thrive by five

ensuring hope, health & happiness in early childhood

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Executive Summary

The purpose of this study – *thrive by five: ensuring hope, health and happiness in early childhood* – is to provide a review of literature and summary of data on the issues affecting the prenatal through age five population and the families and community who support them. A summary of the research illustrating the value of early intervention to ensure the best possible child outcomes is presented here. The conclusions and recommendations on the final pages are designed to serve as a starting point for advocacy for improved conditions and support for pregnant women, infants, toddlers and preschoolers.

As a supplement to the ***Community Agenda Snapshot***, "thrive by five" serves to expand on Focus Area A, Creating a Brighter Future for Our Children and Youth. Early childhood represents approximately 27% in Volusia and 35% in Flagler of the child population under age 18. Overall, children in early childhood are 5% (Volusia) and 7% (Flagler) of the total population. It is, however, a unique opportunity for exponential returns on investments in the future of our community.

Child development is outlined chronologically by prenatal, infants, toddlers and preschoolers. Each age is described within the multiple categories of development. Included are the brain and central nervous system, health and physical development, emotional development, executive functions, language development, and cognitive development. Additionally, peer relationships and disabilities are examined.

The significance of the family and community are assessed with attention to cultural factors, socioeconomic status, employment, educational attainment and other family features. There is also a brief look into child abuse and neglect with its potential for difficulties in childhood and beyond. Community factors include race, ethnicity and culture. The contributions of a healthy physical environment are also acknowledged.

The increasing number of children in outside-of-home child care is the basis for a discussion on the types of child care available. Concurrently, the quality of care and the amount of time spent (quantity) in care are components worthy of discussion.

A brief overview of early childhood programs in other states is offered as is a quick take on local prenatal and early childhood programs. These community assets are valuable partners for strong birth and child outcomes.

There are multiple pages of data tables giving a detailed view of the community by the numbers. Population, economic and other demographic data are offered for review.

Finally, highlights from 13 interviews with community leaders are contained in the closing pages. Each page outlines current and future activities with a section devoted to the barriers to reaching an optimal state for each organization or interviewee.

In conjunction with the ***Snapshot*** report, it is hoped that *thrive by five* will be a catalyst for renewed and vigorous action toward optimal early child outcomes.

Introduction

…the recent focus on "zero to three" as a critical or particularly sensitive period is highly problematic…simply because the disproportionate attention to the period from birth to 3 years begins too late and ends too soon.[a]

This is the first companion study to the annual ***Community Agenda Snapshot*** report. The purpose of each companion study will be to look deeper into one of the five ***Snapshot*** focus areas to find root causes associated with the topic of interest and seek out "drill down" data specific to Volusia and Flagler Counties. Each companion study will offer reasonable, attainable recommendations to improve the quality of life with respect to that issue.

The purpose of this first study – thrive by five: ensuring hope, health and happiness in early childhood – is to provide a review of literature and summary of data available on the issues affecting the prenatal through age five population and the families and community who support our youngest residents. It is hoped the conclusions and recommendations on the final pages of the study will serve as a starting point for advocating for improved conditions and support for infants, toddlers and preschoolers.

During the early research for "thrive by five", a visit to The Policy Group for Florida's Families and Children web site (www.policygroup.org) and a subsequent phone conversation identified some shared core concepts. The Model for Ensuring the Well-Being of Florida's Children contained desired outcomes, policies and practices, and an outline of essential components and supports to achieve a comprehensive strategy of integrated service delivery. Portions of this model have been included in the body of the study as a potential link to statewide efforts should the opportunity and community interest arise to seek out a connection.

Why Focus on Children – from Pregnancy through Age Five?

Total population under 5 years

Flagler	5,726
Volusia	26,370
Florida	1,146,002

U.S. Census, 2007 American Community Survey

When the Community Agenda Steering Committee was considering the focus of the first study to come from the initiative, there was only brief discussion regarding the topic due to immediate consensus that in order to have the best chance to positively effect change for the most data indicators in the ***Snapshot***, it would be vital to start at the earliest point possible. The Committee's vision to achieve the optimal long-term effect on local quality of life led to an initial focus on the earliest years of life.

In Volusia and Flagler Counties there are over 6,000 births each year. The birth of a baby is a joyous occasion. At least, it is most of the time. These events are usually happy occasions with healthy birth outcomes for the infant and family. Many babies, however, are born to teen parents, single mothers and/or women with little or no prenatal health care which can result in significant stress for the baby, the family, the health and human services systems and the community.

Components of the Study

The "thrive by five" study is a literature review and data gathering exercise. Neither the Community Agenda nor One Voice for Volusia conducted independent research for this project except for interviews with community leaders in the field of early child development. The study has a focus on child well-being from prenatal through the start of kindergarten or about five years of age. The pregnancy term is included because children have several critical windows of vulnerability, especially before birth.[1]

…It is widely recognized that the path to our nation's future prosperity and security begins with the well-being of all our children.[b]

The early years in a child's life are formative for mental and emotional development as well as physical growth. A baby transforms from a minute group of cells—completely reliant on parental care—into a reasonably self-sufficient child who can emote, analyze and communicate his or her feelings and thoughts. An infant goes from being coddled and cuddled to running and jumping with seemingly boundless energy during a forward march toward independence. A brief overview of the ages and stages of this development will be featured in the study.

The birth of a child changes the dynamics of a family as much as the birth of many children changes the dynamics of a community. Within our community are health and human services systems that attend to the pregnant mother, the newborn, the maturing child as well as the extended family. These systems depend on numerous professionals and paraprofessionals in the fields of general and specialized medicine including mental and behavioral health. Additionally, there are environmental and economic factors that can have a potent affect on child development. These systems are supported by ongoing observation and research in a rapidly changing environment. This study explores the syndemic relationship of these systems and surveys the supports offered to families in our community. Presented here are community demographics and data indicators to provide a baseline for measuring progress over time.

In order to seek methods of improvement, this report

- describes the manner in which other communities are supporting the growth and development of infants, toddlers and pre-school age children, and
- answers some questions about how others are supporting families with child care and early education as well as meeting special needs.

This report also peeks into the mental health needs of the very young. While this is a relatively new field of study, it is grounded firmly in research and data. Infant and toddler mental health may hold the key to improvements in social stability and educational achievement for our community's future.

The Imperative of Child Development

A hundred years from now it will not matter what my bank account was, the sort of house I lived in, or the kind of car I drove, but the world may be different because I was important in the life of a child.[c]

A child's development is epitomized by how the human brain develops in utero. The development is influenced by genetics, environment and experience. The brain is "wired". Timing of circuit formation is determined by genes but the shape of that formation is based on the child's experiences. Children develop best in an environment of adult caregivers who offer warm, stimulating and individualized attention. However, an environment of poverty, neglect or abuse can result in increased risk for learning, health and behavior impairment that can last a lifetime.[2]

The Center on the Developing Child at Harvard University[3] has "effectiveness factors" that can enhance positive development from birth through age five. Their forty years of research has led to the following:

- Access to basic medical care for pregnant women and children can help prevent threats to healthy development as well as provide early diagnosis and appropriate management when problems emerge.
- For vulnerable families who are expecting a first child, early and intensive support by skilled home visitors can produce significant benefits for both the child and parents.
- For young children from low-income families, participation in very high-quality, center-based, early education programs has been demonstrated to enhance child cognitive and social development.
- For young children from families experiencing significant adversity, two-generation programs that simultaneously provide direct support for parents and high-quality center-based care and education for the children can have positive impacts on both.
- For young children experiencing toxic stress from recurrent child abuse or neglect, severe maternal depression, parental substance abuse, or family violence, interventions that provide intensive services matched to the problems they are designed to address can prevent the disruption of brain architecture and promote better developmental outcomes.
- For families living under the poverty level, work-based income supplements for working parents have been demonstrated to boost the achievement of some young children.

- Environmental policies that reduce the level of neurotoxins in the environment will protect fetuses and young children from exposure to substances that are known to damage their developing brains.

- No single program approach or mode of service delivery has been shown to be a magic bullet.

- "Scaling up" successful model interventions into effective, multi-site programs is a formidable challenge that can be addressed, at least in part, by establishing quality standards and monitoring service delivery on a routine basis.

- Return on investment is more important than up-front costs.

Current funding practices don't parallel what everyone is saying is the "right" thing to do.[d]

Child development can be influenced by external factors that include biological, social, familial, cultural, and environmental elements. When these factors are in harmony, the infant begins life with full opportunity to grow and develop to his or her full potential. It is when these elements are not balanced, are impaired, lacking or absent that the early child development trajectory can go astray. As we review the stages of child development, keep in mind how the effectiveness factors can come into play for each age and stage.[4]

Child Development and Early Intervention

Growing up healthy is every child's right and every parent's dream for their children.[e]

The Policy Group's desired outcomes for children in Florida:
Our children are:

- healthy
- safe in their families and communities
- ready to learn and succeed in school

The Policy Group's recommendations for Key Policies and Practices
All children have access to affordable, quality:

- health care
- parenting support (e.g., home-visiting) services
- early care and education
- integrated health, economic and family support services

From birth through age five, moving from the bassinet to the schoolyard, young children develop at a faster pace than any other time in their life.[5] The hopes and expectations placed on a newborn can be a daunting burden for such a tiny individual. Physical, mental and emotional systems are transforming rapidly bringing about self-regulation, communication skills and relationship-building talents.[6] Being the recipient of a high-quality start in life is a good way to better the odds for maximizing competency as an adult.[7]

Early child development typically progresses through each of the stages reviewed here. How development unfolds, however, can be impacted by the effectiveness factors we've considered. What are the outcomes for Florida's children, then, in terms of early child development through age five?[8]

In the earliest years, children quickly develop the foundation of capabilities on which future development is built. Pronounced differences in what children know and are able to do are clear long before entry into kindergarten. Early child development can be significantly derailed by emotional, social, and regulatory impairments. A focus on "zero to three" is important, but is thought by many to begin too late and end too soon.[9]

Continuing research on brain development highlights the interconnection of neuroscience and behavioral science.[10] The learning that takes place in the earliest years gives a child the tools and perspective to process new experiences toward developing his or her viewpoint of the world.[11] The Search Institute shares years of research which culminated in 40 Developmental Assets® for Early Childhood which describe both internal and external strategies for helping young children to grow up healthy, caring and responsible.[12]

The Policy Group begins their list of steps toward children ready to learn and succeed in school prior to birth. They recommend increasing the percentage of first-time mothers who have graduated from high school. Also, the list extends beyond the

immediate family recommending an increase in the percentage of state investments in early education and care commensurate with K-college educational investments.[13]

There is sound research that states interventions can be successful in the lives of young children. The Institute of Medicine states that interventions that work are "rarely simple, inexpensive, or easy to implement". Furthermore, the availability of precise, methodical evaluations is relatively limited with respect to program implementation. Those programs that appear to provide the most success combine child-focused educational opportunities with specific parent-child interaction activities and relationship building.[14]

Early intervention programs with components that boost social and emotional development are equally as important as enhancing linguistic and cognitive competence and often show long-term benefits such as less criminal behavior later in life. Program delivery formats should also consider today's family lifestyle to maximize the opportunity for parental involvement by accommodating family work schedules. All the while, programs should continually reassess service delivery for appropriateness and effectiveness regarding racial, ethnic, linguistic and cultural diversities.[15]

Enriching environments can lead to early advancements though not all of them have proven to be long-lasting. The environment is less about expensive toys and more about the quality of relationships and adult interaction that fosters early learning. Child care experiences and peer relationships are also in the mix but the caregiver relationship is paramount.[16]

Nature and nurture are mutually dynamic and work together over the course of development. Parents and regular caregivers are "active ingredients" in early childhood. Without at least one close and dependable relationship, there can be significant and enduring consequences. Research indicates that a caregiver relationship can lead to an amazing recovery if that relationship provides love, a safe and nurturing environment, with responsive interaction and encouragement to explore.[17]

The thriving relationship between child and caregiver will exhibit the give-and-take of a keenly tuned pair. The caregiver will understand the nuances of the child's emotional cues and respond accordingly in deed and speed. These relationships can set the stage for healthy development in several areas including communication, social-emotional competence, cognition and moral understanding.[18]

An extensive library of books has been written on child development from birth through the age of majority. It is not the intent here to encapsulate this vast collection of

There is compelling evidence that obesity, cancer, asthma, autism, birth defects, and cerebral palsy all carry significant environmental linkages.[f]

Our hands constitute the first relationship for the baby with the world. What a difference when gentle, patient and peaceful hands take care of him. How different his world would be if they were rough, impatient, and hasty. Hands are the world. No matter how small he may be, we never treat a child as an inanimate object.[g]

knowledge but it is important to note the various stages of development and some typical milestones at each age.

Each stage of growth and development in children is marked by the expectation of specific, defined characteristics. The display of these characteristics at the expected time is labeled as "typical" development although the timeframes can vary widely and still remain within normal limits. A multitude of factors, both genetic and environmental, can affect growth and development. Prior to birth, the mental, emotional, physical and dental health of the mother plays a key role in healthy birth outcomes.

Overview of Chronological Development

Both the prenatal term and early childhood carry notable risks. Documentation of key risk factors and conditions are described here while acknowledging that this summary is not comprehensive of all prenatal risk factors or early childhood medical conditions or threats.[19]

Prenatal Development

Prior to birth, most authorities encourage several prenatal assets that will lead to better birth outcomes. They are as follows:

- Mother's health (mental, emotional, physical and dental health) and nutritional status
- Mother seeks early prenatal care
- Mother avoids toxins (alcohol, drugs, mercury, lead, etc.)
- Mother avoids smoking
- Baby reaches an adequate birth weight

The mother's prenatal health and well-being can have a direct effect on a newborn child. Exposure to environmental toxins (mercury, lead, some insecticides) can be highly damaging to the developing brains through the early childhood years[20] with minimal to no effect on the mother. Similarly, babies with a low birth weight (often due to prenatal smoking or alcohol or substance abuse)[21] may face an increased risk of chronic disease and learning difficulties over their lifespan.[22]

Expectations for prenatal development include complete anatomic and physiologic development in preparation for birth. Anticipated birth outcomes are achieving a healthy birth weight with functioning bodily systems. The newborn brain is still developing and will continue to increase in functionality over the years.[23]

Percent of babies born to women who were overweight or obese (pre-pregnancy BMI)

Flagler	42.4
Volusia	41.7
Florida	40.2

Florida CHARTS 2006

Infant Development (0-12 months)

The age of infancy is defined as the period between birth and 364 days. This includes the neonatal period of birth to 27 days and the postnatal period between 28 and 364 days. Biological events that occur during infancy can predispose a child to an elevated risk of physical and mental health problems through a phenomenon known as developmental programming.[24] Infants experience significant development of social, emotional, cognitive, linguistic and motor development that rapidly increases through age three years. At birth, the brain weighs only 25% of its eventual adult weight.[25]

General knowledge has moved from lack of interest in 0-3 to it being the most important time in life.[h]

An infant develops trust, as early as during the first month, by learning that cries will be soothed by receiving food or something that is comforting. The infant can recognize the voices of his/her parents and can offer an involuntary smile. These smiles may be responsive by the third month and be accompanied by attempts to imitate sounds. At the start, the infant has little muscle strength or movement but as that strength grows s/he will be pushing with his/her legs and begin to support him/herself when placed on his/her stomach. The infant's weight will double by the sixth month and s/he could be standing while leaning against something sturdy. With an object in each hand s/he is considering how to pick up a new object.[26]

Babies learn to love and trust from their families. In a loving environment, babies will clearly prefer a loved one and around five months could experience "stranger anxiety" and "separation protest". Around 12 months, the baby is realizing that even though people and objects are out of sight, they still exist. Around this time babies are saying "mama" and "dada" and other simple words.[27]

Toddler Development (1 to 3 Years)

Development that begins at birth shows a rapid increase during years two and three for vocabulary. Identification and regulation of emotions is another area of swift development. The effects of growing up in a family with less parent education and lower income can be seen by lower scores on standardized developmental tests beginning at 18 months.[28]

Socioeconomic status can have a significant impact on vocabulary evidenced by more than double the vocabulary at age three between children in homes of high income and those with low income.[29] By the age of three, a sense of self-esteem is developing as well as a sense of empathy for others.[30]

Many things we need can wait; the child cannot. Now is the time his bones are being formed, his blood is being made, his mind is being developed. To him, we cannot say, tomorrow. His name is today.[i]

Infants and children (ages 1-5 years) currently served by Volusia/Flagler WIC

Infants	3,208
Children	6,138
Women	3,292

Volusia County Health Department, 2008

Preschooler Development (3 to 5 Years)

During the third through fifth years of development, complex social behaviors, problem-solving abilities, emotional capacities, and pre-literacy skills are growing. These areas of development are built on earlier developments and are keys to success later in life. Most four- and five-year-old children have learned basic grammar; begun to comprehend another's perspective; identify their own and others simpler emotions (including those that contribute to the development of conscience); know the basic steps to negotiate with others toward mutual goals; can focus their attention for brief periods and sit quietly in a group setting. During these formative years, early social class disparities in development can become more noticeable and continue to grow if there is no intervention.[31]

By age five, children can often write their name and tie their shoelaces. They probably know their right hand from the left and have chosen which hand they prefer to use. The five-year-old has a vocabulary of about 10,000 words and is often inquisitive.[32]

Overview of Systems Development

Brain and Central Nervous System Development

Prenatal. There is abundant evidence documenting a wide range of environmental threats to Central Nervous System (CNS) development.[33]

- Poor nutrition
- Specific infections
- Environmental toxins
- Drug exposures (beginning in early prenatal)
- Chronic stress (abuse and neglect)

The newly forming brain develops in the embryo from the neural plate. Two rows of cells are formed from the plate folding into the neural tube. One end of the tube develops into the parts of the brain and the remainder of the tube becomes the spinal cord, peripheral nerves, and certain glands of the body.[34] Spina bifida and anencephaly are the two most common neural tube birth defects. The National Institutes of Health states that research has shown that getting enough folic acid before and during pregnancy can prevent most neural tube defects.[35]

Once brain synapses are formed, nerve cells can communicate with one another. This process begins during pregnancy and continues as the child grows.[36] The three main purposes of the brain are to store, use and create information. The brain develops genetically, based on pathways for intertwining experiences into the developing brain.

Brain development requires integration of nature and nurture throughout life. Lifelong brain "plasticity" (capacity to adapt) relies on experiences to influence the brain.[37]

Infants, Toddlers and Preschoolers. Starting at birth and through age three, more synapses than needed are created by the brain. This is when "use it or lose it" applies with synapses that are frequently used becoming permanent in the brain and those that are not being discarded. Providing many positive social and learning experiences leads to the corresponding synapses becoming permanent in the wiring of the brain.[38]

Infants must have a relationship – they can only exist within the context of a relationship.[j]

Fortunately, those infant experiences that encourage brain development are everywhere—including light patterns and sounds. Exposure to these experiences builds connections within the brain. Children with visual, hearing or other impairments will need extra attention. Toxic environments, such as abuse and neglect, create risks for healthy brain development. Deprivation of experiences that build the brain architecture can lead to life-long behavioral functioning difficulties.[39]

There is also a chemical component to brain development. There has been a rapid rise in the amount of research on brain chemical messaging over the last 20 years. Chemical receptors in brain cells are very specific. The types and amounts of chemical messengers can have varying results on brain activity and, eventually, behavior. Much of the research relating caregiver activities to brain neurochemistry has been performed with animals. However, that research is showing that certain caregiver activities can affect the brain chemistry leading to modulation of pain and distress in the young offspring.[40]

There have been few neuroscience studies on young children due to ethical considerations. Most of these studies have been conducted with animals. Analyzing the results can be complex and conclusions should be reached with caution. The research says much about the conditions that can be hazardous but very little about enhancing or accelerating development. Experiences can affect brain development across wide time periods. There seem to be few instances where specific experiences are required at a specific time in order to contribute to brain development.[41]

Brain development research indicates sensitive and critical periods. Sensitive periods are those time periods where the brain is susceptible to responding to interventions; whereas, critical periods are brief, specific windows of opportunity for intervention success. Due to brain plasticity, these periods of sensitivity can result in either beneficial or detrimental change determined by exposure to or deprivation of experiences. It also appears that increasing the level of complexity of the child's environment can counterbalance risk exposure. This means that deprivation of some

If women did not drink alcohol during pregnancy, no more children would be born with FAS/FAE.[k]

early experiences might be overcome by surrounding the child with an environment heightened by complementary experiences.[42]

Health and Physical Development

Prenatal. Maternal and infant health has had great strides over the last century. More recently, teen birth rates and infant mortality rates have declined nationally. However, the United States is still far behind other industrialized countries in infant mortality and has a high rate of racial disparity on this indicator.[43] See the data tables in Appendix A for data indicators for Volusia and Flagler Counties.

Preterm births. The normal term of pregnancy is about 40 weeks. Babies are considered to be premature if they are born before 37 weeks. Premature births make up approximately 10% of all births. The number of premature babies born in the U.S. has increased in recent years. The risk of premature birth is that the baby may not be fully developed. A premature baby is also at risk for infections, kidney function problems, and jaundice. There is also more potential for long-term complications such as vision or hearing impairment, cerebral palsy or chronic lung problems. Most serious complications or infant deaths are the result of premature birth and its consequences.[44]

Total Preterm Births
(<37 weeks gestation)
(rolling 3 year numbers)

	2005-07
Flagler	110
Volusia	626
Florida	33,290

Florida CHARTS, 2007

Premature babies may also need the services of a neonatal intensive care unit (NICU) where medical staff is trained to work with these tiny infants and advanced medical equipment is available. While all premature babies have a higher risk for health problems, those born before 32 weeks of gestation are at a higher risk. Advances in specialized fields of pediatrics have improved the survival rates for these babies.[45]

Factors that contribute to the possibility of premature births include late or no prenatal care, smoking, drinking alcohol, use of illegal drugs, domestic violence, lack of social support, extremely high levels of stress and long working hours with long periods of standing. Certain medical conditions can also contribute to the risk including high blood pressure, infections, diabetes, obesity, being underweight prior to pregnancy and clotting disorders.[46]

Low birth weight. Another undesirable birth outcome is low birth weight. Babies with a birth weight of less than 5 pounds, 8 ounces (2,500 grams) are considered to be low birth weight. These babies are at great risk for serious health problems, long-term disabilities and even death. Low birth weight has also been suggested as a factor in some chronic conditions of adulthood. These include high blood pressure, type 2 diabetes and heart disease together known as metabolic syndrome.[47]

The two main causes of low birth weight are premature birth and fetal growth restriction. Growth-restricted babies may be small because something caused their growth to be slowed or stopped or simply because of the size of their parents. Smoking is one of the factors that can slow fetal growth. Smoking cigarettes during pregnancy makes women almost twice as likely to have a low birth weight baby.[48]

Prenatal BMI. Obesity during pregnancy can lead to adverse birth outcomes. While obesity alone may not be the cause of birth defects and premature births, it is known to increase the rates of medical complications that contribute to these outcomes. A Body Mass Index (BMI) of 30 or greater is considered to be obese. Women who are underweight before they become pregnant (BMI of less than 18.5) are also at risk of adverse pregnancy outcomes such as premature births and low birth weight. The goal for women should be to maintain or try to achieve a healthy BMI (normal weight BMI is 18.5-24.9).[49]

Birth defects. Birth defects are another adverse birth outcome. According to the Centers for Disease Control and Prevention (CDC), one of every 33 babies born has a birth defect. Birth defects can have an impact on how the body works, how it looks or both. While most defects are found during the first year, they can be determined before, at or after birth. Birth defects may require surgery, medical treatment and can result in death. However, babies with birth defects can often lead full lives when they receive the appropriate care and assistance. The medical community has also learned much about preventing birth defects. Approximately 3% of U.S. babies have birth defects.[50]

Fetal Alcohol Syndrome. Fetal Alcohol Syndrome (FAS) is preventable and displays a mix of physical, cognitive and behavioral abnormalities due to prenatal exposure to alcohol. There are specific criteria that define FAS. The effects of FAS last a lifetime. Children with Fetal Alcohol Effects (FAE) have conditions that are presumed to be caused by prenatal alcohol exposure. Ten times as many babies are born with alcohol related neurodevelopmental disorder than are born with Down syndrome. Within minutes of drinking alcohol, the baby's blood alcohol level will match that of the mother. If pregnant women did not drink alcohol, FAS would be eliminated.[51]

Other risk factors. There are other aspects of pregnancy that can lead to adverse birth outcomes. Unmarried women have a greater risk for low birth weight babies and infant mortality than do married women. Long-term problems for the mother and child are associated with births during adolescence.[52]

Infants. During the first year, children become stronger and more mobile. By the end of three months, a baby will begin to raise his/her head and support his/her body with

Alcohol is a neurobehavioral teratogen, an agent that can cause defects in the structure and function of the developing central nervous system in humans.[l]

Children with structural birth defects (1998-2005)

Flagler	1 in 49
Volusia	1 in 48
Florida	1 in 45

Florida Birth Defects Registry

Between birth and age 3, babies learn to roll, crawl, stand, walk, and run. They learn to talk, joke, rhyme, and sing. But development doesn't happen in the same way, at the same time, for all children. Some children will develop certain skills (like walking or talking) faster or slower than others. These differences are very normal.[m]

his/her arms when lying on his/her stomach. S/he will try to grasp dangling objects and hold onto and shake a rattle. S/he will turn his/her head toward sounds, begin to babble and try to imitate some sounds. S/he can follow moving objects and will recognize familiar people at a distance. The first series of immunizations are due at two months.[53]

By the end of seven months, two more groups of immunizations are scheduled and s/he will use his/her voice to express happiness and unhappiness. S/he can roll both ways, sit with (and maybe without) support and transfer toys between both hands. S/he will respond to "no" and can tell emotions by the tone of voice. With full color vision, s/he will be able to track moving objects better than before and distance vision will be improving.[54]

By the end of the first year, s/he may be saying "mama" and "dada", imitating words, and generally paying more attention to speech. S/he will be crawling and graduate toward walking around the furniture. Banging toys together and putting them in and taking them out of their container will be an enjoyable game. Between 12 and 15 months another series of immunizations will be due.[55]

Toddlers. Children's immature health systems can put them more at risk than adults when exposed to environmental toxins. Simply their proximity to the ground ensures more contact with dust, dirt, and soil. In today's time of improved disease prevention and treatment, children have high rates of asthma, developmental disorders, obesity, preventable injuries, and other problems that are of concern to scientists and the general population as well.[56]

Percent of Two-year-old Children Fully Immunized

	2007
Flagler	N/A*
Volusia	87.3
Florida	85.7

Florida CHARTS, 2007
*Data available for the top 20 counties only.

As s/he reaches 24 months, s/he will be eating adequate meals on a fairly regular schedule and eating a variety of foods. S/he will be feeding her/himself and walking independently. Eye-hand coordination will become more precise and s/he can hold a book with one hand and turn the pages with the other. S/he will be climbing, walking and running.[57]

From two to three years, children will be eating from all food groups and will help to fix their own simple snacks. They will be learning their colors and continue to develop eye-hand coordination. They can kick a ball and perform some self-care skills. They can follow simple commands and use words to get help when needed.[58]

Preschoolers. Busy four-year-olds might be jumping, galloping and running. They will know how to use a toothbrush and can begin to understand how nutrition relates to dental health. They will move their eyes to track items rather than move their head and will turn their head toward a speaker when called by name. Their speech is

usually understandable. They can use puzzles and play with lacing cards. By this age, they will know the roles of many health care specialists and can name most of their own body parts that might be checked during a physical examination.[59]

At age five, hopping has been added to the activity skills. Children will continue to expand on their physical skills and continue to develop their speech and listening skills as well. They could be able to name healthy snacks and value washing their hands after using the bathroom and before eating. They begin to understand that there are "good" and "bad" drugs and will know how to call 911 if an emergency occurs. They know not to go with strangers and will understand basic traffic rules. They will also understand the difference between "good" and "bad" touch. They can pour their own juice and be responsible for their own belongings.[60]

Injuries are the number one cause of death in early childhood.[61] When health issues become a problem, health insurance is not always readily available for young children. Having health insurance gives greater assurance that children will have regular and accessible sources of health care.[62] In 2006, 11.3% of children under the age of six were uninsured. Furthermore, 11.7% of children of all ages were uninsured with that number rising to 19.3% of children in poverty. For the three year period of 2004-2006, only Texas and New Mexico had a higher average percentage of uninsured children than Florida.[63]

Rates among children are increasing for diseases such as diabetes and heart disease as a result of diet and lack of physical activity. Other health factors such as poverty and insufficient access to health care are also facing our nation's children.[64]

Emotional Development

Infants. Emotional development emerges through the relationship experiences that infants are exposed to or engaged with from birth through childhood. By one year of age, infants are already reacting to the caregiver's expression – whether calm or anxious – and are intensely sensitive to these emotional cues. When the home emotional climate includes abuse, adult depression or other adversities, young children can sometimes be overwhelmed by confusing emotional demands.[65]

Toddlers. By age two, children understand feeling good when they get what they want and feeling badly when they do not. Emotion is closely linked to self-understanding and eventually self-regulation. Near the end of the second year and into the third, children enter the "do it myself" phase connecting their feelings of competence and independence. Children learn that their emotions can be affected by others' evaluations of them (behavior meeting expectations) as well as by their own self-

"Infant mental health" is defined as the healthy social and emotional development of a child from birth to 3 years.[n]

Providing sensitive, responsive, and consistent parenting of infants and toddlers is challenging work.º

judgment. This leads to self-regulation of emotions which is an important development before the school years.[66]

Preschoolers. At ages four and five, children attribute more complex associations between emotions and beliefs or thoughts. They may have expectations for what others will believe or how they will behave in a given set of circumstances. By the time they enter school, they have learned that they can hide their emotions if necessary and that how they construe an action will help to formulate their reaction.[67]

Emotional development and growth can be impacted by the security of attachment relationships, parental coaching and, later, parent-child conversations. Cultural values also affect the interpretation and expression of emotions. Cultural values can guide the formation of emotional blends such as fear-shame or anger-guilt. Parents make a significant contribution to emotional development whether by creating the home environment or through overheard casual conversations to give two examples.[68]

The child's social world helps to develop their emotional responses. Parent responses and parent-child conversations can help children to identify their emotions as well as other's emotions which may be different from their own. Their emotional models can help children to develop empathy and to value the differences in appreciation of music and art.[69]

Self-regulation of emotions is critical by the time a child goes to school. Children who feel they are not in control of their emotions are more likely to be inattentive, have outbursts and more quickly remove themselves from stressful situations. Self-regulation of emotions can also have a positive impact on peer relationships. As they learn to regulate their emotions, children are more likely to believe their emotions are manageable and do not need to be overwhelming.[70]

Executive Functions

Executive function is a collective term that can include self-regulation of attention and cognitive abilities. Many tasks are comprised of a series of complex behaviors strung together to complete the task. Stringing beads and coloring with crayons involve holding the items, calculating their use and then making attempts and learning from each attempt. Executive functions include the ability to initiate, shift, inhibit, sustain, plan, organize and strategize. Self-control of behavior makes successful task completion possible.[71]

Infants. Researchers generally agree that early executive functions have their beginnings during infancy. At the most basic stage of development of these skills, the infant must be able to relate to significant features of his/her environment, anticipate

events and be able to see his/her world through symbols. At the age of six weeks, researchers have shown that babies are able to anticipate a sequence of events. Babies who are shown pictures from different locations in a sequence will begin to anticipate the next picture location and move their eyes in that direction.[72]

Another forerunner to executive function is the concept of means-ends behavior often occurring between eight and 12 months. Babies will move objects out of their way in their attempt to reach their favorite toy. Also around 12 months, children are beginning to use language and symbols. The use of these tools is thought to be the early requirement for memory and eventually executive problem solving. Use of language can connect the past, present and future for the child.[73]

Toddlers. A third skill children develop during infancy with respect to executive function is self-control. This skill increases from 18 to 30 months and continues to develop and become more stable throughout childhood. Through this self-control, crying can sometimes be quieted with a hug or favorite toy. Assessment of this skill can include asking children to "not peek" when waiting for a surprise or playing Simon Says. Children will have varying levels of self-control dependent upon their individual skills, competencies and experiences. Research has shown that the various components of self-control develop on different trajectories with different maturation rates.[74]

Executive Function Deficits. Deficits in attention and executive function can lead to problems with social and emotional behavior. Social interactions and interpersonal relationships require flexibility and adaptability which can be difficult for young children. These deficits may also play a role in attention deficit hyperactivity disorder (ADHD) the true cause of which remains unknown. There are questions about the validity of a diagnosis of ADHD before the age of four and many of the associated behaviors are normal for preschool age children. Consequently, developing interventions for young children who are showing signs of early deficits in attention, planning and organizing necessitates an understanding of these early developmental processes. Additionally, while very active children are often more noticed by adults, children at the other end of the continuum should not be overlooked.[75]

Parental/caregiver relationships offer the guidance that is key to moving from dependence on adults to self-regulation. Asking a three-year-old to clean his/her room will involve parent suggestions for where to start and what to do next as well as noting when the task has been successfully completed with a liberal dose of praise along the way. Continued repetition of the sequence over time with decreasing instruction will eventually lead to independence when asked to perform this task. Children with certain disorders will be unable to complete these tasks independently. Trying to

The capacity for self-regulation, ranging from sleeping and settling in the earliest weeks of life to the preschooler's emerging capacity to manage emotions, inhibit behavior, and focus attention on important tasks, reflects young children's transition from helplessness to competence.[p]

...in order to develop normally, a child requires progressively more complex joint activity with one or more adults who have an irrational emotional relationship with the child. Somebody's got to be crazy about that kid. That's number one. First, last, and always.[q]

determine which children have a disorder and which children have had insufficient assistance can be difficult.[76]

Language Development

The similarity of language development among countries and cultures is noteworthy. Regardless of the language, a similar path is followed. No matter their location, between 10 and 15 months children will delight their parents with their first words. Their vocabularies will continue to grow and by 18 months, with a supportive environment, most children will be adding approximately nine new words a day throughout the preschool years. Also about this time another common feature among most languages is displayed – stringing together two-word phrases. These phrases are also similar in structure and content.[77]

Adding Languages. Research on language development is mostly opportunistic rather than by assignment to an experimental group for ethical reasons. Studies are conducted in naturally occurring situations. It has been learned that children learning two languages at the same time from birth do not seem to be burdened by the additional language and continue at about the same pace as children learning one language. However, the second language is often lost if it is not reinforced throughout the years. Children who learn sign language from birth will also follow the same pattern and timing of language development. Those children who are deaf and not exposed to sign language will develop their own form of sign language system in a similar pattern. Studies of children raised in low-stimulating orphanages and then placed with a supportive family show that they will learn language with difficulties similar to learning a new language.[78]

Language Learning Deviations. Language learning deviations are considered in three types. Deviations may result from an environment lacking qualitative or quantitative linguistic input, conditions affecting processing (such as hearing loss) or conditions affecting general endowment (such as autism). The effects are similar regardless of the type of deviation. Although language learning is remarkably resilient—timing can be critical. Even brain damage (prenatally through age five) does not prevent language development unless the damage is to both hemispheres of the brain although in some cases language development will be delayed. However, language development is not equal to language mastery. Environmental conditions help children to master the dominant language in their culture in preparation for entry into school.[79]

Infants. While language development seems to be universal, the timing of introducing components of language is more constrictive. Learning a language from birth usually

results in more proficiency in that language than learning it later in life. Certain properties of language (the meaning of adding "ed" or "ing" or the significance of word order) are better learned at specific times of development. There is also wide variation in learning trajectory when learning a second language or learning language on a different timetable due to delays caused by the environment or individual conditions.[80]

The amount of parent/caregiver talk to their children can have a significant impact on the children's vocabulary. While most parents talk to their children while playing with them, the vocabulary of children whose parents talk to them during feeding and dressing was much greater than that of children whose parents did not. Vocabulary size is highly correlated with I.Q. Additionally, I.Q. at age three is compellingly associated with scores in vocabulary and reading in third grade.[81]

Toddlers. Hart and Risley performed a longitudinal (two years) study of children ages one and two from 42 families in three identified socioeconomic groups. By age three, there was a 20 million word difference in the vocabularies of the children in the highest and lowest groups. While these differences were associated with socioeconomic status, the study was too small to generalize from this observation. It was apparent, however, that the lowest level of language stimulation was associated with the smallest vocabulary and the opposite was true for the highest level of stimulation. These children were followed at ages nine and 10 showing a high correlation on language skills measures. The interactions with parents by age three were still strongly linked to the children's performance at ages nine and 10. With intervention, children can "catch up" but with each year of delay the disparity increases and may eventually become impossible to overcome.[82]

The Value of Parental Talk. There has been little research into whether mothers who talk to their children more have a genetic disposition toward the facilitation of language learning. Research has looked more at environmental factors than genetic factors. When environmental factors negatively influence language development, it is usually not the result of parents doing the "wrong thing" but rather not enough of the "right things" such as talking more to children, encouraging them to talk to themselves and offering opportunities for more elaborate talk.[83]

Similar benefits are afforded to children when their teachers speak to them often. This is especially true if the talk encourages children, asks questions of them and guides children toward exploration and learning. The children who receive more teacher talk have better scores not only on tests of verbal ability but those of general ability as well.[84]

Typical Vocabulary Development

	Words Known
1 year	2
2 years	20-200
3 years	1,000

Zero to Three
www.zerotothree.org

In short, all evidence points to early and enhanced speaking skills – not delayed – coming from signing.[r]

Signing. For over 25 years, sign language (or signing) has been studied by clinicians and universities. Although infants as young as nine months have learned a few simple signs, signing holds great promise for hearing and sighted toddlers and preschoolers. Research has shown an increase in I.Q. of eight to thirteen points for children who learned to sign. Rather than delay speaking as some feared it might, signing has been found to support the early stages of verbal language development and seems to "jump start" verbal skills. Signing can ease frustration associated with a limited ability to communicate that can result in tantrums or misbehaving as well as assist young children in learning to label items – a valuable step in speech development. Additionally, signing provides another opportunity for enhanced quality time between parent and child.[85]

Signing for Children with Special Needs. Signing can also be beneficial for children with special needs such as autism, Down syndrome, developmental apraxia of speech (DAS) or other delayed speech. Studies have shown that signing stimulates activity in the same area of the brain used for speech production. Teaching signing in conjunction with speech doubles the stimulation of this area. For children with DAS, signing provides the visual clues needed to develop speech ability. Here too, signing can reduce frustration, and the consequent difficult behavior, related to communication limitations. Learning to sign can boost confidence and encourage eye contact and attention to movements in preparation for the coordination required for speech.[86]

Language Impairment. Language impairment in early childhood may be determined by performance on language tests and concerns by the family. Boys are more often referred for clinical services than girls because they tend to react more excitably when misunderstood. This behavior often leads to referrals for services. As children get closer to school age, it can be difficult to discern which children have a true language impairment and which children are at the extreme low end of development and could reach their expected developmental level given time. Accurately making this determination is important because children with language impairments are more likely to have social and academic problems. Although therapies have positive results, it is not rare that language impairments will have long term affects. Early intervention may help diminish the possibilities for problems with social skills.[87]

Crying as Communication. Crying is often considered to be an infant's first communication tool. Babies with responsive caregivers who can read the reason for the crying more accurately move more easily to patterns of non-crying communication and generally have less stress during the first year. Responding more quickly and consistently to infant crying reduces the behavior over time. Babies who never receive a response to their cries (such as in institutions of the past) have been reported to stop crying almost completely by the age of three months. Generally speaking, most

babies cry less and appear to be easier to read and to soothe by 12 to 16 weeks. Even babies with colic (a syndrome with excessive, uncontrollable crying) usually return to the normal curve of crying by 12 to 16 weeks.[88]

Crying serves to signal caregivers. Infants of many species produce calls that serve similar functions. However, only humans cry for no reason at all (paroxysmal crying) and keep crying after being picked up, fed, and otherwise apparently made comfortable.[s]

Cognitive Development

Infants. Babies are born to learn. Early childhood is a period of exciting intellectual development. Because of new techniques to study this development, scientists have learned that babies have amazing mental capacities. As they are trying to understand their world, babies are laying the groundwork for complex human reasoning. During the first year, infants begin to understand causal sequences and appear to recognize noncausal events as odd. Babies can discriminate between actions that are accidental and those that are intentional. When repeating a behavior they have observed (such as pulling the ends off a tube), they will try to perform the task as intended even if they observed a failed attempt.[89]

Toddlers. Toddlers begin to understand that other people may have different perspectives from their own. By the age of five, children can actually predict the behavior of others and have learned that other's beliefs are not always accurately associated with reality.[90]

Children want to be active agents of their learning process. They prefer predictable behavior and will happily push the button on a toy to cause loud sounds over and over again. However, if that button is pushed by another child those very same sounds could lead to tears. If another sound precedes the loud sounds to serve as a warning, crying may not be as likely and the child often tries to get away from the toy.[91]

Preschoolers. Although there is some universality to cognitive development, there are numerous specific components. By the time children are ready to enter school, there are immense differences in their individual mastery of these components. The alphabet, number concepts, the relationship between letters and words are a few examples of where children are dissimilar in their development. Upon entering kindergarten, differences in executive functioning as evidenced by self-regulation are quite noticeable. Children who are less capable in the processes of sequencing, planning or organizing are more likely to have problems in school (both academic and social) that will continue to increase over time preventing effective problem solving.[92]

Development beyond Early Childhood. Even though birth through three is a time of remarkable cognitive development, major developments continue in school-aged children and adults. Currently, research has not demonstrated critical or sensitive periods of learning. These periods may exist but they have not yet been identified.

From birth to 3rd grade children are learning to read; from 4th grade on they are reading to learn.[t]

This may be the result of an absence of study – not necessarily an absence of evidence. The earliest years build the foundation on which future growth depends. Happily, the majority of young children think they can do almost anything and believe they will be successful.[93]

Peer Relationships

In the earliest years, the infant exists primarily in the context of the family. Infant survival relies on constant caregiver attention for all his/her developmental needs.[94] As babies grow into toddlers, they will begin to establish relationships with other toddlers and make their entry into peer groups. Building peer relationships is a major early childhood development and not an easy undertaking for all children.[95]

It should be noted that most research has been performed with school-age children and assigning the same results to preschoolers may be somewhat suspect. However, researchers have asked children as young as three whom they like. The responses classify children into five categories:

1. Popular (many peers "like" and few "dislike")
2. Rejected (many peers "dislike" and few "like")
3. Neglected (few of either)
4. Controversial (many of both)
5. Average

Impact of Categorization. These groupings are not necessarily transferrable among groups (i.e., neighborhood, classroom, etc.) and are generally not stable over time particularly for controversial and neglected. Choices can also be affected by culture such as those where children are encouraged to like all the children in a group. This research is useful, though, when adults who have experienced peer rejection during school are more frequently represented among those who have psychiatric problems and involvement with law enforcement. It is important to note that most children who have been rejected by their school peers do not have resulting psychiatric problems or a high rate of encounters with the law. Furthermore, it is not clear whether the rejection caused the consequences or whether the early behavior that caused the rejection also led to the consequences.[96]

Element of Child Care. With approximately 40% of children (nationally) under age three in part- or full-time child care, peer interaction becomes a significant element of development. Additionally, while the number of children in outside-of-home child care has been on the rise, the size of the family has been declining leading to a greater

number of relationships with peers rather than siblings the effects of which are still unknown.[97]

Play is so important to optimal child development that it has been recognized by the United Nations High Commission for Human Rights as a right of every child.[u]

Infants. Babies in the age range of six to nine months will make efforts to gain the attention of other babies and from nine to 12 months they will begin to imitate one another. Between ages one and two, they are very active and will repeat actions that are mimicked by other babies to start the sequence over again. Play times will get longer with more complex reciprocal imitation. This back-and-forth is an early display of shared meaning, awareness of another's intent and taking turns that becomes the foundation of play with future peer groups.[98]

Toddlers. Play can be hard work for toddlers. They are easily distracted making play patterns more fragile. Structure of the play activity from adults will aid in maintaining the play level. Similarity in developmental levels is observed in children who play well together. They also seem to play better with familiar play pals as if the shared play experiences add to their play repertoire. Toddler friends will often maintain their friendship throughout early childhood but play is not without conflict. Between ages two and three, aggression peaks declining thereafter. Moderately aggressive children are often those who are more outgoing and are trying more to play and with a greater number of other children. There seems to be a correlation between aggression and a child being rejected but it has been observed to be the withdrawn child whom peers slight more often.[99]

Preschoolers. As children enter the preschool years, play often involves make-believe and the play group expands. While toddlers may play best with one other child, preschoolers often play with more than three children at the same time. While cognitive and language developmental levels still play an important role, the history of a child's play experiences carries some weight. The debate continues as to the advantages and disadvantages of early child care but it is generally believed that the quality of child care is the discerning factor and, in particular, the sensitivity of the caregiver. Just as the quality of an infant's attachment to his/her caregiver has a correlation to emerging peer relations; the quality of the caregiver relationship in early child care contributes to more competent peer relationships during early childhood on into school.[100]

Children with Disabilities and Peer Relationships

Children with disabilities are rarely victims of outright rejection but there is a pattern of exclusion. Particularly for children with developmental disabilities who are least often chosen as play partners. They experience fewer "liked" and more "disliked" designations by peers without actually reaching the "rejected" category. When chosen

as play partners and cannot consistently maintain an equal level of play, children with disabilities are often excluded from the next play time.[101]

Language delays, sensory or physical impairments and even mild delays can lead to less participation in play activities. Children who had a very low birth weight, regardless of I.Q. and social class, have been observed to have challenges with social skills and have a higher incidence of exhibiting depressive-anxious and hyperactive-aggressive behaviors. Much of the cause for exclusion seems to be related to an inability to master the necessary social skills.[102]

Programs designed to build the social skills of children with disabilities show promise but as yet have had not resulted in substantive or sustained gains. To improve peer interaction for children with disabilities it may be necessary to change the environment and increase the amount of structure in early childhood programs. Removing physical barriers, attention to toy selection and crafting activities to emphasize a social focus are positive improvements. Likewise, teacher-directed activities and enlisting the help of more socially skillful peers has also proven to be helpful. As with other early childhood programs, family involvement and even community involvement are valuable enhancements.[103]

Outside-of-home child care is discussed more fully in the section titled Child Care and Early Education starting on page 35.

The Role of the Family

The Policy Group's desired outcomes for families in Florida
Our families are:

- stable and nurturing
- economically self-sufficient (policy group)

The Policy Group's recommendations for Key Policies and Practices
All families have access to affordable, quality:

- health care
- parenting support (e.g., home-visiting) services
- early care and education
- integrated health, economic and family support services

Importance of Family

The environment provided by the child's first caregivers has profound effects on virtually every facet of early development, ranging from the health and integrity of the baby at birth to the child's readiness to start school at age 5.[v]

Where children once spent most of their early years in their home environment, children now experience myriad outside-of-home environments. At one time, the start of the school years marked the transition to these outside settings whereas now most children have spent significant amounts of time in places other than home. However, the evidence continues to support the notion that the young child's family still has the most powerful influence on early childhood outcomes when compared to outside-of-home child care or the neighborhood environment.[104]

Media. Additionally, more children are exposed to the media at an earlier age than ever before. There are a multitude of studies on the effects of early exposure, duration and time spent alone watching television. Researchers are only beginning to understand the impact of these activities on family life and child well-being.[105]

Genetic Factors. Genetic factors must also be considered when exploring the effects of the child's environment. The families' housing and their socioeconomic status may be due in part to the parents' genetic makeup. Parental choices may also play a significant role in the selection of neighborhood and/or child care.[106]

Parenting. Parenting and parental influence is very complex and is now studied in context with other factors. Currently, parenting does not have a specific, one-size-fits-all formula but rather is seen as constantly adjusting to meet the demands of the immediate circumstances. Children themselves, have an active role in parenting via their affect on their parents.[107]

Fathering. Much of the research on parenting has centered on mothering. Originally, fatherhood was researched primarily for the economic contributions, issues of absence and the finer points of differences between mothers and fathers. Within recent history, more attention was given to the role of fathers in the family dynamics and the marital

Percent of mothers in the labor force in 2007 (ages 20-64)

Flagler	56.6
Volusia	75.0
Florida	73.2

U.S. Census, American Community Survey, 2007

Who fills this role [parenting] is far less important than the quality of the relationship she or he establishes with the child. The hallmark of this important relationship is the readily observable fact that this special adult is not interchangeable with others.[w]

relationship. Currently, research is focused more on how fathers guide the pathways of early childhood development.[108]

It has been found that it is not necessarily a father's involvement in parenting per se that is foretelling of child outcomes but rather the variety of responsibilities for the child that the father accepts. The responsibilities might include accompanying the child to the doctor, taking and picking up from child care, and keeping alert to the child's whereabouts. The emotional quality of a father's relationship with his child plays a vital role in the child's adjustment.[109]

Grandparents as Parents. An increasing number of grandparents are raising their grandchildren. The AARP Foundation Grandparent Information Center (www.aarp.org) reports that in 2007 approximately 1 in 12 children (nationally) live with a grandparent as head of household or, less often, another relative. In Florida (2007), 7.1% of all children live in grandparent-headed households. For approximately 57% of these children neither parent was present. There are now several web sites dedicated to supporting what AARP refers to as grandfamilies.

For grandparents this can affect financial needs, mental stress and physical health. The effects on grandchildren are often positive when the placement keeps the child connected to their family. If parental substance abuse led to the placement, the child could have developmental delays that warrant early intervention screening. Early trauma experiences could lead to poor outcomes if developmental effects are not addressed. Specialized mental health intervention is a vital support service.[110]

Attachment Security. Whether it is a father, mother or other caregiver the attachment security of the child's relationship to one significant adult holds the key to myriad facets of development as well as serves as the foundation for future relationships. Without such an attachment, child development can rapidly deteriorate. It can then markedly recover with stable love and care. By studying toddlers removed from Romanian orphanages in the early 1990's where they had failed to thrive, researchers were astonished to observe great strides in physical, emotional and cognitive development when the toddlers were adopted into loving families.[111]

The security of this attachment gives the child a base from which to explore. An infant's preference for one adult is clear very early on. As the child is able to move about and explore more, s/he will stay close to one or a few adults. As s/he continues to expand the exploration area s/he will continue to check back with the preferred adult, show contentment when reunited after separation, and seek proximity if frightened.[112]

*Median earnings for **male** full-time, year-round workers in 2007*

Flagler	$ 36,571
Volusia	$ 37,298
Florida	$ 40,238

U.S. Census, American Community Survey, 2007

In order to develop secure attachments, toddlers need to be sure that caregivers will be available and able to assist them. This type of attachment is needed to help the child manage stress and develop a sense of competence and efficacy. More often, this type of attachment is formed from dependable and sensitive parenting. Lack of sensitivity to the child's needs and intentions can be a hindrance to secure attachments. An experimental program to increase maternal sensitivity showed positive results at nine months and again at 3½ years on follow up. Interestingly, husbands of mothers in the program also showed improved sensitivity to the child's needs.[113]

Again, genetics must be considered. Each infant comes with his/her own tendency toward attachment. The inclination toward a type of attachment does not predestine the attachment but it must be considered in the full context of attachment development. Parental responsiveness and sensitivity can powerfully impact the attachment even given the genetic predisposition.[114]

Family Features. According to the NICHD Study of Early Child Care and Youth Development, families' features (and children's experiences within their families) have been proven to have a stronger effect and are more consistent predictors of child development than any aspect of child care. The research has shown that the quality of mother-child interaction was one of the most significant and consistent predictors of both cognitive and social development. These maternal qualities include being responsive, attentive, sensitive and cognitively stimulating. Mothers with positive personalities living in more economically advantaged households with a higher education level and fewer symptoms of depression had more of the mother-child interaction characteristics that led to better outcomes for children in this study.[115]

A family's socioeconomic status (SES) at the time of early childhood can be linked to academic achievement through adulthood. SES is strongly associated with children's cognitive skills at the time they transition to school. This may be more of a manufactured transition point than a developmental trait borne out by evidence. However, there is good evidence that academic achievement, school dropout and adult literacy can have its base in the families' SES during their children's early childhood.[116]

Families with differing SES levels (whether from income, education or occupation) also have different levels of capacity to purchase quality child care, nutritious food and safe housing. Lower SES also has an impact on the psychological well-being of mothers in those families. Families have differing methodologies of addressing income, employment and child care.[117]

There is good evidence to suggest that the long-term prediction of academic achievement, school dropout, and even adult literacy from the socioeconomic status of one's family during the early childhood years is attributable to the effect of social class on early school achievement.[x]

*Median earnings for **female** full-time, year-round workers in 2007*

Flagler	$ 30,654
Volusia	$ 29,420
Florida	$ 32,150

U.S. Census, American Community Survey, 2007

Even though most children living in poverty grow up to be productive adults, some do not and, without intervention, individual differences among children at school entry that are linked to poverty often persist over time.[y]

Parents in the Workforce. Parental work patterns can affect quality parenting. Both maternal and paternal work patterns hold considerable weight in the decisions about time and money dedicated to the family and, subsequently, the children. Possibly the biggest change in recent history is the volume of mothers who have entered or returned to the work force.[118]

Nationally, the increase of employment for mothers with infants has increased from 24 to 54 percent over the last 24 years. For mothers of young children the rise was less dramatic—from 36 to 40 percent. Many times this means a shift to outside-of-home child care.[119]

Most of the research on working mothers has centered on middle-class families. The results have been inconclusive but most of the evidence suggests that the effects are positive for children or that children are unaffected. However, evidence is growing implying that mothers working long hours during the child's first year can become a negative factor in infant development.[120]

Working Poor. More research is being conducted with families defined as working-poor. These families have an income below the poverty level with two parents working the equivalent of a full-time job or a single parent who works at least 20 hours per week. Early evidence from the few studies with low-income children finds that infants and toddlers have better outcomes in working-poor families than in poor families where parents do not work.[121]

Unemployed Fathers. Fathers' unemployment can have a deleterious effect on family dynamics. The financial strain can lead to tension and less supportiveness in the home which can, in turn, lead to short and long term negative consequences in child development.[122]

Low Income Families. Studies of working single mothers indicate that low-paying, low-complexity jobs contribute to a decline in the quality of the home environment. With predictions that a high rate of job growth will be in the service sector in the coming years, this could be a cause for concern.[123]

Increasing the income of low-income families can increase the chances for stronger early development. The question remains for how best to accomplish this. Productive adulthood is the result for most children living in poverty. For some, however, those differences at the time they enter school will remain with them without intervention. Simply raising income without improving parental mental health and increasing parenting quality does not achieve the desired positive effects for children.[124]

Socioeconomic status is variable over time. Only half of children and families who are poor in a given year are persistently poor. Family incomes tend to increase as children get older but poverty in early childhood has a stronger impact than a similar SES in later childhood.[125]

Families with healthcare needs are more likely to fall into poverty.[z]

Parental Education. Parental education levels have a strong correlation to the family literacy environment, how parents teach their children and their utilization of community resources such as libraries and museums. Although a higher level of parental education seems beneficial, studies have not been able to determine whether a small increase in the mother's educational level while parenting has any affect on child well-being in early childhood. Larger changes or achieving basic literacy has not been fully researched yet.[126]

Family Structure. Family structure (married or single parent) and the home environment can also have an effect on child development. Single-mother families are at the highest risk of being at or below poverty level and single parenting can mean less time devoted to child activities, lower cognitive stimulation and less emotional availability. Children may have fewer opportunities for relationships with male role models that could impact their social development. Overall, children in single-parent families, versus children in intact-marriage families, have lower levels of social and academic well-being. These differences are mostly attributed to the lack of family resources. Research is continuing regarding the impact on early childhood outcomes of family structure and family SES.[127]

Mental Health and SES. Another side of this multi-faceted issue is the influence on parental mental health from a lower SES. Poor mental health is associated with parenting that is inconsistent, harsh and detached. Parents with low income have a greater risk of becoming depressed and experiencing other psychological distress. Families with a lower SES more often have fewer resources to bring to bear on events such as a family illness, housing problems or changes in child care arrangements.[128]

Substance Abuse. Substance abuse in a family can lead to other mental health issues for young children. Depending on the substance, parenting may be impaired in different ways. Alcohol and marijuana may be depressive and lead to withdrawn behavior whereas cocaine could cause a parent to have increased activity and an elevated mood with unpredictable or impulsive behavior. Because substance abuse is so often found in conjunction with mental health problems and other disadvantages, it has been difficult to determine through research whether harmful parenting situations are due solely to drug use.[129]

Bonding with the child is so important. Without that bond, the caregiver doesn't feel empathy toward the child.[aa]

Child Abuse and Neglect

Child maltreatment is reported more often and has a higher incidence among low-income families when compared to high-income families. While it has been posited that persistent poverty has a higher correlation with neglect, abuse has been more often associated with sudden economic loss. However, economic hardship is but one of many risk factors for child abuse and neglect.[130]

Data from 40 states indicates that over 1/3 of children who have experienced abuse or neglect are under the age of five. Furthermore, approximately 77% of child victims who died as a result of abuse were under age three.[131]

As stated earlier, crying is often considered to be an infant's first communication tool—it can also lead to child abuse. A stressed adult caring for a baby experiencing an extended crying session could snap and take action s/he may come to regret. Uncontrollable crying and toilet training are two examples of frustrating situations that can lead to child abuse.[132] Child abuse can be a single hasty action with potentially fatal consequences such as shaking a baby.[133] It can also be a pattern of repeated actions creating toxic stress (prolonged bodily stress responses) for the young child.[134]

Abuse or neglect by caregivers can lead to a host of issues. It may lead to significant emotional and psychosocial problems or a display of intense, maladaptive emotions.[135] The young child may have difficulty understanding the emotions of others or may show signs of social incompetence. The after effects of abuse can lead to lower school performance and I.Q. scores as well as deficits in language ability. Chronic, toxic stress is suspected of affecting periods of rapid brain development by altering the stress physiology.[136]

As a result of abuse, young children may exhibit conduct problems. Elevated rates of aggression have been noted in toddlers. Victims of physical abuse will often inaccurately assign hostile intent to others. If abuse occurs in concert with other stressors the consequences may be worse. The affects of abuse can be long term with a higher incidence of psychopathology and involvement in adult violence among those who have suffered childhood abuse. It is worth noting however that the vast majority of abuse victims do not become abusive adults.[137]

As with other childhood difficulties, a strong and supportive relationship with an emotionally invested adult can go a long way to defray the personal costs of abuse.[138] In early childhood, children who have experienced abuse may have overwhelming emotional demands and—at the same time—are often deprived of the parent as a resource for managing these powerful emotions.[139]

Percent of "under 5 years" below poverty level in the past 12 months

Flagler	37.9
Volusia	25.7
Florida	19.5

U.S. Census, 2007 American Community Survey

Child Care & Early Education

There is a wide variety of outside-of-home child care in a somewhat fragmented system. High quality child care can be a boost and/or safe haven for children who may be more vulnerable or at risk. Alternately, lower end settings can be detrimental to child development. Early care and education programs span the spectrum of services with varying effectiveness.[140] Parents must make an informed choice to obtain the best child care for their family situation. The Early Learning Coalition of Flagler and Volusia offers child care provider training to increase the quality of local child care and coordinates Voluntary Pre-Kindergarten (VPK). The coalition also coordinates subsidized child care for eligible families.[141]

Professional development is the key to quality child care and self-esteem for professional early childhood educators.[bb]

Education Level of Practitioners. The fields of child care and early childhood education have experienced an increasing level of education required for child care practitioners. Daytona State College offers education for several levels of achievement and works closely with the University of Central Florida for continued higher education. Locally, child care providers face high staff turnover due to low wages and limited or no employee benefits. With higher educational attainment, child care practitioners often move into the education field in order to obtain better wages and benefits. High turnover may be a valid cause for concern when juxtaposed with the earlier references to the importance of a strong relationship with a positive caregiver in early childhood. See Appendix B for further details about Daytona State College.

Parental Involvement. Parent involvement is a key element of a strong child care program. Results from many years of research indicate that children achieve more when parents are involved regardless of their ethnic/racial background, socioeconomic level, or the parents' education level.[142] The U.S. Department of Health and Human Services reports that successful family involvement will center attention on building trust and respect among families and staff.

Percent of children under 6 years with all parents in the labor force.

Flagler	26.2
Volusia	61.3
Florida	64.0

U.S. Census, 2007 American Community Survey

Longitudinal Study. The National Institute of Child Health and Human Development (NICHD) has completed a 10-year study of the relationships between child care and children's development. The results were published in January, 2006.[143]

NICHD followed over 1,000 children from when they were ages zero to three years (1991, Phase I) up to ninth grade (2007, phase IV). The most recent data is still being compiled. The study researched cognitive and language development, social behavior, emotional development, relationships with mothers, and health and physical growth. The study started with 40% of the children defined as poor or near poor and by age 4½ years that number was 23%. The difference was attributed to families moving above the poverty level or dropping out of the study. Additionally, 85% of the children had mothers who were married or partnered. The study described the

Even when young children spend most of their waking hours in child care, parents remain the most influential adults in their lives.[cc]

mothers as 10.2% having no high school diploma, 21.1% with a high school degree or equivalent, 33.4% with a college degree and 14.5% with a postgraduate education.[144]

Definition of Child Care. The term "child care", as used by NICHD, encompasses both maternal and non-maternal care. It is defined as 10 hours per week of care by anyone other than the child's mother. Therefore, it refers to non-maternal child care which includes in-home care (by someone other than the mother), child care homes (care in another adult's home) and child care centers. It does not include babysitting.[145]

In the NICHD study: (for Volusia/Flagler Child Care data see page 76)

- 36% of children were cared for by their mother only at six months
- This dropped to 21% at age three years
- And 11% at age four-and-one-half years

Features of Quality Child Care. Quality child care is referred to as having **regulable** features and **process** features. NICHD considered the American Academy of Pediatrics and the American Public Health Association criteria for adult-to-child ratio, group size, and caregiver education level.

There are three features that can be **regulated**:

- The adult-to-child ratio where lower is better
- The group size where smaller is better
- The caregiver's education level where higher is better.

Percent of children enrolled in child care centers (by age).

6 months	9
3 years	31
4½ years	54

NICHD Study 1991-2001

The **process** features are components of positive caregiving. Behaviors of positive caregiving include:

- A positive attitude and positive physical contact
- Verbally, positive talking and responding to the child's vocalizations add to the experience

Additionally, reading, encouraging development, advancing the child's behavior and eliminating negatives for the child are all activities of positive caregiving.[146]

Effects of Quality Child Care. Research has shown that higher **quality** child care predicted greater school readiness as evidenced in standardized test results. Furthermore, more stimulation during child care led to better cognitive functioning and higher language development for children. The most important predictor of better functioning was language used by the caregiver. These links between quality child care and child development were not as strong as those between family features (education, income, etc.) and child development. The greatest impact of quality child care was for those children whose development was slow at age 18 months.[147]

The effects of higher **quality** child care on behavior are an area of some controversy. Research has indicated that higher quality child care produced more cooperative, compliant and slightly less aggressive and disobedient behavior at ages two and three years. Lower quality child care resulted in more children who were less securely attached to their mothers but only if their mothers interacted with less sensitivity already.[148]

Group Care. Up to age three, children in group care settings were somewhat more cooperative, had fewer problem behaviors and had somewhat more positive other-child interactions. After that age, the NICHD study reported, there was more disobedient and aggressive behavior from children with more center-based child care experiences.[149]

Child Care Centers. Children who attended child care centers had somewhat better cognitive and language development, but also showed somewhat more behavior problems in child care and in kindergarten classrooms than children who experienced other non-maternal child care arrangements.[150]

Quantity of Child Care. The quantity of child care was not as strong a predictor of children's social behavior as were the families' features. Neither did the quantity predict behavior problems requiring professional attention. School readiness and cognitive or language skills did not appear to be affected by quantity of child care either. The quantity of time spent in non-maternal child care did increase the risk of insecure attachment of their mothers. This insecure attachment was on the part of the mother not of the child.[151]

The quantity of child care was not a strong predictor of children's health except during infancy. Infants in more hours of child care were slightly more likely to have an ear infection or stomach illness. In general, outside-of-home care and larger group settings (more than six) led to slightly higher likeliness for stomach illness, ear and upper respiratory infections than other care settings.[152]

Family Features. It is interesting to note in the NICHD study that the families' features have a greater impact and are more constant forecasters of child development than any facet of child care. The quality of the mother-child interaction was one of the most important and consistent predictors of good child outcomes. This was true for attachment security and language development as well as pre-academic letter and number skills. "In general, mothers who were educated, lived in more economically advantaged households, experienced fewer symptoms of depression, and had more positive personalities" had more of the mother-child interaction characteristics that led to better development outcomes.[153]

The waiting list for eligible working parents needing subsidized child care has grown from 473 in 2007 to 1,500 in 2008.[dd]

Mean Usual Hours Worked in 2007 (Ages 16-64)

Flagler	38.6
Volusia	39.1
Florida	39.9

U.S. Census, American Community Survey, 2007

As I look 20 years into the future and see my daughter as an integral part of society, I will be able to honestly tell her: It was Head Start that catapulted you to be the successful person you are today.[ee]

Children referred for screening regarding a disability before Kindergarten (2007-08)

	Number	Percent
Flagler	252	5.5
Volusia	853	2.8
Total	1,105	3.2

Child Find, Flagler County
Child Find, Volusia County

Children eligible for services/identified as having a disability before Kindergarten (2007-08)

	Number	Percent
Flagler	200	4.4
Volusia	456	1.5
Total	656	1.9

Child Find, Flagler County
Head Start, Flagler County
Child Find, Volusia County
Head Start, Volusia County

Outcomes Variations. While performing slightly differently on language outcomes, children performed similarly on cognitive outcomes whether in child care or exclusive maternal care from birth through age three. Most children also had similar cognitive, language, and achievement scores during that time. There seemed to be almost no difference in the NICHD studied child outcomes whether or not children were in routine child care.[154]

Developmental Disabilities. In conjunction with the NICHD study, researchers conducted an independent review of child care for children with developmental disabilities who often have special child care needs. Among these families, from birth to age one year, fewer mothers re-entered the work force. Therefore, these children entered child care later than the children in the broader study and for fewer hours. The researchers noted that the same quality of care was provided to children with disabilities as was to children in the overall study.[155]

Families with children with disabilities have the additional challenges of finding child care providers that have the ability and willingness to serve their children. Transportation and coordination with other intervention services are also a consideration as well as the greater expense. This leads to lower employment with fewer hours for their parents. There is still much to learn about the barriers families face and the care experiences for their children.[156] According to the Data Accountability Center (www.ideadata.org), in Florida, 1.7% of zero to two and 5.0% of three to five year olds receive services for a disability. Nationally, 2.5% of zero to two and 5.7% three to five year olds with a disability are served. Easter Seals, Head Start and the Florida United Children's Methodist Home are three of the local child care and early education providers who offer inclusive child care settings. See Appendix B for additional details.

Preschool Programs

While preschool is a subset of child care and has many of the characteristics previously mentioned, it is a unique setting and has changed dramatically over the years. An acknowledgement of those changes was displayed in the March, 2008, issue of Orlando Magazine which listed the expectations for a child entering kindergarten then and now.

Then and Now – 1989

- Recognize letters
- Identify their first and last names
- Match pictures whose names rhyme
- Hold a pencil properly
- Recognize numbers

Then and Now – 2008

- Recognize letters and identify the consonant sounds at the beginning of words
- Recognize basic sight words
- Name a word that rhymes with a picture of a word
- Write upper and lowercase letters and numbers 1 to 15
- Work with number sentences (for example, subsets)

VPK. Florida is a leader in adopting statewide voluntary pre-kindergarten or VPK. Florida is also one of few states who have drafted early childhood learning and developmental standards. The Office of Early Learning has revised the 2004 Birth to Three Learning and Developmental Standards which are now undergoing national review and, upon approval, will cover the period of birth through five. The Department of Education recently updated the 2005 VPK Education Standards which apply to four-year-olds. Provider training is currently underway around the state for the 2008 VPK Education Standards.

The Florida VPK program is open to all children who are age four on or before September 1st and reside in Florida. The program is 540 hours for the school year and 200 hours for the summer program. Families must locate the VPK provider of their choice. There are eight domains in the VPK Education Standards resource book:

- Physical Health
- Social & Emotional Development
- Mathematical & Scientific Thinking
- Social Studies & The Arts
- Approaches to Learning
- Language and Communication
- Emergent Literacy
- Motor Development

Provider training on the standards emphasizes learning through play for school readiness. Providers are reminded that children will have individual variations in their learning and not all children will reach all standards by the end of the year. Additional training courses offer CEUs for providers upon completion of a practicum. Children's learning styles are also noted with a reminder for child care practitioners to use the Approaches to Learning domain to set the stage for the other seven domains. There is an accompanying parent handbook for providers to distribute to parents of children in their care.

As an example of the outstanding parent involvement, on the last VPK field trip, there were more parents than students.[ff]

Percent of VPK students assessed as ready for kindergarten.

1st year	92
2nd year	93

Florida Department of Education

The Supportive Community

Building capability and resiliency in families will have a profound effect on children. Whether birth parents, camp counselors or any adult caregiver, building their capacity to effectively work with children will improve child outcomes.[gg]

The Policy Group's desired outcomes for communities in Florida
Our communities are:

- supportive of families raising children

The Policy Group's recommendations for Key Policies and Practices
All communities, in partnership with the public and private sectors, have the capacity to provide a comprehensive, integrated continuum of natural, primary, and specialized supports.

Public and private employers promote family-friendly employment practices and a livable wage.

Community Factors

The culture of the family is often reflected in the culture of the community. Neighborhoods and communities are significant environments in early childhood. Living in a supportive neighborhood and enjoying good-neighbor relationships can contribute to higher levels of social competency and to the successful development of children. In a Fact Sheet from Child Trends, data showed that in neighborhoods with high support, 74% of "family disagreements are usually/always discussed in a calm manner" compared to 62% in neighborhoods with low support. Similarly, 82% of parents "usually/always attends child's events or activities" in a high-support neighborhood compared to 69% in neighborhoods with low support.[157] The Fact Sheet lists multiple examples of positive child and family connections in high-support neighborhoods.

Homelessness

The impact of homelessness on children is all encompassing and far reaching. A 2004 study in New York City showed educational achievement significantly affected and children placed in special education at a rate 1/3 higher than the national average. More than half of homeless children had developmental delays and the opportunity for preschool was greatly reduced which resulted in missed opportunities for screening and early intervention. Approximately 46% experienced declining health and 60% of two and three year olds had not been immunized. Children went hungry at a rate six times that of non-homeless children and 25% of children under age five had symptoms of depression, anxiety or aggression after becoming homeless.[158]

Cultural Factors

Culture has some bearing on all facets of human development. It is evident in childrearing beliefs and guides healthy adaptation. Culture can influence parents' decisions about their babies regarding sleeping arrangements, feeding, responses to

crying and (a little later) temper tantrums. Additionally, the roles of family members and developmental expectations are drawn from the family's culture.[159]

It is much easier to build strong children than to repair broken men.[hh]

Even though culture is so pervasive in its impact on early childhood, the literature describes typical development based on research with middle-class children of European-American descent often living in university communities. The research on children of color has looked primarily at the impact of poverty through the study of children in "high risk, urban communities". Therefore, there are still many unanswered questions and areas yet to be explored when discussing minority group status and economic distress.[160]

Across all cultures parents seem to have three universal goals for their children. These goals are paraphrased here as:

1. Physical survival and health
2. Capacity for economic self-sufficiency
3. Development of those behaviors that will carry out the cultural beliefs, norms and ideologies.[161]

Individual Differences. However, individual differences can lead to varying paths in early child development. Whether value is placed on independence or interdependence will help to form a child's manner of interacting with others. Children within the former culture will strive toward individual achievement whereas children in the latter will lean more toward sharing and connecting with others.[162]

Children as "Active Agents". It has been learned that children do not passively become replicas of adults in the culture in which they are nurtured. The blend of nature and nurture is again demonstrated. Children are "active agents" who select from the influences to which their cultures exposed them. Just as their cultures are dynamic and may shift over time, children evolve their own cultural context.[163]

Ethnicity. Helms has defined ethnicity as "a social identity based on the culture of one's ancestors' national or tribal groups and modified by the demands of the larger culture or society in which one currently resides". Individuals may be self-identified by their ethnicity and determine their own ties—strict or loose—to the values and practices of that ethnicity.[164]

Race. While culture and ethnicity are usually related to heritage, race is often defined by physical characteristics. In the United States, individuals with mixed racial descent make up a significant segment of the population. It is projected that by 2030, less than 50% of the population under age five will be from families of European origin. [165]

The time is long overdue for society to recognize the significance of out-of-home relationships for young children, to esteem those who care for them when their parents are not available, and to compensate them adequately as a means of supporting stability and quality in those relationships for all children, regardless of their family's income and irrespective of their developmental needs.[ii]

Children have race recognition by the age of four. By this age, they appear to realize that race is inherited from parents and is present at birth. Young children also appear to be aware of a hierarchy by race but have no clear picture about who fits where in that hierarchy. Race is not a particularly important consideration when young children are choosing playmates. Behavior based on racial perceptions has been found to occur after the preschool years.[166]

Cultural Competency. Human service professionals work with children from all cultures, ethnicities and races. Service provision seeks to be "culturally competent" which is a complex task. Although there is minimal scientific evidence to guide them, the American Medical Association defines a culturally competent professional as:

> "One who is able to facilitate mutually rewarding interactions and meaningful relationships in the delivery of effective services for children and families whose cultural heritage differs from his or her own."[167]

Environmental Health

A necessary component of a supportive environment is one that contributes to good health. Children breathe more air, drink more water, and eat more food than adults per unit of body weight giving them a greater exposure rate to environmental toxins.[168] In addition, children's physical systems are still in the process of developing and may be more fragile to harm. They are closer to the ground and place more objects in their mouths. As newborns, they can be exposed through the placenta and/or breast milk. Finally, very young children are not able to communicate the urgency of their needs and rely on responsible adults to attend to their care.[169]

Toxin Exposure. Exposure to specific pesticides, some heavy metals, and polychlorinated biphenyls (PCBs) have been noted to cause brain damage. The risk is especially high during prenatal and perinatal (around birth) periods. Exposure to these toxins can contribute to learning disabilities and disruptive behaviors. Children in poverty-level families where malnutrition might also be a factor additionally face a greater likelihood of more serious effects due to the limited availability of health care and education resources.[170]

Air Quality. Air quality is an important environmental health factor for children. On most days, Volusia County has an Air Quality Index (AQI) rating of "good" which is the highest rating possible and indicating a value in the 0 to 50 range. Over the report period (2005-2007) Volusia had between 319 and 340 days per year of good air quality. Information was not available for Flagler County however the counties to the south (Volusia) and west (Putnam) both had good AQI ratings.[171]

Secondhand Smoke. Indoor air pollutants can also affect children's health. The good news is that the 2005 National Health Interview Survey found that 8% of children up to age six were exposed to secondhand smoke compared to 20% in 1998. The bad news is that the surgeon general has said there is no "safe level" of exposure; however, children still experience secondhand smoke in their homes and cars. Secondhand smoke can lead to middle ear infections, bronchitis, pneumonia, asthma and Sudden Infant Death Syndrome (SIDS).[172]

Although secondhand smoke exposure among children has declined over the past 15 years, children remain more heavily exposed to secondhand smoke than adults.[jj]

Ingested Toxins. Pesticides are another risk factor especially for children in low-income housing. Pesticides in foods as well as mercury levels of fish in the diet are also worthy of research by expectant mothers and parents.[173] Experiments on animals have shown that prenatal and infant exposure (during nursing) to environmental toxins can interfere with brain architecture.[174]

Lead Poisoning. Florida's Department of Health web site states that lead poisoning is a serious but preventable health problem. The mission of Florida's Lead Poisoning Prevention Program is to protect the health and cognitive development of children and adults living in Florida by preventing exposure to all lead hazards. Activities in this program include statewide surveillance of blood lead testing in children and promoting blood lead screening in children less than 72 months of age.

Lead can be eaten or breathed and children can be exposed to lead by breathing lead-contaminated dust or touching toys or other objects with dust on them. Homes built before 1978 could have lead based paint on interior surfaces. Children can have lead poisoning without any symptoms. An empty stomach will absorb more lead and foods high in fat, such as potato chips, can make it easier to absorb lead. If a child is on Medicaid, a lead test is required.

Energy Security. Another environmental issue is that of energy availability. Rising energy prices have a major impact on low-income families. Affordable expenditures on energy are considered to be 6% of a family's income. Families with lower income will spend a greater proportion of it on energy. Data from C-SNAP (Children's Sentinel Nutrition Assessment Program) notes that a family of four making just under $20,000 will spend almost 25% of their income on energy costs. Additionally, as energy expenditures increase, food expenditures decrease. As is the case with several other early childhood factors, there is a disproportionate impact on children of color regarding energy security.[175]

Interventions in Other Communities

Communities, cities, counties and states across the country have addressed early childhood issues in a variety of ways. Intensive family-focused efforts are being supported with state, federal and private funds.

Developmental Guidelines. Some states have developmental guidelines often divided into birth through three and pre-kindergarten. These preschool readiness programs are an effort to ensure that young children get the support they need to enter school ready to learn. These guidelines list the knowledge, skills and characteristics that parents and caregivers should encourage in young children. Generally speaking the guidelines are divided into domains which typically include: physical, social-emotional, language, cognitive and approaches to learning. The infant-toddler guidelines and guidelines for older children are often examined for alignment.[176]

The period of infancy through toddler age is a qualitatively different developmental stage. As has already been stated, this is a time of rapid advances that are highly dependent on the child's experiences and relationships with others. Early learning guidelines educate caregivers on the domains of development to better ensure quality child care. The guidelines often serve as the basis for professional development to further assist caregivers.[177]

Arizona. Arizona has supported Healthy Families in a statewide effort providing home visitation services for prevention of child abuse and neglect.[178]

Arkansas. Arkansas has instituted the Arkansas Better Chance (ABC) prekindergarten program. State-funded pre-K was first offered in this state in 1991 and funding and participation have increased over the years. In 2006-07 more than 1 of 5 four-year-olds was enrolled in the state's program. Rutgers University began a longitudinal study of two groups of children in 2005. The two groups each have children who participated in the program and those who did not. Interim results have been positive for the program for children completing kindergarten and first grade. Year five of the study will be completed in 2009-10 and will have followed the children through the end of third and fourth grade.[179]

California. Los Angeles has adapted the Nurse Family Partnership program to work with children of teen mothers and reduce repeat teen births.[180]

Colorado. Colorado funds the Nurse Family Partnership program under the Nurse Home Visitor Act of 2000. This program is available to all first-time mothers in families below 200% of the poverty level.[181]

Kansas. Kansas uses the federally-funded Child Care and Development Fund to support their Early Head Start Expansion Initiative. This initiative has been acknowledged for partnering with family child care providers and improving availability of quality child care for infants and toddlers.[182]

Kentucky. KIDS NOW was established in Kentucky in 2000 by the Kentucky General Assembly. This early childhood initiative focuses on four main areas: assuring maternal and child health, supporting families, enhancing early care and education and establishing a support structure. There are also four key qualitative components: state level outcomes and indicators, environmental standards, personnel competencies, and child standards. KIDS NOW has three companion documents: Kentucky's Early Childhood Standards, Kentucky's Early Childhood Continuous Assessment Guide and Kentucky's Early Childhood Quality Self Study. As in other states the childhood standards are divided for birth-to-three (five domains) and three-and-four year olds (seven domains). Kentucky has also developed a quality rating system for child care centers and child care homes.[183]

Maryland. Maryland has Friends of the Family to support families with young children. This non-profit organization funds quality assurance services, including training and technical assistance, to a network of 26 Family Support Centers statewide.[184]

Ohio. Franklin County, Ohio, has an organization entitled Action for Children dedicated to the 17,000 children born in the local hospitals each year who will enter kindergarten approximately 1,800 days later. In 2006, the School Readiness Solutions Group developed a 10-year action plan to get young children "kindergarten ready". The group is responsible for parenting education, child care provider professional development, family home care providers' reimbursement for healthy meals, a neighborhood network, parent resources and an information and referral service.[185]

Franklin County found that 45% of parents miss at least one day of work every six months due to problems with child care with an average of 4.3 days per six months. In response to this statistic, they started the Circle of Business to improve business performance through support for work/life effectiveness. The program hosts three Business Roundtables to share best practices and an annual Executive Forum. Additionally there are monthly e-mail publications, complimentary onsite work/life programs and networking with local business professionals.[186]

Oklahoma. In Oklahoma, the early childhood initiative is called Smart Start. Shouting a slogan of "Ready or not, here I come!", there are four key strategies:

- Community initiatives
- Public engagement
- Resource development
- Public policy[187]

Through 2007, there were 18 Smart Start communities. The initiative encompasses parenting education, child care provider professional development, parent resource centers, legislative events and national speakers on the importance of economic development and its connection to early childhood. There is a broad communication plan in place to celebrate successes and provide resources for families. Over 150 business leaders have contributed resources to the community coalitions and Oklahoma has seen an increase in foundation grants, corporate contributions and in-kind gifts. To support the initiative through public policy, representatives have visited elected leaders, conducted Child Watch tours and brought together several existing plans targeting infant and early childhood mental health in a single statewide plan.[188]

The Oklahoma pre-K program is reported to reach more four-year-olds than any other state pre-K program. It is based in the school system and is universal. The Tulsa Public Schools model has seen program participation to be a significant predictor of prereading and prewriting test score outcomes. Participation has out gained "gender, race and/or ethnicity, free lunch eligibility, mother's education of whether the biological father lives at home" as a predictor of this type of success. Participation in the Head Start model has shown similar results in premath outcomes. These findings give credence to pre-K programs in overcoming family and environmental risk factors in the short term.[189]

Pennsylvania. Allegheny County, Pennsylvania also has 33 family support centers through sixteen lead agencies with Early Head Start at its core.[190]

Rhode Island. Rhode Island has the Family Outreach Program of home visiting through the Rhode Island Department of Health. This program for assessment and referral offers family one to three visits starting at the birth of an infant and then again in six months.[191]

Volusia and Flagler Assets

Volusia and Flagler Counties have much to offer families of young children yet there is room for enhancement. The assets named here are a starter list of community organizations that provide human services for children and families in the age range of prenatal through five. Time and space have limited the content so this is not an exhaustive list of all the services available to families with young children in our area. The most complete and current listing available is at www.211Live.org.

Services might not always have a clear division by age but many of the service providers use age as a criterion for eligibility. Below is a list of the organizations interviewed for this report and their area of expertise. Please see Appendix B for additional details.

- Children's Advocacy Center, child abuse & neglect
- Children's Medical Services, special needs medical services
- Community Partnership for Children, child abuse & neglect
- Daytona State College, child care practitioner education
- Early Learning Coalition, early childhood education
- Easter Seal Society of Flagler and Volusia Counties, inclusive preschool education
- Florida United Methodist Children's Home, child care
- Head Start, early childhood education
- Healthy Start, maternal and child health
- Dr. Pam Patrick, psychologist and child advocate
- The House Next Door, infant mental health
- VPK Training Provider, VPK provider education
- WIC , Supplemental Food Program for Women, Infants and Children

Children's Advocacy Center. Children's Advocacy Center of Volusia & Flagler Counties (CAC) offers services for medically needy children from birth through age three (Early Steps program) as well as a variety of services for victims of child abuse and neglect. CAC is the base for the Child Protection Team (CPT) that receives referrals from DCF, assists with the abuse investigation and links families to needed community services. The Family and Community Partnership Team works within neighborhoods to raise awareness of and prevent child abuse through building strong communities by empowering families. Knowing that children face a 50% greater risk of abuse again in the future without counseling, CAC offers outpatient mental health counseling through their Family and Child Trauma Treatment Services.[192]

Children's Medical Services. Children's Medical Services (CMS) is a state program that serves children with special or continuous medical needs from prenatal up to 21 years. CMS has Nurse Care Coordinators, social services and can assist families with

access to pediatric specialists near and far.[193] Medical needs may include disabilities and/or behavioral health diagnoses such as ADHD, bipolar and autism. The Mama Bear program provides education for pregnant women regarding HIV and STDs (sexually transmitted diseases).[194]

Community Partnership for Children. Community Partnership for Children (CPC) is the community-based care organization serving victims of child abuse and neglect. By contracting with numerous community organizations, services are provided for children who are placed into foster care as well as those who can remain with their families with some additional family supports. It is a careful balance between preserving families and ensuring child safety. In-home supports help to achieve this balance. CPC is well aware of the research documenting poor outcomes for children in out-of-home care and works closely with DCF and contracted providers to reduce out-of-home care.[195]

Daytona State College. Daytona State College (formerly Daytona Beach Community College) offers higher education for early childhood educators and child care practitioners. From the minimum required 40 hours to a two-year Associate in Science (AS) degree in Early Childhood Education, Daytona State College works with students to achieve their education goals. The Child Care Apprenticeship program is free to students and can lead to a directors' credential. This program is in its 14th year in this community.[196]

Early Learning Coalition. The Early Learning Coalition of Flagler and Volusia Counties (ELCFV) has the responsibility for coordinating subsidized child care and to administer school readiness for the two-county area. Although subsidized child care recipients must meet an income criterion, the child care referral resources from ELCFV are available to all parents seeking quality child care. Currently, there is a waiting list for working parents needing subsidized child care of approximately 1,500 children. Voluntary Pre-Kindergarten (VPK) was initiated in 2005 and is free for all children and available to those who are four years old by September 1st of the school year. There are no waiting lists for VPK but parents must locate a provider who is offering the program. ELCFV provides training for child care practitioners to ensure quality child care services. ELCFV also offers the Child Care Executive Partnership for private businesses that would like to fund child care for their employees or anyone in the community. Employee absenteeism due to child care problems can be costly for businesses.[197,198]

Easter Seals. Easter Seals – Volusia and Flagler Counties offers a wide array of services for children with disabilities and their families. The Easter Seals preschool and VPK programs are inclusive meaning they are providing services to children with

and without disabilities. Camping experiences in a barrier-free environment and respite care are but two of the many services. Services are available for children with autism and for children and adults who are deaf or hard of hearing. Easter Seals also has a medical equipment loan closet with wheelchairs, walkers and canes to name a few of the items available.[199]

Florida United Methodist Children's Home. One of the many opportunities at the Florida United Methodist Children's Home (FUMCH) in Enterprise is an early childhood education center serving children from birth through age five. In the very near future, they have plans to open a building for infant care that will be able to serve up to 27 children. They will have the ability to serve medically fragile infants who may have heart monitors, diabetes or feeding tubes.[200]

Head Start. Head Start programs were originated 40 years ago with the goal that children from low-income families would be given the "head start" they need to be successful in school and society. Mid Florida Community Services, Inc. is the Head Start provider for Hernando, Sumter and Volusia Counties with Volusia County comprising two-thirds of the program. Head Start uses a shared governance model with parents elected to serve on the policy council to make decisions affecting the entire program. Parents are also partners in treatment decisions. Mid Florida Community Services has been recognized as 1 of 25 programs nationally as a National Head Start Association Program of Excellence.[201]

In Flagler County, RCMA (Redlands Christian Migrant Association) directly owns and operates the Flagler Child Development Center serving Head Start preschool children and their families. RCMA has twice been designated as a National Head Start Program of Excellence and is awaiting the decision on this recognition for a third time. They have received RIF (Reading Is Fundamental) grants annually since 1994 and also work with children who are trilingual. RCMA is currently in negotiations to relocate their program to new facilities in the fall of 2009.[202]

Healthy Start. The Healthy Start Coalition of Flagler and Volusia Counties has four programs: Healthy Start, Healthy Families, MomCare and FIMR (Fetal Infant Mortality Review). These programs strive to help families achieve healthy birth and child outcomes. Participation in Healthy Start is voluntary and services are available for pregnant women and children up to their third birthday and ranges from prenatal care to positive parenting education. MomCare is specifically for pregnant women with Medicaid insurance to connect them with prenatal care providers and assist with problem-solving associated with access to services. Healthy Families provides home visiting by paraprofessionals to work with pregnant women and families with newborns to better ensure a healthy beginning. It is a voluntary program serving children up to

age five if they have enrolled prior to their third birthday. Families receive information about immunization schedules, breastfeeding, the stages of growth and development among other health-related topics.[203]

The House Next Door. The House Next Door (HND) is an organization that nurtures and empowers families to help build stronger communities. HND has services for children and adults of all ages. Infant Mental Health is a new focus and is essentially family therapy and working with caregivers for the youngest children. The program offers training for child care practitioners and adults in a caregiver role for infants and toddlers placed in their homes. HND also offers individual, couples, child and family counseling. Early childhood parenting programs, family support services and community support programs are also available.[204]

WIC. WIC (Women, Infants, Children) for Volusia & Flagler Counties is the federal Special Supplemental Nutrition Program administered by the Department of Health in Florida. The Volusia/Flagler WIC Agency serves the two-county area for women who are pregnant, postpartum or breastfeeding and infants and children under age five. Approximately half of the babies born in Volusia County are enrolled in WIC. Improving the nutrition status of WIC participants during critical periods of growth and development is the goal of the program. The WIC Program emphasizes nutrition education, breastfeeding promotion and support, and enrolling pregnant women in their first trimester of pregnancy. WIC also works closely with immunizations to assure that children are current with their immunization schedule. The WIC Program serves working families who have gross income up to 185% of the Federal Poverty Line which is $39,220 annual for a family of four. Please note: An unborn baby is considered as a household member of one for income eligibility purposes. Pregnant women are enrolled in WIC when they first come to a WIC office without proof of pregnancy or any paperwork. The woman only has to declare pregnancy and she is enrolled, and receives program benefits which include nutrition education, referrals for healthcare and community resources, and checks for nutritious foods at no cost. Women receiving assistance through TANF, Medicaid or food stamps are automatically income-eligible for the program. All WIC participants have to also quality with a nutritional or medical risk such as anemia, low weight gain during pregnancy or stunted growth in children, and other factors.[205]

Return on Investment

Key findings of a 2005 Rand Corporation report on the "Proven Benefits of Early Childhood Interventions" are as follows:

- Early Childhood intervention programs have been shown to yield benefits in academic achievement, behavior, educational progression and attainment, delinquency and crime, and labor market success, among other domains.
- Interventions with better-trained caregivers and smaller child-to-staff ratios appear to offer more favorable results.
- Well-designed early childhood interventions have been found to generate a return to society ranging from $1.80 to $17.07 for each dollar spent on the program.

Perry pre-school targeted pre-K program cost/ benefits (per child)

Cost	$15,166
Benefits	$243,722
Ratio	$17.1:1

Pre-K Now Research May 2007

Interventions for Disadvantaged Children. In a related study, Rand estimated that well-designed programs for disadvantaged children up to age four can result in benefits of $1.26 to $17.00 for each dollar spent. Even though some benefits can be gained from some small-scale, less expensive programs, the largest benefits resulted from the most comprehensive and most expensive programs. The more recent report also found that:

> "high-quality early childhood programs can keep children out of expensive special education programs; reduce the number of students who fail and must repeat a grade in school; increase high school graduation rates; reduce juvenile crime; reduce the number of youngsters who wind up on welfare as adults; increase the number of students who go to college; and help adults who participated in the programs as children get better jobs and earn higher incomes."

Perry pre-school targeted pre-K program economic returns (per child)

$12.90	**society**
Crime	$11.31
Tax revenue	$0.93
Education	$0.48
Welfare	$0.19
$4.17	**participant**
In increased earnings	

Pre-K Now Research May 2007

Educational Attainment. According to Rand, costs to government are higher and government revenues are lower when limited skills and low educational attainment result in a greater likelihood of higher unemployment and lower income when employed. They report that, in 2005 dollars, a high school dropout can cost society between $243,000 and $388,000 and a typical career criminal between $1.3 and $1.5 million over their lifetimes.

Child Outcomes. In 2008, Rand released "The Economics of Early Childhood Policy" which indicated that "investing in human capital formation" in early childhood had a higher likelihood of efficiency than did "mitigating disadvantage at older ages". In addition to those benefits to society and their related costs listed above, there were better child outcomes associated with each of the monetary benefits including

Abecedarian early care & education (0-5) project cost/ benefits (per child)

Cost	$63,476
Benefits	$94,802
Ratio	$2.5:1

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- Reduced child maltreatment (abuse/neglect)
- Reduced child accidents and injuries
- Reduced incidence of smoking and substance abuse
- Improved pregnancy outcomes

Long Term Benefits. Policymakers who are spending dollars on programs now may not see all of the benefits for many years. There is an adage that says, "No politician was ever re-elected for a good thing they did twenty years in the future".[206] The cost benefits of early childhood intervention are often calculated in present-day dollars to compare them with present-day costs which could mean an actual higher return depending on future costs. The Partnership for America's Economic Success has research showing a 16% per year rate of return on early education investments.[207] More research and evaluation is necessary to determine which are the specific features of cost-effective programs.[208]

Abecedarian early care & education (0-5) project economic returns (per child)

$0.14	**society**
Tax revenue, education & welfare savings	
$2.35	**participant**
Child care, longevity from not smoking, lifetime earnings for children, mothers and future generations	

Pre-K Now Research May 2007

Benefits of Local Programs. Locally, the average cost of Healthy Start services is $500 per client. By helping families to achieve good birth outcomes, Healthy Start services can lead to fewer babies requiring a NICU (Neonatal Intensive Care Unit) stay and, if the NICU is needed, a shorter stay. The average cost of a healthy newborn hospital stay is $1,300 versus the average cost of a NICU stay of $75,000. Similarly, for every dollar spent in the WIC program, $1.77 was saved in Medicaid costs in the 60 days following birth and $3.50 saved over the next 18 years in healthcare costs. Additionally, WIC contributes to lower infant mortality, improved birth weight and increased breastfeeding. Head Start estimates that for every dollar spent on early intervention and prevention, approximately $7 to $10 are saved later on rehabilitation and correction. Furthermore, the Community Partnership for Children shared information from the Florida Coalition for Children that estimated that last Fiscal Year, 16,600 abused children were diverted from the dependency system at a cost of $17 million. Had only 25% of these children entered foster care, the cost of room and board alone would have exceeded $38 million. Ron Zychowski of the Community Partnership for Children believes that diversion works and eliminating the waitlist for child care will only improve this strategy. The Early Learning Coalition agrees that intensive, high-quality early-childhood education can lead to more children completing school, fewer grades repeated and less need for special education leading to adults who are less likely to commit crimes, more likely to be employed and likely to have higher earnings.

Children at Developmental Risk. The medical journal "Pediatrics" concluded that pre-school interventions for low birth weight babies can lead to long-term changes for those children at developmental risk. As in the Rand study, there was greater school

achievement, less grade retention and special education with more high school completion and college participation when children received center-based interventions. The children in this study were followed in adolescence and early adulthood to obtain the data. Additional early-intervention social outcomes saw less adolescent parenting, less delinquency and fewer arrests.[209]

Home Visiting and Parenting Education. The various cost benefit studies have reviewed such programs as Parents as Teachers, Head Start, the Perry Pre-school Project, and the Abecedarian Project. Costs for early intervention programs have ranged from $1,400 to almost $240,000 per child. The Perry Pre-school Project has continued to track participants for 35 years after the intervention period had ended. Results have been very good for programs that centered around home visiting or parent education as well as programs that included early childhood education in combination with those services.[210]

National Benefits Pattern. The estimated "national budget benefits" pattern for investment in high-quality early childhood development is almost a mirror image of the 2004 Congressional Budget Office analysis for the future of Social Security. The net savings to government from early childhood program investments are significant, if smaller, than the Social Security fund projected deficits. The fiscal effects toward balance would begin within the next 20 years without raising taxes or cutting benefits.[211]

Moral Value. Whether or not future economic benefits can be documented, ensuring health and well-being in early childhood is a worthwhile objective in and of itself. Policymakers and society, as a whole, will need to look at the moral value involved beyond the economic interests.[212]

Conclusions

- From the prenatal period through age five, it is a time of rapid growth and a unique opportunity to ensure strong development toward a lifetime of positive results. There are many reasons for disparities in early childhood and high-quality interventions can improve the lives of the participants. In Volusia and Flagler Counties there are approximately 32,000 children under the age of five and approximately 6,400 births annually. In Flagler 8.0% (3,020 families) of households include a child under age six and in Volusia 4.6% (9,260 families). Around the time of birth, parents often accept assistance as indicated by the voluntary participation in Healthy Start programs and enrollment in the WIC program. The Healthy Start screening rate at birth is 81.6% (806 infants) in Flagler and 76.2% (4,127 infants) in Volusia. Both are slightly below the state rate of 81.8% (195,477 infants). When parents who have completed the screening process are offered services, over 80% consent to Healthy Start programs with approximately half of the participants insured through private insurance.

- Early childhood development lays the foundation for all future development. At birth, the human brain is still developing and through age three a network of connections is being formed to support all future learning. While the brain can still make new connections throughout the lifespan, these earliest years are the time of the most rapid development. Many children and families can benefit from early interventions during the first five years so children can reach their fullest potential. Early entry into prenatal care can provide a strong start in infancy but the rate of late entry into prenatal care is increasing. Strengthening the ties between the medical community, income eligibility determination for assistance, and referral mechanisms to assistance programs such as WIC and Food Stamps can directly impact the birth outcomes in our community. Children's (especially boys') behavior and achievement has been improved when their families received work-based income incentives. Wage supplements, child care subsidies, health insurance and supportive caseworkers for working poor families appeared to have been responsible for those improvements. Local early interventions that are available to all families include Healthy Start, Easter Seals, and specific Early Learning Coalition programs. For Head Start, Children's Medical Services and other Early Learning Coalition services, families must meet eligibility criteria. A supportive community for these local efforts can help give children a strong start.

- Besides the basic physical needs of food and shelter, infants require a loving, caring, nurturing, responsive relationship. The quality of the relationship between the caregiver and the infant/toddler/preschooler is of utmost importance and can influence all facets of development. Interventions to enhance social/emotional development are of equal importance to those that promote linguistic and cognitive growth and have led to some of the most enduring results. There is a

fledgling group dedicated to improving infant and toddler mental health. Mental health in early childhood has family support and counseling at its foundation.

- Genetics and the environment – nature and nurture – are dynamic partners in early childhood development. A healthy environment, both physically and emotionally, is necessary for each child to reach their full genetic potential. Volusia and Flagler Counties have good air quality and a low incidence of childhood lead poisoning. Flagler is in the lowest quartile in Florida for the rates of multiple births and kindergarten children fully immunized. Flagler is in the third quartile (first is highest) for neonatal death rate. Volusia is in the lowest quartile for the postneonatal death rate. Volusia is in the third quartile for the rates of entering early prenatal care, kindergarten children fully immunized and domestic violence offenses. Additionally there are significant disparities when data is viewed for race and ethnicity. The infant mortality rate for both counties has increased while the state and national rates have remained almost flat.

- Low socioeconomic status has a significant effect on early childhood. Poverty is often transitional and impacts families with children under the age of five years at a higher rate. However, families often move out of poverty as their children grow up. Economic support for families with young children has been shown to benefit the children, families and the community at large. Work-based income supplements such as Earned Income Tax Credits have a positive impact on families. Flagler is in the fourth (least favorable) quartile and Volusia in the third quartile in Florida for unemployment. The 2007 Federal Poverty Guidelines indicate poverty level for a family of four with an annual income of $20,650. Many social service programs offer services at 185% or 200% of the poverty level. The median household income in our community is approximately $42,000.

- In Volusia County 49.3% of births in 2007 were to unmarried women. That is higher than Flagler at 40.0% and the state at 46.1%. In both counties the percent of births paid by Medicaid was approximately 50%, well above the state percentage of 42.7%. In Volusia and Flagler Counties, the annualized wage in 2007 for an individual worker (such as a single parent) was $32,043. Female workers earn approximately 20% less than male workers in our area and the greater majority of single parents are female. The 2007 Poverty Guidelines are $13,690 for a family of two and $17,170 for a family of three. The percentage of women who are single parents of children under the age of five and below poverty is 47.2% which is much higher than the state level of 37.7%. Approximately 1/3 of the babies born in 2007 were born to unmarried women below poverty. In Volusia County, approximately one out of four children under age six lives in a home with a single mother and many of those have no unmarried partner living in the home.

- Parenting has been said to be the hardest job you'll ever love. Parenting is not an innate ability and parenting education is sparse throughout childhood. Consequently, parents, potential parents, and even grandparents could often benefit from opportunities to enhance their parenting skills. Participating in parenting education or enrichment is not always viewed favorably by peers or the community or may be considered to be unnecessary. Adults have limited exposure to knowledge about the developmental stages of early childhood and appropriate expectations for each age and stage of development in a format that is easily digestible for all. Pediatricians could assist families by offering referrals to quality parenting education programs. With approximately 2,000 child abuse and neglect investigations in 2006-07 resulting in "verified" or "some indication" of abuse, Flagler had a rate of 22.1 and Volusia 27.8 victims per 1,000 child population. Approximately 40% of victims were under the age of five. When children are placed in out-of-home care (e.g., foster care), the rate remains about the same. Approximately 55% of adoptions are in this same age group. Children with disabilities are almost 40% more likely to become victims of abuse.

- Messages about positive parenting are interpreted by parents through filters of language, culture and other factors. Most authorities agree on the fundamentals of prenatal care needed to achieve healthy birth outcomes. Additionally, there is a vast array of sources available through multiple media on early childhood development, early education and the importance of caring, loving relationships. The important messages on prenatal care and early childhood development must be presented in a culturally competent manner in order to reach the broadest audience. According to the U.S. Census approximately 86.2% of Flagler County residents are white and 10.5% are black. In Volusia County, 85.6% are white and 9.9% are black. Residents with a Hispanic or Latino ethnicity comprise 8.0% of the population in Flagler and 10.3% in Volusia. There is a small number (1.5%) of residents in Flagler who speak Spanish and speak English less than "very well" and a higher number (5.3%) who speak other languages and speak English less than "very well". In Volusia, approximately 3.2% speak Spanish and 1.1% other languages with both speaking English less than "very well". Race, ethnicity and languages spoken all contribute to the effects of culture on early development.

- Quality child care is an essential part of early childhood. More parents are in the labor force than ever before leading to more children in care outside of their home at an early age, often during their first year. With almost half the children in Flagler County and over 70% of the children in Volusia County having all their parents in the labor force, there is a high demand for quality child care. The current child care capacity is not meeting the need. The waiting list for subsidized child care for eligible working parents in 2008 is 1,500 children, an increase from

473 in 2007. For the first time, there are uniform standards for Voluntary Pre-Kindergarten (VPK) with all providers working toward the same goals for four-year-olds. The same cannot be said for birth through age three. The Office of Early Learning is currently revising the statewide standards but there is not the same commitment by providers to achieve these goals in the early years. Furthermore, there is a dearth of providers for infant care and child care for children with medical needs such as asthma, gastric tubes and other medical complications. The high ratio of adults needed for infant care makes services cost-prohibitive for most of the smaller providers. Quality care for children with medical needs is sometimes thought to be time consuming, requiring special training or simply too risky. Professionals in the child care field call attention to high staff turnover among child care practitioners mainly due to low wages, few employee benefits and an increasing education requirement. However, the highest cost of turnover may be the loss of valuable bonding needed for healthy child development when a young child experiences a succession of different caregivers.

Recommendations for a Brighter Future for Children and Youth

In the interest of young children in the Volusia and Flagler community and based on the data and literature review, below are recommendations for our community to consider. Experts in early child development and education working with individuals who each have the interests of our youngest residents at heart can build a community of support together.

- The community efforts on behalf of our youngest residents should be coalesced to better provide efficient and effective services and generally enhance early childhood systems. A review of existing services to identify opportunities for integrated service delivery would be beneficial for children and their families as well as child-serving organizations. Funding proves to be a barrier identified by many sectors and/or organizations. To start the dialogue, convene a work group dedicated to coordinate activities, integrate services and maximize current resources among the existing providers. This work group would seek ways to maximize revenues and "connect the dots" among services to improve service delivery. To achieve the best outcomes, interventions should occur as early as possible. It is particularly important to identify and serve children with disabilities at the earliest point possible.

- Early intervention services are available to families of all socioeconomic levels. Efforts should be enhanced to increase awareness of Healthy Start services, parenting education resources, and other family support services available to all families. Healthy Start and other family support providers will need community reinforcement to build their capacity to serve more families. Additionally, extolling the values of health maintenance through healthy lifestyle choices – especially during preconception and interconception (between births) – would be beneficial for all children and their families.

- Approximately 50% of babies born in Volusia and Flagler Counties will have deliveries paid by Medicaid. Every effort should be made to encourage early entry into prenatal care and "seamless" enrollment in programs such as WIC, Food Stamps and Healthy Start. Significant work is underway in our community to remove the barriers for pregnant women with Medicaid to enter prenatal care as early as possible. Strong community support should be built for these efforts, currently led by Healthy Start, to better ensure that babies born in Volusia and Flagler Counties will receive early health care needed for successful birth outcomes. Families should also be encouraged to follow the schedule for childhood immunizations. Efforts to get all women into early prenatal care should be enhanced including a strengthened referral process for women to be enrolled in WIC.

- Due to the large number of single parents with children under age six, it is vital to build a system of support for these families. Single parents expend less for their children on housing, child care, food, transportation, clothing and health care than married couples. Children in single-parent families often have less time available to them with their parent which can lead to less emotional support and a less stimulating environment. Because most single parents are women, children have fewer relationships with adult male role models. Most of the births to unmarried women in our community are to women younger than age 25. For these reasons and others, increased education and awareness for adolescent youth and young adults on the challenges children face in a single-parent family could have a major impact. Boosting efforts to link single parents to the myriad of programs and services available to them and their children could provide the additional support to better ensure a more successful transition from early childhood into the school years. Engaging pediatricians, sports organizations and other youth-serving groups to deliver the message could be a key component.

- Research shows that early childhood interventions can be successful, especially for children with economic disadvantages. The return on investment can be considerable in addition to being the "right thing to do". The median household income in our community is only slightly above the income criteria for many social services. Evidence-based social service programs for families with young children should be funded to the fullest extent with the expectation that, in the long term, social service costs would be reduced. Businesses in the community should develop and/or continue to implement family-friendly working conditions including child care employee benefits when possible. From a broader perspective, the Volusia/Flagler community is in critical need of economic development that can raise wages for the workforce. As the current economy rebuilds, new and innovative businesses must be attracted to the area in order to revitalize local employment opportunities.

- The prenatal months and early childhood years are critical for successful outcomes throughout life. The importance of this developmental period is not recognized by many. Develop and implement a plan to educate community members (parents, businesspersons, etc.) on the importance of prenatal and early childhood development and education. This message must be widespread in multiple languages at multiple levels of understanding in an array of media and technology formats in order to reach preteens through nonagenarians.

- Child abuse and neglect has a lasting effect on children. Inappropriate expectations are one factor that can lead to abuse. Parental and child stress can be reduced when actions meet expectations. A cohesive, singular message

about expectations at the various stages of early childhood development should be widely distributed. Include resource information for interested persons to further research specific topics.

- The current capacity for affordable quality child care does not meet the community need, especially for infants and young children with special needs. Due to the high volume of working parents and low median household income, there are many families who meet the eligibility criteria for subsidized child care. However, the waiting list in 2008 is 1,500 children. Advocacy for restoring funds that have been cut as well as developing a plan to ensure full local match to leverage the maximum amount of federal and state funds that can be allocated to Volusia and Flagler Counties is of paramount importance.

- Low socioeconomic status alone does not lead to poor outcomes. Stress, less time spent with children, low amount of talking with children, and inattentiveness to children's needs leads to poor outcomes. Another contributing factor is a family history of toxic stress and/or parental mental health issues. There should be a pervasive community effort to create and promote a community norm that supports families with pregnant women and/or infants, toddlers and preschoolers to better ensure hope, health and happiness in early childhood and a brighter future for our children and youth.

Future Research

More evaluations of early childhood interventions and programs are needed. There are plans to support creative collaborations among child development researchers, neuroscientists and molecular geneticists to further explore the nature and nurture interaction. There will be integrated research into the understanding of developmental process and intervention influence on developmental outcomes. Researchers will include program implementation in their childhood evaluation research and childhood outcomes when evaluating community and economic interventions.[213]

Research is expected on the importance of parental influence including the gene-environmental correlation. This could pose questions about parenting each child individually based on their genetics or unique characteristics. Researchers could study shifts in parenting techniques. Can modifying parental practices bring about changes in child behavior regardless of heredity? The new generation of parenting research is emerging and will be illustrating the developmental integration of nature and nurture.[214]

Additional study of molecular genetics is also expected. This will include advances toward identification of a susceptibility gene for autism and research suggesting inherited propensities to ADHD through neurotransmitter receptors. It is important to bear in mind that genetic factors are considered to be probabilistic rather than predetermined meaning that the presence of a genetic factor does not guarantee a resulting condition but may increase the probability of that condition occurring. Finally, the gene-environment interaction will be further researched. This study will look at the genetic risk and the environmental risk to determine if the susceptibility will rise sharply if both risk factors are present.[215]

The “thrive by five” study is but a glimpse into the myriad developmental processes of early childhood. In the coming years The National Children’s Study will contact more than 100,000 United States women who are likely to have children in the near future and follow the approximately 100,000 children from before birth through their 21st birthday. The study will look at health and environment issues and their relationship to child development. Recruitment started in 2007-08 and will expand nationally in 2008-09. The study will be led by the U.S. Department of Health and Human Services (through the National Institute of Health and the Centers for Disease Control) and the US Environmental Protection Agency.[216]

At a projected cost of $100 million per year for 25 years, the National Children’s Study will study health issues that currently cost society more than $750 billion per year. This annual expenditure is for treatment and intervention for conditions that can be mitigated and possibly prevented according to existing research.[217] The results of this study bear watching over the next two to three decades.

New research results are published almost daily. The Science Daily web site (www.sciencedaily.com) reported in November, 2008, that the National Institutes of Health and other federal agencies funded a study of the possibility of teaching pre-reading skills to preschoolers while building the necessary social skills for making friends and avoiding conflicts with their peers. The findings of the study look at the concerns about the emphasis of academic achievement versus social and emotional development in preschool. The study compared student progress in Pennsylvania in a traditional Head Start curriculum and a new program known as the REDI (Research-Based, Developmentally Informed) Head Start program. Students in the REDI program scored higher on tests of both pre-reading skills and social/emotional development. The study conducted by Karen Bierman, Ph.D. of Penn State University was published in the November/December issue of "Child Development".

Another source for future follow up is The Policy Group for Florida's Families and Children. The Policy Group has a vision that "Together, we will ensure a generation of young people who grow up to be responsible adults – ready, willing and able to contribute to self, to family and to their community." This organization has set out desired outcomes for Florida's children, families and communities. With an outline of key policies and practices and the supports required to achieve the associated goals, The Policy Group is encouraging Florida's policymakers to take a comprehensive look at integrated service delivery.

Community Agenda

The earliest phase of the Community Agenda began in 2004, during the strategic planning process of One Voice for Volusia, when the Coalition identified the need to connect existing coalitions, committees and initiatives in the area.

After taking an inventory of approximately 26 area groups, a meeting was convened with key representative to explore the collaborative efforts. After several months of committee research, a formal meeting was held in February 2005 attracting 75 community leaders. The consensus: To improve local health and human services through the creating of a Community Agenda.

The goal of the initiative is to engage the community by examining data and establishing priorities to improve local health and human services. Starting in 2006, publication of the annual ***Snapshot*** report tracks over 40 community-chosen data indicators

One Voice for Volusia

One Voice for Volusia is a coalition that connects non-profit, governmental and community-based organizations along with local businesses to promote system and community improvements for the benefit of youth and families in Volusia County. Through research, consensus building and the coordination of resources, One Voice for Volusia takes a leadership role in improving the quality of life for youth and families. The organizational mission is: Through collaboration One Voice for Volusia mobilizes all sectors of the community by strengthening our organized capacity to meet human needs. The Coalition uses the following methodology:

- **Convene** for the purpose of educating and providing networking opportunities among health and human services
- **Facilitate** impartial and progressive methodologies to positively affect systemic change
- **Monitor** community trends affecting quality of life issues
- **Encourage** open dialogue about key community issues
- **Advocate** for the efficient and effective use of community resources
- **Foster** diverse partnerships among all sectors of the community
- **Mobilize** the community to support measurable outcomes and an effective evaluation of all health and human services programming
- **Engage** leaders and citizens by developing and implementing community improvement strategies through priority setting and consensus building
- **Collect, analyze, interpret,** and **share** indicator data with the community
- **Support** coalitions locally and throughout the state to further the field of work

Numbers to Note

There were 73.7 million children in the United States in 2006 under the age of 18. This represents approximately 25% of the population – less than the 36% peak nearing the end of the "baby boom". By 2020, children are expected to comprise 24% of the population.[218] Based on the national percentage, this age group is somewhat underrepresented in Flagler and Volusia Counties with 16.9% and 19.6% respectively (Florida, 22.2%).[219]

Over time racial and ethnic diversity is increasing. The percentage of children who are Hispanic is increasing faster than any other group. Nationally, in 1980, 9% of the child population was Hispanic rising to 20% in 2006.[220] In 2007, Flagler County had a population that was Hispanic or Latino of 8.0% with Volusia having 10.3%.[221] Nationally, there were also 20% of school-age children who spoke a language other than English at home.[222]

The social environment has changed as well. In 1980, 77% of American youth lived with two married parents falling to 67% in 2006. Among unmarried women in their child-bearing years, 48 of every 1,000 gave birth in 2005. Births to unmarried women has reached the highest point ever reported which is now 37% with the largest growth among women aged 25 and older. The national and local teen birth rate has declined.[223] Local data for these indicators are on page 66.

The physical environment has also changed for today's children. Nationally, 60% of children had one or more air pollutants above allowable levels in the counties where they lived. The percentage of children in communities where the drinking water did not meet all applicable health based standards has declined and hovers around 10%. Approximately 1% of children had elevated blood lead levels from 2001 to 2004 with the median blood lead concentration dropping dramatically since 1976-1980. In 2005, 40% of households with children experienced housing problems. The most common being cost burden, trailed by physically inadequate housing and crowded housing.[224]

The following pages contain multiple data tables relating to children and their families and communities. To get a clear picture of an issue, it may be necessary to look at several data points together. To determine if a data indicator is near the goal level, it is important to seek the organization responsible for setting those goals before labeling a data trend as "good" or "bad". If a data indicator looks surprising, it could be beneficial to dig a little deeper into the root causes and learn about policy changes or data collection methods that may have affected the reported data. Data used in this study is generally available to the public. Some calculations may have been performed on the raw data to make it more serviceable.

Appendix A: Data Tables

Population (Numbers)

	2006	2007
Flagler	83,084	88,397
Volusia	496,575	500,413
Florida	18,089,889	18,251,243

U.S. Census, American Community Survey, 2006, 2007

Population under Age 5 Years (Numbers)

	2006	2007
Flagler	2,889	5,726
Volusia	25,558	26,370
Florida	1,117,630	1,146,002

U.S. Census, American Community Survey, 2006, 2007

Total Resident Births (Numbers)

	2006	**2007**
Flagler	942	988
Volusia	5,263	5,417
Florida	237,166	239,120

Florida CHARTS, 2006, 2007

Births paid by Medicaid (Percent)

	2006	**2007**
Flagler	51.8	49.4
Volusia	52.3	50.4
Florida	43.6	42.7

Florida CHARTS, 2006, 2007

Low Birth Weight Births (Numbers)

	2006	**2007**
Flagler	93	76
Volusia	396	465
Florida	20,714	20,767

Florida CHARTS, 2006, 2007

Appendix A: Data Tables

Birth Data

Women who had a birth in the past 12 months (Numbers)

	2006	2007
Flagler	694	1,806
Volusia	4,799	4,901
Florida	220,279	216,951

U.S. Census, American Community Survey, 2006, 2007

Births to Women who Initiated Breastfeeding (Percent)

	2006	2007
Flagler	67.8	68.7
Volusia	71.5	71.1
Florida	77.0	77.6

Florida CHARTS, 2006, 2007

Births to Women who were Unmarried (Percent)

	2006	2007
Flagler	38.4	40.0
Volusia	46.5	49.3
Florida	44.6	46.1

Florida CHARTS, 2006, 2007

Births to Women with less than High School Education (Percent)

	2006	2007
Flagler	15.2	14.2
Volusia	19.4	20.3
Florida	21.0	20.8

Florida CHARTS, 2006, 2007

Births to Mothers Ages 10-17 (Numbers)

	2006	2007
Flagler	26	21
Volusia	187	193
Florida	8,488	8,495

Florida CHARTS, 2006, 2007

Appendix A: Data Tables

Births to Mothers with 3rd Trimester or No Prenatal Care (Numbers)

Rolling 3 year rates	2004-06	2005-07
Flagler	24	31
Volusia	221	287
Florida	10,405	12,018

Florida CHARTS, 2006, 2007

Total Fetal Deaths (Stillbirths) (Numbers)

	2006	2007
Flagler	8	2
Volusia	34	26
Florida	1,756	1,840

Florida CHARTS, 2006, 2007

Infant Mortality Rate per 1,000 Births (Rate)

(Rolling 3-Year Rate)	2004-06	2005-07
Flagler	5.4	5.7
Volusia	6.3	6.5
Florida	7.2	7.2

Florida CHARTS, 2006, 2007

Black Infant Mortality Rate per 1,000 Black Births (Rate)

(Rolling 3-Year Rate)	2004-06	2005-07
Flagler	15.7	19.2
Volusia	11.1	10.0
Florida	13.2	13.3

Florida CHARTS, 2006, 2007

Total Infant Mortality (Numbers)

	2006	2007
Flagler	7	4
Volusia	36	43
Florida	1,713	1,689

Florida CHARTS, 2006, 2007

Appendix A: Data Tables

Infant Data & Grandparent Data

All Infants Who Receive Healthy Start Screening (Percent)

	2006	2007
Flagler	59.2	81.6
Volusia	54.9	76.2
Florida	80.3	81.8

Florida CHARTS, 2006, 2007

Infants Screened with a Healthy Start Score of 4 or Higher* (Percent)

*score for referral for services	2006	2007
Flagler	12.4	10.3
Volusia	14.5	14.9
Florida	16.3	16.1

Florida CHARTS, 2006, 2007

Infants Consenting to Healthy Start Program (Percent)
(Percent of infants referred for services due to score of 4 of higher)

	2006	2007
Flagler	88.4	80.7
Volusia	93.3	84.0
Florida	86.1	88.9

Florida CHARTS, 2006, 2007

Infants Who Receive Healthy Start Screening With Delivery Paid by Medicaid (Percent)

	2006	2007
Flagler	49.3	48.9
Volusia	61.4	53.4
Florida	46.1	45.5

Florida CHARTS, 2006, 2007

Grandparents 60+ Responsible for their Grandchildren (Numbers)

	2007	2008
Flagler	357	401
Volusia	1,635	1,674
Florida	57,994	59,714

Florida Department of Elder Affairs

Appendix A: Data Tables

Age 3+ Enrolled in Nursery School, Preschool (Numbers)

	2006	2007
Flagler	955	1,236
Volusia	6,085	5,491
Florida	291,080	292,873

U.S. Census, American Community Survey, 2006, 2007

Age 3+ Enrolled in Nursery School, Preschool, below Poverty (Numbers)

	2006	2007
Flagler	164	276
Volusia	1,177	1,354
Florida	41,926	38,067

U.S. Census, American Community Survey, 2006, 2007

Child Care Providers by Type of Arrangement (Numbers)
(June, 2008)

	Flagler	Volusia	Florida
Child Care Facilities	21	171	4,199
Family Day Care Homes	14	96	1,965
Large Family Child Care Homes	5	17	278
Registered Homes	15	72	2,045
Total	55	356	8,508

Florida Department of Children and Families

Kindergartners Who are Above Average or at Low Risk for Initial Sound Fluency (related to reading readiness) **(Percent)**

	2007	2008
Flagler	67	72
Volusia	64	71
Florida	65	68

Florida Department of Education, Fall 2008

Kindergartners Who are Above Average or at Low Risk for Letter Naming Fluency (related to reading readiness) **(Percent)**

	2007	2008
Flagler	73	79
Volusia	72	78
Florida	72	77

Florida Department of Education, Fall 2008

Appendix A: Data Tables

Poverty Data

Federal Poverty Guidelines

Persons in Family/Household	Annual Income 2006	Annual Income 2007
1	$ 9,800	$ 10,210
2	13,200	13,690
3	16,600	17,170
4	20,000	20,650
5	23,400	24,130
6	26,800	27,610
7	30,200	31,090
8	33,600	34,570

U.S. Department of Health and Human Services

Women who had a birth in the past 12 months, below poverty

(Numbers)	2006	2007
Flagler	0	654
Volusia	1,659	1,994
Florida	57,528	49,287

U.S. Census, American Community Survey, 2006, 2007

Children under 5, below poverty

(Numbers)	2006	2007
Flagler	164	2,172
Volusia	6,365	6,770
Florida	223,297	223,733

U.S. Census, American Community Survey, 2006, 2007

Children under 5, in Married Couple Families, below poverty

(Numbers)	2006	2007
Flagler	not available	not available
Volusia	1,539	1,980
Florida	63,553	4,140

Florida CHARTS

Families with Female Householder, No Husband Present, with children under 5 years who are below poverty

(Percent)	2006	2007
Flagler	0.0*	69.9*
Volusia	49.6	47.2
Florida	40.6	37.7

U.S. Census, American Community Survey, 2006, 2007
**Large "Margin of Error" for data*

Appendix A: Data Tables

Unemployment Rate (Rate)

	August 2007	August 2008
Flagler	6.8	10.3
Volusia	4.5	7.2
Florida	4.4	6.8

FRED (Florida Research and Economic Database)

Median Household Income

	2006	2007
Flagler	$ 44,461	$ 41,830
Volusia	$ 40,881	$ 42,276
Florida	$ 45,495	$ 47,804

U.S. Census, American Community Survey, 2006, 2007

Median Family Income

	2006	2007
Flagler	$ 50,786	$ 51,893
Volusia	$ 49,824	$ 54,654
Florida	$ 54,445	$ 56,966

U.S. Census, American Community Survey, 2006, 2007

Top 5 Industries in Flagler County (4th Quarter, 2007)

Industry Group	Employees	Avg. Weekly Wage
Education (public, K-12 only)*	1,800	not available
Accommodation/Food Service	1,752	$ 264
Construction	1,560	$ 572
Health Care/Social Assistance	1,533	$ 856
Public Administration	1,421	$ 749

FRED (Florida Research and Economic Database)
**Enterprise Flagler - www.enterpriseflagler.org*

Top 5 Industries in Volusia County (4th Quarter, 2007)

Industry Groups	Employees	Avg. Weekly Wage
Health Care/Social Assistance	25,277	$ 815
Accommodation/Food Service	17,353	$ 290
Educational Services (all levels)	17,123	$ 663
Construction	12,276	$ 748
Public Administration	9,826	$ 860

FRED (Florida Research and Economic Database)

Appendix A: Data Tables

Cultural Data

Race and Ethnicity of Flagler County Residents (Percent)

Race (Percent of Total Population)	2000	2007
White	87.3	86.2
Black or African American	8.8	10.5
American Indian & Alaska Native	0.3	0.1
Asian	1.2	2.0
Native Hawaiian/Pacific Islander	0.0	0.1
Other	1.0	1.2
More than one race	1.4	0.8
Ethnicity (Percent of Total Population)		
Hispanic or Latino	5.1	8.0
Not Hispanic or Not Latino	94.9	78.2

U.S. Census, 2000 Decennial Census, 2007 American Community Survey

Race and Ethnicity of Flagler County Residents (Percent)

Race (Percent of Total Population)	2000	2007
White	86.1	85.6
Black or African American	9.3	9.9
American Indian & Alaska Native	0.3	0.5
Asian	1.0	1.6
Native Hawaiian/Pacific Islander	0.0	0.1
Other	1.8	1.4
More than one race	1.5	0.9
Ethnicity (Percent of Total Population)		
Hispanic or Latino	6.6	10.3
Not Hispanic or Not Latino	93.4	89.7

U.S. Census, 2000 Decennial Census, 2007 American Community Survey

Population Speaking Spanish, Speaking English less than "very well" (Numbers)

	2006	2007
Flagler	1,476	1,306
Volusia	13,201	16,030
Florida	1,506,320	1,590,127

U.S. Census, American Community Survey, 2006, 2007

Population Speaking Other Languages, Speaking English less than "very well" (Numbers)

	2006	2007
Flagler	1,855	4,698*
Volusia	6,821	5,721
Florida	461,830	457,903

U.S. Census, American Community Survey, 2006, 2007
**Large Margin of Error in data*

Appendix A: Data Tables

Child Abuse and Neglect Data

Child Abuse and/or Neglect Calls Answered by the Hotline (Numbers)

	2005-06	2006-07
Flagler	950	1,068
Volusia	7,789	7,411
Florida	204,429	209,977

Florida Department of Children and Families

Child Protective Investigations (Numbers)

	2005-06	2006-07
Flagler	809	923
Volusia	6,849	6,480
Florida	178,921	183,572

Florida Department of Children and Families

Investigations with "Some Indication" or "Verified" Findings of Abuse (Numbers)

	2005-06	2006-07
Flagler	262	277
Volusia	3,041	1,795
Florida	78,424	80,016

Florida Department of Children and Families

Rate of Child Abuse Victims with "Some Indication" or "Verified" Findings per 1,000 Child Population (Rate)

	2005-06	2006-07
Flagler	34.3	22.1
Volusia	45.5	27.8
Florida	30.4	28.4

Florida Department of Children and Families

Alleged Child Abuse/Neglect Victims by Age (Percent)

2006-07	Flagler	Volusia	Florida
0-2 Years	19.1	21.0	22.2
3-5 Years	18.2	18.8	18.5
6-17 Years	62.8	60.3	59.5

Florida Department of Children and Families

Appendix A: Data Tables

Child Abuse and Neglect Data

Alleged Child Abuse/Neglect Victims by Race (Percent)

2006-07	Flagler	Volusia	Florida
White	78.7	75.2	65.6
Black	22.3	24.2	33.0
Other	0.8	2.0	3.1
Hispanic Ethnicity	8.3	10.0	15.0

Florida Department of Children and Families

Children Receiving In-Home Services by Age (Percent)

2006-07	Flagler	Volusia	Florida
0-2 Years	0.0	15.9	19.7
3-5 Years	0.0	22.3	19.6
6-17 Years	100.0	56.6	52.9
18+ Years	0.0	5.2	7.9

Florida Department of Children and Families

Children Receiving Out-of-Home Services by Age (Percent)

2006-07	Flagler	Volusia	Florida
0-2 Years	16.7	23.2	24.7
3-5 Years	16.7	18.1	19.6
6-17 Years	66.7	54.5	52.9
Unknown	0.0	4.4	3.0

Florida Department of Children and Families

Appendix A: Data Tables

Children Receiving In-Home Services by Race (Percent)

2006-07	Flagler	Volusia	Florida
White	100.0	66.1	60.6
Black	0.0	35.8	39.8
Other	0.0	1.0	2.3
Hispanic Ethnicity	0.0	5.4	13.5

Florida Department of Children and Families

Children Receiving Out-of-Home Services by Race (Percent)

2006-07	Flagler	Volusia	Florida
White	100.0	70.8	60.8
Black	0.0	30.9	40.7
Other	0.0	0.7	1.2
Hispanic Ethnicity	0.0	6.2	10.9

Florida Department of Children and Families

Children Served in Out-of-Home Care by Number of Placements (Percent)

2006-07	Flagler	Volusia	Florida
2 or less	100.0	62.3	65.2
3 or Greater	0.0	36.6	34.0
Data not available	0.0	1.1	0.8

Florida Department of Children and Families

Appendix A: Data Tables

Community Data

Children Whose Adoptions Finalized by Age (Numbers)

2006-07	Flagler	Volusia	Florida
0-2 Years	0	38	869
3-5 Years	0	42	890
Other	1	65	1,238
Unknown	0	0	0

Florida Department of Children and Families

Registered Sexual Offenders and Predators (December 31, 2008)

	Flagler	Volusia
Registered Sexual Offenders	78	660
Registered Sexual Predators	1	46

Florida Department of Law Enforcement:

Family Households with Children (Numbers and Percent)

	Number	Percent of Households
Flagler	9,028	23.8
Volusia	48,273	24.1
Florida	2,104,415	29.7

U.S. Census, American Community Survey, 2007

Family Households with Children Under 6 (Numbers and Percent)

	Number	Percent of Households
Flagler	3,020	8.0
Volusia	9,260	4.6
Florida	465,366	6.6

U.S. Census, American Community Survey, 2007

Family Households with Children Under 6 (Percent)

(% of total households)	Flagler	Volusia	Florida
Married	5.8	3.0	4.3
Male Householder	0.7	0.5	0.7
Female Householder	1.5	1.2	1.6

U.S. Census, American Community Survey, 2007

Child Care in Volusia & Flagler Counties (Numbers & Percent)

(Age 5 and Under)	Flagler	Volusia	Total
Total Capacity[1]	2,250	17,627	19,877
Children Served-Subsidized[2]	681	5,412	6,093
% of 0-5 population receiving subsidized child care[3]	11.9%	20.5%	19.0%

[1] Department of Children & Families
[2] Early Learning Coalition of Flagler and Volusia
[3] Children Served-Subsidized divided by Total 0-5 Population from Florida CHARTS, 2007
There is no data collected for the total number of children utilizing child care services

Appendix A: Data Tables

Expenditures on Children Data

For Families with Income less than $45,800 (Average=$28,600)

Estimated Annual Expenditures on a Child
By Husband-Wife Families in the United States, 2007

Age	Total	Housing	Child Care	Food
0 - 2	$7,830	$2,970	$1,220	$1,070
3 - 5	8,020	2,930	1,370	1,190

U.S. Department of Agriculture

Age	Transportation	Clothing	Health Care	Misc.
0 - 2	$930	$340	$600	$700
3 - 5	900	340	570	720

U.S. Department of Agriculture

For Families with Income of $45,800 to $77,100 (Avg.=$61,000)

Estimated Annual Expenditures on a Child
By Husband-Wife Families in the United States, 2007

Age	Total	Housing	Child Care	Food
0 – 2	$10,960	$4,010	$2,000	$1,280
3 - 5	11,280	3,980	2,210	1,470

U.S. Department of Agriculture

Age	Transportation	Clothing	Health Care	Misc.
0 – 2	$1,390	$410	$780	$1,090
3 - 5	1,360	400	750	1,110

U.S. Department of Agriculture

For Families with Income more than $77,100 (Avg.=$115,400)

Estimated Annual Expenditures on a Child
By Husband-Wife Families in the United States, 2007

Age	Total	Housing	Child Care	Food
0 – 2	$16,290	$6,380	$3,020	$1,690
3 - 5	16,670	6,340	3,290	1,910

U.S. Department of Agriculture

Age	Transportation	Clothing	Health Care	Misc.
0 – 2	$1,950	$530	$900	$1,820
3 - 5	1,910	520	860	1,840

U.S. Department of Agriculture

Appendix A: Data Tables

Expenditures on Children Data

For Families with Income less than $45,800 (Average=$19,200)

Estimated Annual Expenditures on a Child
By Single-Parent Families in the United States, 2007

Age	Total	Housing	Child Care	Food
0 - 2	$6,490	$2,660	$760	$1,180
3 - 5	7,380	3,030	1,040	1,240

U.S. Department of Agriculture

Age	Transportation	Clothing	Health Care	Misc.
0 - 2	$870	$310	$290	$420
3 - 5	760	330	420	560

U.S. Department of Agriculture

For Families with Income of $45,800 or more (Avg.=$69,600)

Estimated Annual Expenditures on a Child
By Single-Parent Families in the United States, 2007

Age	Total	Housing	Child Care	Food
0 – 2	$14,940	$5,730	$1,870	$1,820
3 - 5	16,140	6,090	2,340	1,930

U.S. Department of Agriculture

Age	Transportation	Clothing	Health Care	Misc.
0 – 2	$2,660	$440	$660	$1,760
3 - 5	2,550	460	880	1,890

U.S. Department of Agriculture

Uninsured Children, 2006 (Percent)

	Florida	United States
All Children	19.0	11.7
Children in Poverty	33.0	19.3
Under 6 years	20.0	11.3
White, not Hispanic	not reported	7.3
Black	not reported	14.1
Asian	not reported	11.4
Hispanic origin (any race)	not reported	22.1

Income, Poverty, and Health Insurance Coverage in the United States, 2007
KidsCount Florida Profile

Appendix B: Interviews

thrive by five interview: Karen Horzepa, Children's Advocacy Center of Volusia & Flagler Counties (CAC)

Primary Early Childhood Sector	Child Abuse and Neglect Prevention and Intervention
Current State of Affairs	CAC serves ages 0 and up with interviews starting at age 4. The agency serves all parents of all ages of children. There is much more parent involvement now than in past years. Causes of abuse are parent stressors such as ending a relationship or losing a job. CAC looks for risk factors and previous history and then builds on the strengths of the family. Risk factors are considered individually for each case. The Child Protection Team (CPT) reviews referrals to the agency.
Best Practices	• CAC receives referrals from DCF, law enforcement and sometimes the Community Partnership for Children and stays aware of each specific case to look at why a risk factor may be important • Prevention Services including Early Steps, Healthy Families and Healthy Start • Early Steps program for children 0-36 months with a disability. The program has a family component, increased home visitation, a clinical evaluation resulting in a plan and case managers to educate parents on working with the child and his/her disability
Cutting Edge Practices	• STOP program – offender prevention through parent education. This program can work with children to prevent them from becoming offenders. • Community/family events – these may be one-time events to increase parent interaction and promote prevention
Short-term Goals	Increase the number of referrals to 100% of those reports that are mandated to be referred to the Child Protection Team.
Long-range Goals	Child abuse prevention.
Barriers	• The high number of abuse reports puts a strain on the referral system to the point that not all mandated reports are referred to the CPT. • Funding to support more prevention • Funding to support more training • Insufficient evaluations of prevention services • Community provider capacity for services. Due to the high demand, providers are unable to spend more time with each family.

Appendix B: Interviews

thrive by five interview: Judy Ryan and Robin Bass, Children's Medical Services (CMS)

Primary Early Childhood Sector	Medical services for children with disabilities and/or special medical needs including behavioral health needs (ADHD, ADD, bipolar, autism).
Current State of Affairs	CMS is a safety net which serves prenatal through age 21 years in families below the 200% poverty level. There are 2,165 children in the CMS database with approximately 40% from West Volusia. Children without health insurance are a significant concern in our community. Due to tornado damage, the DeLand CMS office closed in 2007 and, due to the economy, has not been re-opened. Access is an issue for West Volusia. Referrals are received from pediatricians and an ACCESS Florida list. CMS has the role of helping children from age 12 toward self health care and gaining skills to advocate for themselves toward greater independence.
Best Practices	• Mama Bear program serving pregnant women with education about HIV and STDs. • Tele-health utilizing video and other technology to connect children and medical specialists • Medical homes for children in foster care to provide stable and consistent medical care. • Transportation assistance for CMS clients
Cutting Edge Practices	• Prevention of HIV transmission from mother to child • Tele-health services • Partnership with Halifax Medical Center, Department of Children and Families and Community Partnership for Children to ensure medical homes for children in non-relative foster care • Transportation assistance for clients via grant dollars from Volusia County CFAB (first in state to offer this) • When our Fit-for-Life Program was funded, the whole family was included in education, physical activity, and nutrition counseling.
Short-term Goals	• Implement Fit for Life program requiring a partnership with fitness, nutrition, self-esteem and exercise providers • Open house for elected officials and others for community education about CMS • Open conference room facilities to the community (1 conference room seating up to 40 people, 1 conference room seating 50 with in-ceiling video and screen – can be divided into 2 rooms)
Long-range Goals	• Research and implement telecommuting for staff • Research and implement electronic medical records to support telecommuting
Barriers	• Funding for a nurse at the Keech St. clinic to coordinate activities for the pediatrician treating children in foster care • Nurses and better pay for current nursing staff • Re-institute West Volusia service site • Always recruiting subspecialists • More infant hearing screening

Appendix B: Interviews

thrive by five interview: Ron Zychowski, Community Partnership for Children (CPC)

Primary Early Childhood Sector	Child Welfare
Current State of Affairs	If you are a child in our community, then you are 43% more likely to be an alleged victim of abuse and you are 39% more likely to be removed from your parents than children in the rest of Florida. Child abuse is an outcome produced by substance abuse and domestic violence which are fed by poor economic conditions in our community. Our families, especially working poor families, are under enormous stress. The single most important assistance we can provide for these families and their children is access to affordable quality child care, before and after school programs and summer programs. This would go a long way in reducing family stress, improving child outcomes, improving employee productivity in the work place. In other words, it is good for families, good for children and good for business and our economy. It is the single most important primary prevention activity we can pursue. We can and should eliminate the working poor waitlist for child care.
Best Practices	Research indicates that children who come into out-of home care (OHC) have bad outcomes. • Therefore, Florida is going back to a system of balance between family preservation and child safety by offering intensive in-home supports and services to families in order to reduce the need to remove children and also connect families to better implementation of services. • To keep families out of the dependency court system, CPC is starting a diversion program which is adding intensive in-home supports to the previous Crisis Response Team. Child welfare professionals and therapists are going into the home to solve problems with the family.
Cutting Edge Practices	• Strategies and approaches (i.e., diversion programs) to reduce entry into the child welfare system. • Re-investing “back-end” funding into “front-end” supports

Short-term Goals	• Reduce entry into the child welfare system
	  ○ Strategy: Diversion programs including intensive in-home supports
	  ○ Strategy: Re-investing “back-end” funds in “front-end” services
	  ○ Strategy: Post-placement supervision
	• Increase exits from out-of-home care
	• Use strategies to shorten the time to permanency and decrease the median time to parental rights termination to more quickly free children for adoption

Long-range Goals	Department of Children and Families goal: • a 50% reduction in out-of-home care by 2012 Annie E. Casey Foundation and National Governors Association goal: • reduce out-of-home care by 50% by 2020
Barriers	• Sufficient funding • A legislative philosophy to reduce funding to the point that Florida is at risk of losing federal funding that are flexible enough to be used for front-end services • A legislative philosophy that a reduction in the rate of out-of-home care means fewer funds should then be allocated, not recognizing that if funds are cut on the front-end, out-of-home care will increase again. • Capacity of local services including child care

Appendix B: Interviews

thrive by five interview: Mary Anne Rodgers, Daytona State College (formerly Daytona Beach Community College) Early Childhood Education, School of Health Careers & Human Services

Primary Early Childhood Sector	Institute of Higher Education for Early Childhood Educators
Current State of Affairs	The population of early childhood educators is growing. The ladder of progression is as follows [and where they are available]: • 40 clock hours (DCF modules required for child care practitioners) [DSC] • CDA (Child Development Associate)(required to be a lead teacher)[DSC] • AS (Associate in Science) in ECE (Early Childhood Education) [DSC] • Administration and Leadership BAS [DSC] • BAS (Bachelor of Applied Science) in ECE or BS [UCF] • MA [UCF] Equal to a national CDA is the ECPC (Early Childhood Professional Certification). Students with 40 clock hours can become a child care practitioner in a child care center. With a CDA or an ECPC, students can become a lead teacher. Students must have a CDA and A Director's Certificate to be a Director of a Child Care facility. AS degree students can teach all preschool children and be paraprofessionals in K-3rd grade. At the completion of an AS degree, graduates can enroll in the BAS degree program. BAS or BS in Early Childhood graduates can teach preschool through 3rd grade.
Best Practices	The Child Care Apprenticeship program is free and available at DSC. The program is in its 14th year. Students can work in the field and enroll in this program concurrently. Graduates receive a CDS, Child Development Specialist Certificate (equivalent to a CDA). These graduates can receive 17 semester hours toward an AS Degree in Early Childhood Education.
Cutting Edge Practices	• More online courses • Integrated curriculum • More CEU's available through conferences and workshops
Short-term Goals	• More opportunities for professional development for all levels of child care providers • More awareness in the community, state and nation of the value of early childhood education • Greater respect for child care providers
Long-range Goals	• The legislature to recognize the value of education for all preschoolers • Higher pay for child care providers • More incentives for educators to choose to teach in the field of early childhood
Barriers	• Funding for child care educator programs • Directors allocating time dedicated to further education • Seeking higher pay and employee benefits for ECE practitioners, staff leave the field for a teaching degree and employment with the education system • It is difficult to keep trained/educated staff in the field due to low pay and few or no employee benefits. • More parent education classes are needed in the community • More parent involvement is needed at child care centers

Appendix B: Interviews

thrive by five interview: Vicky Stark, Lara Glaser – Early Learning Coalition of Flagler and Volusia (ELCFV)

Primary Early Childhood Sector	Subsidized child care for eligible families, coordination of VPK (voluntary pre-kindergarten) for all 4-year-olds, child care provider training to increase quality of care, Childcare Resource & Referral service for Volusia and Flagler Counties, on site mentoring and technical assistance to providers
Current State of Affairs	ELCFV is most known for subsidized child care services. Parents must work or be in school at least 20 hours/week to be eligible for subsidized child care. ELCFV follows the Florida birth-through-five standards and the VPK standards. They are trying to achieve continuity of care whereby young children have the same teacher throughout their early childhood education. Started in 1999 by the legislature to administer school readiness. ELCFV receives "Quality" funds to educate providers in quality early learning practices. VPK started in 2005 and there is no waiting list and no cost to families. VPK is open to all families. Parents must find a provider offering VPK and provide proof of Florida residency and child's date of birth.
Best Practices	• Research-based services (developmental and health screenings for children, mentoring of providers, training for providers, etc.) • Palm Beach Professional Development model for staff retention and quality child care • Directors Academy to assist child care center directors in managing their businesses • Developmental screening tool • Utilize home visits to assess and, when needed, teach parenting skills • Hearing, vision, health and developmental screenings
Cutting Edge Practices	• I-PAS (Infant-Preschool Play Assessment Scale) that follows the child throughout early child care and into preschool • Providers must earn a 3.0 on the Environmental Rating Scale (ERS) in order to contract with ELCFV • CCEP – Child Care Executive Partnership has a separate funding stream and private businesses can match funds for child care for employees or other parents of children at 200% of the poverty level • Web site with maps to locate quality child care (resource and referral available to all families)
Short-term Goals	• Central access center to connect child-serving agencies serving mutual families in order to provide better service to families • Identify and raise additional local match funding and donations
Long-range Goals	• Achieve greater continuity of care • Increase the number of quality child care service providers • Increase outreach to all parents of birth-5 age children

Barriers	• Funding cuts, local cuts result in less ability to draw down federal funds
	  ○ Local match of $500,000 can bring $8 million in match federal and state funds in School Readiness (16:1 match)
	  ○ $200,000 in CCEP local match can draw down $200,000 from state funds (1:1 match)
	  ○ Volusia/Flagler does not get all the funds available to them due to lack of match
	• Appropriate parental expectations for each age or stage of development
	• There is a disconnect among child-serving agencies in our community
	  ○ Subsequently, there is some duplication of services
	  ○ Consequently, there is some confusion for parents
	• Florida DCF teacher-to-child ratios are less stringent than other states

Appendix B: Interviews

thrive by five interview: Lynn Sinnott, Easter Seals Volusia and Flagler Counties

Primary Early Childhood Sector	Child care and early childhood education for children with or without disabilities and pediatric therapy for children with special needs.
Current State of Affairs	There is an unwillingness to pay for the actual costs of child care by parents and funders, and less parental involvement with their child's education. There is no real system for children with intermediate level behavior problems. Severe problems have services and mild problems may be helped by parent and teacher intervention. Easter Seals uses the 0-5 Florida educational standards. Hearing impairment is the largest group of disabilities and early intervention can help ensure more language acquisition and reduce future cost. In addition, the incidence of autism is rising. There is very little funding for early intervention and no funding for developmental day programs. 67% of the newborn to 5 year old population attends child care. About 3% of newborn to 3 years should have early intervention services and about half of those actually receive services.
Best Practices	• An inclusive child care environment integrating children of all abilities • More adults to fewer children in a classroom • Higher education levels for teachers, bachelors preferred • Low teacher turnover. (Teacher consistency boosts the trust level for parents and better communication between teachers and parents) • Implemented quality curriculum in classroom • Multidisciplinary services for children with special needs ○ Interactive, Metronome, Sensory Integration, Aquatherapy, etc.
Cutting Edge Practices	• P.L.A.Y. therapy for autism (Play and Language for Autistic Youngsters) • ADOS tool for autism evaluation – pediatricians can now refer children to Easter Seals for evaluation and diagnosis of Autism Spectrum Disorder • New tools becoming available to evaluate children for autism as early as 9 months

Short-term Goals	• More children evaluated for autism and having access to therapy
	• Staying abreast of new technology
	  ○ Communication – hearing and communication technology
	  ○ Adjuncts to therapy – technology aids to therapy
	• How to overcome barriers – especially transportation
	• Need to determine who is going to accredit child care and whether NAEYC will remain the one "gold standard"

Long-range Goals	• Autism Center of Excellence-reduce age of diagnosis from 7 to 2 yrs or less
Barriers	• Pediatricians saying "let's wait and see what happens in 3 months" – they often don't feel the same sense of urgency as parents • Parents don't see the importance or can't afford to evaluate child care on cost vs. quality • Decrease in parent involvement in child care and therapy • Unwillingness of funders to pay the actual costs of child care • Funding – recent cuts to early intervention programs and Medicaid • Pediatricians, parents & teachers not understanding development milestones • Transportation – parents don't have cars to get to developmentally appropriate child care, therapy, or to doctors – now fuel costs are exacerbating the problem • Parents perception that a need for early intervention for their child makes a statement about them – believe that their parenting is to blame or they did something wrong • Increasing access to Early Intervention

Appendix B: Interviews

thrive by five interview: Jayne Carroll, Florida United Methodist Children's Home (FUMCH)

Primary Early Childhood Sector	Child care and early childhood education
Current State of Affairs	One of the many services FUMCH provides is the early childhood education center serving children birth to age 5. The program is open to community. The child care center has been open for 25 years. They work closely with families from the community, foster care services and at risk children. The foster care children served live in the surrounding community. The child care has been accredited by two organizations, COA and APPLE, holds a gold seal certification from DCF and is licensed for 69 children. They are opening a building to serve infants which will increase capacity by an additional 27 children. The new building will be an inclusive environment for children and serve some children with mild medical conditions. They see increases in extended family raising children. They also see increases in enrollment of children with varying degrees of Autism and other delays and disorders. Therapists are brought to the campus as needed to meet the individual needs of the children. The current waiting list for child care extends well into 2010.
Best Practices	• The center uses a Montessori based curriculum, revolving around a hands on approach to learning, has respect for the child as an individual, has an underlying theme of peace education & meets or exceeds NAEYC standards. • Parents are invited to explain their culture/ethnicity through sharing information, foods and other items • Strive for best solutions for each child – assess needs & strengths, create individual plans in partnership with family to meet needs & support strengths • Family is involved in every aspect of program through multiple opportunities • There is also a VPK program • 13 of 15 staff members have a CDA or higher, the remaining two are working on their CDA • Low staff turnover and good staff benefit package, high staff to child ratios • High quality nutritional program and student education • Annual parent surveys. Parent conferences. Parent Association.
Cutting Edge Practices	• The connection and communication between the child care and foster care program allow them to have daily access and communication with foster children and their foster families which gives them better opportunities to document and meet their needs as they track and support their progress. • Education of teen mothers in infant safety, care and nurture through hands on experience in the infant program. • Support of grandparents who find themselves raising grandchildren. • Reserved space and care for children with medical conditions, foster and at risk children within their capability. • On campus RN & in house (childcare) LPN. On campus parenting classes.
Short-term Goals	• Open the infant center to increase capacity for infants and toddlers. • Increase education and support for grandparents/relatives raising children. • Address infant mental health issues.
Long-range Goals	• Address the issues of the current building which is the second oldest on campus and is small in size. Discussions are starting about a new building to accommodate the many families seeking high quality child care
Barriers	• Funding does not match the expense for the high ratio required for infants and toddlers – especially in higher quality programs • Increased number of grandparents raising their grandchildren o Grandchildren may have additional challenges that grandparents are unfamiliar with such as fetal alcohol syndrome, autism, ADHD and emotional and developmental delays. • Current space limitations, addition of infant center will ease this • Funding reductions for child health care and child related programming which affects the equality of opportunities for children.

Appendix B: Interviews

thrive by five interview: Judi Maloy, Telma Marques, Heidi Rand, Mid Florida Community Services, Inc. (Head Start - Volusia)

Primary Early Childhood Sector	Comprehensive child development program of education, health, disability and social services
Current State of Affairs	Head Start has had no increase in operating funding in the past 5 years which affects what they can do. They serve 653 children in Volusia County and do not serve Flagler County. Without additional funds, they will not be able to serve the same number of children next year and the program will be set back about 5 years. There are 300 children on the waiting list. All children are at 100% of the poverty level or below. Children receive educational services as well as health services including dental, mental health and nutrition services. New hiring criteria were implemented in 2008. New educational criteria were required in 2007 for education staff, requiring teachers to have a Bachelor's degree by 2013. Approximately 50% of the staff has a bachelor's degree and all but the newest staff has a CDA. Two mental health professionals are on staff as are two disabilities specialists. Other health services are purchased as needed. Community agency capacity is an issue in purchasing services. Has 99% parent satisfaction rate.
Best Practices	• Galileo online assessment program for monitoring child's progress – accessible to parents, teachers, and specialists • Active Parent Involvement – parents are partners in treatment decisions • Leadership model with shared governance - parents are elected to serve on the policy council to make decisions affecting the entire program (including staff hiring and termination) • In-house intervention services including screenings with follow-up on results and potential follow up with "outside" professionals as needed • Behavior and mental health specialists work with parents/caregivers • When funding decreases, Head Start will serve fewer children rather than lower the quality of services • Early screening over the summer so children are able to receive services earlier in the school year • Oral health program – 7 dentists identified to work with families • I Am Moving, I am Learning program which includes nutrition screening and education
Cutting Edge Practices	• Mid Florida Community Services recognized as 1 of 25 programs nationally as a National Head Start Association Program of Excellence • This recognition made the "I Am Moving, I Am Learning" program available here with early childhood development training for staff, parents and children • Head Start staff member certified as a trainer of trainers for this program
Short-term Goals	• Maintaining the current high level of service
Long-range Goals	• Increase funding on order to continue to serve the current number of children • Expand services by increasing the number served and adding more specialists on staff • Improve collaboration with the school system
Barriers	• 30% of children use English as their second language • Head Start is in competition with nursing homes for speech therapists; Medicare pays higher rates than Medicaid for similar speech services • Educated professionals prefer to work with older children where the pay is higher • Long-term tracking of benefits gained has been difficult • Head Start assessments not used to their fullest potential in kindergarten • Lost connection to the WIC program in recent years

Appendix B: Interviews

thrive by five interview: Charlene Edwards, Redlands Christian Migrant Association (RCMA) (Head Start - Flagler)

Primary Early Childhood Sector	Comprehensive child development program of education, health, disability and social services
Current State of Affairs	RCMA directly owns and operates the Flagler Child Development Center serving 36 Head Start preschool children and their families. Over the past several months, we have been in negotiation with Flagler County school district personnel regarding the opportunity to relocate our program to their new pre-kindergarten center located a few blocks away. The pre-kindergarten center will house several agencies including FDLRS (Part B) as well as Bunnell's VPK and Pre-K ESE programs. The existing RCMA Child Care structure is an older portable building that does not offer enough land/space to add additional parking, or to add amenities such as a community room. Our hope is to move into the pre-kindergarten center in the fall of 2009. We are postponing accreditation self-study until this move occurs. There are only 36 Head Start slots funded for Flagler County and no Early Head Start slots although there is a great need for both. RCMA intends to request expansion dollars for Head Start and apply for Early Head Start funding as soon as it becomes available. Staff receive numerous calls regarding services to serve the birth to five population.
Best Practices	• RCMA is a "National Head Start Program of Excellence". We are currently waiting for a site visit to determine if we will receive this award for the third time. • RCMA has partnered with Cornell Dept of Human Development, Florida Gulf Coast University, Hillsborough Community College and St. Petersburg College to provide the curriculum to frontline family workers throughout Florida. Cornell University's Empowering Families Project in the NYS College of Human Ecology designed the curriculum. The objective of this credential is to gain a deeper understanding of the family development/family support and empowerment approach. Currently RCMA is coordinating classes from Tallahassee to Miami. We enroll students from a variety of Human Services programs, Health Department, as well as, RCMA and other Head Start programs. • RCMA first applied for, and received, a RIF grant in 1994. Since then, RIF renewed RCMA's grant every year. A motivational activity is planned for each of the three or more book distributions. Volunteers from the community and the children's families assist in the planning and implementing.
Cutting Edge Practices	• RCMA uses data from the child outcomes to make decisions about curriculum, staffing, second language development and areas needing improvement. RCMA included the collection of data on children who are trilingual or who speak a dialect. Several children have parents who speak a dialect but understand enough Spanish to communicate with center staff and teachers. When the child enters the classroom, they are exposed to the English language. Full analysis of this data is not complete at this time.
Short-term Goals	• Re-locate to school the new pre-kindergarten center.
Long-range Goals	• Expand Head Start and Early Head Start in Flagler County.
Barriers	• Current facilities do not allow for expansion.

Appendix B: Interviews

thrive by five interview: Dixie Morgese, Healthy Start Coalition of Flagler and Volusia Counties

Primary Early Childhood Sector	Health and well-being in the health and human services system of care. Reduce the incidence of low birth weight, infant mortality, black infant mortality; increase health screenings and the overall health of Florida's children.
Current State of Affairs	A major indicator is late entry into prenatal care. The rate of low birth weight babies remains static but is better than the state rate. Black infant mortality is a significant health disparity. The system has roadblocks for access to continuity of care. It is hard to navigate the Medicaid system and approximately ½ the babies born in our community are on Medicaid. Maternity can bring health stressors and chronic illness to the forefront. Stress can also lead to depression and substance abuse.
Best Practices	• ADDY Award of community awareness campaign • Davis Productivity Award with CMS for the Mama Bear program • Healthy Families evidence-based program • EASY ACCESS Prenatal Health Clinics in Daytona Beach and Orange City • JJ Way™ health practitioner model • Healthy Start web site – reaches more women with less funding • Motherhood Matters Newsletter
Cutting Edge Practices	• Virtual billing for prenatal Medicaid services • JJ Way™ health practitioner model • Engaging the faith community in SIDS prevention
Short-term Goals	• Transition care coordination to align with the new allocation method • Employ the model to get women connected to prenatal care earlier • EASY ACCESS Prenatal Health Clinic in Seville • Create more providers of care coordination service for better family wraparound by broadening the types of providers • Better method of procurement so Healthy Start funds are bid competitively • Bonner School – identify the types of Healthy Start supported services to best match the site • Co-locate care coordination in county health department sites
Long-range Goals	• Improve education and awareness for Medicaid eligible women • Improved systematic coordination and policy development for Medicaid eligible women • Enhanced staff training • Expansion and continued modification of service delivery approach • Continue to improve local FIMR case review process • Research and planning to more effectively target black infant mortality • Increase prenatal and infant screening rates • Improve efficiency of screen processing and management of screening data • Plan for a centralized access center to maximize resources and prevent duplication of services
Barriers	• Access to care – also an opportunity that has work in progress • Medicaid process – also an opportunity that has work in progress • Oral health – leads to poor birth outcomes but there are no funds available • Access for rural families – the FQHC* has no prenatal care • Chronic disease management – women are not healthy while pregnant • Decreases in funding – currently meeting only 50% of the need • Economics – stress factors have increased and there are few resources

*FQHC – Federally Qualified Health Center

Appendix B: Interviews

thrive by five interview: Gail Hallmon, Nancy Jacobson – The House Next Door (Infant Mental Health Program)

Primary Early Childhood Sector	Infant mental health (which means family-based infant mental health) for children ages birth through 3 years
Current State of Affairs	Infant mental health is a new focus of The House Next Door and is essentially family therapy and working with caregivers for children. The program is designed to train small home-based child care practitioners, family child care practitioners, Kinship Care* staff, Family Coach** staff and foster parents with infants and toddlers placed in their homes to screen families using the DECA assessment tool. HND scores the assessment and, if needed, develops an intervention plan. The plan is shared with the family and they are engaged in working on the plan. Progress is reviewed at 6-8 weeks and families needing more intense assistance will be linked to community services. Brain development requires stimulation and responsiveness. After age 5, what happened up to that age cannot be undone but children can be taught coping skills. In the first 3 years of life, infant mental health can help to overcome developmental delays due to poverty, substance exposure, domestic abuse and breaks in the primary caregiver relationship. Funding for this new program is from the Junior League for Project W.A.R.M. participants, Community Partnership for Children for children in foster care and relative care and the County of Volusia to target at risk families. *Kinship Care is a program for children placed in the care of friends and/or relatives ** Family Coach is a program at The House Next Door with in-home supports for families at risk of child abuse and/or neglect
Best Practices	• Use of the DECA (Devereux Educational Continuous Assessment) tool ○ Assesses social-emotional skills of young children ages 1-36 months • Strength-based approach of identifying strengths and developmental gaps • Parenting education available for parents of 0-3 • Therapy available for children under age 6 and their families
Cutting Edge Practices	• The field of infant mental health is on the cutting edge of interventions • New Volusia/Flagler chapter of the Florida Association of Infant Mental Health
Short-term Goals	• Successfully implement the infant mental health program
Long-range Goals	• Trained staff to work with babies who have experienced severe damage
Barriers	• Inaccurate community perception of infant mental health as counseling for infants • Difficulty in securing funding because of the inaccurate perception • Unawareness of the issue – infant mental health is a new field • Many don't think emotional development is important until age 2 or 3 • Current breakdown of extended families with little community help available • Volusia County has a high incidence of substance abuse and child abuse and lower incomes

Appendix B: Interviews

thrive by five interview: Dr. Pam Patrick, Psychologist, Educator and Child Advocate

Primary Early Childhood Sector	Psychologist, educator and child advocate
Current State of Affairs	There is not the kind of consistent research outputs in a consumable form for those who need it; "Consumable" refers to how the key stakeholders such as parents, grandparents, and child guardians can apply research in realistic ways. How will the emerging research be translated to make it usable by those most in need of the information? The message needs to be appealing and consumable but without assigning shame or inadequacy to caregivers. A positive message may be to acknowledge that parents/caregivers are experiencing stress due to the current economic situation and offer information to help parents/caregivers ease that stress. Home visiting programs are creative and are working well to educate parents; e.g., how could technology be leveraged to reach parents, grandparents, caregivers more effectively? Those who have the information haven't figured out how to reach all parents. Good data is being gathered by various service providers, but how can it be put in a consumable format? It is worthwhile to note that socioeconomic status does not predict parenting skills.
Best Practices	Identified several best practices in Volusia and Flagler Counties to include: • Success by Six ○ Was impactful to raise awareness and interest about first six years of child development and how that positions children to succeed in school but currently has no national sponsorship • Healthy Start • Healthy Families • Easter Seals

Cutting Edge Practices	• Further research to offer a clear understanding of nature and nurture
	  ○ Predisposition is not a guarantee; however, forewarned is forearmed
	  ○ Address issues of culture and diversity within early child development research; translate into application within our diverse stakeholder populations

Short-term Goals	• Develop a message on child development by asking questions:
	  ○ What do we really need to know?
	  ○ How would we collect that data?
	  ○ How could we track child well being with usable information?
	  ○ What would we like to have in our community so that all parents would have the information they need to parent effectively?
	  ○ What would be scalable and that we could "really do" with reference to tracking how our services are accessed, used, and evaluated?

Long-range Goals	• Reframe communication to awaken the public to making an effort to support families around early child development • Keep the current system going while building a more integrated, end-to-end system of early child care
Barriers	• Funding mechanism to get children to services early • Knowing the "right" thing to do doesn't parallel the dedicated funding • There is a tension of terminology – trying to keep up with using the current terms; i.e., it may be helpful to talk about "nurturing" rather than "infant mental health" since there is no clear, shared and understood definition of infant mental health by various stakeholders (parents, child development experts, social services providers, etc.) • First cuts are usually to social services – often creating waiting lists or elimination of services • Parents may have difficulty seeing/identifying the child's needs

Appendix B: Interviews

thrive by five interview: Marge Campany; VPK standards

Primary Early Childhood Sector	Dept. of Education, Office of Early Learning – curriculum performance standards, emergent literacy, professional development and accountability re 4-year-olds
Current State of Affairs	Had previous VPK standards from 2005. Standards were updated in 2008. The VPK program is 540 hours for the school year and 300 hours for the summer program. All children who are 4 on or before September 1st and reside in Florida are entitled to VPK.
Best Practices	The Florida VPK Education Standards for 4-year-olds are the best practice for this field. There are 8 domains in the VPK Education Standards resource book. If a VPK provider integrates these educational standards, they will be implementing best practices. CEU's can be earned through a related practicum which includes planning and reflection.
Cutting Edge Practices	• Integrating the VPK Education Standards • 10 hour training to enhance Emergent Literacy standards • Provider training for English Language Learners • Only a few states have statewide VPK and VPK standards with supportive training
Short-term Goals	• Computer bank for provider access to online training • Language and vocabulary resources for providers • Toolkit for providers to work with children with challenges • Web site under construction for VPK through grade 3 • Training management system to enroll providers in all trainings • New screening tool to replace the DIBELS • Math work group to develop enhanced training
Long-range Goals	• Keep abreast with science • Review the K-12 changes to prepare for VPK changes
Barriers	• Patience – eager for things to happen quickly but it takes time to implement • Quality providers had already planned ahead so it took a little time to change over to the VPK system • No administrative funding for VPK training (there is much paperwork) ○ 7 DOE VPK Regional Facilitators coordinate training with the local Early Learning Coalitions • Monitoring can be a challenge • Only 3 hours/day are funded so parents and providers need to structure the day to accommodate this schedule

Appendix B: Interviews

thrive by five interview: Barbara Harrison, WIC, Office of Chronic Disease Prevention and Wellness, Volusia County Health Department

Primary Early Childhood Sector	Community Health: WIC is a supplemental nutrition program administered through the USDA (United States Department of Agriculture) and the Florida Department of Health.
Current State of Affairs	WIC provides nutrition and health education, breastfeeding promotion and support, and food assistance at no cost, for lower income families with medical or nutritional risk. Pregnant women, postpartum women, breastfeeding women, infants and children up to age 5 meeting income and health criteria qualify. In order to increase the number of women enrolled in WIC in their first trimester, WIC will temporarily certify any pregnant women who states they are pregnant without a pregnancy test or other documentation. There is a rapidly increasing caseload locally & statewide making providing high quality services a challenge.
Best Practices	• The Volusia/Flagler WIC Agency is currently serving 87% of eligibles in Volusia and Flagler counties. (Above State average.) • Early Prenatal Entry rate (first trimester) is 61.7% (Above State Average). • For several years, Volusia/Flagler WIC has been a recipient of the Breastfeeding Peer Counselor Grant from USDA, in addition to the regular funding allocation. WIC mothers who have breastfed promote breastfeeding with WIC pregnant women and provide support after the baby is born.
Cutting Edge Practices	• Currently involved in a statewide V.E.N.A. (Value Enhanced Nutrition Assessment) initiative. The USDA has mandated quality improvement for nutritional assessment and education of WIC clients. The V.E.N.A. method uses affirmation, interactive nutrition & breastfeeding counseling and education between participants and professional staff. Staff is currently being trained in the method. • Strong WIC/Immunization Link: Staff reviews immunization records when providing WIC services & either provides or refers for immunization services.
Short-term Goals	• Provide high quality services to a WIC caseload that is increasing at a current 16% annual rate compared to10% statewide. • Implement V.E.N.A. in 2009 • Based on recommendations of the Institute of Medicine the WIC Program will implement new WIC food packages in October, 2009. Food packages will provide fresh fruits and vegetables, and whole grain products. Alternative foods for a more culturally diverse population will be offered.
Long-range Goals	• Operate the Volusia/Flagler WIC Agency efficiently and effectively to meet the needs of the community. • Exceed local program objectives and all statewide indicators. • Develop a “seamless” eligibility process for assistance programs with other community partners.
Barriers	• Community perception that families need to be on public assistance in order to qualify for WIC. Families do not have to be on public assistance such as Medicaid and Food Stamps to qualify for WIC. If a family is on Food Stamps or Medicaid, they automatically qualify for the income portion of the eligibility for WIC. Many working families are receiving WIC benefits. WIC’s income guidelines are for gross income at 185% of the Federal Poverty Level. For a family of four, that amount is $39,220 annually. (Note: An unborn child is considered a family member for income determination.) • Short staffing: Recruiting qualified licensed professional staff remains a challenge locally and statewide. Staff shortages hamper the core process of eligibility and education. • Increases in participation are used in the methodology for increased funding from the Bureau of WIC/Nutrition Services. There is a lag between the funding increase based on increased participation and when staff can actually increase to meet the need for services by increasing participation.

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