



Evaluation Report VIII: State Maternal & Child Health Early Childhood Comprehensive Systems Grant Program

March 2010

**© 2010 Center for Health Policy (10-C19)
School of Public and Environmental Affairs
Indiana University–Purdue University Indianapolis
410 W. 10th Street, Suite 3100
Indianapolis, Indiana 46202**



**SCHOOL OF PUBLIC AND
ENVIRONMENTAL AFFAIRS**
INDIANA UNIVERSITY
IUPUI



The Center for Health Policy

The Center for Health Policy is one of three applied research centers currently affiliated with the Indiana University Public Policy Institute. The mission of the Center for Health Policy is to collaborate with state and local government and public and private healthcare organizations in policy and program development, program evaluation, and applied research on critical health policy-related issues. Faculty and staff aspire to serve as a bridge between academic health researchers and government, healthcare organizations, and community leaders. The Center for Health Policy has established working partnerships through a variety of projects with government and foundation support.

Indiana University Public Policy Institute

The Indiana University (IU) Public Policy Institute is a collaborative, multidisciplinary research institute within the IU School of Public and Environmental Affairs (SPEA). Established in the spring of 2008, the Institute serves as an umbrella organization for research centers affiliated with SPEA, including the Center for Urban Policy and the Environment, the Center for Health Policy, and the Center for Criminal Justice Research. The Institute also supports the Office of International Community Development and the Indiana Advisory Commission on Intergovernmental Relations (IACIR).



Table of Contents

Introduction	5
The Early Childhood Comprehensive System Initiative	7
Completion of ECCS Strategic Goals	7
Insurance Coverage and Access	9
Medical Home and Community Integrated Systems of Services	9
Wellness Passport	9
Care Select Program	10
Source of Payment for Health Care	11
Medicaid, Hoosier Healthwise, and SCHIP Enrollment and Utilization	12
Early and Periodic Screening, Diagnosis and Treatment (EPSDT)	13
Medical Services	13
Dental Services	14
Children with Special Health Care Needs	14
Individuals with Disabilities Education Act	15
Outcomes	17
Immunization Rates	17
Infant and Child Mortality Rates	18
Child Neglect and Abuse	21
Teen Pregnancy	22
Early Child Care Resources, Support, and Development	25
Licensed Child Care Facilities	25
Early Child Care Information and Resources	27
Conclusion	29
Appendices	31
A. Visits and Unique Hosts to the Family Section of the ECMP Web site	31
B. Sunny Start Tasks	32
Bibliography	35

Authors

Daniel Clendenning, M.S.
Eric R. Wright, Ph.D.





INTRODUCTION

The Indiana State Maternal and Child Health Early Childhood Comprehensive System (ECCS) was conceived as an initiative to engage state agencies, community partners, and families of young children to develop a coordinated, comprehensive, community-based system of services for children from birth through age 5. The ECCS is designed to facilitate the elimination of duplicated efforts in serving young children and their families while ensuring that services are available universally across the state. The initiative intends to support ease of access to needed services, increase the use of appropriate services, and ensure that a holistic system of care supports young children and their families.

The strategic plan requires an evaluation of this initiative, as do requirements set forth by the Health Resources and Services Administration, Maternal and Child Health Bureau. Since June 2006, the Indiana State Department of Health (ISDH) has worked with the Center for Health Policy at Indiana University–Purdue University

Indianapolis to develop and execute an evaluation plan. This report evaluates three areas: the completion and efficacy of activities set forth in the initiative’s strategic plan, changes in outcome measures for Indiana families that may be a result of this initiative, and ECCS implementation of its strategic plan. Where available, data from ISDH and other agencies are used to track changes in outcomes.

This report is the eighth evaluation report investigating the implementation of ECCS initiatives. Data and other information for this study come from the following sources: the Indiana State Department of Health, the Indiana Family and Social Services Administration, Department of Child Services, the United States Census Bureau, and several other government entities and private organizations. The most recent available data were used for this report. Some data are for calendar years and some for fiscal years. Additional caveats concerning data are noted where appropriate in this report.





THE EARLY CHILDHOOD COMPREHENSIVE SYSTEM INITIATIVE

The ECCS initiative began officially on July 1, 2003, with a grant from the Health Resources and Services Administration, Maternal and Child Health Bureau. As part of the project, the ISDH convened a group of Core Partners, including representatives from several state and local agencies and individuals representing service organizations and families. The Core Partners serve as the steering committee for the ECCS project. The Core Partners meet quarterly and are charged with educating their organizations on the ECCS initiative's guiding principles, sharing agency programs that impact children ages birth to 5, and establishing protocols to support communication across agencies and initiatives.

Completion of ECCS Strategic Goals

As part of their mission, the committee and subcommittees have developed a strategic plan for achieving the goal of coordinated services. The strategic plan outlines seven primary objectives to realize coordinated and comprehensive services for young children:

- All children in Indiana will have a medical home.
- All children will be covered by a source of payment, either public or private, for medical and developmental services that are identified by the medical home.
- The medical home will facilitate developmental, behavioral, and mental health screening with appropriate treatment referrals to community resources.
- An information clearinghouse will be established that provides resources for families of young children and for providers of early childhood services at both the state and local level.
- Quality resources and supports will be integrated to create a coordinated and accessible early childcare system.

- Parents will have the necessary information, support, and knowledge about child development and will be able to recognize their child's progress.
- Families will have timely access to resources to address their child's health, safety, and developmental needs.

The committee developed several steps for each objective as a plan for achieving the objectives. Further details regarding these objectives, as well as information on the accomplishments to date of the ECCS Committee, can be found at <http://www.sunnystart.in.gov>. Additionally, this and previous evaluation reports, along with other resource materials, can be found at <http://www.in.gov/isdh/21192.htm>.

Key accomplishments of the Sunny Start program and its partners to date include:

- the Early Childhood Meeting Place (ECMP) web site
- a developmental calendar for children ages birth to 5
- paths to Quality, a program to educate early childcare providers
- the Zero To Three training program, a program that trains early childhood professionals to promote positive parenting with the goal of eliminating child abuse
- a series of 25 financial fact sheets that highlight the basics of financial resources available to Hoosier families
- the Wellness Passport, a personal healthcare record keeping tool for parents
- a comprehensive one-week Summer Institute to help mental health professionals gain expertise in the social and emotional development of young children, infants, and toddlers

These programs are described further throughout this report.



Social and emotional development in young children continues to be a focus of Sunny Start. After receiving final approval from the Sunny Start Core Partners, the Social and Emotional Consensus Statement was finalized. A tool has been developed in conjunction with the Consensus Statement that will help individuals assess the social and emotional competencies addressed by their training. Sunny Start sponsored a comprehensive one-week Summer Institute in July 2007 to train child mental health professionals. Furthermore, in August 2008 and again in August 2009, Sunny Start sponsored additional training at the Indiana Infant and Toddler Mental Health Annual Conference to help build competencies in the area of social and emotional development.



INSURANCE COVERAGE AND ACCESS

This section addresses measures of insurance coverage and healthcare access for children 5 and younger in Indiana.

Areas addressed are:

- medical home and Community Integrated Systems of Service
- the Wellness Passport, an electronic medical record
- Care Select
- source of payment for healthcare
- Medicaid, Hoosier Healthwise, and SCHIP enrollment and service use
- Early and Periodic Screening, Diagnosis and Treatment
- programs for children with special healthcare needs

Medical Home and Community Integrated Systems of Services

A main goal of this initiative is to ensure that all children have access to healthcare services. To facilitate achievement of this goal, the ECCS program advocates the medical home concept. A medical home provides a consistent point of entry to the medical system through a primary care physician or a team of caregivers. Prior research has shown that the comprehensiveness and coordination of care offered by a medical home improves health outcomes and reduces disparities in the use of health services (Starfield & Shi, 2004). The National Survey of Children's Health reports that 38.4 percent of Indiana children ages birth through 5 did not have a medical home in 2003. In the nation, 44.1 percent of children were without a medical home in 2003.

The ISDH received a grant from the federal Maternal and Child Health Bureau to develop Community Integrated Systems of Services for Children and Youth with Special Health Care Needs (IN CISS). Developing the medical home concept in Indiana is a major objective of

the IN CISS grant. Because many of the same people were involved, the IN CISS Medical Home subcommittee and the ECCS Medical Home workgroup have been combined.

The IN CISS project holds weekly planning meetings with a planning group of core partners. Three contracts have been initiated to support the project. The first, with the IU School of Medicine, is to provide a project facilitator, parent consultants, and project evaluator. The second, with the Center for Youth and Adults with Conditions of Childhood, is for development of a website and educational office visits to help youth with special healthcare needs transition to adult healthcare. Finally, About Special Kids was contracted to provide meeting support, stipends for families and youth, and other support.

The IN CISS project has recruited 12 healthcare practices to participate in a medical home learning collaborative. This project will aid the 12 practices in developing and implementing quality improvements efforts to aid with the implementation of the medical home concept. Teams will participate in biweekly teleconferences, face-to-face site visits, and annual meetings over the three years of the grant.

Wellness Passport

The Family Advisory Committee, along with the Maternal and Children's Special Health Care Services Division, developed the Wellness Passport, a tool to help families keep track of medical information regarding their child in a format that can be shared easily with their medical providers. The Wellness Passport is available for download from the ECMP web site and can also be obtained on a free flash drive or paper format by calling



the Indiana Family Helpline.¹ A Special Health Care Needs Addendum is available for families with children with more complex healthcare needs who may need to record more specialized medical information.

Currently, there are three versions of the medical passport in Indiana. These are: 1) the Department of Child Services' version, developed 10 years ago; 2) the Children's Special Health Care Services version that is aimed at children with special medical needs; and 3) the Wellness Passport mentioned above. Work is currently in progress to combine these three medical passports into one with special addendums. The three areas currently scheduled for development are children with special healthcare needs, children in foster care, and children with social/emotional issues. Work is also progressing on a Spanish translation of the Wellness Passport.

As mentioned above, the Wellness Passport is available in print (12,000 copies), downloadable from the Early Childhood Meeting Place web site, and is also available on flash drives (2,700 flash drives). The web site and flash drive versions are accompanied by a narrated PowerPoint file that introduces the user to the medical passport and other products from the Sunny Start Project. These additional products, such as the Sunny Start financial resources fact sheets and the developmental calendar, are also included on the flash drive and are presently downloadable off the ECMP web site.

Care Select Program

Indiana has a care management program, Indiana Care Select, to serve several populations, including the blind, physically and mentally disabled, wards

and foster children, and children receiving adoption services. The Office of Medicaid Policy and Planning (OMPP) contracts with care management organizations who are responsible for coordinating care to those enrolled in Care Select. Care Select is a primary care case management program designed to tailor healthcare benefits to the individual more effectively, improve the quality of care and health outcomes, and provide a more holistic approach to member's health needs. Care Select members are linked to a primary medical provider (PMP), and reimbursement is available for care management conferences, thus supporting the medical home model.

In addition to facilitating a medical home for each member by assigning each a PMP, Care Select ensures access to care through care coordination. Care coordination is performed by a multidisciplinary team of care managers, including healthcare professionals such as nurses, social workers, and physicians. Care managers involve members in care coordination by developing individually tailored care plans that take into consideration a member's healthcare needs and personal goals toward improved functional status, improved clinical status, and enhanced quality of life, as well as member satisfaction, adherence to treatment or care plans, improved member safety, and member autonomy. Care coordination also involves collaboration with multiple providers in all care settings, including home, clinic, and hospital.

Since its inception, the Care Select program's enrollment has steadily increased. Implementation consisted of a three-phase rollout, with central region enrollment in November 2007, statewide enrollment in March 2008, and ward and

¹Indiana Family Helpline: 1-800-433-0746



foster children enrollment in July 2008. By December 2008, OMPP data showed that there were 4,726 children from birth to age 5 enrolled, and enrollment increased to 6,956 in December 2009.

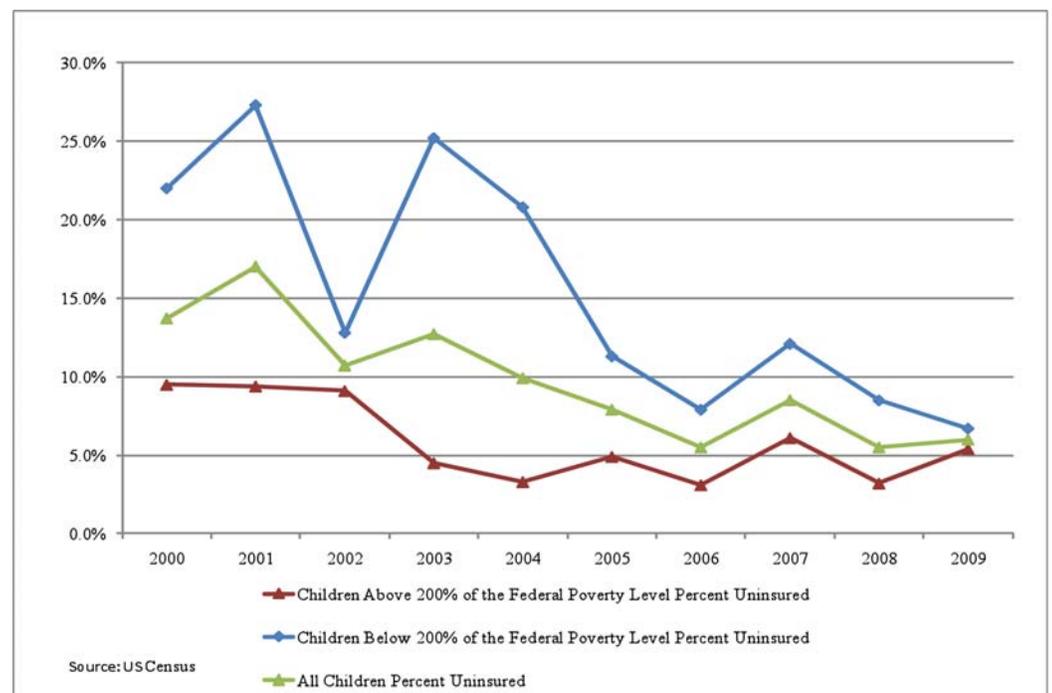
Source of Payment for Healthcare

Inability to pay is one of the greatest barriers to healthcare access. Research confirms disparities in the use of primary care between insured children and uninsured children (Newacheck, Hughes, & Stoddard, 1996; Newacheck, Stoddard, Hughes, & Pearl, 1998; Stevens, Seid, & Halfon, 2006) Children with no healthcare coverage are also significantly less likely to have a regular source of care and to consistently see the same physician. Furthermore, uninsured children are more likely to be inadequately vaccinated and have fewer annual physician visits (Newacheck, Hughes, & Stoddard, 1996). The ECCS initiative seeks to eliminate this disparity by promoting access to healthcare for all Indiana children.

To monitor progress toward this objective, data from the United States Census Bureau's *Current Population Survey—Annual Social and Economic Supplement* were used to estimate the number of uninsured children below 200 percent of the federal poverty level (FPL), as well as the total number of uninsured children age 5 or younger (see Figure 1). As of March 2009, an estimated 522,233 children age 5 or younger lived in the state of Indiana, 31,579 (6.0 percent) of whom were not covered by any type of health insurance. Furthermore, 251,420 (48.1 percent) of children age 5 or younger in Indiana lived in a household below 200 percent of the FPL, 16,842 (6.7 percent) of whom lacked any form of health coverage (U.S. Census Bureau, 2009). Only 5.4 percent of children living in households above 200 percent FPL lacked health insurance.

Families USA reports that 48.2 percent of Indiana's uninsured children of all ages come from low-income families who are

Figure 1 Percent of Uninsured Children (5 and Younger) in Indiana.





likely eligible for Hoosier Healthwise. Furthermore, the Families USA report finds that despite the lower rate of insurance in low-income families, the majority of uninsured children (of all ages) in Indiana come from families living above 200 percent FPL (Families USA, 2008).

Medicaid, Hoosier Healthwise, and SCHIP Enrollment and Use

Low-income children are less likely to be covered by healthcare and thus are more likely to lack primary care and other necessary medical services. Because of these disparities, providing services to children from low-income households is of paramount concern for our nation and has led to national coverage programs for children. Healthcare financing sources for low-income and disabled children include Medicaid and SCHIP funding, administered in Indiana through Hoosier Healthwise, a risk-based managed care (RBMC) program, Care Select, and fee-for-service Medicaid programs. Medicaid enrollment and claims data are used to determine the number of children under the age of 5 enrolled in Indiana Medicaid.

The FPL as determined by the Department of Health and Human Services plays an important role in determining how Hoosier children receive health coverage. The minimum income that a family needs to sustain living expenses makes up the FPL. Public assistance programs, such as Medicaid, define eligibility income limits as a percentage of FPL. In Indiana, the FPL varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Medicaid and SCHIP use family income and/or asset limitations to determine eligibility and type of coverage:

- Low income families, children under the age of 18 living with low-income parent(s) or other caretaker relative, and young adults (18, 19, and 20 years old) who live with a caretaker relative may be eligible for premium-free coverage (Medicaid).
- SCHIP provides low-cost health coverage to children 19 years old and younger with family incomes of no more than 150 percent of the FPL. Additional SCHIP (Package C) benefits are available to children in families whose income is 151 to 250 percent of the FPL. Premium amounts for Package C are between \$22 and \$50 per month, based on family income and the number of family members covered.

The data included in this report are based on administrative claims, likely representing an underestimate of actual use due to claims processing practices. Data from the OMPP indicates that a total of 295,221 children age 5 and younger were enrolled in Indiana Medicaid programs at the end of State Fiscal Year (SFY) 2008.² The 2008 figures demonstrate an upward trend in enrollment, as compared to the SFY 2007 total of 287,810 children age 5 and younger enrolled in Medicaid programs. Indiana's SCHIP program is seamlessly integrated into Hoosier Healthwise. As such, SCHIP enrollees have the same access to providers as all other Medicaid managed care members, including choice of PMP. Children enrolled in the Care Select Program and fee-for service Medicaid are also included in this reported data.

Table 1 provides a comparison across two years of enrollment and claims data. Of the 295,221 children enrolled at some point during SFY 2008, the state attests that 274,145 (93%) were covered by a plan with capitated payments to an RBMC delivery system (i.e. Hoosier Healthwise).³

²This total includes an unduplicated count of all children age five and younger who were enrolled for some portion of this period of time. State Fiscal Year 2008 is defined as July 1, 2007 to June 30, 2008.

³Some of the Medicaid managed care programs in Indiana provide a capitation payment to a managed care organization (MCO) which is then responsible for arranging, providing, and paying for the services of its members as designated by the OMPP.



Table 1 State Fiscal Year 2007 and 2008 Enrollment, Children Birth to 5 Years of Age

	2007	2008
Total Enrollment	287,810	295,221
Hoosier Healthwise	265,971 (92%)	274,145 (93%)
Care Select and Fee-For-Service	21,839 (8%)	21,076 (7%)
Visiting Any Type of Medical Provider⁴ (all programs)	226,804 (79%)	260,656 (88%)
Seen by Primary Medical Provider (PMP)⁵ (all programs)	158,191 (55%)	189,457 (64%)
Seen in a Clinic setting⁶ (all programs)	114,042 (40%)	113,852 (38%)
Seen in an outpatient hospital⁷ setting (all programs)	98,975 (35%)	98,344 (33%)

The number of children from birth to 5 years of age enrolled in Hoosier Healthwise increased during SFY 2008. Along with the additional enrollment of children, it's evident that a higher percentage of children in this age range are seeking medical treatment, with a significant rise in the number seeing a PMP in SFY 2008. The data also suggests a slight decline in the use of clinic and hospital settings in SFY 2008.

The Healthcare Effectiveness Data and Information Set (HEDIS[®]) is a widely used set of performance measures. HEDIS[®] measures address a broad range of health issues, including Children's Access to Preventive/Ambulatory Care. Table 2 indicates 2007/2008 rates, along with the respective HEDIS[®] benchmarks. Collectively, Hoosier Healthwise HEDIS[®] rates measured just below the 50th percentile for the measure of Children's Access to Preventive/Ambulatory Care.

Early and Periodic Screening, Diagnosis and Treatment (EPSDT)

All children from birth to 21 years of age enrolled in Medicaid or SCHIP are eligible

for Early and Periodic Screening, Diagnosis and Treatment (EPSDT). This program offers prevention-oriented services designed to assess health and development, vision, dental, and hearing in an effort to identify and treat conditions that may impede natural growth. In addition to screening services, EPSDT encompasses diagnostic and treatment services for children birth through 21 years of age.

MEDICAL SERVICES

The EPSDT Participation Report provides data to the Center for Medicare and Medicaid Services (CMS). CMS reporting requirements mandate Medicaid and SCHIP enrollee data to be reported on separate Participation Reports. The EPSDT Participation Reports follow the federal fiscal year (FFY) reporting format, defined as October 1 through September 30. Table 3 demonstrates the comparison between Medicaid- and SCHIP-eligible people receiving EPSDT services in FFY 2007 and FFY 2008.

The state's periodicity schedule specifies the total number of initial or

⁴Encounter claims data indicated that any type of Medical Provider included an extensive list of provider types, including specialist, advanced practice, and mental health.

⁵Primary Medical Provider (PMP) is described as one of the following: 316 – Family Practitioner, 318 – General Practitioner, 328 – OB/GYN, 344 – General Internist, 345 – General Pediatrician, 315 – Emergency Medicine Practitioner, 323 – Neonatologist.

⁶Clinic setting is defined as 080 - Federally Qualified Health Clinics (FQHC), 081 - Rural Health Clinics (RHC), and 082 - Medical Clinics.

⁷Hospital settings include ER/Outpatient visits.

Table 2 Children's Access to Preventive/Ambulatory Care

Age Group	2007	2008	HEDIS [®] Medicaid Managed Care 50th Percentile
12 to 24 months	94.9%	94.2%	95.8%
25 months to 6 years	84.3%	85.0%	86.5%



Table 3 EPSDT Participation Report: Initial or Periodic Screening Services, Federal Fiscal Year 2007 and 2008

	Medicare		SCHIP	
	2007	2008	2007	2008
Enrollment, All Programs ^a	256,395	263,340	11,428	10,278
Total Eligibles Receiving at Least One Initial or Periodic Screen	203,898 (78%)	203,898 (77%)	7,956 (68%)	7,019 (68%)

periodic general health screenings required to be provided. The periodicity schedule used in Indiana reflects American Academy of Pediatrics recommendations, along with those of the Hoosier Healthwise Clinical Advisory Committee, and is meant to be a guide for Indiana Medicaid providers participating in the EPSDT program. Throughout the nation, states are not consistent in reporting definitions for EPSDT. Reported data is based on a total of 14 screenings recommended from birth through 5 years of age.

DENTAL SERVICES

Oral health is too often overlooked in this very young population, even when dental care is critical. Medicaid-eligible children receiving dental care are documented in the EPSDT Participation Report. Table 4 displays a side-by-side comparison of the dental services reported in the EPSDT Participation Reports for FFY 2007 and FFY 2008.

OMPP has placed special emphasis on primary care and dental services, having established pay-for-performance measures for well-child, adolescent, and dental visits during the 2009—2010 contract years for Hoosier Healthwise and Care Select. Further measures to engage providers in EPSDT programs are a cornerstone of the state’s 2009—2010 Quality Strategy.

Programs for Children with Special Healthcare Needs

Access to care is particularly important for children with special healthcare needs. The number of children enrolled in the ISDH Children’s Special Health Care Services (CSHCS) program serves as an additional measure of healthcare access. In 2008, a total of 2,624 children ages 5 and younger participated in the CSHCS program (see Figure 2). This represents one percent of the population ages 5 and younger, a decrease of 42 percent from the 4,538 children enrolled during 2002 (Indiana State Department of Health, 2009).

Table 4 EPSDT Participation Report: Dental Services, Federal Fiscal Year 2007 and 2008

	Medicare		SCHIP	
	2007	2008	2007	2008
Enrollment, All Programs ^a	256,395	263,340	11,428	10,278
Total Eligibles Receiving Any Dental Services	25% (65,046)	26% (67,778)	28% (3,210)	31% (3,203)
Total Eligibles Receiving Preventive Dental Services	22% (57,508)	24% (62,481)	25% (2,839)	28% (2,875)
Total Eligibles Receiving Dental Treatment Services	9% (23,530)	9% (23,910)	9% (1,024)	9% (918)

^aEPSDT reports are based on Federal Fiscal Year enrollment, defined as October 1st through September 30th. Children enrolled in Medicaid or SCHIP for any portion of the year are counted in the respective report for the time period in which they were enrolled.

^aEPSDT reports are based on FFY enrollment, defined as October 1 through September 30. Children enrolled in Medicaid or SCHIP for any portion of the year are counted in the respective report for the time period in which they were enrolled.

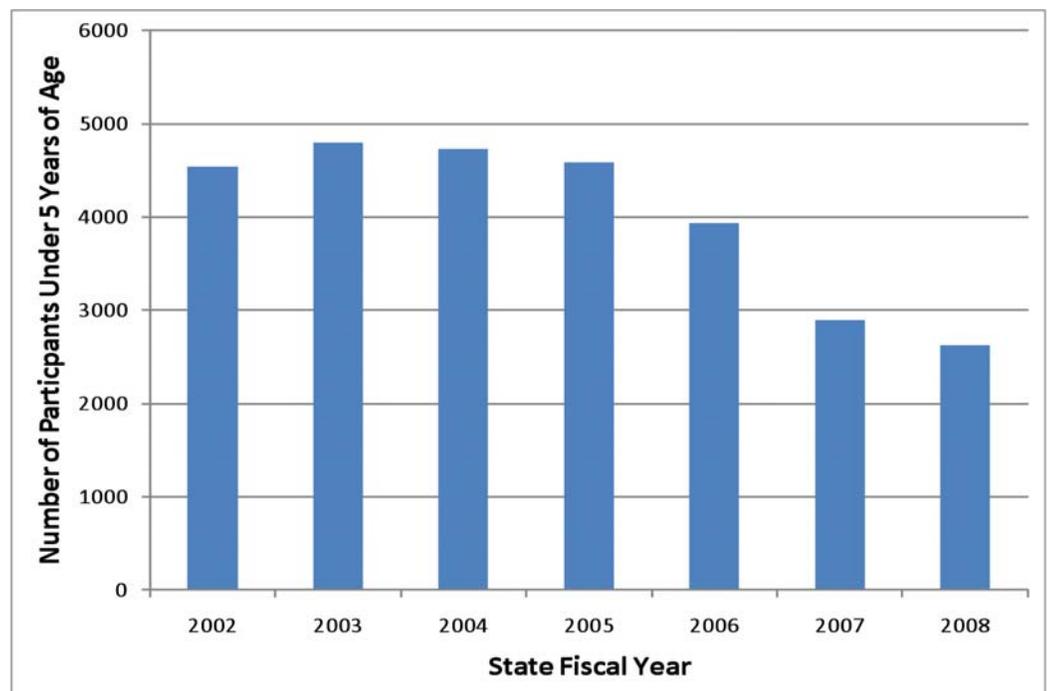


An evaluation of the First Steps program identified that the May 1, 2006, implementation of new, narrower eligibility criteria was responsible for some of the decreased enrollment in the First Steps program (Conn-Powers, Piper, & Traub, 2008). The change in eligibility criteria removed the biologically at risk category and increased the amount of developmental delay required for a child to be eligible for First Steps (Indiana First Steps, 2006). The new criteria require a 25 percent delay in one developmental domain or a 20 percent delay in two or more developmental domains (cognitive, communication, physical, social-emotional, or adaptive). Because the change in eligibility criteria occurred midway through 2006, we would expect to see some enrollment decline from 2005 to 2006 and then a further decline from 2006 to 2007; and, indeed, this is what we observe.

Individuals with Disabilities Education Act

Another program that supports access for children with special healthcare needs is the Individuals with Disabilities Education Act (IDEA). This program provides services to children with disabilities. The IDEA Program served 28,590 children ages 5 and under on December 1, 2008. Of these children, 18,834 were between the ages of 3 and 5, representing an increase of 54 percent since 1995. The remaining 9,756 children, ages 2 and younger, were provided services through the Early Intervention Program for Infants and Toddlers with Disabilities coordinated by First Steps, representing an increase of 133 percent since December 1, 1995. In contrast to the number of children ages 3 to 5, the number of children 2 and younger who were served peaked at 10,738 (4.1 percent of all children 2 and younger) on

Figure 2 Children with Special Healthcare Needs: Total Number of Participants Ages 5 and Under



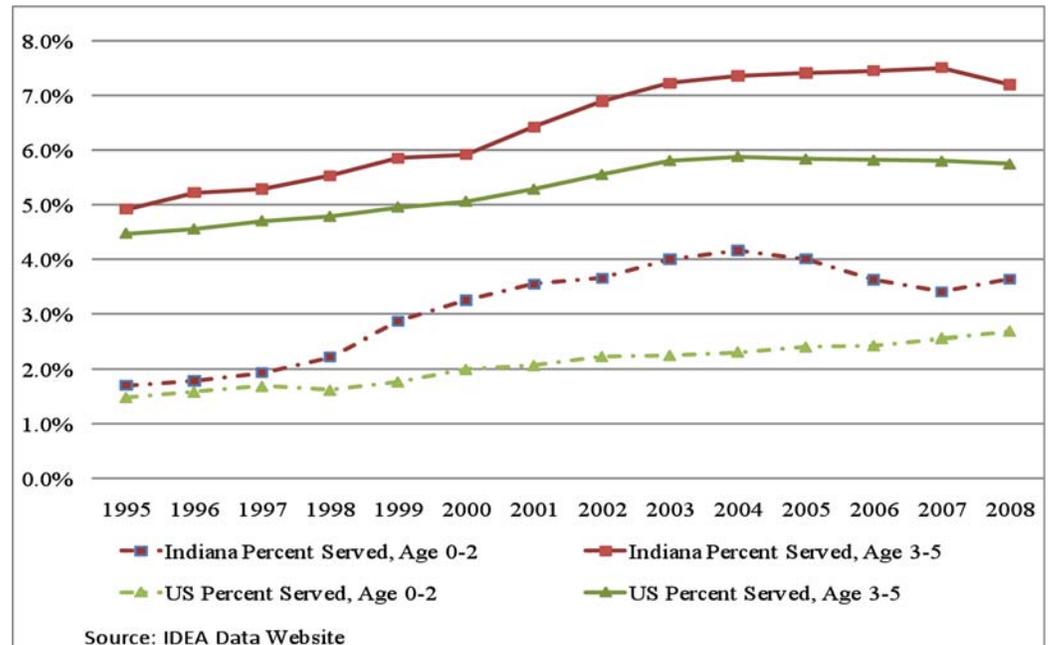


December 1, 2004, and has since decreased. However, the percentage of children 2 and younger served by IDEA remains above the 1995 level (see Figure 3).

Identification of children with developmental, behavioral, and mental health needs is another component of high quality continuous care. The establishment of a medical home for young children, particularly through the Community Integrated Systems of Services project, will increase the likelihood that care providers will

recognize symptoms early through the use of screening tools, and will also aid physicians in providing comprehensive and coordinated services. Research indicates that facilitating this type of coordination improves the quality of life for young children identified as needing developmental, behavioral, and mental health services—children who may not have received treatment prior to ECCS (American Academy of Pediatrics Committee on Children with Disabilities, 2001).

Figure 3 Percentage of Children (Ages 0 to 2 and Ages 3 to 5) Served by IDEA





OUTCOMES

Several outcome measures related to the goals of the ECCS Initiative are evaluated here. These include:

- immunization rates
- infant and child mortality
- child neglect and abuse
- teen pregnancy

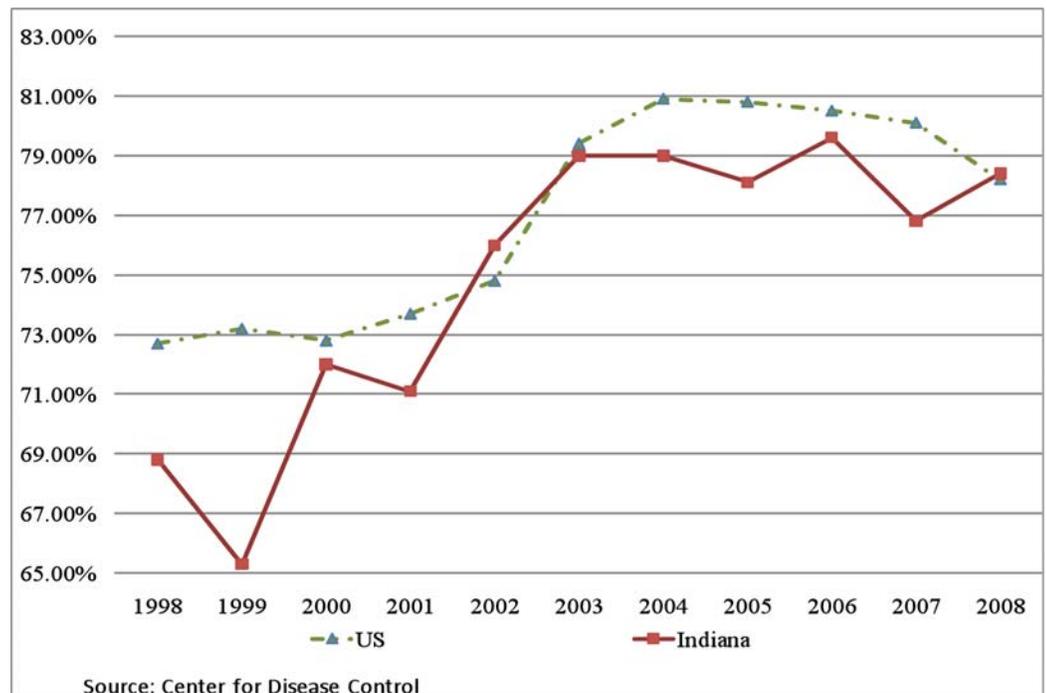
Immunization Rates

As mentioned previously, the goal of providing continuity of care through the use of a medical home is to improve the health and wellbeing of young children in Indiana. Along with evaluating medical visits, one way to measure trends in the wellbeing of children is to investigate the immunization rates of young children. To be considered complete by the ISDH, a child must have age-appropriately received vaccines for diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, haemophilus influenzae type b, pneumococcus, and chickenpox. According to the ISDH, data for the 2004–2005 childcare immunization assessment indicate that of those children

enrolled in a licensed childcare center, 77 percent of children ages 15 to 23 months and 83 percent of children ages 2 to 5 received complete vaccines (Indiana State Department of Health, 2005).

Additionally, 94 percent of children enrolling in kindergarten, 96 percent of children enrolling in first grade, and 98 percent of children enrolling in sixth grade at reporting Indiana schools during 2006–2007 were fully vaccinated (Indiana State Department of Health, 2008). The National Immunization Survey, conducted for the Centers for Disease Control by the National Opinion Research Center at the University of Chicago, provides an additional measure of immunization (see Figure 4). Data from the National Immunization Survey show that 78.4 percent of Indiana children ages 19 to 35 months were immunized in 2008 compared to a national rate of 78.2 percent (U.S. Department of Health and Human Services [DHHS]. National Center for Health Statistics, 2008).

Figure 4 Immunization Rates for Children 19 to 35 Months of Age (4:3:1:3:3 Combined Series)¹⁰



¹⁰Immunization in this case refers to children who received the 4:3:1:3:3 combined series that includes four or more doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, or diphtheria and tetanus toxoids and acellular pertussis vaccine; three or more doses of any poliovirus vaccine; one or more doses of a measles containing vaccine; three or more doses of Haemophilus influenzae type b vaccine; and three or more doses of hepatitis B vaccine.



Infant and Child Mortality Rates

The 2006 infant mortality rate (for children under 1 year of age) in Indiana was 7.9 deaths per 1,000 (Centers for Disease Control and Prevention, 2009a). The nationwide infant mortality rate was 6.9

deaths per 1,000 (see Figure 5a). The infant mortality rate in Indiana has consistently been higher than the rate for the nation and has followed a trend similar to that of the nation as a whole.

The infant mortality rate in Indiana varies significantly by race. The mortality

Figure 5a Infant Mortality Rate: Indiana versus US (per 1,000 Children Under 1 Year of Age)

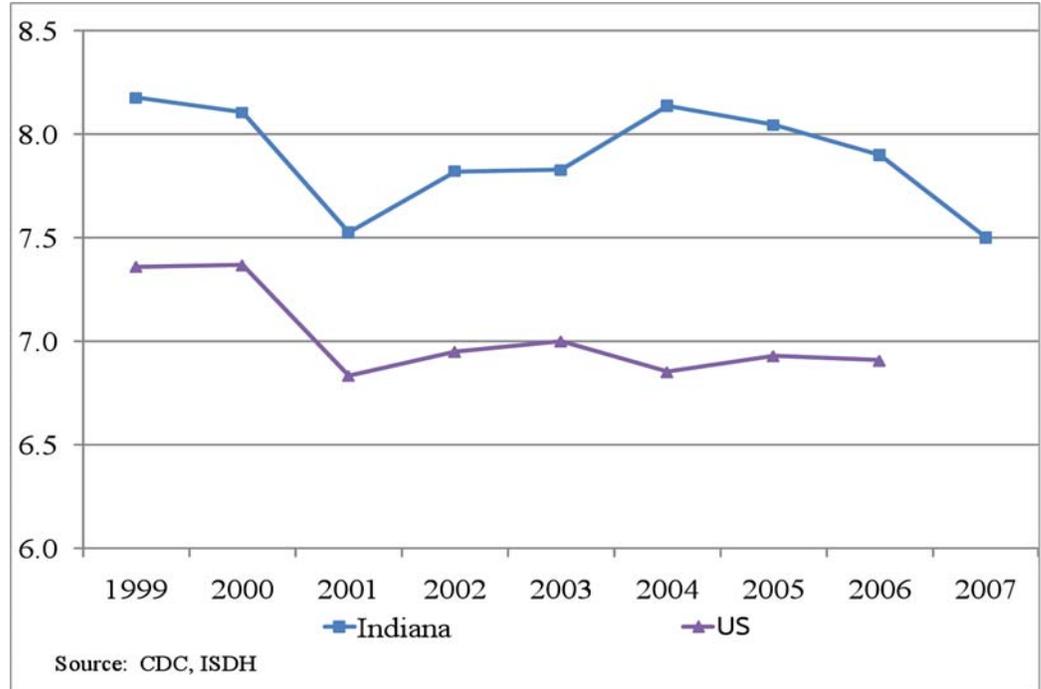
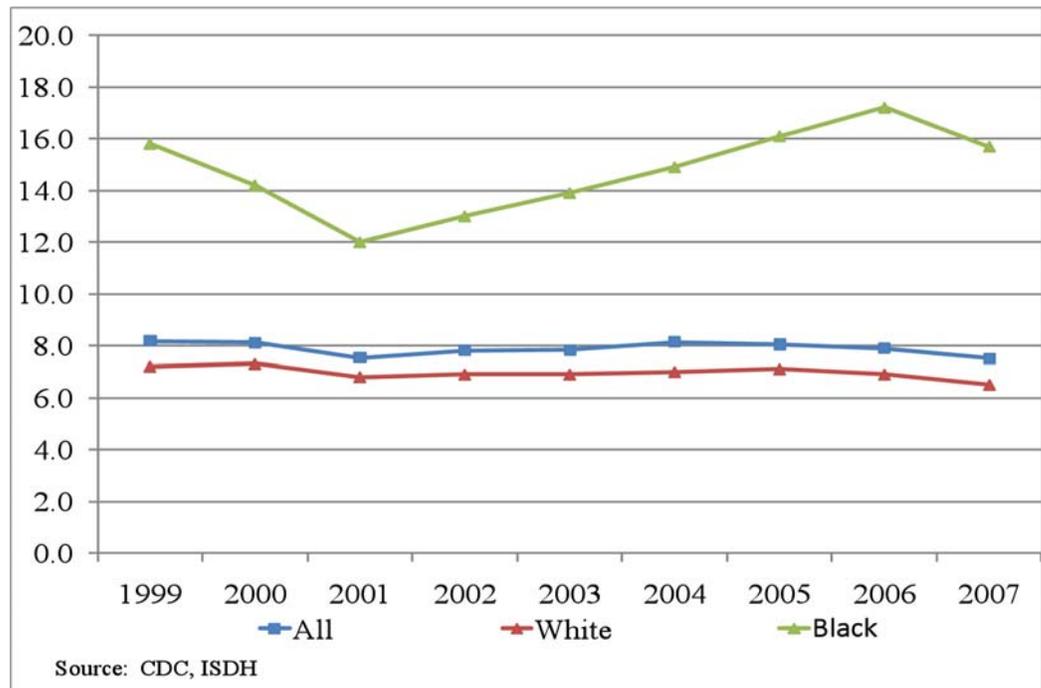


Figure 5b Infant Mortality Rate: Indiana by Race (per 1,000 Children Under 1 Year of Age)





rate for black infants (15.7 infants per 1,000 in 2007) has been markedly higher than that for white infants (6.5 per 1,000 in 2007). Alarming, the rate for black infants has increased nearly every year since 2001, with a 2007 decrease the only exception (see Figure 5b).

In 2006, the mortality rate for Indiana children 1 to 4 years of age was 0.35 per 1,000, compared to a rate of 0.28 per 1,000 for the United States (see Figure 6). The rate in Indiana is higher than for the nation; the gap between the two has fluctuated over the past 15 years.

Figure 6 Child Mortality Rate (per 1,000 children Ages 1 to 4 years)

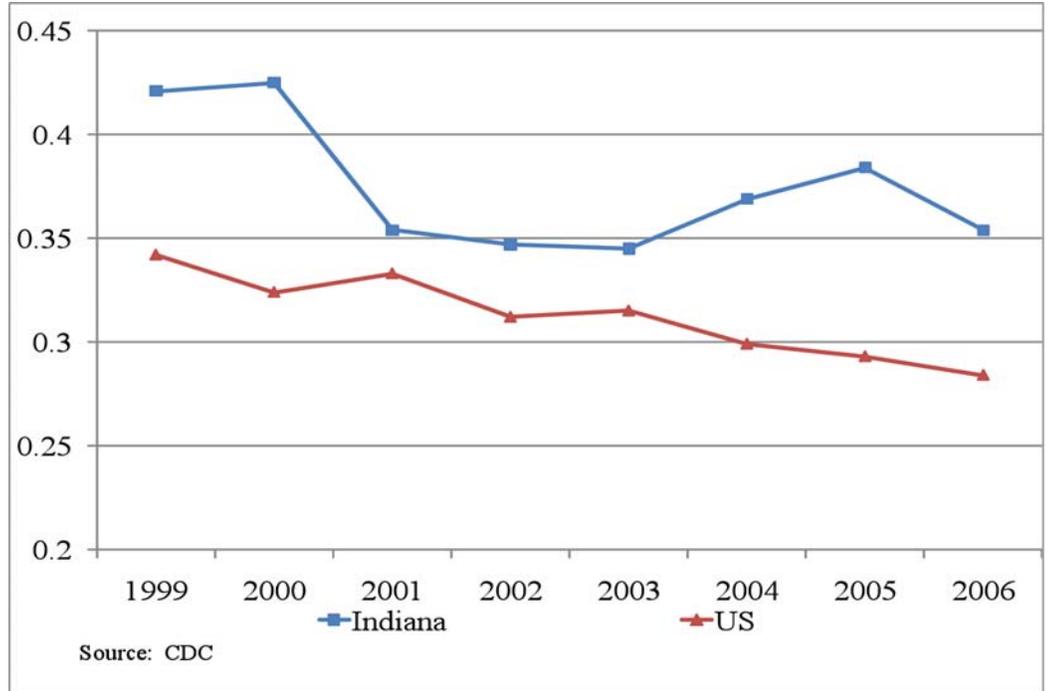
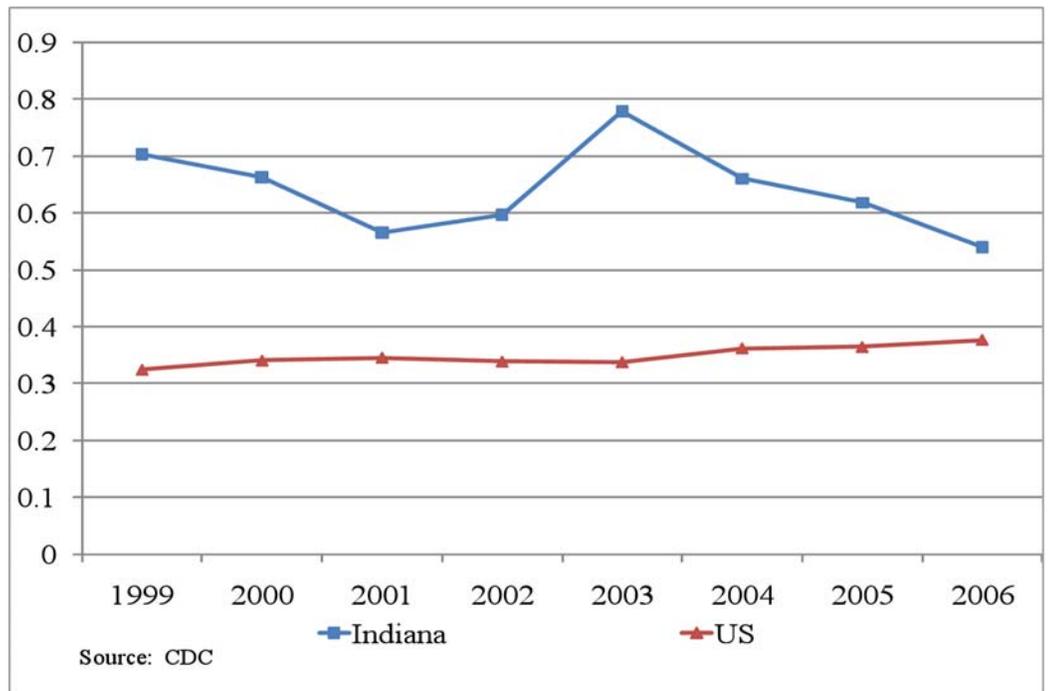


Figure 7 Infant Injury Mortality Rate (per 1,000 Children Under 1 Year of Age)

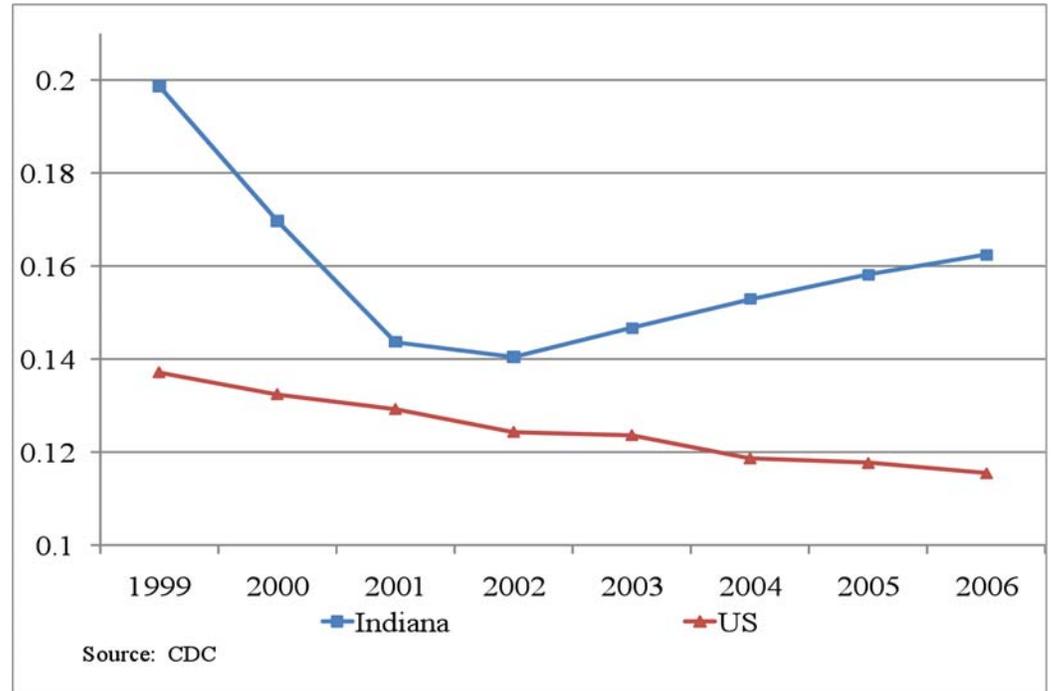




The injury mortality rate in 2006 for infants under 1 year of age was 0.54 per 1,000, compared to a national rate of 0.38 per 1,000 (see Figure 7). Injury deaths include unintentional injuries, violence-related injuries (homicide, legal intervention, and suicide), as well as

injuries in which the intent was undetermined (Centers for Disease Control and Prevention, 2009b). The injury mortality rate in 2006 for children ages 1 to 4 was 0.16 per 1,000, compared to a national rate of 0.12 per 1,000 (see Figure 8).

Figure 8 Child Injury Mortality Rate (per 1,000 Children Ages 1 to 4)





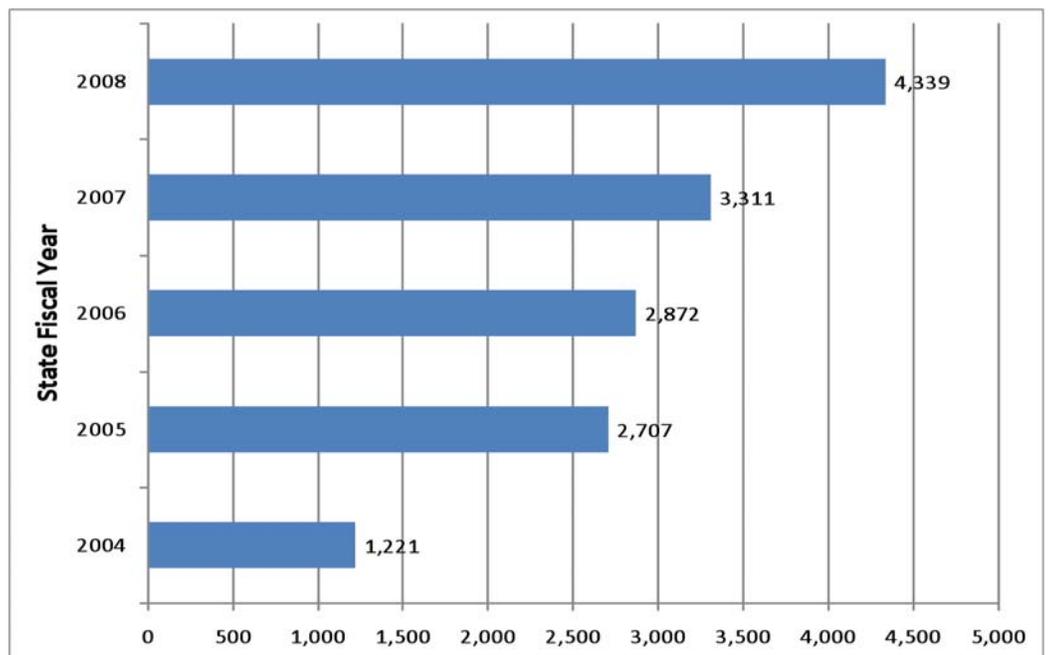
Child Neglect and Abuse

An additional measure of childhood wellbeing is the number of children reported as abused or neglected. During state fiscal year 2008, 4,339 children ages 5 and under were abused and/or neglected and consequently declared a child in need of services (CHINS), as shown in Figure 9. This figure represents approximately eight-tenths of one percent (0.8 percent) of children under age 5 in Indiana who were reported as being abused or neglected during 2008. There has been a notable increase in the number of CHINS since 2004; however, this does not indicate that the welfare of children is worsening in Indiana. The Department of Child Services was established in January 2005 by executive order of the governor. The creation of this department and the governor's emphasis on protecting children have almost certainly led to a higher rate of identification of children in need of services, accounting for some of the increase in CHINS from 2004 onward. During 2006, a total of 53 child fatalities

were due to abuse and neglect, of which 66 percent were children 0 to 3 years of age.

The Zero to Three training program educates childcare professionals with the goal of reducing child abuse. ECCS, the Indiana State Head Start Collaboration Office, and Healthy Families Indiana provided funding to purchase the required curricula and other materials used to instruct 38 trainers from throughout Indiana. The initial training occurred in April 2008 as part of the Healthy Families Indiana (the state's home visiting program to prevent child abuse) three-day conference. This training has produced a statewide, specialized group of individuals who help the childcare community understand their role in the prevention of child abuse. Those individuals who have completed the training are now qualified to instruct others. A total of 28 trainers provide instruction statewide. To date, these trainers have provided 128 hours of training to a total of 1,137 primary childcare providers.

Figure 9 Number of Children (Ages 5 and Younger) Declared a Child in Need of Services, by State Fiscal Year



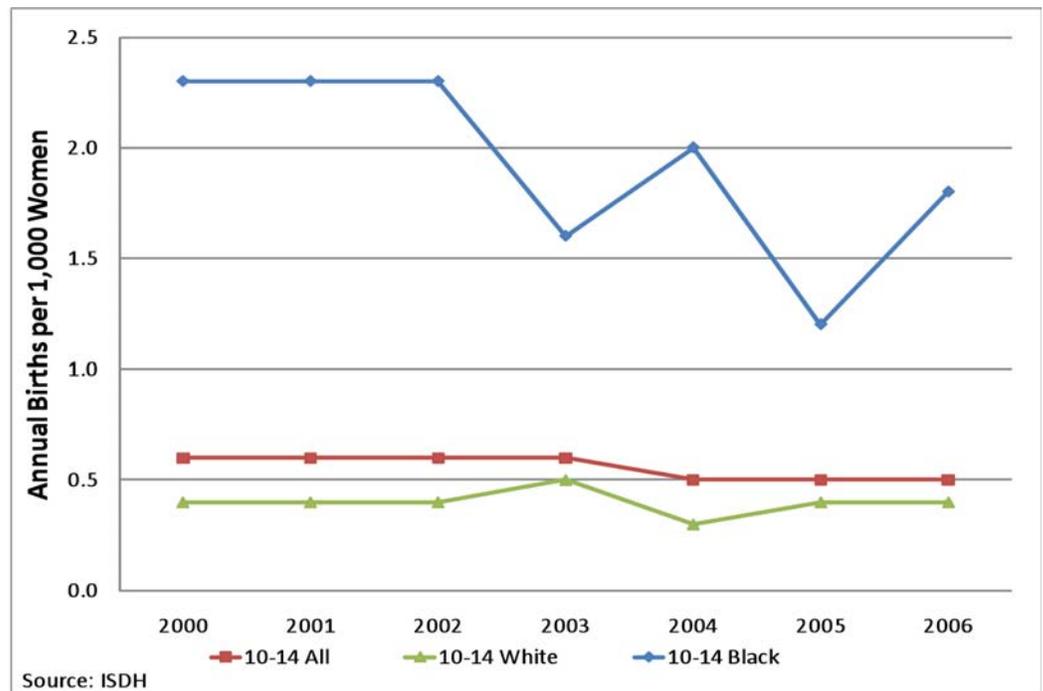


Teen Pregnancy

The U.S. teenage pregnancy rate is among the highest for industrialized nations (The Guttmacher Institute, 2002). The National Campaign to Prevent Teen Pregnancy estimated that \$9.1 billion in public funding was expended on teenage childbearing in 2004 (Hoffman, 2006).

According to data from the National Center for Health Statistics, the 2004 teen pregnancy rate for Indiana women ages 15 to 19 (43.5 births per 1,000 women, annually) was higher than that for the nation (41.1 births per 1,000 women, annually) (National Center for Health Statistics, 2008).

Figure 10 Birth Rates for Indiana Women Ages 10 to 14, by Race

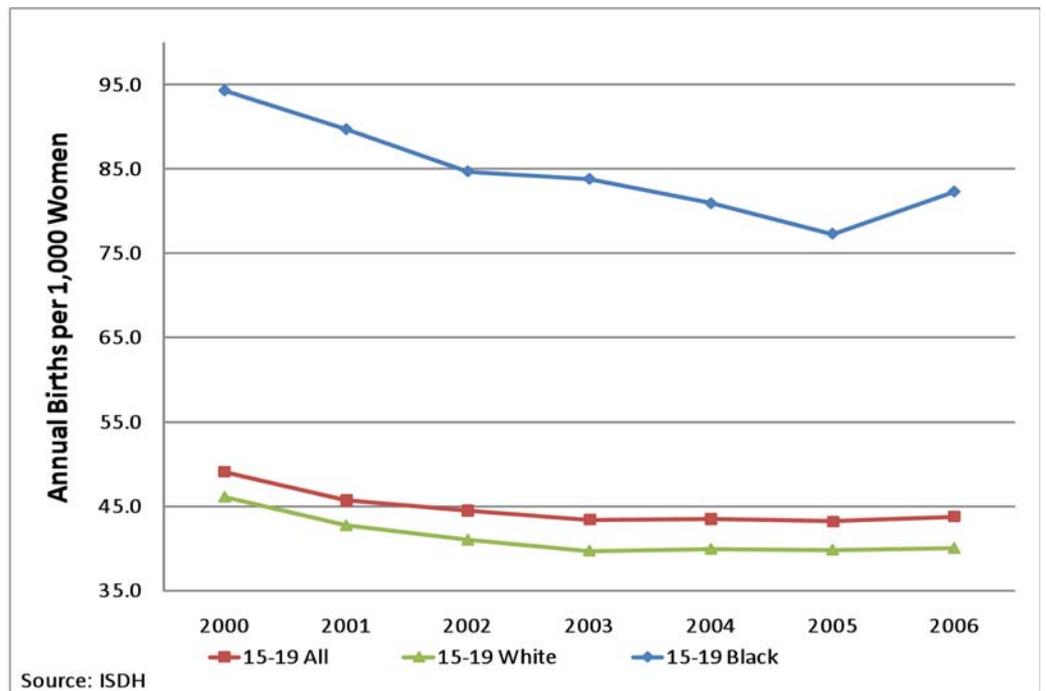




More recent ISDH data for Indiana indicate that the birth rate for mothers of all races ages 10 to 14 was 0.5 per 1,000 females in 2006, down from 1.1 per 1,000 in 1995 (see Figure 10). The annual birth rate for white mothers ages 10 to 14 was 0.4 per 1,000, while that for black mothers of the same age was 1.8 per 1,000.

The birth rate for mothers of all races ages 15 to 19 was 43.8 per 1,000 females in 2006, down from 57.2 per 1,000 in 1995 (see Figure 11). The birth rate for white mothers ages 15 to 19 was 40.0 per 1,000, while that for black mothers of the same age was 82.3 per 1,000.

Figure 11 Birth Rates for Indiana Women Ages 10 to 14, by Race







EARLY CHILDCARE RESOURCES, SUPPORT, AND DEVELOPMENT

To create a coordinated and accessible early childhood system, quality resources and supports must be fully integrated. This section assesses quality standards and examines the effectiveness of the ECCS initiative with regard to childcare resources, available supports, and educational development opportunities.

Licensed Childcare Facilities

Licensed childcare facilities in the State of Indiana are required to meet certain minimum standards in order to remain licensed, thus assuring the quality of these facilities. The number of licensed facilities and the overall licensed capacity provide one measure of the availability of childcare. The Bureau of Child Care (BCC) reported 3,057 licensed homes and 606 licensed childcare centers in state fiscal year 2009. These figures represent a licensed capacity of approximately 100,456 children, with a capacity of 62,394 at the licensed childcare centers and a capacity of 38,062 at licensed homes. This licensed capacity could serve up to 19 percent of all Indiana children ages 5 and younger, a small decrease from the 20 percent of children as of February 2008.

Additional children could be cared for in ministry-based childcare facilities, which are not subject to licensing. While not subject to licensing, ministry-based care must meet minimum requirements regarding sanitation and fire and life safety. The capacity of unlicensed, registered childcare ministries is not reported.

Data from the BCC determines the number and percentage of children enrolled in the Child Care Development Fund (CCDF) who are tended in licensed childcare centers or homes. The CCDF is a federal fund providing needy families with assistance obtaining childcare so that

parents can work or pursue training or education. During state fiscal year 2008, a total of 57,346 children were served by the CCDF, 71.1 percent of whom were enrolled in a licensed childcare setting, while the remaining 28.9 percent received services from a ministry or faith-based day care setting (Indiana Family and Social Services Administration, 2008).

The Family and Social Service Administration's Bureau of Child Care began implementing a statewide Quality Rating system on October 1, 2007. This rating system is a strategy to drive improvements in the quality of early childcare and education and to aid parents in selecting a high quality early care and education provider. The program, called Paths to Quality, had its rollout in January 2008. The program provides a simple system to identify the level of care offered by a provider. The levels are:

- Level 1 – health and safety needs of children are met.
- Level 2 – the environment supports children's learning.
- Level 3 – a planned curriculum guides child development and school readiness.
- Level 4 – National accreditation has been achieved.

More information regarding Paths to Quality can be found at <http://www.childcarefinder.in.gov>.

The most recent Paths to Quality participation report was released in February 2010. Currently a total of 1,781 providers are participating in Paths to Quality, representing a combined capacity of 66,689. Figure 12 shows participation in Paths to Quality broken down by type of day care (licensed centers, licensed homes, and regulated ministries) and by level of participation.



Figure 12 Level of Participation in Paths to Quality by Type of Day Care (February 2010)

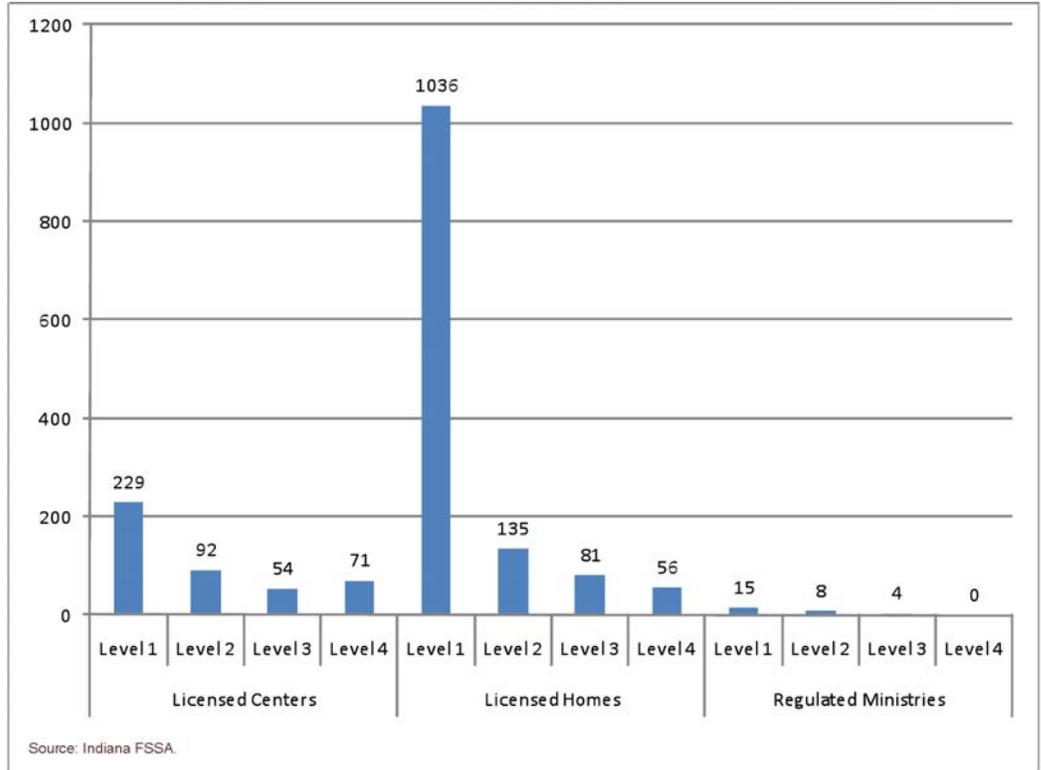
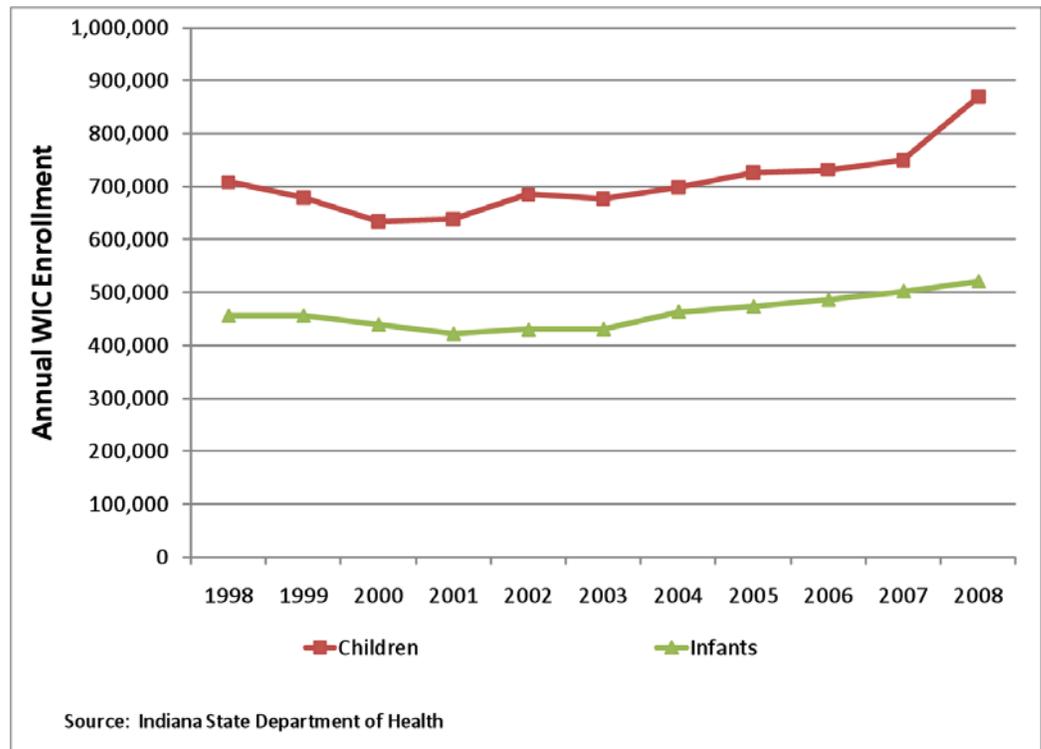


Figure 13 Annual Enrollment in the Special Supplemental Nutrition Program for Women, Infants, and Children





Special Nutrition Program for Women, Infants, and Children

For parents to quickly and effectively address their child's health, safety, and developmental needs, families must have access to resources that enable them to fulfill their children's basic needs. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) assists families in meeting their children's nutritional needs by providing food vouchers and nutritional education to pregnant women, infants, and children up to age 5.

According to the U.S. Department of Agriculture, the Indiana WIC program served an average of 155,761 individuals each month during FFY 2008 (see Figure 13)¹¹ (United States Department of Agriculture, 2008). The ISDH reports that the Indiana WIC program served an average of 43,326 infants per month in 2008 (a 3.6 percent increase from the average of 41,809 infants served per month in 2007) and served an average of 72,513 children between 1 and 5 years of age during state fiscal year 2008 (a 16 percent increase from the 62,511 children served in 2007) (Thomas, 2009).

Early Childcare Information and Resources

Research shows that increased parental involvement in childcare is correlated with better outcomes for the children. Despite the positive outcomes associated with increased parental involvement, some parents remain unwilling or unable, due to stress and/or fear, to get involved because of a lack of information regarding their child's care (Coyne, 1995). One of the ECCS's objectives is to provide parents with information about their child's development to help them overcome any stresses and fears they may feel and

encourage them to become more involved. This is an important step in improving the wellbeing of Indiana children because parents, who see their children frequently, can potentially recognize symptoms of delayed progression earlier than a physician.

To provide families of young children with a single comprehensive guide to available resources throughout the state and in their community, the ECCS initiative established an information clearinghouse. This clearinghouse, known as the *Early Childhood Meeting Place* (ECMP, <http://earlychildhoodmeetingplace.indiana.edu>) is maintained by the Indiana Institute on Disability and Community at Indiana University (IDC). As of 2008, the ECMP lists a vast array of resources, including 112 community resources, 42 childcare and early education resources, 233 health and safety resources, and 234 parenting and family resources.

Site usage was monitored to aid in evaluating the success of the clearinghouse. During SFY 2007, 6,598 unique visitors made 18,696¹² visits to the Family Section of the ECMP site. The average number of visits per month was 1,700 during SFY 2007; however, the number of visits increased from just 1,696 in May 2007 to 7,095 during June 2007. This spike in visitors is likely due to an ad for the ECMP in the *Indianapolis Star* that summer; it may also have been due to the distribution of promotional materials for the ECMP in the spring of that year. The number of visits decreased after the spike in June; however, the trend since August 2007 has been a continuing increase in the number of visitors. To further increase awareness of the ECMP clearinghouse, displays promoting the web site have also been developed for distribution to doctors' offices.

¹¹October 2007 – September 2008.

¹²The data exclude September 2006, for which data were unavailable.



Visit data from December 2007 through September 2008 is not available, unfortunately, because someone tampered with the ECMP web site. IDC staff believe this event is responsible for the high level of October 2008 visits as those who tampered with the site were probably attempting to do so again, before finally giving up. For the months in late 2008 and early 2009 for which we have data, the number of unique visitors and the number of visits are similar to the levels at the end of 2007.

Starting in February 2009, a number of financial resource fact sheets have been available on the ECMP web site. A total of 4,376 facts sheets were downloaded from February to May 2009, with downloads peaking at 1,410 downloads in March. The number of visits to the Family Section of the ECMP web site also spiked during these months.

An additional source of information for parents of young children is the Sunny Start Developmental Calendar, *A Parent's Guide to Raising Healthy, Happy Babies*. This

calendar contains advice for both parents and expecting parents. The advice includes care suggestions for children from birth to age 5 and also provides space to record information about the child, such as doctor visits, growth charts, and immunization records. In addition, the guide provides a list of developmental benchmarks to aid parents in monitoring the development of their child and to assist in the identification of areas needing further attention from a doctor or nurse. The calendar has been such a success that the Peyton Manning Children's Hospital at St. Vincent's Hospital will be distributing a version of the calendar bearing the hospital logo to all new mothers upon discharge, as well as to the families of young children visiting its primary care clinics. The cost of printing will be covered by the hospitals. Additionally, Clarian Health Systems and Anthem/Wellpoint are both considering distribution of the calendar. The calendar is also available electronically from the ECMP web site in both English and Spanish.



CONCLUSION

The ECCS initiative seeks to improve the health and wellbeing of children in Indiana by ensuring continuity of care and by increasing parental involvement. The Core Partners, acting as the steering committee, have acted quickly to implement the changes necessary to achieve the objectives set forth in the ECCS initiative.

Several areas for improvement are identified in this report:

- The use of dental care by children ages 1 through 5 who are on Medicaid is very low. Children in this age group should be visiting the dentist twice a year; however, in 2008 26 percent of children 5 and younger who received Medicaid obtained dental services and 31 percent of children 5 and younger who were enrolled in SCHIP received dental services. These are both, however, improvements from 2007 when 25 percent of children 5 and younger on Medicaid and 28% of those on SCHIP received any dental services.
- The number of children enrolled in the ISDH Children's Special Health Care Services (CSHCS) has decreased precipitously. In 2008, a total of 2,624 children ages 5 and younger participated in the CSHCS program, a decrease of 42 percent from the 4,538 children enrolled during 2002 (Indiana State Department of Health, year). This decline is due to a narrowing of the eligibility requirements that occurred in May 2006. These rates will be tracked to determine if enrollment continues to decline.
- The capacity of licensed childcare facilities (both childcare centers and homes) is only sufficient to care for 19% of children 5 and younger in Indiana.

This low capacity may be due to the fact that there are many unlicensed childcare facilities. Future reports will investigate the demand for childcare for children 5 and younger and will also seek any available data or estimates on the capacity of unlicensed childcare homes.

Areas that were lauded include:

- the ECMP web site, an information clearinghouse maintained by the Indiana Institute on Disability and Community at Indiana University and designed to provide families of young children with a single comprehensive guide to available resources throughout the state and in their community
- the Sunny Start Developmental Calendar, which contains advice for both parents and expecting parents
- the Financial Fact sheets
- the Community Integrated Systems of Services for Children and Youth with Special Health Care Needs, which has as its major objective the development of the Medical Home Concept in Indiana
- the comprehensive one-week Summer Institute to help mental health professionals gain expertise in the social and emotional development of young children, infants, and toddlers

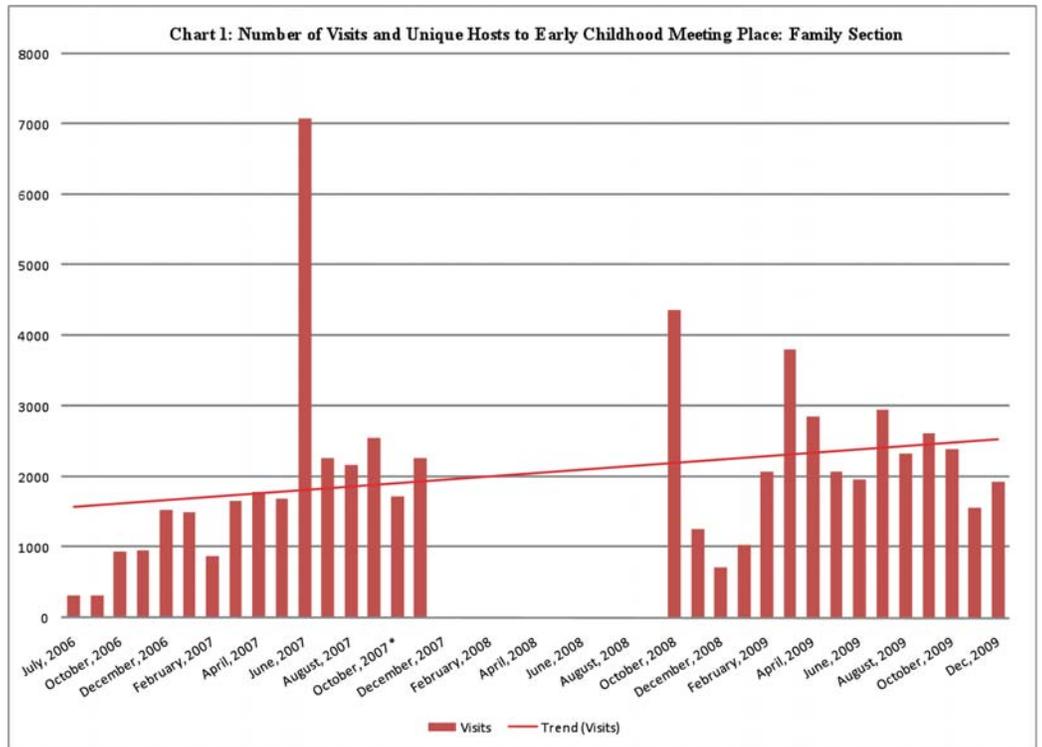
This evaluation is intended as an objective gauge of the Sunny Start Program's progress. While the ability to attribute changes in outcomes to the ECCS initiative is limited by both the extraordinary breadth of system changes and by gaps in the availability of data, this evaluation seeks to provide some insight into the progress of the initiative and a baseline for future comparisons.





APPENDICES

Appendix A Visits and Unique Hosts to the Family Section of the ECMP Web Site





Appendix B Sunny Start - Completed Tasks Through Year Three

Item #	Description	Comments
1.2.1	MCSHCS and the Department of Child Services will meet to review and revise the Medical Passport document.	Draft of a general passport completed by Sunny Start work groups.
1.2.2	The medical passport will include a section on dental care and available resources.	
3.2	<i>An outreach program to providers will be implemented statewide regarding the information clearinghouse of community resources to enhance appropriate referral/treatment.</i>	Marketing of the ECMP continues to target providers through mass mailings and conferences.
3.3	<i>Personnel preparation efforts will be increased to recruit qualified early childhood mental health providers.</i>	The Summer Institute was held in August 2007. A mentorship program for providers
3.3.1	A task force of stakeholders including parents will be convened to identify current personnel preparation efforts.	The S/E Training Technical Assistance Committee has developed a set of competencies (S/E Consensus Statement) to address social and emotional training. An intensive training institute was provided to early childhood mental health professionals in July 2007. A follow-up to that conference is scheduled for August 2008
P.O. 4	An information clearinghouse will be established that includes information about resources and supports at the state and local level for families of young children and providers of early childhood services.	
4.1	<i>The Early Childhood Meeting Place will be expanded to include families.</i>	
4.1.2	Based on the recommendations of the task force, the Early Childhood Meeting Place will be expanded to include resources and supports for families of young children.	In early 2006 the Early Childhood Meeting Place was expanded to include resources for families. The Meeting Place continues to be marketed to providers and families through mass mailings and conference attendance. The last mailer went to Indiana physicians in June 2008.
4.1.3	The Early Childhood Meeting Place will be marketed to families and providers as a central source of information about child development and community resources.	
4.1.4	Technical Assistance will be provided to users of the Early Childhood Meeting Place to ensure optimum access to available resources and supports.	Requests are responded to via e-mail and telephone. A tip sheet with suggestions for navigating the site is posted.
P.O. 5	Quality resources and supports are integrated to create a coordinated, accessible early childhood system.	
5.1	<i>The Core Partners will continue to guide ECCS activities.</i>	
5.1.1	New representatives from state agencies, including the newly formed office of faith based initiatives, will be identified and invited to sit on the Core Partners Steering Committee.	Efforts have continued in this area each year. New Partners from the Office of Faith Based and Community Initiatives, the Indiana Minority Health Coalition, Commission on Hispanic/Latino Affairs, Indiana Department of Environmental Management have been recruited.

(Continued on next page)



Appendix B (Continued from previous page)

Item #	Description	Comments
5.1.2	MCH staff will provide an orientation to all new members.	In the process of updating orientation process.
5.1.3	Core Partners will continue to meet on a quarterly basis to coordinate efforts across existing initiatives.	Core Partner meetings have taken place on a quarterly basis. Minutes from each meeting are posted on the Sunny Start web site - www.sunnystart.in.gov
5.2	Core Partners will promote leadership within their respective agencies and organizations.	
5.2.1	Core Partners will develop a process to provide leadership within their agencies/ organizations.	
5.2.2	Core Partners will educate their organizations on the guiding principles for the ECCS initiative.	
5.2.3	Core Partners will establish a protocol to support communication across agencies and initiatives.	
5.4	Coordinate Training and Technical Assistance.	
5.4.1	The Core Partners will serve in a coordination capacity to promote the commonality of training content and provide leadership in the development of additional training curricula.	Core Partners approved Social and Emotional Consensus Statement, which was developed by the S/E Training and Technical Assistance Committee.
5.4.3	Additional training content will be developed and delivered to address any gaps identified.	Sunny Start is sponsoring additional days for the IAITMH conference, bringing in speakers to help early childhood mental health providers.
5.4.6	The Early Childhood Meeting Place will collaborate with the Core Partners and others to notify families and providers of training opportunities.	Training opportunities for providers and families are posted on the Early Childhood Meeting Place.
5.4.7	Core Partners will support the reduction in duplication of training efforts.	
5.4.8	Core Partners will continue to gather information about training and education needs throughout the state.	
5.5	National Quality Standards will be implemented in all early care settings.	
5.5.1	ICCHCP staff will educate early care setting providers on the standards.	The Paths to Quality Initiative began in January 2008 and is being implemented in stages throughout the state for the remainder of the year.
5.5.2	Progress on the use of the standards will be monitored.	
5.5.3	Policy development templates will be created and made available to care providers.	
6.0	Parents have the necessary information, support, and knowledge about child development and are able to recognize their child's progress.	Family Advisory Committee, along with the support of other Sunny Start members and members of the community, has developed a calendar which highlights issues related to child development.
6.1	Elected resources about child development will be used with and by parents to educate families about child development.	Resources and links for families are regularly posted to the ECOMP.

(Continued on next page)



Appendix B (Continued from previous page)

6.1.2	The committee will review existing developmental resources to determine those most appropriate as educational tools for families	In the process of developing documents to help families understand services and financial resources available to their family.
6.1.3	The developmental resources selected by the committee will be posted to the Early Childhood Meeting Place	Ongoing and will continue in Year Three.
6.2	Create electronic version of a developmental calendar for children birth to 5.	Calendar complete in fall 2007 with 17,000 copies printed and information posted on the ECMP. A Spanish version is in development.
6.2.1	Gather samples of developmental calendars that are currently being used by other states.	
6.2.2	Permission will be sought to utilize the developmental calendar that is selected by the committee.	
6.2.3	Modifications will be made on the selected calendar to include Indiana resources.	
6.3	The Early Childhood Meeting Place will be marketed as a central source of information about child development.	Marketing of the ECMP continues to target families. The last mass mailing went to Indiana physicians to display in their waiting room where families are gathered.
6.4	Families have a meaningful role in the development of policies and programs at the state and local level.	
6.4.1	Parents will receive support to serve on boards, committees, and task forces related to early childhood opportunities	Implemented Family Stipend Program to alleviate costs involved for families to participate in Sunny Start.
6.4.2	Leadership training opportunities will be provided for families.	
6.4.3	Core Partners will implement methods to gather input from parents on policies and programs related to early childhood on a regular basis.	Family members participate in all sub-committee and core partner activities.
7.0	Families have timely access to resources and supports to address their child's health, safety and developmental needs.	
7.1	The Early Childhood Meeting Place will maintain current information about resources related to children's health safety and development.	Continued efforts to market the ECMP expansion to providers of early childhood services - information conveyed at ten conferences in the last year.
7.2	Child Care Health Consultants will educate childcare providers regarding health, safety and developmental issues.	
7.2.1	See 4.1-Early Childhood Meeting Place expansion, 5.3-Training and Technical Assistance, 6.1-Selected child development resources, 6.3-Electronic developmental calendar	
7.3	Training and technical assistance will be readily available and affordable to families throughout the state.	
	See 5.3 Training and Technical Assistance System.	
7.4	Training and technical assistance will be provided to those serving young children and their families.	Zero to Three Training - April 2008 - ongoing training for providers in the area of child abuse.



BIBLIOGRAPHY

- American Academy of Pediatrics Committee on Children with Disabilities. (2001). Role of the pediatrician in family-centered early intervention services. *Pediatrics*, 107(5), 1155-1157.
- Centers for Disease Control and Prevention. (2009a). *CDC WONDER*. Retrieved December 22, 2009, from <http://wonder.cdc.gov/welcome.html>
- Centers for Disease Control and Prevention. (2009b). *Welcome to WISQARS*. Retrieved December 22, 2009, from <http://www.cdc.gov/injury/wisqars/index.html>
- Conn-Powers, M., Piper, A., & Traub, E. (2008). *Evaluation and Independent Audit of Indiana's First Steps Early Intervention System Report*. Bloomington, Indiana: Early Childhood Center, Indiana Institute on Disability and Community.
- Coyne, I. T. (1995). Parental participation in care: a critical review of the literature. *Journal of Advanced Nursing*, 21, 716-722.
- Families USA. (2008). *Left Behind: Indiana's Uninsured Children*. Washington, DC.
- Hoffman, S. (2006). *By the numbers: The public costs of teen childbearing*. Retrieved (date) from <http://www.teenpregnancy.org/costs/default.asp>
- Indiana Family and Social Services Administration. (2008). *Indiana Bureau of Child Care 2008 Annual Report*.
- Indiana First Steps. (2006). *Eligibility determination team manual*. Retrieved May 30, 2009, from http://www.state.in.us/fssa/files/ED_Team_Manual_Final_Version_11-06.pdf
- Indiana State Department of Health.(year). Children's Special Health Care Services Program Data. Indianapolis.
- Indiana State Department of Health. (2005). *Daycare immunization levels in Indiana*. Retrieved February 28, 2007, from <http://www.in.gov/isdh/dataandstats/immunization/daycare/04-05daycare/levels.htm>
- Indiana State Department of Health. (2008). *School immunization levels in Indiana: 2006-2007 school year*. Retrieved December 20, 2009, from http://www.in.gov/isdh/dataandstats/immunization/school/04school/2004-2005_school-imm-rprt.htm
- Indiana State Department of Health. (2009). Children's Special Health Care Services Program Data. Indianapolis.
- National Center for Health Statistics. (2008). *Birth Data*. Retrieved August 19, 2008, from <http://www.cdc.gov/nchs/births.htm>
- Newacheck, P., Hughes, D., & Stoddard, J. (1996). Children's access to primary care: Differences by race, income, and insurance status. *Pediatrics*, 97(1), 26.
- Newacheck, P., Stoddard, J., Hughes, D., & Pearl, M. (1998). Health insurance and access to primary care for children. *New England Journal of Medicine*, 338(8), 513.
- Newacheck, P. W., Hughes, D. C., & Stoddard, J. J. (1996). Children's access to primary care: differences by race, income, and insurance status. *Pediatrics*, 97(1), 26-32.
- Starfield, B., & Shi, L. (2004). The medical home, access to care, and insurance: A review of evidence. *Pediatrics*, 113(5), 1493-1498.
- Stevens, G., Seid, M., & Halfon, N. (2006). Enrolling vulnerable, uninsured but eligible children in public health insurance: Association with health status and primary care access. *Pediatrics*, 117(4), e751.
- The Guttmacher Institute. (2002). *Teenagers' sexual and reproductive health*. Retrieved (date?) from http://www.guttmacher.org/pubs/fb_teens.pdf
- Thomas, K. (2009). Email communication on July 7, 2009, with Karen Thomas regarding Indiana WIC enrollment statistics.
- U.S. Census Bureau. (2009). *Current population survey, annual social and economic supplement: United States Census Bureau and the Bureau of Labor Statistics*.
- U.S. Department of Health and Human Services (DHHS) and National Center for Health Statistics. (2008). *The national immunization survey*. Retrieved (date?) from <http://www.cdc.gov/nis/Default.htm/>
- United States Department of Agriculture. (2008). *WIC program: Total participation*. Retrieved August 4, 2008, from <http://www.fns.usda.gov/pd/26wifypart.htm>

