analyzed separately (in a repeated measures analysis of variance) for mothers active for six months (N=92), one year (N=53), and two years (N=42) as of the end of the 2008 program year.
- Results show a decrease in the rigidity score at 6 months and 2 years, although the decrease was not statistically significant. After one year, there was a slight increase in rigidity scores, although it was not significant.
- We examined rigidity scores at entry and 1 year for Hartford families separated by the year they started the program. These data are shown in Figure 12. These data show that families that started in 2005 and 2006 made some decreases in rigidity scores (the change in 2005 was statistically significant), and those who started in 2007 actually had a slight increase.
- It should also be noted that the Rigidity scores in Hartford are noticeably higher compared to statewide. For the 1 year sample, the average score in Hartford was 28.5 versus 23.8, indicating that the Hartford mothers have more rigid expectations than their statewide counterparts.

**Figure 12. Rigidity Subscale Entry and 1 Year Outcome Data By Year: 2005-2007**



## **2008 Hartford Data Analysis: Summary of Key Findings**

### **Program Capacity and Enrollment of High Risk Families**

- In 2008, there were 2,163 initial screens completed in Hartford and 714 (or 33%) of these first-time mothers were identified as high risk for poor parenting; 193 Hartford families initiated services in 2008.
- The percentage of Hartford families who are offered home visitation services has declined from 98% in 2005, 91% in 2006, and 73% in 2007 to 69% in 2008, indicating that many of the Hartford NFN programs are reaching capacity. However, the number of screens completed has increased, which indicates that the program may be screening more families than they are equipped to serve.
- The enrollment data in Hartford indicates that the NFN services permeate the city. As designed, families are effectively being recruited and engaged in all the Hartford residential areas.

### **Demographic and Risk Profiles**

- The demographic profiles of Hartford mothers are fairly comparable to the profiles of state-wide mothers, with the exception of racial makeup (more Hispanic and Black mothers in Hartford and much less White mothers).
- Hartford mothers show the most risk on the Kempe in past experiences of child maltreatment, social isolation, depression, and multiple stresses.
- Further, 48% of mothers who entered the program in 2008 scored above the cutoff on the CES-D, a measure of depressive symptoms.

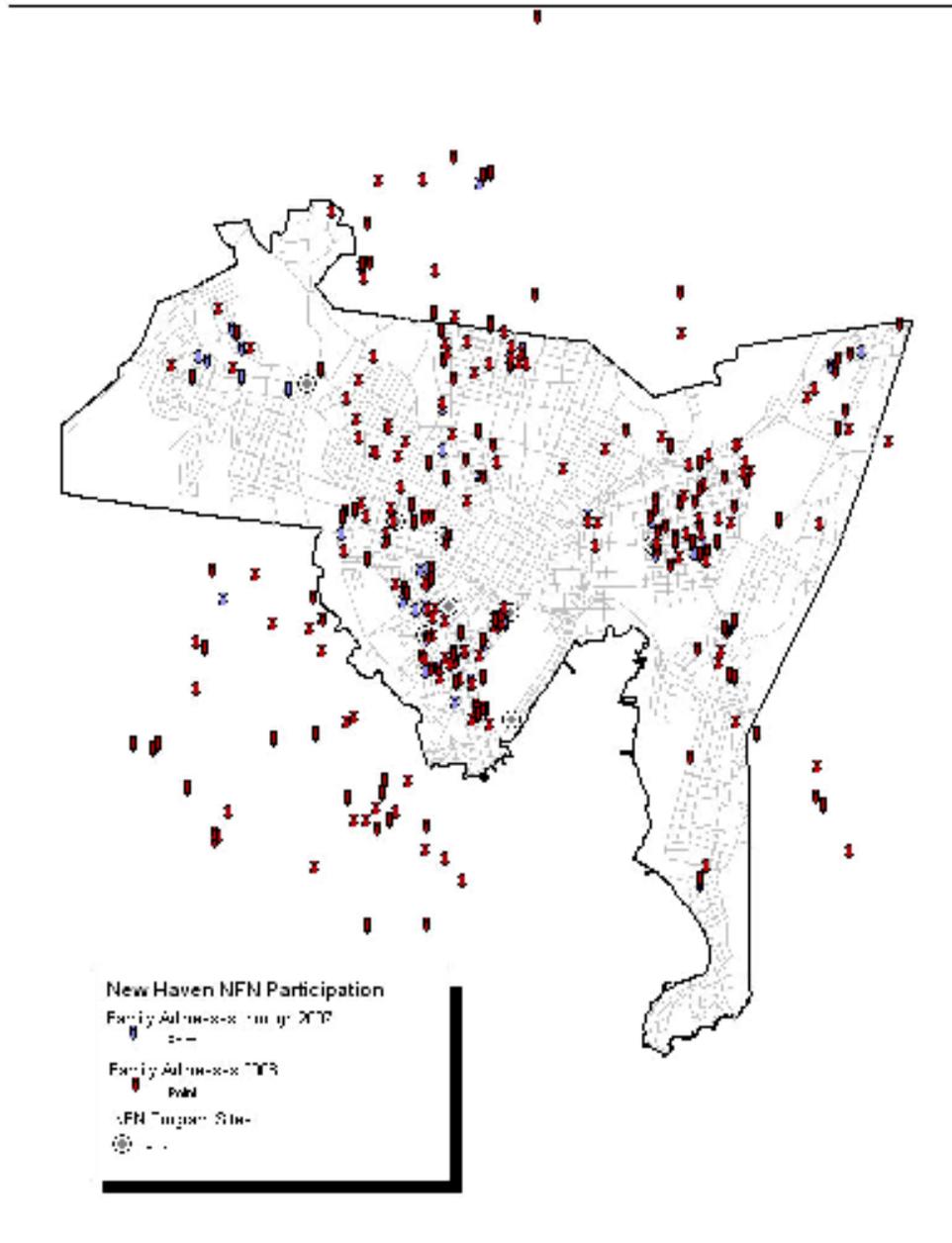
### **Hartford NFN Program Outcomes**

- Mothers showed some improvement in the areas of use of community resources, risk for child maltreatment, and depression. The only area that showed statistical change, however, was in the use community resources. Specifically, these data indicate an improvement in the areas of transportation, budgeting and accessing support services.

## Residences of Families Who Have Received New Haven Home Visitation Services

There are a total of 336 families who have either participated in the New Haven NFN home visitation program in the past or who are currently receiving services; 298 of whom started the program in 2008. The majority of families are clustered in residential areas that surround program site locations, however, participating families reside throughout the city and just outside the New Haven city limits in Hamden and West Haven (figure 13).

**Figure 13. New Haven NFN Program Sites and Families**



# High Risk Families and Enrollment in NFN New Haven Data, 2008

### Screening

- Table 35 shows that of the 1,984 screens in New Haven in 2008, 1,170 (59%) of these first time mothers screened at low risk for poor parenting; 759 low risk families were offered Nurturing Connections services and 253 accepted services. While the rate of offering Nurturing Connections is the same as the statewide rate, the acceptance rate is substantially lower in New Haven (33%) compared to statewide (55%).

<b>Total # of screens</b>	1984
<b># Low risk screens</b>	1170
Offered Nurturing Connections	759 (65%)
Accepted Nurturing Connections	253 (33%)
<b># of high risk screens</b>	814
Offered home visiting	751 (92%)
Initiated services	275 (37%)

**Table 36. Rates Of New Haven Mothers Scoring at Severe Risk as Measured by the Kempe Family Stress Checklist**

<b>New Haven Mothers' Kempe Scores 2008</b>	<b>0</b>	<b>5</b>	<b>10</b>
1. Childhood History of Abuse/ Neglect (N=269)	56%	15%	29%
2. History of Crime, Substance Abuse, Mental Illness (N=269)	67%	18%	16%
3. CPS History (N=259)	92%	3%	5%
4. Low Self-esteem/ Social Isolation/ Depression (N=271)	34%	47%	20%
5. Multiple Stresses (N=270)	35%	32%	33%
6. Potential for Violence (N=251)	85%	5%	10%
7. Unrealistic Expectation of Child (N=264)	58%	38%	4%
8. Harsh Punishment (N=262)	84%	11%	5%
9. Negative Perception of Child (N=258)	91%	7%	2%
10. Child Unwanted/ Poor Bonding (N=268)	23%	71%	6%

<b>Mean Score</b>	13.1
<b>% Scoring Above Cutoff</b>	29%

### Enrollment of High Risk Families

- Forty-one percent of mothers screened in New Haven (814 first-time mothers) were identified as high risk for poor parenting. Of those, 92% of families were offered home visiting and 37% percent (275 families) initiated services.

Table 36 gives participant scores on the Kempe Subscales.

- On the Childhood History of Abuse/Neglect scale, 29% scored at severe risk and 56% scored at low risk.
- On the Multiple Stresses scale, 33% of families scored at severe risk and 35% scored at low risk.
- On the History of Crime, Substance Abuse, Mental Illness scale, only 16% scored at severe risk while 67% scored at low risk.
- Twenty percent of mothers scored at severe risk on the Low Self-esteem/Social isolation/Depression scale, and 34% scored at low risk. This is consistent with mothers' scores on the CES-Depression scale, a self-reported instrument. As shown in Table 50, 29% of mothers in 2008 were above the cutoff (16) indicating that they experience a "clinically significant level of psychological distress" in their lives. This rate is less than the 48% rate found among Hartford families.

# Home Visitation Families at Program Entry New Haven Data, 2008

## Health Related Risk Factors

Health data provided in Table 38 indicate that:

- Eighteen percent of NFN children were born with serious medical problems, 11% were born premature and 12% with low birth weight.
- Rate of premature births in New Haven (12%) is slightly higher than state rate of 10.1% (*National Vital Statistics Report*, 2003). In addition, the rate of children born with low birth weight is higher than the state of CT

Health Related Risk Factors	2008 N=192
Mother smoked cigarettes during pregnancy	8%
Mother drank alcohol during pregnancy	2%
Mother used illicit drugs during pregnancy	4%
Child born with serious medical problems	18%
Premature Birth (before 37 weeks gestation)	11%
Born Low Birth Weight (under 5 lbs 8 oz)	12%
<b>Child has a Pediatrician</b>	
Yes	97%
No	1%
Unknown	2%

<b>Prenatal Screens (N=291)</b>	48%
<b>Mother's Marital Status (N=223)</b>	
Single, never married	86%
Married	13%
Divorced, separated, widow	1%
<b>Mother's Race/Ethnicity (N=221)</b>	
White	14%
African American	39%
Hispanic	38%
Other (includes multi-racial)	9%
<b>Mother age at Baby's Birth (N=216)</b>	
Under 16 years	7%
16-19 years	35%
20-22 years	26%
23-25 years	15%
26 years and older	18%
Median Age	21 years
<b>Maternal Grandmother Living in the Household (N=213)</b>	38%
<b>Father Living in the Household (N=214)</b>	35%
<b>Father's Involvement W/ Child (N=140)</b>	
Very involved	58%
Somewhat involved	16%
Sees child occasionally	5%
Very rarely involved	6%
Does not see baby at all	17%

rate of 7.4%, and national rate of 7.7% (*Kids Count Data Book*, Casey Foundation, 2004).

## Family and Household Data

New Haven mothers had similar demographic profiles as mothers statewide with the exception of the racial makeup (see Table 39). New Haven has a higher percentage of African American mothers (39%) compared to statewide programs (24%).

- Eighty-six percent of New Haven NFN mothers were single/never married (versus 87% statewide)
- Median age at child's birth was 21 years (compared to 20 years statewide).
- Thirty-eight percent of mothers were living with the maternal grandmother; 35% of fathers were residing in the households. These rates are comparable to statewide data.
- Rates of father involvement were slightly higher in New Haven (74% at least somewhat involved) as compared to statewide (70%).

## Financial and Social Risk Factors

- As shown in Table 40, home visitors considered 65% of mothers to have financial difficulties at the time of program entry (similar to 69% statewide).
- Home visitors perceived 38% of New Haven mothers to be socially isolated, only slightly higher than 34% statewide.
- Only 7% of New Haven mothers had an arrest history compared to 16% statewide and 17% in Hartford.

Socially isolated (N=202)	38%
Arrest history (N=204)	7%
Financial difficulties (N=207)	65%
Receiving TANF (N=222)	7%
Receiving Food Stamps (N=222)	17%

# Education and Employment Rates at Program Entry New Haven Data, 2008

## New Haven NFN 2008:

### Mothers' Life Course Information

Mothers' education and employment data are presented in Table 41, separating mothers who were 19 years or younger when they had their child from those who were 20 and older.

- Sixty-seven percent of the younger cohort of mothers had less than a high school education at program entry (compared to 73% statewide); however, 53% were enrolled in school. In comparison with the statewide population, the older New Haven cohort had comparable levels of education overall: 21% had less than a high school degree versus 24% statewide; 37% had some post secondary education versus 38% among the statewide population.
- Rates of employment for New Haven mothers (13% for the young cohort and 31% of the older cohort) were somewhat similar to statewide population, with slightly lower employment rates for the younger cohort of New Haven mothers.

Mother Life Course Indicators	19 and younger	20 and older
<b>Education</b>	(N=88)	(N=118)
Eighth grade or less	8%	4%
More than 8 <sup>th</sup> grade, < high school	59%	17%
High school degree or GED	22%	42%
Some vocational training/college	10%	28%
College degree or graduate work	1%	9%
<b>Enrolled in School</b>	(N=89)	(N=124)
Yes	53%	11%
<b>Employment Status</b>	(N=82)	(N=123)
Mother not employed	87%	69%
Mother employed	13%	31%
Full-time	5%	16%
Part-time job or occasional work	8%	15%
<b>Employed Prior to Pregnancy</b>	(N=82)	(N=109)
Yes	40%	77%

## New Haven NFN 2008

### Fathers' Life Course Information

The data in Table 42 is based on a very small sample size and information is provided mostly by the mothers.

- For the younger cohort, 72% of the fathers had less than a high school education and 50% were enrolled in school; 25% of the older cohort had less than a high school education and 16% had at least some post secondary education. These data are comparable to data on the statewide fathers.
- Fifty-two percent of the younger group and 32% of the older New Haven cohorts were unemployed. Among the state population these rates were 51% and 31%, respectively.
- There was a lower incarceration rate for young fathers in New Haven (0%) compared to the statewide population (5%), while older father were incarcerated at comparable rates (4% in New Haven and 3% statewide).

Father Life Course Indicators	19 and younger	20 and older
<b>Education</b>	(N=28)	(N=56)
Eighth grade or less	4%	4%
More than 8 <sup>th</sup> grade, < high school	68%	21%
High school degree or GED	21%	49%
Some vocational training/college	4%	11%
College degree or graduate work	4%	5%
<b>Enrolled in School</b>	(N=30)	(N=70)
Yes	50%	9%
<b>Employment Status</b>	(N=29)	(N=69)
Father not employed	52%	32%
Father employed	48%	68%
Full-time	28%	55%
Part-time job, occasional work, Or working more than one job	20%	13%
<b>Fathers With an Arrest History</b>	(N=23)	(N=64)
Yes	39%	28%
<b>Currently Incarcerated</b>	(N=24)	(N=57)
Yes	0%	4%

# Home Visitation Participation, New Haven Data, 2008

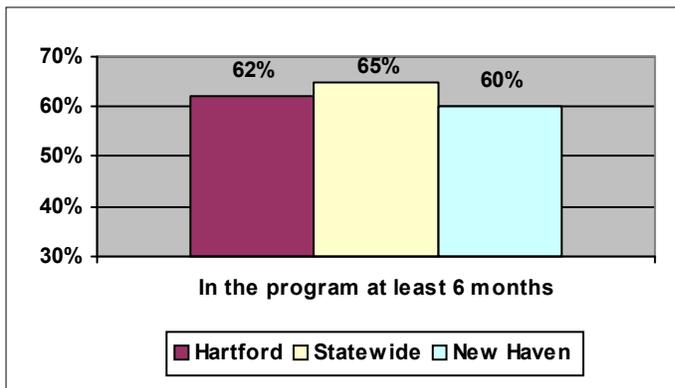
**Table 43.**  
**New Haven Program Participation**

Frequency of Home Visits	Oct-Dec 2007 N=44	2008 N=423
Average # of attempted home visits	2.6	2.7
Average # of completed home visits	2.0	1.9
Average # of office/out of home visits	0.2	0.2
Average # of NFN social events attended	0.1	0.2
Total # of visits completed	2.3	2.3

## Participation Rates

- Similar to the statewide and Hartford populations, families, on average, receive 2 visits per month (see Table 43) out of an average of 3 attempts.

**Figure 14.**  
**6 month, Retention Rates**  
**New Haven compared with**  
**Hartford and Statewide Data**



## Program Retention Rates

- Preliminary retention data on 2008 New Haven families who had the opportunity to be in the program at least 6 months indicate that 60% remained in the program at least 6 months (see Figure 14). This is only slightly lower than Hartford (62%) and statewide rates (65%).

**Table 44.**  
**Reasons New Haven Families Leave Home**  
**Visiting, 2008**

Reasons Hartford Families Left the Program	2008 N=163
Family moved out of service area	14%
Unable to locate mother	37%
Discharged, family was noncompliant	0%
Family decided to discontinue services	15%
Mother is working or in school full-time, no time for home visits	19%
Goals were met/family graduated	0%
Baby removed from home by DCF	1%
Discharged, family was not appropriate for the program	1%
Other family member did not approve of services	1%
Home visitor left the program	4%
Other	6%

## Reasons Families Leave the Program

- The foremost reason New Haven families stop participating in NFN services is because the families are unable to be located. This rate is compared to statewide, 37% vs. 36%, respectively. Also, 14% of families who discontinued services moved out of the service area. An additional 19% left the program because they were working or in school and did not have time for home visits. Fifteen percent of families left the program for unspecified reasons.

## Utilization of Community Resources New Haven Parent Outcomes, 2008

### Community Referrals

Similar to Hartford, community referrals are documented in New Haven—a city with high poverty rates among many of the neighborhoods, in order to assess the resources and service networks available for NFN participants.

- As shown in Table 45, home visitors made 548 referrals on behalf of 423 families, mostly for household needs (21%), followed by doctor/medical services (13%), housing needs (10%), and Department of Social Services (10%). Families followed through with 60% of these referrals, compared to 75% in Hartford.

Type of Referrals 2008 (N=423)	#	%	Follow- Up Rate
WIC	20	4%	75%
DSS	56	10%	68%
Social Security	4	1%	75%
Food needs	17	3%	47%
Doctor/medical services	72	13%	69%
Housing needs	56	10%	59%
Legal needs	22	4%	50%
Household needs	113	21%	63%
Early intervention/day care	45	8%	62%
Mental health/counseling	21	4%	48%
Crisis intervention	0	NA	NA
Parenting class/program	16	3%	38%
Domestic violence	5	1%	40%
Substance abuse	0	NA	NA
Employment/education	49	9%	59%
Dept of Children & Families	4	1%	100%
Recreation	5	1%	60%
Cultural/religious	2	<1%	100%
Other	41	7%	39%
TOTAL	548	100%	60%

### Community Life Skills Scale (CLS)

Data on the Total CLS scale, and each of the subscales were analyzed for mothers active for 6 months (N=86).

- Table 46 shows that statistically significant changes in mean scores were documented on the Total CLS scale and the transportation subscale. Although not statistically significant, positive changes were seen on 4 of the 5 remaining subscales.

Community Life Skills	Entry (N=86)	6 Mo
<b>Total</b>	23.7	24.8*
<b>Transportation</b>	3.2	3.5**
<b>Budgeting</b>	3.1	3.3
<b>Support services</b>	4.2	4.3
<b>Support/Involvement</b>	4.1	4.5
<b>Interests/Hobbies</b>	2.8	2.7
<b>Regularity/Organization/ Routines</b>	6.4	6.6

# Changes in Symptoms of Depression and Changes in Parenting Attitudes New Haven Outcomes, 2008

## Center for the Epidemiological Studies Depression Scale (CES-D): New Haven Preliminary Outcomes

As with Hartford participants, the CES-D is used to assess the prevalence of depression among New Haven NFN participants. It is a widely used self-report scale intended for the general population. The instrument measures depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, loss of appetite, sleep disturbances, and psychomotor retardation. Data for the CES-D were analyzed for 75 mothers who participated in the program for six months. These data show no significant change over the first six months. However, in an analysis of the 20 mothers who scored at or above the CESD cutoff (16), there was a significant decrease from 25.1 at program entry to 17.8 after six months (still above the cutoff point).

## Child Abuse Potential Inventory, Rigidity Subscale (CAPI-R): New Haven Preliminary Outcome Data

In Table 47, we present outcome data on the Child Abuse Potential Inventory Rigidity Scale (CAPI-R), a self-report scale that measures the rigidity of attitudes and beliefs about the appearance and behavior of children. The subscale is based on the theoretical assumption that rigid attitudes and beliefs lead to a greater probability of child abuse and neglect. New Haven parents complete the CAPI-R at program entry, six months, and then on annual anniversaries of their start-date in the program.

- Data for the CAPI-R were analyzed for mothers active for six months (N=87) as of the end of the 2008 program year. Results indicate no statistically significant difference in rigid parenting attitudes after six months.

**Table 47. Child Abuse Potential Inventory -  
Rigidity Subscale  
New Haven Outcome Data, 6 Month**

6 mo CAPI (N=87)	Program Entry	6 Months
Mean Rigidity Score	27.1	26.1

## **2008 New Haven Data Analysis: Summary of Key Findings**

### **Program Capacity and Enrollment of High Risk Families**

- In 2008, there were 1,984 initial screens completed in New Haven and 814 (or 41%) of these first-time mothers were identified as high risk for poor parenting; of these 814 first-time mothers, 275 initiated services in 2008.

### **Demographic and Risk Profiles**

- The demographic profiles of New Haven mothers are fairly comparable to the profiles of statewide mothers, with the exception of the racial makeup (higher proportion of Black and Hispanic mothers in New Haven).
- Twenty-nine percent of mothers enrolling in New Haven NFN home visiting services scored above the cutoff on the CES-D indicating depressive symptoms. This rate is lower than the rate in Hartford (48%).

### **New Haven NFN Program Outcomes**

- Outcome data in New Haven is preliminary and should be interpreted with caution given the small sample sizes and the limited time of program participation. There was some improvement in the areas of use of community resources, risk for child maltreatment, and depression. The only area that showed statistical change, however, was in the use of community resources.

# State Reports of Child Maltreatment 2007/2008

In this next section, we report on both substantiated and unsubstantiated reports of abuse and neglect for all families, statewide, who signed a release allowing us to search the Department of Children and Families (DCF) database to determine if there were any reports of maltreatment during their tenure in the home visitation program. We also take a closer look at the discipline methods used by Hartford NFN families in this section, including self reports of abuse and neglect as measured by the Parent-Child version of the Conflict Tactics Scale (CTS-PC). We cross reference these particular cases of self-reported child maltreatment with state reports.

# Rates of Maltreatment for the NFN Population, 2007/2008

Each year, program participants are asked to sign a release form that allows us to search the Department of Children and Families (DCF) database to determine whether or not they have been reported for maltreatment during their tenure in the home visitation program.

- This year, 1,075 families who participated in the program at any time between July 1, 2007 and June 30, 2008 signed the release, representing 66% percent of all families who were active during that time (N=1,622). These data include participants from all but two of the NFN sites.

We analyzed demographic and risk data to determine if those who signed the release differed from those who did not. Results of this analysis are presented in Table 48.

- Two groups were comparable across all of the factors excluding mother's Kempe score and mother's education level. Mothers who signed the DCF release had significantly lower scores on the

Kempe indicating lower risk for maltreatment, and they also were more likely to have a high school education. These data indicate that those who are included in our analysis may be at a slightly lower risk than the group excluded from our analysis.

We analyzed this year's DCF data in two different ways

- First, we assessed all families who were reported to DCF during their participation between July 1, 2007 and June 30, 2008. There were a total

of 75 reports of maltreatment for 63 NFN participants (some families had multiple reports) and of those, 20 reports were substantiated.

- Second, we assessed only those families who were active in the program for the entire year, July 1, 2007 to June 30, 2008 (annualized rate). The purpose of this analysis is to standardize the exposure that a family has to the NFN program and to calculate rates that could be compared to state and national rates.

**Table 48. Comparison of Families Included and Excluded in Analyses of Abuse and Neglect Reports, Statewide Data, 2007/2008**

Demographic and Risk Data	Signed DCF Release (N=1075)	Did Not Sign DCF Release (N=547)
CAPI Rigidity score	24.5	24.7
Mother's total Kempe score	32.6	35.3**
Mother's age at baby's birth	21.5	22.0
% Mothers with at least a high school degree	53%	47%*
% Mothers employed	22%	20%
% Mothers nonwhite	77%	78%

**Table 49. All Reports of Child Maltreatment by NFN Participants Between 7/1/06-7/30/07**

DCF Data on NFN Families	2004-2005	2005-2006	2006-2007	2007-2008
Total number of families that signed DCF release	410	664	614	1,075
# of families with DCF Report	45 (11.0%)	55 (8.3%)	53 (8.9%)	63 (5.9%)
# of families with multiple DCF reports	7 (1.7%)	7 (1.1%)	14 (2.3%)	10 (0.9%)
# of families with substantiated DCF report	12 (2.9%)	14 (2.1%)	17 (2.8%)	20 (1.9%)
# of families with more than 1 substantiated DCF Reports	0 (0%)	0 (0%)	2 (0.3%)	1 (0.1%)
Total number of reports	53	61	69	75
Total number of substantiated reports	12	14	19	20

# Annualized Rates of Maltreatment for the NFN Population, 2007/2008

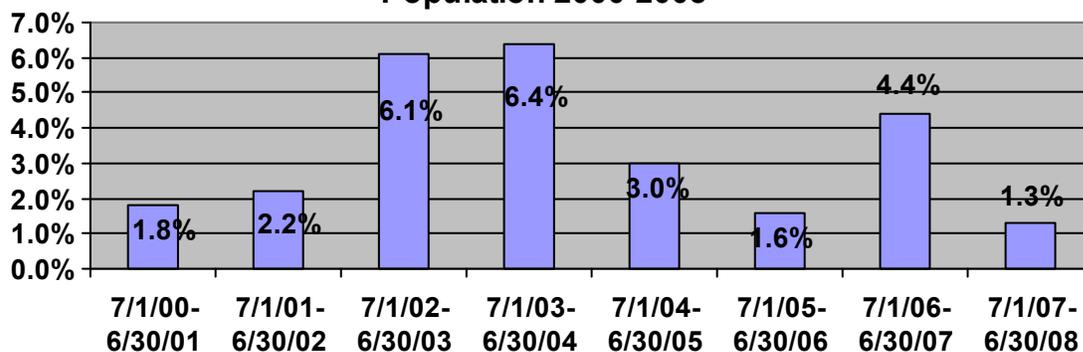
## Assessment of families reported for maltreatment who were active in the program for the entire year between 7/1/07 and 6/30/08

In our second analysis, we calculated an annualized rate of maltreatment, including only the 397 families who received services for the entire year. Of the 678 families not included in the annual analysis, 82% had started the program after July 1, 2007. Of the 397 families included in the annual analysis, DCF reports were filed on 6 percent and substantiated for 1 percent, a noted decrease from last year and comparable to two years ago (Table 50).

<b>DCF Data on NFN Families</b>	<b>2004-2005</b>	<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>
# of families active the entire year 7/1/06-6/30/07	229	256	249	397
# of families with DCF report 7/1/06-6/30/07	35 (15.3%)	20 (7.8%)	31 (12.4%)	24 (6.0%)
# of families with multiple DCF reports	6 (2.6%)	3 (1.2%)	11 (4.4%)	5 (1.3%)
# of families with substantiated DCF report	7 (3.1%)	4 (1.6%)	11 (4.4%)	5 (1.3%)
# of families with multiple substantiated DCF reports	0 (0%)	0 (0%)	1 (0.4%)	1 (0.3%)
Total number of reports	43	23	45	30
Total number of substantiated reports	7	4	13	6

Figure 15 shows the annualized rate of maltreatment for the past eight years for the NFN population. As shown, the rates peaked in 2002-2003 and 2003-2004, then declined for the next two years before increasing in 2006-2007, and then decreasing over the past year.

**Figure 15. Annualized Rates of Maltreatment for the NFN Population 2000-2008**



## Type and Perpetrator of Maltreatment, 2007/2008

In this section, we present data on the 20 substantiated reports of maltreatment that occurred during the 2007-2008 year.

### Perpetrators of Abuse

As presented in Table 51, NFN mothers were perpetrators in 71 percent of substantiated cases. Fathers were involved in 48 percent of substantiated cases. Families, on average, had been in the NFN program for 6 months when a substantiated report was filed.

As in previous years, incidents of domestic violence and drug use were common in substantiated reports. However, there is an increase in cases that involved domestic violence, 48% this year compared to 34% last year. In addition, about one-half of cases also involved a parent with a mental illness or cognitive delay (an increase from 37% last year). None of the 21 reports were made by NFN home visitors. Thirty-eight percent of cases were referred to DCF by police officers or the family relations court, which corresponds with the high percentage of cases involving domestic violence. The remaining cases were referred by relatives, hospital social workers, therapists, and those who wished to remain anonymous.

### Prevalence of Physical and Emotional Neglect

As shown in Table 52, physical neglect was by far the most prevalent type of maltreatment that occurred (90% of all substantiated cases), followed by emotional neglect (10% of all substantiated cases). According to the Connecticut Department of Children and Families, physical neglect is defined as “the failure to provide adequate shelter, food, clothing, or supervision which is appropriate to the climatic and environmental conditions. Physical neglect may also include leaving a child alone for an excessive amount of time given the

Perpetrator of Maltreatment	Substantiated Reports (N=21)
	(N=21)
Mother only	48%
Mother and father	19%
Father only	29%
Mother and maternal grandmother	0%
Mother and mother’s boyfriend	5%
Mother and other family member	0%
Maternal grandmother	0%
Mother’s boyfriend only	0%
Home Visitor Made Report to DCF	0%
Domestic Violence Involved in Report	48%
Drugs Involved in Report	19%
Parent has Mental Illness or Cognitive Deficit	52%
Child has Mental Illness or Cognitive Deficit	0%
Average Length of Time in Program When Report Occurred	6 months

Type of Maltreatment	Substantiated Reports Only (N=21)
Physical Neglect	90%
Emotional Neglect	10%
Physical Abuse	0%
Sexual Abuse	0%
Medical Neglect	5%
Moral Neglect	0%
Emotional Abuse	0%

child’s age and cognitive abilities and holding the child responsible for the care of siblings or others beyond the child’s ability.”

### No Cases of Physical Abuse

There were no cases involving physical abuse, sexual abuse, emo-

tional abuse, or moral neglect in the 2007-2008 year. This differs from the 2006-2007, when there were 2 substantiated reports of physical abuse and 1 substantiated case of sexual abuse.

## Parent Discipline Methods: Conflict Tactics Scale Hartford Data, 2005, 2006, & 2007 Cohorts

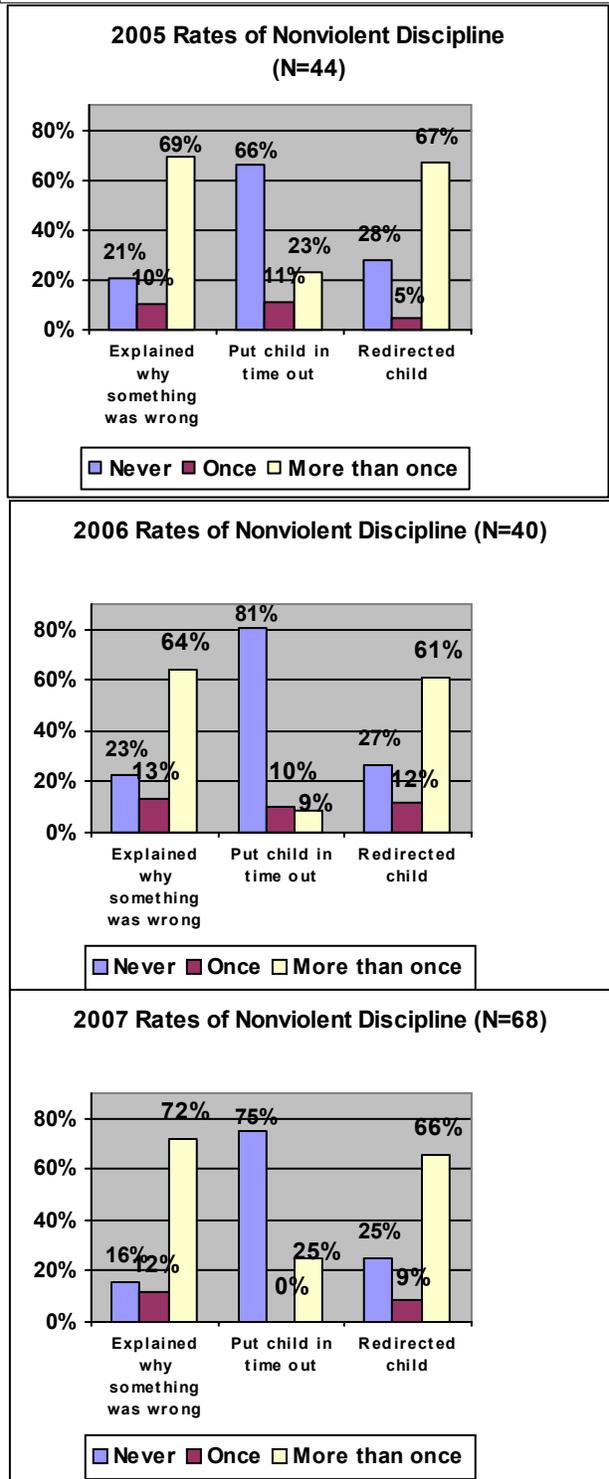
### Discipline methods, Comparison of 2005, 2006, and 2007 Cohorts

The Parent-Child version of the Conflict Tactics Scale (CTS-PC), introduced in 2005 with the Hartford NFN expansion, is a self-report measure that assesses how often parents used specific acts; nonviolent discipline, psychological aggression, physical assault, and neglect.

Hartford program participants complete the CTS-PC around their children's first birthday and at subsequent birthdays. In this section, we present data for 3 separate cohorts (44 mothers in 2005, 40 mothers in 2006, and 68 mothers in 2007). In the next several tables we report on rates of nonviolent discipline, psychological aggression and rates of relatively minor "corporal punishment" for the 3 separate cohorts.

- Figure 16 shows rates of nonviolent discipline for each of the 3 cohorts, 2005, 2006, and 2007.
- For all three years, similar percentages of mothers used nonviolent discipline methods include explaining why something was wrong and redirecting bad behavior. However, the 2005 cohort, in comparison with the 2006 cohort, used time-out more frequently.

Figure 16. Conflict Tactic Scale: Rates of Nonviolent (proactive) Discipline Mothers with 1 year old child in 2005, 2006, and 2007

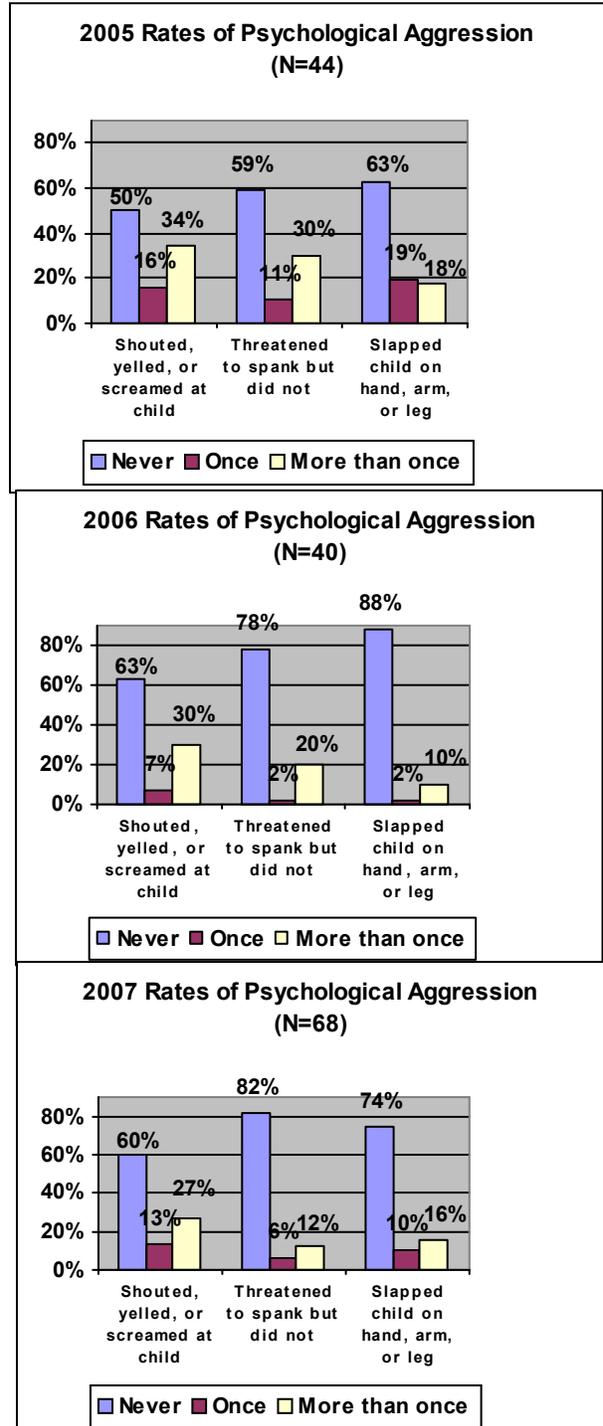


## Parent Discipline Methods: Conflict Tactics Scale Hartford Data, 2005, 2006, & 2007 Cohorts

### Discipline methods, Comparison of 2005, 2006, and 2007 Cohorts (continued from page 44)

- Figure 17 shows rates of psychological aggression and mild corporal punishment for each of the 3 cohorts.
- The 2005 cohort, in comparison with the 2006 and 2007 cohorts, used psychological aggression more frequently. Specifically, more of the mothers from the 2005 cohort reported that they had screamed, shouted or yelled at their child (50%) compared to 37% in 2006 and 40% in 2007.
- Of the 2005 cohort, 41% reported threatening to spank their children (but not actually spanking) versus 22% in the 2006 cohort and 18% in 2007.
- Further, the 2005 cohort also reported slapping their child on the hand, leg, or arm at least once, as compared to 12% in 2006 and 26% in 2007.
- Self-reports on the Conflict Tactics Scale also indicated that there was a small number of mothers who spanked their child with their bare hand: 8 mothers in the 2005 cohort, 4 mothers in the 2006 cohort, and 7 mothers in 2007 (these data are not shown here).

**Figure 17. Conflict Tactic Scale: Rates of Psychological Aggression Mothers with 1 year old child 2005, 2006, and 2007**



## Self-Reports of Abuse and Neglect Hartford Data, 2005, 2006, and 2007 Cohorts

A few parents reported “acts of physical assault” and “neglect” of their child on the Conflict Tactics Scale (CTS-PC). The following data are parents’ self-reports on survey items that fall within these categories.

<b>2005 Cohort</b>	<b>2006 Cohort</b>	<b>2007 Cohort</b>
<ul style="list-style-type: none"> <li>• 1 parent hit her child once on the bottom with something like a belt, brush, stick or other hard object</li> <li>• 2 parents swore or cursed at their child at least once</li> <li>• 1 parent reported pinching her child</li> <li>• 1 parent called her child “dumb or lazy or some other name like that” at least once, 1 parent reported doing this more than once</li> </ul> <p><i>Reported Neglect</i></p> <ul style="list-style-type: none"> <li>• 1 parent was not able to get the food her child needed on at least one occasion</li> <li>• 1 parent was not able to make sure her child got to a doctor or hospital when he or she needed it</li> </ul>	<ul style="list-style-type: none"> <li>• 1 parent hit her child with a fist or kicked her child hard on 1 occasion</li> <li>• 1 parent swore or cursed at her child at least once,</li> <li>• 1 parent called her child “dumb or lazy or some other name like that” at least twice</li> </ul> <p><i>Reported Neglect</i></p> <ul style="list-style-type: none"> <li>• 1 parent reported leaving her child home alone on at least 2 occasions</li> </ul>	<ul style="list-style-type: none"> <li>• 2 parents reported hitting their child on the bottom with a belt</li> <li>• 1 parent reported hitting their child somewhere other than their bottom with a belt</li> <li>• 4 parents reported shaking their child, 1 reported doing this 6-10 times.</li> <li>• 3 parents reported pinching their child, 1 parent reported doing this 3-5 times.</li> </ul> <p><i>Reported Neglect</i></p> <ul style="list-style-type: none"> <li>• 2 parents were not able to get their child food on at least two occasions</li> <li>• 2 parents were not able to get their child to a doctor when they needed it</li> <li>• 1 parent reported being so drunk they could not properly take care of their child. They reported this happening between six and ten times.</li> </ul>

### Cross Reference of Mothers’ Self-Reports with State Reports of Abuse and Neglect

In total, there were six mothers in the 2005 cohort that reported abusive or neglectful behaviors on the CTS-PC. Four of these mothers were included in our DCF analysis, however, only one of these mothers had a substantiated report of maltreatment (physical abuse). The other three mothers did not have any DCF reports.

While there were five mothers in the 2006 cohort that reported abusive or neglectful behaviors on the CTS-PC, none of these mothers had a substantiated report of maltreatment. However, two of the families had one unsubstantiated report, while two did not have any reports, and one was not included in our DCF analysis (i.e., had not given consent to check DCF files).

There were nine mothers in the 2007 cohort who reported abusive or neglectful behaviors. None of these mothers had a DCF substantiated report of maltreatment. However, one family had an unsubstantiated report.

## Parent Discipline Methods: Conflict Tactics Scale Hartford Outcome Data at 1 and 2 Years

There were 65 Hartford mothers who completed the CTS-PC when their child was one and two years old. In this section, we discuss the outcomes of this sample of mothers. There are three subscales within the CTS-PC; nonviolent discipline, physical assault, and psychological aggression. Scores represent the different discipline techniques used by parents, with higher scores indicating more use of each type of discipline. With greater exposure to NFN home visitation services, it is expected that families will *increase* their use of nonviolent discipline and *decrease* their use of physical assault and psychological aggression. Table 53 contains outcome data on the 65 Hartford families who completed the instrument at one and two years. The data indicate significant increases in use of all three types of discipline (with overall less use of physical assault and psychological aggression). Below are explanation of exactly which items showed significant change.

<b>Table 53. Conflict Tactics Scale: Outcome Data at 1 and 2 Years</b>		
<b>1 and 2 Year CTS-PC (N=65)</b>	<b>1 Year</b>	<b>2 Years</b>
Nonviolent Discipline	22.1	30.0*
Physical Assault	1.7	5.6**
Psychological Aggression	4.8	10.2**

**Nonviolent Discipline:** Nonviolent discipline was the most frequently used type of discipline as reported by the Hartford NFN mothers. We performed an itemized analysis to determine which items showed the most change from one year to two years. The two items that showed significant increases from one to two years were redirecting your child and taking away privileges.

**Psychological Aggression:** There are five items of psychological aggression on the CTS-PC, ranging from threatening to spank (but not doing it) to cursing at your child. The itemized analyses showed significant change on three of these five items. There was an increase in parents who shouted, yelled, or screamed at their child, 34 parents reported doing this in the second year as compared to 30 in the first year. There was also a significant increase in the number of parents who cursed at their child, from 3 at one year to 11 at two years. Last, there was a significant increase in the number of parents that threatened to spank but did not follow through. Twenty parents reported doing this in the first year, as compared to 35 parents at two years. The increase in parents' psychological aggression may be related to the age of the children, as children's increasing independence require more intervention and may trigger more frustration in the mothers.

**Physical Assault:** There are 13 items included in the physical assault subscale on the CTS-PC, and items range from mild corporal punishment (e.g., spanked child on the bottom) to severe forms of physical maltreatment (e.g., hit child with something like a belt) to extreme maltreatment (e.g., shook child; beat child up). Hartford NFN mothers used physical assault least often, although there was a significant increase from 1 year to 2 years. The itemized analysis showed significant change on three of the physical assault items. There was a significant increase in the number of parents who spanked their child on the bottom with their bare hand: nine parents reported doing this at one year, and 25 reported doing this at two years. More parents also reported slapping their child on the hand, arm, or leg at two years (22 parents as opposed to 15 parents at one year). There was a also significant increase in the number of parents who reported shaking their child (extreme physical assault), with 5 parents reporting doing this at least once at two years as opposed to 2 parents at one year. The increase in physical assault (from mild to extreme) may be related to the age of the children, as children's behavior and increasing independence require more intervention and may trigger more frustration in the mothers.

Changes and any patterns in discipline will be monitored over the upcoming years.

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## Summary of Reports of Abuse and Neglect

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- The annual rate of child maltreatment this year, 1.3 percent, indicates a sizeable decrease in the 2007-2008 time period as compared to the 2006-2007 time period.
- Physical neglect was by far the most prevalent type of maltreatment that occurred (90% of all substantiated cases), followed by emotional neglect.
- NFN mothers were perpetrators in 71 percent of substantiated cases and fathers were involved in 48 percent of substantiated cases.
- Families, on average, had been in the NFN program for 6 months when a substantiated report was filed and home visitors did not make any of these reports.
- As in previous years, domestic violence and drug use were common occurrences in substantiated DCF reports. About one-half of all substantiated reports involved domestic violence and another one-fifth substance use, while slightly more than one-half of cases also involved a parent with a mental illness or cognitive delay.
- Hartford NFN mothers' self reports on their discipline methods on the Parent-Child version of the Conflict Tactics Scale (CTS-PC) have been collected for three cohorts: participants entering the program in 2005, 2006, and 2007. A small number of these mothers reported "acts of physical assault" and "neglect" of their child on the CTS-PC. Of the 21 mothers who made these reports, one of them had a substantiated state report of maltreatment, and two had unsubstantiated DCF reports. There were no state reports for the remaining mothers.
- Data on the Conflict Tactics Scale, Parent Child Version, showed that parents increased their use of all three types of discipline between their children's first and second birthdays: nonviolent discipline, physical assault, and psychological aggression. Overall there was much less use in psychological aggression and physical assault than in nonviolent discipline. However, the increases in physical assault and psychological aggression are findings that warrant further discussion. Changes and any patterns in self-reported discipline methods will be monitored over the upcoming years.

## Nurturing Parenting Groups: Social Demographic Data Statewide, 2008

Table 54. Nurturing Group Participants' Social Demographic Characteristics: 2008		
	2008	
	N	%
<b>Participant's Gender</b>	584	
Male		19%
Female		81%
<b>Participant's Age</b>	575	
Under 16 years		4%
16-19 years		27%
20-22 years		14%
23-25 years		8%
26-30 years		15%
Over 30 years		32%
Mean Age		27 yrs
<b>Mean Number of Children Participant Has</b>	566	1.4
<b>Participant's Race/Ethnicity</b>	594	
Hispanic		42%
White		31%
African American		18%
Other		9%
<b>Language Participant is Most Comfortable Speaking</b>	594	
English		65%
Spanish		15%
English and Spanish		19%
Other		1%
<b>Participant's Employment Status</b>	592	
Not employed, not seeking work		33%
Not employed, but seeking work		31%
Employed full-time		18%
Employed part-time		15%
Occasional work or more than one job		2%
On maternity leave		3%
<b>Participant Enrolled in School</b>	593	
Yes		28%
High school		18%
College		3%
GED Program		3%
Vocational school		2%
Other type of schooling		2%
<b>Partner's Marital Status</b>	578	
Single, never married		61%
Married		30%
Separated, Divorced, or Widowed		9%
<b>Participant Has a Partner</b>	359	73%
Partner is enrolled in group		30%
<b>Mean # of Adults in Household</b>	573	1.8

### Nurturing Group Participants' Social Demographic Characteristics

All except two of the NFN sites provide Nurturing Parenting Groups. Note that the differences in samples sizes are due to missing/unknown data.

- Most participants (81%) were women and 19% were men. This represents an increase in father participation since 2007 when 11% of participants were men.
- Participants were racially and ethnically diverse, with 42% Hispanic, 31% White, and 18% African-American. These data are comparable to previous years.
- Participants' ages varied, with the program drawing heavily from the 16 to 19 age group (31%), but also the over 30 age group (32%).
- A little more than one-third of participants were employed, with the majority of those working full-time.
- A little more than one-quarter of participants were enrolled in school, most in high school.
- More than two-thirds reported involvement with a partner, although only 30% were married.

# Nurturing Parenting Groups Outcomes Statewide Data, 2008

## Nurturing Group Attendance

As shown in Table 55, sites used several different curricula in 2008, with most choosing the Birth to Five and Prenatal curricula. Rates of graduation differed by the type of curricula used. Completion rates ranged from 57 percent (Nurturing Fathers curricula) to 100 percent (Nurturing for Spanish Speaking Parents), with the majority between 60% and 75%.

Type of Curricula	N	Length of Curriculum (in weeks)	Average # sessions offered	Average # sessions attended	% Graduated
Birth to Five	175	24	19	11	65%
Prenatal	238	9	11	7	63%
Nurturing Skills for Families	53	Not specified	14	10	68%
Nurturing for Spanish Speaking Parents	13	Not specified	23	21	100%
ABCs of Parenting	63	7	10	6	70%
Nurturing Fathers	14	13	13	6	57%
Nurturing for Teen Parents	26	26	16	13	73%
Community Based Education in Nurturing Parenting	19	10	11	7	58%
Nurturing for Substance Abusing Parents	13		10	6	62%
24/7 Dads	16		11	7	69%

Scale	Pre	Post
A-API-2 Total Score	134.6	144.6***

## Adult-Adolescent Parenting Inventory-2

Prenatal parents showed significant and positive change on the Adult-Adolescent Parenting Inventory (Table 56.), suggesting that, overall, parents displayed healthier parenting attitudes and more age appropriate expectations of their children upon completion of the groups.

PSI-SF Scale	Pre	Post
Parental Distress	27.7	25.0****
Parent-Child Dysfunctional Interaction	21.0	20.1*
Difficult Child	26.8	24.7****
Total Stress	74.5	68.8****

## Parenting Stress Index-Short Form

There were statistically significant changes in the desired direction on the Overall Stress scale on the Parenting Stress Index-Short Form (PSI-SF), as well as the Parental Distress, Parent-Child Dysfunctional Interaction and Difficult Child subscales (Table 57). In general, these scores indicated that parents were experiencing greater parenting competence and less stress in their parental roles.

# Evaluation and Research Initiatives

The next section describes several new initiatives:

- A method for evaluating the quality of program implementation by looking at variation in process and outcome data between program sites.
- An update on the Fatherhood Involvement Study begun during 2008.
- A description of the NFN Depression Improvement Study scheduled to begin in August, 2009.

# NFN Quality Assurance Program Chart, 2008

Meredith Damboise, Research Manager

The NFN program currently operates out of 42 sites across the state. In another effort to monitor sites' delivery of services, data on a number of process and outcome variables are compared across program sites using a Quality Assurance (QA) chart. This QA chart gives program leaders a mechanism for routinely monitoring program services across the state, assessing information on the different ways the program is implemented, and ensuring model fidelity. It also allows program leaders to examine variation in critical outcomes across all program sites.

- There are several measures that show a great deal of variation by site. One example is the six month retention rates, located in Figure 18. On average, 65% of families stay in the program at least six months (as shown in the reference line across the middle of the figure), however, there is a large degree of variation in these rates across the state, ranging from 39% to 100% (data points represent retention rates for individual program sites).
- Another example of site variation is in the change in Rigidity scores on the CAPI. As shown in Figure 19, there were many sites that showed change in the desired direction on the Rigidity Scale (noted as negative change scores), and some that showed change that was not in the desired direction. The statewide average of -2.8 is shown in the reference line.

These data will be used to help program leaders assess process and outcome data within the context of program sites and particular communities.

The 2008 QA chart will be released to the sites for annual review. Researchers and program leaders will assist staff in interpreting data on their progress (and how it compares with the progress of other program sites) and will use it to better understand variation across sites and to make recommendations for the next program year.

Figure 18. Six Month Retention Rates by Site, 2008

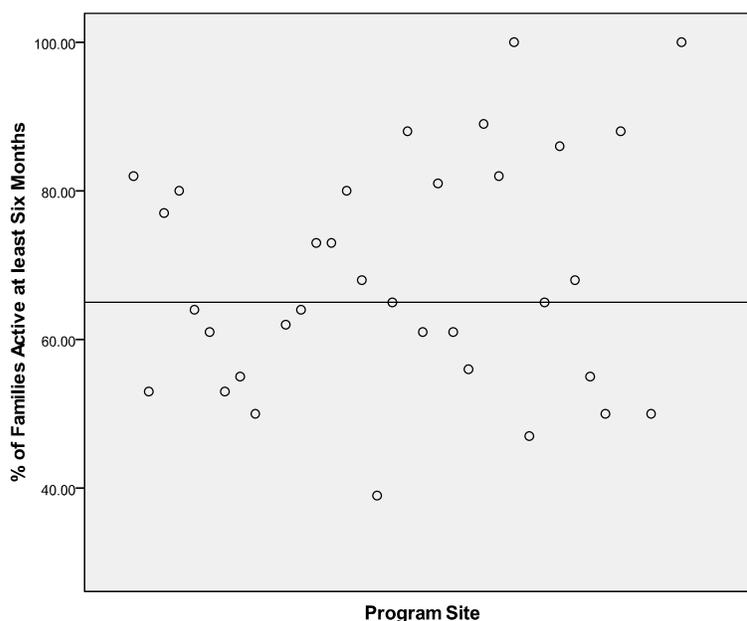
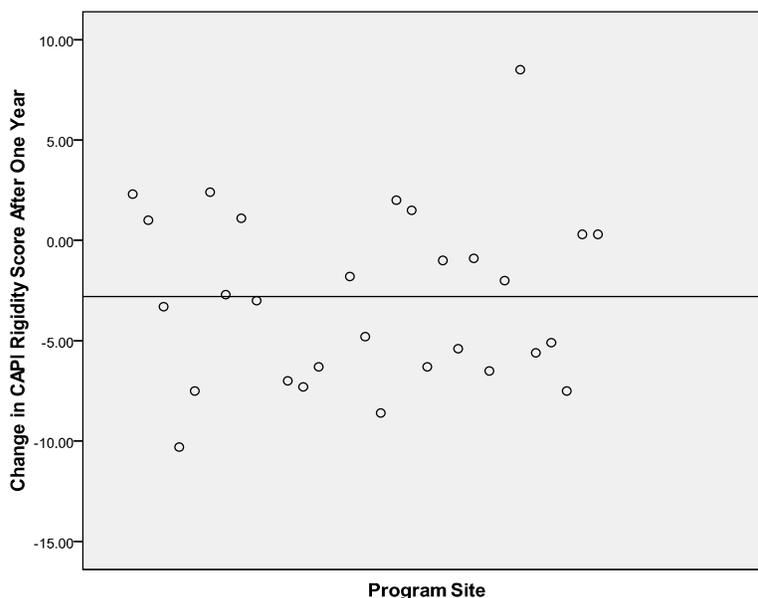


Figure 19. 1 Year Rigidity Change Scores by Site, 2008



## **Fatherhood Involvement Study Update**

Tim Black, Principle Investigator

In July, 2008, we launched the NFN father involvement study. In the early months, the research team was assembled and training completed, after which we developed and piloted the first interview schedule. Since then, the research team has met separately with 14 sites to discuss the study and recruitment strategies. We have acquired contact information for 80 fathers and have completed taped interviews with 31 fathers. The second and third interview schedules were developed in the winter months. At present, we have conducted 10 second interviews and have just begun the third round of interviews. Recruitment of fathers will continue through August, 2009, after which we will direct all of our interviewing attention to tracking and conducting follow-up interviews with fathers we have successfully engaged.

Most of the first interviews have now been transcribed. We are in the process of reviewing them, identifying themes, and establishing coding categories, after which, we will begin coding and inputting our coded transcripts into qualitative software for analysis. We anticipate that the December 2009 report will focus on this study, examining the early rounds of interviews. The first interim report that highlighted some of the literature on father involvement and child maltreatment was issued in December, 2008 and presented to Connecticut's fatherhood taskforce in the same month (Black, Harris, and Walker, 2008).

## **NFN Depression Improvement Study**

Marcia Hughes, Principle Investigator

High-risk, first-time mothers and their families who participate in preventive home visitation are especially vulnerable to depression. The high prevalence of maternal depression and trauma history in home visiting populations and the challenges these issues present are a relatively new programmatic and research focus. Home visitors, who are not trained to treat depression, are directed to link mothers to mental health services in the community, a strategy that yields only modest benefits.

The Depression Improvement Study, scheduled to start in August, 2009, will be conducted in conjunction with a study currently underway: "Treatment of Depression in Home Visitation." In collaboration with the investigators on that project, Robert Ammerman, PhD, and Frank Putnam, MD, from Cincinnati Children's Hospital Medical Center, and with partners from Connecticut Children's Trust Fund, the University of Connecticut Health Center, and the Children's Fund of Connecticut, we will conduct a clinical trial of In-Home Cognitive Behavioral Therapy for first-time mothers in the Nurturing Families Home Visiting Program who meet the criteria for major depression. This is replication of an intervention model that is showing considerable promise for effectively treating depressed mothers receiving home visitation while simultaneously augmenting the benefits derived from home visitation for the mother and child.

A randomized clinical trial will be used to determine efficacy: 50 participants will receive In-Home Cognitive Behavioral Therapy (IH-CBT) treatment for depression in conjunction with home visiting; 50 will receive home visiting as usual and the home visitor will be advised to refer the mother for treatment to a community provider.

The specific objectives of the study are to:

(1) Compare the efficacy of IH-CBT in contrast to home visitation "as usual." Eligible mothers will be randomized to either IH-CBT in conjunction with home visitation or home visiting as usual (i.e., referred for treatment to a community provider). Each condition lasts fifteen weeks, during which time IH-CBT subjects receive 15 weekly sessions of IH-CBT and about 7 home visits, and HVAU subjects receive about 7 home visits. Four weeks after treatment, mothers in IH-CBT will receive a booster session. Pre, post, and 3-month follow-up assessments will be conducted with both groups to determine changes in depression status.

(2) Test the generalizability of the treatment model. We will examine if there are differential effects of IH-CBT on two home visitation models: Connecticut's Nurturing Families Network (NFN) program and Ohio's Early Childhood Succeeds.

(3) Examine the impact of effective treatment on parenting and child functioning. We will test if successful response to IH-CBT, concurrent with home visitation, is predictive of improved mother-child relationship and child social-emotional outcomes.

Findings from this study will be highly relevant to public health because IH-CBT: has the potential to reach a sizable population of depressed mothers who typically do not receive effective mental health treatment; can significantly enhance the benefits derived from home visitation services for both mother and child; and is readily adaptable for dissemination.