EVALUATION REPORT II:
STATE MATERNAL & CHILD HEALTH EARLY CHILDHOOD COMPREHENSIVE SYSTEMS GRANT PROGRAM

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TABLE OF CONTENTS

A BRIEF HISTORY OF ECCS

INTRODUCTION

The Indiana State Maternal & 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 young children from birth through age five. The creation of this system is designed to eliminate duplicated efforts in providing services to young children and their families, while ensuring these efforts are applied universally across the state. Overall, this initiative is intended to support ease of access to needed services, increase the utilization of appropriate services, and ensure that a holistic system of care supports young children and their families.

INITIATIVE PROGRESS

This initiative officially began on July 1, 2003 with a grant provided by the Heath Resources and Services Administration, Maternal and Child Health Bureau. As part of the project, The Indiana State Department of Health convened a group of core partners consisting of representatives from several state and local agencies, as well as individuals representing service organizations and families. The core partners meet quarterly and are charged with educating their organizations on the guiding principles of the ECCS initiative, as well as establishing protocols to support communication across agencies and initiatives. As part of their mission, this committee, as well as

subcommittees, developed a strategic plan to achieve the goal of coordinated services. This plan outlined seven primary objectives to realize coordinated and comprehensive services for young children. The objectives set forth include:

- All children in Indiana will have a medical home.
- All children will be covered by a source of payment, whether 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 includes information about resources and supports at the state and local level for families of young children and providers of early childhood services.
- Quality resources and supports are integrated to create a coordinated accessible early childhood system.
- Parents have the necessary information, support and knowledge about child development and are able to recognize their child's progress
- Families have timely access to resources and supports to address their child's health, safety and developmental needs.

Along with the above objectives, the committee developed several goals within each objective in order to achieve a better and more coordinated system of care for children. Further details regarding these goals and objectives can be found in the strategic plan at www.sunnystart.in.gov, as well as information on the accomplishments to date of ECCS committee.

EVALUATION

The strategic plan, as well as requirements set forth by the Health Resources and Services Administration, Maternal and Child Health Bureau, requires an evaluation of this initiative. Beginning in June of 2006 the Indiana State Department of Health began working with the Center for Health Policy at Indiana University Purdue University Indianapolis to develop and execute an evaluation plan. Due to the time period in which this project will be completed, the central foci of the evaluation will be on benchmarking and assessing the implementation of the ECCS project as well as provide early outcomes to the extent that data permit.

The parameters set forth by the ECCS committee for the evaluation were fairly broad in nature; specifically, the strategic plan required that the evaluation:

- Monitor the discrete activities of the strategic plan
- Determine whether or not Indiana families are better off as a result of the implementation of the ECCS
- Evaluate how well Indiana implemented the strategic plan

As mentioned previously, the time frame of this study limits conclusions of the effect of the ECCS plan on Indiana families; however, the results of the evaluation will provide a benchmark for comparison as the initiative progresses as well as early indicators of potential longer term outcomes.

This report is the second of three evaluation reports investigating the implementation of ECCS initiatives. Data and other information for this study comes

from a variety of sources, including the Indiana State Department of Health, the Indiana Family and Social Services Administration, Department of Child Services, the United States Census Bureau, as well as several other government entities and private organizations. This report, using the objectives set forth in the ECCS strategic plan, focuses on three key areas of impact: Access and Utilization of Health Care, Source of Payment for Health Care, and Resources, Support and Development.

I. ACCESS AND UTILIZATION OF HEALTH CARE

One of the overarching components of this initiative is to ensure that children have access to health care services. In order to facilitate this, the ECCS program has embraced the concept of a medical home, a model that seeks to provide continuity of care through the increased utilization of primary care. Prior research has shown evidence that the comprehensiveness and coordination that a medical home offers can provide better health outcomes, and potentially result in reduced disparities in the utilization of health services [1].

This initiative seeks to improve the health and well-being of all Indiana children, concentrating on getting services to children from low-income households is of paramount concern. Due to a low-income family's inability to pay for services, children living in these homes are at greater risk of receiving sporadic or piecemeal services, resulting in inadequate care.

To evaluate utilization of services, this evaluation used Indiana Medicaid claims data to look at the number of children who visited a medical professional. Using Medicaid predefined aid categories, we specifically investigated children under the age

of 1 living below the 150% federal poverty guideline (FPG), as well as children aged 1-5 living below the 133% FPG who visited a medical professional [2]. Together, these groups were able to provide a baseline measure for patterns of health care utilization among Indiana children who receive Medicaid coverage. While Medicaid claims data is not a complete list of services rendered to all families, it does provide a substantial amount of treatment episode data for a large proportion of Indiana children, particularly the most vulnerable and least likely to obtain regular services.

Our data showed that a total of 218,046 children within the above mentioned categories were enrolled in Medicaid during State Fiscal Year 2006. An analysis of claims data reveals that, during the same time period, a total of 132,579 (60.8%) of these children visited a medical professional. Due to the nature of Medicaid claims data, an accurate delineation of type of medical services that a child receives is unavailable. Nevertheless, this indicates only 3 out of 5 children in these low-income populations received medical services

As an additional measure of access the number of children receiving dental care was used to assess the utilization of care. Medicaid claims data show that 35,714 (16.4%) children in the same enrollment categories as above visited a dentist during SFY 2006. Overall about 1 out of 6 children visited a dentist.

As mentioned previously, the goal of providing continuity of care, through the use of a medical home, is to improve the health and well-being of young children in Indiana. Along with evaluating medical visits, one way to measure trends in the well-being of children is to investigate immunization rates of young children. According to the Indiana State Department of Health, data for the 2004-2005 child care immunization

assessment indicates that of those children enrolled in a licensed child care center, 77% of children aged 15-23 months and 82% of children aged 2-5 received complete vaccines [3]. Additionally, 95% of children enrolled in kindergarten, first grade and sixth grade in Indiana schools reporting were also fully vaccinated [4]. As an additional measure of immunization, the Centers for Disease Control and Prevention conducts an annual telephone survey regarding immunization of a sample of each state's population state. This data shows that 81% of Indiana children aged 19-35 months were immunized in 2004 [5][1].

Access to health care is also of particular importance to children with special health care needs. To measure the successful implementation of providing these means, the evaluation reviewed the number of children enrolled in the Indiana State Department of Health Children's Special Health Care Services (CSHCS) program. Data for calendar year 2006, the most recent period for which data could be obtained for publication of this report, indicate that 3,423 children under the age of six participated in this program. This equates to .6% of the total under six population and also represents a decrease of 28% when compared to the enrollment during 2003 in which 4,758 children within this age group were enrolled [6].

Another program that supports access for children with special health care needs is the Individuals with Disabilities Education Act. This program aims to provide needed services to children with disabilities. Data from this program show that during 2005, a total of 29,646 children aged five and under were served by this act, representing an

[1] Immunization in this case refers to children who received the 4:3:1:3 combined series which includes 4 or more doses of diphtheria and tetanus toxoids and pertussis vaccine, diphtheria and tetanus toxoids, or diphtheria and tetanus toxoids and acellular pertussis vaccine; 3 or more doses of any poliovirus vaccine; 1 or more doses of a measles containing vaccine; and 3 or more doses of Haemophilus influenzae type b vaccine

increase of 53% since 1998. Of these children, 10,418 were aged two and under and provided services through the Early Intervention Program for Infants and Toddlers with Disabilities, coordinated by First Steps, representing an increase of 88% [7, 8].

Another component of high quality, continuous care is to identify children with developmental, behavioral, and mental health needs. The development of a medical home for young children may increase the likelihood that care providers will recognize symptoms when they occur, through the use of screening tools, and allow physicians to provide comprehensive and coordinated early intervention services. Facilitating this type of coordination may, as prior research has indicated, improve the quality of life in young children identified as needing developmental, behavioral, and mental health services who otherwise may not have received treatment [9].

To monitor this component of care, we used Medicaid claims data to review the number of children enrolled in Medicaid assessed for social-emotional development through the Early & Periodic Screening, Diagnosis & Treatment (EPSDT) program in SFY 2006. Medicaid enrollment data reveals that of the 218,046 children in the aid categories discuss above, 28,855 (13.2%) received EPSDT services. This number, however, is not a precise measure of services rendered, as many types of services fall under the umbrella of EPSDT services.

II. SOURCE OF PAYMENT FOR HEALTH CARE

One of the greatest barriers to accessing healthcare services is the ability to pay. Research has shown that disparities in the use of primary care exist between those children who are insured and those uninsured [10]. It has also been demonstrated that

children not covered by private health insurance or Medicaid are significantly less likely to have a usual source of care and to see a specific physician, while being more likely to be inadequately vaccinated and have fewer annual physician visits [10]. By seeking to cover all children with a source of health insurance, the ECCS initiative seeks to eliminate this disparity.

To monitor the success of this objective, data from the United States Census Bureau's Current Population Survey - Annual Social and Economic Supplement was used to evaluate the number of uninsured children under the 200% poverty guideline, as well as the number of all uninsured children age five or younger. The data indicate that as of March 2006, there were a total of 531,857 under the age of six in the State of Indiana, of which 56,430 (10.6%) were not covered by any type of health insurance. Furthermore, 276,320 (51.9%) children live in a household below the 200% FPG and approximately 28,920 (10.5%) of these children did not have health coverage [11]. As we can observe, regardless of income, only 1 in 10 children birth through five are not covered by health coverage of any kind.

This provides a basis for estimating the number of children eligible for Medicaid, a program which provides health care insurance at little of no cost to Indiana families. Medicaid enrollment data indicate that, as of June 30, 2006, 218,046 children under the age of six were covered by Medicaid. This represents approximately 78.9% of children age five and under living in households below the 200% FPL. As the ECCS initiative continues, the ability to follow the availability and consequent enrollment in Medicaid can provide baseline measurements for covering all children with a source of payment for medical and developmental services. By comparing the data provided by this

evaluation, future work can investigate changes in the number and percentages of children enrolled in programs for low-income families and gauge the longer-term effectiveness of this initiative.

III. RESOURCES, SUPPORT AND DEVELOPMENT

To create a coordinated and accessible childhood system, quality resources and supports must be fully integrated. By assessing quality standards and focusing on local resources and supports, this part of the evaluation examines the effectiveness of the ECCS initiative with regards to child care resources, available supports, and educational development opportunities.

As licensed child care facilities in the State of Indiana are required to meet certain minimum standards in order to maintain licensure, the quality of these facilities can be more easily ensured. To assess the quality of child care in Indiana, this evaluation investigated the number of licensed facilities as well as overall licensed capacity. Using data from the Bureau of Child Care (BCC), as of February 19, 2007, there are 3,587 licensed child care facilities in the state representing a licensed capacity of 97,770. Approximately 89% of these facilities are licensed to care for infants and toddlers under the age of 2 with a statewide capacity of 44,309 infants and toddlers. Also using data from the BCC, the number and percent of children enrolled in the Child Care Development Fund who are enrolled in licensed child care centers or homes was explored. Data indicate that as of September 30, 2006, 55,844 children were served by the CCDF, of which 70.2% (39,202) were enrolled in a licensed child care setting, the remainder of which received services from a ministry or faith-based day care setting [12]. The primary difference between ministry based child care and licensed child care

is the level of state regulation. While ministry based care must meet minimum requirements regarding sanitation and fire and life safety, they do not require licensure. This affords these organizations less governmental oversight.

Another component of resources, support, and development, is the availability of necessary information and knowledge about child development and the ability to recognize progress. The availability of development opportunities offered throughout the state with regard to infant and toddler developmental, behavioral, and mental health was assessed using the Early Childhood Meeting Place website's events calendar. During calendar year 2006, there 1,323 individual events offered (See appendix A for the total number of events demarcated by county) [13]. These events were then delineated into two categories, those whose intended primary audience were for child care professionals, and those intended for families. There were approximately 873 events and training sessions in which child care providers, educators and child care professionals were the intended target audience and another 402 which targeted both professional and families. Together, there were approximately 1,275 professional development opportunities available through the Early Childhood Meeting Place in 2006 (see appendix B for the total number of professional events by county) [13]. Approximately 26% of these events were offered in primarily rural counties, consistent with Indiana's population trends given that 25% of Indiana's population lives within these areas [13].

For parents, prior research has indicated that children whose parents are more involved in their care are more likely to have better outcomes than those whose parents are less involved [14]. Despite the positive outcomes that are likely to materialize as a

result of parental contribution, parents are many times unwilling or unable, due to stress and/or fear, to get involved because of a lack of information with regard to their child's care [15]. One purpose of the ECCS objective is to provide parents with information and knowledge about their child's development to help them overcome the stresses and fears they may feel and encourage them to become more involved. This is an important step in improving the well-being of Indiana children as parents have the potential to recognize symptoms of delayed progression earlier than a physician is able to. Also using the 2006 Early Childhood Meeting Place website's events calendar, the evaluation identified 450 parent and family development opportunities available through community resources (see appendix C for the total number of parent and family events by county) [13]. Approximately 28% of these events were offered in a primarily rural county, while the remaining 72% were located in a primarily urban count. This is again consistent with population variance within the state.

In order for parents to timely and effectively address their child's health, safety and developmental needs, families must have access to resources that enable them to fulfill the basic needs of their children. One way in which this is achieved is through the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). According to the United States Department of Agriculture, the Indiana WIC program served an average of 137,374 individuals each month during Federal Fiscal Year 2006 [16]. Using information provided by the Indiana State Department of Health, we estimate this to equate to approximately 39,000 infants and 62,000 children [17].

As an additional measure of childhood well-being, we also investigated the number of children who have been reported as abused or neglected. Using data

provided by the Indiana Department of Child Services, during the twelve month period ending March 2006, 2,999 unique children aged five and under were abused and/or neglected and consequently declared a Child In Need of Services (CHINS) or removed from their placement. This represents .6% of the total population within this age group.

In order to provide families of young children a single source of available resources offered throughout the state and their community, the ECCS initiative aims to establish an information clearinghouse. This clearinghouse has already been developed by the Indiana Institute on Disability and Community at Indiana University (IDC) known as the Early Childhood Meeting Place (ECMP) (http://earlychildhoodmeetingplace.indiana.edu). To evaluate the success of the clearinghouse, the accessibility of this site was monitored. Using information from the IDC, we provide the number of hits, as well as the number of unique visitors to the website. During calendar years 2005 and 2006, there have been 154,809, visits to the ECMP site representing approximately 43,485 unique visitors. The graph in appendix D depicts the number of hits and visitors for each month during the above time period.

The measurements above provide a gauge of the accessibility of child development information, and will be useful for comparison to future data.

CONCLUSION

The ECCS initiative is a program that seeks to improve the health and well-being of children in Indiana by ensuring continuity of care as well as enhancing parental involvement. The committee, organized by the Indiana State Department of Health, has

acted quickly to begin to implement the necessary changes to achieve the objectives set forth.

This evaluation has provided the ECCS committee with the available information and data necessary to determine the success of this initiative as it progresses. This project essentially provides a basis for comparison in future evaluation to determine changes that may occur and if Indiana families are better off as a result of these changes.

While extraordinary breadth of this system change limits what can be attributed to the initiative itself, in addition to gaps in the accessibility and availability of necessary data, this evaluation will potentially provide valuable insight into the progress of the initiative.

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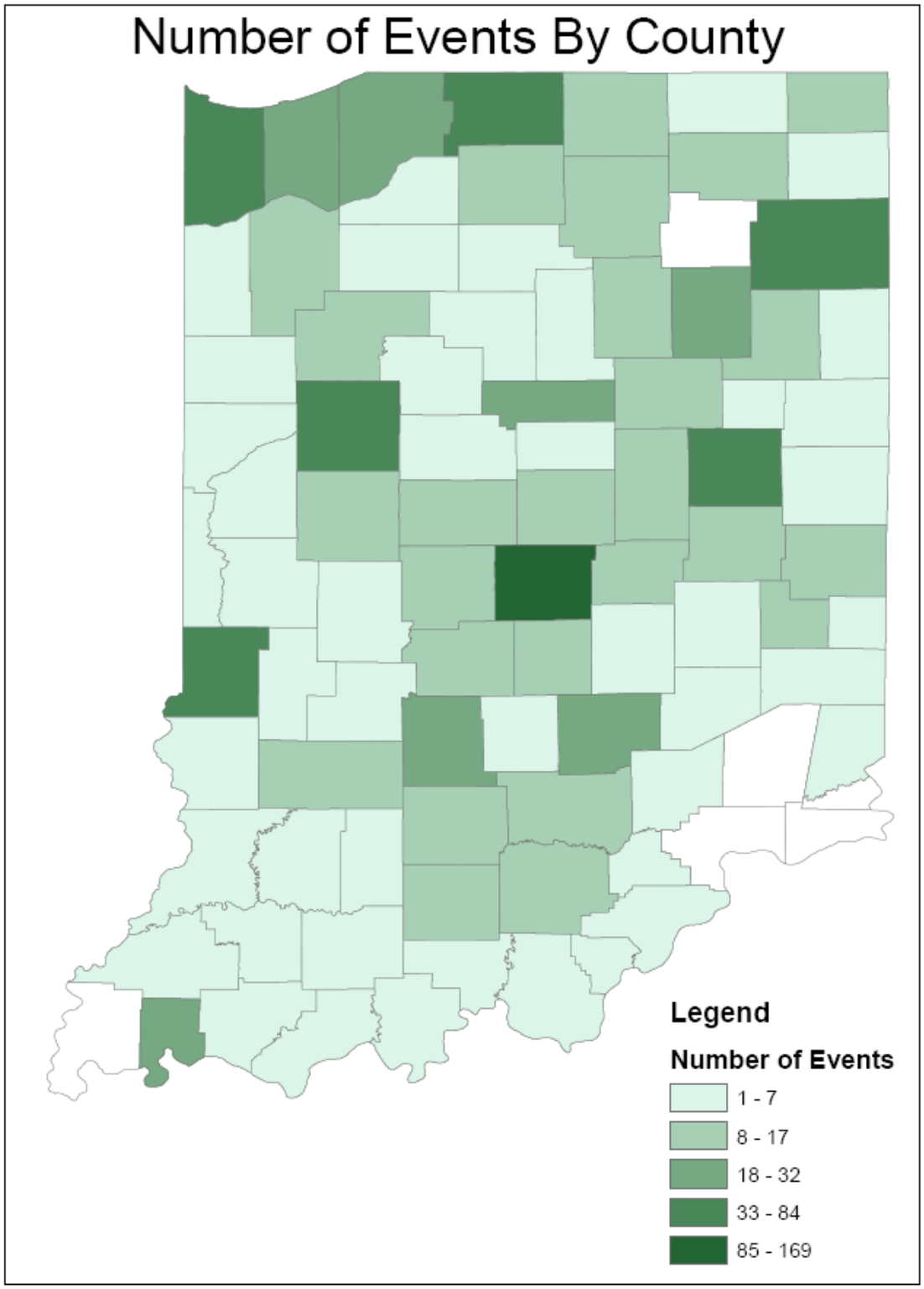
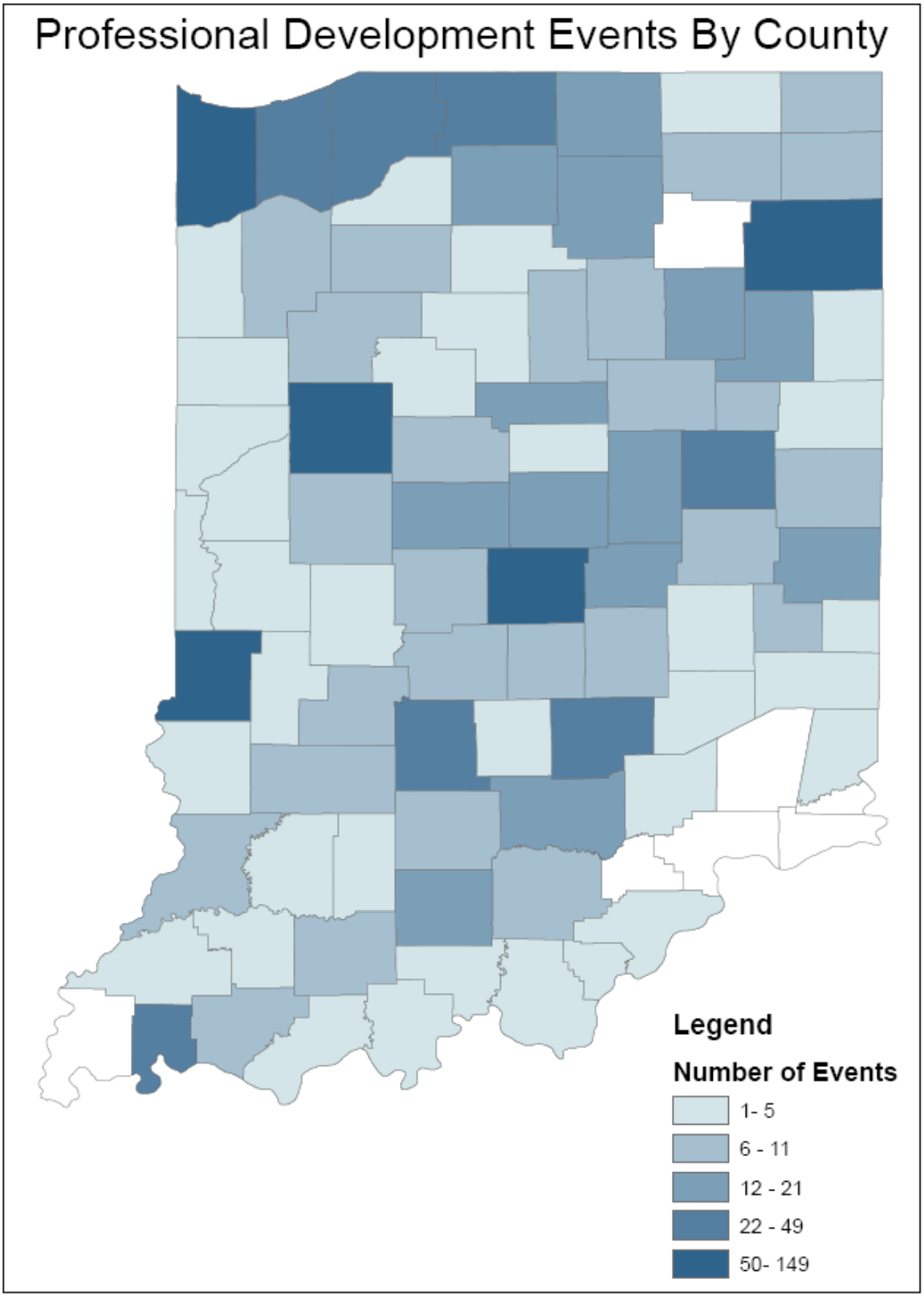
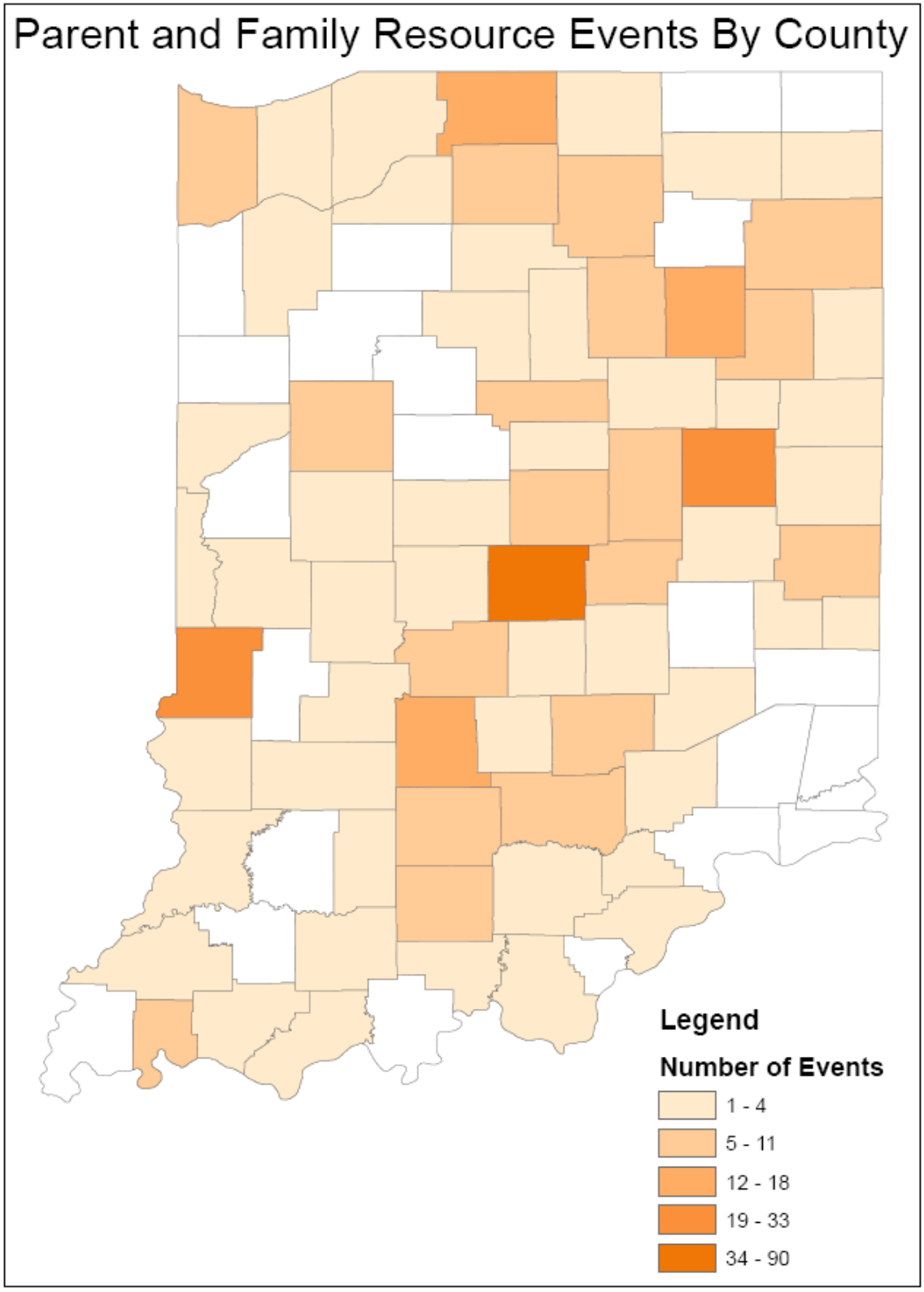
APPENDIX A


Number of Events By County
Legend
Number of Events
1 - 7
8 - 17
18 - 32
33 - 84
85 - 169

APPENDIX B


Professional Development Events By County
Legend
Number of Events
1- 5
6 - 11
12 - 21
22 - 49
50- 149

APPENDIX C


Parent and Family Resource Events By County
Legend
Number of Events
1 - 4
5 - 11
12 - 18
19 - 33
34 - 90

APPENDIX D

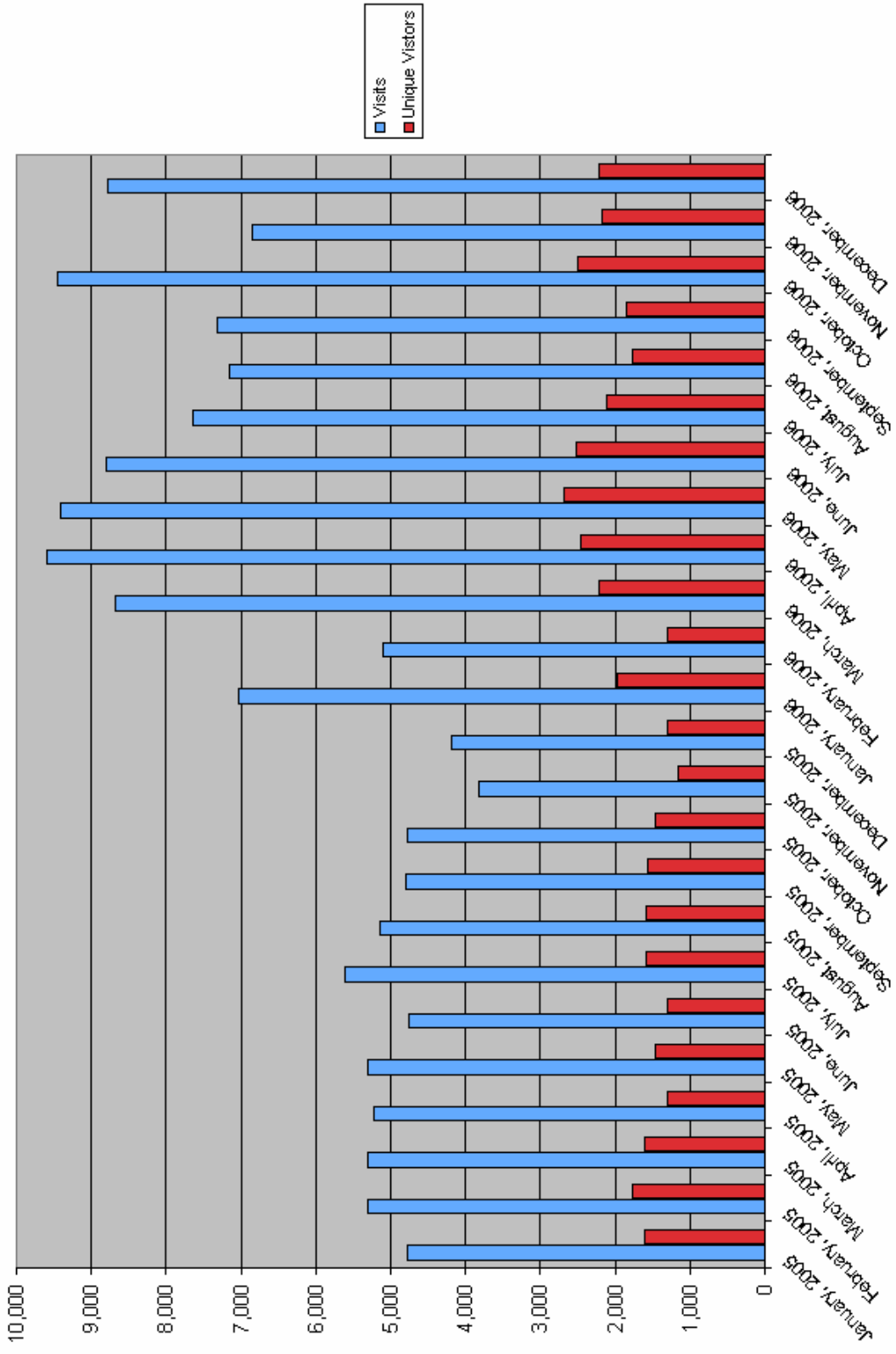


Chart 1: Number of visits and unique visitors to Early Childhood Meeting Place.