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### STATE OF SOUTH CAROLINA JOINT CITIZENS AND LEGISLATIVE COMMITTEE ON CHILDREN

February 1, 2013

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EDUCATION

<u>STAFF</u> HARRY W. DAVIS, JR. CHILDREN'S LAW CENTER The Joint Citizens and Legislative Committee on Children is pleased to present its 2013 Annual Report addressing key issues facing the children of South Carolina.

By no means is this report an exhaustive examination of the many issues that confront the state's families and children, but it does constitute a starting point for initiatives we have deemed to be among the most compelling.

In light of our state's limited resources, some of these initiatives are actionable with little or no additional funding, while others call for new or additional funding.

In this 2013 Annual Report the Committee addresses five issues which the Committee believes constitute priorities that are immediately actionable and can potentially reduce long term costs to the State:

School Readiness Preventable Childhood Obesity Childhood Fatalities and Injuries Childhood Trauma Immunizations

As you will see, most of these issues are the same ones that are impacting many other states in the nation. In many cases, children in South Carolina fare poorly, largely due to the significant percentage of our population who live in disadvantaged families and communities. Others suffer from a lack of knowledge of appropriate child rearing practices which cause, for example, unsafe sleeping practices.

These consequences also extend to families and caregivers who practice unhealthy lifestyles, and who do not have access to adequate fresh, local food and quality public services in education, medical care, and transportation.

#### **2013 ANNUAL REPORT**

## Joint Citizens and Legislative Committee on Children

The Committee's Town Hall Meetings this past fall received testimony on children's issues from citizens and community leaders. We surveyed members of the General Assembly elected in November to seek their interests and priorities. This Annual Report is based upon extensive research by our staff and the State's child-serving agencies.

We have studied data for each county to identify which problems affect the most children and have measured the prevalence and causes of the problems. The Committee identified many of the long term outcomes of these problems. Our objective is to enable you to address these issues before they become more harmful and costly over time; therefore we have identified interventions able to constrain or prevent these problems. And finally, we have suggested solutions from research on what can work to alleviate conditions that afflict the lives of South Carolina's children.

Finally, this committee is monitoring, as many of you are, several emerging issues in South Carolina that parallel national issues such as school safety, mental health, early childhood education, and child protective services.

Without a doubt, this legislative session offers a full plate of issues impacting the children of South Carolina. This Committee sincerely appreciates the individuals who have given this Annual Report the substance it contains. South Carolina is fortunate that its leaders are concerned about children's issues. This Committee is grateful for the opportunity to address the needs of children and encourages your continued input and support as the State of South Carolina establishes public policies and priorities for children.

Michael L. Fair

Mike Lais

Chairman

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#### "It is easier to build strong children than repair broken men and women."

Frederick Douglass

#### **Preface**

There are 1,087,000 children living in South Carolina.¹ Last year, South Carolina was ranked 43<sup>rd</sup> in the nation by the Annie E. Casey Foundation in the annual KIDS COUNT Data Book on overall child well-being.² There is much work to be done.

Last year, approximately:

- 490,000 children lived in some officially measured degree of poverty<sup>3</sup>
- 583,000 children were on Medicaid4
- 25,400 children were the subject of a child maltreatment investigation<sup>5</sup>
- 3,800 children lived in foster care<sup>6</sup>
- 17,000 cases of delinquency were referred to the family courts<sup>7</sup>
- 93,000 children received special education services<sup>8</sup>
- 57% of students received subsidized school meals to access adequate nutrition<sup>9</sup>
- 25% of students who start school will not graduate with peers<sup>10</sup>

As evidenced by the numbers above, the children of South Carolina face significant and complex issues. The Committee on Children has selected the topics of: **school readiness, childhood obesity, fatal and non-fatal injuries, child trauma, and immunizations** for the 2013 Annual Report. This report gives attention to these topics by presenting sound research, state data, and specific policy and practice recommendations.

U.S. Census, Quick Facts 2011 Estimates of Children under 18. http://quickfacts.census.gov/qfd/states/45000.html (last visited January 23, 2013).

<sup>2</sup> Annie E. Casey Foundation, 2012 KIDS COUNT Rank, http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?ind=7288 (last visited January 23, 2013).

<sup>3</sup> U.S. Census Bureau, Children in Poverty in South Carolina, http://www.census.gov/did/www/saipe/data/interactive/# (last visited January 10, 2013).

<sup>4</sup> Institute for Children and Families in Society, Children on Medicaid 2008-2012 by County and Unduplicated State Total, unpublished report generated December 2012.

<sup>5</sup> Fostering Court Improvement, Children Subject of Maltreatment Reports (duplicated) During October 2010 through September 2011, http://fosteringcourtimprovement.org/sc/County/cps\_summary.html (last visited January 23, 2013).

<sup>6</sup> S.C. Department of Social Services, unpublished report generated November 2011. Total Children in Foster Care on the Last Day of the SFY. In order to have consistent format, data from CAPSS on November 1, 2011, was used to compile the reports for SFY 06-07 through SFY 10-11.

<sup>7</sup> S.C. Department of Juvenile Justice, Juvenile Charges, http://www.state.sc.us/djj/fact-sheets.php#Reports and Plans (last visited, January 13, 2012).

<sup>8</sup> S.C. Department of Education, unpublished report, Children Receiving Special Education Services. generated December 2012.

<sup>9</sup> S.C. Department of Education, Children Receiving Free and Reduced Lunch 2008-2011, generated December 2012 using e-rate data. http://ed.sc.gov/data/erate/index.cfm (last visited January 12, 2012), 2007 Children Receiving Free and Reduced Lunch, generated October 2011 using e-rate data. http://ed.sc.gov/topics/researchandstats/reports/tech/erate/ (last visited October 2011).

<sup>10</sup> S.C. Department of Education, unpublished report, Four Year High School Graduation Rate generated December 2012.

#### I. School Readiness

#### PROBLEM IDENTIFICATION

Given the recent rehearing by the South Carolina Supreme Court of the <u>Abbeville v. State of South Carolina</u> case and reauthorization of First Steps to School Readiness this year, school readiness is a conspicuous and essential priority for this legislative session. School readiness was also identified as the leading children's issue by a Committee on Children survey of the members of the General Assembly and by the public in Town Hall Meetings held by the Committee last fall.

#### **Assessing School Readiness**

In 2013, more than three decades since South Carolina was among the first states to assess the readiness of every student for meeting academic standards in 1st grade, the state no longer has a statewide system of readiness assessment. Early childhood leaders are once again discussing initiation of a readiness assessment system.

In the two prior selections of readiness assessment instruments, the few people involved appear to have looked only for an instrument rather than a comprehensive process combining assessment, services designed for individual students, and development of the overall array of services. This time a comprehensive system of readiness assessment and services must be created in order for students to reach desired levels of proficiency in academic, social, emotional, and other desired domains.

#### **Current Practice**

Over the past four decades, early childhood policy in South Carolina has focused primarily on preschool education for children at age four. The state has not emphasized services for children from birth to age three when critical language, social, and emotional development occurs.

Across the nation, most school readiness strategies efforts fall into four major categories:

- **Early Care and Education:** direct services to the child through programs ranging from small family childcare providers to child development centers;
- **Treatment:** other direct services to the child, especially health, disability, and emotional-behavioral treatment services;
- **Parenting:** support to the family designed to enhance positive parent interaction with the child;
- **Family Strengthening:** support to improve the family's economic, social, emotional, and other functioning which indirectly enhances parent-child interaction.

In South Carolina, early care and education programs, starting with child development centers in the 1970s, were followed by public preschool through the Education Improvement Act of 1984 and by childcare vouchers, quality enhancement support through the ABC program administered by DSS. Head Start programs have grown steadily since the 1960s and now serve 13,569 children primarily through center-based programs for three to five year olds. The dominant investment of public funds directed toward child development and school readiness has been allocated to early care and education programs.

In South Carolina, parenting, family support, and treatment services have been less emphasized and minimally supported for enhancing school readiness. Parenting education and support programs were first created in 1989. At their peak, these programs in any single year reached only 2% to 4% of all young children and perhaps 10% to 15% of those at-risk. Their families have been served primarily through the Parents as Teachers program administered mainly by the public schools and recently through the Nurse Family Partnership.<sup>11</sup>

The state must address the development of young at-risk children. If the state cannot do this, then South Carolina students will not progress successfully in school readiness. Until they enter school, children are with their families for five of every six waking hours. Most those hours are shared with the mother.<sup>12</sup>

In the absence of parenting and family support programs, center-based early care and education programs, many of which are not high quality, must achieve huge impact during the few hours spent in care away from home. Moreover, early development research shows that very critical foundational skills and competencies can be facilitated during ages birth to three.

This early period occurs long before most children reach preschool. Too many arrive at preschool with substantial deficits. The policy choice between birth to three services and preschool must be considered carefully in South Carolina because of the large numbers of children from families with limited literacy, low income, inadequate social supports, disrupted family structure, and insufficient access to the basic and enrichment services.

#### RISK FACTORS FOR POOR ACADEMIC PERFORMANCE

Children having a disability, an emotional-behavioral problem, or low oral language are at high risk for very poor academic performance. Children with these risk factors should be identified early in childhood for further screening and appropriate intervention. Based on a longitudinal study of children from birth to age fifteen, children with those risks in early childhood had high rates of poor academic and other outcomes. Children with these risks had even worse outcomes than children eligible for free and reduced school lunch

Additional risk groups with discouraging academic achievement and other problems are children in foster care, children abused before age four, and children requiring treatment for mental disorders at any age. Minority males also are at high risk for poor academic performance. Data shows that the gap for minority males, already alarming in kindergarten, steadily increases by the 3<sup>rd</sup> grade and widens even further by 8<sup>th</sup> grade.

For many children with these high-risk factors, not being ready for school is associated with higher rates of delinquency and teen pregnancy. For example, by age fifteen, children with the high-risk factors had double or triple the rates of juvenile delinquency than those without the high-risk factors. Children in foster care or child protective services before age four had quadruple the rates of juvenile delinquency. Likewise, children of low educated mothers and children served before age five in foster care and child protective services have triple the teen pregnancy rates of those with none of the three highlighted risk factors.

<sup>11</sup> SC Early Childhood Comprehensive Systems Project, South Carolina's Early Childhood Comprehensive Systems Implementation Plan: Bringing the Pieces Together, pages 12-17. March 4, 2009.

<sup>12</sup> Marsh, Janet; Brandon, Richard; Holmes, Baron. "A Bright Economic Future for Our Children and Our State", unpublished report generated by the SC Task Force on the Cost of Quality Early Care and Education, March 2004. Data on hours spent by young children was generated from a phone survey sponsored by the study.

#### COMPARING PRACTICE IN SOUTH CAROLINA TO RESEARCH EVIDENCE

If South Carolina improves school readiness, the state can combat the alarming rates of academic deficiencies and adolescent risk behaviors such as juvenile delinquency and teen pregnancy. School readiness and subsequent academic performance can be bolstered both by improving the quality of early childhood services and by expanding early childhood programs to serve almost all at-risk children.

Research-validated programs have implemented several components which are significantly more effective than those of public preschools in South Carolina:<sup>13, 14, 15</sup>

**Supervision and Training:** Well-qualified, highly-trained, and carefully-supervised teachers are one of the most effective methods of improving the quality of early childhood programs. Teachers in research-validated programs were well-trained before they entered the classroom and received frequent training and evaluation throughout the school year.

**Curriculum:** In research-validated preschool program classrooms, curricula are implemented with fidelity to the model. South Carolina uses primarily High/Scope and Creative Curriculum models. Little statewide information is available about how faithfully teachers adhere to these curricula.

**Engaging Parents**: One research-validated program made weekly visits for two years to engage and train parents in their homes. South Carolina preschools typically do not make routine home visits.

**Ratios:** In South Carolina the maximum preschool pupil to teacher ratio in South Carolina is 10:1, with a teacher and an aide serving 20 students. The typical pupil to teacher ratio in South Carolina is 9:1. One of the research-validated programs studied did not use aides. Each of its certified teachers taught only 5 or 6 children. The other research-validated program had a pupil to teacher ratio of 6:1 or less. In South Carolina each certified teacher effectively serves approximately 18 students, with the support of an aide.

**Duration:** The two research-validated programs studied served children for two to five years. South Carolina preschool serves children for only one year.

Data following preschool students into adolescence show the impact of South Carolina preschool. A best case interpretation might conclude that public preschool achieved modest short-term benefits, but far less than higher quality research-validated programs.

#### **RECOMMENDATIONS**

South Carolina could substantially improve the readiness results of preschool programs by enhancing the:

- 1. training of teachers, aides, and other staff;
- 2. effectiveness of program supervision;
- 3. quality and effective implementation of the curriculum;
- 4. engagement of parents in promoting language, literacy, numeracy, and work habits;
- teacher to pupil ratios;
- 6. duration of service, including number of years in preschool and days per preschool year.

<sup>13</sup> Schweinhart, Lawrence J.; Montie, Jean; Xiang, Zongping; et al. (2005). Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40 (pp. 194-215). Ypsilanti, MI:High/Scope Press.

<sup>14</sup> Campbell, Frances A.; Ramey, Craig T.; Pungello, Elizabeth P.; et al. (2001) "The Development of Cognitive and Academic Abilities: Growth Curves From an Early Childhood Educational Experiment". Developmental Psychology, Vol. 37, No. 2, 231,233.

<sup>15</sup> Campbell, Frances A.; Pungello, Elizabeth P.; Bruchinal, Margaret; et al. (2012). "Adult Outcomes as a Function of an Early Childhood Educational Program: An Abecedarian Project Follow-Up". Developmental Psychology, Vol. 48, No. 4, 1033,1041.

Since half of all four-year-olds are already in public preschool or Head Start, then enhancing the effectiveness of existing preschool services would be a prudent and affordable way to significantly reduce academic failure.

Priority should be given to increasing the effectiveness of the programs already serving high needs children in their years before kindergarten, especially through training of staff in research-validated methods for promoting readiness in terms of literacy, language, math, attention, social, and work skills.

#### First Steps to School Readiness Reauthorization 2013 -- S. 291 and H. 3428

The Committee on Children has endorsed South Carolina First Steps to School Readiness Reauthorization bills introduced this session. These bills:

- define "school readiness" in order to measure progress on a state level,
- place formal emphasis on "evidence based" early childhood interventions,
- strengthen accountability of the local First Steps partnerships by awarding incentive funding for meeting accountability standards, collaboration, and efficiency, and
- strengthen state and local First Steps board membership.

This legislation reflects a statewide commitment to increasing the number of children ready for school and educational success.

#### **II. Childhood Obesity**

#### PROBLEM IDENTIFICATION

Obesity is a risk factor for the top four causes of death in America. 16,17 Children who are obese are likely to become adults who are obese, which makes obesity a bigger public health problem than polio was in the 1940s and 1950s. The widely recognized obesity epidemic is starting today's youth on course possibly to become the first generation of Americans to live shorter, less healthy lives than their parents. Unlike polio, there is no single cure -- childhood obesity is a multifaceted and complicated problem.

The prevalence of obese and overweight children ranges from 30% to over 50% in South Carolina counties. Some 30% of children ages two to five in low income families are overweight or obese<sup>18</sup>. Children are considered to be *obese* if the Body Mass Index (BMI) is at or above the 95<sup>th</sup> percentile for their age and gender. Adolescents are considered to be *overweight* (but not obese) if their BMI is at or above the 85<sup>th</sup> percentile, but below the 95<sup>th</sup> percentile for their age and gender.<sup>19</sup>

The South Carolina Obesity Plan was launched in 2005 to promote healthy eating and active living in pursuit of a healthier population. Since its beginning, Eat Smart, Move More South Carolina (ESMMSC) was created to coordinate a unified statewide effort against obesity. Comprised of state and local agencies, public, private and nonprofit partners, ESMMSC strategy has established four priorities: advocacy, communications and marketing, training, and education, which promote and support local action to use best practices in healthy eating and active living.

The causes of obesity and overweight children are varied, including genetic, behavioral, accessibility, educational, cultural, and environmental factors.<sup>20</sup> Despite the fact that some causes of obesity cannot be resolved through legislation, legislative attention can be a catalyst to change the state's obesity culture. To impact unhealthy eating and physical inactivity, attention is required at all levels: households, communities and the state as a whole. Positive changes of multiple stakeholders from diverse segments of society are critical for success.<sup>21</sup>

#### **CONSEQUENCES**

Obesity-related medical expenditures have been estimated to cost \$1.06 billion in South Carolina during 2005. If the cumulative adult BMI in South Carolina were reduced by only 5%, then more than \$3 billion in health care costs could potentially by saved by 2020 and \$9.3 billion by 2030.<sup>22</sup>

The benefit of supporting anti-obesity initiatives at the state and local levels will be: lower health care costs for both children and adults; better academic performance; a stronger work/military force; and the opportunity for children to live healthier and more productive lives.

<sup>16</sup> The CDC, Fast Facts, http://www.cdc.gov/nchs/fastats/lcod.htm (last visited January 14, 2013).

<sup>17</sup> The World Health Organization, Chronic Respiratory Disease, http://www.who.int/gard/publications/Risk%20factors.pdf (last visited January 14, 2013).

<sup>18</sup> South Carolina Department of Health and Environmental Control, 2011 South Carolina Obesity Burden Report, http://www.scdhec.gov/health/epidata/docs/Obesity%20Burden%20Report%202011.pdf (last visited January 15, 2013).

<sup>19</sup> South Carolina Department of Education, 2011 South Carolina Youth Risk Behavior Survey Report.

<sup>20</sup> Academic Pediatric Association, Neal Halfon, Kandyce Larson, and Wendy Slusser; Associations Between Obesity and Comorbid Mental Health, Developmental, and Physical Health Conditions in a Nationally Representative Sample of US Children Aged 10 to 17, Children At Risk, Vol 13, no 1, January-February 2013.

<sup>21</sup> Institute of Medicine, Preventing Childhood Obesity: A Health In The Balance, Washington, D. C.: The National Academics Press

<sup>22</sup> Trust for Americans' Health, F as in Fat: How Obesity Threatens America's Future, 2010. http://healthamerican.org/assets/files/TFAH2012FASinFatFnlRv.pdf (last visited January 12, 2013).

#### **RECOMMENDATIONS**

#### **South Carolina Fresh on the Campus**

A collaboration between the South Carolina Department of Agriculture, Department of Health and Environmental Control, and the Department of Education works to provide children in public schools with fresh, locally grown food as part of their meal during the school day.

The program also benefits South Carolina farmers by creating new markets for their products. The Committee on Children supports the continuation of this program and encourages the partners to continue ensuring that fresh, nutritious and locally grown food is available to students.

#### Implementation of the 2005 Student Health and Fitness Act Fitness Assessment

In spite of the significance of childhood obesity in South Carolina, there is no uniform collection and measurement of child obesity data statewide. Because data is not collected and reported consistently, there is no baseline to determine if policies are effective across the state.

In 2005 South Carolina enacted the Student Health and Fitness Act. One of the requirements of the Act is that students' fitness status be reported to parents and guardians during their 5<sup>th</sup>, 8<sup>th</sup> grade, and high school physical education courses.

The Act also requires that each public school in the state administer the South Carolina Physical Education Assessment. The assessment in the 2<sup>nd</sup>, 5<sup>th</sup>, and 8<sup>th</sup> grade, and during high school must be used to determine the effectiveness of the school's physical education program and each school's adherence to the South Carolina Physical Education Curriculum Standards. Assessment and reporting has not been fully funded.

#### **Shared Use Agreements**

One method by which families and children may become more physically active is through the use of school facilities to exercise and play. Shared or joint use agreements permit children and their families to utilize school facilities after school hours.

School facilities, especially when centered in the community, can be an excellent resource for recreation and exercise where there is limited availability elsewhere. Shared use arrangements may permit the public to use outdoor and indoor facilities, or permit third-parties to operate programs after school hours. State legislation can make shared use possible by addressing the liability issues schools may encounter.

#### III. Fatal and Non-Fatal Injuries

#### PROBLEM IDENTIFICATION

On average 211 children die annually in South Carolina as a result of injuries.<sup>23</sup> South Carolina had the 13th highest rate of injury deaths in the United States, 24% higher than the national average.<sup>24</sup> Although these injuries are usually predictable, preventable and controllable, injuries are still one of the most under-recognized public health problems facing the United States.<sup>25</sup> Though often referred to as "accidents," they can and must be prevented.

#### **FATAL INJURIES**

In South Carolina, injuries are the leading cause of deaths among children. From 2006 to 2010, there were 1,059 child deaths for children birth through age seventeen due to injury.<sup>26</sup>

Top Three Causes of Injury Deaths among Children by Age Group, SC, 2006 to 2010<sup>27</sup>

Age Groups	Rank			
	1	2	3	
< 1 year	Other and unspecified non- transportation accidents 73%	Homicide 17%	Motor vehicle accidents 5%	
1 to 4 years	Motor vehicle accidents 28%	Homicide 23%	Accidental drowning 21%	
5 to 9 years	Motor vehicle accidents 46%	Homicide 19%	Accidental drowning 13%	
10 to 14 years	Motor vehicle accidents 48%	Suicide 12%	Accidental drowning 11%	
15 to 17 years	Motor vehicle accidents 57%	Homicide 15%	Suicide 11%	

For children under one year of age, 73% of injury deaths were due to other causes or unspecified non-transportation accidents, including unsafe sleep. An average of 66 children per year die from unsafe sleeping practices. Unsafe sleeping practices including sleeping with a blanket, crib bumper, or stuffed animal or sleeping with a parent. Unsafe sleep is a major contributors to infant deaths in South Carolina.

For children ages one to seventeen, the leading causes of injury deaths were motor vehicle accidents, homicide, suicide, and accidental drowning and submersion. Motor vehicle accidents and homicides were particularly prevalent in injury deaths of fifteento seventeen-year-olds.

<sup>23</sup> S.C Department of Health and Environment Control, Death Certificate Data,

http://scangis.dhec.sc.gov/scan/bdp/tables/death2table.aspx (last visited January 10, 2013).

<sup>24</sup> Trust for America's Health, South Carolina had the 13th Highest Rate of Injury Deaths in U.S., May 22, 2012, http://www.healthyamericans.org/reports/injury12/release.php?stateid=SC (Last visited January 10, 2013)

<sup>25</sup> CDC Childhood Injury Report: Patterns of Unintentional Injuries among 0-19 years olds in the United States, 2000-2006, http://www.cdc.gov/safechild/images/CDC-ChildhoodInjury.pdf (last visited January 10, 2013).

<sup>26</sup> S.C Department of Health and Environment Control, Death Certificate Data,

http://scangis.dhec.sc.gov/scan/bdp/tables/death2table.aspx (last visited January 10, 2013).

<sup>27</sup> S.C Department of Health and Environment Control, Death Certificate Data, http://scangis.dhec.sc.gov/scan/bdp/tables/death2table.aspx (last visited January 10, 2013).

#### **NON-FATAL INJURIES**

From 2006 to 2010 in South Carolina, there were 538,077 non-fatal injuries among children ages birth to seventeen years recorded by emergency rooms and hospitals. The total hospital and emergency room charges for non-fatal injuries were approximately \$836 million. The leading causes of non-fatal injuries in order of frequency were: falls, struck by or caught between objects, motor vehicle crashes, and sports and recreation injuries.<sup>28</sup>

Causes and Medical Charges of Non-fatal Injuries, Children 0-17 Years, SC, 2006 to 2010<sup>29</sup>

Cause of Injury <sup>30</sup>	Number	Percent	Average Medical Charge	Total Medical Charges
Falls	127,240	23.6%	\$1,012	\$160 million
Struck By or Caught Between Objects	81,906	15.2%	\$878	\$81million
Motor Vehicle Crash	44,119	8.2%	\$2,001	\$151million
All Other Causes	284,812	53.0%		\$444 million
Total Injuries to Children 0-17 in SC	538,077	100.0%	\$1,148	\$836 million

The highest costs for medical care were: **falls, motor vehicle crashes,** and **being struck by or caught between objects**. Falls account for roughly 24% of all non-fatal injuries to children including traumatic brain injury. The major causes of falls are from playground equipment, furniture, and skates or skateboards. Sports, both competitive and recreational, are frequent causes of injury, especially in baseball, softball, basketball, biking, football, skating, and soccer.

#### TRAUMATIC BRAIN INJURY (TBI)

A traumatic brain injury (TBI) is caused by a bump, blow, jolt, or penetration to the head that disrupts the normal function of the brain. Nationally 1.7 million children and adults sustain TBI every year; at least three people every minute. TBI costs Americans \$76.5 billion in medical care, rehabilitation, and loss of work annually. Falls are the leading cause of TBIs among young children. Motor vehicle crashes, sports injuries, firearms or explosives injuries are other primary causes.<sup>31</sup>

In South Carolina, TBI is a leading cause of injury, disability, and death for children and adults.<sup>32</sup> In 2010, the primary causes of TBI *deaths* among children up to age fourteen were: homicide, motor vehicle crashes, and pedestrian injuries. In 2010, the primary causes of TBI *non-fatal injuries* among children up to age fourteen were: falls, motor vehicle crashes, being struck by objects, sports/recreation injuries and assaults.<sup>33</sup>

<sup>28</sup> S.C. Budget and Control Board Office of Research & Statistics, Analysis of Emergency Room Discharges by Selected Characteristics, <a href="http://ors.sc.gov/hd/erquerya.php">http://ors.sc.gov/hd/erquerya.php</a> (last visited January 10, 2013).

<sup>30</sup> For specific definitions of injury causes, please visit S.C. Department of Health and Environmental Control, South Carolina Status of Injury Data Report 2010, http://www.scdhec.gov/administration/library/CR-009603.pdf (last visited January 10, 2013).

<sup>31</sup> Centers for Diseases Control and Prevention, Saving Lives and Protecting People: Prevention of Traumatic Brain Injury (TBI), http://www.cdc.gov/injury/about/focus-tbi.html (last visited January 10, 2013).

<sup>32</sup> S.C. Department of Health and Environmental Control, Injury & Violence Prevention, Traumatic Brain Injury, http://www.scdhec.gov/health/chcdp/injury/tbi.htm (last visited January 10, 2013).

<sup>33</sup> S.C. Department of Health and Environmental Control, South Carolina Status of Injury Data Report 2010, http://www.scdhec.gov/administration/library/CR-009603.pdf (last visited January 10, 2013).

#### **Joint Citizens and Legislative**

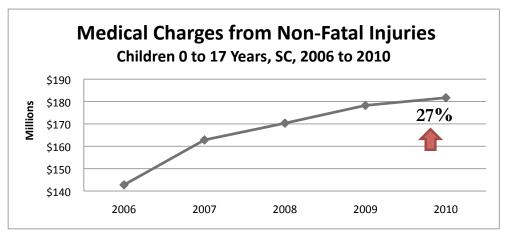
#### **Committee on Children**

From 2008 to 2010, non-fatal TBIs for children birth to seventeen increased due to sports or recreation injuries. There were total 2,607 TBI-related non-fatal injuries through 2008 to 2010 treated in hospitals, and almost half of these TBIs were diagnosed as concussions.<sup>34</sup> Because many children are diagnosed by doctors or athletic trainers and are never treated in a hospital, these numbers grossly underestimate the extent of brain injuries for children participating in sports or recreational activities.

#### **CONSEQUENCES**

From 2006 to 2010, there were 1,059 children who died due to injury and 538,077 children suffered non-fatal injuries. Severe injuries can result in long-term disability. For example, the loss of motor or cognitive functioning from TBI decreases the quality of life for children and their families. Approximately 70 children in 2012 alone were eligible for services from the Department of Disabilities and Special Needs as a result of head or neck trauma as a result of an injury.<sup>35</sup>

While the quality of life consequences are significant, childhood injuries are also costly. From 2006 to 2010, the total medical charges non-fatal child injuries were approximately \$182 million, with Medicaid covering 38% of the cost.<sup>36</sup>



The psychological trauma associated with injury-related deaths and long-term disabilities affects children, and can result in other costs and in caregivers' lost income which typically exceeds medical treatment.<sup>37</sup>

#### **RECOMMENDATIONS**

Because of the disability and costs resulting from injuries, there is widespread interest in preventing childhood injuries. There are many types of injuries and causes, and each injury type and subtype has unique strategies and interventions for prevention.

The Committee on Children recommends that child fatal and non-fatal injuries be a priority. By systematically addressing the causes and proven methods of preventing injuries, South Carolina can significantly reduce the personal and financial burden of child injuries and deaths.

<sup>34</sup> Non-Fatal Injury Data: Include hospital discharge and Emergency department (ED) visits provided by Office of Research and Statistics (ORS) of SC Budget and control Board. Analysis and report done by Division of Injury and Violence Prevention, South Carolina Department of Health and Environmental Control. 47% were diagnosed as concussions.

<sup>35</sup> Department of Disabilities and Special Needs, Children Receiving Services for Head and Neck Trauma as a result of an Injury, Unpublished report generated 9-12-12.

<sup>36</sup> S.C. Budget and Control Board Office of Research & Statistics, Analysis of Emergency Room Discharges By Selected Characteristics, http://ors.sc.gov/hd/erguerya.php (last visited January 10, 2013).

<sup>37</sup> The David and Lucille Packard Foundation. The Future of Children, The Cost of Childhood Unintentional Injuries and the Value of Prevention, Volume 10, Number 1 - Spring/Summer 2000.

#### **Child Fatality Advisory Committee**

The State Child Fatality Advisory Committee is a multi-disciplinary team that reviews unexplained child deaths in South Carolina. Their work is crucial to understand why child deaths occur and to develop sound policy to prevent them.

Testimony by SLED Director Mark Keel, received at the Committee's 2012 Town Hall meetings reported additional State Law Enforcement Division staff assigned to investigate child deaths. Information provided by these investigators and reports by the State Child Fatality Advisory Committee are essential to reducing child deaths in South Carolina.

Legislation to enhance the operation of the State Child Fatality Advisory Committee has been endorsed by the Committee on Children. The legislation adds two members of the General Assembly to the State Child Fatality Advisory Committee and provides increased flexibility on case investigation closure and initiation.

#### **Student Athlete Concussion Management**

Student athlete concussions have received national media attention. South Carolina is one of the last states in the nation to pass a student athlete concussion bill. The Committee has endorsed legislation to require local school districts to develop policies regarding the identification and management of suspected concussions in student athletes.

Proposed legislation requires local school districts to develop policies so that a student athlete suspected of sustaining a concussion be immediately removed from the activity. A student athlete must not return until the student has received written clearance by a licensed physician trained in concussion evaluation. The bill also provides for limited liability for volunteers evaluating student athletes.

#### **Summer Camp Safety**

Within the past several years, at least two children have drowned at summer camps in South Carolina. There is no state requirement that all summer camp employees or volunteers have background checks to confirm that they are not child offenders. There is also no state requirement that lifeguards be present when summer camps offer swimming for children.

The Committee on Children has endorsed legislation to require all volunteers and employees have background checks prior to working with children and to require lifeguards to be present at summer camps if swimming activities are offered.

#### Recreational Off-Highway Vehicles - S. 326

Recreational off-highway vehicles (ROVs) are not specifically defined as motor vehicles under current South Carolina law. Because of this, a child of any age may legally drive an ROV at speeds of up to 70 miles per hour without driver training or safety gear. The Committee on Children has endorsed this legislation to prevent children from being injured or killed in these vehicles.

This bill would, among other things, define ROVs as motorized vehicles, require an operator to be at least 16 years old and have a valid driver's license, and prohibit any person from operating or being a passenger without eye protection and a safety helmet.

#### **Committee on Children**

#### IV. Child Trauma

#### PROBLEM IDENTIFICATION

In a nationally representative study of children during their lifetimes, 60% experienced or witnessed victimization, almost 50% had been physically assaulted, and an additional 25% had witnessed violence, 10% experienced maltreatment and 6% were sexually abused.38

These incidents are called Adverse Childhood Experiences (ACEs). These events include: emotional, physical, or sexual abuse; neglect; growing up in a household where the mother was treated violently; where a household member had been imprisoned; or with an alcoholic, drug user, mentally ill, or suicidal person.<sup>39</sup>

ACEs impact a child's development and health in a variety of ways. In a nationally representative study of adults reflecting on childhood, only 33% did not experience any potentially traumatic ACEs, and over 10% experienced a minimum of five ACEs.<sup>40</sup>

According to the National Center for Post-Traumatic Stress Disorder, children and teens may develop post-traumatic stress disorder (PTSD) if they have survived an event in which someone could have been killed or badly injured and do not have access to counseling. Disasters such as school shootings, floods, car crashes, a friend's suicide, fires, or seeing violence near their home also cause PTSD.41

Potentially traumatic events adversely affect some children but not others.<sup>42</sup> Not all behavioral problems caused by exposure to trauma lead to PTSD, but many cases are missed. Even though a number of children suffer trauma that goes unreported, research shows that traumatic events are both surprisingly common and can have a cumulative impact on a child's development.<sup>43</sup>

Three factors have been shown to raise the chances that children will get PTSD:

- The severity of the trauma;
- How parents react to the trauma;
- Physical proximity of the child to the traumatic event.<sup>44</sup>

#### **CONSEQUENCES OF CHILD TRAUMA**

Once children experience or witness violence, they are more likely to become violent adolescents and adults. Experiencing violence can also often result in incarceration, homelessness, substance abuse, and mental health problems.<sup>45, 46</sup> These outcomes drain limited community and state resources and sustain the cycle of behaviors that traumatize children.

<sup>38</sup> Finkelhor, D., et al. (2009), "Violence, Abuse and Crime Exposure in a National Sample of Children and Youth", Pediatrics: Official Journal of the American Academy of Pediatrics issue 124.

<sup>39</sup> Fallot, Roger D., Creating Cultures of Trauma-Informed Care. Community Connections. Lecture Conducted from S. C. Department of Alcohol and Other Drug Abuse Services, Columbia, South Carolina.

<sup>40</sup> ACE Reporter, Origins and Essence of the Study (2003) from

http://www.acestudy.org/yahoo\_site\_admin/assets/docs/ARV1N1.127150541.pdf (last visited February 18, 2013).

<sup>41</sup> PTSD in Children and Teens, National Center for PTSD (2009) from www.ptsd.va.gov/professional/pages/ptsd\_in\_children\_and\_ adolescents\_overview\_for\_professionals.asp (last visited December 17, 2012).

<sup>42</sup> Briggs-Gowan, M.J., et al, 2010, "Prevalence of Exposure to Potentially Traumatic Events in a Healthy Birth Cohort of Very Young Children in the Northeastern United States", The Journal of Traumatic Stress 6 (23).

<sup>43</sup> PTSD in Children and Teens, National Center for PTSD (2009) from www.ptsd.va.gov/professional/pages/ptsd\_in\_children\_and\_ adolescents overview for professionals.asp (last visited December 17, 2012). 44 Id.

<sup>45</sup> The Learning Center for Child and Adolescent Trauma, webinar "From Child Maltreatment to Juvenile Delinquency, Trajectories of Crossover Youth and the Role of Trauma", http://learn.nctsn.org/mod/resource/view.php?id=5982 (last visited January 22, 2013)..

<sup>46</sup> ACE Reporter, Origins and Essence of the Study (2003) from http://acestudy.org/yahoo site admin/assets/docs/ARV1N1.127150541.pdf

As more is discovered about trauma and the impact of trauma on development, increasing numbers of children are diagnosed with PTSD. $^{47}$  Trauma to children has become a major public health problem in South Carolina. Children in poor communities are more likely to experience trauma and less likely to have access to health and behavioral interventions. $^{48, 49}$ 

Children and youth exposed to multiple or repetitive traumatic events are more likely to: experience high rates of absenteeism from school; demonstrate greater behavioral problems at home, school and in their communities; use alcohol, tobacco, marijuana, and illicit drugs; become school dropouts; or attempt suicide<sup>50</sup>.

As the number traumatic events during childhood increases, so does the likelihood of injury, disease, or early death during adulthood. Such risks include: tobacco, alcohol, and illicit drug use; physical inactivity; obesity; promiscuity; and attempted suicides. These conditions are known to reduce life spans of exposed victims by an average of 20 years.<sup>51</sup>

In South Carolina, there is little data available on the total number of children who have experienced trauma. One measure, though only a small part of the overall problem, is the number of children who have been abused or neglected. In South Carolina there were 14,510 children with cases of founded abuse or neglect in 2012, with children under age six most highly represented. Of that number, over 3,000 experienced physical abuse and over 700 were sexually abused.<sup>52</sup>

Rates of PTSD are higher for certain trauma survivors. Nearly 100% of children experience PTSD if they see a parent being killed or if they see a sexual assault. PTSD develops in 90% of sexually abused children, 77% of children who see a school shooting, and 35% who see violence near their home.<sup>53</sup>

Most recent data from the Department of Public Safety and SLED report that in 2010 there were approximately 370,000 victims of family violence. Many of these victims were children.<sup>54</sup> In 2011, over 600 children were treated at South Carolina's Children's Advocacy Centers for witnessing family violence. Many more suffered in silence from unreported violence.<sup>55</sup>

There is a direct correlation between child trauma and subsequent physical health problems such as diabetes, high blood pressure, COPD, heart disease, and cancer. These outcomes contribute to escalating public health care costs which are now estimated to be \$105 billion nationally.<sup>56</sup>

Testimony received during the Committee's 2012 Town Hall meetings highlighted impact of trauma on children in South Carolina and encouraged high-quality treatment services to promote recovery and resolution for children.<sup>57</sup>

<sup>47</sup> SAMHSA, Helping Children and Youth Who Have Experienced Traumatic Events, May 3, 2011 from http://store.samhsa.gov/product/Helping-Children-and-Youth-Who-Have-Experienced-Traumatic-Events/SMA11-4642 (last visited December 18, 2012).

<sup>48</sup> Family Informed Trauma Treatment Center, "Understanding the Impact of Trauma and Urban Poverty on Family Systems: Risks, Resilience and Interventions", 2010 from

http://fittcenter.umaryland.edu/LinkClick.aspx?fileticket=jFOaDJRM1P8%3D&tabid=147 (last visited January 29, 2013).

<sup>49</sup> SAMHSA, Helping Children and Youth Who Have Experienced Traumatic Events, May 3, 2011 from http://store.samhsa.gov/product/Helping-Children-and-Youth-Who-Have-Experienced-Traumatic-Events/SMA11-4642 (last visited December 18, 2012).

 <sup>50</sup> SAMHSA, Helping Children and Youth Who Have Experienced Traumatic Events, May 3, 2011 from http://store.samhsa.gov/product/Helping-Children-and-Youth-Who-Have-Experienced-Traumatic-Events/SMA11-4642 (last visited December 18, 2012).
 51 ACE Reporter, Origins and Essence of the Study (2003) from

http://acestudy.org/yahoo site admin/assets/docs/ARV1N1.127150541.pdf (last visited February 18, 2013).

<sup>52</sup> S.C. Department of Social Services, Unpublished report from DSS, Founded Maltreatments per Age Group for Investigations with a Decision Date During SFY 2012. Generated November 2012.

<sup>53</sup> Bradley Hospital, A Lifespan Partner, Posttraumatic Stress Disorder in Children and Teens, 2012.

www.ptsd.va.gov/public/pages/ptsd-childrenadolescents.asp. (last visited 1-29-13).

54 Department of Public Safety, Victims of Family Violence 5 year Trends by County, unpublished report generated October 2012.

<sup>55</sup> Unpublished report "Children served by CACs" generated 2012.

<sup>56</sup> Wang, C. T., & Holton, J. Total estimated cost of child abuse and neglect in the United States. Economic Impact Study. Report for the Pew Charitable Trusts from

http://www.preventchildabuse.org/about\_us/media\_releases/pcaa\_pew\_economic\_impacstudy\_final.pdf (retrieved April 4, 2011 57 Joint Citizens and Legislative Committee on Children, Summary of Testimony: 2012 Town Hall Meetings, http://www.sccommitteeonchildren.org/doc/2012%20Town%20Hall%20Meeting%20Report.pdf last visited 1-15-13.

#### WHY TREATMENT MATTERS

Several studies and initiatives sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) demonstrate positive, often dramatic, results for child trauma victims and their families when properly served with needed services and support systems provided by a network of pediatricians, mental health counselors, and school personnel.

Within six months of treatment, many children exposed to traumatic events show improved symptoms and functioning at home, in school, and in their communities. After 12 months, 44% of treated children experienced improved school attendance and grades, arrests of juveniles dropped by 36%, and suicide attempts dropped by 64%.<sup>58</sup>

These positive results suggest that early and effective interventions work to reduce or eliminate more serious health and behavioral concerns and avoid costly treatment of consequential disorders.<sup>59</sup>

#### SUCCESSFUL TRAUMA-INFORMED TRAINING IN SOUTH CAROLINA

The Committee on Children adopted trauma-informed practice as an initiative in 2012 and tasked the Joint Council on Children and Adolescents, comprised of state and local agencies, with leading this initiative. The Joint Council has worked to provide training to child-serving professionals.

The Joint Council's trauma-informed care workgroup has been led by the Department of Alcohol and Other Drug Abuse Services (DAODAS), the Department of Juvenile Justice, the Department of Mental Health, the South Carolina Chapter of the National Alliance on Mental Illness, and the Continuum of Care for Emotionally Disturbed Children. This group has trained over 1,300 staff who work with children. As a consequence of these initiatives, identification and treatment for children experiencing trauma has improved.

Of note, DJJ has trained institutional and community staff including juvenile correction officers, probation officers, teachers, and clinical staff to ensure that employees understand and respond appropriately to children who have been traumatized.

Another positive example is Project BEST, a state-wide collaborative effort funded by the Duke Endowment, and coordinated by the Medical University of South Carolina. Project BEST offers extensive training to professionals and promotes an innovative community-based treatment model using Trauma-Focused Cognitive-Behavioral Therapy.

Over the past five years Project BEST has trained hundreds of clinicians and child service brokers in 40 counties. The Project BEST website provides a roster of professionals who have completed the training process so that trained professionals can be easily identified.<sup>60</sup>

#### **RECOMMENDATIONS**

Testimony received at the Committee's 2012 Town Hall Meetings strongly supports the state's trauma-informed treatment training initiative and urged the continuation and expansion of evidence based mental health treatment options for child trauma victims<sup>61</sup>.

<sup>58</sup> SAMHSA, Helping Children and Youth Who Have Experienced Traumatic Events, May 3, 2011 from http://store.samhsa.gov/product/Helping-Children-and-Youth-Who-Have-Experienced-Traumatic-Events/SMA11-4642 (last viewed 12/18/12)

<sup>59</sup> SAMHSA, Helping Children and Youth Who Have Experienced Traumatic Events, May 3, 2011 from http://store.samhsa.gov/product/Helping-Children-and-Youth-Who-Have-Experienced-Traumatic-Events/SMA11-4642 (last viewed 12/18/12)

<sup>60</sup> Project Best, General Information and Home Page, http://academicdepartments.musc.edu/projectbest/index.htm (last visited January 15, 2013).

<sup>61</sup> Joint Citizens and Legislative Committee on Children, Summary of Testimony: 2012 Town Hall Meetings, http://www.sccommitteeonchildren.org/doc/2012%20Town%20Hall%20Meeting%20Report.pdf (last visited January 15, 2013)

#### Children's Statements to Forensic Interviewers

In a family court private custody proceeding which involves an allegation of abuse, children under the age of twelve may be required to testify in front of the parties and describe the details of the abuse. The fright and humiliation of describing abuse in a courtroom setting is itself a traumatic event for a child.

If, however, the child victim described the offense to a law enforcement official, officer of the court, licensed family counselor, physician, health care provider, teacher, school counselor, DSS staff member, or child care worker in a regulated child care facility, law permits that person to report the child's statements as permitted hearsay instead of the child being required to testify. Such hearsay testimony is now allowed by South Carolina Code §19-1-180.

Since 2000, South Carolina has had a statewide network of Child Advocacy Centers (CACs) staffed with trained professional forensic child interviewers. Unfortunately, state law does not permit forensic interviewers to testify on behalf of children who have disclosed abuse.

Legislation to permit this testimony has been endorsed by the Committee on Children so that forensic interviewers can be added to the existing list of professionals who may report the child's statements to the court. This exception would apply to children under age twelve in family court in disputes where allegations regarding abuse or neglect have been made. This legislation would not affect statements made in a criminal case.

#### **Shackling of Juveniles in Family Court**

Children appearing in family court for minor delinquency offenses are sometimes required to appear shackled in handcuffs, belly chains, and ankle chains. If a child represents a safety risk, such precautions may be necessary.

However, if not needed for safety, shackling can itself be a traumatic event. Legislation has been endorsed by the Committee on Children so that a family court must find that restraints are necessary and no less restrictive alternatives exist prior to shackling a child in court.

#### Sexting

When minors take and share sexually explicit photos of themselves or others, a number of issues arise. Depending on the circumstances, sexually explicit photos may meet the definition of child pornography and could result in significant consequences for both the person taking the photograph and the person distributing the photograph.

In some states, minors have been charged with felony offenses, placed on sex offender registries, and lost scholarship funding. Often, however, the legal consequences pale in comparison to the significant personal humiliation that a teen may face.

The Committee on Children has endorsed legislation to take a strong stance against this destructive behavior. In an effort to educate teens about engaging in high risk behavior, this legislation defines sexting and creates tiered penalties for children under eighteen who use telecommunication devices to share sexually explicit photos of themselves or others.

A first or second offense is noncriminal with a fine. A third or subsequent offense is a criminal misdemeanor which may result in detention. A person who has been convicted of the offense of sexting must not be required to register as a sex offender.

#### **Background Checks for Child Care Employment**

To protect children from persons from being victimized, child care workers are required to undergo a criminal background check. This background check includes determining if a person is a registered sex offender and whether the person has been convicted of certain crimes against a person, against morality and decency, contributing

to the delinquency of a minor, and certain felonies.

Legislation endorsed by the Committee on Children would add three additional crimes to the list of criminal offenses. The additional crimes include unlawful conduct towards a child, cruelty to children, and child endangerment. These three crimes include, among other things, types of behavior that cause a child bodily harm, inflicting unnecessary pain or suffering on a child, or operating a motor vehicle with a child present while under the influence of drugs or alcohol.

#### **Stop Methamphetamine Production Act**

Methamphetamine production in small, individual quantities rather than in large scale labs has become an increasingly difficult problem for law enforcement. Methamphetamine takes a severe toll on children, both in exposure to toxic chemicals and in trauma that comes with addiction and family dysfunction.

In an effort to stop methamphetamine production at its source, the Committee on Children endorsed legislation to require a prescription for over the counter medicines used to produce methamphetamine. The bill also creates a public registry of sites where methamphetamine has been produced, outlines penalties for possession, purchase, distribution, or sale of methamphetamine, and requires disclosure when a vehicle has been used for methamphetamine production. The legislation also allows law enforcement to receive information on the purchase of methamphetamine precursors without conducting a drug related investigation.

#### V. Immunizations

#### PROBLEM IDENTIFICATION

Prevention of disease through vaccination was recognized as one of the top ten public health achievements in the nation during the 20<sup>th</sup> century. As one of the most striking examples of success, vaccinations reduced mortality rates by 97% for persons under the age of 20 dying from chickenpox (varicella).<sup>62</sup>

On a broader scale, the number of cases, hospitalizations, and deaths for 12 prominent vaccine-preventable diseases has shown steady declines, and many are at all-time lows.<sup>63</sup> However, smallpox is the only vaccine-preventable disease that has truly been eradicated. So the risk of future outbreaks of measles, mumps, pneumococcal disease, and other preventable diseases remains a public health concern.

Many serious complications arise from these diseases. For instance, about one in 20 children who contract measles will also get pneumonia, and one in 1,000 will also develop encephalitis (inflammation of the brain). For every 1,000 children who get measles, one or two will die from it. Mothers who get measles while pregnant are more likely to have a miscarriage, premature birth, or a low-birth-weight baby.<sup>64</sup>

Tetanus is a very serious disease that causes involuntary muscle contraction. It is fatal in approximately one in ten cases.<sup>65</sup>

Chickenpox is highly infectious and typically causes unpleasant but non-fatal symptoms in most individuals. However, infants and adolescents are at higher risk of serious complications such as pneumonia, encephalitis, and bacterial infections.<sup>66</sup> In South Carolina, 83 children had chickenpox in 2010.<sup>67</sup>

Whooping cough (pertussis) is particularly serious among infants and young children. More than half of the infants who get pertussis must be hospitalized, one in four will get pneumonia, one in 300 will develop encephalitis, and one or two in 100 will die.<sup>68</sup> In South Carolina in 2010, 404 children had whooping cough.<sup>69</sup>

The seriousness of these diseases and the effectiveness of vaccine-based prevention have been well-established, yet the rate of childhood immunization with the combination 4313314-vaccine (4DTap, 3Polio, 1MMR, 3HIB, 3HepB, 1Var, and 4PCV<sup>70</sup>) has been declining in South Carolina, while the national average has been increasing.<sup>71</sup>

From 2007 to 2011, the percent of children receiving recommended two-year-old vaccinations declined by 7% (Figure 1). South Carolina was a leader in child vaccinations in 2007. However, recent data show that the state has now fallen well below the nation in the percentage of two-year-olds who have received vaccinations. This rapid decrease is cause for concern of the health and well-being of all South Carolinians.<sup>72</sup>

<sup>62</sup> CDC. Ten Great Public Health achievements --- United States, 2001-2010. Atlanta, GA: US Department of Health and Human Services, CDC; 2011. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5.htm Accessed January 11, 2013.

<sup>63</sup> Roush, SW, Murphy, TV, and the Vaccine-Preventable Disease Table Working Group. Journal of the American Medical Association (2007). Vol 298(18): pp 2155-2163.

<sup>64</sup> CDC. Complications of measles. Available at http://www.cdc.gov/measles/about/complications.html Accessed January 11, 2013.

<sup>65</sup> CDC. Tetanus Vaccination. Available at http://www.cdc.gov/vaccines/vpd-vac/tetanus/ Accessed January 11, 2013.

<sup>66</sup> CDC. Chickenpox. Available at http://www.cdc.gov/chickenpox/about/complications.html Accessed January 11, 2013.

<sup>67</sup> SC DHEC, "Vaccine Preventable Disease Among Children", unpublished report generated 5-2012.

<sup>68</sup> CDC. Pertusis. Available at http://www.cdc.gov/pertussis/about/complications.html Accessed January 11, 2013.

<sup>69</sup> SC DHEC, "Vaccine Preventable Disease Among Children", unpublished report generated 5-2012.

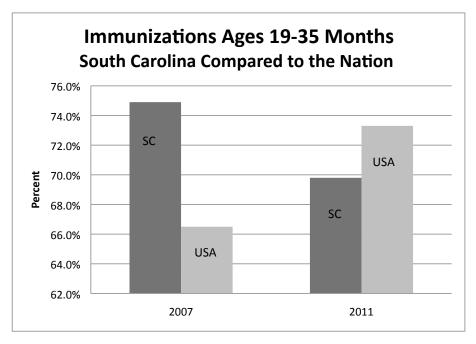
<sup>70</sup> DTaP - Protects against diptheria, tetanus, and pertussis; Polio - protects against polio; MMR - Protects against measles, mumps, and rubella; HIB - Protects against haemophilus influenza; HepB - Protects against Hepatitis B; Var - Protects against Varicella; and, PCV - protects against pneumococcal conjugate bacteria.

<sup>71</sup> CDC. National, State, and Local Area Vaccination Coverage Among Children Aged 19-35 Months – US 2011. Atlanta, GA: US Department of Health and Human Services, CDC; 2011. Available at http://www.cdc.gov/mmwr/pdf/wk/mm6135.pdf (last visited January 11, 2013).

<sup>72</sup> CDC, US Vaccination Coverage as Reported by NIS, http://www.cdc.gov/vaccines/stats-surv/nis/default.htm#nis (last visited January 18, 2013).

#### Joint Citizens and Legislative

#### **Committee on Children**



Despite the remarkable success of vaccination programs, many parents still do not vaccinate their children for a variety of reasons. Failing to vaccinate a child is not only a matter of concern for that individual child, but by failing to vaccinate a child, that child is now a possible source of infection to other children. One of the primary goals of vaccination is to prevent the transmission of communicable disease.

After two-year-old vaccines, many children do not receive recommended immunizations as they mature. In order to increase immunizations among older children, the Department of Health and Environmental Control will require all 7<sup>th</sup> graders to receive the Tdap (tetanus, diphtheria, and pertussis) immunization beginning school year 2013-2014.

#### **CONSEQUENCES**

There are substantial economic consequences of poor vaccination coverage. The direct medical cost for treatment of a vaccine-preventable disease is far greater than the cost of vaccination. The financial burden is compounded with lost productivity due to parents missing work to care for sick children, or having to cope with a child's death or disability.

Across the nation, vaccination of birth cohorts prevents approximately 42,000 deaths and 20 million cases of disease<sup>73</sup>. In South Carolina, the current program prevents an estimated 600,000 cases of vaccine-preventable diseases, and 1,300 deaths annually<sup>74</sup> and every dollar spent on immunizations results in approximately \$10.20 in savings<sup>75</sup>. Although vaccines provide savings via disease prevention and increased productivity, coverage rates for the 4313314-combination vaccine have declined in South Carolina.

<sup>73</sup> CDC. Ten Great Public Health achievements --- United States, 2001-2010. Atlanta, GA: US Department of Health and Human Services, CDC; 2011. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5.htm (last visited January 11, 2013).

<sup>74</sup> Zhou F., Updated Evaluation of the Routine Childhood Immunization Schedule in the United States, presented at the 45th National Immunization Conference, Washington, DC, March 28-31, 2011.

<sup>75</sup> S.C. DHEC, Joint Citizens and Legislative Committee on Children Meeting, December 11, 2012.

#### **RECOMMENDATIONS**

By the age of two, children are recommended to receive up to 20 vaccines. Also by the age of two, one in five children will have seen at least two different health care providers, making it difficult to track records and increasing the likelihood of missing an important immunization. The American Academy of Pediatrics and the Centers for Disease Control recommend the adoption of immunization information systems to improve immunization coverage of children.

The registry is a confidential, electronic-based system to track immunization records across multiple providers. The registry serves a number of important functions: reminders to parents of upcoming vaccination visits and due dates, reminders to providers of vaccinations needed at current visits, easy and accurate generation of records for schools, and repeatedly measuring immunization rates over time. In 2010, the General Assembly passed legislation to require immunization providers to submit data to a statewide immunization registry, The Department of Health and Environmental Control has proposed regulations to the General Assembly this session to implement that electronic immunization registry.

Given the strong evidence in favor of increasing childhood immunization coverage, South Carolina should strive to vaccinate all children. As demonstrated in declining immunization rates in South Carolina, current policy and practice is not effectively addressing this issue. South Carolina must recognize and address the common barriers to immunization coverage<sup>76</sup> including cost and accessibility. To address the above issues, the Committee on Children recommends bringing together interested parties to identify specific issues and recommendations for South Carolina's vaccination policies and practices.

<sup>76</sup> Committee on Practice and Ambulatory Medicine and Council on Community Pediatrics (2010). Increasing Immunization Coverage. Pediatrics Vol 125(6): pp 1295-1304.

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