



# North Carolina's Plan to Promote the Health of People with Disabilities

**Everywhere • Everyday • Everybody**

*2015, 3rd Edition*





*Public Health*  
HEALTH AND HUMAN SERVICES

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## Table of Contents

### Introduction

Purpose.....	1
Background.....	1
Goal and Objectives.....	2
Implementing the NC Plan.....	2
Disability Defined.....	2
Disability and Health.....	3
Evaluation .....	4
Leading Health Indicators .....	5
Universal Strategies and Action Items .....	6

### Leading Health Indicators

Access to Health Care .....	10
Emergency Preparedness and Response .....	12
Environmental Health.....	14
Immunization.....	16
Injury and Violence.....	18
Mental Health.....	20
Oral Health.....	22
Physical Activity and Nutrition.....	24
Sexual Health .....	25
Substance Abuse.....	28
Tobacco Use.....	29

### Appendices

Appendix A: Disability Data .....	32
Appendix B: Survey Questions.....	36
Appendix C: Disability Rights Laws .....	37
Appendix D: Principals of Universal Design and Web Accessibility ..	39
Appendix E: Guidelines for Health Promotion Programs.....	40
Appendix F: Acronyms .....	41
Appendix G: Acknowledgements.....	42

<b>References.....</b>	<b>47</b>
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# Introduction

## Purpose

The purpose of the North Carolina Plan to Promote the Health of People with Disabilities (NC Plan) is to improve the health and well-being of people with disabilities in North Carolina by promoting increased access to services and opportunities and by decreasing health disparities. The NC Plan contains strategies to ensure North Carolina is a state where people with disabilities have the opportunity, every day and in all places, to be healthy and participate in all aspects of community life.

## Background

The NC Plan builds upon the prior plans: North Carolina Plan for Promoting the Health of People with Disabilities 2003-2008<sup>1</sup> and the North Carolina Plan for Prevention of Secondary Conditions Experienced by Persons with Disabilities 1997-2002.<sup>2</sup> The planning process included key informant discussions on 11 leading health indicators with people with disabilities, families, advocates and representatives from public health, state government and the private sector. Members of the NCODH Disability Community Planning Group, community partners and families reviewed all elements of the NC Plan through multiple rounds of feedback.

For each leading health indicator, stakeholders were asked to identify public health priorities, current state initiatives, evidence-based practices, needs and gaps experienced by people with disabilities. The leading health indicators:

- Access to Health Care
- Emergency Preparedness and Response
- Environmental Health
- Immunization
- Injury and Violence
- Mental Health
- Oral Health
- Physical Activity and Nutrition
- Sexual Health
- Substance Abuse
- Tobacco Use

Based on the key informant discussions, the following common domains were identified:

- **Data:** Assure that data on children, youth and adults with disabilities is collected, analyzed and disseminated
- **Policy:** Advance policies, regulations and laws that ensure access for people with disabilities
- **Public Awareness and Outreach:** Assure that public awareness messages, outreach and campaigns are inclusive of people with disabilities
- **Health Interventions:** Advance the development and statewide implementation of health interventions that promote health for people with disabilities
- **Environment:** Assure that sites meet or exceed the Americans with Disabilities Act Standards for Accessible Design, the accessibility regulations of the Rehabilitation Act of 1973 and other relevant laws

## Goal and Objectives

The goal of the NC Plan is to increase awareness of the health disparities experienced by people with disabilities and to set priorities and focus attention and resources on removing barriers to health and health promotion for people with disabilities, their family members, the community and the state. Success requires resource sharing, knowledge transfer, active cooperation and collaboration among multiple and diverse local, state and national partners.

The NC Plan objectives are:

- To identify the health-related priorities of people with disabilities
- To increase public awareness and understanding of the health-related needs of people with disabilities
- To provide goals and action steps that are applicable at the state and local levels
- To engage multiple partners to take actions to strengthen policies and improve practices that are driven by the best available evidence and knowledge
- To identify critical disability research, evaluation and data collection needs

## Implementing the NC Plan

The NC Plan is designed as a guide for partners to incorporate disability into their programs and policies. The target audiences for the NC Plan include the following groups:

- State and local government agencies
- Disability organizations and advocates
- Health, dental and service providers
- Health promotion professionals
- Non-profit organizations
- Schools/universities

Organizations are encouraged to use this document as a guide to assuring that all public health efforts are inclusive of people with disabilities.

## Disability Defined

The Americans with Disabilities Act defines disability as an individual with<sup>3</sup>:

- A physical or mental impairment that substantially limits one or more major life activities of such individual
- A record of such an impairment
- Being regarded as having such an impairment<sup>4</sup>

A disability can be physical, mental, emotional, intellectual or communication-related. A disability may result in substantial limitations in one or more major life activities and the limitations are expected to be permanent or long term. The likelihood of having a disability increases as one ages and the severity of the disability can vary considerably from person to person. A disability can be visible or invisible. Some people with disabilities may use assistive equipment such as a wheelchair, communication board or assistive listening device. A disability can be present from birth or occur later in life as a result of injury, chronic disease or aging.<sup>5</sup>

The World Health Organization defines disability as not just a health problem. “It is a complex phenomenon, reflecting the interaction between features of a person’s body and features of the society in which he or she lives.”<sup>6</sup> Therefore, disability can be viewed as more than health impairment, but a product of an individual’s environment.

## **Disability and Health**

One out of five North Carolinians will have a disability during their lifetime.<sup>7</sup> People with disabilities experience more health disparities than people without disabilities and these disparities are similar to those reported by other minority racial and ethnic groups.

Accessible health care and health promotion programs for people with disabilities are critical since a minor illness can compromise a person’s functional ability and possibly lead to a premature decline in health and dependency on others for care.<sup>8</sup> For people with disabilities, an inaccessible environment, discriminatory attitudes, government policies and community norms often present more of a barrier to health, wellness and quality of life than their disabling condition.<sup>9</sup>

While health promotion and disease prevention services should be designed to meet the needs of people of all abilities, many existing health and wellness programs do not address the needs of people with disabilities.<sup>10</sup> Prevention efforts for people with disabilities should include management of chronic health conditions, appropriate and timely treatment and screenings and risk reduction behavior. Since an individual’s health is affected by behavior choices, genetics, environment, social surroundings and his/her ability to access health care and preventative services, available health promotion interventions must include disability specific resources and necessary adaptations to effectively reach the target population.<sup>11</sup> In addition, interventions should involve people with disabilities in the development, implementation and evaluation of health promotion programs to ensure successful outcomes.<sup>12</sup> See Appendix D, Guidelines for Health Promotion Programs, for assistance in providing best practices for community-based health promotion programs for people with disabilities.

The World Health Organization defines health promotion as “the process of enabling people to increase control over and to improve their health. It moves beyond a focus on individual behavior

toward a wide range of social and environmental interventions.”<sup>13</sup> Health promotion efforts for people with disabilities should provide information and resources needed to prevent compounding health issues, improve an individual’s quality of life and reduce the likelihood of secondary conditions such as obesity or hypertension. Focusing on prevention can also be cost beneficial as the majority of secondary conditions can be mitigated or prevented altogether with timely interventions.<sup>14</sup>

## **Evaluation**

The North Carolina Office on Disability and Health regularly reviews the strategies set forth the NC Plan to ensure it continues to serve its intended purpose. Multiple methods of evaluation are implemented and results are used to inform the direction of the Office. Strategies include:

- Dedicating one meeting of the Disability Community Planning Group per grant year is to review progress toward reaching the goals, objectives and strategies set forth in the NC Plan
- Assessing that program goals continue to align with the NC Plan objectives
- Compiling progress and results in a report to the Centers for Disease Control and Prevention as part of overall grant reporting

In addition, the North Carolina Office on Disability and Health conducts a full review of the goals, objectives and strategies every five years to determine if they should be modified, added to or redirected.

## Leading Health Indicators

The leading health indicators used in the NC Plan are the high priority public health issues identified by the expert panel. The indicators identify changes needed to improve the health of all people. The leading health indicators used in the NC plan are listed below with their corresponding goal.

Leading Health Indicators	Goals
Access to Health Care	To assure access to comprehensive, high quality health care services, including preventive health services, for all North Carolina residents with disabilities.
Emergency Preparedness and Response	To assure that the state’s overall preparation, response and recovery efforts address the impact of disasters upon children and adults with disabilities in North Carolina and that individuals, families and households take personal responsibility for their own safety.
Environmental Health	To assure a healthy living environment for people with disabilities by increasing public awareness of and action on environmental health issues.
Immunization	To increase the number of North Carolinians with disabilities who are age-appropriately vaccinated.
Injury and Violence	To enable North Carolinians with disabilities to be free from injuries and violence and to foster an atmosphere where everyone may live to their fullest potential.
Mental Health	To assure that people with disabilities and their families receive the necessary prevention, intervention, treatment and supports they need to achieve optimal mental health to live successfully in communities of their choice.
Oral Health	To promote conditions in which all North Carolinians, including people with disabilities, can achieve good oral health as a part of overall health.
Physical Activity and Nutrition	To increase healthy eating and physical activity opportunities for people with disabilities in North Carolina by fostering supportive policies and environments.
Sexual Health	To eliminate morbidity and mortality due to sexually transmitted diseases and reduce the rate of unplanned pregnancies among people with disabilities.
Substance Abuse	To reduce substance abuse by children, adolescents and adults with disabilities to protect their health, safety and quality of life.
Tobacco Use	To prevent the initiation and promote quitting of tobacco use among youth and adults with disabilities and eliminate exposure to environmental tobacco smoke.

## Universal Strategies and Action Items

Listed below are universal action items for each of the five strategies: data, policy, public awareness and outreach, health interventions and environment. These action items should be universally addressed within each of the eleven leading health indicators.

<b>Data:</b> Assure that data on children, youth and adults with disabilities is collected, analyzed and disseminated.
<input type="checkbox"/> Adopt the use of standardized questions to include and identify people with disabilities.
<input type="checkbox"/> Disseminate data in multiple formats to diverse audiences including policy makers, public health professionals, individuals with disabilities, families, care providers, health care professionals and advocacy and service organizations.
<input type="checkbox"/> Utilize data to identify and prioritize documented disparities among people with disabilities and develop appropriate efforts to address and reduce these disparities.
<b>Policy:</b> Advance policies, regulations and laws that ensure the needs of people with disabilities are addressed.
<input type="checkbox"/> Support the participation of individuals with disabilities and families in state and local advisory groups.
<input type="checkbox"/> Promote accessible communication through the provision of appropriate accommodations such as assistive listening devices, qualified and licensed sign language interpreters and speech communication devices and strategies.
<input type="checkbox"/> Conduct and disseminate research on the needs and experiences of people with disabilities.
<b>Public Awareness and Outreach:</b> Assure that public awareness and outreach initiatives are inclusive of people with disabilities.
<input type="checkbox"/> Develop public awareness campaigns, outreach initiatives and resources that are accessible and inclusive of people with disabilities through the use of diverse images of people with disabilities, person first language, varied literacy levels and alternate formats.
<input type="checkbox"/> Assure that the NC Healthful Living Education Standard Course of Study and Grade Level Competencies are made available to all students, regardless of classroom setting. <sup>15</sup>
<b>Health Interventions:</b> Assure the development and statewide implementation of health interventions for people with disabilities.
<input type="checkbox"/> Support the delivery of evidence-based interventions and programs and ensure that they are inclusive of and accessible to people with disabilities.

<p><b>Environment:</b> Assure that all physical environments meet or exceed the Americans with Disabilities Act Standards for Accessible Design, the accessibility regulations of the Rehabilitation Act of 1973 and other relevant laws.<sup>16</sup></p>
<p><input type="checkbox"/> Provide training and technical assistance on the Americans with Disabilities Act and Universal Design principles.<sup>17</sup></p>
<p><input type="checkbox"/> Disseminate information on Section 508 of the Rehabilitation Act of 1973, the Web Accessibility guidelines of the World Wide Web Consortium and other relevant guidelines and laws pertaining to accessible information technology.<sup>18</sup></p>
<p><input type="checkbox"/> Provide information on the use of financial incentives, including federal tax deductions, to remove environmental barriers.<sup>19</sup></p>
<p><input type="checkbox"/> Promote accessible transportation systems through the provision of appropriate accommodations, funding and training, such as accessible paratransit and main line routes and vehicles, training for drivers and customer service personnel and travel training for riders with disabilities.<sup>20</sup></p>

# **Leading Health Indicators**

## Access to Health Care

Access to health care can occur in many forms. Health disparities or secondary health conditions are often the result of inaccessible health care facilities and equipment, lack of knowledge among health professionals about specific differences among people with disabilities, transportation difficulties and higher poverty rates among people with disabilities.<sup>21</sup>

For increased communication access, health professionals should know how to effectively communicate with patients who have disabilities that impact their hearing, speech, vision or their ability to understand what they are being told. Physically inaccessible health care facilities may have exam and diagnostic equipment that cannot be adjusted for a range of functional needs and/or policies or practices that do not meet the communication and accommodation needs of patients with disabilities.

While federal laws (the Americans with Disabilities Act of 1990) and state laws prohibit discrimination on the basis of disability, equitable health care access for people with disabilities has not yet been achieved.<sup>22</sup> Under the Patient Protection and Affordable Care Act, the United States Access Board was charged with developing accessibility standards for medical diagnostic equipment, including examination tables and chairs, weight scales, radiological equipment and mammography equipment. The standards will address access to such equipment by people with disabilities.<sup>23</sup>

### NC Data on Access to Health Care

- 27.9 percent of adults with disabilities report that within the past twelve months they could not see a doctor because of the cost, compared to 15.4 percent of adults without disabilities<sup>24</sup>
- 7.2 percent of adults with disabilities reported a delay in getting needed medical care due to lack of transportation, compared to 1.2 percent of adults without disabilities<sup>25</sup>
- 9.5 percent of families of CSHCN reported that in the past 12 months there was a time when medical care was delayed or not received, compared to 4.7 percent of non-CSHCN<sup>26</sup>

### Strategies and Action Items

Policy
<input type="checkbox"/> Promote the adoption of patient centered medical homes for people with disabilities.

### Public Awareness and Outreach

- Support awareness initiatives that promote enrollment of uninsured children into Medicaid or Health Choice, the Children’s Health Insurance Program.
- Foster disability awareness and development of specialized knowledge and skills by health care professionals for treating people with disabilities of all ages.
- Develop partnerships with organizations that serve people with disabilities to ensure that individuals and families learn about publicly funded health insurance programs and resources.
- Support awareness campaigns that educate parents about childhood development and encourage developmental screenings and evidence based interventions such as the CDC campaign, Learn the Signs. Act Early.<sup>27</sup>

### Health Interventions

- Provide education and resources for children, youth and adults with disabilities to effectively manage their health and advocate for necessary accommodations, such as assistive technology, interpreters or other forms of effective communication and accessible medical equipment.
- Support the training of health care providers to address transition from child to adult-oriented health care, including health care transition plans and discussions on continuous health insurance coverage.<sup>28</sup>
- Support service providers, including residential, employment, educational and advocacy, to include preventive health services when addressing the health and well-being of people with disabilities.

### Environment

- Promote the availability of accessible medical equipment, such as accessible exam tables, accessible scales and mammography equipment, in diverse health care facilities.

### Universal Strategies and Action Items

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Access to Health Care.

## Emergency Preparedness and Response

The attacks of September 11, 2001 and the hurricanes Katrina and Sandy resulted in an increased focus on emergency preparedness and response for people with disabilities. A study of the experiences of Hurricane Katrina evacuees documented a need for better plans for emergency communication and evacuation of low-income residents and citizens with disabilities.<sup>29</sup> In addition, natural disasters and terrorism instantly result in people with new disabilities and functional limitations. North Carolina is a state particularly vulnerable to natural, weather-related disasters, such as hurricanes, flooding and tornadoes. Following any type of natural disaster, emergency event or public health crisis, officials must be prepared to respond and meet the needs of the affected community. Preparedness officials must include people with disabilities in the planning, training, exercises and response activities carried out at the community level.

Emergencies can intensify an individual's vulnerabilities. For example, loss of mobility equipment may cause independent wheelchair users to become reliant on others for mobility. Research suggests that home preparation for a disaster is less likely among people with disabilities and that they are less likely to evacuate their home or community, but will likely need greater assistance when they do so.<sup>30</sup> All individuals, including people with disabilities, should take time before a disaster to plan for survival at home, in a shelter or elsewhere in the event of an actual emergency. By planning ahead people with disabilities increase the likelihood that they will stay safe, healthy, informed, mobile and independent during a disaster.

### NC Data on Emergency Preparedness and Response

- 18 percent of adults with disabilities said their household is not prepared at all to handle a large-scale disaster or emergency, compared to 12.4 percent of people without disabilities<sup>31</sup>
- 33.4 percent of adults with disabilities reported that radio was their main method or way of getting information from authorities in a large-scale disaster or emergency, followed by 24.9 percent who said television<sup>32</sup>

### Strategies and Action Items

Data
<input type="checkbox"/> Establish an adequate data collection system that will assess the impact of disasters and monitor the outcomes of the implementation of disaster plans for people with disabilities.

### Policy

- Review current North Carolina emergency preparedness and response policies and integrate the needs of people with disabilities across governmental activities and operations.
- Prioritize individuals with disabilities and families for accessible disaster housing assistance and expedited transition into permanent housing.
- Implement the recommendations made in the 2014 North Carolina Emergency Preparedness Initiative and Blueprint: A Plan for Whole Community Emergency Preparedness.<sup>33</sup>

### Public Awareness and Outreach

- Develop campaigns and resources that direct people with disabilities and care providers to be proactive in planning for their personal safety and provide information about available local and state resources.
- Foster disability awareness and development of specialized knowledge and skills by emergency planners and responders for serving people with disabilities of all ages.

### Health Interventions

- Develop and disseminate materials and toolkits to people with disabilities to support in planning for their personal safety.<sup>34</sup>
- Promote the delivery of educational programs and resources to families, advocates and care providers to enable them to support disaster preparedness, planning and response for people with disabilities.
- Assure that child care facilities are adequately trained and prepared to handle all types of emergency situations.

### Environment

- Assure the provision of safe, accessible and secure mass care shelter environments and access to essential services and supplies for people with disabilities.
- Assure emergency preparedness and response transportation systems are sufficient and accessible to people with disabilities during emergency evacuations.
- Ensure the capacity, capability and availability of accessible transportation for people with disabilities or with access and functional needs during an emergency.

### Universal Strategies and Action Items

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Emergency Preparedness and Response.

## Environmental Health

Environmental factors play a central role in human development, health and disease. One’s indoor living environment along with external factors such as geographic location or income level can increase the risk for injury and illness. Environmental factors that influence one’s health and safety at home, school, work or in the community include building structure and safety, quality of indoor air and water, changes in weather and the presence of toxic chemicals. These hazards can lead to outcomes such as home fires, fall-related injuries, poisonings, cancer, asthma, among others.<sup>35</sup>

People with disabilities may be at greater risk of secondary health effects from toxic exposures than individuals without disabilities. The health impacts of adverse living environments may also pose a greater risk for people who already have compromised health.<sup>36</sup> Additionally, certain construction characteristics can affect the accessibility of one’s home, neighborhood and community, potentially limiting participation in the community.

### NC Data on Environmental Health

- 16.3 percent of adults with disabilities report having asthma, compared to 6.2 percent of people without a disability<sup>37</sup>
- 22.6 percent of CSHCN report having asthma, compared to 7.3 percent of non-CSHCN<sup>38</sup>

### Strategies and Action Items

Data
<input type="checkbox"/> Report data on environmental health in multiple formats to diverse audiences including policy makers, public health professionals, individuals with disabilities, families, care providers, health care professionals and advocacy service organizations.

  

Policy
<input type="checkbox"/> Promote screening for lead poisoning among all children receiving the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and Medicaid, pregnant women and women of child bearing age, as well as other vulnerable populations and ensure these programs are inclusive of people with disabilities.
<input type="checkbox"/> Promote awareness of, and compliance with, the United States Department of Justice Fair Housing Act to ensure, safe, affordable and accessible homes. <sup>39</sup>

### Health Interventions

- Educate people with disabilities, families, care providers and advocates on how to improve the quality of their indoor and outdoor environment, including exposure to lead, asbestos and pesticides.<sup>40</sup>
- Provide materials and resources to service providers including residential, employment, educational and advocacy, on environmental health issues and how to reduce or eliminate unsafe exposures for people with disabilities.

### Environment

- Promote the adoption of inclusive home design and smart growth development to ensure access to homes that support social participation, safety, affordable housing and positive environmental outcomes.<sup>41 42</sup>
- Promote awareness of reasonable accommodations and modifications for rental housing among property owners and people with disabilities (potentially through local Human Relations Commissions and city/county Fair Housing Hearing Boards).

### Universal Strategies and Action Items

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Environmental Health.

## Immunization

Vaccines protect not only individuals but entire communities and are vital to the public health goal of preventing diseases. Vaccine-preventable disease levels are at or near record lows.<sup>43</sup> Vaccination prevents illness, disability and death from vaccine-preventable diseases including polio, hepatitis B, measles, chickenpox, whooping cough, rubella (German measles) and mumps. Fortunately, there are safe and effective vaccines available to protect against these diseases and most vaccine-preventable diseases are rare in North Carolina because of the success of vaccinations.

There are some people who are not able to be vaccinated due to compromised immune systems or severe allergic reaction to a particular vaccine. While many have concerns about vaccine safety, the Centers for Disease Control and Prevention state that there is no link between vaccines and autism.<sup>44</sup>

### NC Data on Immunization

- 49.2 percent of adults with disabilities ages 65 years and older have had a pneumonia vaccine, compared to 25.3 percent of adults without disabilities<sup>45</sup>
- 56.1 percent of adults with disabilities received an influenza vaccination during the past 12 months, compared to 42.9 percent of adults without disabilities<sup>46</sup>
- 70 percent of adults with intellectual disabilities have had a flu vaccination within the past year<sup>47</sup>
- 94.9 percent of CSHCN have received a tetanus shot, compared to 86.9 percent of non-CSHCN<sup>48</sup>

### Strategies and Action Items

Policy
<input type="checkbox"/> Support funding for universal access to immunizations for children.

  

Public Awareness and Outreach
<input type="checkbox"/> Provide information about the importance of immunization for CSHCN under age two, through parent support groups, advocacy organizations, childcare providers and health care professionals.
<input type="checkbox"/> Provide information to new parents and siblings about the importance of immunization for all family members.
<input type="checkbox"/> Publicize stories of people with disabilities and families who have followed the recommendations of the Advisory Committee for Immunization Practices. <sup>49</sup>

**Health Interventions**

- Enhance access to immunization services for people with disabilities through traditional and non-traditional opportunities, including medical homes, schools, work sites, home visits, drive thru clinics and community events.
- Provide education and easy access to immunizations for families, direct support staff and care providers.
- Support health care providers inquiring of all patients with disabilities and CSHCN about their immunization status and make referrals as appropriate.

**Universal Strategies and Action Items**

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Immunization.

## Injury and Violence

Injury is the leading cause of death for North Carolinians ages one to 44.<sup>50</sup> Injuries are categorized into two types; intentional and unintentional. Intentional injuries include homicide, assault, suicide and attempted suicide, abuse and neglect, intimate partner violence and sexual assault. Nationwide, firearms are the leading cause of both homicide and suicide deaths and non-sexual assault (being hit by or hitting a human, animal or inanimate object) is the leading cause of intentional injury to people of all ages.<sup>51</sup> Adults with developmental disabilities are at risk of being physically or sexually assaulted at rates four to ten times greater than other adults.<sup>52</sup> Children with Special Health Care Needs are 3.7 times more likely than non-CSHCN to be victims of any sort of violence, 3.6 times more likely to be victims of physical violence, and 2.9 times more likely to be victims of sexual violence.<sup>53</sup> Research suggests that women with disabilities are more likely to suffer domestic violence and sexual assault than women without disabilities.<sup>54</sup>

Unintentional injuries involve motor vehicles or other transportation, falls, fires, poisonings, drownings, suffocations and choking. Nationwide, poisoning is the leading cause of unintentional injury death and falls are the leading cause of unintentional injury to people of all ages. Falls among adults with disabilities and chronic health conditions can cause fractures and traumatic brain injury, hip fractures, decreased quality of life, increased mortality and morbidity rates and creates unnecessary pain, trauma and increased costs to individuals and society as a whole.<sup>55</sup>

### NC Data on Injury and Violence

- 30.2 percent of adults with disabilities fell two or more times within the past three months, compared to 6.3 percent of people without disabilities<sup>56</sup>
- 17.5 percent of adults with disabilities reported that an adult in their home hit, beat, kicked or physically hurt them before age 18, compared to 9.8 percent of adults without disabilities<sup>57</sup>
- 17.4 percent of adults with disabilities reported having experienced sexual abuse before age 18, compared to 8.9 percent of adults without disabilities<sup>58</sup>
- 12.9 percent of CSHCN reported they could not participate in their usual activities for at least one day in the past month due to an injury, compared to 3.1 of non-CSHCN<sup>59</sup>

### Strategies and Action Items

Policy
<input type="checkbox"/> Support the recommendations and activities of the North Carolina Falls Prevention Coalition, the American Public Health Association and National Fire Protection Association. <sup>60 61</sup>
<input type="checkbox"/> Support the recommendations and activities of state initiatives to prevent sexual violence and domestic violence, including the work of the EMPOWER (Enhancing and Making Programs Outcomes Work to End Rape) project. <sup>62</sup>
<input type="checkbox"/> Promote the Fundamental Elements of Accessibility that address communication, information, the built environment, staff training and policies developed to improve the accessibility of domestic violence and sexual assault services. <sup>63</sup>

### Public Awareness and Outreach

- Provide information about prevention of injury and violence and relevant services to individuals with disabilities, families, health care professionals, care providers, advocates and teachers.
- Provide information on shaken baby syndrome, the Period of Purple Crying and SIDS to parents and caregivers of children and babies with special health care needs through health care professionals, parent support groups and advocacy organizations<sup>64 65</sup>
- Promote evidence based family education and support programs that prevent child abuse and neglect, such as Parents as Teachers, Nurse-Family Partnership, Positive Parenting Program and Healthy Families America.<sup>66</sup>

### Health Interventions

- Promote the implementation of evidence-based interventions, such as A Matter of Balance, in a variety of environments including Centers for Independent Living, support groups and residential settings and ensure the inclusion of adults with disabilities.<sup>67</sup>
- Support school-based programs in addressing violence prevention topics, such as gang violence, domestic violence, sexual assault, suicide prevention, hate crimes, gun violence and bullying and ensure that they are delivered to all children including students with disabilities using modified curriculum, when needed.<sup>68</sup>
- Support the adoption of evidence-based interventions such as Nurse-Family Partnership, Positive Parenting Program and Healthy Families America in reducing child maltreatment for families and caregivers of people with disabilities.<sup>69 70</sup>

### Environment

- Promote the adoption of Visitability to ensure that everyone has basic access to visit homes with ease and promote safety and flexibility through smart residential construction design.<sup>71</sup>

### Universal Strategies and Action Items

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Injury and Violence.

## Mental Health

Four of the ten leading causes of disability for persons ages five years and older involve mental disorders.<sup>72</sup> More than one in four adults in the United States have experienced some form of mental illness in the past twelve months and among these, 22 percent have experienced serious mental illness. Mental disorders are not only the cause of limitations of various life activities, but they can also be a secondary problem for people with other disabilities. Strategies to address social isolation, depression and suicide are needed as is assisting people with disabilities in accessing preventive and therapeutic mental health services.

Since people with serious mental illness have higher rates of chronic health problems including obesity, cardiovascular disease, diabetes and pulmonary disease, it is imperative that physical and behavioral health care professionals and systems become more integrated.<sup>73</sup>

### NC Data on Mental Health

41.4 percent of adults with disabilities reported that they have been diagnosed with a depressive disorder, compared to 11.7 percent of people without a disability<sup>74</sup>

- In the 30 days before the survey, 15.2 percent of adults with disabilities reported that their mental health was not good for all 30 days, compared to 3 percent of adults with no disability<sup>75</sup>
- In a survey of 814 adults with developmental disabilities, 50 percent reported having a mental illness or Psychiatric Diagnosis<sup>76</sup>
- 9.2 percent of parents reported having a child with an emotional, developmental or behavioral problem for which he/she needs treatment or counseling. 93.7 percent of these parents report the problem has lasted or is it expected to last 12 months or longer<sup>77</sup>

### Strategies and Action Items

Policy
<input type="checkbox"/> Advance the goals of the Mental Health Integration Pilot, a state level collaboration to integrate mental health service into primary care practices. <sup>78</sup>

  

Public Awareness and Outreach
<input type="checkbox"/> Provide information about risk factors for mental health disorders and relevant services to people with disabilities, families, health care professionals, care providers, advocates and teachers.
<input type="checkbox"/> Provide information about the prevalence of chronic health problems and the importance of addressing preventive care to people with disabilities, families, health care professionals, care providers and advocates.

**Health Interventions**

- Support statewide implementation of the integration of behavioral and physical health care through collaborations with partners.
- Enhance access to evidence based interventions addressing depression through traditional and non-traditional opportunities, including home visits, work sites, schools and in the community.

**Universal Strategies and Action Items**

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Mental Health.

## Oral Health

Poor oral health can affect one’s ability to eat, maintain proper nutrition and communicate. Millions of people in the United States are at higher risk for oral health problems because of underlying medical conditions. Often, people with disabilities and their caregivers pay more attention to disability related issues while ignoring oral health.<sup>79</sup> For some individuals with significant disabilities, caring for their teeth requires assistance and extra time. Dental professionals must be able to provide comprehensive quality care for patients with disabilities.

### NC Data on Oral Health

- 56 percent of adults with disabilities have visited a dentist, dental hygienist or dental clinic within the past year (for any reason), compared to 67 percent people without disabilities<sup>80</sup>
- 56 percent of adults with developmental disabilities had a routine dental exam in the past six months<sup>81</sup>
- 42 percent of parents with CSHCN report the condition of their child’s teeth as “excellent”, compared to 51 percent of parents with non-CSHCN<sup>82</sup>

### Strategies and Action Items

Data
<input type="checkbox"/> Develop fact sheets and articles on rates of oral disease and prevention practices of people with disabilities.
<input type="checkbox"/> Utilize data to analyze and prioritize documented disparities among people with disabilities to develop appropriate efforts to address and reduce these disparities.

  

Policy
<input type="checkbox"/> Disseminate and support the recommendations developed by the NC Special Care Advisory Group to the NC Commission on Aging and NC Public Health Study Commission, to people with disabilities, families, disability organizations, dental professionals, communities and policy makers. <sup>83</sup>
<input type="checkbox"/> Support efforts to develop enforceable minimal oral health service standards and reimbursement policies in nursing homes and other residential facilities.
<input type="checkbox"/> Expand Medicaid dental services to include reimbursement for preventive evidence-based chemotherapeutic agents like fluoride and periodontal therapies for high risk adults with special health care needs.

### Public Awareness and Outreach

- Develop and deliver public awareness campaigns that educate people with disabilities, families, health care professionals, care providers, advocates and educators on the importance of oral health.
- Collaborate with statewide disability and advocacy organizations to disseminate information on the importance of and myths surrounding community water fluoridation.<sup>84</sup>
- Support NC Schools of Dentistry, the NC Community Colleges and the NC Area Health Education Centers in providing training on oral health care for special needs patients.

### Health Interventions

- Assure that programs that provide dental screenings and the delivery of dental sealants to children in school-based or school-linked health settings are inclusive of CSHCN and provide appropriate, accessible educational materials.
- Provide education and training for dental and medical professionals on the oral health needs of people with disabilities.<sup>85</sup>
- Support the application of fluoride varnish by health care providers for infants and children with disabilities.
- Promote the use of a pediatric dental home for infants identified with special health care needs through the use of care coordination or case management services.
- Expand the number of mobile dental programs available to provide accessible services for persons residing in long- term care facilities and residential facilities.

### Universal Strategies and Action Items

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Oral Health.

## Physical Activity and Nutrition

Physical inactivity and unhealthy eating combined is the second leading preventable cause of death in North Carolina and increase the risk of heart disease, certain types of cancer, diabetes, high blood pressure, stroke and obesity.<sup>86</sup> Overweight and obesity can lead to disability as they are associated with arthritis, breathing problems, osteoarthritis, asthma and psychological disorders such as depression.

People with disabilities are more sedentary than their non-disabled peers, which ultimately increases their risk of obesity.<sup>87</sup> People with disabilities or special health care needs may experience obstacles, specific to their condition which impedes food consumption or physical activity. For example, children with autism spectrum disorder may have strong preferences or aversions to foods with certain textures, tastes or colors. Children with Down syndrome might require softer foods due to difficulties chewing or swallowing. People with oral motor problems, dysphagia, reflux, food allergies or food aversions are predisposed to nutrition disorders and therefore require appropriate nutrition screening, assessment, diagnosis, intervention, monitoring and evaluation.<sup>88</sup>

### NC Data on Physical Activity and Nutrition

- 61.5 percent of adults with disabilities reported participating in physical activity or exercise, compared to 77.1 percent of adults without disabilities<sup>89</sup>
- 71.9 percent of adults with disabilities have a body mass index greater than 25 (overweight or obese), compared to 64.9 percent of adults without disabilities<sup>90</sup>
- 14.3 percent of parents with CSHCN were told by a health professional that their child was overweight, compared to 6.3 percent of non-CSHCN<sup>91</sup>
- 5.2 percent of parents of CSHCN reported their child spends no time in physically active play, compared to 2.3 percent of parents of non-CSHCN<sup>92</sup>

### Strategies and Action Items

Data
<input type="checkbox"/> Expand surveillance to include data on the eating habits of people with disabilities.

  

Policy
<input type="checkbox"/> Promote the implementation of Eat Smart, Move More and ensure that it addresses the needs of children and adults with disabilities across the life span. <sup>93</sup>
<input type="checkbox"/> Support School Health Advisory Councils across North Carolina to enact health promotion policies that are inclusive of all staff and students with disabilities, regardless of classroom setting. <sup>94</sup>

### Public Awareness and Outreach

- Publicize success stories of people with disabilities engaging in physical activity and healthy nutrition at home, school, work and in the community.
- Develop social marketing campaigns on healthy eating with an emphasis on those living alone.
- Provide information about nutrition and physical activity and relevant services to individuals with disabilities, families, health care professionals, care providers, advocates and teachers.

### Health Interventions

- Provide training and resources on inclusive and adapted physical education and physical activity opportunities to all teachers including physical education, special education and after-school staff.<sup>95 96</sup>
- Promote the availability of appropriate adapted equipment, facilities and staffing for students with disabilities in physical education classes and in school and after-school physical activity opportunities.
- Promote the availability of worksite health programs that are inclusive of people with disabilities.<sup>97</sup>
- Support health care providers in appropriate nutrition screening, assessment, diagnosis, intervention, monitoring, evaluation and counseling patients with disabilities on healthy eating, weight control and daily physical activity.

### Environment

- Promote community-scale and street-scale design and land use policies and practices that incorporate accessibility and inclusion.<sup>98</sup>
- Promote the accessibility of playgrounds, gyms, fitness centers, senior centers and other built environments so they are inclusive of and accommodate people with disabilities.<sup>99 100</sup>

### Universal Strategies and Action Items

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Physical Activity and Nutrition.

## Sexual Health

Sexually transmitted diseases, unintended pregnancies, abortions, sexual dysfunction and sexual violence are all risk factors to an individual’s sexual health. Each has potential for lifelong health consequences for individuals. Disparities in sexual health exist among the economically disadvantaged, racial and ethnic minorities, people with different sexual identities, adolescents and people with disabilities. Although appropriate assistance for people with developmental, physical or mental disabilities has been developed, it is seriously underutilized.<sup>101</sup>

In 2013, North Carolina had higher rates of gonorrhea, chlamydia, primary and secondary syphilis and HIV disease, compared to the rest of the United States.<sup>102</sup> North Carolina is ranked 20th in the nation in teen pregnancy rates.<sup>103</sup> According to statistics compiled by the State Bureau of Investigation, there were 1,950 cases of rape reported in North Carolina in 2012.<sup>104</sup>

### NC Data on Sexual Health

- 9.4 percent of adults with disabilities have been treated for a sexually transmitted or venereal disease within the past five years, compared to 4.9 percent of adults without disabilities<sup>105</sup>
- Almost 86.3 percent of parents of CSHCN indicate they are interested in learning more about sexually transmitted diseases<sup>106</sup>
- 5.3 percent of adults with disabilities reported that someone they knew forced them to have sex or to do sexual things, compared to 3 percent of adults without disabilities<sup>107</sup>

### Strategies and Action Items

Policy
<input type="checkbox"/> Review current North Carolina policies about responsible sexual behavior and safety to determine necessary policy changes to protect the rights of people with disabilities.

  

Public Awareness and Outreach
<input type="checkbox"/> Support the development and delivery of “Get Real, Get Tested” messages on prevention, testing and treatment relevant for people with disabilities ( <a href="http://www.epi.state.nc.us/epi/hiv/grgt.html">www.epi.state.nc.us/epi/hiv/grgt.html</a> ).
<input type="checkbox"/> Provide age and developmentally appropriate, medically accurate HIV/STD and teen pregnancy prevention education to children and youth with disabilities and their families.

### Health Interventions

- Increase the knowledge, skills and abilities of education and health care professionals to provide supportive and developmentally appropriate sexual health education to people with disabilities.
- Assist families of children with disabilities in providing responsible sexual behavior education that is consistent with their values and beliefs.
- Promote access to sexual health education and resources on safe relationships, informed decision making, problem solving, self-determination and effective communication for people with disabilities in schools, worksites, residential settings and the community.
- Support the funding of primary prevention programs for children, youth and adults with disabilities, targeting a variety of settings including schools, colleges, work sites and residential programs.
- Support the availability of screening programs in a variety of non-traditional settings.

### Universal Strategies and Action Items

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Sexual Health.

## Substance Abuse

People with substance abuse problems or addiction are at risk for premature death, poor health conditions and disability. Substance use disorders occur more often in people with disabilities than in the general population. People with disabilities often face multiple risk factors including higher use of medications, pain, multiple health problems and a lack of accessible and appropriate prevention and treatment services.<sup>108</sup> Existing substance abuse prevention, intervention and treatment services are often not sufficiently responsive to the needs of people with disabilities and as a result, access to education, prevention and treatment services for substance use and abuse can be limited, incomplete or misdirected.

### NC Data on Substance Abuse

- 7.8 percent of people with disabilities reported binge drinking<sup>109</sup>

### Strategies and Action Items

Policy
<input type="checkbox"/> Promote the inclusion of youth with disabilities in all efforts to educate the public about underage drinking in partnership with government, alcohol manufacturers and retailers, the entertainment industry, parents and the community.
<input type="checkbox"/> Support the work of the NC Controlled Substance Reporting System (CSRS) to assist clinicians in identifying and referring for treatment patients misusing controlled substances. <sup>110</sup>

  

Public Awareness and Outreach
<input type="checkbox"/> Develop and deliver public awareness campaigns that educate people with disabilities on the risk of substance abuse, including prescription drugs.
<input type="checkbox"/> Develop messaging for individuals and families on the importance of keeping medications and toxic substances locked and protected.

  

Health Interventions
<input type="checkbox"/> Support education campaigns that target high-risk alcohol consumption.
<input type="checkbox"/> Increase the knowledge, skills and abilities of education and health care professionals to provide supportive and developmentally appropriate substance abuse education to people with disabilities.
<input type="checkbox"/> Support the funding of primary prevention programs for children, youth and adults with disabilities, targeting a variety of settings including schools, colleges, work sites and residential programs.

  

Universal Strategies and Action Items
<input type="checkbox"/> Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Substance Abuse.

## Tobacco Use

Tobacco use is the leading preventable cause of death in North Carolina and in the nation.<sup>111</sup> In addition to the health risks that smokers face, there are also health consequences related to people's exposure to secondhand smoke. Secondhand smoke is shown to cause lung cancer and heart disease in nonsmoking adults and respiratory infections, chronic ear infections and asthma in children and adolescents.<sup>112</sup>

Data suggests that people with disabilities are more likely to smoke cigarettes compared to people without disabilities. People with disabilities share the same health risks of tobacco use and exposure to secondhand smoke as all people, yet few initiatives have specifically addressed smoking cessation for people with disabilities. For every person who dies because of smoking, there are at least 30 people who live with a serious smoking-related disease or disability. Also concerning are the rise of new tobacco products; the National Youth Tobacco Survey reported a three-fold increase in use of e-cigarettes from 2011-2013.<sup>113</sup>

### NC Data on Tobacco Use

- 29 percent of adults with disabilities reported being current smokers, compared to 18 percent of adults without disabilities<sup>114</sup>
- In a survey of 862 adults with developmental disabilities, 6 percent of people reported smoking or chewing tobacco<sup>115</sup>
- 16.2 percent of parents with CSHCN reported being not at all interested in learning more about teens and tobacco, compared to 10.2 non-CSHCN<sup>116</sup>

### Strategies and Action Items

Policy
<input type="checkbox"/> Support increasing the unit price of or taxes on tobacco products. <sup>117</sup>
<input type="checkbox"/> Support and monitor tobacco free policies in diverse environments including schools, residential settings, community rehab programs, worksites, hospitals, universities and community colleges, public transportation and other public areas.
<input type="checkbox"/> Increase health insurance coverage of medications that address tobacco addiction.

### **Public Awareness and Outreach**

- Distribute stories of people with disabilities who have been successful in tobacco use cessation.
- Target youth with disabilities in schools by ensuring that prevention and cessation interventions are made available to students in all classroom settings and are based on accessible and developmentally appropriate strategies.
- Maintain ongoing training for QuitlineNC staff in providing accessible services for people with disabilities.<sup>118</sup>
- Develop educational campaigns for people with disabilities to correct misperceptions about the acceptability of tobacco use.

### **Health Interventions**

- Promote tobacco cessation and reduction of exposure to second hand smoke through for people with disabilities through counseling.
- Encourage counselors to ask, advise and refer people with disabilities who are tobacco users to individual counseling and treatment for nicotine dependence, including combined pharmacotherapies.
- Support the use of school-based health center's education programs that correct misperceptions of prevalence of tobacco use among youth and are inclusive of children with disabilities.
- Expand the use of evidence-based interventions supported by the NC Evidence-Based Practices Center, such as the pilot program for people with mental illnesses who receive services in psychosocial clubhouses and rehabilitation programs.<sup>119</sup>

### **Universal Strategies and Action Items**

- Refer to page 7 for additional strategies and action items that are applicable to all of the leading health indicators including Tobacco Use.

# Appendices

## Appendix A: Disability Data

National and state surveys that identify and track the health of people with disabilities include:

- US Census and American Community Survey
- National Survey of Children’s Health
- National Core Indicators Project
- NC Behavioral Risk Factor Surveillance System (NC BRFSS)
- NC Youth Risk Behavior Survey (NC YRBS)
- NC Child Health Assessment and Monitoring Program (NC CHAMP)

### North Carolina compared to the United States and Territories

In North Carolina, 21.2 percent of people who responded to the 2013 BRFSS survey reported having a disability, while nationally, 21.4 percent reported having a disability<sup>120</sup>

- General health conditions: 47.9 percent of adults with disabilities in North Carolina responded that they had fair or poor health, compared to 44.3 percent in the United States and territories<sup>121</sup>
- Health Care Coverage: 77.8 percent of adults with disabilities in North Carolina reported having health care coverage, compared to 80.9 percent for the United States and territories<sup>122</sup>
- Mental and Emotional Health: 42.3 percent of adults with disabilities in North Carolina said “yes” to ever having depression, compared to 40.2 percent for the United States and territories<sup>123</sup>

### Adults

The Behavioral Risk Factor Surveillance System (BRFSS) is a random telephone survey of state residents ages 18 and older in households with telephones. Through BRFSS, information is collected in a routine, standardized manner at the state level on a variety of health behaviors and preventive health practices related to the leading causes of death and disability such as cardiovascular disease, cancer, diabetes and injuries.<sup>124</sup> Included below are statistics involving people that self-reported as having a disability.

**Table 1: 2013 NC BRFSS, Disability Status<sup>125</sup>**

	<b>Total Respondents</b>	<b>Percent with a disability</b>	<b>Percent without a disability</b>
<b>TOTAL</b>	<b>8,742</b>	<b>23.4</b>	<b>76.6</b>
<b>Gender</b>			
Male	3,409	22.6	77.4
Female	5,333	24.2	75.8
<b>Race/ethnicity</b>			
Non-Hispanic White	5,905	25.2	74.8
Non-Hispanic Black	1,632	24.0	76.0
Non-Hispanic Am Indian	391	***	***
Non-Hispanic Other	262	13.2	86.8
Hispanic	459	8.2	91.8
<b>Age</b>			
18-34	1,361	11.1	88.9
35-44	1,155	18.7	81.3
45-54	1,451	24.7	75.3
55-64	1,793	35.0	65.0
65-74	1,611	32.1	67.9
75+	1,286	42.3	57.7
<b>Education</b>			
Less Than H.S.	1,177	35.2	64.8
H.S. or G.E.D.	2,457	25.5	74.5
Some Post-H.S.	2,371	22.0	78.0
College Graduate	2,726	14.9	85.1
<b>Household income</b>			
Less than \$15,000	1,083	45.2	54.8
\$15,000- 24,999	1,550	29.6	70.4
\$25,000- 34,999	853	22.6	77.4
\$35,000- 49,999	1,021	19.4	80.6
\$50,000-74,999	926	14.4	85.6
\$75,000+	1,613	13.6	86.4
<b>Veteran status</b>			
Veteran	1,143	28.9	71.1
Non-Veteran	7,595	22.6	77.4
<b>Rural county resident</b>			
Yes	4,513	25.3	74.7
No	4,229	21.4	78.6

**Table 2: 2013 NC BRFSS, Access to Care and Preventive Screenings<sup>126</sup>**

	Percent with Disability		Percent without a Disability	
	Yes	No	Yes	No
<b>Access to Care</b>				
Was there a time during the last 12 months when you needed to see a doctor, but could not because of the cost?	27.9	72.1	15.4	84.6
Last saw a dentist 5 or more years ago or never (2012)	19.6	80.5	12.4	87.6
Do you have one person (or more than one) you think of as your personal doctor or health care provider?	83.7	16.3	70.4	29.6
Have you visited a doctor for a routine checkup in the past 12 months?	78.8	21.2	71.4	28.6
<b>Preventative Screenings/Immunizations</b>				
During the past 12 months, have you had either a seasonal flu shot or a seasonal flu vaccine that was sprayed in your nose?	56.1	43.9	42.9	57.1
Women age 40+ who have had a mammogram in the past 2 years. (2012)	71.8	28.2	76.6	23.4
Has it been less than a year since you last had your blood pressure taken by a doctor, nurse, or other health professional?	96.5	3.4	89.2	10.8

**Table 3: 2013 NC BRFSS, Health Risk Behaviors and Chronic Disease<sup>127</sup>**

	Percent with Disability		Percent without a Disability	
	Yes	No	Yes	No
<b>Health Risk Behaviors</b>				
During the past month did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?	61.5	38.5	77.1	22.9
A body mass index greater than 25.00 (Overweight or Obese)?	71.9	28.1	64.3	35.7
Do you now smoke cigarettes every day?	35.6	64.4	29.2	70.8
<b>Chronic Disease</b>				
Has a doctor, nurse, or other health professional EVER told you that you have diabetes?	23.4	76	7.8	91.4
Diagnosis of high blood pressure?	57.1	42.4	29.1	70.2
History of cardiovascular disease (heart attack, coronary heart disease, stroke).	24.7	75.3	5.2	94.8
Has a doctor, nurse, or other health professional EVER told you that you have kidney disease?	6.5	93.5	1.3	98.7

## Children

Children with special health care needs (CSHCN) are defined as children who need prescription medications or have an elevated need for medical, mental health or educational services due to a medical, behavioral or other health condition that has lasted or is expected to last for at least 12 months.<sup>128</sup> The 2011 NC CHAMP, survey showed that 20.4 percent of children were classified as CSHCN by this definition.

**Table 4: 2011 NC CHAMP, Children with Special Health Care Needs based on FIVE screening criteria<sup>129</sup>**

	Total respondents	Percent CSHCN*	Percent non-CSHCN
<b>Total</b>	1,376	20.4	79.6
Male	705	22.4	77.6
Female	666	18.3	81.7
White	953	20.9	79.1
African American	223	16.1	83.9
Other Minority	193	***	***
Hispanic	144	11.1	88.9
Not Hispanic	1,226	21.6	78.4
Under 5	309	6.5	93.5
5-10	390	21.7	78.3
11-13	274	33.5	66.5
14-17	400	25.9	74.1

\*\*\*This estimate was suppressed because it did not meet statistical reliability standards

\*CSHCN defined based on meeting at least one of the following FIVE screening criteria because of ANY medical, behavioral or other health condition that has lasted or is it expected to last 12 months or longer: 1. Currently uses or needs prescription medicine 2. Currently uses or needs more medical care or mental health or educational services than is usual for most children of the same age 3. Is limited or prevented in any way in his/her ability to do the things most children of the same age do 4. Currently needs or gets special therapy, such as physical, occupational or speech therapy 5. Has an emotional, developmental or behavioral problem for which s/he needs treatment or counseling.

**Table 5: 2011 NC CHAMP, data on Health Behaviors, Health Conditions and Access to Care<sup>130</sup>**

	Percent of CSHCN		Percent of non-CSHCN	
	Yes	No	Yes	No
General health: parental rating of child's health as 'fair or poor'.	8.5	91.5	2.0	98.0
During the past 12 months, did child miss two or more weeks of school because of illness or injury?	9.5	***	4.0	96.0
Doctor has ever told parent that child has asthma.	29.9	70.1	12.8	87.2
During the past year, has your child's physician or another health professional told you that your child was overweight?	14.3	85.7	6.3	93.7
On a typical day, spends no time in physically active play.	5.2	***	2.3	97.7

## Data limitations

Since the questions to determine if a person has a disability vary across surveys, comparing disability data is generally not possible. In addition, due to the survey methodology, some people with disabilities are left out of particular surveys. For example, the NC BRFSS, is a random digit-dialed telephone survey. This survey would not be able to interview those who are deaf or those without a phone. Similar limitations exist among all surveys so people with disabilities are likely underrepresented in the data.

The limited availability of data on children and adults with disabilities presents a challenge to establishing baseline health data and monitoring progress and emerging trends. Despite these limitations, data from various surveys can serve as a resource for professionals, advocates and policy makers as they set priorities, allocate resources and design policies and services that are inclusive of and meet the needs of people with disabilities.

## Appendix B: Survey Questions

### NC Behavioral Risk Factor Surveillance Survey (BRFSS)<sup>131</sup>

#### 2013 Disability Questions

1. Are you limited in any way in any activities because of physical, mental or emotional problems?
2. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed or a special telephone?
3. A disability can be physical, mental, emotional or communication related. Do you consider yourself to have a disability?
4. Has your disability lasted or is it expected to last 12 months or longer?
5. Are you blind or do you have serious difficulty seeing, even when wearing glasses?
6. Because of a physical, mental or emotional condition, do you have serious difficulty concentrating, remembering or making decisions?
7. Do you have serious difficulty walking or climbing stairs?
8. Do you have difficulty dressing or bathing?
9. Because of a physical, mental or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?

Disability status is defined by an affirmative response to having an activity limitation due to physical, mental or emotional problems (question 1) and/or the need for special equipment (question 2).

## NC Youth Risk Behavior Survey (YRBS)

### Disability Questions

- A disability can be physical, mental, emotional or communication-related. Do you consider yourself to have a disability?
- Are you limited in any way in any activities because of any impairment or health problem?
- Do you have trouble learning, remembering or concentrating because of a disability of health problem?

NC Healthy Schools, NC Department of Health and Human Services and NC Department of Public Instruction<sup>132</sup>

## Appendix C: Disability Rights Laws

### The Americans with Disabilities Act of 1990 (ADA)

Under the ADA, an individual with a disability is a person who:

- Has a physical or mental impairment that substantially limits one or more major life activities
- Has a record of such an impairment
- Is regarded as having such an impairment

The ADA prohibits discrimination and ensures equal opportunity for people with disabilities in employment, state and local government services, public accommodations, commercial facilities, transportation and telephone relay services.<sup>133</sup>

- **Title I Employment** prohibits private employers (with 15+ employees), state and local governments, employment agencies and labor unions from discriminating against qualified individuals with disabilities<sup>134</sup>
- **Title II: State and Local Governments** protects qualified individuals with disabilities from discrimination by services, programs and activities provided by state and local government entities. Public transportation is included in this provision<sup>135</sup>
- **Title III: Public Accommodations and Commercial Facilities** prohibits discrimination in the activities of places of public accommodations (restaurants, movie theaters, schools, day care facilities, recreation facilities, doctors' offices, etc.)<sup>136</sup>
- **Title IV: Telecommunications Relay Services** addresses telephone and television access for people with hearing and speech disabilities
- **Title V: Miscellaneous Provisions** including prohibiting retaliation or coercion

### **Rehabilitation Act of 1973**

Prohibits discrimination on the basis of disability in programs conducted by Federal agencies, in programs receiving Federal financial assistance, in Federal employment and by Federal contractors.

In 1998, Congress amended the Rehabilitation Act of 1973 to require Federal agencies to make their electronic and information technology (EIT) accessible to people with disabilities. Inaccessible technology interferes with an ability to obtain and use information quickly and easily. Section 508 was enacted to eliminate barriers in information technology, open new opportunities for people with disabilities and encourage development of technologies that will help achieve these goals. The law applies to all Federal agencies when they develop, procure, maintain or use electronic and information technology. Under Section 508 (29 U.S.C. '794 d), agencies must give disabled employees and members of the public access to information that is comparable to access available to others. It is recommended that you review the laws and regulations listed below to further your understanding about Section 508 and how you can support implementation.<sup>137</sup>

## Appendix D: Principals of Universal Design and Web Accessibility

### Principles of Universal Design<sup>138</sup>

1. **Equitable Use:** The design is useful and marketable to people with diverse abilities
2. **Flexibility in Use:** The design accommodates a wide range of individual preferences and abilities
3. **Simple, Intuitive Use:** Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level
4. **Perceptible Information:** The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities
5. **Tolerance for Error:** The design minimizes hazards and the adverse consequences of accidental or unintended actions
6. **Low Physical Effort:** The design can be used efficiently and comfortably, and with a minimum of fatigue
7. **Size and Space for Approach and Use:** Appropriate size and space is provided for approach, reach, manipulation and use, regardless of the user's body size, posture or mobility

**The Web Content Accessibility Guidelines (WCAG)** goal is to provide a single shared standard for web content accessibility that meets the needs of individuals, organizations and governments internationally.<sup>139</sup> The four principles of WCAG 2.0 are:

1. **Perceivable:** Provide text alternatives for non-text content, provide captions and other alternatives for multimedia, create content that can be presented in different ways, including by assistive technologies, without losing meaning and make it easier for users to see and hear content
2. **Operable:** Make all functionality available from a keyboard, give users enough time to read and use content, do not use content that causes seizures and help users navigate and find content
3. **Understandable:** Make text readable and understandable, make content appear and operate in predictable ways and help users avoid and correct mistakes
4. **Robust:** Maximize compatibility with current and future user tools

## Appendix E: Guidelines for Health Promotion Programs

Developed by Oregon Health and Science University: This checklist was developed to ensure health promotion programs recognize that a significant portion of the population has some level of disability. These guidelines were developed to provide best practices for community-based health promotion programs for people with disabilities.<sup>140</sup>

Question	Yes	No
1. Does your program use well-researched theories drawn from a wide variety of disciplines such as health promotion, disability studies and/or education?		
2. Does your program integrate theories that include people with disabilities into the entire health promotion program, from planning to implementation and evaluation?		
3. Do you measure your program's effectiveness?		
4. If so, are the measures appropriate for people with disabilities, e.g., not penalizing for functional limitations?		
5. Did people with disabilities, families and caregivers participate in the development of your program by identifying program outcomes or reviewing program content before implementation?		
6. Are people with disabilities, families and caregivers involved in implementing the program?		
7. Are the beliefs, practices and values of people with disabilities reflected in your program's mode of delivery, training materials and written materials?		
8. Does your program support participants in identifying and achieving personal health goals?		
9. Does your program consider social, behavioral and programmatic barriers that reduce participation among people with disabilities?		
10. Does your program consider environmental barriers that reduce participation among people with disabilities, including environmental accessibility of the program site (e.g., accessible parking, entrance, meeting room, restroom and signage)?		
11. Is your program site available via accessible public transportation?		
12. Do your program materials (training materials, handouts) lend themselves to being translated into alternate formats?		
13. Are program materials produced in a variety of alternative formats including but not limited to Braille, large print and computer disk?		
14. Are accommodations provided when requested?		
15. Does your program maintain reasonable participant fees?		
16. Does your program ensure low-cost transportation for participants?		
17. Does your program ask people with disabilities, families and caregivers, to provide feedback, including rating satisfaction with your program?		
18. Does your program make changes based on participant feedback?		
19. If you are asking for feedback, do you make sure that you are reaching people with disabilities by using alternate formats, such as interpreters or readers?		
20. Does your program record intervention-related expenses such as cost of materials, recruitment, equipment, space and personnel?		

## Appendix F: Acronyms

<b>Acronym</b>	<b>Organization/Project/Term</b>
ADA	Americans with Disabilities Act
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CHAMP	Child Health Assessment and Monitoring Program
CSHCN	Children with Special Health Care Needs
Non-CSHCN	Children without Special Health Care Needs
DHHS	Department of Health and Human Services
NC Plan	North Carolina's Plan to Promote the Health of People with Disabilities
YRBS	Youth Risk Behavior Survey

## **Appendix G: Acknowledgements**

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# References

## References

- <sup>1</sup> North Carolina Office on Disability and Health. North Carolina's plan for promoting the health of people with disabilities 2003-2008. Chapel Hill, N.C.: FPG Child Development Institute. 2003.
- <sup>2</sup> North Carolina Office on Disability and Health. The University of North Carolina. North Carolina plan for prevention of secondary conditions experienced by people with disabilities 1997-2002. Chapel Hill, N.C.: FPG Child Development Institute. 1997.
- <sup>3</sup> Americans With Disabilities Act National Network. What is the Definition of Disability under ADA? 2015. Available at: [www.adata.org/faq/what-definition-disability-under-ada](http://www.adata.org/faq/what-definition-disability-under-ada)
- <sup>4</sup> Information and Technical Assistance on the Americans with Disabilities Act. Americans With Disabilities Act of 1990. Available at: [www.ada.gov/pubs/adastatute08.htm](http://www.ada.gov/pubs/adastatute08.htm)
- <sup>5</sup> Center for Disease Control and Prevention. National Center on Birth Defects and Developmental Disabilities. Disability Types. 2015. Available at: [www.cdc.gov/ncbddd/disabilityandhealth/types.html](http://www.cdc.gov/ncbddd/disabilityandhealth/types.html)
- <sup>6</sup> The World Health Organization. Health Topics, Disabilities. Available at: [www.who.int/topics/disabilities/en/](http://www.who.int/topics/disabilities/en/)
- <sup>7</sup> North Carolina Department of Health and Human Services. State Center for Health Statistics. Health Profile of North Carolinians. 2007. Available at: [www.schs.state.nc.us/schs/pdf/HealthProfile2011\\_WEB.pdf](http://www.schs.state.nc.us/schs/pdf/HealthProfile2011_WEB.pdf)
- <sup>8</sup> Rimmer, J. Health promotion for people with disabilities: The paradigm shift from disability prevention to prevention of secondary conditions. *Physical Therapy*. 1999; 79 (5): 495–502.
- <sup>9</sup> U.S. Department of Health and Human Services. The Surgeon General's call to action to improve the health and wellness of people with disabilities. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General. 2005. Available at: [www.ncbi.nlm.nih.gov/books/NBK44667/](http://www.ncbi.nlm.nih.gov/books/NBK44667/)
- <sup>10</sup> National Council on Disability. Publications and Policy Briefs. The current state of health care for people with disabilities. 2015. Available at: [www.ncd.gov/publications/2009/Sept302009](http://www.ncd.gov/publications/2009/Sept302009)
- <sup>11</sup> NC Department of Health and Human Services. Health and disability in North Carolina 2003: A joint report from the North Carolina Office of Disability and Health and the state Center for Health Statistics. Raleigh, N.C.: NCDHHS, State Center for Health Statistics. 2004. Available at: [www.schs.state.nc.us/schs/pdf/HDReport.pdf](http://www.schs.state.nc.us/schs/pdf/HDReport.pdf)
- <sup>12</sup> U.S. Office of the Surgeon General. Office on Disability. The Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities. Rockville, MD: Office of the Surgeon General (US); 2005. III, Health and Wellness for People with disabilities Today. 2015. Available at: [www.ncbi.nlm.nih.gov/books/NBK44662](http://www.ncbi.nlm.nih.gov/books/NBK44662)
- <sup>13</sup> World Health Organization. Health Topics. Health Promotion. 2015. Available at: [www.who.int/topics/health\\_promotion/en](http://www.who.int/topics/health_promotion/en).
- <sup>14</sup> U.S. Office of the Surgeon General. Office on Disability. The Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities. Rockville, MD: Office of the Surgeon General (US); 2005. III, Health and Wellness for People with disabilities Today. 2015. Available at: [www.ncbi.nlm.nih.gov/books/NBK44662](http://www.ncbi.nlm.nih.gov/books/NBK44662)
- <sup>15</sup> Public Schools of North Carolina. The North Carolina Healthful Living Standard Course of Study. Available at: [www.ncpublicschools.org/curriculum/healthfulliving/scos](http://www.ncpublicschools.org/curriculum/healthfulliving/scos)
- <sup>16</sup> Information and Technical Assistance on the Americans with Disabilities Act. ADA Standards for Accessible Design. Available at: [www.ada.gov/stdspdf.htm](http://www.ada.gov/stdspdf.htm)
- <sup>17</sup> North Carolina State University. The Center for Universal Design. Available at: [www.ncsu.edu/ncsu/design/cud](http://www.ncsu.edu/ncsu/design/cud) Section 508. gov Opening Doors to IT. Resources for understanding and implementing Section 508. Available at: [www.section508.gov/index.cfm](http://www.section508.gov/index.cfm)
- <sup>18</sup> Information and Technical assistance on the American with Disabilities Act. IRS Tax Credits and Deductions. Available at: [www.ada.gov/taxcred.htm](http://www.ada.gov/taxcred.htm)
- <sup>19</sup> The National Center on Senior Transportation. Available at: [www.seniortransportation.net](http://www.seniortransportation.net)
- <sup>20</sup> The Centers for Disease Control and Prevention. Disability and Health, Information for Health Care Providers. Available at: [www.cdc.gov/ncbddd/disabilityandhealth/hcp.html](http://www.cdc.gov/ncbddd/disabilityandhealth/hcp.html)
- <sup>21</sup> National Council on Disability. Publications and Policy Briefs. The current state of health care for people with disabilities. 2015. Available at: [www.ncd.gov/publications/2009/Sept302009](http://www.ncd.gov/publications/2009/Sept302009)
- <sup>22</sup> U.S. Access Board. Guidelines and Standards. Medical Diagnostic Equipment. 2015. Available at: [www.access-board.gov/guidelines-and-standards/health-care/about-this-rulemaking](http://www.access-board.gov/guidelines-and-standards/health-care/about-this-rulemaking)

- <sup>23</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>24</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>25</sup> The North Carolina State Center for Health Statistics. [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>26</sup> The Centers for Disease Control and Prevention. Learn the Signs. Act Early. Available at: [www.cdc.gov/ncbddd/actearly/index.html](http://www.cdc.gov/ncbddd/actearly/index.html)
- <sup>27</sup> Center for Medical Home Improvement. Medical home transformation for high quality primary care across the lifespan. Available at: [www.medicalhomeimprovement.org](http://www.medicalhomeimprovement.org)
- <sup>28</sup> White, G. W., Fox, M. H., Rooney, C. and Cahill, A. Assessing the impact of Hurricane Katrina on people with disabilities. Lawrence, Kan.: The University of Kansas, The Research and Training Center on Independent Living. 2007.
- <sup>29</sup> Ready America. People with disabilities and other access and functional needs. 2007. Available at: [www.ready.gov/individuals-access-functional-needs](http://www.ready.gov/individuals-access-functional-needs)
- <sup>30</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2011 Results. Available at: [www.schs.state.nc.us/schs/brfss/2011/](http://www.schs.state.nc.us/schs/brfss/2011/)
- <sup>31</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2011 Results. Available at: [www.schs.state.nc.us/schs/brfss/2011/](http://www.schs.state.nc.us/schs/brfss/2011/)
- <sup>32</sup> North Carolina Emergency Preparedness Initiative and Blueprint. Available at: [www.nccrimecontrol.org/div/EM/2014EM-IDDRReport-Web%28%29.pdf](http://www.nccrimecontrol.org/div/EM/2014EM-IDDRReport-Web%28%29.pdf)
- <sup>33</sup> June Isaacson Kailes. Individual Emergency Preparedness for People with Disabilities, Their Families and Support Networks. Available at: [www.jik.com/disaster-individ.html#General\\_Information](http://www.jik.com/disaster-individ.html#General_Information)
- <sup>34</sup> Centers for Disease Control and Prevention. Vaccine preventable deaths and global immunization vision and strategy, 2006-2015. Morbidity and Mortality Weekly Report. 2006; 55(18): 511-515
- <sup>35</sup> World Health Organization. Media Centre. Fact Sheets: Immunization Coverage. 2014. Available at: [www.who.int/mediacentre/factsheets/fs378/en/](http://www.who.int/mediacentre/factsheets/fs378/en/)
- <sup>36</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>37</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>38</sup> The United States Department of Justice. Available at: [www.justice.gov/crt/about/hce](http://www.justice.gov/crt/about/hce)
- <sup>39</sup> The United States Environmental Protection Agency. Available at: [www.epa.gov](http://www.epa.gov)
- <sup>40</sup> United States Environmental Protection Agency. Available at: [www.epa.gov/smartgrowth/index.htm](http://www.epa.gov/smartgrowth/index.htm)
- <sup>41</sup> Concrete Change. Visitability. Available at: [www.concretechange.org](http://www.concretechange.org)
- <sup>42</sup> Centers for Disease Control and Prevention. Vaccine preventable deaths and global immunization vision and strategy, 2006-2015. Morbidity and Mortality Weekly Report. 2006; 55(18): 511-515
- <sup>43</sup> The Centers for Disease Control and Prevention. Vaccine Safety, Vaccines Do Not Cause Autism. Available at: [www.cdc.gov/vaccinesafety/Concerns/Autism/Index.html](http://www.cdc.gov/vaccinesafety/Concerns/Autism/Index.html)
- <sup>44</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>45</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>46</sup> National Core Indicators. Flu Vaccination During Past 12 Months, 2012-2013. Available at: [www.nationalcoreindicators.org/charts/](http://www.nationalcoreindicators.org/charts/)
- <sup>47</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>48</sup> The Centers for Disease Control and Prevention. Vaccine Recommendations of the ACIP. Available at: [www.cdc.gov/vaccines/hcp/acip-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/index.html)

- <sup>49</sup> The Centers for Disease Control and Prevention. The Web-based Injury Statistics Query and Reporting System. Available at: [www.cdc.gov/injury/wisqars/](http://www.cdc.gov/injury/wisqars/)
- <sup>50</sup> The Centers for Disease Control and Prevention. The Web-based Injury Statistics Query and Reporting System. Available at: [www.cdc.gov/injury/wisqars/](http://www.cdc.gov/injury/wisqars/)
- <sup>51</sup> Mass.goDisabled Persons Protection Commission. Available at: [www.mass.gov/dppc/abuse-recognize/prevalence-of-violence.html](http://www.mass.gov/dppc/abuse-recognize/prevalence-of-violence.html)
- <sup>52</sup> The World Health Association. Violence against adults and children with disabilities. Available at: [www.who.int/disabilities/violence/en/](http://www.who.int/disabilities/violence/en/)
- <sup>53</sup> WomensHealth.goViolence against women with disabilities. Available at: [www.womenshealth.gov/violence-against-women/types-of-violence/violence-against-women-with-disabilities.html](http://www.womenshealth.gov/violence-against-women/types-of-violence/violence-against-women-with-disabilities.html)
- <sup>54</sup> The United Spinal Association. Preventing Falls in Adults with Disabilities and Chronic Health Conditions: What Works? Available at: [www.spinalcord.org/video-preventing-falls-in-adults-with-disabilities-and-chronic-health-conditions-what-works/](http://www.spinalcord.org/video-preventing-falls-in-adults-with-disabilities-and-chronic-health-conditions-what-works/)
- <sup>55</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2012 Results. Available at: [www.schs.state.nc.us/schs/brfss/2012/](http://www.schs.state.nc.us/schs/brfss/2012/)
- <sup>56</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2012 Results. Available at: [www.schs.state.nc.us/schs/brfss/2012/](http://www.schs.state.nc.us/schs/brfss/2012/)
- <sup>57</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2012 Results. Available at: [www.schs.state.nc.us/schs/brfss/2012/](http://www.schs.state.nc.us/schs/brfss/2012/)
- <sup>58</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>59</sup> The NC Department of Health and Human Services. The North Carolina Falls Prevention Coalition. Available at: [www.injuryfreenc.ncdhhs.gov/ForHealthProfessionals/FallsCoalition.htm](http://www.injuryfreenc.ncdhhs.gov/ForHealthProfessionals/FallsCoalition.htm)
- <sup>60</sup> The National Fire Protection Association. Available at: [www.nfpa.org](http://www.nfpa.org)
- <sup>61</sup> The NC Department of Health and Human Services. EMPOWER (Enhancing and Making Programs and Outcomes Work to End Rape). Available at: [www.injuryfreenc.ncdhhs.gov/About/EMPOWER.htm](http://www.injuryfreenc.ncdhhs.gov/About/EMPOWER.htm)
- <sup>62</sup> NC Office on Disability and Health. Guide to Achieving the Fundamental Elements of Accessibility for NC Domestic Violence and Sexual Assault Service Providers. Available at: [www.fpg.unc.edu/sites/fpg.unc.edu/files/resources/curricula/NCODH-FEA-guide.pdf](http://www.fpg.unc.edu/sites/fpg.unc.edu/files/resources/curricula/NCODH-FEA-guide.pdf)
- <sup>63</sup> The Period of Purple Crying. Available at: [www.purplecrying.info](http://www.purplecrying.info)
- <sup>64</sup> The North Carolina Healthy Start Foundation. Infant Safe Sleep. Available at: [www.nhealthystart.org/backtosleep/index.htm](http://www.nhealthystart.org/backtosleep/index.htm)
- <sup>65</sup> Parents as Teachers. Available at: [www.parentsasteachers.org](http://www.parentsasteachers.org)
- <sup>66</sup> National Council on Aging. Center for Health Aging. Available at: [www.healthyagingprograms.org](http://www.healthyagingprograms.org)
- <sup>67</sup> The National Center on Secondary Education and Transition. Bullying and Teasing of Youth with Disabilities: Creating Positive School Environments for Effective Inclusion. Available at: [www.ncset.org/publications/viewdesc.asp?id=1332](http://www.ncset.org/publications/viewdesc.asp?id=1332)
- <sup>68</sup> Strengthening Families Program. Available at: [www.strengtheningfamiliesprogram.org](http://www.strengtheningfamiliesprogram.org)
- <sup>69</sup> The Incredible Years. Available at: [www.incredibleyears.com](http://www.incredibleyears.com)
- <sup>70</sup> Visitability. Available at: [www.visitability.org](http://www.visitability.org)
- <sup>71</sup> Kessler, R.C., and Walters, E. E. The national comorbidity survey. In M. T. Tsuang, M. Tohen, and G. E. P. Zahner (Eds.), Textbook in psychiatric epidemiology, (2nd ed.). New York, NY: John Wiley and Sons. 2002.
- <sup>72</sup> Piatt, E, E, Muntez, M, R, and Ritter, C,. An examination of premature mortality among decedents with serious mental illness and those in the general population. Psychiatric Services. 2010; 61(7): 663-668.
- <sup>73</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>74</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>75</sup> National Core Indicators. Mental Illness or Psychiatric Diagnosis, 2012-2013. Available at: [www.nationalcoreindicators.org/charts/](http://www.nationalcoreindicators.org/charts/)
- <sup>76</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)

- <sup>77</sup> Community Care of North Carolina. Available at: <http://commonwealth.communitycarenc.org/>
- <sup>78</sup> US Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General-- Executive Summary. Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health. 2000.  
Available at: [www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/Report/ExecutiveSummary.htm](http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/Report/ExecutiveSummary.htm)
- <sup>79</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2012 Results. Available at: [www.schs.state.nc.us/schs/brfss/2012/](http://www.schs.state.nc.us/schs/brfss/2012/)
- <sup>80</sup> National Core Indicators. Last Dentist Visit, 2012-2013. Available at: [www.nationalcoreindicators.org/charts/](http://www.nationalcoreindicators.org/charts/)
- <sup>81</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2010 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2010/topics.html](http://www.schs.state.nc.us/schs/champ/2010/topics.html)
- <sup>82</sup> North Carolina Institute of Medicine Task Force on Dental Care Access. Report to the North Carolina General Assembly and to The Secretary of the North Carolina Department of Health and Human Services.  
Available at: [www.ncmedicaljournal.com/wp-content/uploads/NCIOM/docs/dentalrpt.pdf](http://www.ncmedicaljournal.com/wp-content/uploads/NCIOM/docs/dentalrpt.pdf)
- <sup>83</sup> The North Carolina Department of Health and Human Services. Fluoride.  
Available at: [www.ncdhhs.gov/dph/oralhealth/services/fluoride.htm](http://www.ncdhhs.gov/dph/oralhealth/services/fluoride.htm)
- <sup>84</sup> Special Care Dentistry Association. Available at: [www.scdonline.org](http://www.scdonline.org)
- <sup>85</sup> North Carolina State Center for Health Statistics. North Carolina Department of Health and Human Services. The health and economic burden of chronic disease in North Carolina. North Carolina Medical Journal. 2010; 71(1): 92-95.
- <sup>86</sup> Rimmer J.H., Schiller W., and Chen M.D. (2012). Effects of disability-associated low energy expenditure deconditioning syndrome. Exercise and Sport Sciences Reviews. 40, 22-29.
- <sup>87</sup> Van Riper C.L., Wallace L.S.; American Dietetic Association. (2010) Position of the American Dietetic Association: Providing nutrition services for people with developmental disabilities and special health care needs. Journal of the American Dietetic Association. 110(2), 296-307.
- <sup>88</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>89</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>90</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>91</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>92</sup> North Carolina's Plan to Address Obesity: Healthy Weight and Healthy Communities 2013-2020.  
Available at: [www.eatsmartmovemorenc.com/ESMMPlan/ESMMPlan.html](http://www.eatsmartmovemorenc.com/ESMMPlan/ESMMPlan.html)
- <sup>93</sup> North Carolina Healthy Schools. School Health Advisory Councils.  
Available at: [www.nchealthyschools.org/schoolhealthadvisorycouncil](http://www.nchealthyschools.org/schoolhealthadvisorycouncil)
- <sup>94</sup> The National Center on Health, Physical Activity and Disability. Available at: [www.nchpad.org](http://www.nchpad.org)
- <sup>95</sup> North Carolina Adapted Physical Education Advisory Council. Available at: [www.nc-ape.com](http://www.nc-ape.com)
- <sup>96</sup> Eat Smart Move More NC. Work Well NC. Available at: [www.eatsmartmovemorenc.com/Worksites/Worksites.html](http://www.eatsmartmovemorenc.com/Worksites/Worksites.html)
- <sup>97</sup> Smart Growth America. National Complete Streets Coalition. Available at: [www.completestreets.org](http://www.completestreets.org)
- <sup>98</sup> Indiana University Bloomington. National Center on Accessibility. Available at: [www.ncaonline.org](http://www.ncaonline.org)
- <sup>99</sup> The National Center on Health, Physical Activity and Disability. Available at: [www.nchpad.org](http://www.nchpad.org)
- <sup>100</sup> U.S. Department of Health and Human Services. The Surgeon General's call to action to promote sexual health and responsible sexual behavior. Washington, DC: US DHHS, Office of the Surgeon General. 2001.  
Available at: [www.ncbi.nlm.nih.gov/books/NBK44216](http://www.ncbi.nlm.nih.gov/books/NBK44216)
- <sup>101</sup> North Carolina State Center for Health Statistics. North Carolina Department of Health and Human Services. HIV/STD Surveillance Unit. North Carolina HIV/STD Quarterly Surveillance Report. 2015; 2014(4): 2-12.

- <sup>102</sup> Adolescent Pregnancy Prevention Campaign of North Carolina. Spotlight Story. North Carolina Teen Pregnancies Hit Record Low for 6th Consecutive Year. 2013.  
Available at: [www.appcnc.org/spotlight-story/north-carolina-teen-pregnancies-hit-record-low-for-6th-consecutive-year](http://www.appcnc.org/spotlight-story/north-carolina-teen-pregnancies-hit-record-low-for-6th-consecutive-year)
- <sup>103</sup> North Carolina Department of Justice. Crime in North Carolina: Annual summary report of 2012 uniform crime reporting data. Raleigh, N.C.: Department of Justice, State Bureau of Investigation. 2013.  
Available at: [www.crimereporting.ncdoj.gov/Reports.aspx](http://www.crimereporting.ncdoj.gov/Reports.aspx)
- <sup>104</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2010 Results. Available at: [www.schs.state.nc.us/schs/brfss/2010/](http://www.schs.state.nc.us/schs/brfss/2010/)
- <sup>105</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2010 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2010/topics.html](http://www.schs.state.nc.us/schs/champ/2010/topics.html)
- <sup>106</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2010 Results. Available at: [www.schs.state.nc.us/schs/brfss/2010/](http://www.schs.state.nc.us/schs/brfss/2010/)
- <sup>107</sup> U.S. Department of Justice. What works: Effective public health responses to drug use. Washington, DC: USDOJ, National Criminal Justice Reference Service. 2008. Available at: [www.ncjrs.gov/ondcppubs/publications/pdf/whatworks.pdf](http://www.ncjrs.gov/ondcppubs/publications/pdf/whatworks.pdf)
- <sup>108</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>109</sup> NC Department of Health and Human Services. NC Controlled Substances Reporting System. Available at: [www.ncdhhs.gov/mhddsas/controlledsubstance](http://www.ncdhhs.gov/mhddsas/controlledsubstance)
- <sup>110</sup> North Carolina Department of Health and Human Services. North Carolina's comprehensive plan to prevent and reduce the health effects of tobacco use. Raleigh, N.C.: NCDHHS, Division of Public Health. 2010.  
Available at: [www.tobaccopreventionandcontrol.ncdhhs.gov/about/Documents/Documents/TPCVision2010.pdf](http://www.tobaccopreventionandcontrol.ncdhhs.gov/about/Documents/Documents/TPCVision2010.pdf)
- <sup>111</sup> U.S. Department of Health and Human Services. How tobacco smoke causes disease: The biology and behavioral basis for smoking-attributable disease. A report of the Surgeon General. Atlanta, GA: USDHHS, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. 2010.
- <sup>112</sup> The Centers for Disease Control and Prevention. More than a quarter-million youth who had never smoked a cigarette used e-cigarettes in 2013. Available at: [www.cdc.gov/media/releases/2014/p0825-e-cigarettes.html](http://www.cdc.gov/media/releases/2014/p0825-e-cigarettes.html)
- <sup>113</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>114</sup> National Core Indicators. Does this Person Smoke/Chew Tobacco?, 2012-2013.  
Available at: [www.nationalcoreindicators.org/charts/](http://www.nationalcoreindicators.org/charts/)
- <sup>115</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2010 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2010/topics.html](http://www.schs.state.nc.us/schs/champ/2010/topics.html)
- <sup>116</sup> The Centers for Disease Control and Prevention. Best Practices for Comprehensive Local Tobacco Control Programs. Available at: [www.cdc.gov/tobacco/stateandcommunity/best\\_practices/pdfs/2014/appendix-D.pdf](http://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2014/appendix-D.pdf)
- <sup>117</sup> The North Carolina Department of Health and Human Services. Tobacco Prevention and Control Branch, QuitlineNC. Available at: [www.tobaccopreventionandcontrol.ncdhhs.gov/cessation/quitline.htm](http://www.tobaccopreventionandcontrol.ncdhhs.gov/cessation/quitline.htm)
- <sup>118</sup> North Carolina Evidence Based Practices Center. Available at: [www.ncebpcenter.org](http://www.ncebpcenter.org)
- <sup>119</sup> The Centers for Disease Control and Prevention. Disability and Health Data System, North Carolina Disability State Overview. Available at: <http://dhds.cdc.gov/profiles/profile?profileid=19&geoTypeld=1&geolds=37>
- <sup>120</sup> The Centers for Disease Control and Prevention. Disability and Health Data System, Disability Status Data: Fair or Poor Self-Rated Health. Available at: <http://dhds.cdc.gov/dataviews/view?viewId=988>
- <sup>121</sup> The Centers for Disease Control and Prevention. Disability and Health Data System, Disability Status Data: Have Health Care Coverage. Available at: <http://dhds.cdc.gov/dataviews/view?viewId=840>
- <sup>122</sup> The Centers for Disease Control and Prevention. Disability and Health Data System, Disability Status Data: Ever Had Depression. Available at: <http://dhds.cdc.gov/dataviews/view?viewId=1081>
- <sup>123</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Overview. Available at: [www.schs.state.nc.us/units/stat/brfss/](http://www.schs.state.nc.us/units/stat/brfss/)
- <sup>124</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)

- <sup>125</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>126</sup> The North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System Calendar Year 2013 Results. Available at: [www.schs.state.nc.us/data/brfss/2013/](http://www.schs.state.nc.us/data/brfss/2013/)
- <sup>127</sup> McPherson, M., Arango, P., Fox, H., Lauver, C., et al. A new definition of children with special health care needs. *Pediatrics*. 1998; 102(1): 137–140.
- <sup>128</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>129</sup> The North Carolina State Center for Health Statistics. Child Health Assessment and Monitoring Program, 2011 CHAMP Topics. Available at: [www.schs.state.nc.us/schs/champ/2011/topics.html](http://www.schs.state.nc.us/schs/champ/2011/topics.html)
- <sup>130</sup> The North Carolina State Center for Health Statistics. Calendar Year 2013 Results, Behavioral Risk Factor Surveillance System (BRFSS). Available at: [www.schs.state.nc.us/data/brfss/2013/nc/all/topics.htm#dis](http://www.schs.state.nc.us/data/brfss/2013/nc/all/topics.htm#dis)
- <sup>131</sup> NC Healthy Schools. N.C. Youth Risk Behavior Survey (YRBS). Available at: [www.nchealthyschools.org/data/yrbs/](http://www.nchealthyschools.org/data/yrbs/)
- <sup>132</sup> Information and Technical Assistance on the Americans with Disabilities Act. The Americans with Disabilities Act of 1990 and Revised ADA Regulations Implementing Title II and Title III. Available at: [www.ada.gov/2010\\_regs.htm](http://www.ada.gov/2010_regs.htm)
- <sup>133</sup> Information and Technical Assistance on the Americans with Disabilities Act. Employment (Title I) Available at: [www.ada.gov/ada\\_title\\_i.htm](http://www.ada.gov/ada_title_i.htm)
- <sup>134</sup> Information and Technical Assistance on the Americans with Disabilities Act. State and Local Governments (Title II). Available at: [www.ada.gov/ada\\_title\\_ii.htm](http://www.ada.gov/ada_title_ii.htm)
- <sup>135</sup> Information and Technical Assistance on the Americans with Disabilities Act. Public Accommodations and Commercial Facilities (Title III). Available at: [www.ada.gov/ada\\_title\\_iii.htm](http://www.ada.gov/ada_title_iii.htm)
- <sup>134</sup> U.S. Department of Justice. A Guide to Disability Rights Laws, Rehabilitation Act. Available at: [www.ada.gov/cguide.htm#anchor65610](http://www.ada.gov/cguide.htm#anchor65610)
- <sup>135</sup> National Disability Authority. Centre for Excellence in Universal Design. Available at: [universaldesign.ie/What-is-Universal-Design/The-7-Principles/](http://universaldesign.ie/What-is-Universal-Design/The-7-Principles/)
- <sup>136</sup> Web Accessibility Initiative. Web Content Accessibility Guidelines (WCAG) Overview. Available at: [www.w3.org/WAI/intro/wcag.php](http://www.w3.org/WAI/intro/wcag.php)
- <sup>137</sup> Oregon Health and Science University. Guidelines for Health Promotion Programs. Available at: [www.ohsu.edu/cdrc/rrtc/surveys.cfm](http://www.ohsu.edu/cdrc/rrtc/surveys.cfm)



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