NORTH CAROLINA
COLLABORATIVE OUTCOMES PROJECT

DATA SYSTEMS WORK GROUP

Final Report

March 2008

Strategies for Integrating Information Across Agencies with Regard to Child and Family Characteristics, Services, & Outcomes

Submitted by:
Duncan Munn, M.Ed. Data Work Group Facilitator
Gloria Harbin, Ph.D. Project Director
FPG Child Development Institute
The University of North Carolina at Chapel Hill

ACKNOWLEDGEMENTS

Heartfelt appreciation is extended to the Data Managers and Program Managers of the Data Work Group whose efforts and ideas over the past twelve months, made possible the recommendations of this Report. They have shown us that, at least in terms of interagency Birth-to-Five data systems, the "whole is indeed greater than the sum of its parts." Special thanks go to the members of the Subcommittee, noted in bold type below, who contributed considerable time and effort in identifying options and developing recommendations to facilitate the work of the full committee.

Malcolm Alexander
Norman Allard
Ida Mae Arnold
Deborah Carroll
Don Carter
Karen Chester
Jane Cottingham
Sherry Franklin
Khari Garvin
Joe Haenn
Joann Haggerty
Carolyn Hammond
Vivian James
Heather Laffler
Terry McCauley
Julia McMillan
Elizabeth Mizelle
Deborah Nelson
Karl Pond
Sue Ruth
Michael Sanderson
Steve Snipes
Angela Wilcox

Organization affiliations listed in Appendix A.

For additional copies, contact Patrice Neal, Ph.D. (919) 962-7369
FPG Child Development Institute, The University of North Carolina at Chapel Hill

Suggested citation:
Munn, D. & Harbin, G. (2008). *North Carolina Collaborative Outcomes Project Data Systems Work Group: Final report.* The University of North Carolina at Chapel Hill, FPG Child Development Institute, North Carolina Collaborative Outcomes Project.

The North Carolina Collaborative Outcomes Project is funded as a General Supervision and Enhancement Grant (GSEG) by the US Department of Education, Office of Special Education Programs, Cooperative Agreement #H373X060035. However, the contents do not necessarily represent the positions or policies of the US Department of Education, Office of Special Education Programs, and the reader should not assume endorsement by the Federal government.

March 2008

NC COLLABORATIVE OUTCOMES PROJECT
DATA SYSTEMS WORK GROUP
FINAL REPORT

TABLE OF CONTENTS

SECTION I
Purpose of the Data Work Group

The Data Work Group referenced in this Report and the recommendations made, represent one component of the “North Carolina Collaborative Outcomes Project”, a federally funded General Supervision Enhancement Grant (GSEG). The grant was awarded by the Office of Special Education Programs of the US Department of Education to the Frank Porter Graham (FPG) Child Development Institute at the University of North Carolina at Chapel Hill. The grant was submitted by FPG in collaboration with a number of state partners. These partners are many of the state agencies and organizations serving young children with and without special needs and their families. They include: The Department of Health and Human Services, Division of Public Health (Early Intervention) and Division of Child Development (Child Care); the Department of Public Instruction, Exceptional Children’s Division (Preschool Special Education) and Office of School Readiness (More at Four, Head Start, Even Start, Preschool Special Education); Smart Start; the Family Support Network; and the North Carolina Interagency Coordinating Council. The goal of the grant was to attempt to align, link, and integrate the existing and planned accountability initiatives of these agencies. One focus of the grant was on the various agency data systems, because they represent such a critical component of any accountability initiative. In response to this goal and focus, the purpose of the Data Work Group was to; 1) share information about the data fields and other characteristics of the existing data systems of the participating agencies, 2) gather information on effective data system integration efforts in North Carolina and other states, 3) identify a range of possible different approaches to data system integration, and 4) develop short- and long-range recommendations for strategies and goals for the approach felt to be most feasible for North Carolina. The Data Work Group coordinated with the broader data system design initiatives being undertaken by the Department of Public Health and the Department of Public Instruction.

Section II
What is an Integrated Data System?

An interagency, integrated data system is a system that allows agencies to aggregate all of the data for each child and family served by multiple agencies. It provides an accurate and unduplicated portrait of the services received, child and family characteristics, as well as the performance of the child and family. Such a system:

1. Includes all of the major state agencies and organizations involved in early intervention and early childhood for children with and without special needs and encompasses the data systems of all these participating agencies,
2. Includes data related to child and family outcomes, characteristics of children served, types of services provided, service settings, intensity, frequency, duration, quality of services, quality and characteristics of staff, and funding,

3. Contains data specific to each of the participating agencies and the services they provide but also includes common data fields used by all of these agencies for areas of common interests and concern,
4. Utilizes a common approach to child identification numbers for all children in the data set that connects child data across different key databases and across time. (Agencies may also use additional identification numbers in response to their own needs and administrative requirements.) Operationalizing a process for electronic child record matching can be a practical first step in this direction.
5. Allows for changes in the common data fields based on consensus of all the participating agencies,
6. Is centralized, web-based, and provides for information management at a state and local level,
7. Allows access to the data base by designated representatives of all the participating agencies,
8. Allows for data analysis at single and multiple points in time, as well as more extensive longitudinal studies,
9. Has the support of the Directors of the participating agencies, and related early childhood advocacy and professional organizations,
10. Operates from an interagency agreement which includes provision for such procedures as:
    - Common data field development and approval
    - Child ID numbering system utilized
    - Access to the data
    - Planning and approving research and system evaluation projects using the data base
    - Covering the costs for maintaining the data base
    - Training for program, fiscal, and data management staff of the participating agencies
    - Adding or reducing the number of participating agencies
    - Linking with other data systems and/or data management initiatives
    - Sharing information between the different agencies,
11. Can be linked with other related state data bases maintained by other projects or initiatives,
12. Uses an ongoing audit system to assess data quality, validity and reliability, and
13. Provides information on where and how services are provided.

Note: A number of states are known to have, or to be working, on integrated data systems across their Part C and 619 programs but only a few are including those agencies and data systems focused on children without special needs as well. These states include: NC, KY, PA, and CO. There may be others.

SECTION lll

Approaches to Integrating Data Across Programs

Integration can occur through use of electronic record matching or a common approach to developing and using child identification numbers, as well as the use of common data fields. While the latter is felt to be an important, long-term goal by the program and data managers of North Carolina's Birth-to-Five agencies, they are also of the opinion that implementing an electronic record matching initiative is a concrete, pragmatic first step. This has been done successfully with a variety of interagency health, education, social service, early intervention, and early childhood programs such as the University of Pennsylvania/City of Philadelphia collaborative Project KIDS. In North Carolina, programs and organizations such as the NC Center for Health Statistics and the Duke University Center for Child and Family Policy's Education Research Data Center have recommended this option for North Carolina's Birth-to-Five agencies.

Three levels of electronic child record matching and data linking are possible in North Carolina:
- Level I – Electronic record matching utilizing the current fields of the Birth-to-Five agencies. This could be accomplished through the pilot recommended in Section IX-G.
- Level II - Electronic record matching utilizing current agency fields and common data fields to be developed such as child/family outcomes, types of services received, or reasons for services ending.
- Level III – Electronic record matching using current fields, common data fields to be developed**,** and linking to other existing data bases such as the one maintained by the Duke University Center for Child and Family Policy for the NC Department of Public Instruction. Another example would be the data base maintained by the UNC School of Social Work for the NC Division of Social Services. Each subsequent level requires additional effort and resources, but provides more in-depth and useful information.

Section IV
Why Is an Integrated Data System Important?

An integrated data system is important for many reasons. It provides an ***empirical foundation*** for program description, program evaluation, program advocacy, program policy development, professional development, and program planning activities. This is especially important in a complex interagency, interdisciplinary network of services involving different types of children and their families, as well as the different types of supports and services provided to them. An integrated data system can provide a more accurate picture of services and service recipients, because the data will no longer be "duplicate data". In addition, taken together, data from all agencies would provide a richer picture of the influences on, and the outcomes of, service delivery, than any single agency could provide. For all of North Carolina's primary Birth-to-Five programs, an integrated data system can collectively (all agencies) and individually (single agency) describe:
- Who receives services;
- Service utilization and penetration rate (percent of children served;
- What services are received (service amount, intensity, duration, type, and pattern);
- Service quality;
- Child, family, and service system outcomes; and
- How services are funded.

In addition to this valuable descriptive information, an integrated data system could provide information on: 1) underserved groups; 2) children and families who benefitted most and those who benefitted least; 3) what kind of effort is needed to meet the needs of children and families who experience multiple and substantial obstacles and risks. This type of information assists policy makers, not only to identify duplications and gaps in service delivery, but to effectively and systematically allocate increasingly scarce public resources and improve the quality of service provision.

The total number of important or critical child, family, and system questions that may be answered by an integrated data system is virtually limitless. However, to provide some focus for this report and its recommendations, it is helpful to frame the identification and discussion of questions in two ways:

- Examples of **specific questions** that may be of particularly high interest to the Directors and Program Managers in each of the Birth-to-Five agencies, including what levels of electronic record matching are needed to answer these critical questions
- Examples of **additional questions** that can be answered through electronic record matching at each of the three levels described above in Section III.

Below are examples of both agency specific questions and additional questions arranged by level of approach to data integration. They are certainly not the only questions.

Agency Specific Questions

Office of School Readiness

>For elementary school age children with and without special needs who participated in the educationally enhanced Birth-to-Five programs such as More at Four, Head Start, Even Start, or Preschool Special Education, are there differences between the performance of those children and the performance of similar children who did not participate with regards to:

- End of Grade (EOG) scores;
- Achievement levels in specific developmental areas such as social-emotional or language skills;
- Levels and types of special education and other support services.

(Level lll)

> What is the total, unduplicated count of children served by all the programs?
(Level I)

Smart Start

>For those children participating in one or more of the Birth-to-Five programs and who received center-based services, what percentages are in quality child care settings? Is this percentage similar for infants and toddlers compared to preschoolers?
(Level I)

>What percentage of children enrolled in Smart Start family support programs are also enrolled in Health Check and receive well-child health care?
(Level ll)

> What percentage of children receiving Child Care Subsidy funded by their local Partnership are enrolled in Health Check and receiving well-child health care?
(Level ll)

Division of Child Development

For those children participating in one of the Birth-to-Five programs and who receive center-based or “wrap around” services, how many and what percentage receive Child Care Subsidy?
(Level I)

Division of Public Health/Early Intervention

> What happens to the children who are referred to be evaluated for Part C but do not qualify? Are they enrolled in other Birth-to-Five programs?
(Level l)

> For children with similar developmental profiles, does age of referral to Early Intervention, Preschool Special Education, or the other Birth-to-Five programs correlate with success (developmental gains, subsequent intensity of services, etc.)?
(Level ll)

> For Early Intervention children with similar developmental profiles whose parents "scored" higher on the family outcomes, are there subsequent differences in child achievement levels and levels of specialized supports and services compared to those with lower scores?
(Level ll)

> For preschool and elementary school children with similar developmental profiles who participated in Early Intervention, are there differences between the performance of these children and those who did not participate with regards to:

- End of Grade (EOG) scores?
- Achievement levels in specific developmental areas such as social-emotional or language skills?
- Types of and levels of special education services?

(Level lll)

Head Start

For families and children served by Head Start, Early Head Start, or Migrant/Seasonal Head Start, and Work First, is there a difference in the duration of Work First participation or the amount and type of other social or income support programs such as Food Stamps, compared to similar non-Head Start children and families?
(Level III)

Even Start

>For children and families with similar developmental profiles who were enrolled in Even Start, are the gains in family skills and children's early pre-literacy and reading skills sustained in elementary school? Are there differences in such skills of those with similar developmental profiles between those enrolled in Even Start and those who were not enrolled?
(Level III)

>For children with similar developmental profiles who were enrolled in the different Birth-to-Five programs, does parent educational level make a difference in:
Achievement levels in the different developmental areas
End of Grade (EOG) scores?
(Level lll)

Preschool Special Education

For children with developmental delays or risk conditions who are referred to but not eligible for Part B, what other types of Birth-to-Five programs do they subsequently enroll in?
(Level I)

Additional Questions by Level of Complexity and Effort

Level I

- For children participating in multiple Birth-to-Five programs, which specific programs are utilized?
- What is the total, unduplicated count of children served by the Birth-to-Five programs annually?
- How many and what are the characteristics of children who receive services from more than one of the Birth-to-Five programs?
- Do children and families participate in all the programs and services for which they are eligible?
- For children who have participated in Early Intervention and go on to Head Start, is there a higher rate of having a medical home? (Head Start is the only program that tracks this.)
- For CAPTA children who were referred to, evaluated, but not eligible for Early Intervention or whose parents choose not to participate, what other types of Birth-to-Five Programs do they subsequently enroll in?

Level II

- How much duplicative staff time necessary for data entry can be reduced?
- For children with similar developmental profiles, does program quality and/or level of staff training impact child and family outcomes?
- For children with similar developmental profiles, does participation in inclusive settings effect child and family outcomes?
- Are the various Birth-to-Five funding streams used in a coordinated way to support children as they move through these programs?
- Budget/System Planning: For a comprehensive plan for budget, service and personnel needs, which includes all of the Birth-to-Five programs, how many children will be referred annually and what types of services will they need?
- For “special populations” such as children who are homeless, migrant and seasonal farm workers, or military dependents, what are the types and patterns of services provided? Do these patterns change as they age from infants and toddlers to preschoolers?
- For children who move from Early Intervention to Preschool Special Education, More at Four, or Head Start or Even Start, what are the types and patterns (intensity, frequency, duration) of services provided these children?
- For Early Intervention children who transition to Birth-to-Five programs other than Preschool Special Education, what is the length of time between participation in Early Intervention and these programs?
- For children with similar developmental profiles, is there a difference in “scores” on the Early Intervention Family Outcomes between those who were involved in a local FSN program and those who were not?

Level III

- Do the different eligibility categories and the different domains and amount of delays for children enrolled in the different Birth-to-Five programs correlate with success (developmental gains, intensity of services, etc.) in the Birth-to-Five programs and elementary school?
- What percentage of children with suspected abuse and neglect receive other support services (i.e., education, health, family, skill development)?
- For elementary school children with similar developmental profiles who participated in Preschool Special Education, are there differences in the performance of these children and those who did not participate with regards to:
    - End of Grade (EOG) scores?
    - Achievement levels in specific developmental areas such as social-emotional or language skills?
    - Levels and types of special education services?
- For children with similar developmental profiles, is the successful placement rate in foster care different for those enrolled in one of the Birth-to-Five programs than for those who were not enrolled?
- What is the percentage of children in the different Birth-to-Five programs who participate in such assistance programs or Medicaid, Food Stamps, or TANF?
- For children with special needs who are successfully (as defined by length of placement) placed in child care, what is the quality of these settings?
- For children participating in the different Birth-to-Five programs, what percentage is in foster care?

Section V
Summary of Completed Activities in North Carolina

Participating Birth-to-Five Agencies and Organizations

1. DPI, Division for Exceptional Children
2. DPI, Office of the Superintendent
3. Division of Public Health, Early Intervention
4. DPI, Office of School Readiness, More at Four
5. DPI, Office of School Readiness, Head Start Collaboration
6. DPI, Office of School Readiness, Even Start
7. Smart Start
8. Division of Child Development
9. North Carolina Interagency Coordinating Council

Collaboration and Information Sharing with Other Agencies/ Data Initiatives

1. NC Center for Health Statistics
2. Duke University Center for Child and Family Policy (NC Education Research Data Center)
3. NC Department of Public Instruction, K-21 Data System
4. NC Children's Action Network
5. NC Department of Health and Human Services Data Advisory Committee
6. NC Division of Public Health, Women's and Children's Health Section

7. National Data Quality Campaign
8. University of Pennsylvania Project KIDS
9. Pennsylvania Early Intervention System
10. University of Kentucky
11. Colorado Department of Public Instruction
12. UNC School of Social Work (DSS Data Management Project)

Activities Completed to Date

1. Agency management staff identified their representatives to the Data Work Group. They included both program and data staff. Appendix A lists these representatives as well as other external agency collaborators and resource persons.
2. The Data Work Group met four times – January 23, April 24, July 31, and October 17, 2007. In addition, a task specific data managers' subcommittee was formed and met.
3. The Data Work Group developed a Plan of Action. Priorities included:
   - Share and review all existing data bases including upcoming changes and other developments impacting each data system;
   - Develop recommendations for common data fields to be used by all agencies;
   - Develop recommendations regarding different possible approaches to linking/integrating the different data bases.
4. Data and program management staff from DPH Early Intervention, Preschool Special Education, More at Four, Head Start, Division of Child Development and the Family Support Network profiled their data systems. The NC Interagency Coordinating Council also shared its data interests and priorities.
5. Comparative matrices were developed highlighting participating agency data fields (child, family, and program). A broad overview matrix was also prepared. It listed the key fields used by each agency as well as other operational information, such as software utilized, location (central/local) of the data entry and management, data collection approaches (paper, electronic), and any federal requirement impacting each agency. See Appendices B, C, D, and E for these matrices.
6. Recommendations regarding different approaches to data system linkage and integration were developed. Other states involved in Early Childhood data system linkage and in-state resources such as the State Center for Health Statistics, reviewed these recommendations. These are included in Appendix F.
7. The Data Work Group formed a subcommittee comprised primarily of agency data managers. This subcommittee was chaired by the representative from the Office of School Readiness, More at Four (Joe Haenn). They developed recommendations for both short and long-term goals. These were subsequently endorsed by the full Data Work Group. They are presented in the following Section.
8. Data Work Group members and project staff were involved in numerous "external" activities with agencies and organizations outside the Birth-to-Five system, but whose responsibilities and expertise are highly relevant. Examples include:
   - The Director of the State Center for Health Statistics, who provided input on different approaches to data system linkage and client record matching;
   - Conference calls and meetings with the program and data staff from the other states (KY, PA, CO) with similar data system integration initiatives;

- Discussion with the Associate Superintendent of DPI and other staff regarding the new DPI grant to develop a common ID number for all students, K-college. The focus of these discussions was coordination and mutual support;
- Discussions with the NC Education Research Data Center of the Duke University Center for Child and Family Policy regarding approaches to child record matching and opportunities for collaboration regarding their DPI school age data management analysis project.
- Discussions with the DSS Data Management Project of the UNC School of Social Work regarding opportunities for collaborations and linkage around the different types of child and family data they maintain.
- Presentation to the DHHS Data Advisory Committee to update them on the activities and direction of the Data Work Group (strongly supported);
- Discussions with Action for Children, a state level child advocacy organization, about the activities and direction of the Data Work Group (strongly supported); and
- Sharing information about Work Group activities on a national conference call organized by Data Quality Campaign, national consortia of organizations involved in interagency data approaches.

Section Vl
Long-Range Goal for North Carolina

North Carolina will fully implement an integrated data system that meets the individual and collective needs and capacities of the Birth-to-Five Programs. This will be a system that can provide information about children and families served, types and amounts of services provided, service settings and quality, personnel, and child, family and system outcomes. It encompasses information gathered across programs, across all geographic locations in North Carolina and across multiple points in time.

Section Vll
Short-term Plan to Achieve Goal

North Carolina will identify needed resources for, and then implement and evaluate, a statewide child record matching initiative as described in Appendix G of this report.
The purpose of this initiative would be to:

- Assess the comprehensiveness, accuracy, reliability, and overall feasibility of such a process to identify children served by multiple programs
- Determine the amount of staff time and other costs for future initiatives of this type
- Provide relevant background information for the subsequent identification of common data fields and outcomes
- Demonstrate possibilities for resource savings through elimination of duplicate data fields
- Document the impact, system evaluation, and research possibilities of such an integrated system.

Section VIll
Long-term Plan to Achieve Goal

North Carolina will:

- Based on consensus of the participating programs, develop a common approach to generating and using a unique child identifier number. (Such a numbering system would supplement, not supplant, existing approaches of the programs.)
- Based on the results of the child record matching initiative, identify a limited number of common data fields and outcomes.
- Determine the costs of implementing these changes and ongoing management of the integrated data system.
- Identify needed resources – personnel, fiscal, and expertise.
- Pilot these changes.
- Implement these changes statewide, based on strategies and timeframes approved by the programs.
- Develop an interagency agreement regarding all facets of the governance of the integrated data system.
- Provide training for state and local staff of the Birth-to-Five programs on the capacities and uses of such an integrated data system.
- Explore links with other related data systems managed inside or outside of state government and possibilities for collaborative research and system evaluation activities.
- Train personnel in data entry.

Section IX

Appendices

Appendix A

Work Group Members and Resource Persons

Agency	Name	Contact Information
Head Start- Local Program	Angela Wilcox (Chapel Hill Training Outreach Project)	919-490-5577, ext 247 awilcox@chtop.org
DPI, Division for Exceptional Children	Jane Cottingham	919-807-3230 jcottingham@dpi.state.nc.us
	Malcolm Alexander	
	Carolyn Hammond	
Division of Public Health, Early Intervention	Deborah Carroll	919-707-5520 Deborah.Carroll@ncmail.net
	Sherry Franklin	919-707-5531 Sherry.Franklin@ncmail.net
	Terry McCauley	919-707-5529 Terry.Mccauley@ncmail.net
	Steve Snipes	828-310-4862 Steve.Snipes@ncmail.net
OSR, Office of School Readiness	Joe Haenn (More at Four)	919-981-5382 Joe.Haenn@ncmail.net
	Norm Allard (Preschool Special Education)	919-981-5300 Norm.Allard@ncmail.net
	Vivian James (Preschool Special Education)	919-855-6855 Vivian.James@ncmail.net
	Don Carter (Even Start)	919-616-5595 dlcarter@dpi.state.nc.us
	Khari Garvin (Head Start State Collaboration Office)	919-981 5300 Khari.Garvin@ncmail.net
Smart Start	Sue Ruth, NCPC	919-821-7999 sruth@ncsmartstart.org
	Ida Mae Arnold	919-821-7999 imarnold@ncsmartstart.org
FSN, Family Support Network	Joann Haggerty	800-852-0042 joann_haggerty@unc.edu

Agency	**Name**	**Contact Information**
Division of Public Health (Children & Youth)	Deborah Nelson	919-707-5677 Deborah.Nelson@ncmail.net
	Michael Sanderson	919-707-5620 Michael.Sanderson@ncmail.net
	Elizabeth Mizelle	919-707-5621 Elizabeth.Mizelle@ncmail.net
DCD, Division of Child Development	Heather Laffler	919-662-4543 Heather.Laffler@ncmail.net
NC ICC, Interagency Coordinating Council	Karen Chester	919-662-4543 Karen.Chester@ncmail.net
DPI, Office of the Superintendent	Karl Pond	919-807-3408 kpond@dpi.state.nc.us
FPG, Frank Porter Graham Child Development Institute	Gloria Harbin	919-962-7369 harbin@mail.fpg.edu
	Patrice Neal	919-843-8538 nealp@mail.fpg.unc.edu
	Duncan Munn	919-847-7721 marshdunc@aol.com
Resource Persons	Paul Buescher (NC Center for Health Statistics)	919-715-4478 paul.buescher@ncmail.net
	Kara Bonneau (Duke University Center for Child and Family Policy - NC Education Research Data Center)	919-613-9292 kbonneau@soc.duke.edu
	Deb Daulton (Pennsylvania Early Intervention)	800-360-7282 x3717 ddaulton@pattan.net
	Caroline Gooden (University of Kentucky)	866-742-4015 cjgood2@email.uky.edu
	Nan Vendegna (Colorado Dept. of Education)	303-866-6602 vendegna_n@cde.state.co.us
	Joy Markowitz (Westat)	301-315-5952 joymarkowitz@westat.com
	Dean Duncan (UNC Chapel Hill School of Social Work)	919-962-7897 dfduncan@email.unc.edu

Appendix B

General Characteristics of Data Systems
North Carolina Early Intervention/Early Childhood Agencies

Characteristics

Agency	Summary of Fields	Software	Data Entry Process	Child ID # System	Upcoming Issues/Change
Public Schools of North Carolina	1) Child characteristics – age, race, disability type 2) Services provided – type, intensity, location. 3) Data from all DEC forms including IEP dates and other information. 4) Child outcomes – assessment results from all developmental domains. Statewide reporting of child's functioning levels in three outcome areas: Positive social/emotional skills, acquiring and using knowledge and skills, taking appropriate actions to meet needs (being phased in). Assessment instrument local option within specified list. 5) Family outcomes – statewide reporting of school facilitation of parent involvement (being phased in).	CECAS – Comprehensive Exceptional Children Accountability System – web based (with modified "Outcomes" indicators to reflect COSF ratings)	At local/school program level.	Random numeric created for each child.	Only changes anticipated will be those required through IDEA reauthorization.
Division of Public Health (Early Intervention)	1) Child characteristics – disability/eligibility type, age, race. 2) EI services provided – types intensity, location, provider, dates of referral/eligibility/ service start, etc. Child center rating optional. 3) Other IFSP form data. 4) Child outcomes –data fields not implemented yet: assessment results from all developmental domains.	CECAS (Infant-Toddler version)	Local (CDSA)	Same system as DPI.	Switching to new data system, HIS (Health Information System) in January 2008. After change date, data will be "exportable" to DPI.

Agency	Summary of Fields	Software	Data Entry Process	Child ID # System	Upcoming Issues/Change
Division of Public Health (Early Intervention) (cont.)	Statewide reporting of child's functioning levels in three outcome areas: Positive social/emotional skills, acquiring and using knowledge and skills, taking appropriate actions to meet needs (being phased in). Currently assessment instrument local option 5) Family outcomes – statewide reporting of families knowledge of rights, ability to communicate child's needs and assist with child's learning (being phased in).				
Smart Start	Some local programs maintain child, program information. No statewide data system. Local partnerships report NCPC specified outputs for specific types of Smart Start funded activities (number of children with special needs receiving Smart Start funded therapies, number of families participating in ongoing parent education)	NCPC developed and supported web application	Local partnerships	NA	Will be implementing: 1) Family skills survey of parents involved in Smart Start funded family support activities (knowledge of teaching activities, behavior management skills, understanding of medical services, awareness of home safety approaches). 2) Continuity of placement information for special needs children in Smart Start funded programs.
Head Start	1) Child characteristics – age, race, disability type. 2) Services provided – attendance, setting, location, teacher credential. 3) Child outcomes – functioning levels in the different developmental domains (can be reported statewide). One assessment instrument used for all centers.	Creative Curriculum On Line – web based	Local/classroom.	Random numeric created for each child.	More family and mental health information under consideration.

Agency	**Summary of Fields**	**Software**	**Data Entry Process**	**Child ID # System**	**Upcoming Issues/Change**
Head Start (cont.)	4) Family outcomes – satisfaction, family goals accomplished, ability to respond to child needs (information kept locally).				
More at Four, Office of School Readiness	1) Child characteristics – receipt and type of health & developmental screening, poverty status, risk factors, service priority, record of previous child care experience, household information, disability – referred/ evaluated/ identified/type/IEP status 2) Services provided – provider name, type, star rating, staff credentials, class size, other funding sources, type of curriculum/ developmental assessment used. 3) Child outcomes – assessment results kept locally and no statewide reporting. Assessment instrument local option within specified list. 4) Family outcomes – not addressed.	MAF kids (child) MAF Plan (program) [linked] Web based.	Local/program.	Local option – social security #, SIMS or NCWISE# (random numeric)	No pending changes.
Division of Child Development	1) Child characteristics – children receiving child care subsidy, eligibility categories including special needs. 2) Services provided, rating status, teacher/director credentials of participating child care centers.	NA	State level.	NA	NA
Family Support Network of North Carolina	1) Child/Family characteristics, referral source, child age, child special need 2)Services provided-type, frequency, 3) Family outcomes- family members who participate in training and support groups complete self assessment	Paper response for family evaluation of training and support groups and Family Satisfaction Survey. Other staff reports	Local programs collect and send reports. Data entry at state level for majority of reports.	NA (family based records)	Extend use of family demographics and service data reports to all programs. Extend use of Family Satisfaction Survey and collaboration measure to all local FSN programs.

Agency	Summary of Fields	Software	Data Entry Process	Child ID # System	Upcoming Issues/Change
Family Support Network of North Carolina (cont.)	(awareness of community resources, child care skills, ability to identify and obtain supports and services,). New tool in pilot phase-Family Satisfaction Survey reflects impact of FSN services on family including advocacy skills. Also in pilot phase-Survey of Providers that collaborate with local FSNs (referrals between FSNs and other agencies, impact of FSN on other service providers).	sent electronically. Web based entry now available. Web based Survey Monkey versions available of some tools.			
Even Start	1) Child/family characteristics – age number enrolled, numbers receiving parent education, parent income and education level. 2) Services provided – funding sources, other agency collaborations, intensity of services.	Paper data reporting process.	Local/program.	NA Data reported by local program not child specific.	None anticipated.

Note*: NCICC does not manage a child or program data system but uses information from all the above sources at regional and state levels to plan and evaluate services.*

Child, Outcome, and Program Data Field Comparisons

Data Field	Part C	Part B	More At Four	Head Start	Even Start	Division Child Dev.
Name	x	x	x	x		x
DOB	x	x	x	x		x
Gender	x	x	x			
Income	x		x	x		x
US Cit.	x		x			
NC Res.			x			
County of Residence	x	x	x			
Identified Disability/Delay	x	x	x	x		x
Chronic Health Condition		x	x	x		
Developmental/Educational Need			x			
Health Assessment	x	x	x	x		
Developmental Screening/Eval.	x	x	x	x	x	
Using Smart Start Funds			x	x		
Using Child Care Subsidy			x	x		
Reasons for Discontinuing Service	x	x	x			
Limited English Proficiency	x		x			
Primary Language	x	x				
Referred for Evaluation			x	x		
Completed IFSP/IEP/Family GP	x	x	x	x		
Migrant/Seasonal Farmworker	x					
Country of Origin	X					
Homeless	x					
Military Dependent	x		x			
Program Setting	x	x	x	x	x	x
Type(s) of services Provided	x	x	x			
Quality of Services	x	x	x			
Intensity of Services	x	x	x			
Duration of Services	x	x	x			
Age at Program Entry	x	x	x	x	x	x
Referral Source	x	x				
Race /Ethnicity	x	x	x			
Referrals to Other Service(s)	x		x			
Medicaid Participation	x	x		x		
Attendance/Enrollment	x	x	x	x	x	x
Parental Status/Living Arrangement	x	x	x	x	x	x
Well Child Checkup				x		
Identified Medical Home				x		
Dental Info				x		
Child Outcomes	x	x		x	x	

Child, Outcome, and Program Data Field Comparisons (Cont.)

NOTES

Disability /Delay-different agency definitions
Income-for Part C children, not on data form but available
-M@4, % of Poverty
Health Conditions-Different Definitions
-for Part C children, not on data form but available for some children
Types of Services-for Part C&B, OSEP definitions. For M@4, enrolled or not enrolled, and non M@4 services referred to and provided
Quality of Services-for Part C, child care center star rating. For M@4, 4/5 star rating or not. For Part B, only if in M@4 as well
Type of Service-for Part C&B, OSEP definitions. For M@4, only whether M@4 enrollment
Child Care Subsidy-M@4 only if in Smart Start funded slots
Military Dependent-M@4-only if parent on active duty or recently discharged.
Program Setting- Home, Child Care Setting, Classroom, etc.
Child Outcomes- Head Start, Even Start, Smart Start-No individual data maintained at state level. Local programs keep ‘paper’ records of individual children and report aggregate data to state. Part C and Part B keep outcome indicators

Appendix D

Early Intervention/Early Childhood Family Data Fields

Agency	HS	DCD	ES	DPI	DPH EI	OSR
Household Size	x	x				x
Parent Status	x	x		x		x
Income	x	x			x	x
Employment	x	x				x
Public Assistance	x	x				
TANF	x	x				x
SSI	x	x			x	
Child care subsidy	x	x				
Family Goals & Services	x		x		x	
Subsidized Lunch Eligibility	x		x	x		x
Education Level	x	x	x			
Family Assessment	x		x		x	
County of Residence		x		x	x	x
Common Outcomes			x	x	x	
Full Address	x	x		x		
Fee	x	x				
Primary Language	x	x	x	x	x	
Migrant or Seasonal					x	
Homeless	x				x	
Refugee					x	
Country of Origin					x	
Citizenship Status						x
Military Dependent					x	
Medicaid	x			x	x	
Other Insurance					x	x
NC Residency				x		
Referral Source				x	x	
Reason for Referral				x		
Email	x			x		

Notes:

Income: some agencies note actual income, others general descriptors such as “at or below poverty.”
Education Level: Some agencies note actual level, others general descriptors such as “high school/GED recipient.”
Family Support Network: Keeps information on families involved in specific grants or projects, not all those served.
Parent Status: Biological/Foster/Other.
Common Outcomes: Similar outcome(s) for all families served by the agency.
Smart Start: Some Local Programs keep a variety of family information but no common practices statewide
Email: FSN does not require email address, asks only if families have internet access
OSR: More at Four
DPI: Division for Exceptional Children
Other: Blank space to use as needed
Head Start Fees: Some programs charge, but only for “extended day” or “wrap around” services

FAMILY OUTCOMES FIELDS

Agency	Outcomes	Frequency of Collection/Reporting	Status	Sample Size	Instrument	Measure-ment	Mode of Dissemination Collection	Federal Requirement
Early Intervention-Part C	Parents report EI Services have helped family: >know rights >effectively communicate child's needs >help their children develop and learn	Program exit Reported to US Dept. of Ed. annually	Underway statewide	All families	NCSEAM Family Survey-EI	7 point scale	Mail	Yes-specific outcomes
Preschool Special Education-Part B	Parents report that schools have facilitated parent involvement as means of improving services and results	Annually for parents in larger systems, smaller LEAs every 5 years. Reported to US Dept. of Ed. annually		All families in smaller LEAs, subset in larger ones	NCSEAM Family Survey-Preschool Special Ed	7 point scale	Mail	Yes-specific outcome
Head Start	Achievement of family goals in the "Family Partnership Agreement" Goals determined by family strengths/needs No required outcomes for all families as goals developed for each individual family	Varies by nature of goals. Must be reported annually to Head Start Bureau, Federal Administration on Children, Youth and Families.	Underway statewide	All families must be offered opportunity to have goals (91% had goals in06/07)	Agreement has standardized format(Also required that HS individual family goals must be integrated with those from other involved programs)	Yes/No	Staff/parent discussions	Yes- for Partnership Agreement. However the number, format, focus of goals is local option

Agency	**Outcomes**	**Frequency of Collection/Reporting**	**Status**	**Sample Size**	**Instrument**	**Measure-ment**	**Mode of Dissemination Collection**	**Federal Requirement**
Family Support Network	Parents: >learn how to meet family needs >learn about other community supports/organizations >feel more confident about caring for their child > feel better able to cope with issues that arise >feel more effective at communicating/advocating for family	Annually or program exit	Underway	Families participating in specific grant funded local programs	*In House Survey*	7 point scale	Mail	No
Smart Start	Parents: >Feel more confident about ways to raise their child >more frequently choose activities to help their child learn >understand importance of medical check-ups >learn ways to make their home safe for children	Annually or at program exit	Underway	Families participating in Smart Start funded family support/literacy programs	In house Survey	5 point Scale	Mail	No
More@4	NA							
Division of Child Development	NA							

Agency	Outcomes	Frequency of Collection/Reporting	Status	Sample Size	Instrument	Measure-ment	Mode of Dissemination Collection	Federal Requirement
Even Start	Parents: >complete or progress on one or more educational functioning level >with post secondary education, training, employment goals, meet goals >with high school diploma or GED goal, meet goal >increase skills in supporting child's literacy	At program exit or more frequently at local discretion	Underway	All, except where noted	Comprehensive Adult Student Assessment System (CASAS) Parent Education Profile (PEP)	Numeric scoring	Staff/parent discussion	States develop outcomes, feds approve

Appendix F

APPROACHES TO DATA SYSTEM LINKING/INTEGRATION ACROSS EARLY INTERVENTION AND EARLY CHILDHOOD AGENCIES

Options	Pros	Cons
Routine, systematic, ongoing interagency sharing of summary info from selected existing fields (i.e. number of children with substantiated abuse/neglect, most frequently occurring delay domains, etc.)	• Provides useful information for system planning, gaps and needs documentation at local, regional and state level	• Does not allow for documenting and tracking child and family outcomes • Relatively labor intensive • Narrow focus • Confidentiality issues may need to be addressed
Child specific data "exporting'' as children move from one agency to another (Early Intervention child data sent to DPI for children moving to preschool special education services)	• Allows for longitudinal studies incorporating a number of variables • Provides good planning information at the child and community levels • Reduces data entry duplication	• Does not allow focus on entire "system" • May be few common data fields • Requires data system compatibility
Single data system for some agencies with administrative connections (More at Four, Preschool Special Education, Even Start)	• Reduces data entry duplication • Allows for outcome and system studies for participating agencies • Can provide a good starting point for broader data system linkage	• Focus limited, does not allow for the broad range of services and agencies commonly occurring in EC/EI service systems
Separate data systems periodically linked by technology based approach such as electronic child record matching using software based on name/gender/DOB algorithms	• Useful for systems level analysis including system outcomes • Allows for separate data systems with common broader goals	• Not as useful for daily operations • Relatively labor intensive • If no common fields or outcomes used by agencies, not useful for child/family outcomes studies • Difficult to sustain on a long-term basis
Separate data systems but use by all agencies of a common child identification number	• Allows for relatively easy ongoing systems level analysis • Provides more accurate system wide data such as unduplicated counts of referral, children served, etc.	• Requires significant change in agency practices

Options	Pros	Cons
Separate agency data systems with use of common data fields (services received, demographic info., etc.) and/or common child/family outcomes	• Allows for documentation of impact of EI/EC services for a large number of children with different characteristics across a large number of agencies and programs • Provides information critical to assure ongoing funding and other support • Reduces data entry duplication	• Requires significant change in agency practices

Appendix G

PROPOSAL
ELECTRONIC CHILD RECORD MATCHING PROJECT

1. AGENCIES INVOLVED
   a) Office of School Readiness
   b) Division for Exceptional Children
   c) Division of Public Health (Early Intervention)

2. DESIGN
Sequential Effort:
Step 1-name
Step 2-name, date of birth
Step 3-name, date of birth, gender
(For each step above, run match, and determine amount of time required and accuracy level achieved.)
Step 4 (if accuracy level satisfactory)-analyze two common fields; Program Quality and another identified by work group members
Step 5 (to be done at a future date-not included in budget)- Test match with Duke Univ. Center for Child and Family Policy DPI database and later, UNC School of Social Work DSS database

3. CHILD RECORDS TO REVIEW
   a) 2,000 statewide
   b) Multi-year focus; '03, 04, 05, 06, 07, 08
   c) Match for each year agency data available, and for the entire time period

4. BUDGET
   a) planning with agency representatives-20 hours
   a) matching process-80 hours
   b) data review and analysis- 40 hours

c) cost	140 hours @ $80.00 per hour:	$11,200
	Supplies	$200
	Total	$11,400

NOTE: based on use of LINK KING software at no cost, and the availability of a SAS certified individual to do the matching