



CASE WESTERN RESERVE
UNIVERSITY

MANDEL SCHOOL OF APPLIED SOCIAL SCIENCES

Early Childhood Integrated Data System

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Developed for IIC

- Public-private partnership
- Goals: All children and schools are ready for success at Kg.
- Provides a system of services
 - early home visiting,
 - quality child care,
 - pre-kindergarten and other early education,
 - special needs and early mental health programs,
 - medical home,
 - lead prevention.
- Builds community capacity to promote the wellbeing of children in their early years.

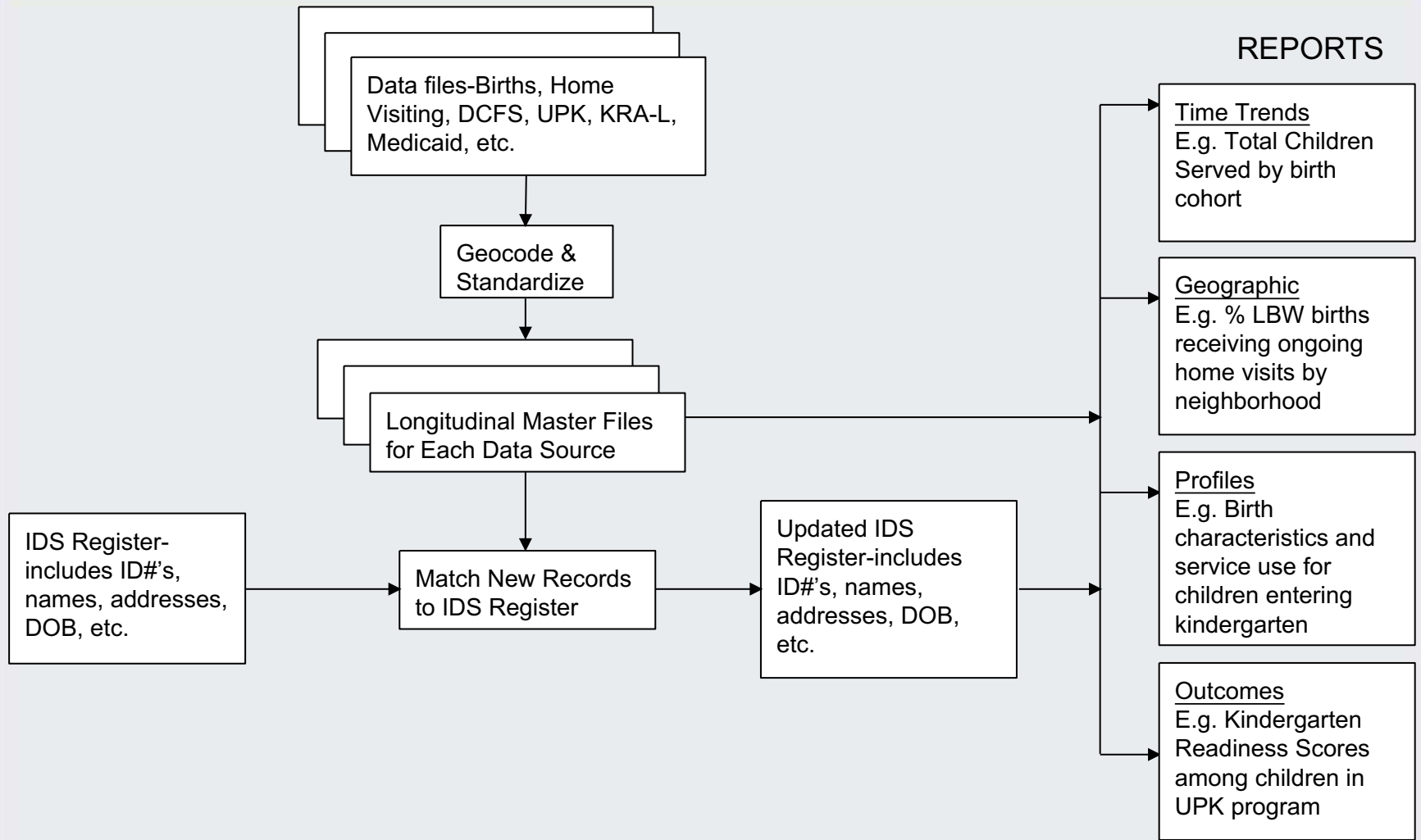
ECIDS serves as a key resource for IIC.

- Enables data driven planning and decision making.
- Used to monitor access to services, scope and reach of services.
- Supports evaluation activities that are both program specific and system wide.
- Track key indicators of child wellbeing in the County over time.
- Used for research

Data base overview

The ECIDS begins with the 1992 Cuyahoga County Birth Cohort, and has added all subsequent birth cohorts through the present time. Administrative records have been matched together from numerous data sources to construct a child-level records through age 6. The data are maintained in a highly secure computing environment. Identifying information is available for matching, but is only accessed by programmers who are certified in the protection of privacy and confidentiality and are working in the secure server platform. Data analysis files are stripped of identifying information and only aggregate statistics are reported or released.

Current Structure



Integrated Data System – Matching Process

1. Obtain new data from each data source (monthly, quarterly, or annually, depending on the source).
2. Identify new records not matched previously
3. Geocode and standardize matching variables (i.e, put in upper case, use standardized address from geocoding, etc.)

Integrated Data System – Matching Process

4. Match new data for each data source using LinkPro SAS macro, with manual review of questionable matches.
 - a) Match with Birth Master file, blocking on date of birth (requires DOB to match exactly)
 - b) Remaining non-matched records are matched with Birth Master File blocking on Soundex of child's first name
 - c) Remaining non-matched records are matched with IDS Register, blocking on date of birth
 - d) Remaining non-matched records are matched with IDS Register, blocking on Soundex of child's first name

Integrated Data System – Matching Process

5. Update IDS Register with data from new records. IDS Register contains:
 - a) Unique ID assigned to each child
 - b) All the ID's for that child from each data source (i.e., the Birth Certificate Number, Medicaid Recipient ID, etc.)
 - c) Personal Identifiers for that child (i.e., child's name, birthdate, mother's name, mother's birthdate, address, SSN, etc.)

Data Fields Needed for Matching and Preferred Coding

1. Child Information

If there are multiple children in a family, create a separate record for each child (including twins!). For prenatal visits, please be sure to update the database with the birth date, child's name, etc. after the child is born. To cut down on data entry, include the Mother or Family ID in the child record, and then create a separate table with the Mother's information (see #2 below). The address can also be in a separate table (see #3 below)

Unique Identifier (eg, ID number)

Social Security Number (xxx-xx-xxxx)

Date of Birth (Date/Time field in Access)

Due Date (Date/Time field in Access)

Last Name

First Name

Gender (Male/Female)

Hispanic Ethnicity (Yes/No)

Race (White/Black/Asian or Pacific Islander/Native American/Multi or Bi-racial/Other)

Mother and/or Family ID (see below)

Data Fields Needed for Matching and Preferred Coding

2. Mother and/or Family Information:

Mother's and/or Family's Unique Identifier/ID number

Mother's Last Name

Mother's First Name

Mother's Date of Birth (Date/Time field in Access)

Mother's Social Security Number, if available (xxx-xx-xxxx)

Father's Last Name

Father's First Name

Guardian Relationship (Mother, Father, Foster Parent, Caregiver, etc.)

Data Fields Needed for Matching and Preferred Coding

3. Current Address of Child

Ideally, create a separate table for address in order to maintain a historical list of addresses for each child. When a child's address changes, instead of replacing the address in the database, enter the Ending Date for the old address, and then add a new record to the address table for the new address.

Child's Unique Identifier

Beginning Date at this address (Date/Time field in Access)

Ending Date at this address (Date/Time field in Access, enter 1/1/4000 for current address)

Address Field #1 – House Number and Street Name (e.g., 100 Main St)

Address Field #2 – Apartment number (e.g. Apt. 2, Up/Down, Front/Rear, etc.)

City

State (OH)

Zip Code (5 digit)

County (Cuyahoga, others?)

Integrated Data System – Data Sources

Birth and Death Certificate Records (1992-2008)

Source: Ohio Department of Health, annual data file

Data Elements:

Identifiers (certificate #, child, mother, father names, DOB, address)

Demographics (child gender, mother's & father's race, ethnicity, education, marital status)

Birth characteristics (weight, Apgar, plurality, live birth order, etc)

Prenatal care (dates and number of visits)

Principal payment source

Pregnancy information (weight, maternal morbidity, cigarette use, risk factors, infections)

Labor & Delivery (procedures, labor characteristics, etc.)

Abnormal conditions, congenital anomalies

Causes of Death

Integrated Data System – Data Sources

Medicaid/Healthy Start, Food Stamps, and Cash Assistance Enrollment Data (1997-2008)

Source: Cuyahoga County Dept. of Employment and Family Services, monthly data extracts

Data Elements:

Child: Recipient and Case ID number

name, address, phone number, race, gender, DOB, SSN

monthly enrollment status

type of medicaid program, monthly benefit amount for food stamps and cash assistance

Other members of Case (household) who are also enrolled:

Recipient and Case ID number

Name, address, phone number, race, gender, DOB, SSN, education (HS Grad)

Monthly enrollment status

Type of medicaid program, monthly benefit amount for food stamps and cash assistance

Integrated Data System – Data Sources

Medicaid Claims and Encounter Data (1997-2005)

Source: Ohio Department of Job and Family Services, annual data file

Data Elements:

Recipient ID (allows linking with enrollment data)

Plan (HMO or Fee for Service)

Dates of Service

Diagnosis and Procedure Codes (to identify well-child visits)

Claim Type (Physician, Outpatient, Inpatient, Dental, Vision, Prescription)

Integrated Data System – Data Sources

Help Me Grow Home Visiting Data (prenatal, newborn, ongoing) (1999-2008)

Source: Help Me Grow of Cuyahoga County, Quarterly data extract

Data Elements:

Child: Child and Family ID

Name, address, DOB, gender, race, ethnicity, phone number, SSN, school district

Mother: Individual and Family ID

Name, address, DOB, SSN, phone number, guardian relationship

Referral source and date

Service Coordinator Agency information

Risk Factors (Biological, Developmental Delays, Medical Diagnoses, Environmental)

IFSP dates

Service locations, types, provider names, dates

Intervention description and date

Newborn Home Visit dates

Ongoing Home Visit Dates

Exit date, Reason, Destination

Integrated Data System – Data Sources

Moms First Home Visiting Data (prenatal, ongoing) (2007-2008)

Source: Cleveland Department of Public Health, Annual data extract

Data Elements:

Family: Family ID, mother's name and address, race, mother's DOB, education, income, insurance, marital status, # of children, father's age and involvement

Child: child's name, DOB, birth weight

Pregnancy: conception, due date, prenatal care, other health care, barriers to care, medical risk factors, current and past STD's, current HH and work exposures, substance use, current victimization

Other Characteristics: Housing situation, contraceptive history, physical impairments, past STD's, current social services, mental health history, current and past mental health treatment, past victimization

Referral Source

Dates of visits and contacts

Edinburgh score

Problems Identified (e.g., not taking medications, lack of dental care, family planning, safer sex practices, bottle feeding, breast feeding, and transportation issues)

Service Referrals (type and date), e.g., transportation, daily living supplies, home lead inspection by the Cleveland Department of Public Health, Male Support or Strong Start for Families, mental health assessment, Healthy Start, WIC, etc.

Education Modules completed.

Date and reason for case closure

Integrated Data System – Data Sources

Newborn Home Visiting Program (NEW)

Source: Cuyahoga County Board of Health

Data Elements:

Child: Child's name, DOB, gender, race, ethnicity

Mother: Name, address, DOB, SSN, marital status, primary language, first-time parent, teen mom

Prenatal care (>1 visit) and delivery: Apgar Score, birth weight, birth length, type of delivery

Medicaid coverage

Nurse assessment (vital signs, perinatal & postpartum complications, Edinburgh score, hearing & vision screening, etc.)

Feeding & Elimination

Home & Social Environment

Parents' knowledge & attitudes before and after visit

Will Add: Risk Factors & Actions

Integrated Data System – Data Sources

Child Care Vouchers (1997-2008)

Source: Cuyahoga County Department of Employment and Family Services, Monthly extracts

Data Elements:

Child's name, address, phone number, race DOB, SSN

Caretaker's name, address, phone number, race, DOB, SSN

Provider's name, address, phone number, federal tax ID, provider type (family day care, center, etc.)

Provider ID can be used to identify certified family child care homes

Monthly voucher use status, and payment source

Integrated Data System – Data Sources

Special Needs Child Care (2000-2008)

Source: Starting Point, Cuyahoga County, quarterly data extracts

Data Elements:

Child's name, DOB, gender, ethnic origin, address, phone number

Mother's name, DOB, ethnic origin, address, phone number

Provider's name, address, phone number

Staff's name, gender, ethnic origin, address, phone number

Disability type

Referral source and date

IFSP date and coordinator

Technical Assistance dates, provider, topics

Training Sessions: dates, location, topics, instructor

Exit date and Reason

Integrated Data System – Data Sources

Child Abuse and Neglect Investigations and Protective Services (1992-2008)

Source: Cuyahoga County Department of Children and Family Services, Annual Data Extract

Data Elements:

Child's name, address, DOB, SSN, race, gender

Mother's name, address, DOB, SSN, race

Child Abuse and Neglect Incidents: date, disposition (i.e. Substantiated, Indicated, Unsubstantiated), victim's status, relationships, roles (eg, perpetrator, reporting source)

Custody dates, types, identifiers, terminations

Worker ID's, department assignments, dates

Case open/close dates and reasons

Protective Support beginning & expiration dates, reasons

Placement type, begin & end dates.

Integrated Data System – Data Sources

Early Childhood Mental Health (2008-2009)

Source: Alcohol, Drug Addiction, and Mental Health Services (ADAMHS) Board of Cuyahoga County, quarterly extracts

Data Elements:

Child's name, DOB, SSN, gender

Parent/Caregiver's name, DOB, SSN, relationship to child

Provider

Open/Close dates, close reason

Referral Source

Diagnosis

Parent referred for services

Service Units delivered

CBCL and PIRc1 scales

Integrated Data System – Data Sources

Universal Pre-Kindergarten (2007-2008 school year)

Source: Starting Point, Cuyahoga County, annual extracts

Data Elements:

Child's name, DOB, gender, ethnicity

Mother/father name, address, phone number, family income, language

UPK site (provider), classroom, enrollment date

Provider quality scores

Integrated Data System – Data Sources

Kindergarten Readiness

Sources: Cleveland Metropolitan School District (2005-06 to 2009-10 school years)
Shaker Hts. School District (2007-08 to 2009-10 school years)

Data Elements:

Child's name, DOB gender, ethnicity
Mother/father's name, address
Building, test date, waiver, KRA-L score

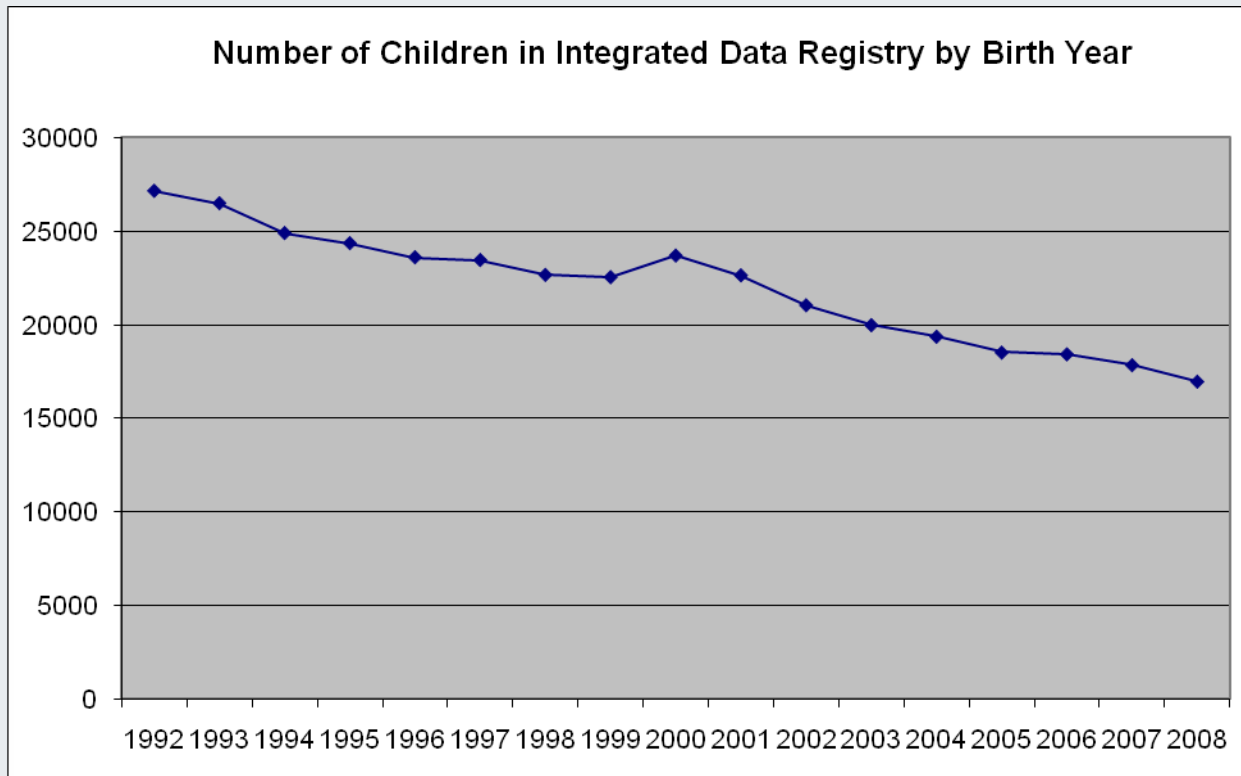
Data In Hand, Not Yet Matched

Public School Records: Student ID, Child Name (CURRENTLY MISSING), Home address, Birth date, Parent Name, (CURRENTLY MISSING) School, Grade, Daily attendance codes, Suspensions and transfers, Free and Reduced Lunch code, Standardized test scores, (ONLY HAVE CMSD IN HAND NOW)

Juvenile Court Filings: Name, Birth date, Parent/ Guardian name, home address, date of filing, category of filing, probation, detention

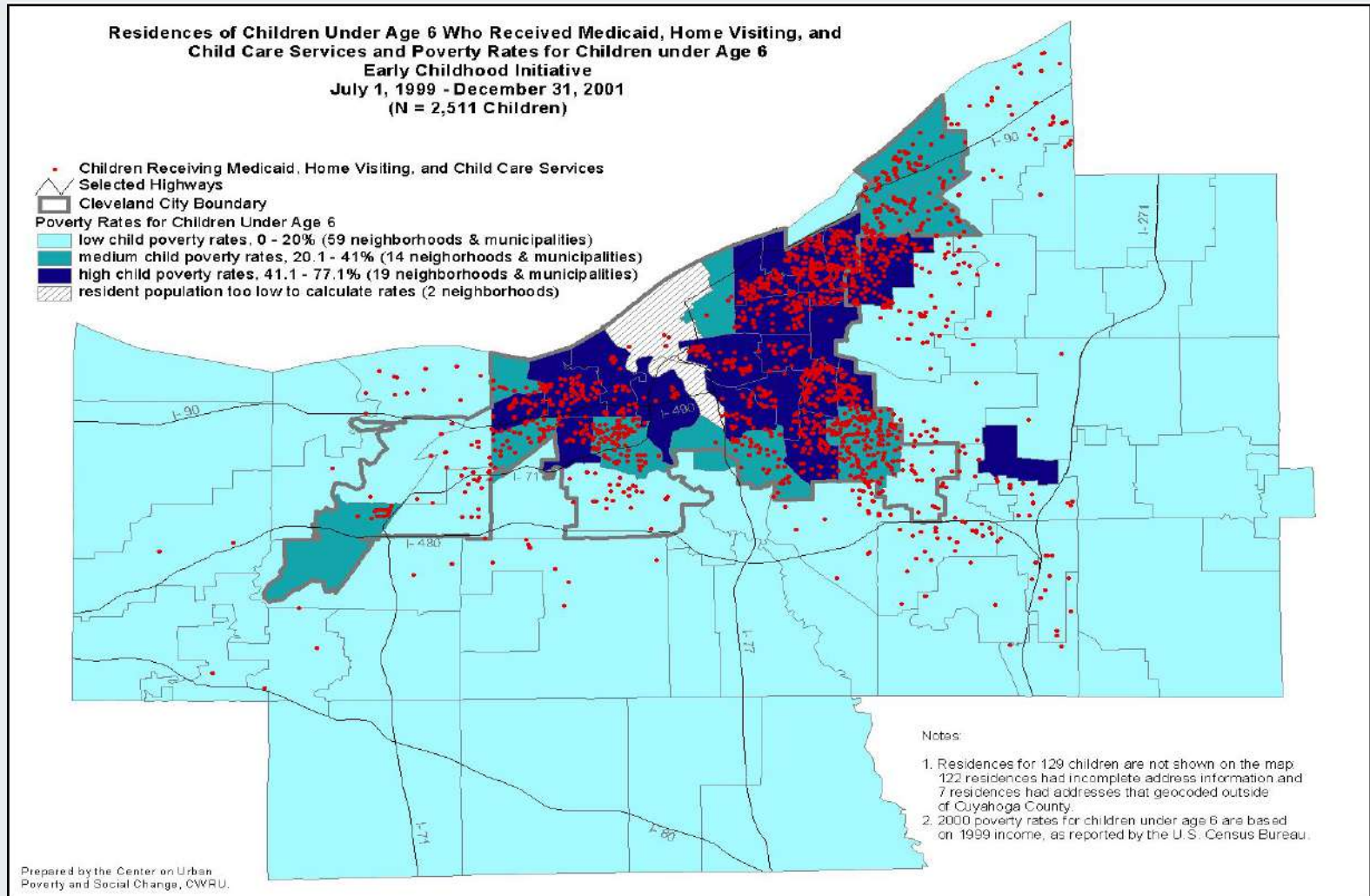
Neighborhood Variables: These are measures of neighborhood composition or conditions—can be at block, block group, census tract or other geography. They can be extracted from NEO CANDO for all years. Examples include poverty rate, foreclosure rate, housing values and conditions, vacant houses, vacant lots, land use, violent crime counts or rates, property crime counts or rates.

Current Status

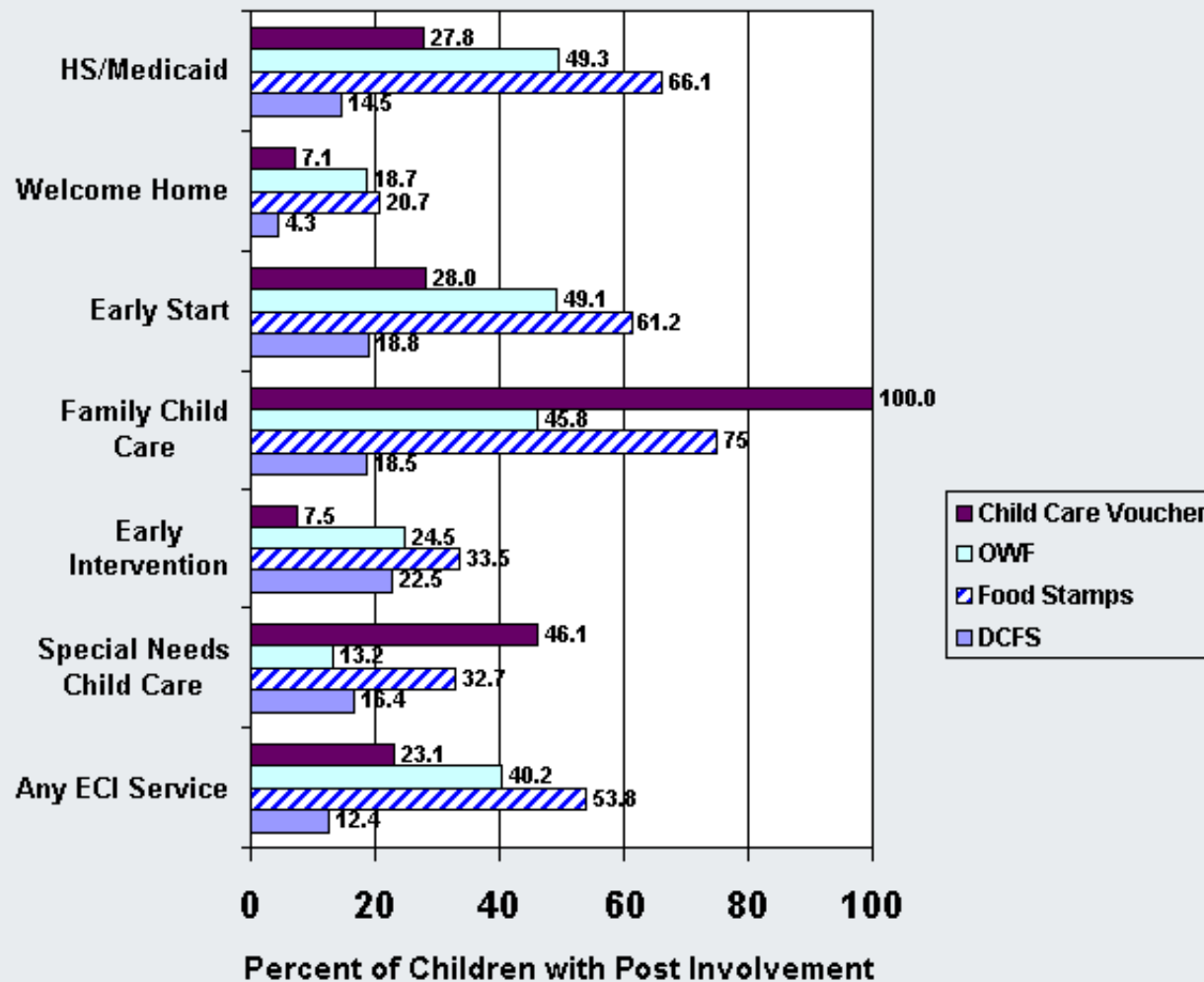


Birth year	Frequency
1992	27141
1993	26483
1994	24897
1995	24360
1996	23609
1997	23463
1998	22669
1999	22550
2000	23700
2001	22647
2002	21054
2003	19997
2004	19378
2005	18536
2006	18443
2007	17868
2008	16990
Total	373785

Neighborhood Concentrations: Multiple service families

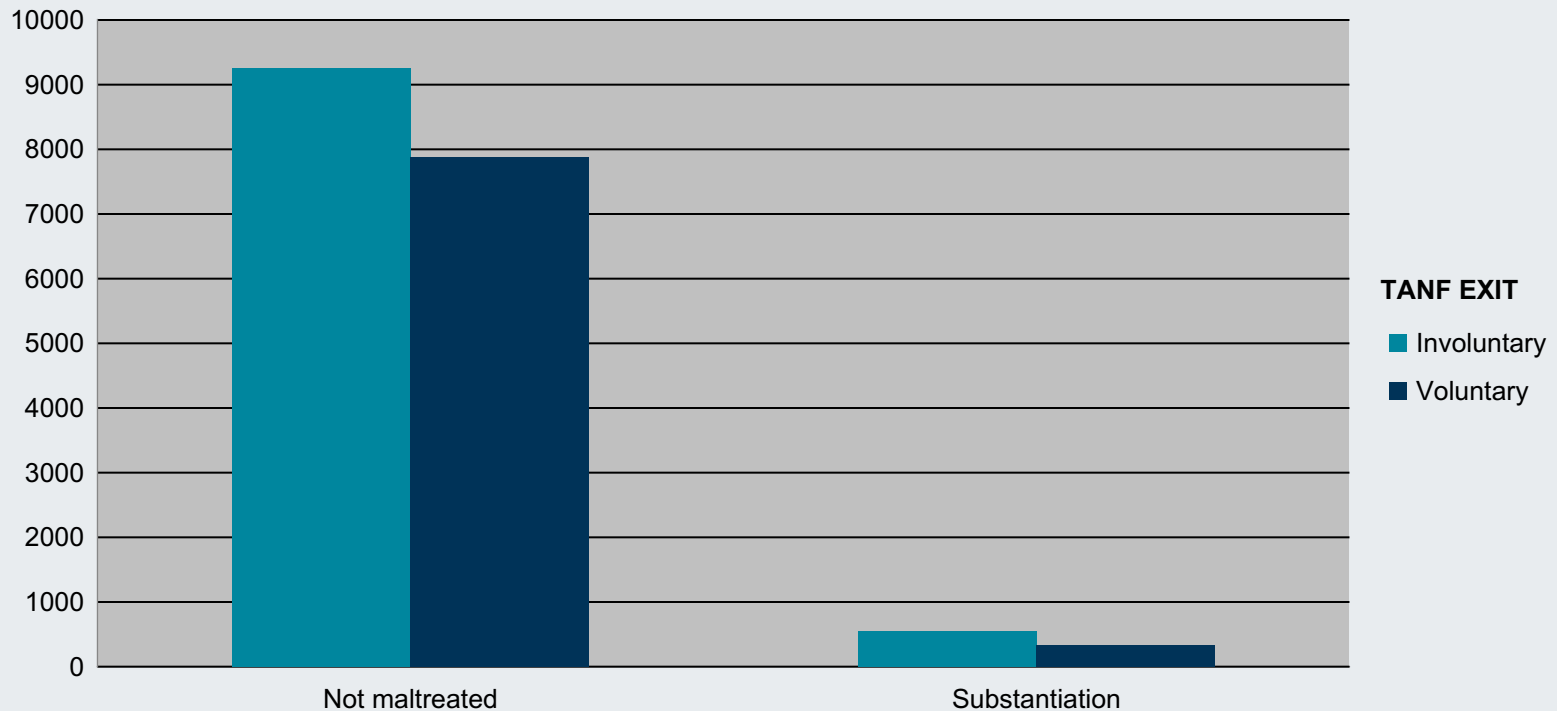


Service Pipelines: Percent using other service within six months



Outcomes Research: Child maltreatment after leaving TANF

Number of children by maltreatment status and type of TANF exit



Next Steps

- Expand to include older children
- Automate routines for data set preparation
- Develop detailed documentation of data elements/ variables
- Appoint advisory group
- Establish policies for data sharing and utilization beyond IIC
- Secure funding for ongoing support
- Maximize utilization for planning, evaluation and research