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# Multiple Response System (MRS) Evaluation Report to the North Carolina Division of Social Services (NCDSS)

at the request of the North Carolina General Assembly

> Submitted April 1, 2004

# The Center for Child and Family Policy

Solving problems facing children through research, policy, teaching and practice

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# Multiple Response System (MRS) Evaluation Report to the North Carolina Division of Social Services (NCDSS)

# **EXECUTIVE SUMMARY**

n response to a request from the North Carolina Division of Social Services (DSS),Center for Child and Family Policy at The Terry Sanford Institute at Duke University evaluated the Multiple Response System reform for families reported for child maltreatment. The North Carolina State Legislature has mandated the evaluation of five key aspects of the Multiple Response System (MRS) as field-tested by 10 County Departments of Social Services (DSS) in North Carolina, specifically: Child Safety; Timeliness of Response; Timeliness of Service; Coordination of Local Human Services; and Cost-Effectiveness.

Data for this evaluation were assembled from State data systems and through original data collection that included Child Protective Services (CPS) Reports, Services Information System (SIS) Data, surveys of family members, and focus groups.

The methods used to complete the evaluation included tracking of changes in the 10 pilot MRS counties over time and contrasting the activities and outcomes in the 10 MRS counties with matched counties that had not yet implemented MRS. Each MRS county was matched to a control county based on similarities in the following criteria: total population; child population; reported rates of child maltreatment – both investigated and substantiated; rates of children in DSS custody; and rates of children in foster care for the first time. Because Mecklenburg County does not have an appropriate comparison county due to substantial differences from other counties in population size, investigation rates, and substantiation rates, Mecklenburg was evaluated only through comparisons to itself over time and was not included in analyses that involve control counties. The following conclusions were drawn from the evaluation:

#### <u>Safety</u>

MRS has not adversely affected the level of children's safety in the brief period of its implementation, according to official records of investigations and substantiations of child maltreatment.

#### Timeliness of Response

MRS has not significantly altered the likelihood that families will receive an initial response from DSS within 72 hours or the likelihood that they will receive an official case decision within 30 days. There was, however, a trend toward slightly increased initial response time in MRS counties. Response times in 2004 should be closely monitored to determine whether or not this trend continues.

#### **Timeliness of Service**

MRS has not altered the median length of time from report to the initiation of services or the proportion of families that receive initial services within 30 days of a report.

#### Coordination of Local Human Services

MRS allows for better coordination and communication across agencies. The majority of families in the family assessment track of MRS counties were very satisfied with the way that their family was treated by the CPS worker and with the help that they received. In response to questions about their experience with staff of County DSS, families' comments included:

- -- 'If child services had not been involved I don't know what I would have done. They bent over backwards to help my family."
- -- "CPS has helped my family to the fullest. They helped me build up my confidence in all areas."
- -- 'My social worker not only did her job well, but also cared about us and our problems. She did everything possible to make sure we could pull through our hard time."
- -- "I just wanted to say that they gave me a chance and now I made it finally."
- -- "I think these people are here to help children and to help parents realize kids come first."

Social workers and supervisors unanimously agreed that the Multiple Response System is a good way to serve families that allegedly maltreat their children. Workers appreciated the fact that MRS allows them to be more respectful of families and to take into consideration the whole picture instead of concentrating only on the specific alleged incident.

#### Cost-Effectiveness

A comprehensive cost-effectiveness analysis was not feasible. In the short run, all MRS counties were able to re-allocate staff members and resources to accommodate the needs of the Multiple Response System without additional funds or a change in turnover rates. However, staff members experienced increased challenges in managing cases while working with new reports, leading to increased stress levels. It is possible that increased stress will lead to increased staff turnover or declining quality of service over time; however, better training and staff support might mitigate this stress.

#### **Recommendations**

The following are recommendations based upon the findings of this report and feedback received through the focus groups in the nine counties visited:

- -- Limit caseload size to six to eight families per worker or implement a "team model" with teams consisting of investigators/ assessors, case managers, and foster care workers that act as a cohesive unit to serve a family.
- -- Implement additional and consistent training for line staff.
- -- Implement supervisory and management training immediately.
- -- Appropriate state dollars to conduct crossagency family-centered training for all childserving agencies.
- -- Create a new decision category to address those instances when families receive services during Assessment period and do not need additional supervision beyond this time, called "services received, no further services recommended."
- -- Conduct a more systematic and detailed evaluation when MRS has been in practice for a longer period of time.
- -- Evaluate the next wave of implementation immediately.

# Multiple Response System (MRS) Evaluation Report to the North Carolina Division of Social Services (NCDSS)

# **INTRODUCTION**

#### Purpose

The purpose of this report is to evaluate five key aspects of the Multiple Response System (MRS) as field-tested by ten County Departments of Social Services (DSS) in North Carolina. In agreement with the North Carolina Division of Social Services (NCDSS) and mandated by Senate Bill 1005 Section 21.46 (b), this evaluation includes data collection and analyses to address the following aspects of MRS implementation:

- (1) Child Safety
- (2) Timeliness of Response
- (3) Timeliness of Service
- (4) Coordination of Local Human Services
- (5) Cost Effectiveness

#### Evaluator

In response to a request from the NC Division of Social Services (DSS), the Center for Child and Family Policy at The Terry Sanford Institute at Duke University has engaged in the evaluation of the Multiple Response System to families reported for child maltreatment.

The Center for Child and Family Policy brings together scholars, policymakers, and practitioners to solve problems facing children in contemporary society by undertaking rigorous social science research and then translating important findings into policy and practice. The Center is currently addressing issues of early childhood adversity, education policy reform, and youth violence and problem behaviors. Researchers at the Center design interventions for youth, implement them in school and community settings, and evaluate them through rigorous designs and sophisticated analytic methods. Center researchers and staff also work closely with families of at-risk children to implement and evaluate programs designed to foster healthy family dynamics.

Kenneth A. Dodge, Ph.D., who has served as the Principal Investigator for this evaluation, is the William McDougall Professor of Public Policy and Professor of Psychology and the Director of the Center of Child and Family Policy at Duke. For the past 25 years, Dr. Dodge has published over 200 scientific articles and has been the PI on research grants totaling over \$30 million, several involving multi-site collaborations. He is the recipient of a Senior Scientist Award from the National Institute on Drug Abuse to study the development and prevention of drug use in youth. Most recently, he has been concerned with translating knowledge from prevention science into effective public policies for children, youth and their families.

The evaluation team included staff members of the Center for Child and Family Policy with expertise in the areas of data management, statistics, project coordination, and program evaluation. Adele Spitz-Roth served as the project coordinator for this evaluation. Spitz Roth has over 20 years of experience in program development and hands-on organizational, systems and project management in health and human services delivery systems. Christina Christopoulos, Ph.D., served as the Research Coordinator for this evaluation. For the past 13 years, Dr. Christopoulos has coordinated the research component of the Fast Track multi-site conduct disorder prevention/intervention project. Katherine Rosanbalm, Ph.D., served as the statistician for this evaluation. Dr. Rosanbalm has worked as a program evaluator and statistician for numerous state and federally funded initiatives and research studies, including statewide pilot implementation of previous DHHS programs in North Carolina. Claire Osgood, assisted by Matt Edwards, was responsible for the data management and programming needs for this evaluation. Together, they have over 20 years of experience in data management, programming, and technical report writing.

#### Background

North Carolina's Multiple Response System (MRS) began with a mandate by the North Carolina General Assembly (Session Law 2001-424, Senate Bill 1005, "Appropriations Act of the General Assembly"). This mandate required that the North Carolina Division of Social Services pilot an alternative response system for child protection with selected reports of suspected child neglect. Ten pilot counties were chosen to implement MRS, including: Alamance, Bladen, Buncombe, Caldwell, Craven, Franklin, Guilford, Mecklenburg, Nash, and Transylvania. These counties began preliminary implementation of MRS in 2002, and countywide implementation in January 2003.

North Carolina's Multiple Response System utilizes seven key strategies, including:

- 1. A strengths-based, structured intake process. Emphasis is placed on family strengths along with needs. Includes structured intake tools with consistent screening criteria for identifying child abuse, neglect, and dependency reports.
- 2. A choice of two approaches to reports of child abuse, neglect, or dependency. Allows a differential response to child neglect and dependency reports that provides a more tailored approach for each family, facilitating a partnership among local agencies and communities to address all needs of the child and family. An investigative assessment track is followed for cases requiring a forensic response, and a family assessment track is followed for dependency cases and selected cases of suspected neglect that might be better served by service delivery than by a forensic response.
- 3. Coordination between law enforcement agencies and child protective services for the investigative assessment approach. County Departments of Social Services continue to work closely with law enforcement agencies, particularly in investigating and, when appropriate, prosecuting cases on the investigative track. The development of formal Memoranda of Agreement facilitates this process.
- 4. A re-design of in-home services. Allows for a continuum of services of varying intensity depending on the needs of the family and the concerns for safety of the children. This continuum addresses the three core child outcomes of safety, permanence, and well-being.
- 5. Implementation of Child and Family Team meetings during the provision of in-home services. Child and Family Team meetings

are used as a part of in-home services to bring all involved agencies and community/family resources and supports to the table. A Child and Family Team (CFT) is a group of people that the parent and social worker together decide to invite to a meeting. The common threads of this group are that everyone knows the family (possibly in different contexts) and can honestly discuss the situation, identify needs, problem-solve, and reach consensus on a service plan. A Child and Family Team meeting is "with," not "about," the family.

- 6. Implementation of shared-parenting meetings in child placement cases. When a child is placed in foster care, shared-parenting meetings are held within the first seven days for the social worker, birth parents, and foster parents to discuss the care of the child.
- 7. Collaboration between the Work First Family Assistance and child welfare programs. CWS/ CPS work closely with Work First Family Assistance programs to provide families with financial, employment, and community services to help them become self-sufficient.

The second strategy of the Multiple Response System allows counties to respond to reports of child maltreatment in one of two ways: an investigative assessment (traditional child protective services response) or a family assessment (alternative family-centered response). The investigative assessment, or forensic track, is applied to all reports that meet the definition of abuse or abandonment and special types of neglect reports. The family assessment track is applied to most reports of neglect or dependency, though social workers and supervisors may always choose to place a neglect or dependency case into the forensic track if they feel that the investigative assessment approach is needed to ensure the safety of the children. Both assessment approaches are family-centered and meet the needs of safety issues for children.

The investigative assessment track, or forensic track, follows the traditional child protective services approach to child maltreatment reports. It typically involves an unannounced home visit, separate child interviews that may occur without the parents' knowledge or consent, and interviews of collateral information sources without the parents' knowledge. This track focuses on determining whether or not a specific reported case of child maltreatment has occurred. Following the investigative assessment, there are two possible findings: (1) substantiated, indicating that the reported incident occurred and child protective services are required, or (2) unsubstantiated, indicating that the reported incident cannot be proven, though services may be recommended if a need is identified. Again, this track continues to be utilized with reports of child abuse as well as the following special types of reports:

-- Abandonment

-- A child fatality when there are surviving children in the family -- A child in custody of local DSS, family foster homes, residential facilities, child care situations, and reciprocal investigations

-- A child taken into protective custody by physician or law enforcement, pursuant to N.C. General Statue 7B-308 & 500

-- The medical neglect of disabled infants with life threatening condition, pursuant to Public Law 98-457 (Baby Doe)

-- A child hospitalized (admitted to hospital) due to suspected abuse/neglect.

Additionally, any cases of child neglect may be assigned as an investigative assessment if the agency determines it is necessary to ensure child safety.

The family assessment track provides an alternative approach to selected child maltreatment reports, including most neglect and all dependency cases. In specific cases, neglect allegations might follow the investigative assessment track. The family assessment track follows a strengths-based approach that attempts to engage the family in determining needs and finding solutions. By accessing extended family and community resources and facilitating a team approach to address identified needs, the family assessment track aims to stabilize the family and enable the parents to care for their children better. Initial interviews of parents and children are scheduled with the parents, parents are informed about collateral interviews, and no perpetrator is identified. This track focuses on total child well-being, assessing all of the family's needs, rather than solely investigating a specific reported instance of neglect. Following a family assessment, there are three possible findings: (1) services needed, indicating that child protective required, services services are (2)recommended, indicating that services are voluntary but recommended, and (3) services not recommended, indicating that no service need has been identified.

#### Метнод

#### Selection of Comparison Counties

Changes in the 10 pilot counties were tracked over time since 1996. These pilot counties were also contrasted with matched counties that have not yet implemented MRS.<sup>1</sup> Each pilot county was matched to a control county based on similarities in the following criteria:

- -- Total population
- -- Child population
- -- Reported rates of child maltreatment both investigated and substantiated
- -- Rates of children in DSS custody
- -- Rates of children in foster care for the first time.

Selection of the comparison counties also took into account geographic similarities and an understanding of the policies and practices of each county DSS. Selection decisions were reviewed and approved by the Division of Social Services. The pilot and control counties are listed as pairs in Table 1. Note that Mecklenburg County does not have a matched comparison county. Due to its size and very low rates of investigations and substantiations, there is no county in North Carolina than can be appropriately matched with Mecklenburg. Therefore, Mecklenburg is evaluated only through comparisons to itself over time, but is not included in analyses that involve control counties.

Note that these two methods of evaluation (examination of counties' trends over time and contrasts between pilot and matched-control counties) cannot provide a highly rigorous analysis of the effects of MRS because alternate interpretations of findings will always be plausible. It will always remain plausible that changes across time are due to some other important event (such as a change in the economy) rather than the introduction of a new system. Also, it will always remain plausible that the differences between the MRS counties and matched control counties are due to some factor that led the MRS counties to be selected in the

<sup>&</sup>lt;sup>1</sup> Some of the control counties will be implementing MRS in 2004. However, none of them had started MRS as of December 2003, and therefore MRS implementation does not overlap with the timeframe of this evaluation.

first place (such as their readiness for reform) rather than the MRS system. A true experiment with random assignment of counties would be needed to provide a more rigorous test of the effects of MRS.

Table	1	<ul> <li>Matched</li> </ul>	Pilot	and	Control	Counties
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Pilot	Control
	D
Alamance	Rowan
Bladen	Warren
Buncombe	Catawba
Caldwell	Surry
Craven	Cleveland
Franklin	Pender
Guilford	Durham
Mecklenburg	
Nash	Wayne
Transylvania	Jackson

#### Data Sources

Data for this evaluation were assembled from state data systems and through original data collection as described below.

#### Child Protective Services (CPS) Reports

The North Carolina Department of Health and Human Services (DHHS) collects all CPS reports of child abuse and neglect from each county. The data from these reports are stored in the Client Services Data Warehouse in the Central Registry. Data for 10 pilot counties and nine comparison counties were extracted from the Data Warehouse, providing information on individual children that included report and investigation dates, the type of maltreatment reported, whether the report was substantiated, and the type of maltreatment substantiated. See the Appendix for a detailed description of the CPS report data used in this evaluation. Services Information System (SIS) Data Like the CPS reports, DHHS provides SIS data via the Client Services Data Warehouse. These data include information on all social services provided to any person. Data for 10 pilot counties and nine comparison counties were extracted from the Data Warehouse, providing information on individual children that included service start and end dates as well as service codes and descriptions. See the Appendix for a detailed description of the SIS data used in this evaluation.

#### Surveys of Family Members

A core component of MRS is the family-centered approach. Therefore, feedback from families is crucial. To evaluate family satisfaction, original data were collected using an anonymous "sealed envelope approach". This process of getting feedback and information from families and residents has worked in other settings and has successfully maintained the confidentiality of the responses.<sup>2</sup>

As a part of the sealed envelope approach, the social worker working with a family in the Family Assessment track interviewed a family member using the North Carolina Multiple Response System Family Involvement Survey (developed in partnership between the initial MRS counties and NCDSS). To ensure that literacy did not influence response, the social workers read the questions to the family member and the family member subsequently answered each question privately. Upon completion of the survey, the family member placed the survey in an envelope and sealed it and then placed the envelope in a larger envelope containing other unidentified sealed envelopes, thereby maintaining the

<sup>&</sup>lt;sup>2</sup> Coulton, C.J., Korbin, J.E., & Su, M. (1999). *Child Abuse and Neglect, 23,* 1019-1040.

confidentiality of his/her responses. All the sealed envelopes were subsequently sent to the Center for Child and Family Policy at Duke University for processing. Each county was asked to conduct 25 sealed-envelope surveys with families who were involved in Child Protective Services through the Family Assessment/Case Management track between December 1 and December 31, 2003. Each family was given a \$10 Wal-Mart gift card for their participation.

#### Focus Groups

Focus groups with front-line workers and community partners were held to address questions of worker satisfaction and interagency coordination of services. Each county was visited by two evaluators who led the focus groups and recorded workers' and community partners' responses to a set of prescribed questions.<sup>3</sup> Depending on department size, some counties had all their staff members participating and others had representatives participate. All the counties had a very high representation of staff members. Most counties had at least three community partners participate.

In addition, focus groups were held with supervisors to address the utilization and reallocation of resources. A prescribed set of questions was used to examine how resources were shifted within the agencies in order to implement MRS. Sample questions for both focus groups are provided in the Appendix.

## Findings

The year 2003 brought major changes for the 10 MRS counties in: (1) the DSS response alternatives about how to investigate cases (called "track"); and (2) the DSS decision alternatives (called "decisions"). Two response tracks are possible in MRS counties (called forensic track and family assessment track), whereas other counties have only one response track. Within the forensic track in MRS counties, one of five

decisions must be reached: substantiated abuse, substantiated neglect, substantiated abuse and neglect, substantiated dependency, or unsubstantiated. In other counties, these five possible decisions apply to all cases. The MRS counties also have three decisions that are possible for cases in the family assessment track: services needed, services recommended, and services not recommended. If during the family assessment it is suspected that abuse or special categories of neglect that necessitate forensic investigation may have occurred, the case is then transferred to the forsenic track.

Figure 1 depicts a flow chart of the possible response alternatives and decisions for MRS counties, along with the numbers and rates for each possible category, summed across the 10 MRS counties. This figure shows that in MRS counties in 2003, 48.5% of the total of 23,016 investigations were placed into the forensic track and 51.5% were placed into the family assessment track. Of the cases placed in the forensic track, 4.6% were substantiated for abuse or abuse and neglect, 26.8% were substantiated for neglect, 0.6% were substantiated for dependency, and 68.0% were not substantiated. Of the cases placed in the family assessment track, 16.2% received a decision of services needed, 34.1% received a decision of services recommended, and 49.7% received a decision of services not recommended. The remainder of the findings addressed the five questions asked by the Legislature.

<sup>&</sup>lt;sup>3</sup> The evaluators visited nine of the pilot counties between December 11, 2003 and January 14, 2004.



#### Child Safety

The most critical issue in the evaluation of MRS implementation is the safety of children. It is important to evaluate whether the focus in MRS on a family-centered approach alters the likelihood that children are safe. Over several years, safety can be measured by examining trends in rates of child abuse and neglect, but, given that MRS was fully implemented for only one year through December 31, 2003, the period of follow-up to examine child safety is short. As a consequence, any conclusions about child safety should be regarded with caution and should be considered as tentative. Because the MRS reform no longer determines whether the alleged incident of neglect occurred but rather determines whether the families are in need of services, the question of child safety can be addressed best by tracking investigation rates for all children and decisions about child abuse (but not neglect).

Several strategies were followed in evaluating child safety using data from Child Protective Services reports stored in the Client Services Data Warehouse in the Central Registry. First, trends across years were examined within each of the pilot counties to determine whether rates of investigations and rates of substantiated child abuse changed significantly during 2003 from previous years. Figures 2, 3, and 4 provide graphs of the rates of children with investigations (per 1,000 child population), children with substantiations of abuse (per 1,000 child population), and the percentages of children with investigations that resulted in substantiation of abuse, respectively, for the mean of the nine MRS counties, the mean of the nine matched-control counties, and Mecklenburg County, for each year from 1996 through 2003.







These three figures show that rates of substantiated abuse did not increase or decrease in MRS counties with the initiation of MRS. For investigations in 2003, control and MRS counties substantiated abuse at the rates of 2.76% and 2.61%, respectively. These rates are slightly lower than rates in the previous five years and do not significantly differ from one another, according to standard statistical tests (matched-pair t-test). According to official rates of investigations and substantiations of abuse, child safety was not altered due to the introduction of MRS.

Another way to look at safety in the short term is to examine rates of re-investigations of children who had previously been investigated by DSS; in other words, the proportions of cases for which children returned to the system within six months. To investigate safety in this manner, the following annual rates of re-investigation for the MRS counties and the control counties for both 2003 and the pre-MRS year of 2001 were examined: (1) the proportions of investigated children (including both forensic investigations and family assessments) who had a second investigation within six months after the first investigation; and (2) the proportions of children who had been substantiated as abused who had a second investigation within six months after the first investigation. These analyses were restricted to cases reported in the first six months of 2003, so that a six-month follow-up was possible by December 31, 2003. For comparison purposes, all cases investigated in the first six months of each preceding year were also followed up for six months. Figures 5 and 6 depict these two rates, respectively, for nine MRS counties, nine control counties, and Mecklenburg County. Because of the low numbers of children with substantiated abuse, particularly in smaller counties, proportions of children with abuse substantiations that are re-investigated are quite sensitive to small changes in the data. This unreliability results in the variability across years that is evident in Figure 6. WW





When the 10 MRS counties (Mecklenburg included) were examined over time, no significant changes were seen in rates of re-investigation between 2001 and 2003. In 2003, of those children who had been investigated during the first half of the year, 13.4% were re-investigated within six months, as compared to 14.7% in 2001<sup>4</sup>. This change is not statistically significant. Of those children with a substantiation of abuse in the first half of 2003, 7.4% were re-investigated within six months, as compared to 14.6% in 2001. This difference is not statistically significant. Again, the low numbers of children with substantiated abuse make these re-investigation rates quite variable, thus even this seemingly large difference over time may be due to chance. It is, however, promising that the re-investigation rate for children with substantiated abuse has declined over the past two years in MRS counties; this rate should be monitored for future trends. For more information on the analytic methodology and statistical findings, refer to the Appendix.

Next, the rates of re-investigation across time in the nine MRS counties and their matched control counties were compared. For each county, the change in rate of re-investigation between 2001 and 2003 was computed, and the average change for MRS counties was contrasted with the average change for control counties. The mean change in the rate of re-investigations (children with an investigation in the first half of the year who had another investigation within six months) was -1.8% in the MRS counties, and -2.5% in the control counties. For children with abuse substantiations in the first half of the year who had another investigation within six months, the MRS change rate from 2001 to 2003 was -8.5%, whereas the control county change rate was -3.2%. These differences were not statistically significant. These findings indicate that the introduction of a two-track system using MRS has not altered the level of safety for children who have been investigated or substantiated as abused, over the following six-month period.

Within the 10 MRS counties, re-investigation rates were examined for family assessment and forensic tracks in 2003. These rates were not expected to be comparable, thus no statistical analysis was completed. Of children who had an assessment in the family assessment track during the first half of the year, 13% were re-investigated within six months. Of children who were investigated in the forensic track during the first half of the year<sup>5</sup>, 13.4% were re-investigated within six months. Again, 7.4% of children with an abuse substantiation (by definition, all were in the forensic track) in the first half of 2003 were re-investigated within six months.

#### Timeliness of Response

Timeliness of response was operationalized as both the amount of time taken to initiate an investigation following a report of maltreatment and the amount of time taken to reach a case decision. Data from Child Protective Services reports stored in the Client Services Data Warehouse in the Central Registry were used for all analyses pertaining to timeliness of response.

#### **Initial Response**

County Departments of Social Services are required to initiate a response within a maximum of 72 hours of receipt of an accepted report (dependent on the type of allegation). When a report is accepted for investigation, it is called a "case." The proportions of all cases for which the county DSS did initiate a response within the required 72-hour period are depicted in Figure 7, for each year from 1996 through 2003 for the mean of the nine MRS counties, the mean of the nine control counties, and Mecklenburg County.

<sup>&</sup>lt;sup>4</sup> These percentages include data from all 10 MRS counties including Mecklenburg, thus may differ from the percentages in Figures 5 and 6.

<sup>&</sup>lt;sup>5</sup> Children who had both a forsenic investigation and a family assessment during the first half of the year are included in both numbers.

During the first complete year of MRS services (2003), the 10 MRS counties initiated a response within a 72-hour time period for an average of 90.5%<sup>6</sup> of all cases, as compared with 93.4% in these same counties in 2001. These figures are not statistically different from each other, indicating that the initiation of the MRS system did not result in a change in timeliness of initial response.

Nine MRS counties (excluding Mecklenburg) were then contrasted with matched control counties. For each county, the change between 2001 and 2003 in the rate of investigations that were initiated within 72 hours of report was computed. In the MRS counties, the percent of investigations initiated within 72 hours of the report decreased by an average of 2.9% from 2001 to 2003, whereas this percent increased by an average of 4.5% for control counties. This finding approached significance (p = .07). These findings indicate that the introduction of MRS did not have a statistically significant effect on time to initial response; however, the trend toward an increased response time is a signal to monitor the response times closely in 2004 to determine whether or not this trend continues.

#### Case Decision

A second aspect of timeliness of response is the time taken to complete the investigation/ assessment and reach a case decision. By policy effective through November 2003, case decisions were required to be completed within 30 days of the receipt of the report (unless a reason for delay was documented). In November 2003, this policy was changed to require case decisions within 45 days of a report. Figure 9 depicts the proportions of cases for which decisions were reached wihin 30 days for each year from 1996 through 2003 for the mean of the nine MRS counties, the mean of the nine control counties, and Mecklenburg County.

During 2003, the mean proportion of cases that resulted in a case decision within 30 days for the 10 MRS counties was 62.2%<sup>7</sup>. In 2001, the mean was 67.2%, but this difference is not statistically significant. Next, MRS counties were contrasted with control counties. MRS counties did not significantly differ from control counties in the change in timeliness of case decisions between 2001 and 2003. **These findings indicate the introduction of MRS did not have a significant effecct on time to case decision.** 

Figure 10 depicts the proportions of cases for which decisions were reached within 45 days for each year from 1996 through 2003 for the mean of the nine MRS counties, the mean of the nine control counties, and Mecklenburg County.

In the 10 MRS counties (including Mecklenburg), the mean proportion of cases that resulted in a decision within 45 days was 82.5%, as compared with 83.0%<sup>8</sup> for the same counties in 2001. This difference is not significant. Additionally, MRS counties did not significantly differ from control counties in the change in timeliness of case decisions between 2001 and 2003.

Finally, within 10 MRS counties, family assessment and forensic tracks were compared for 2003. Figures 11 and 12 show the proportions of case decisions reached within 30 days or 45 days, respectively, for both tracks. Cases in these two tracks did not differ in the proportions of case decisions reached within the 30-day time

<sup>&</sup>lt;sup>6</sup> These percentages include data from all 10 MRS counties including Mecklenburg, thus they may differ from the percentages in Figure 7.

<sup>&</sup>lt;sup>7</sup> These percentages include data from all 10 MRS counties including Mecklenburg, thus they may differ from the percentages in Figure 9.

<sup>&</sup>lt;sup>8</sup> These percentages include data from all 10 MRS counties including Mecklenburg, thus they may differ from the percentages in Figure 10.









period. There was, however, a significant difference in the proportion of cases that reached a decision within 45 days; 84.4% of cases in the family assessment track were decided within 45 days, whereas 80.3% of cases in the forensic track were decided in this time period. This significant (p < .05) difference indicates that case decisions are reached within the 45-day window for a larger proportion of families in the family assessment track than in the forensic track.

#### Timeliness of Service

Timeliness of service was investigated using the earliest recorded service provided subsequent to a report of maltreatment. Both Child Protective Services reports and Services Information System data stored in the Client Services Data Warehouse were utilized in these analyses. A review of the data revealed striking differences in service provision dates for two counties, Bladen and Guilford. In both counties, initial services were recorded on the date of report for a large majority of cases in 2002 and 2003. Based on anecdotal reports, these counties have been recording initial services on the date that services were first requested, rather than on the date that services were first provided. Recent service data from Bladen and Guilford are therefore not comparable to that of other counties and other years. Dates of actual service provision are not currently available from these counties; thus, they were removed from all timeliness of service analyses for this evaluation.

First, the median length of time from the report date to the date of first service in each MRS county was examined. The median length of time represents the time by which half of the cases have received their first service. The average median response time for seven MRS counties, seven control counties, and Mecklenburg County are provided in Figure 13. In 2003, eight MRS counties (including Mecklenburg) had an average median time of 27.3 days between the time a report was made and the time a service was first recorded. This time is not significantly different from the 2001 timeliness of service in these same counties (median = 26.9 days)<sup>9</sup>. Similarly, pilot counties and matched controls show no significant differences across years in median time to first service. In 2003, the matched control counties had an average median time of response of 28.7 days.

A second method used to examine timeliness of service was to compare the proportion of cases that received their first service no more than 30 days (i.e., the expected time to case decision) following their report dates. This number was calculated as the following: of all cases that had at least one service recorded, what percentage received their first service within 30 days of report. The average proportions for seven MRS counties, seven control counties, and Mecklenburg County are provided in Figure 14.

For those cases that received services in eight MRS counties, 60.9% received their first services within 30 days of their report dates in 2001, and 61.1%<sup>10</sup> received their first services within 30 days of their report dates in 2003. Additionally, pilot MRS counties and matched control counties showed equivalent proportions across years of clients receiving services within 30 days.

<sup>&</sup>lt;sup>9</sup> These percentages include data from eight MRS counties including Mecklenburg, thus they may differ from the percentages in Figure 13.

<sup>&</sup>lt;sup>10</sup> These percentages include data from eight MRS counties including Mecklenburg, thus they may differ from the percentages in Figure 14.





In 2003, the matched counties provided at least one service within 30 days of report to 57.8% of cases. Taken together, these findings indicate that the initiation of MRS is not associated with a change in timeliness of service.

Within MRS counties in 2003, there were no significant differences in timeliness of service between family assessment and forensic tracks. Cases in the family assessment track had an average median time of 26.5 days between report and first service, whereas cases in the forensic track took a median 27.9 days from report to first service. Similarly, 57.0% of cases receiving services in the family assessment track had their first services within 30 days of report, whereas 61.8% of cases receiving services in the forensic track began services in this time period.

These findings suggest that the introduction of MRS is not associated with a change in timeliness of service. However, this finding runs against the unofficial but consistent focus group reports of all nine MRS pilot counties that services are put in place much sooner with MRS. It is our speculation that this difference may be attributed to limitations of the data system in terms of how services are coded and entered in the early stages of MRS implementation.

#### Coordination of Local Human Services

An important goal of the MRS system is to improve the coordination of local providers of human services on behalf of families in need. It was not possible to evaluate change in coordination from previous years, nor was it feasible to examine coordination in control counties. The evaluation of this question was restricted to qualitative analyses within MRS counties, based on responses to surveys and focus group meetings. The findings should be considered as suggestive but not definitive.

# Interagency Collaboration and Communication

All counties made efforts to educate their community partners about MRS. Some counties made presentations to their community partners, others distributed fliers, and still others had the luxury of having county-wide System-of-Care Training, which is family-centered practice training for community partners that was sponsored by other initiatives. Despite these efforts, most social workers reported that although communication and collaboration across agencies occurred, more of it is needed.

Workers from all agencies spoke of the importance of existing interagency relationships with their respective community partners and how these relationships significantly contributed and continue to contribute to their effectiveness in meeting the needs of children and families. Child and Family Teams were identified as an additional forum in which interagency collaboration and communication occurs and, in many ways, provides a simpler process for this communication and collaboration to occur. Community partners further mentioned that CFTs allow them to obtain a better understanding of the family and its functioning and that family members can ask for needed resources immediately, when numerous agencies are represented.

The coordination between law enforcement and the Forensic Track of MRS varied across counties and has not changed with the implementation of MRS. Some counties had a Memorandum of Understanding signed, whereas other counties had more informal relationships with law enforcement. Some counties mentioned that education of law enforcement personnel about MRS had to be enhanced.





Collaboration with Work First was inconsistent across the counties with some counties having systematic ways of including Work First in the cases that could use that support and other counties not yet including Work First.

#### Consumer and Worker Satisfaction

Because this was a pilot implementation that was designed to test the effectiveness of the MRS model, the evaluator and the NCDSS decided that it would be appropriate to solicit feedback from families as recipients of these new services and the workers who are those staff members actually implementing the new system. As described earlier, the evaluation of these questions was restricted to either a small sample size or qualitative analyses within the MRS counties. Therefore these findings should be considered suggestive but not definitive.

#### Families' Perspective

170 Family Involvement Surveys were administered to families in the family assessment track in MRS counties. Responses to these surveys were tallied, and the most important findings follow.

- -- 100% of the families reported that the CPS worker treated them in a respectful or very respectful way.
- -- 99% responded that they were generally satisfied or very satisfied with the help that they received.
- -- 95% of the families agreed or strongly agreed with the statement that the CPS Social Worker identified strengths in the way that they raised their children
- -- 98% agreed or strongly agreed that they were involved in the decisions that were made about their family and children.
- -- 42% of families reported participating in child and family teams.

Examples of responses collected from families on the surveys include:

- -- 'If child services had not been involved I don't know what I would have done. They bent over backwards to help my family."
- -- "I just wanted to say that I tremendously appreciate the help I received and the respect that I got from my social worker."
- -- "CPS has helped my family to the fullest. They helped me build up my confidence in all areas."
- -- "My social worker not only did her job well, but also cared about us and our problems. She did everything possible to make sure we could pull through our hard time."
- -- "I just wanted to say that they gave me a chance and now I made it finally."
- -- "I think these people are here to help children and to help parents realize kids come first."
- -- "My social worker has helped in so many ways I couldn't name them all! She kept me on track and made sure everything my family needed was taken care of promptly."
- -- "Our CPS worker was very honest with our needs. She seemed very concerned with what we needed/ wanted. She's the best!!"
- -- "My social worker was my inspiration!"
- -- 'My social workers were very kind and didn't assume I was guilty of what I was accused of."

In sum, families in the family assessment track reported high levels of satisfaction with the services that they received. Moreover, families acknowledged that social workers were applying the family-centered, strengths-based principles of the family assessment, with the exception of child and family teams. These findings must be tempered by the possibility that families that participated in these surveys were a biased subgroup, selected by caseworkers and selfselected to complete a survey. In order to reach more definitive conclusions, more thorough and objective sampling of families would be required.





#### <u>County Department of Social</u> <u>Service Workers' Perspective</u>

During focus groups, county DSS workers were asked to compare working within MRS to the way that they had done business prior to its introduction. Both social workers and supervisors reported that the family-centered practice of MRS allows them "finally" to do social work the way that they were taught to do it in school. They felt that MRS trains workers to treat families the way they themselves would like to be treated. Workers identified the following points as positive contributions of MRS:

For the families,

- a) MRS is more respectful to the families than the traditionally used approach.
- b) MRS makes the families more open, less defensive and less resistant.
- c) With MRS, the social worker takes into consideration the whole situation and not just the specific incident.
- d) MRS offers families many needed services that they would not otherwise receive.
- e) MRS allows social workers and supervisors greater flexibility in decisionmaking and service delivery.
- f) Child and Family Teams (CFTs) allow families the opportunity to take charge of their family and to work with other professionals to meet their existing needs. In an environment of mutual respect and honesty, families play a major role in developing a treatment plan for their family. Social workers spoke of families leaving CFTs with a clear direction and a feeling of accomplishment.

For the social workers,

a) Social workers consistently reported that families are more receptive to them under MRS than previously. When the families realize that social workers are there to help rather than to take their children away, they are less adversarial, more honest, and more appreciative. As a result, social workers reported that on a personal note their job has become more rewarding.

b) In counties where Child and Family Teams were utilized consistently, either facilitated by the case manager or an external facilitator, CFTs were described as "god-sent," "the resource that safeguards safety," and time savers. With all involved parties sitting around the same table, social workers found that they did not need to make individual contacts with agencies. In other counties social workers did not have a clear understanding of the benefits of CFTs or their roles within them and therefore were hesitant to utilize them.

Workers also identified some challenges with MRS. At the same time that social workers reported that their jobs were more rewarding, they also reported high levels of stress because of:

a) Mixed Caseloads.

The 2003 Multiple Response System Policy and Practice Manual states: "It is highly recommended that the social worker that conducts the family assessment maintain the case throughout the provision of In-Home Services." This directive meant that social workers were asked to play the dual role of assessor and case manager. In other words, social workers received new assessments and investigations that they had to serve within the standard response times for the type of alleged maltreatment, while at the same time providing the mandated number of contacts for their case management families. As a result, if they had scheduled an appointment for case management and a new assessment came in, they had to cancel or postpone the appointment and tend to the new assessment.

This problem was reported consistently across the counties that implemented mixed caseloads.

b) Work schedules.

Following family-centered practice, in most counties, workers' schedules changed to accommodate family schedules. This change, however, led to workers working longer hours and weekends, which adversely affected their private family lives. Even in counties that had implemented flexible hours, the problem was not alleviated substantially because taking time off in the morning still kept them away from their own families in the evening when their own families were at home. There was some degree of variability in workers' ability to navigate this difficulty, which could be attributed to individual time management skills and ability to negotiate mutually agreedupon meeting times with families.

c) Child and Family Teams.

Scheduling CFTs can be time consuming. In cases when numerous agencies and family members need to be invited, finding a time that is convenient for everyone may prove challenging. The facilitation of CFTs was also stressful for some counties because outside facilitators were not available.

d) Feelings of Frustration.

High mixed caseloads and difficulty managing their schedules led workers to feel that they were "always treading water" and "putting fires out all the time." Consistently across counties, workers felt they were not serving their 'in-need' families to their satisfaction. e) Supervision.

In some counties, workers stated that supervision varied across teams, leading to inconsistent criteria in decision-making and a feeling of frustration among workers. For example, in one team a family might receive a case decision of "services recommended," whereas in another team a similar type of family might receive a case decision of "services needed." Such inconsistency seemed to emanate from two sources: (1) the intrinsic ambiguity involved whenever a new system is developed and definitions of terms are created; and (2) variations in supervisor background and training. It is possible that these inconsistencies will dissipate over time, although better training of supervisors and staff workers might prevent these problems in new MRS counties and improve consistency within and across MRS counties.

#### Cost Effectiveness

#### Utilization and Re-Allocation of Staff Resources

A formal cost-effectiveness analysis of MRS was originally requested by the Legislature but was not possible due to the lack of randomly-assigned control counties, complexity of fiscal records, the brief timeframe stipulated for the completion of this report, and the lack of resources. Because no additional funds had been allocated for the implementation of MRS, the "official" costs of implementing MRS were identical to costs in control counties and identical to costs in previous years in the same counties. Therefore, it was decided in consultation with the Division of Social Services that a study of the utilization and re-allocation of staff resources would serve a similar purpose. During the focus groups, social workers and supervisors reported that the approaches used in MRS implementation were based on worker preference, worker style or inclination, or geographic assignment. Implementation also differed because some counties "jumped in" with minimal preparation, whereas other counties spent extensive periods planning for the change.

Despite the different modes and speed of implementation, all counties had to re-allocate their staff members to fill the needs of MRS. Workers were pulled from foster care, investigations, case management, or on-call duties to staff the new positions. For the most part, staff members were re-allocated in one of the following two patterns:

- -- The role of investigator/assessor was kept separate from the case manager role, or
- -- The same person kept the case from assessment to service delivery and case management.

A common difficulty in most of the counties that used the second approach was that the number of cases that the worker carried affected his or her ability to serve a family as an assessor and case manager at the same time. For example, if a social worker managed seven cases for which she or he needed to meet weekly, that worker had seven appointments each week. If, however, a valid report came in that needed to be assessed or investigated within 24 hours, one or more of these appointments would have be postponed or cancelled. It is not uncommon for a social worker to have seven case management cases and seven assessment cases on a caseload. Workers report that having dual responsibility for case management and assessment/investigation adversely affects the quality of care that they can provide to their families.

At the supervisory level, similar changes were made. In some counties, supervisors had to be cross-trained to be able to supervise all workers. Most supervisors reported spending more time in meetings, providing direct supervision or leading team meetings and case staffings. One of the most time-consuming new roles that supervisors had to play was to become facilitators for Child and Family Teams. Most counties reported that staff members initially did not feel comfortable running the Child and Family Teams, although some counties (specifically, those with previous experience with System of Care or similar programs) were comfortable with the staff members running the CFTs. In the case when the staff member was not comfortable, supervisors were trained to run CFTs. Only one county reported having an external facilitator for CFTs.

There were no perceived changes in the turnover rates due to MRS, which, unfortunately, remain high because of the high stress of the job. More objective tracking and analysis of staff turnover rates in MRS and control counties in 2004 is recommended.

## Conclusions

#### Safety

The introduction of MRS has not altered the level of children's safety in the brief period of its implementation, according to official records of child maltreatment investigations and substantiations.

#### Timeliness of Response

The introduction of MRS has not significantly altered the likelihood that families will receive an initial response within 72 hours or the likelihood that they will receive an official case decision within 30 days. There was, however, a trend toward slightly increased initial response time in MRS counties. Response times in 2004 should be closely monitored to determine whether or not this trend continues.

#### Timeliness of Service

The introduction of MRS has not altered the median length of time from report to the initiation of services or the proportion of families that receive initial services within 30 days of a report.

#### Coordination of Local Human Services

MRS allows for better coordination and communication across agencies. Having all agencies that provide services to a family around the same table with the family, engaged in an honest discussion of strengths and needs, allows families to take charge and feel heard, respected and supported.

All MRS counties express a need for more community partner education. Increased training for staff members and supervisors in the administration of Child and Family Teams is necessary in order to relieve staff stress levels and improve quality of service delivery. The majority of families in the family assessment track of MRS counties are very satisfied with the way that their family is treated by the CPS worker and with the help they receive. Families state that social workers identify strengths in the way that they raise their children and involve them in decisions about their family. Social workers and supervisors unanimously agreed that the Multiple Response System is a good way to serve families who allegedly maltreat their children.

Workers appreciated the fact that MRS allows them to be more respectful of families and to take into consideration the whole picture instead of concentrating only on the specific alleged incident. They feel that they are able to serve the families better and that families could feel and appreciate the difference. On the other hand, workers report high levels of stress because of high mixed caseloads and changes in schedule.

#### Utilization and Re-allocation of Staff Resources

In the short run, all MRS counties were able to re-allocate staff members and resources to accommodate the needs of the Multiple Response System without additional funds or a change in turnover rates. However, staff members experienced increased challenges in managing cases while working with new reports, leading to increased stress levels. It is possible that increased stress will lead to increased staff turnover or declining quality of service over time.

#### Recommendations

The following are recommendations based upon the findings of this reports and feedback received through the focus groups in the nine counties visited:

#### Division of responsibilities

MRS practice recommends that the same person would serve a family from beginning to end (assessment and case management to case closure). Across all the counties that implemented this approach, workers in the family assessor/case manager role had to put off their work with the families receiving case management to attend to new reports, resulting in stressed workers and disgruntled families.

In conversation with line staff and supervisors, the solution offered to this dilemma is to decrease caseloads to an average of six to eight families per worker and limit case management cases to four per worker.

If the resources do not exist to implement this significant reduction in caseload size to allow for the "blended caseload", we then recommend that a "team model" be implemented wherever possible, especially in the larger CPS departments. The formation of teams consisting of investigators/ assessors, case managers and foster care workers that act as a cohesive unit to serve a family is an efficient and effective way to organize.

#### Caseloads

The process and equation that determines caseload size needs to account for turnover, leave, vacation, etc. Across several counties we heard that caseload sizes ranged from 12 to as high as 25 to accommodate the lack of available staff due to the above-mentioned circumstances.

#### Training

Training both across and within counties was not consistent. Where MRS seemed to be implemented effectively, staff was most supported and satisfied and supervisors were consistent in the application of policies; training was a consistent and ongoing process.

Training should be mandatory for all supervisors and social workers, and it should be ongoing and available as a component of orientation for all new employees. Training should take into account that some counties have received numerous other programs that may have laid the groundwork for MRS, but others have not.

Training should address the criteria used in reaching case decisions within the family assessment track to ensure consistency across staff and counties.

#### Management

Supervision and management both across and within counties was not consistent. In several counties, staff reported that a case decision would have been made differently by different sets of supervisors, and that staff were able to schedule their time differently based upon each respective supervisor. We recommend that supervisory and management training be implemented immediately and followed by the ongoing delivery of additional training modules to further support supervisors and managers. We further recommend that as individuals are promoted to supervisory roles they complete a series of management training sessions.

In addition, we recommend that each county agency review its respective policies and decision-making rubrics to ensure that they are consistent across all teams and managers. Consistent application of policies and decision-making rules makes not only for higher quality services for families but also better worker morale.

#### Implementation process

Again, where MRS was most successfully implemented, there was a readiness quotient that existed either due to similar initiatives or due to long and hard efforts of the management team to ensure that there was buy-in, understanding and commitment at every level both within the agency and with its respective community partners. We recommend that a process be developed that guides each county through this initial process for the purposes of achieving this "readiness quotient". This process should include open twoway communication and the involvement of staff in all levels of planning and implementation. We further recommend that each agency appreciate and be prepared for the increased resources required in terms of supervision, staff and time of managers during the transition, as this is truly a systems change and not simply another initiative.

#### **Community Partners**

All community partners including school personnel, mental health, public health, juvenile court, and law enforcement need to be educated and trained as well as jointly develop an acknowledgement and commitment that these are "all of our kids" and that it works best when we work together. This process should include all levels of management and line staff. We recommend that state dollars be appropriated to conduct cross-agency familycentered training for all child-serving agencies.

#### Policy guidelines

Greater clarity is needed regarding the use and documentation of services provided during the 30-day case decision process. There seemed to be discrepancies among counties and changes to policies over time as to what the case decision should be for families who receive services during the Assessment period and do not need additional supervision beyond the 30 days. Some counties began using the case decision of 'services recommended' to document the work and services provided during the 30-day period. We, therefore recommend the use of a new decision category in addition to three options now available, called "services received, no further services recommended."

A system needs to be implemented to consistently communicate across all counties all "questions and answers" that arise during the implementation so that practice is consistent statewide (e.g., FAQ document on the web page).

#### Child and Family Teams

All line and supervisory staff as well as community partners should receive mandatory training on the benefits and value of CFTs. All social workers and supervisors should receive training in CFT facilitation. External facilitators should be available to facilitate certain team meetings or provide assistance and coaching.

#### Work First

Few counties have had success in integrating Work First and MRS. To accomplish this integration, we recommend that Work First be involved from the beginning.

#### Documentation

All of the statistical analyses presented in the report were based on the official data each county enters. It is thus extremely important for those data to be accurate. It is our fear that even though there is consensus across counties that MRS is a positive change and families appreciate it, unreliability and inaccuracy in the raw data may hinder a valid evaluation.We recommend that the Division, in partnership with the counties, develop strategies to ensure the accurate collection and timely transfer of these data. Specifically, we recommend the development of an automated child welfare case management system. This system would allow workers to enter data in a consistent and reliable way across the state. This would also enable counties to communicate more effectively. All staff should receive training in the operation of this system.

Each county should identify one person who will be a specialist in the use of the system and will be responsible for all data review and for questions regarding coding issues. All such individuals could be part of a chat room where these issues can be openly discussed across counties so consistency can be ascertained. They should also be responsible for educating the remaining staff about coding changes.

When data are entered in more than one database this person should be responsible for crosschecking the data and running simple statistics to confirm the accuracy of the data. This will in turn ensure that when the data are received by NCDSS, a basic level of data cleaning has already been accomplished.

#### Evaluation

To truly evaluate the impact of MRS, a more systematic and detailed evaluation is needed when MRS has been in practice for a longer period of time. We further recommend that evaluation of the next wave of implementation begin immediately and be ongoing. This will ensure that counties are given timely feedback about their practices. It will also provide a timeframe longer than six months to examine the rates of Such an evaluation should be reinvestigation. two-fold: the 10 pilot MRS counties should be evaluated by themselves at the end of 2004 and compared across time. Unfortunately, comparisons with control counties will not be possible for the 2004 year because some of the control counties received MRS in the new wave starting in October 2003. The new 42 counties should be evaluated across time and if possible compared to appropriate controls.

- A more in-depth evaluation may include:
  - a) Focus groups with families in both the Family Assessment and the Forensic tracks.
  - b) Focus groups with families who received services before and after MRS was implemented.
  - c) Focus groups with front-line workers.
  - d) Focus groups with supervisors.
  - e) Focus groups with community partners.
  - f) Family Involvement Surveys with randomly chosen families from both tracks and in both the assessment and case management phases.

# **APPENDIX**

#### DATA SOURCES AND DATA PROCESSING

#### Child Protective Services (CPS) Reports

#### Source

Data provided in the Central Registry records of the Client Services Data Warehouse are from the DSS-5104 form. For this evaluation, data were extracted with the following parameters:

Source Data Month – December, 2003 ("200312").

*Time Period* – 1996-2003. Records from 1/1/1996 through 12/31/2003 (inclusive) were selected based on the Report Date.

County - County Name was used to select data only for the 10 pilot and 9 comparison counties.

View - All fields are selected from the Central Registry Victim View.

Fields - The following fields were included:

Initial Report Date	Investigation Initiated Date	Investigation Completed Date
County Case Number	Form Number	County Name
First Name	Middle Initial	Last Name
Birth Date	Race	Sex
SIS Client ID	Social Security Number	Source Data Month
Type Reported	Type Reported Code	
Type Found	Type Found Code	
Maltreatment	Maltreatment Code	
Risk Assessment Rating	Risk Assessment Rating Code	

#### Processing

#### Initial Processing

The 19 data files were downloaded from the Data Warehouse, and converted into a SAS dataset via SAS programs. This process included re-naming variables, converting dates to SAS dates, converting "#EMPTY" values to blanks, and other non-substantive changes. In addition, a unique ID was assigned to all records for each child according to the following rules:

- 1. Records in the same County with the same SIS # are assigned the same ID, AND
- 2. Records in the same County with the same Last Name, First Name, Birth Date, and Sex (where all values for these fields are non-missing) are assigned the same ID.

There were a total of 325,664 records (all 19 counties, all years 1996-2003).

#### "Fuzzy" Matching

The data were further processed to assign the same unique ID to records with slight variations in the Last Name, First Name, Birth Date, or Sex fields. In all cases, the records were required to be within the same county, and the identifying fields were required to be non-missing. In some cases, SSN or the Form Number were used to verify whether variations in the identifying variables indicated the records were for different children.

#### Duplicate or Multiple Records

Records showing duplicate or multiple reports within 30 days exist in the CPS data. State policy dictates that only one record should be submitted for each report. Furthermore, if multiple reports for the same child occur within 30-days of each other, the reports should be combined into one report. The county should report only one record to the state, and they are supposed to report the most severe case. The severity of the case is based on whether the report was substantiated or not, and the maltreatment found for substantiations. Duplicates and multiple records for the same children were processed according to state policy as follows:

 Complete Duplicates – There are 134 records that are exact duplicates (67 records with an exact duplicate second record). While there may be some distinguishing information in the fields that are not downloaded from the Data Warehouse, all fields pertinent to MRS are exact duplicates.

Only one of these records is kept.

2. Children with Multiple Records from the same Form – Most of these have the same Case #, Report Date, and report information, but different SIS numbers. They have the same ID because their Last/First Name, Birth Date, and Sex fields are the same. In some cases, the difference is in the report information (type of report, abuse/neglect found, and type of maltreatment).

Only one of these records is kept. Where there are differences in the report information, the record for the most severe case is kept.

3. Records that are Duplicates EXCEPT for Form # – These records are duplicates, and there are additional records that are duplicates except for the Form #, SSN, Race, and Middle Initial. These records have the same county, ID, case #, report and investigation dates, risk rating, and report information.

Only one of these records is kept.

4. Children with Multiple Records by County, ID, and Report Date – This list does not include any records from (2) and (3) above. In all cases, the Form # is different. For 65% of the cases, the Investigation Start/End dates are the same. 78% of the time, the Case # is the same. 48% of the time both the Investigation Start/End dates AND the Case # are the same.

5. Children with more than one report within 30 days – These are children with multiple incidences within 30 days.

All reports within 30 days are combined into one record. Each field is looked at separately, and the worst-case for the field is kept in the combined record.

#### <u>Final Data File</u>

The final data file contains 306,124 records. The final SAS programs to process these data are as follows:

ReadPilot	01/08/2004	12:04:27 PM
ReadControl	01/14/2004	01:00:06 PM
ID1_Init	01/14/2004	02:04:59 PM
ID2_Fname	01/19/2004	08:02:38 AM
ID3_LName	01/19/2004	08:20:57 AM
ID4_BDate	01/19/2004	08:34:58 AM
ID5_Sex	01/19/2004	08:42:37 AM
CrMastCPS_9603	01/19/2004	08:57:03 AM
CleanCPS	01/30/2004	11:14:51 AM

#### Services Information System (SIS) Data

#### Source

Data provided in the SIS records of the Client Services Data Warehouse are from the DSS-5027 form. For this evaluation, data were extracted with the following parameters:

Report Month – December, 2003 ("200312").

*Time Period* – 1996-2003. Records from 1/1/1996 through 12/31/2003 (inclusive) were selected based on the Service Begin Date.

*County* – County Name was used to select data only for the 10 pilot and 9 comparison counties.

View - All fields are selected from the SIS View.

Fields - The following fields were included:

Service Begin Date	Service Terminated Date	Application Date
Termination Date	County Name	County Case Number
Client First Name	Client Middle Initial	Client Last Name
Client Birth Date	Race	Sex
SIS Client ID	Client SSN	Report Month
Service Code	Service Name	
Service Reason Code	Service Reason	Description

#### Processing

#### Initial Processing

The 19 data files were downloaded from the Data Warehouse, and converted into a SAS dataset via SAS programs. This process included re-naming variables, converting dates to SAS dates, converting "#EMPTY" values to blanks, and other non-substantive changes. There were a total of 562,189 records (all 19 counties, all years 1996-2003).

#### Assignment of ID

The data were further processed to assign the same unique ID to all records for the same child. Within each county, SIS records were matched to CPS records by SIS number, and again by Last Name, First Name, Birth Date and Sex. Since the SIS data include information for adults and children who receive services unrelated to CPS reports, only SIS records for children with a CPS report were kept for further processing and analysis.

#### <u>Final Data File</u>

The final SIS data file includes information from both the SIS and CPS data systems. One of the services included in the SIS data is a "CPS – Investigative Assessment" (service code "210"). Where the SIS data contained multiple "210" records for the same child, only one record was kept. Then, the SIS "210" records were combined with CPS report records by child and date within county. All CPS records with no corresponding SIS code "210" record were also kept, along with all non-"210" SIS service records.

The final data file contains 492,803 records, and are broken down as follows:

248,857	Combined SIS "210" and CPS report records
32,478	SIS "210" records with no corresponding CPS record
57,267	CPS records with no corresponding SIS "210" record
154,201	SIS service records (non-"210" records)

The final SAS programs to process these data are as follows:

ReadPilotSIS	01/22/2004	09:37:19 AM
ReadControlSIS	01/22/2004	09:40:58 AM
CrMastSIS_9603	01/22/2004	09:51:40 AM
CleanSIS	01/30/2004	11:27:19 AM

#### Focus Groups

Sample questions for front-line workers and community partners:

- a) How has MRS been able to serve families differently from before?
- b) How has the introduction of MRS affected your job? Time-wise, satisfaction-wise. How have your duties changed?
- c) What aspects of MRS work the best in your opinion and why? What aspects do not work very well and why?
- d) How has MRS affected coordination among agencies? Give positives and negatives.

e) How do Child and Family Teams work and how have they affected coordination among agencies? Give positives and negatives.

Sample questions for supervisors:

- a) How did you implement MRS? (shifted focus and orientation, shifted staff and supervisors)
- b) What happened to social workers who were investigators? Were they retrained? How long did it take? What was the cost? How was the turnover?
- c) How much time have SW spent in court before and after MRS was introduced?
- d) How has your personnel turnover been for those working within the MRS dual track approach vs. the Investigative one?
- e) What difference do you see in the way families are served under the MRS dual track approach as compared to the way things were done before?
- f) How are caseloads figured out within the MRS dual track?
- g) How do Child and Family Teams work?

#### DATA ANALYSES AND STATISTICAL FINDINGS

To investigate child safety, timeliness of response, and timeliness of service in counties piloting MRS, Child Protective Services reports and Services Information System data were used. For each analysis, data trends over the past five years were graphed and examined to ensure that control and pilot counties were following similar trajectories until 2002, when MRS was preliminarily initiated. In all cases, trajectories were equivalent, thus a single comparison year was used. As the most recent year with no MRS usage, 2001 was selected as the non-MRS comparison year. Data from 2002 were not utilized, as MRS was not yet in full usage across pilot counties.

#### Data Preparation

#### Safety

To examine child safety, the proportions of all investigations (both forensic and family assessment combined) that were substantiated as abuse were examined. The average proportion *across* pilot counties was computed using the mean of the county proportions; proportions were *not* weighted by sample size, thus each county contributed equally to the overall mean. Abuse was chosen as a comparison, because abuse cases should remain in the traditional forensic investigation track even in MRS counties, and one would expect that in the first year of MRS, rates of abuse should not have changed. Traditional "substantiations" do not occur in the family assessment track, and treatment need decisions are based on somewhat different criteria in the two tracks, thus neglect rates are less comparable across years.

Second, safety was examined as a function of the rates of re-investigation ("investigation" in these analyses refers to both forensic track investigations and family assessments). The number of children with investigations in the first half of each calendar year (i.e., January 1-June 30) was calculated for each county. Then, the percentage of these children who had a second investigation within 6 months of the first was computed. Only children with initial investigations in the first half of the year were used, because 6-month follow-up data were not available for children investigated in the second half of 2003.

Third, the number of children with substantiated abuse cases in the first half of each calendar year was calculated for each county. Substantiated abuse was chosen because it was handled consistently across years and across counties; even with MRS, abuse cases are investigated and substantiated following the traditional child protective approach. Therefore, numbers and types of cases substantiated as abuse should be comparable. The percentage of children with a substantiated abuse case who had another investigation within 6 months of their substantiation was computed.

#### **Timeliness of Response**

For timeliness of response, the most appropriate variable to examine was the percentage of cases that met the mandate for length of time between report and initial contact. Mandates vary by type of report, however, with some cases being flagged as requiring immediate response, some requiring response within 24 hours, and some within 72 hours. Using the data available, however, there was no way to reliably determine the mandated response period for each case. Because all cases should be responded to within 72 hours, this was the unit of time investigated in these analyses.

To prepare the data for analysis, the length of time between report and initial contact was first calculated. The proportion of cases responded to within 72 hours was then calculated for each

county. Additionally, the proportions of cases that reached a case decision within 30 days and within 45 days were calculated. Again, these were calculated within each county. The average proportion *across* pilot counties for each of these analyses was computed using the mean of the county proportions.

#### **Timeliness of Service**

The time from the report date to the first service provision was calculated, and the distribution of this data within each county was examined across years. Extreme differences in the method of recording first services were identified for Bladen and Guilford counties. Specifically, with the initiation of MRS, these counties began coding services ("at risk case management services" or "protective services for children – team setting") on the date of the report for the majority of cases. Because these counties coded service types and dates differently following the initiation of MRS, their services data is not comparable to that of other counties or across years. For this reason, Bladen and Guilford counties, along with their matched control counties, were excluded from all analyses related to timeliness of service.

For the remaining counties, two timeliness of service variables were calculated to be used in analyses: (1) median number of days between report and first recorded service, and (2) percent of cases that received at least one service within 30 days (expected time of case decision) of the report date. Medians were used instead of means due to the presence of extreme outliers in the data. These outliers caused means to be shifted upwards, thus the median provided a better description of central tendency. The average median/proportion *across* pilot counties for each of these analyses was computed using the mean of the county medians/proportions.

#### Statistical Methods

For the safety construct, data were analyzed in two ways. First, data from the 10 pilot MRS counties were compared for the years 2001 and 2003 to look for changes over time within these counties. Paired t tests were used (matching by county) to determine whether changes were significant. This statistical test was chosen for simplicity and to increase statistical power. Nonsignificant findings indicate no change over time.

Second, changes from 2001 to 2003 were compared between the nine MRS pilot counties (without Mecklenburg) and nine matched control counties to see if pilot counties changed differently (more or less than) than control counties over time. For each county, the changes between 2001 and 2003 were computed, and the average change for MRS counties was contrasted with the average change for control counties using a paired t test. Nonsignificant findings indicate that any changes over time in MRS counties were equivalent to changes over time in control counties, thus MRS did not affect the given construct.

Descriptive data were provided on the differences between the family assessment and forensic tracks, but the tracks were not compared statistically on the safety construct due to the large difference in cases assigned to the two tracks. Cases in the forensic track include those with more serious risk of harm, thus safety would not be expected to be comparable across tracks.

For each timeliness construct, data were analyzed using the first two methods described above. Additionally, family assessment and forensic track cases were compared within pilot counties in 2003 to see if there were differences across tracks. Proportions were calculated separately for cases in each track within each MRS county. Again, paired t tests (matching by county) were used to assess significance. Nonsignificant findings indicate that no differences between the forensic and family assessment tracks.

#### Statistical Findings

Findings from the paired t tests are presented in the tables A1 through A3 below.

Variable	Comparison	Statistical Test	Statistic
% of investigations substantiated as abuse	Pilot counties 2001 to pilot counties 2003	Paired t test	t(9) = 1.79, ns
% of investigations substantiated as abuse	Difference btwn 9 pilots and 9 controls in 2001 <i>to</i> difference btwn 9 pilots and 9 controls in 2003	Paired t test	t(8) = -0.05, ns
% of investigations re-investigated within 6 months	Pilot counties 2001 to pilot counties 2003	Paired t test	<i>t</i> (9) = 0.72, ns
% of investigations re-investigated within 6 months	Difference btwn 9 pilots and 9 controls in 2001 <i>to</i> difference btwn 9 pilots and 9 controls in 2003	Paired t test	<i>t</i> (8) = 0.26, ns
% of abuse substantiations re-investigated within 6 months	Pilot counties 2001 <i>to</i> pilot counties 2003	Paired t test	<i>t</i> (9) = 1.32, ns
% of abuse substantiations re-investigated within 6 months	Difference btwn 9 pilots and 9 controls in 2001 <i>to</i> difference btwn 9pilots and 9 controls in 2003	Paired t test	<i>t</i> (8) = -0.54, ns

Table	A1.	T	Tests	for	Child	<b>Safety</b>

Variable	Comparison	Statistical Test	Statistic
% w/ initial contact within 72 hrs	Pilot counties 2001 to pilot counties	Paired t test	<i>t</i> (9) = 1.90, ns
% w/ initial contact within 72 hrs	Difference btwn 9 pilots and 9 controls in 2001 <i>to</i> difference btwn 9 pilots and 9 controls in 2003	Paired t test	<i>t</i> (8) = -2.06, p=.07
% w/ initial contact within 72 hrs	Family assessment track in pilot counties 2003 <i>to</i> forensic track in pilot counties 2003	Paired t test	<i>t</i> (9) = -4.06, <i>p</i> <.01
% w/ initial contact within 72 hrs	Abuse cases in pilot counties 2001 to neglect and dependency cases in pilot counties 2001	Paired t test	<i>t</i> (9) = -2.77, <i>p</i> <.05
% w/ case decision within 30 days	Pilot counties 2001 <i>to</i> pilot counties 2003	Paired t test	<i>t</i> (9) = 1.05, ns
% w/ case decision within 30 days	Difference btwn 9 pilots and 9 controls in 2001 <i>to</i> difference btwn 9 pilots and 9 controls in 2003	Paired t test	t(8) = -1.26, ns
% w/ case decision within 30 days	Family assessment track in pilot counties 2003 <i>to</i> forensic track in pilot counties 2003	Paired t test	<i>t</i> (9) = 1.71, ns
% w/ case decision within 45 days	Pilot counties 2001 to pilot counties 2003	Paired t test	t(9) = 0.15, ns
% w/ case decision within 45 days	Difference btwn 9 pilots and 9 controls in 2001 <i>to</i> difference btwn 9 pilots and 9 controls in 2003	Paired t test	<i>t</i> (8) = -1.09, ns
% w/ case decision within 45 days	Family assessment track in pilot counties 2003 <i>to</i> forensic track in pilot counties 2003	Paired t test	<i>t</i> (9) = 2.29, p<.05

Table A3.	T Tests for	r Timeliness	of Service
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Variable	Comparison	Statistical Test	Statistic
Median number of days from report to first service	Pilot counties 2001 <i>to</i> pilot counties 2003	Paired t test	t(7) = -0.19, ns
Median number of days from report to first service	Difference btwn 9 pilots and 9 controls in 2001 <i>to</i> difference btwn 9 pilots and 9 controls in 2003	Paired t test	<i>t</i> (6) = 1.62, ns
Median number of days from report to first service	Family assessment track in pilot counties 2003 to forensic track in pilot counties 2003	Paired t test	<i>t</i> (7) = -0.35, ns
% w/ first service within 30 days of report	Pilot counties 2001 to pilot counties 2003	Paired t test	t(7) = -0.05, ns
% w/ first service within 30 days of report	Difference btwn 9 pilots and 9 controls in 2001 to difference btwn 9 pilots and 9 controls in 2003	Paired t test	t(6) = -1.24, ns
% w/ first service within 30 days of report	Family assessment track in pilot counties 2003 to forensic track in pilot counties 2003	Paired t test	<i>t</i> (7) = -0.78, ns

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