



Growing Up Well: Supporting Young Children's Social-Emotional Development and Mental Health in North Carolina

July 2012

**North Carolina
Institute of Medicine**

This Task Force was convened at the request of the North Carolina General Assembly

Funded by the Substance Abuse Prevention and Treatment Block Grant





North Carolina Institute of Medicine

shaping policy for a healthier state

The North Carolina Institute of Medicine (NCIOM) is a nonpolitical source of analysis and advice on important health issues facing the state. The NCIOM convenes stakeholders and other interested people from across the state to study these complex issues and develop workable solutions to improve health, health care access, and quality of health care in North Carolina.

The full text of this report is available online at <http://www.nciom.org>

North Carolina Institute of Medicine

Keystone Office Park
630 Davis Drive, Suite 100
Morrisville, NC 27560
919.401.6599

Suggested citation

North Carolina Institute of Medicine. *Growing Up Well: Supporting Young Children's Social-Emotional Development and Mental Health in North Carolina*. Morrisville, NC: North Carolina Institute of Medicine; 2012.

In collaboration with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, North Carolina Department of Health and Human Services. Funded by the Substance Abuse Prevention and Treatment Block Grant

Any opinion, finding, conclusion or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view and policies of the North Carolina Department of Health and Human Services Division of Mental Health, Developmental Disabilities, and Substance Abuse Service.

Credits

Report design and layout
Angie Dickinson Design, angiedesign@windstream.net



Growing Up Well: Supporting Young Children's Social- Emotional Development and Mental Health in North Carolina

July 2012

**North Carolina
Institute of Medicine**

This Task Force was convened at
the request of the North Carolina
General Assembly

Funded by the Substance Abuse
Prevention and Treatment Block
Grant



Table of Contents

<i>Acknowledgements</i>	5
<i>Task Force Members</i>	9
<i>Executive Summary</i>	13
Chapter 1: Overview.....	23
Chapter 2: Vision and Infrastructure.....	35
Chapter 3: Promotion	55
Chapter 4: Prevention	69
Chapter 5: Intervention	87
Chapter 6: Conclusion	109
<i>Appendix A: Full Task Force Recommendations</i>	117
<i>Appendix B: Evidence-Based Home Visiting, Family Strengthening, and Parenting Skills Programs Supported by the State and Other Partners in North Carolina</i>	127

Acknowledgements

The North Carolina's Institute of Medicine's (NCIOM) Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families was created at the request of the North Carolina General Assembly in 2010. The North Carolina General Assembly directed the NCIOM to study "the needs of young children with mental health problems and their families" (Section 16.1 of Session Law 2010-152). The Task Force was chaired by Marian F. Earls, MD, FAAP, Medical Director, Guilford Child Health, Inc.; Beth Melcher, PhD, Assistant Secretary for Mental Health, Developmental Disabilities, and Substance Abuse Services, North Carolina Department of Health and Human Services; and John Thorp, MD, Division Director and Distinguished Professor, Department of Obstetrics and Gynecology, University of North Carolina (UNC) Health Care. The Task Force's work and clarity of vision would not have been possible without their leadership. The NCIOM also wants to thank the 41 members of the Task Force and Steering Committee who gave freely of their time and expertise over the past 16 months to try to address this important issue. The Steering Committee members helped shape the meeting agendas and identify speakers and arrange presentations. For a complete list of Task Force and Steering Committee members, please see pages 9-11 of this report.



The NCIOM Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families heard presentations from stakeholders including researchers, providers, and other experts. We would like to thank the following people for sharing their expertise and experiences with the Task Force: Gary Ander, Project Director, Alamance County Department of Social Services; Kate Berrien, RN, BSN, MS, CCNC Pregnancy Home Project Coordinator; Tonita Beverly, RN, MSN, Nurse Consultant Practitioner and Clinical Services, Division of Medical Assistance, North Carolina Department of Health and Human Services; Kelly Blasky, MPH, Director, Mental Health and Aging Education, Charlotte AHEC/Regional Education; Betsy Blesdoe, PhD, MSW, LCSW, Assistant Professor, UNC School of Social Work; Robin Britt, JD, LLM, Executive Director Guilford Child Development; Anne Bryan, Senior Policy Advisor on Early Childhood, Office of the Governor; Karen Appleyard Carmody, PhD, Clinical Associate, Department of Psychiatry and Behavioral Sciences, Duke University Medical Center; Kelly Crosbie, Chief, Behavioral Health Section, Clinical Policy & Programs, Division of Medical Assistance, North Carolina Department of Health and Human Services; Susan Cupito, MA, LPC, Director of Healthy Moms Healthy Babies Programs, Greensboro YWCA; Marian F. Earls, MD, FAAP, Medical Director, Guilford Child Health, Inc.; Laura Edwards, RN, MPA, Prevention Specialist, Division of Public Health, North Carolina Department of Health and Human Services; Michelle Hughes, MA, MSW, Project Director, Benchmarks; Melissa R. Johnson, PhD, Pediatric Psychologist, WakeMed Health and Hospital; Catherine Joyner, MSW, Executive Director, Child Maltreatment Prevention Leadership Team, North Carolina Department of Health and Human Services; Tara Larson, Chief

Clinical Operations Officer, Division of Medical Assistance, North Carolina Department of Health and Human Services; Kay Lowrance, Division of Child Development & Early Education, North Carolina Department of Health and Human Services; Jenkins Mattocks, Distinguished Professor, University of North Carolina at Greensboro; Emily McClure, Research Assistant, North Carolina Institute of Medicine; Beth Melcher, PhD, Assistant Secretary for Mental Health, Developmental Disabilities, and Substance Abuse Services Development, North Carolina Department of Health and Human Services; Samantha Meltzer-Brody, MD, Associate Professor, Department of Psychiatry, Director of the Perinatal Psychiatry Program, UNC Center for Women's Mood Disorders; Margaret Mobley, Statewide Project Manager, Healthy Social Behaviors Initiative, Child Care Resources Inc.; Merry-K Moos, RN, FNP, MPH, Research Professor, Department of Obstetrics and Gynecology, UNC School of Medicine; Robert A. Murphy, PhD, Executive Director, Center for Child & Family Health, Duke University Medical Center; Laura E. Muse, MS, NCC, LPC, Clinical Services Coordinator, Alamance Alliance for Children and Families; Susan Perry-Manning, Senior Director Policy and Programs, The North Carolina Partnership for Children; Mary Lee Porterfield, Contract Unit Manager, Director's Office Policy Unit, Division of Child Development & Early Education, North Carolina Department of Health and Human Services; Jeff Quinn, MPH, Research Analyst, Center for Child and Family Policy, Duke University; Betty Rintoul, PhD, Clinical Psychologist, Encouraging Connections; Starleen Scott Robins, MSW, LCSW, Best Practice Team, Division of Mental Health, Developmental Disability and Substance Abuse Services, North Carolina Department of Health and Human Services; Susan E. Robinson, Mental Health Program Manager/Planner, Prevention and Early Intervention, Community Policy Management, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, North Carolina Department of Health and Human Services; Terri L. Shelton, PhD, Vice Chancellor Research and Economic Development, Adele Spitz-Roth, MS, Consultant, Alamance Alliance for Children and Families; Sandy Steele, NC-TAPP, FPG Child Development Institute, UNC; Mark Strange, Residential Director, Department of Obstetrics and Gynecology, UNC Health Care; Kathy Sulik, PhD, Director, Fetal Toxicology Division, Bowles Center for Alcohol Studies, UNC School of Medicine; Kelly Sullivan, PhD, Assistant Professor, Center for Child and Family Health, Duke University Medical Center; John Thorp, MD, Division Director and Distinguished Professor, Department of Obstetrics and Gynecology, UNC Health Care; Debra Torrence, Director, North Carolina Institute for Child Development Professionals; Alvina Long Valentin, RN, MPH, Women's Health Branch, Division of Public Health, North Carolina Department of Health and Human Services; Melissa Van Dyke, LCSW, Associate Director, National Implementation Research Network, FPG Child Development Institute, UNC; Rachel Williams, MPH, Research Assistant, North Carolina Institute of Medicine; Anna Yon, Director, PBH Community Operations Center; Berkeley Yorkery, MPP, Project Director, North Carolina Institute of Medicine;

Acknowledgements

Claudia Zundel, Manager, Early Childhood Mental Health Programs, Division of Behavioral Health, Colorado Department of Human Services.

In addition to the above individuals, the staff of the North Carolina Institute of Medicine contributed to the Task Force's study and the development of this report. Pam Silberman, JD, DrPH, President and CEO guided the work of the Task Force. Berkeley Yorkery, MPP, Project Director, served as project director for the Task Force and was the primary author of the final Task Force report. Interns Emily McClure, MSPH, Krutika Amin, MSPH candidate, and Libby Betts, MSPH candidate also contributed to the report. Key staff support was also provided by Adrienne Parker, Director of Administrative Operations, and Thalia Fuller, Administrative Assistant.

NCIOM Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families

Co-Chairs

Marian F. Earls, MD, FAAP
Medical Director
Guilford Child Health, Inc.

Beth Melcher, PhD
Assistant Secretary
Division of Mental Health, Developmental Disabilities,
and Substance Abuse Services
North Carolina Department of Health and Human
Services

John Thorp, MD
Division Director
Division of Women's Primary Healthcare
Department of Obstetrics and Gynecology
UNC Health Care System

Task Force Members

Rosie Allen
Executive Director
Prevent Child Abuse North Carolina

Patti Beardsley, MA
Child Developmental Disabilities Service Manager,
Network Development Team
Infant/Child Development and Family Studies
Wake County Local Management Entity

Karen Appleyard Carmody, PhD
Clinical Associate
Department of Psychiatry and Behavioral Sciences
Duke University Medical Center

Deborah Cassidy
Director
Division of Child Development and Early Education
North Carolina Department of Health and Human
Services

Shannon Dowler, MD
Medical Director
Blue Ridge Community Health Services
Vice President
North Carolina Academy of Family Physicians

John L. Ellis, PhD
Director
Mecklenburg Children's Developmental Services

Elizabeth Flemming
Associate Director
Mental Health Education
Mountain Area Health Education Center

Jennings Garry MS, CNM, BSN
Nurse Family Partnership Supervisor
Buncombe County Department of Health

Catharine Goldsmith, MSW (FL-LCSW)
Children's Behavioral Health Services Manager
Behavioral Health Section, Clinical Policy Programs
Division of Medical Assistance
North Carolina Department of Health and Human
Services

Crystal M. Hayes
Racial Justice Director & Interim Director of Teen
Parent Connection
YWCA of the Greater Triangle

Jill Hinton, PhD
Clinical Director
Easter Seals/UCP NC &VA

Michelle Hughes, MA, MSW
Project Director
Benchmarks

Consuelo Kwee, BS
Director
Centro para Familias Hispanas

Nena Lekwauwa, MD
Medical Director
Division of Mental Health, Developmental Disabilities,
and Substance Abuse Services
North Carolina Department of Health and Human
Services

NCIOM Task Force on Mental Health, Social, and Emotional Needs of Young Children and Their Families

Tom Lesniak, MEd, LPC-A
Triumph LLC

Mary E. Lloyd
Family Partner Coordinator
Western Region
Smoky Mountain Center LME

Toby McCoy, PhD
Program Director
Family Care Program
Duke Addictions Program
Duke University Medical Center

Judy S. McKay, MD, MPH
Child and Adolescent Psychiatrist
Pisgah Institute

Emma Miller, DDiv, MSW, P-LCSW
Prenatal/Infant Mental Health Specialist

Robert A. Murphy, PhD
Executive Director
Center for Child & Family Health

Laura E. Muse, MS, NCC, LPC
Clinical Services Coordinator
Alamance Alliance for Children and Families

Tom Murry, JD, PharmD
Representative
North Carolina General Assembly

Susan Perry-Manning
Senior Director of Policy & Programs
Smart Start & NC Partnership for Children

Janice Petersen, PhD
Director
Office of Prevention
Division of Mental Health, Developmental Disabilities
and Substance Abuse Services
North Carolina Department of Health and Human
Services

John R. Pruette
Executive Director
Office of Early Learning
North Carolina Department of Public Instruction

William R. Purcell, MD
Senator
North Carolina General Assembly

Anthony Rawlings
Chief Executive Officer
Creek Development Corporation

Dawn Rochelle, MSW, LCSW
Executive Director
Onslow County Partnership for Children, Inc.

Kevin Ryan, MD, MPH
Chief
Women's and Children's Health Section
Division of Public Health
North Carolina Department of Health and Human
Services

Marla C. Satterfield, MA, LPC, NCC
Pediatric Program Manager
North Carolina Center of Excellence for Integrated
Care

Terri L. Shelton, PhD
Vice Chancellor for Research and Economic
Development
Carol Jenkins Mattocks Distinguished Professor
University of North Carolina at Greensboro

William J. Smith, MPH
Director
Robeson County Health Department

Jean C. Smith, MD
Physician
Developmental and Behavioral Pediatrics
Wake County Human Services

Joseph E. Turner
Resident Superior Court Judge
18th Judicial District
(Guilford County)

Tamika Williams, MSW
Program Officer
The Duke Endowment

NCIOM Task Force on Mental Health, Social, and Emotional Needs of Young Children and Their Families

Steering Committee Members

Laura Y. Clark, MA
Director of Research & Evaluation
Council for Children's Rights

Melissa R. Johnson, PhD
Pediatric Psychologist
WakeMed Health and Hospitals

Marcia Mandel, PhD
Director
Raleigh Children's Developmental Services Agency
Early Intervention Branch
Women's and Children's Health Section
Division of Public Health
North Carolina Department of Health and Human
Services

Deborah C. Nelson, PhD
Former Coordinator
North Carolina Early Childhood Comprehensive
System Grant
Division of Public Health
North Carolina Department of Health and Human
Services

Susan E. Robinson, MEd
Mental Health Program Manager/Planner
Prevention and Early Intervention
Community Policy Management
Division of Mental Health, Developmental Disabilities,
and Substance Abuse Services
North Carolina Department of Health and Human
Services

Adele Spitz-Roth, MS
Consultant
Alamance Alliance for Children and Families

NCIOM Staff

Pam Silberman, JD, DrPH
President and CEO

Berkeley Yorkery, MPP
Project Director

Kimberly Alexander-Bratcher, MPH
Project Director

Jennifer Hastings, MS, MPH
Project Director
Interim Managing Editor
NCMJ

Anne Williams
Research Assistant

Thalia Fuller
Administrative Assistant

Adrienne Parker
Director of Administrative Operations
Business Manager
NCMJ

Phyllis Blackwell
Assistant Managing Editor
NCMJ

Emily McClure, MSPH
Research Assistant Intern

Krutika Amin
Research Assistant Intern

Libby Betts
Research Assistant Intern

Executive Summary

The future of North Carolina’s growth and prosperity depends on our ability to foster the health and well-being of our children. Research shows that wise investments in children and families can lead to future savings, better health, and increased productivity.¹ Health in the earliest years—beginning with a mother’s pre-conception health—provides the foundation upon which future development depends. Children with good health and a strong sense of well-being are more likely to grow into adaptable, functioning adults equipped with the kinds of tools needed to contribute positively to their communities.² Young children’s social-emotional well-being, or mental health, affects how children relate to and interact with others, how they learn, and how well they are able to manage their emotions.³ Children need developmentally appropriate relationships, environments, and experiences during their earliest years to develop a foundation strong enough to support more advanced physical, cognitive, and social-emotional skills.^{4,5}

New scientific evidence from multiple fields, including neuroscience, biology, genetics, and the behavioral and social sciences, confirms that developmental and biological disruptions during the prenatal period and formative years can impair healthy functioning, increase vulnerability to health problems later in life, and change the actual structure of a young child’s developing brain.^{6,7} Significant adversity in early childhood, including trauma, abuse, living with a parent with a substance use disorder, or being raised in persistent poverty, can cause toxic stress which disrupts a young child’s brain circuitry and other organ and metabolic systems.⁷ In the absence of protective factors such as nurturing and responsive relationships with caregivers, these disruptions produce changes in the body and brain that lead to lifelong impairments in both physical and mental health. Children exposed to toxic stress have impaired functioning in the areas of the brain that are critical for the development of linguistic, cognitive, and social-emotional skills.⁸ Impoverished and adverse early experiences, in the absence of protective factors, can lead to difficulty learning, difficulty forming healthy relationships, and lifelong physical and mental health problems.^{6,7} Further, failure to address these issues at an early age can lead to inordinate expenses to society in the areas of physical health, mental health, education, and criminal justice system expenses.

To effectively intervene in order to prevent the short- and long-term effects of toxic stress will require investing in substantial and sustained prevention, promotion, and intervention services. Extensive evidence shows that effective prevention programs, focused on children under 5 years of age, can change the trajectory of children’s lives. Promoting positive social-emotional development among our youngest children is far easier than trying later to solve the problems that can result from lack of attention to mental health during formative years.^{1,6} A growing body of research shows that investments during early childhood



Young children’s social-emotional well-being, or mental health, affects how children relate to and interact with others, how they learn, and how well they are able to manage their emotions.

**Wise investments
in children and
families can lead
to future savings,
better health,
and increased
productivity.**

have the potential to generate savings and benefits to society that more than repay their costs.^{1,9} Such investments include programs, policies, and services to strengthen the relationships young children have with their caregivers, improve the environments of young children, teach young children social and emotional skills, ensure the workforce is adequately trained, and provide treatment for young children and their families.

This knowledge should inform and undergird all decision-making with regard to spending and programs intended to affect children and their families. North Carolina has an abundance of governmental, non-governmental, non-profit, and educational resources which address various aspects of early childhood social-emotional development and mental health needs. This report identifies short- and long-term strategies for addressing these problems through systemic changes, and greater interaction and cooperation among the systems, agencies, and individuals who interact with children who are younger than 5 years of age and their families.

The North Carolina General Assembly (NCGA) recognized the need to examine the social-emotional and mental health needs of North Carolina's youngest children. In 2010, the NCGA asked the North Carolina Institute of Medicine (NCIOM) to convene a task force to study the adequacy of the current systems serving the mental health, social, and emotional needs of young children and their families.^a The charge included a systematic evaluation of the needs, gaps, strengths, and resources of the public and private systems providing prevention, promotion, and treatment for young children's mental health and social-emotional well-being. Funding support for the Task Force was provided by the North Carolina Department of Health and Human Services Division of Mental Health, Developmental Disabilities, and Substance Abuse Services through the North Carolina Substance Abuse Prevention and Treatment Block Grant from the Substance Abuse and Mental Health Services Administration.

The Task Force was co-chaired by Marian Earls, MD, FAAP, Medical Director, Guilford Child Health, Inc.; Beth Melcher, PhD, Assistant Secretary for Mental Health, Developmental Disabilities, and Substance Abuse Services Development, North Carolina Department of Health and Human Services; and John Thorp, MD, Division Director and Distinguished Professor, Department of Obstetrics and Gynecology, University of North Carolina Health Care. They were joined by 40 other Task Force and Steering Committee members including legislators, state and local agency representatives, service providers, and community representatives. The Task Force met 15 times between March 2011 and June 2012. The Task Force made 12 recommendations, 3 of which were identified as priority recommendations.

^a Section 16.1of Session Law 2010-152

The following provides a summary of the recommendations from the Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families. The summary recommendations are numbered and correspond to the chapter where they are discussed in more detail. Priority recommendations are noted.

Creating a More Coordinated, Integrated System to Meet the Social-Emotional and Mental Health Needs of Young Children and Their Families

The Task Force recognized the need for a more comprehensive, coordinated, and cohesive infrastructure and system to meet the health needs of young children and their families. Furthermore, the Task Force recognized that we are more likely to experience positive results if we implement evidence-based strategies and services to positively influence young children’s social-emotional development and meet young children’s mental health needs. Evidence-based interventions aimed at improving the social-emotional and mental health of young children often have a positive impact on a wide range of child outcomes. Data is needed to measure young children’s social-emotional and mental health needs, identify gaps in services, and monitor the effectiveness of interventions. With better coordination and collaboration, a solid infrastructure, data, and the strategic use of evidence-based strategies, we can meet the social-emotional and mental health needs of young children and their families.

Recommendation 2.1: Operationalize a Comprehensive, Coordinated System for Young Children’s Mental Health

The North Carolina Early Childhood Advisory Council (ECAC) should operationalize a cross-systems plan which includes all North Carolina agencies that fund and serve the physical, social-emotional, and mental health needs of young children and their families.

Recommendation 5.3: Coordinate Promotion, Prevention, and Intervention Services for Young Children with Mental Health Needs (PRIORITY RECOMMENDATION)

The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), Division of Medical Assistance (DMA), Division of Public Health (DPH), Community Care of North Carolina (CCNC), Care Coordination for Children (CC4C), Children’s Developmental Services Agencies (CDSAs), and Local Management Entities/Managed Care Organizations (LME/MCOs) should examine the current system of care for children ages 0-5 to ensure children at risk of or those with already identified

social-emotional and mental health needs have a health home that addresses the physical, social, emotional and mental health needs of the child. As part of this examination, DMH/DD/SAS and partners should develop integrated protocols outlining the criteria for determining which agency is responsible for providing screening, assessment, care coordination, and treatment services for young children with social-emotional and mental health needs, the process for authorizing and paying for services, and how to strengthen collaboration and co-management in the care of the child by providers within the different systems.

Recommendation 2.2: Strengthen and Expand Evidence-Based Programs

The ECAC, in collaboration with state and local agencies and North Carolina philanthropic organizations, should strengthen and expand the availability of evidence-based programs to improve young children’s mental health for more families in North Carolina.

Recommendation 2.3: Develop a Data System to Monitor and Evaluate Changes in Young Children’s Health

The ECAC, in collaboration with the Department of Health and Human Services (DHHS), the Division of Public Instruction (DPI), CCNC, and the North Carolina Partnership for Children (NCPC) should ensure that data are available and utilized for on-going assessment of the status of young children’s health, including the social-emotional health of young children and their families. Data should be used to identify outstanding needs and treatment gaps, modify funding priorities to meet the largest unmet needs, and monitor the effectiveness of interventions.

Promoting Awareness and Understanding of the Importance of Young Children’s Social-Emotional and Mental Health

Research from multiple fields confirms that all aspects of young children’s development, including brain development, depend on the nature and reliability of young children’s relationships with their caregivers and the quality of their environment.⁸ Research has also identified many evidence-based steps that individuals, communities, organizations, and the state can take to ensure young children have the kinds of nurturing, supportive relationships and safe, stable environments that promote social-emotional development. However, the Task Force recognized that this information is not widely known or used in practice. The Task Force feels that a broad understanding of the importance of the early years of life as well as an understanding of effective ways to improve young children’s well-being is needed. Without such understanding, parents,

teachers, care providers, health providers, policy makers, legislative, executive, and judicial branches of government, and others will not pursue or employ effective strategies to improve the social-emotional and mental health of young children.

Recommendation 3.2: Raise Awareness of the Social-Emotional and Mental Health Needs of Young Children (PRIORITY RECOMMENDATION)

The ECAC, in collaboration with DHHS, should develop and implement a communications strategy to raise awareness of the importance of young children’s mental, social, and emotional health.

Recommendation 3.3: Educate Families, Caregivers and Providers on Young Children’s Mental Health

DPH should continue to support the implementation of the Triple P—Positive Parenting Program, which educates parents, caregivers, and providers on how to promote young children’s social-emotional development, in pilot communities.

Recommendation 4.1: Develop a Web-Based Clearinghouse of Programs and Services for Young Children with Mental Health Needs

North Carolina private foundations and other funding sources should provide \$125,000 to the North Carolina Infant/Young Child Mental Health Association (NCIMHA) and other partners to develop and maintain a web-based clearinghouse of information on programs and services available to children and families with mental health, social, and emotional needs at the state and county level. Information collected should include service availability, eligibility criteria, cost, and evidence involving the effectiveness of the programs and services.

Improving Treatment to Meet the Social-Emotional and Mental Health Needs of Young Children and Their Families

Providing effective, evidence-based interventions and treatment during the prenatal and early childhood periods of life can significantly improve individuals’ lifelong physical and mental health.^{6,7,10} Given this knowledge, the Task Force studied the current system in an attempt to identify opportunities for providing more effective, evidence-based intervention and treatment for young children and their parents, especially mothers. While much is being done in North Carolina to improve care for women and young children, more could be done

to meet the social-emotional and mental health needs of young children and their families. In particular, there is a need to focus on care coordination for women and children, treatment services for mothers with substance use or mental health disorders which consider the needs of young children, and evidence-based screening, triage, assessment, referral, and treatment practices and policies.

Recommendation 3.1: Improve Care Transitions for Women and Young Children

To enhance patient health and safety, and to ensure appropriate continuity of care and care coordination, CCNC, the North Carolina Obstetrical and Gynecological Society, North Carolina Academy of Family Physicians, North Carolina Medical Society, North Carolina Pediatric Society, DMH/DD/SAS, and other partners should identify or develop best practices to ensure appropriate transitions of care for women and young children among obstetrical, primary care, pediatric, and other health care providers.

Recommendation 5.1: Expand Treatment Services for Mothers with Substance Use Disorders and Mental Health Challenges

DMH/DD/SAS, in collaboration with DMA and DHHS housing specialists, the Division of Social Services (DSS), and the North Carolina Housing Finance Agency should examine ways to expand the array of treatment options for pregnant women and mothers with substance use and mental health disorders, including supports for women in their own home as well as residential treatment services.

Recommendation 5.2: Establish Care and Reimbursement Standards to Promote Women and Children's Mental Health (PRIORITY RECOMMENDATION)

DMA, in collaboration with CCNC, DMH/DD/SAS, DSS, DPH, and LME/MCOs should identify evidence-based or evidence-informed screening tools, triage, assessment, referral protocols and clinical treatment guidelines. The organizations should also develop a system of value-based payments for select populations including: pregnant women using or abusing alcohol or other harmful substances, women with mental health disorders, young children with social-emotional and mental health needs, and women and children who have experienced family violence.

Ensuring a Well-Prepared Workforce

Young children and their families interact with people with multiple professional backgrounds and training. However, the Task Force recognized that two groups of trained professionals, health care professionals and those involved in early care and education, are uniquely involved in the social-emotional development of young children. Individuals in these workforces come from diverse backgrounds with varying education and training requirements. There is a need to ensure that these professionals understand the importance of social-emotional development and how to foster such development. In varying capacities, these professionals must be prepared to identify and meet the social-emotional and mental health needs of young children and their families. Much more could be done to ensure these professionals have the understanding, knowledge, and skills required to promote young children's social-emotional development and to intervene when development lags or veers off course.

Recommendation 2.4: Increase Understanding of the Role of Social-Emotional Development Among Early Care and Education Professionals

The ECAC should ensure that funding for early educator development and quality improvement through the Early Learning Challenge Grant is maintained. Additional efforts should be made to align early educator professional development standards at the pre-service, in-service, and continuing education levels with the Early Learning Development Standards. Specifically, there should be an increased focus on the social-emotional domain of development.

Recommendation 2.5: Address Clinical Workforce Development Needs

The North Carolina Infant/Child Mental Health Association should work with DMA, in collaboration with DMH/DD/SAS, DPH, DSS, the University of North Carolina System, the Area Health Education Centers, and others to identify training needs and to address barriers to developing an effective mental health workforce which meets the clinical needs of young children ages 0-5 and their families.

Conclusion

Young children's social-emotional development and mental health influence every critical developmental task of the first five years whether physical, cognitive, linguistic, or social-emotional. Positive social-emotional development and mental health provides the foundation for future development and learning. Furthermore, the absence of positive social-emotional development and mental health has been shown to have a significant negative impact on

Investments to support the social-emotional development and mental health of young children have the potential to prevent a wide range of adverse outcomes as well as generate large economic returns for all of North Carolina.

both short- and long-term cognitive development and physical and mental health. This knowledge must inform and undergird all of North Carolina's investments in its citizens if the state is to grow and prosper. North Carolina has already seen the benefits from making significant investments in the health and well-being of young children, particularly around physical and cognitive development. North Carolina also has a long history of supporting physical health by providing health care coverage for low-income pregnant women and children through the Medicaid program and cognitive development through school readiness programs such as Smart Start, Early Head Start, Head Start, and the NC-PreK program. The benefits of these investments would grow further if investments in the social-emotional development and mental health of young children were strengthened. Investments such as the ones described in this report to support the social-emotional development and mental health of young children and their families have the potential to prevent a wide range of adverse outcomes as well as generate large economic returns for all of North Carolina.

Executive Summary

References

1. Kilburn M, Karoly L. RAND Corporation. The Economics of Early Childhood Policy. Santa Monica, CA. http://www.rand.org/pubs/occasional_papers/OP227.html. Published 2008. Accessed April 26, 2012.
2. Miles J, Espiritu RC, Horen NM, Sebian J, Waetzig E. Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health. A Public Health Approach to Children's Mental Health A Conceptual Framework. Washington, DC. <http://gucchdtacenter.georgetown.edu/publications/PublicHealthApproach.pdf?CFID=4150182&CFTOKEN=89131034>. Published 2010. Accessed April 27, 2012.
3. Shonkoff JP, Phillips DA. National Academy Press. From Neurons to Neighborhoods: The Science of Early Childhood Development. Washington, D.C. http://www.nap.edu/openbook.php?record_id=9824. Published 2000. Accessed April 27, 2012.
4. National Scientific Council on the Developing Child. Young children develop in an environment of relationship. Working Paper No.1. <http://www.developingchild.net>. Published 2004.
5. National Scientific Council on the Developing Child. The Timing and Quality of Early Experiences Combine to Shape Brain Architecture. Working Paper No.5. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
6. Center on Developing Child at Harvard University. The Foundations of Lifelong Health Are Built in Early Childhood. <http://www.developingchild.harvard.edu>. Published 2010. Accessed April 27, 2012.
7. Shonkoff JP, Garner AS. Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012;129(1):e232-46.
8. National Scientific Council on the Developing Child. Excessive Stress Disrupts the Architecture of the Developing Brain. Working Paper No. 3. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
9. Washington State Institute for Public Policy. Return on Investment: Evidence-Based Options to Improve Statewide Outcomes: April 2012 Update. Olympia, WA. <http://www.wsipp.wa.gov/rptfiles/12-04-1201.pdf>. Published April 2012. Accessed May 10, 2012.
10. US Department of Health and Human Services. US Department of Health and Human Services, Substance Abuse and Mental Health Administration, National Institutes of Health, National Institute of Mental Health. Mental Health: A Report of the Surgeon General. Rockville, MD. <http://profiles.nlm.nih.gov/ps/access/NNBBHS.pdf>. Published 1999. Accessed May 14, 2012.

The future of North Carolina’s growth and prosperity depends on our ability to foster the health and well-being of our children. Research shows that wise investments in children and families can lead to future savings, better health, and increased productivity.¹ North Carolina has a long history of developing and supporting school readiness programs for children, including Smart Start and NC Pre-K. These programs have helped ensure that thousands of our children are better prepared to enter school ready to learn and have contributed to long-term improvements for many of our children. However, to realize the full benefit of these and other investments, we must expand our focus beyond just fostering physical health and cognitive skills and beyond reaching just those children in early care and education settings. We need to expand our understanding of developmental milestones to include the development of social-emotional skills which are equally as critical to ensuring future success in school and life for all young children. Children with good health and a strong sense of well-being are more likely to grow into adaptable, functioning adults equipped with the kinds of tools needed to contribute positively to their communities.² However, children do not develop optimal health and well-being in a vacuum. For young children, the quality and reliability of a child’s relationships with his or her caregivers, the quality and safety of their environment, and the quality of their nutrition are all extremely influential factors. These three inputs establish the basic foundation upon which child health—physical, mental, and social-emotional well-being—are built. Specifically, programs, policies, and services to strengthen the relationships young children have with their caregivers, improve the environments of young children, teach young children social and emotional skills, and provide treatment for young children and their families help promote young children’s social-emotional development. Such strategies positively shape and strengthen young children’s environments as well as provide services and supports to address the social-emotional and mental health needs of young children and their families.



As a state, we must pay attention to children’s social-emotional and mental health, for they are the foundation upon which lifelong health and well-being are built.

Social-Emotional Well-Being and Mental Health Provide the Foundation for All Development

While much attention has been paid to the gross and fine motor, language, and cognitive domains of development—particularly as they relate to school readiness—relatively little attention has been paid to young children’s social-emotional development and mental health. Young children’s mental health is as critical to the child’s development as a level foundation is to a house. How level a house’s foundation is determines how well it will function and, ultimately, the durability of the house constructed upon it. When a house’s foundation is not strong or level, it will crack and crumble over time causing parts of the house to warp, change shape, and become unsafe. Similarly, the mental health of a child is what enables him or her to function and provides the basis for all future development. Foundations that are not level can be fixed, however, it is considerably easier and less costly to build a level foundation at the start

A comprehensive approach to young children's health and development is critical in order to ensure our children fulfill their potential.

than to have to go back and repair an unlevel foundation after the house is built. Likewise, promoting positive social-emotional development among young children—when there is extensive evidence that effective prevention programs can change the trajectory of children's lives—is far easier than trying to solve the problems that can result from lack of attention to mental health during the formative years.^{1,3}

Young children's brains are rapidly developing the architecture that will undergird all future development. Some children's brains develop on foundations that are strong and level; they have a safe, supportive neighborhood and community, strong, loving relationships with their caregivers, and access to health care and good nutrition. Other children's brains develop on slanted or incomplete foundations. These children may be exposed to violence or abuse, have unstable relationships, lack of health care or nutrition, or do not have access to supportive programs and resources. We, as a state, must pay attention to these issues of children's social emotional development and mental health, for they are the foundation of the whole person, upon which lifelong health and well-being are built.

Early Childhood Development

The first five years of children's lives are characterized by rapid growth and development. Children undergo tremendous transformations as they develop from the intrauterine environment into infants and then into toddlers and children with the ability to interact with and navigate our highly complex societies. Young children must master many complex processes and behaviors during their earliest years including movement, communication, self-regulation, and relating to others and making friends.⁴ While physical, cognitive, social and emotional capacities are inextricably linked throughout the life course, they are particularly hard to tease apart during the early years of life. Physical skills, such as crawling, rely heavily upon both mental and social-emotional skills. For example, for an infant to learn to crawl she must learn how the parts of her body relate to one another, have the physical strength to hold up her head and chest, and the cognitive capacity to coordinate the movement of her limbs. However, without a sense of security, confidence, and a safe space to explore, an infant will not learn to crawl. Similarly, language acquisition is not just a cognitive skill, but also relies upon the physical ability to hear, the cognitive ability to differentiate sounds, and the social-emotional ability to pay attention and engage in social interaction. However, again, without a sense of confidence gained through social interaction, a child will stay quiet. Taking a comprehensive approach to young children's health and development is critical in order to ensure our children fulfill their potential to become healthy, productive adults.

Brain Development

Research has shown that the architecture of the brain is constructed in an ongoing process that begins before birth and continues until adulthood. Early experiences literally shape how the brain is built.⁵ Like constructing a house, this

building process begins with laying the foundation. A strong, level foundation increases the probability of positive outcomes, while a weak foundation that is not level increases the odds of later difficulties. Fortunately, we know what children need in order to build a strong foundation for future learning and development: strong and supportive relationships with caregivers, stimulating and safe environments, and adequate nutrition. When children do not have these things, it is more difficult for the brain to develop the foundation needed to support healthy development.

Understandably, early experiences have an exceptionally strong influence on the architecture of the child's developing brain, which makes the early years of life a time of both great opportunity and a time of great vulnerability.⁵ A child's genes supply the basic construction plan for brain development, much like the blueprints for a house. However, through continuous dynamic interactions, each child's personal experiences and environment have a significant impact on how genetic predispositions are expressed and how the brain's architecture develops.⁵ For example, physiological responses to stress in the infant's environment affect the infant's social-emotional development. The activation of the physiologic stress response system results in increased levels of stress hormones. Persistent elevation of cortisol, one of the hormones released during stress, can disrupt the developing brain's architecture, and can ultimately impact learning and memory, as well as behavioral and emotional adaptation. Moreover, the prenatal period and early infancy are critical and sensitive periods for these effects. Toxic stress 1) impairs the connection of brain circuits and changes overall brain architecture, 2) sustains high levels of stress hormones that damage areas of the brain and affect learning and memory and increase anxiety and poor mood regulation, 3) causes an individual to develop a low threshold for stress and be overly reactive to adverse experiences through life, and 4) suppresses the immune response, affects other organ systems, and makes an infant, child or adult more vulnerable to infections and chronic health problems. The presence or absence of growth-promoting relationships and environments, as well as nutritious food, determine whether a child's brain architecture operates at its full genetic potential or with impaired capabilities.^{5,6}

Young Children's Social-Emotional Development and Mental Health

Young children's mental health, or social-emotional health, affects how they relate to and interact with others, how they learn, and how well they are able to manage their emotions. The mental health of a young child is the achievement of expected developmental cognitive, social, and emotional milestones.⁷ The primary social-emotional milestones during the first five years of life include developing: trusting relationships with caregivers, the ability to signal needs, the full range of feelings and emotions, self-regulation of biological needs, strategies for dealing with separation, and the capacity for social interaction with peers and exploring the environment.⁸ Young child mental health influences every single critical developmental task of the first five years whether physical,

Children need strong and supportive relationships with caregivers, stimulating and safe environments, and adequate nutrition to build a strong foundation.

**Young child
mental health
influences every
single critical
developmental
task of the
first five years
whether physical,
cognitive, or
social-emotional.**

cognitive, or social-emotional. It would be difficult for any child to grow and develop into a well-functioning school-age child or adult without these social-emotional skills.

Positive Mental Health

Positive mental health is the achievement of the main mental health milestones—forming trusting relationships, capacity for social interaction, and self-regulation—as well as the development of a positive sense of self-esteem and well-being, mastery of social inclusion, and the strength to cope with adversity.⁹ Accomplishing these tasks provides a strong foundation for life-long mental health. Positive mental health is the degree to which individuals feel good and function well.² Positive mental health can be nurtured and enhanced for all children, even those with mental health problems. Mentally healthy children and adolescents are happy and generally function well at home, in school, and in their communities.⁷ It is critical that we look not only into minimizing mental health problems, but also into optimizing positive mental health development in order to ensure all children have the skills they need to grow, develop, and thrive. These psychological, emotional, and social skills help individuals maintain and regain health when faced with challenging situations.²

Mental Health Problems

In contrast to positive mental health, mental health problems impair social and educational development. Mental health problems among infants and young children can be difficult to recognize and identify because these problems do not present in young children in the same way that they do in adults. Examples of poor mental health among young children are babies whose growth is stunted due to a lack of nurturing care, toddlers who exhibit uncontrollable tantrums, preschoolers expelled from child care, children who witness or are victims of violence, and children arriving at kindergarten unable to manage their emotions and get along with other children and their teacher.¹⁰ Young child mental health problems include a spectrum of mental issues ranging from poor adaptive behaviors/lack of interactive skills to early signs or symptoms of more serious mental disorders. Most do not rise to the level of DSM IV diagnoses and therefore are not addressed by the specialty mental health system. Mental health problems can develop early and can endure throughout an individual's lifetime.^{5,11} Young children with untreated mental health problems are more likely to have adolescent and adult mental health disorders and need ongoing, costly services later in life.² However, research shows that intervening early can have a profound and positive effect on social-emotional problems as well as improve outcomes for children with serious disorders.¹¹ Mental health problems can have genetic origins and/or arise within the context of a child's relationships with caregivers and their environments.

Prevalence of Young Children with Mental Health Problems

One-in-five children and adolescents in the U.S. meet diagnostic criteria for a mental health disorder with impaired functioning.¹² For early childhood, national research shows that between 10-14% of children ages 0-5 have mental health problems severe enough that they have trouble functioning.¹³ In North Carolina that equates to approximately 91,000 children.^a For preschoolers the rates are doubled when the factors of poverty, maternal depression, substance abuse, domestic violence or foster care are added.¹⁴ Mental health problems among young children create an enormous burden for children themselves, their families, their schools, and the state. However, the costs are often difficult to measure because many of the costs are borne by the educational, justice and corrections, and physical health systems.⁹ Mental health problems impair educational and social development and impact later competence and productivity. The health status of young children has a significant impact on the trajectory of their health during adolescence and into adulthood.⁹ When left untreated, the presence of mental health problems in young children foretells an ongoing need for costly services later in life.

Factors Influencing Young Children's Social-Emotional Well-Being and Mental Health

There are many factors that influence young children's mental health including genetics, the choices that parents and other caregivers make, their environments, and nutrition—all of which are influenced by the broader social, cultural, political and economic environments. Just as the foundation of a house is made level by the right craftsmen using the right materials and tools, young children need developmentally appropriate relationships, environments, and experiences at the right stages of development to develop a base that is strong and level enough to support more advanced physical, cognitive, and social-emotional skills.

Maternal Health and Well-Being

Young children's physical, cognitive, and social-emotional development is influenced by the health, nutrition, and behaviors of mothers pre-conception as well as during pregnancy and early childhood.¹⁵ The developmental trajectory of every child begins in the womb where genetics, the fetal environment, and maternal health all impact fetal development and birth outcomes. Women's pre-conception and prenatal physical and emotional health set the stage for what happens during pregnancy. Higher levels of preconception and prenatal physical and emotional health increase the likelihood of healthier pregnancy and birth outcomes, while lower levels increase the likelihood of poor pregnancy and birth outcomes.¹⁶ During infancy and the early childhood years, maternal mental health plays a critical role in the social-emotional development of infants and

Intervening early can have a profound and positive effect on social-emotional problems as well as improve outcomes for children with serious disorders.

a Based on 757,664 children ages 0-5 in 2010, 12%=90,920 children (0.12*757,664 = 90,920) (Office of State Budget and Management. July 1, 2010 County Total - Single Year Ages. http://www.osbm.state.nc.us/demog/countytotals_singleage_2010.html. Accessed June 20, 2012)

**Healthy
development of
infants and young
children depends
upon the quality
and reliability
of the child's
relationships.**

children. In particular, maternal substance use and depression have significant and negative impacts on fetal and young child development.¹⁷⁻¹⁹ Working to improve the health of women before, during, and between pregnancies is critical to improving the health of our state and future generations.

Genetic Influences

While a child's genes supply the blueprint for development, the environment, and the experiences a child has within that environment, have a profound impact on genetic expression. This is because the experiences children have with people and their environments adjust their genetic plans. Through continuous dynamic interactions, each child's personal experiences and environment have a significant impact on how genetic predispositions are expressed and how the brain's architecture is ultimately built.⁵ Positive experiences, such as rich learning opportunities, and negative influences, such as exposure to toxic chemicals or highly stressful environments, cause chemical modifications to genes. Chemical modifications can cause short- or long-term changes and influence which genes are turned on and which are turned off.^{20,21} In young children's developing brains, experiences can change the chemistry that gets encoded in brain cells, influencing future brain development and health.³ Thus, the prenatal and early years of life present a unique and important opportunity to intervene.

Relationships with Caregivers

The healthy development of infants and young children depends upon the quality and reliability of the child's relationship with important people in his or her life including parents, grandparents, early care and education providers, and others who regularly care for the child.⁶ These relationships affect virtually all aspects of a young child's development including physical, social-emotional, and cognitive growth.⁴ The quality and strength of these relationships is established through continuous give-and-take interactions. Much like the process of serve and return in a tennis game, young children reach out to their caregivers and caregivers respond. When caregivers respond in a developmentally appropriate manner—such as cooing back at babies, comforting a toddler who has fallen, or answering the questions of a curious preschooler—the child's serve has been returned and their brain architecture is strengthened. By providing consistent, nurturing, and protective interactions, caregivers contribute to the growth of a broad range of competencies including positive social skills, a love of learning, an affirmative sense of oneself, and a sophisticated understanding of other's emotions, needs, and thoughts which will form the child's basis for social interactions.³ Stable, strong relationships also confer the physical health benefits of having someone who ensures the young child has food, is protected from harm, and gets regular health care and surveillance when needed.⁶

Children's Environments

A safe, supportive, and stimulating environment is also critical for optimal development. Safe, supportive, and stimulating environments facilitate and

enhance the physical, cognitive, and social-emotional development of young children by providing spaces where children are free from harm, receive positive support and encouragement, and are provided with opportunities to learn and grow. Unsafe environments threaten the immediate physical health of young children as well as their future development and well-being. Young children need age-appropriate, physically safe environments free from toxic chemicals in which to explore and develop. Environments that provide the right conditions can enhance children's ability to grow, learn, and develop.² Enriching environments provide safe opportunities for children to engage in developmentally appropriate play, make choices, and interact positively with adults and other children. In contrast, environments that are not physically safe, lack consistent caregivers and supervision, and expose children to violence or abuse limit children's abilities to excel and thrive and place them at higher risk for developing mental health and behavioral problems.²

Significant adversity early in life, such as persistent poverty, exposure to violence, a parent with mental health and/or substance abuse disorders, and poor child care conditions, leads to high levels of stress and negative short- and long-term outcomes. Research shows that adverse experiences during childhood, such as psychological, physical, or sexual abuse and living with household members who have substance abuse or mental health disorders, are strongly associated with long-term health risk behaviors, health status, and even adult diseases.²² The Adverse Childhood Experiences (ACE) Study has found that adverse childhood events transform psychosocial experience into organic disease, social malfunction, and mental illness. Adverse childhood experiences are linked to heart disease, obesity, lung disease, diabetes, depression, anxiety, and substance addiction in adulthood. These findings are consistent with what has been learned about toxic stress and early brain development. High levels of stress cause the body to release high levels of stress hormones.¹¹ Extended exposure to high levels of stress, without the presence of protective factors such as loving, stable relationships or direct intervention, is called toxic stress. As described above, toxic stress interferes with developing brain circuits, negatively affects the child's stress response system, and increases the likelihood of significant stress-related mental and physical disorders over the child's lifetime (e.g. depression, anxiety, drug abuse, diabetes, and cardiovascular disease).²¹ Additionally, damage to the developing brain caused by toxic stress can lead to impairments in learning and memory.²¹ How a young child responds to stress has to do with their genetic predisposition as well as their environment and the relationships they have with caregivers. For example, a young child with a genetic predisposition to fearfulness is more likely to develop anxiety or depression than a child without that predisposition, particularly if they are severely neglected (perhaps due to a parent with substance abuse issues, mother with depression, or the stresses of deep poverty). However, research shows that warm, stable, loving relationships with caregivers and exposure to high-quality, safe environments can help regulate stress hormone production and help mitigate the risks associated with adverse childhood experiences and genetic predispositions.²¹

Young children need age-appropriate, physically safe environments in which to explore and develop.

Investments in early childhood have the potential to generate savings and benefits to society that more than repay their costs.

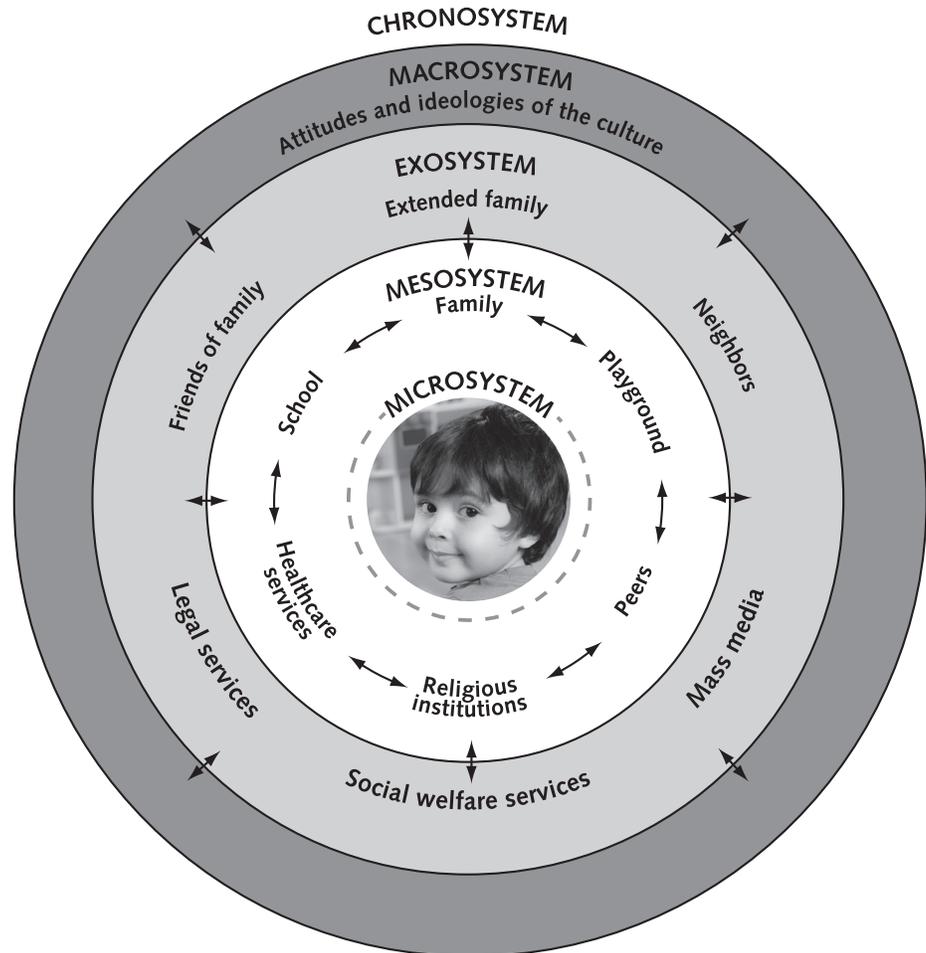
Nutrition

Throughout life, health is influenced by nutrition.³ Research has shown that maternal health, even before conception, impacts the health and well-being of the expectant mother and infant. Maternal nutrition during pregnancy affects fetal immune system development as well as the long-term health of her children.³ Adequate nutrition is especially important during the early years when body growth and brain development are more rapid than during any other period. A nutritionally adequate diet is one of the most important requirements for healthy growth and development. Nutrient deficiencies can result in cognitive delays, listlessness, and diminished resistance to disease.²³

Supporting Young Children’s Mental Health

The Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families used an ecological systems model to study the various impacts on young children’s mental health. Ecological models are

Figure 1.1
Ecological Model of Child Development



conceptual models that show how the health of an individual is influenced not only by the individual, but also by their relationships with others and the broader community and environment in which they live. As discussed, many of the factors related to young children’s mental health are determined most immediately by the child’s family, early care and education programs or school, and neighborhood. However, young children and their families are also influenced by the community in which they live, attend school, and work, the public policies that govern them, and the broader social, cultural, political, and economic environments.

Research has shown that there are a number of strategies that promote optimal social and emotional development in young children. A growing body of research shows that investments in early childhood have the potential to generate savings and benefits to society that more than repay their costs.^{1,24} Such investments include programs, policies, and services that strengthen the relationships young children have with their caregivers, improve the environments of young children, teach young children social and emotional skills, ensure early childhood and clinical professionals are adequately trained, and provide treatment for young children and their families. North Carolina has seen the benefits of making significant investments in the health and well-being of young children, particularly around physical and cognitive development. North Carolina has a long history of supporting physical health by providing health care coverage for low-income children and pregnant women through the Medicaid program and cognitive development through school readiness programs such as Smart Start, Early Head Start, Head Start and the NC-PreK program. The benefits of these investments would grow further if investments in the social-emotional development of young children were strengthened.

Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families

The North Carolina General Assembly (NCGA) recognized the need to examine the mental health needs of North Carolina’s youngest children and systematically evaluate the needs, gaps, strengths, and resources of the public and private systems providing prevention, promotion, and treatment for young children’s mental health and social-emotional well-being. The NCGA asked the North Carolina Institute of Medicine (NCIOM) to convene a task force to study the adequacy of the current systems serving the mental health, social, and emotional needs of young children and their families.^b Funding support for the Task Force was provided by the North Carolina Department of Health and Human Services Division of Mental Health, Developmental Disabilities, and Substance Abuse Services through the North Carolina Substance Abuse Prevention and Treatment Block Grant from the Substance Abuse and Mental Health Services Administration.

^b NCGS §90-470

The Task Force was co-chaired by Marian Earls, MD, FAAP, Medical Director, Guilford Child Health, Inc.; Beth Melcher, PhD, Assistant Secretary for Mental Health, Developmental Disabilities, and Substance Abuse Services Development, North Carolina Department of Health and Human Services; and John Thorp, MD, Division Director and Distinguished Professor, Department of Obstetrics and Gynecology, University of North Carolina Health Care. They were joined by 40 other Task Force and Steering Committee members including legislators, state and local agency representatives, service providers, and community representatives. The Task Force met 15 times between March 2011 and June 2012. The Task Force made 12 recommendations, 3 of which were priority recommendations. The recommendations are summarized in the executive summary. A full listing of the recommendations is included in Appendix A of this report.

References

1. Kilburn M, Karoly L. RAND Corporation. The Economics of Early Childhood Policy. Santa Monica, CA. http://www.rand.org/pubs/occasional_papers/OP227.html. Published 2008. Accessed April 26, 2012.
2. Miles J, Espiritu RC, Horen NM, Sebian J, Waetzig E. Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health. A Public Health Approach to Children's Mental Health A Conceptual Framework. Washington, DC. <http://gucchdtacenter.georgetown.edu/publications/PublicHealthApproach.pdf?CFID=4150182&CFTOKEN=89131034>. Published 2010. Accessed April 27, 2012.
3. Center on Developing Child at Harvard University. The Foundations of Lifelong Health Are Built in Early Childhood. <http://www.developingchild.harvard.edu>. Published 2010. Accessed April 27, 2012.
4. Shonkoff JP, Phillips DA. National Academy Press. From Neurons to Neighborhoods: The Science of Early Childhood Development. Washington, DC. http://www.nap.edu/openbook.php?record_id=9824. Published 2000. Accessed April 27, 2012.
5. National Scientific Council on the Developing Child. The Timing and Quality of Early Experiences Combine to Shape Brain Architecture. Working Paper No.5. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
6. National Scientific Council on the Developing Child. Young children develop in an environment of relationship. Working Paper No.1. <http://www.developingchild.net>. Published 2004.
7. US Department of Health and Human Services. US Department of Health and Human Services, Substance Abuse and Mental Health Administration, National Institutes of Health, National Institute of Mental Health. Mental Health: A Report of the Surgeon General. Rockville, MD. <http://profiles.nlm.nih.gov/ps/access/NNBBHS.pdf>. Published 1999. Accessed May 14, 2012.
8. Johnson MR, Appleyard K. Chapter 11. infant psychosocial disorders. In: Bremner JG, Wachs TD, eds. *Wiley-Blackwell Handbook of Infant Development*. Vol 2. 2nd ed. Oxford, UK.: Wiley-Blackwell; July 21, 2010:280-307.
9. National Research Council. The National Academies Press. Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities. Washington, DC. <http://www.iom.edu/Reports/2009/Preventing-Mental-Emotional-and-Behavioral-Disorders-Among-Young-People-Progress-and-Possibilities.aspx>. Published March 12, 2009.
10. Johnson MR. The origin of the NCIOM task force on the mental health, social, and emotional needs of young children and their families. Presented to: North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families; March 10, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Johnson_2011-3-10.pdf. Accessed May 14, 2012.
11. National Scientific Council on the Developing Child. Mental Health Problems in Early Childhood Can Impair Learning and Behavior for Life. Working Paper No.6. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
12. McMorrow S, Howell E. Urban Institute. State Mental Health Systems for Childre: A Review of the Literature and Available Data Sources. http://www.nami.org/Template.cfm?Section=child_and_teen_support&template=/ContentManagement/ContentDisplay.cfm&ContentID=106948. Published July 2010. Accessed June 19, 2012.
13. Cooper JL, Aratani Y, Knitzer J, Douglas-Hall A, Masi R, Banghart P, Dababnah S. National Center for Children in Poverty. Mailman School of Public Health. Columbia University. Unclaimed Children Revisited: The Status of Children's Mental Health Policy in the United States. http://www.nccp.org/publications/pub_853.html. Published November 2008. Accessed April 27, 2012.
14. Stagman S, Cooper JL. Children's Mental Health: What Every Policymaker Should Know. National Center for Children in Poverty website. http://www.nccp.org/publications/pub_929.html. Published April 2010. Accessed June 19, 2012.

15. Healthy People 2020. Maternal, Infant, and Child Health. US Department of Health and Human Services website. <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=26>. Published May 01, 2012. Accessed April 30, 2012.
16. Moos M. Connecting the dots: Health status before pregnancy and pregnancy outcomes. Presented to: Task Force on the Mental Health, Social, and Emotional Needs of Young Children and their Families Meeting 4-29-2011; April 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Moos_4-29-11.pdf. Accessed May 10, 2012.
17. Meltzer-Brody S. Understanding postpartum depression. Presented to: North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families; May 20, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Meltzer-Brody_5-20-11.pdf. Accessed May 14, 2012.
18. Strange M. Perinatal substance use: Characteristics of the population, effects on the child. Presented to: North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and their Families; May 20, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Strange_5-20-11.pdf. Accessed May 14, 2012.
19. Sulik KK. The impact of maternal alcohol use on pre- and postnatal development. Presented to: North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families; May 20, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Sulik_5-20-11.pdf. Accessed May 14, 2012.
20. National Scientific Council on the Developing Child. Early Experiences Can Alter Gene Expression and Affect Long-Term Development. Working Paper No.10. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
21. National Scientific Council on the Developing Child. Excessive Stress Disrupts the Architecture of the Developing Brain. Working Paper No. 3. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
22. National Center for Chronic Disease Prevention and Health Promotion. Adverse Childhood Experiences (ACE) Study. Division of Population Health, US Centers for Disease Control and Prevention website. <http://www.cdc.gov/ace/prevalence.htm>. Published September 20, 2010. Accessed May 21, 2012.
23. Thompson RA. Development in the first years of life. *Caring for Infants and Toddlers Volume 11 Number 1 Spring/Summer*. 2001;11(1):21-33.
24. Washington State Institute for Public Policy. Return on Investment: Evidence-Based Options to Improve Statewide Outcomes: April 2012 Update. Olympia, WA. <http://www.wsipp.wa.gov/rptfiles/12-04-1201.pdf>. Published April 2012. Accessed May 10, 2012.

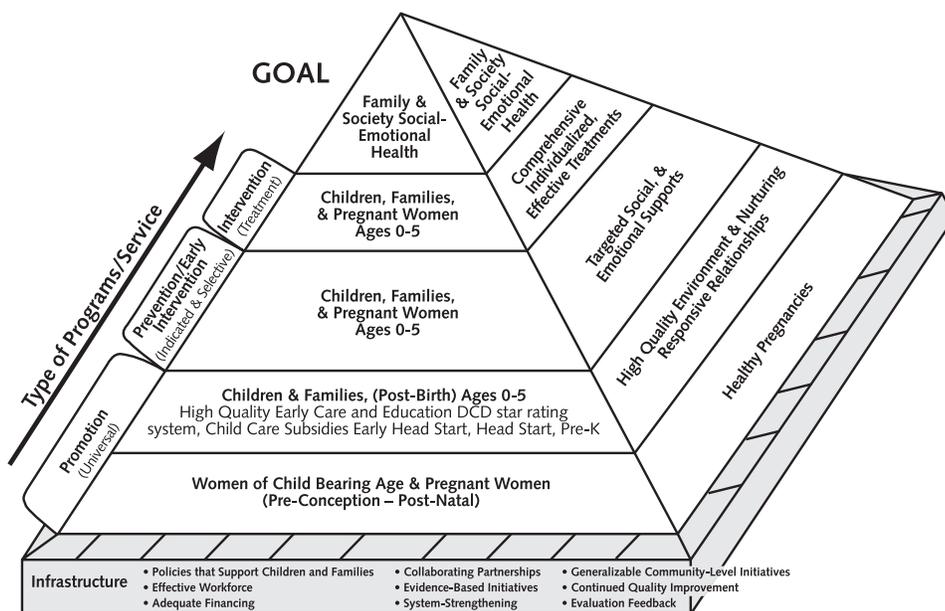
The vision of the Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families is that North Carolina will work to promote young children’s social-emotional developmental and mental health by positively shaping and strengthening children’s environments and providing a full continuum of services and supports to help all children thrive and become productive members of society. Although elements of this vision are currently in place, challenges remain. In North Carolina, responsibility for promotion, prevention, and intervention services for the mental health of young children are fragmented across a number of different agencies and divisions. This patchwork system for addressing young children’s social-emotional development and mental health means that communication is compromised and no single system has leadership responsibility for the social and emotional well-being of North Carolina’s children.



The Task Force envisions a coordinated, comprehensive system for fostering the social-emotional development and mental health of young children and their families that puts children and families first. Currently, North Carolina’s network of community services and supports for children and youth with

The Task Force envisions a coordinated, comprehensive system for fostering the social-emotional development and mental health of young children and their families.

Figure 2.1
Pyramid for Strengthening Early Childhood Mental Health and Social Emotional Competence in Young Children



Note. This pyramid model conceptualizes the critical building blocks for achieving healthy mothers and healthy children. The front face of the pyramid explains the individuals and families who receive programs and services, which are divided up by the following categories: promotion, prevention, and intervention. The pyramid’s side face lists the goals associated with the program/service recipients(s). these are further divided according to the socioecological model of health behavior. The foundation of the pyramid represents the necessary system-building blocks.

In North Carolina, responsibility for promotion, prevention, and intervention services for the mental health of young children are fragmented across a number of different agencies and divisions.

serious mental health needs is guided by the System of Care (SOC) framework. The framework's principles are inter-agency collaboration, individualized, strength-based, practices, cultural competence, community-based services, full participation of families at all levels of the system, shared responsibility for successful results.¹ The SOC framework embodies many of the principles that the Task Force envisions guiding a multi-system approach to providing coordinated, comprehensive services and supports to foster young children's social-emotional development and mental health. The Task Force envisions a child-friendly system that actively identifies children with social-emotional development and mental health needs, and works to ensure needs are met within the context of family, culture and community. A family-friendly system works to strengthen families, as the child's primary caregivers and educators, and helps children and families to develop stable, nurturing relationships. A child- and family-friendly system builds upon strengths, and considers families as full participants in designing, implementing and evaluating programs and services for their young children. This system respects the diversity of the population being served by providing culturally, linguistically, and developmentally sensitive services. A child- and family-friendly system provides individualized responses to accommodate different family circumstances and the unique social-emotional and mental health needs of young children and their families. This child- and family-centered system should be grounded in current scientific knowledge of childhood development and should be evidence-based, whenever possible.

Achieving this vision not only involves improving North Carolina's promotion, prevention, and intervention strategies and systems (as outlined in other chapters) but also ensuring the system for strengthening early childhood social-emotional competence and mental health has a strong infrastructure to support it. Changes at individual levels of the pyramid will not be effective if the infrastructure needed to support those changes is not in place. (See Figure 2.1 and Chapter 3 for more information on the pyramid model.)

Leadership

Currently, multiple North Carolina state and local agencies as well as other organizations work independently to meet the mental health, social, and emotional needs of young children and their families. A number of state agencies within the North Carolina Department of Health and Human Services (DHHS) provide programs and services to address mental health, social, and emotional needs of young children. These agencies include the North Carolina Division of Public Health (DPH), North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), North Carolina Division of Social Services (DSS), North Carolina Division of Child Development and Early Education (DCDEE), and North Carolina Division of Medical Assistance (DMA). The North Carolina Department of Public Instruction (DPI) also serves some children ages 3 and older with social-emotional and mental health needs. Additionally Smart Start, in partnership

with the state North Carolina Partnership for Children (NCPC), provides programs to assist young children and their families address mental health, social, and emotional needs. Below are descriptions of the major functions of each of these agencies as they relate to young children ages 0-5 with social-emotional and mental health needs and their families.

Division of Child Development and Early Education

The North Carolina Division of Child Development and Early Education (DCDEE) increases access to early care and education for families, implements quality standards, and collaborates to promote enhanced service delivery of early care and education across the state. DCDEE provides licensing and oversight of early care and education providers, administers early care and education subsidies, oversees the NC PreK program (previously More at Four), and funds the North Carolina Child Care Resource and Referral Council. DCDEE also supports efforts to improve teacher quality and education.

Division of Public Health

The mission of the Division of Public Health (DPH), within the North Carolina Department of Health and Human Services, is to promote and foster the highest possible level of health for the citizens of North Carolina. Within this scope of work, DPH provides services and supports programs that promote the social-emotional development and mental health of young children and their families. DPH, with state and federal funding, supports programs for pregnant women, families, and children, as well as efforts to build community-wide systems of care to effectively meet the needs of families and children.

Department of Public Instruction

The North Carolina Department of Public Instruction (DPI) is responsible for implementing North Carolina's public school laws and the State Board of Education's policies and procedures governing pre-kindergarten through 12th grade public education. DPI oversees North Carolina's federally-funded Head Start and Early Head Start programs as well as North Carolina's Preschool Program.

Federal Individuals with Disabilities Education Act Implemented by DPH and DPI

Young children ages 0-5 with significant social-emotional and mental health needs may qualify for treatment services or special education and related services through the federal Individuals with Disabilities Education Act (IDEA). Children from 0-36 months with certain levels of delay in one or more areas of development, including social-emotional, or those with certain established conditions, including attachment disorder and fetal alcohol syndrome, may be eligible for services through North Carolina's early intervention program, known as the North Carolina Infant and Toddler Program (ITP).² The criteria for qualifying for the ITP are determined by the state, within the federal IDEA Part C guidelines. To qualify for ITP in North Carolina, children with a social-emotional, cognitive, physical, communication, or adaptive developmental

Multiple North Carolina state and local agencies as well as other organizations work independently to meet the mental health, social, and emotional needs of young children and their families.

delay must meet a specific level of delay^a or have an established condition that is shown to have a high probability of a corresponding developmental delay.³ Established conditions related to social-emotional development include fetal alcohol syndrome (FAS) and attachment disorder.³

The Division of Public Health oversees the ITP program at the state level while 17 Children's Developmental Services Agencies (CDSAs) across the state administer ITP for their regions. Children who are eligible and enroll in the program receive service coordination or case management services. Families who choose to enroll their eligible child work with CDSA staff to develop an Individualized Family Service Plan (IFSP), which outlines the needs of the child and the family. CDSA staff then work with the family to coordinate services and supports to meet the needs outlined in the IFSP. Services and supports may include community-based rehabilitative services, social work services, language, occupational or physical therapy, psychological services, or other services. Services for the child are provided through a community network of appropriately qualified providers or, if a provider is not available, the CDSA provides the service. Service coordinators provide monitoring and follow-up to ensure that services are received and are adequate for the child's needs. Evaluations and service coordination are available at no cost to families. Therapeutic services are billed to Medicaid, private insurance, or other third-party resources as applicable. For any family (insured or uninsured), the fee for services is determined according to a sliding fee schedule developed by the state under IDEA requirements.

Children ages 3-5 who exhibit atypical social-emotional developmental characteristics that interfere with their ability to learn may qualify for special education and other related services (such as speech therapy, occupational therapy, physical therapy, transportation, etc.) through the North Carolina Preschool Program, administered by the 115 local education agencies across the state. The Department of Public Instruction oversees the Preschool Program at the state level. Children who qualify for services under IDEA receive services in accordance with federal regulations, regardless of income.

Division of Social Services

The Division of Social Services (DSS) provides training, technical assistance and consultation to the 100 local Department of Social Services agencies that provide programs for children and families including Child Welfare, Family Support, Work First, Child Support, and Food and Nutrition Services. DSS oversees the child protective services program which aims to ensure safe, permanent, nurturing families for children by protecting them from abuse and neglect, while attempting to preserve the family unit. Child protective services also helps protect children without a guardian or whose guardian is unable to provide care.

^a The delay must be documented at a minimum of two standard deviations from the norm on a standardized test in one area of development or one and a half standard deviations from the norm in two or more areas.³

Medicaid

The North Carolina Division of Medical Assistance (DMA) administers North Carolina's public health insurance programs, Medicaid and NC Health Choice for Children. Children ages 0-5 whose family incomes are less than 200% of the federal poverty guideline (FPG) are eligible for Medicaid. Working women with children whose income does not exceed 50% FPG (\$11,500 for a family of four in 2012) and non-working women with children whose income does not exceed 37% FPG (\$8,500 for a family of four in 2012) may be eligible for Medicaid. Pregnant women with family incomes up to 185% FPG may be eligible for Medicaid for Pregnant Women. Medicaid for Pregnant Women covers women during their pregnancy until 60 days postpartum.

Individuals with Medicaid receive care through Community Care of North Carolina (CCNC) a non-profit, practitioner-led, patient-centered medical home model that links more than one million Medicaid recipients (80% of all North Carolina Medicaid recipients), and others in the state, to primary care practices. There are 14 autonomous non-profit regional CCNC network entities across North Carolina covering all 100 counties. North Carolina Community Care Network, Inc. (NCCCN) serves as the umbrella coordinating organization for the 14 networks. The CCNC model was developed in accordance with the understanding that many factors affect health, and that networks need to include more than health care providers in order to impact the health of the Medicaid population. Thus, each network incorporates primary care providers, federally qualified health centers and other safety net organizations, hospitals, social services agencies, local health departments, and other community resources that work together to provide high quality care and care coordination for the enrolled population. Primary care providers under contract with CCNC receive a per member per month (pmpm) payment from the state to help manage the care provided to their enrolled patients. In addition, the network receives an additional PMPM payment to help pay for care management, disease management, and quality improvement activities; an informatics system that undergirds the quality improvement initiatives; and other resources needed to improve the care provided to the enrollees.

Children ages 0-5 who have certain risk factors may be eligible for care coordination through Care Coordination for Children (CC4C), which is administered jointly by CCNC, DPH, and DMA. The goal of CC4C is to improve young children's health outcomes while reducing their medical costs. Children with special health care needs, children exposed to toxic stress, children in the foster care system, and children transitioning out of the neonatal intensive care unit may receive CC4C services. Families referred to CC4C based on the eligibility criteria receive a comprehensive health assessment, including measures of the parents' life skills that help a family achieve a healthy level of functioning. Then a care manager works with the family to develop a plan of care to meet the desired outcomes. CC4C care managers help families connect with needed services and supports (e.g. health insurance, child care, medical

Programs and services typically exist in silos, and separate children's physical, cognitive, and social-emotional development, rather than treating the components of children's development as integrated and interdependent.

Because most agencies focus on prevention and treatment, there is little work being done to promote positive social-emotional development for all young children.

care, and transportation). CC4C began in 2011 and is still being developed and implemented in CCNC networks across the state.

North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services

The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) provides the necessary prevention, intervention, and treatment services and supports to people ages three to adult with, or at risk of, mental illness, developmental disabilities and substance abuse problems and their families. DMH/DD/SAS funds programs for pregnant and parenting women with a substance related disorder. DMH/DD/SAS administers the federal Community Alternatives Program for Children (CAP-C) and Community Alternatives Program for Individuals with Intellectual/Developmental Disabilities (CAP-I/DD) programs. CAP/C provides cost-effective home care for children who are medically fragile and would otherwise require long-term hospital care while CAP-I/DD helps children, who would otherwise need to be institutionalized, stay in the community or at home.

Local Management Entities and Managed Care Organization

North Carolina is in the midst of transitioning its publicly funded mental health, developmental disabilities, and substance abuse services system from a loosely organized, fee-for-service system to a more tightly coordinated managed care system. While the transition creates challenges, it also offers new opportunities. Local Management Entities and Managed Care Organizations (LME/MCOs) will be responsible for managing Medicaid and state and federal block grant mental health, substance abuse, and developmental disability dollars. LME/MCOs will receive a pmpm payment to manage all of the mental health, substance abuse, and developmental disabilities services and supports for the Medicaid recipients in their service area. LME/MCOs also receive an allocation of state and federal block grant funds to help provide services to people who are not eligible for Medicaid, and receive varying levels of local funding as well. This provides LME/MCOs with the flexibility to invest more of their money on prevention, early intervention, and effective outpatient treatment—especially if these services can help reduce more costly interventions or hospitalizations. DMA is holding the new LME/MCO entities to higher standards and has built in certain expectations into the MCO contracts. These enhanced performance requirements include community engagement (i.e. engaging community partners), building an adequate network of qualified providers to meet the MH/DD/SA needs of people in their service area, and quality management responsibilities to ensure that high quality services are being delivered.⁴

Individuals with mental health needs ages three to adult who have Medicaid coverage or who are uninsured are referred to the Local Management Entity/Managed Care Organization (LME/MCOs) serving their area.^b As discussed,

^b By 2013, the current system of Local Management Entities will be replaced by a system of Local Management Entity/Managed Care Organizations.

LME/MCOs manage Medicaid funds that are reserved for meeting the mental health needs of the Medicaid population and receive limited state funding to provide mental health services to uninsured target populations. The state determines which consumers can be served, as well as the funding level and eligibility criteria that are required for various funding categories. Individuals receiving state-funded services must pay out-of-pocket expenses according to a state-designed sliding scale based on family income.

Smart Start and the North Carolina Partnership for Children

Smart Start and the North Carolina Partnership for Children, Inc (Smart Start) is a public/private partnership that strives to improve early childhood outcomes by bringing together local stakeholders to improve quality of education, health services, and family supports in their communities. Smart Start was created by the North Carolina General Assembly in 1993 and receives state, private, and local funding to advance a high quality, comprehensive, and accountable system of care and education for every child beginning with a healthy birth. At the state level, Smart Start works to encourage collaboration among the systems that serve children and families, promote high quality early care and education, strengthen families, and ensure that children have access to high quality health care. Thirty percent of Smart Start funding is legislated to go towards subsidizing high quality child care for eligible families.

Smart Start works in all 100 North Carolina counties through the North Carolina Partnership for Children (NCPC), which supports 77 private, nonprofit, local partnerships. NCPC Local Partnerships (LPs) receive funding from Smart Start and raise money in their local communities to support children and families. The LPs assess community needs, incentivize quality, provide funding for early care and education subsidies, support family strengthening and early literacy efforts, and promote access to high quality health care. LPs fund many programs and services that impact the mental health and social-emotional development of young children and their families.

These state-level agencies and organizations have implemented a wide variety of programs to help meet specific mental health and social-emotional needs of young children and their families. (See Chapters 3-5 for examples.) While these programs provide much needed services and supports, they typically focus on very narrow and specific needs of young children and their families (i.e. small service array and restricted eligibility). Programs and services typically exist in silos, and separate children's physical, cognitive, and social-emotional development, or carve out even smaller distinctions rather than treating the components of children's development as integrated and interdependent. For example, the North Carolina Preschool Exceptional Children program provides special education and related services, such as occupational, physical and speech therapy, but does not offer family level services such as counseling or

There is a need for a common understanding across state agencies around the importance of young children's social-emotional development and a commitment to foster such development.

There is also a need to identify which state agency has the primary responsibility to address atypical social-emotional development when present and promote positive social-emotional development for all children.

care coordination for mental illnesses.^c Because of this narrow focus of most programs addressing children’s social-emotional development, the current system contains large gaps. For example, no state agency is responsible for ensuring the social-emotional and mental health needs of children ages 0-36 months are met if they are not eligible for the ITP through DPH and there is no significant infrastructure to provide or support parent education. Furthermore, because most agencies focus on prevention and treatment, there is little work being done to promote positive social-emotional development for all young children.

Leadership at the State Level

Positive social-emotional development is facilitated by efforts to directly support children’s social-emotional development and efforts to support and strengthen families’ abilities to foster positive social-emotional development. Multiple agencies are involved in meeting the social-emotional and mental health needs of young children and their families; however the services and supports they provide correspond to varying goals and target populations. Further, the eligibility criteria for programs vary, as do the pathways for entry into services and supports. This presents a challenge not only for families in need of services, but also for public health and other social service workers, early care and education providers, pediatricians, other health providers, and others who may try to help children and their families access these services and supports. Much more could be done to ensure that the agencies that serve the mental health needs of young children and their families coordinate their efforts and resources. At a basic level, there is a need for a common understanding across state agencies around the importance of young children’s social-emotional development and a commitment to foster such development, regardless of the agency’s primary mission. There is also a need to identify which state agency has the primary responsibility to address atypical social-emotional development when present and promote positive social-emotional development for all children. These are two steps that should be taken as part of a process towards building comprehensive, coordinated, and integrated systems at the state and local levels for addressing mental health, social, and emotional needs of young children, and their families. At the state level, the Early Childhood Advisory Council has the funding, goals, and leadership to address the structural problems that are preventing North Carolina from employing a well-integrated and coordinated approach to young children’s social-emotional development.

As part of the federal reauthorization of Head Start, Section 642B of the Improving Head Start for School Readiness Act of 2007 called on governors to create State Advisory Councils on Early Childhood Education and Care for children from birth to school entry.⁵ Further federal encouragement for creating early childhood councils came through the American Recovery

^c James, V., Exceptional Children Section 619 Coordinator, Office of Early Learning. Oral communication. June 13, 2012.

and Reinvestment Act (ARRA) of 2009 which provided \$100 million in non-competitive

three-year grants to state early childhood councils (North Carolina received \$3.2 million). Governor Perdue created the North Carolina Early Childhood Advisory Council (ECAC) by executive order in 2010.⁶ The goals of the ECAC include developing an integrated comprehensive strategic plan; strengthening the quality of programs and expand opportunities for participation; strengthening public awareness and commitment; strengthening coordination and collaboration; and supporting the implementation of an integrated data system. The ECAC includes the leadership of DHHS, DPH, DCDEE, Office of Early Learning within DPI, DSS, NCPC, the North Carolina Community College System, the University of North Carolina System and other state and local organizations serving young children and their families. The ECAC could benefit from the inclusion of the leadership of DMH/DD/SAS who would bring expertise and focus to young children’s social-emotional development and mental health.

The ECAC led the application effort for North Carolina’s successful Race to the Top—Early Learning Challenge Grant that was awarded in December 2011. The ECAC is the Lead Agency for the grant and will manage the approximately \$70 million dollar grant to assure that all young children come to kindergarten ready for success in school and life. Many initiatives that will be part of the grant have an impact on social-emotional development including: increasing the quality of early care and education programs, expanding diagnostic screening and referral programs, strengthening the early care and education workforce, and piloting a “transformation zone” of high-intensity supports and building community infrastructure in high-need counties. As part of this effort, the ECAC will be engaged in efforts that will positively impact young children with social-emotional and mental health needs.

With representation from all of the North Carolina agencies and major organizations that play a role in providing services and supports to meet the social-emotional and mental health needs of young children, the ECAC is uniquely positioned to operationalize the vision of the Task Force to build the system and to address the problems that prevent North Carolina from having a coordinated, comprehensive system to support the social-emotional health of young children and their families. Therefore, the Task Force recommends:

Recommendation 2.1: Operationalize a Coordinated System for Young Children’s Mental Health

The North Carolina Early Childhood Advisory Council (ECAC) should collaborate with state partners to develop and operationalize a cross-systems plan for all North Carolina agencies that fund and serve the physical, social, emotional, and mental health needs of infants, young children and their

The Early Childhood Advisory Council has the funding, goals, and leadership to address the structural problems.

families. As part of this plan, the ECAC should consider ways to promote the social-emotional development of children including:

- a) Strategies to fund and facilitate the coordination of programs/services across systems.**
- b) How to develop shared data systems to facilitate better planning and treatment.**
- c) Ways to increase access to and reduce barriers to health promotion, prevention and treatment faced by families.**
- d) Ways to incentivize quality early care and education and the use of evidence-based practices.**
- e) How to support the development and implementation of cross-system plans in local communities that align with and inform the state goals and plan.**

Evidence-Based Initiatives

North Carolina's approach to meeting the social-emotional and mental health needs of young children and their families should be grounded in developmental knowledge and should be evidence-based whenever possible. Over the past 20 years, our understanding of young children's development has increased dramatically. Research into young children's brain development has shown that experiences in early childhood literally shape the brain's development.⁷ Furthermore, research in this area has shown that children's social-emotional development in the earliest years provides the foundation for all other development from the early years into adulthood.⁸ Research over this time has also focused on which programs, practices, and services actually lead to achieving intended outcomes. Evidence-based strategies are subject to rigorous evaluation and have been shown to produce positive outcomes. Although definitions vary, typically an intervention is considered evidence-based when it has been subject to multiple evaluations across different populations (including large enough sample sizes to measure meaningful effects), and when the evaluations consistently yield positive results (representing achievement of target outcomes). Interventions that are theory-based are developed based on existing research and theory, but have not been rigorously evaluated to see if they consistently improve outcomes. As discussed, there are many organizations and governmental agencies in North Carolina working to improve the social-emotional development and mental health of young children and their families. However, not all efforts underway are evidence- or theory-based.

Selecting an evidence-based or theory-based program or service is just the first step to successful implementation. State and local agencies and organizations that want to use evidence-based strategies to achieve positive outcomes must

To make the best use of limited resources, efforts should focus on implementing evidence-based strategies exercising fidelity to proven models, and monitoring and accountability.

carefully assess their needs, examine existing strategies and their outcomes, review the requirements for successful implementation, and then assess the overall fit of the strategy to both community needs and organizational

structure and ability. After selecting an evidence-based strategy, organizations typically need to make structural and instrumental changes in order to be prepared to initiate new ways of doing their work.⁹ The practitioners delivering services need to be trained and a system for further coaching and support must be developed. Once an organization begins implementing a new evidence-based strategy, they must find ways to rapidly address any barriers and deploy solutions. Implementation requires processes, procedures, and systems to be in place to support the new work and practitioners have the skills to deliver the services. For example, Prevent Child Abuse NC currently provides implementation supports to community-based agencies for the Incredible Years programs across the state. These supports include: readiness assessment, training, coaching, evaluation and technical assistance.

Successful implementation of an evidence-based program from selection to full integration and beginning to see outcomes should be expected to take 2-4 years.⁹ Research on successfully implementing evidence-based strategies has shown that without strong leadership and policies and systems in place to ensure organizational and practitioner competency, organizations will struggle to achieve the promised results. Organizations that have the infrastructure to support practice, organization, and systems change are more likely to implement with fidelity and achieve positive outcomes.⁹

To make the best use of limited resources, efforts should focus on implementing evidence-based strategies (or theory-based strategies when evidence-based strategies are unavailable or inappropriate), exercising fidelity to proven models, and monitoring and accountability. Through increasing the use of evidence-based strategies, we can maximize our return on investment in this area. Therefore, the Task Force recommends:

Recommendation 2.2: Strengthen and Expand Evidence-Based Programs

The North Carolina Early Childhood Advisory Council (ECAC), in collaboration with state and local agencies, non-profits, and philanthropic organizations, should expand evidence-based strategies to improve young children’s mental health for more families in North Carolina. As part of this effort:

- a) The ECAC, in collaboration with North Carolina philanthropic organizations, Prevent Child Abuse North Carolina, and state and local agencies, should focus new funding on evidence-based strategies or, if unavailable, theory-based strategies that support and strengthen the social and emotional well-being of infants, young children and their families.**

- b) The ECAC should work with other partners, including but not limited to representatives from the North Carolina Division of Public Health, the North Carolina Division of Medical Assistance, North Carolina Child Treatment Program, the North Carolina Infant/Young Child Mental Health Association, Prevent Child Abuse North Carolina. The North Carolina Partnership for Children, Inc., and North Carolina Practice Improvement Collaborative to review the needs of the population ages 0-5 for each county in North Carolina, the existing evidence-based programs that are being implemented in North Carolina, evidence about costs and outcomes (e.g. impact on early childhood social and emotional well-being, readiness for school, and other measures of early child well-being), numbers of children and families impacted, sustainability over time, and resources needed to implement these programs with fidelity. Based on this analysis, the group should identify priority programs for expansion to other parts of the state, as well as existing or new resources needed to support this expansion. The ECAC should present this plan to the North Carolina General Assembly no later than May 15, 2015.**
- c) All funders of strategies to improve the mental health of infants and young children should provide funding to evaluate program implementation in North Carolina to determine the impact on the social-emotional health and well-being of infants and young children and their families.**

Data

Data sets play a critical role in both strengthening the current system and expanding the use of evidence-based practices. Although data about young children's physical health are available, there are very few data about children's social-emotional development and mental health available at the state or local level. At the most basic level, there are no state-level data on the prevalence of young children with social-emotional and mental health needs or about the specific nature of these needs. These data would help the various agencies involved in the planning and provision of services. Such data would also be valuable in measuring the effectiveness of investments at the population level. Data on individuals' needs, treatment, and outcomes are also needed to facilitate the move to performance-based incentives and value-based payments, as recommended in Recommendation 5.2.

Additionally, as discussed, there are significant gaps in the data that are collected. The move to electronic health records (EHRs) could improve services for young children and their families, and has the potential to increase the data for program planning and oversight. The American Recovery and Reinvestment Act of 2009 provided funding to encourage primary care physicians and hospitals to adopt and use EHR systems. In addition, funding was provided to states to help create state health information exchanges (HIEs), so that practitioners and other health care providers can share health information electronically. Most primary care practices in the state, and many other types of health professionals, are in the

There is very little data about children's social-emotional development and mental health available at the state or local level.

process of adopting EHR systems. EHRs offer the potential for improved clinical care by making more clinical information readily available and by providing clinical prompts to practitioners treating certain populations. (For example, a pediatric electronic health record could prompt a pediatrician to conduct a social-emotional developmental screen at appropriate visits or identify the need for a missed immunization.) The North Carolina Health Information Exchange (HIE) is not currently set up to aggregate all clinical data on a statewide level. It serves primarily as an information highway to allow practitioners or health care providers treating specific patients to share patient-level data between practices or organizations. In the future, however, the HIE—or other state designated data systems—may be created in a way that could aggregate patient level data to gain a better understanding of social and emotional well-being of children at the population level, as well as the effectiveness of different treatment programs.

While North Carolina has many different data systems that collect specific health data, these data systems are not well-integrated. They often operate in silos, making it difficult to capture a complete picture of the health and well-being of young children and their families. To connect existing data systems, legal and physical infrastructure as well as a linking methodology is required. Currently there are efforts underway to improve cross-system data compatibility. As part of North Carolina's Race to the Top—Early Learning Challenge Grant, the ECAC will be working to create an integrated early learning data system that will link with the existing K-12 data system, develop and implement a Kindergarten Entry Assessment, and conduct annual early childhood workforce studies.¹⁰ Over time, this system has the potential to provide data about the long-term educational impact of various investments in early care and education, including efforts to improve quality and investments in workforce training.

Data is needed to monitor young children's health and well-being, state investments in this population, and children's progress towards positive outcomes. While some data currently exists, lack of compatibility among the various data systems in operation makes it difficult to identify the social-emotional and mental health needs of young children, understand the comprehensive needs of this population, and measure the impact of investments made. Therefore, the Task Force recommends:

Recommendation 2.3: Develop a Data System to Monitor and Evaluate Changes in Young Children's Health

- a) The Early Childhood Advisory Council (ECAC), in collaboration with the North Carolina Department of Health and Human Services, North Carolina Department of Public Instruction, Community Care of North Carolina, Center for Child and Family Health and The North Carolina Partnership for Children, Inc., should ensure that data are available and utilized for ongoing assessment of the status of young children's health,**

including the social-emotional health of young children and their families by:

- 1) Defining the data required for measuring social-emotional health and treatment.**
 - 2) Identifying sources of data elements that are currently collected.**
 - 3) Developing a plan to collect data for elements not in existing data systems, and link those data to existing data, with appropriate safeguards to ensure data security and protection of privacy.**
 - 4) If additional funding is needed, the ECAC should report to the Joint Legislative Oversight Committee on Health and Human Services of the North Carolina General Assembly about resources needed to collect this data no later than June 30, 2014.**
 - 5) Establishing an ongoing monitoring system to measure population-based changes in health, with the ability to look at physical, social-emotional, and mental health independently.**
- b) Data should be used to identify outstanding needs and treatment gaps. As this information becomes available, it should be used to modify priorities for funding for new evidence-based practices to address the largest unmet needs. Data should also be used to monitor the effectiveness of interventions.**

Workforce

Early Care and Education Workforce

North Carolina's early care and education workforce includes approximately 50,000 individuals, 35,000 of whom work directly with the more than 260,000 children enrolled in more than 8,000 regulated child care facilities around the state.¹¹ Women make up the vast majority of the workforce. This workforce typically earns low wages and few benefits. The early care and education workforce represents a wide range of education levels, and most staff are parents themselves. There are many educational pathways for the early care and education workforce. The professional competencies, standards, and education requirements vary by the type of early care and education setting. Regulated facilities and programs, including early care and education programs, Early Head Start and Head Start programs, and NC Pre-K, have specific staff qualifications and education requirements. These requirements are developed and monitored by DCDEE, the Office of Head Start, and the Department of Public Instruction, respectively.

Within regulated child care facilities, the lead teacher for each classroom must have, at a minimum, a high school diploma or GED and a North Carolina Early

Childhood Credential. Assistant teachers must have, at a minimum, a high school diploma or GED. Program administrators must have at least a Level 1 North Carolina Early Childhood Administration Credential which can be obtained by taking two required classes and seven additional hours of coursework in early childhood education. Head Start program teachers must have an associate degree or higher in early childhood education or related field. As of September 2013, at least 50% of Head Start teachers will be required to have a bachelor degree or advanced degree. NC Pre-K teachers must have a bachelor degree and have or be working towards Birth-to-Kindergarten (BK) Licensure. All NC Pre-K assistant teachers must have a high school diploma or GED and have or be working towards an associate degree. All administrators and staff working in regulated early childhood settings must also meet professional development requirements for continuing education.

The Early Childhood Credential can be obtained by taking one course, “Intro to Early Childhood Education,” that is offered by all 58 campuses of the North Carolina Community College System (NCCCS). The NCCCS also has an elective (EDU 154) focused on social-emotional behavior and development, but it is not a requirement and may not be offered by all the NCCCS schools with two-year early childhood degrees. North Carolina’s colleges and universities with four-year degree programs in early education are geared toward graduates obtaining licensure. The BK License credentials teachers to work with children ages 0-5 and has pre-service and in-service requirements including coursework on child development, assessment, intervention, and children considered exceptional.

North Carolina has a number of programs and incentives to support and promote higher levels of teacher education. While the basic education requirements for regulated early care and education programs are low, higher levels of staff and administrator education are encouraged and rewarded through the Quality Rating and Improvement System.^d For example, to obtain the highest staff education score, 75% of lead teachers must have an associate degree in early childhood or a related field and 50% of assistant teachers must have the credential and six hours of early childhood coursework.¹² The Child Care Services Association (CCSA) provides educational scholarships and salary supplements to child care professionals through the T.E.A.C.H. Early Childhood® Project and Child Care WAGE\$® Project to increase education and reward higher levels of education respectively.¹³

The CCSA is one of three organizations that make up the North Carolina Child Care Resources and Referral (CCR&R) Council. The CCR&R Council, with funding from DCDEE and others, funds ongoing professional development and training in 14 regions across the state. Professional development and training classes are offered on a wide variety of topics including managing challenging

^d The five star rating system weighs a number of factors that impact the mental health and social-emotional development of young children including staff/child ratios, staff education, program quality, curriculum, and staff/child interaction.

**More than
260,000 children
are enrolled in
more than 8,000
regulated childcare
facilities around
the state.**

**We need
to increase
understanding
of the role of
social-emotional
development
among early care
and education
professionals.**

behaviors, playground safety, early intervention services, and choosing a curriculum. In addition to providing professional development opportunities, the CCR&R Council also provides resources to help early care and education providers promote young children’s social-emotional development. The Infant Toddler Enhancement Project provides regional infant-toddler specialists who work with child care providers, families, and community agencies to improve the quality of infant-toddler care by providing training, technical assistance and an increase in access to resources. The Promoting Healthy Social Behaviors in Child Care Settings program supports statewide social-emotional development specialists who provide resources, technical assistance, and training to assist teachers in promoting positive social-emotional development and in dealing with challenging behaviors.

DCDEE and Smart Start also provide resources to help early care and education providers promote young children’s social-emotional development through funding for training and technical assistance on how to implement the pyramid model developed by the Center on the Social and Emotional Foundations for Early Learning (CSEFEL). The CSEFEL training and technical assistance provide evidence-based practices for promoting young children’s social emotional competence. It also provides training on how to prevent and address challenging behavior. Additionally, some local NCPC partnerships fund child care health consultants who assist early care and education programs in creating environments that support healthy development.

The ECAC will work to strengthen the early childhood workforce as part of North Carolina’s Race to the Top—Early Learning Grant. Efforts will be made to increase early childhood teacher education requirements, improve professional development, increase access to high quality NCCCS coursework, and strengthen coordination of professional development opportunities. As part of this work, the professional development delivery capacity of CCR&R Council will be expanded with a particular focus on providing trainings on the revised Early Learning and Development (ELD) standards and the Classroom Assessment Scoring System (CLASS) instrument to improve instructional practice. The ELD standards outline a common set of age-appropriate learning and developmental skills and abilities that are important for the successful development of young children ages 0-5, and provide ideas for fostering those skills and abilities. One of the domains covered in the ELD standards is social-emotional development, which will be an update to prior standards.^e The CLASS instrument is a tool to evaluate the quality of teacher-child interactions. Used correctly, the CLASS instrument can help strengthen the relationships between young children and their teachers. In addition, as part of the Early Learning Challenge Grant, the ECAC will work with partners to develop the statewide infrastructure support for local child care health consultants.

^e The ELD standards will replace the earlier “Foundations: Early Learning Standards for North Carolina Preschoolers and Strategies for Guiding Their Success.” The new ELD standards include children ages 0-2 and include both learning and developmental milestones where “Foundations” did not.

North Carolina has a strong foundation for educating its early childhood workforce through the higher education system, the CCR&R Council, and the networks of consultants who can work with providers in the field. While this system includes some information involving young children’s social-emotional development and mental health, there is a need for greater focus on this domain of young children’s development. Therefore, the Task Force recommends:

Recommendation 2.4: Increase Understanding of the Role of Social-Emotional Development Among Early Care and Education Professionals

The Early Childhood Advisory Council should ensure that funding for early educator development and quality improvement through the Race to the Top—Early Learning Challenge Grant is maintained. Additional efforts should be made to align early educator professional development standards at the pre-service, in-service, and continuing education levels with the Early Learning Development Standards. In particular, there should be an increased focus on the social-emotional domain of development. To make these changes:

- a) North Carolina Community College System (NCCCS) and North Carolina universities should embed Early Learning and Development Standards into their early childhood education programs.**
- b) NCCCS should expand the Early Childhood Associate Certificate and Degree core requirements to include EDU 154 Social/Emotional/Behavioral Development.**
- c) The Division of Child Development and Early Education should require all early care and education licensed facilities to have at least one administrator or staff trained on the Early Learning and Development Standards and Curricula by June 30, 2016.**
- d) At least 20% of the trainings provided by the Child Care Resource and Referral Council should have social-emotional development as the main focus. Training should be made available to families and staff in all early care and education settings.**

The Workforce Providing Social-Emotional Development and Mental Health Services and Supports to Young Children and Their Families

The workforce providing social-emotional development and mental health services and supports to young children and their families is quite diverse, made up of physical and mental health professionals and paraprofessionals. This workforce includes individuals outside the field of mental health who help identify children in need of evaluation or intervention and individuals

There is a need to define the core competencies needed by the workforce providing mental health services and supports to young children and their families

providing intervention and treatment services for young children with social-emotional and mental health needs. The workforce providing social-emotional development

and mental health services, and supports includes public health and other social service workers, counselors, nurses, psychologists, psychiatrists, pediatricians, and family practitioners as well as developmental specialists, parent educators, and family partners. While many workforce members have some level of professional training, very few clinical training programs offer specialization in early childhood.¹⁴ Instead, most of the workforce gains knowledge through on-the-job training and professional development. Given the diverse backgrounds of these professionals and the lack of standardized training and education, it is difficult to know how qualified this workforce is to work effectively with young children with social-emotional and mental health needs and their parents.¹⁴

Because the workforce comes from diverse backgrounds with varying education and training requirements, it would be difficult to try to standardize their education and training experiences. However, there is a need to ensure that the workforce is qualified and prepared to meet the social-emotional and mental health needs of young children and their families within the family friendly system that the Task Force envisions. Additionally, with the move towards measuring treatment outcomes (See Recommendation 5.2, Chapter 5.), comes a need to ensure the workforce possesses competencies that lead to better outcomes. Other states facing similar challenges in building mental health services capacity for young children have begun defining professional competencies and infusing them into training programs.

There is a need to define the core competencies (e.g. knowledge, attitudes, and skills) needed by the workforce providing mental health services and supports to young children and their families in order to provide effective and developmentally appropriate care. For example, individuals providing early intervention and treatment services to this population should demonstrate knowledge of family dynamics; understand strategies for facilitating change and growth in families with significant relationship problems; be able to identify capacities and strengths, developmental delays, and emotional disturbances in infants and young children; and understand the impact of chronic stress on development. Once core competencies are defined, efforts could be made to align training and education programs with these competencies. Subsequently, there would need to be a way to verify individual proficiency across these competencies areas—whether through accreditation, certification, licensure, or some other means.

The newly formed North Carolina Infant and Young Child Mental Health Association (NCIMHA) is dedicated to promoting and supporting the social-emotional development of all young children. Members include psychologists, pediatric nurse practitioners, licensed clinical social workers, licensed professional counselors, occupational therapists, and other professionals

serving the mental health needs of young children and their families. One of the goals of the NCIMHA is to serve as “an interdisciplinary organization to facilitate, support, and encourage cooperation, coordination and collaboration among

those concerned with promoting the optimal development of infants, toddlers, young children, and families.”¹⁵ As such and with funding support, the NCIMHA is uniquely poised to bring together the diverse group of professionals serving the mental health needs of young children and their families to examine ways to develop and strengthen the mental health workforce serving young children. Therefore, the Task Force recommends:

Recommendation 2.5: Develop the Workforce that Provides Social-Emotional and Mental Health Supports and Services

The North Carolina Infant and Young Child Mental Health Association should work with the Division of Medical Assistance, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, Division of Public Health, Division of Social Services, University of North Carolina System, Area Health Education Centers, North Carolina Psychiatric Association, North Carolina Psychological Association, North Carolina Pediatric Society, North Carolina Families United, North Carolina Social Services Association, and others to identify the training needs and address barriers to developing an effective workforce to meet the clinical needs of young children ages 0-5 and their families. As part of their work, this group should consider:

- a) The competencies that support the range of physical and behavioral health professionals and paraprofessionals who address the social-emotional and mental health needs of young children ages 0-5 and their families.**
- b) How to incorporate these competencies into pre-service and in-service education through credentialing or certification courses.**
- c) How these competencies can be demonstrated.**
- d) The need for clinical training sites and clinical training supervision for this workforce.**
- e) Whether a young child certification system is needed to document provider competence to effectively address the socio-emotional and mental health needs of young children and their families.**

References

1. NC Families United. NC System of Care Handbook for Children, Youth, & Families. Raleigh. <http://www.ncdhhs.gov/mhddsas/services/serviceschildfamily/familydriven/soc-familyhandbook1-06.pdf>. Published 2006. Accessed June 20, 2012.
2. North Carolina Infant-Toddler Program. NC Department of Health and Human Services. New Eligibility Definition for the NC Infant Toddler Program. <http://www.bearly.nc.gov/data/files/pdf/EligibilityDefn.pdf>. Accessed May 9, 2012.
3. Women's and Children's Health Section. Division of Public Health, Department of Health and Human Services. New Eligibility Definition for the NC Infant Toddler Program. <http://www.bearly.nc.gov/data/files/pdf/EligibilityDefn.pdf>. Published July 1, 2006. Accessed May 21, 2012.
4. North Carolina Department of Health and Human Services. Contract Between The North Carolina Department of Health and Human Services and Local Management Entities. <http://www.ncdhhs.gov/mhddsas/statspublications/Contracts/DHHS-LMESFY11Contract.pdf>. Published 2011. Accessed May 4, 2011.
5. National Governors' Association. Center for Best Practices. State Early Childhood Advisory Councils: An Overview of Implementation across the States. Washington, DC. <http://www.nga.org/files/live/sites/NGA/files/pdf/1112ADVISORYCOUNCILS.PDF>. Published 2011. Accessed June 5, 2012.
6. National Governors' Association. Center for Best Practices. State Early Childhood Advisory Council: State Profiles. North Carolina. Washington, DC. <http://www.nga.org/files/live/sites/NGA/files/pdf/11EARLYCHILDSTATEPROFILENORTHCAROLINA.PDF>. Published April 2011. Accessed June 5, 2012.
7. National Scientific Council on the Developing Child. The Foundations of Lifelong Health Are Built in Early Childhood. <http://www.developingchild.harvard.edu>. Published 2010. Accessed April 27, 2012.
8. National Scientific Council on the Developing Child. Children's Emotional Development Is Built into the Architecture of Their Brains. Working Paper No.2. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
9. Metz A, Bartley L. Zero to Three. Active Implementation Frameworks for Program Success: How to Use Implementation Science to Improve Outcomes for Children. Chapel Hill, NC. <http://www.zerotothree.org/about-us/areas-of-expertise/reflective-practice-program-development/metz-revised.pdf>. Published 2012. Accessed June 20, 2012.
10. NC Ready North Carolina's Race to the Top - Early Learning Challenge Grant Highlights. National Association of Child Care Resource & Referral Agencies. http://www.naccra.org/sites/default/files/default_site_pages/2012/nc_ready_final.pdf. Accessed 6/5/2012.
11. Torrence D. An overview of north carolina's early childhood workforce education options. Presented to: the North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and their Families; November 17, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/06/Torrence_11-17-11.pdf. Accessed June 18, 2012.
12. NC Division of Child Development and Early Education. North Carolina Department of Health and Human Services. Rated License for Child Care Centers. http://ncchildcare.dhhs.state.nc.us/pdf_forms/center_preschool_only_star_chart.pdf. Published January 2008. Accessed May 22, 2012.
13. Child Care Services Association. Why Should You Care About Child Care? <http://www.childcareservices.org/about.html>. Accessed May 22, 2012.
14. Shelton TL, Spitz-Roth A. Workforce overview and strategies for workforce development. Presented to: the North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families; December 15, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/06/S_SR_12-15-11.pdf. Accessed May 22, 2012.
15. North Carolina Infant/Young Child Mental Health Association. Coporate Bylaws of North Carolina Infant/Young Child Mental Health Association. http://www.ncimha.org/uploads/3/0/4/8/3048736/edited_ncimha_bylaws-4.docx. Accessed May 22, 2012.



The Task Force adopted a modified version of the Center on the Social and Emotional Foundation for Early Learning (CSEFEL) Pyramid Model¹ as a conceptual framework for strengthening early childhood mental health and social-emotional development to direct their examination of North Carolina’s current efforts, gaps in the system, and recommendations. The pyramid illustrates how different investments build on one another to provide a comprehensive system that supports the social-emotional health of young children and their families. (See Figure 3.1.) The promotion level of the pyramid includes the conditions necessary for promoting positive social-emotional development for all young children, including healthy pregnancies, nurturing responsive relationships, and high quality environments.

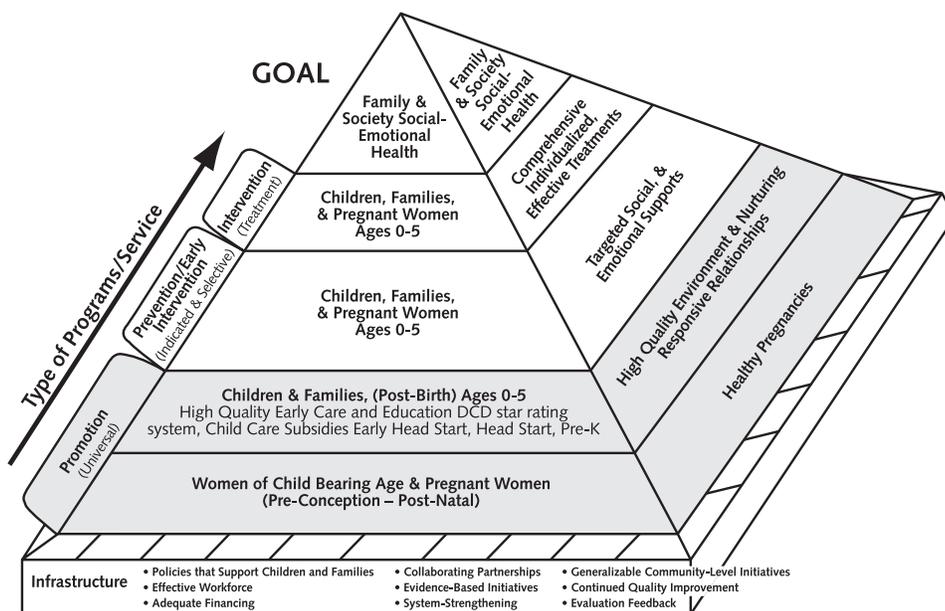
Healthy Pregnancies

Preconception Health

The health of future mothers is essential to improving the health of our state and future generations. The health of women before conception is inextricably linked to the health and well-being of their babies and family.² In fact, the most important negative pregnancy outcomes including early loss, fetal death,

The health of women before conception is inextricably linked to the health and well-being of their babies and family.

Figure 3.1
Pyramid for Strengthening Early Childhood Mental Health and Social Emotional Competence in Young Children



Note. This pyramid model conceptualizes the critical building blocks for achieving healthy mothers and healthy children. The front face of the pyramid explains the individuals and families who receive programs and services, which are divided up by the following categories: promotion, prevention, and intervention. The pyramid’s side face lists the goals associated with the program/service recipients(s). these are further divided according to the socioecological model of health behavior. The foundation of the pyramid represents the necessary system-building blocks.

Attending to and improving preconception health is critical to improving birth outcomes and young children's development.

congenital abnormalities, low birth weight, and maternal morbidity, are largely determined by a woman's health prior to and during the first weeks of pregnancy.³ High quality preconception health care provides the most effective means of preventing poor pregnancy outcomes.³ Attending to and improving preconception health (women's health prior to pregnancy) is critical to improving birth outcomes and young children's development.

Preconception care is an essential first building block for a healthy mother and child. During the preconception period, the main goals of care are to: 1) screen for risks, 2) offer health promotion and education, and 3) provide interventions or referrals to address identified risks.⁴ The first 11 weeks after conception are also critical to the mental and physical development of a fetus because during this period a fetus begins developing the central nervous system, heart, eyes, legs, arms, ears, teeth, palate, and external genitalia. The fetus is most susceptible to developing problems such as congenital anomalies, low birth weight, prematurity, and growth restriction in weeks 4-10, which is often before prenatal care is initiated.³ In North Carolina, 43% of pregnancies are unintended. Many women do not realize they are pregnant at this stage, so they may still be engaging in risky health behaviors that can negatively impact fetal development. Therefore, unless intervention begins before conception, pregnant women may be unable to reduce these risks to their own health and to their baby's health. Providing preconception education and interventions that improve women's health and prevent poor pregnancy outcomes is critical.

The time before a woman becomes pregnant presents an opportunity to identify health risks that could affect and predict future health risks for women and their children. Some health risks include: unhealthy weight, inadequate nutrition, diabetes, depression, hypertension and heart disease, genetic conditions, sexually transmitted diseases (STDs), and tobacco use and alcohol abuse.⁵ Many of these health risks, if not treated, can translate into poor pregnancy and birth outcomes. All women of reproductive age, especially those with risk factors for poor birth outcomes, should receive appropriate intervention(s) before conception to avoid serious maternal and child health problems. Women who are actively contemplating pregnancy can also be educated to take folic acid supplements to prevent neural tube defects, to stop smoking to reduce the risk of low birth weight, and to eliminate alcohol consumption to prevent Fetal Alcohol Syndrome and other complications. Women who are not actively seeking to become pregnant can receive family planning counseling and services to avoid unplanned pregnancies.

North Carolina Efforts to Improve Preconception Health

The North Carolina Preconception Health Coalition has been working to improve the preconception health of women since 2007. The Coalition is led by the Division of Public Health (DPH) within the North Carolina Department of Health and Human Services (DHHS) and includes members from the Department of Public Instruction (DPI), DHHS, local health departments,

universities, community-based organizations, non-profit organizations, and consumers. The Coalition developed a Preconception Health Strategic Plan to improve the health of women of childbearing age in North Carolina. The main goals of the Coalition are to increase consumer and community awareness about preconception health, to ensure quality preconception care and practice among health care providers and community health workers, to expand access to and affordability of preconception care, and to advocate for environmental and policy changes that support preconception health. The Task Force supports the work the Coalition is doing to achieve these goals.

DPH also works in partnership with the March of Dimes on the North Carolina Preconception Health Campaign. The statewide multivitamin program supports the health promotion and education of women of reproductive age to take enough folic acid before and during pregnancy. Folic acid can help prevent major brain and spine birth defects. The program also provides training materials for health departments and other safety net providers distributing multivitamins. The Task Force supports the work the March of Dimes is doing to prevent birth defects.

Prenatal and Postpartum Health

Health care during the prenatal and postpartum periods begins with the first prenatal visit, typically during the first trimester, and ends with the postpartum visit, which usually occurs six weeks after delivery. Although the preconception period provides the best opportunity for preventing poor pregnancy outcomes, prenatal health care provides important opportunities to monitor the health and well-being of the mother and child. Typically a mother's OB-GYN or primary care physician monitors a pregnant woman's blood pressure, weight gain, and uterine size. Regular prenatal checkups can help keep mothers and babies healthy, detect and treat problems if they occur, and prevent problems during delivery.⁶ Additionally, maternal mental health concerns and substance use can be assessed during prenatal health visits. (See Chapters 4 and 5 for further discussion of maternal mental health and substance use screening and treatment.)

North Carolina Efforts to Improve Prenatal Health

In North Carolina, pregnant women with family incomes up to 185% of the federal poverty guideline (FPG) may be eligible for Medicaid for Pregnant Women (MPW). Medicaid currently covers approximately half of the births in the state, including many women who are at risk of poor birth outcomes such as preterm birth or low birth weight. MPW is a collaborative effort between Community Care of North Carolina (CCNC) networks, DMA, DPH, and local health departments. MPW covers only those services related to pregnancy, including prenatal care, delivery, and postpartum care, as well as services to treat medical conditions that may complicate pregnancy.

In North Carolina, individuals receiving MPW services receive comprehensive, coordinated maternity care through the CCNC network of providers and through

Prenatal health care provides important opportunities to monitor the health and well-being of the mother and child. Additionally, maternal mental health concerns and substance use can be assessed during prenatal health visits.

The goal of interconception care is to help women of childbearing age take the right steps to stay healthy and improve the likelihood of positive outcomes for subsequent pregnancies.

local health departments. CCNC's Pregnancy Medical Home (PMH), launched in March 2011, serves Medicaid recipients with primary case management through their pregnancy until 60 days postpartum. The PMH consists of an obstetrician or primary care provider who works with a care manager (nurse or social worker) to coordinate the patient's care. The model provides financial incentives to obstetrical professionals to improve care and improve birth and health outcomes, thereby reducing Medicaid costs.⁷ Participating Medicaid providers are evaluated on four performance measures: no elective deliveries before 39 weeks, providing progesterone shots (known as 17P) to women at risk of preterm births, reducing the primary C-section rate, and performing a standardized initial risk screening of all obstetrical patients. In addition, the PMH provider must coordinate with local public health pregnancy case management to ensure that high-risk patients receive case management. The initial goals of the PMH model are to reduce the rate of low birth weight by 5% in each of the first two years and to achieve a primary C-section rate at or below 20%.

North Carolina's Perinatal Health Committee, a sub-committee of the Child Fatality Task Force (CFTF) legislative study commission, works to improve birth outcomes, protect and rebuild the prenatal health infrastructure, and reduce disparities in birth outcomes. The Perinatal Health Committee and the CFTF in general have worked to reduce maternal smoking and preterm births and promote breastfeeding and best practices for infant sleeping.

Interconception Care

The interconception period is the time between the end of a woman's pregnancy to the beginning of her next pregnancy. This period is a critical time for a mother and father/partner to make sure they are in good health before becoming pregnant again. The goal of interconception care is to help women of childbearing age take the right steps to stay healthy and improve the likelihood of positive outcomes for subsequent pregnancies. In order to promote healthy pregnancies, interconception care focuses on the importance of a woman giving her body time to recover after a birth and time to adjust to being a mother of a newborn before becoming pregnant again.⁸ Studies have shown that getting pregnant again too quickly may increase the risk of low birthweight or preterm birth.^{9,10} Infants born to women who conceived less than six months after giving birth had a 40% increased risk for being born prematurely and a 61% increased risk of low birthweight, compared with infants born to mothers who waited 18 months to two years between pregnancies.¹¹

Interconception care also offers an opportunity for providers and care managers to assess mothers' health-related behaviors and to encourage women of childbearing age to take action before conception to improve their health status. This window of opportunity can also be used to address risk factors such as substance use or depression. Interventions during interconception are typically provided by health professional staff and include (but are not limited to): grief

counseling support for women who have lost a fetus or infant, assessment of risks for pre-term or low birth weight pregnancy outcome, and facilitated family planning for future pregnancies. Additionally, health promotion interventions may include nutrition counseling, assessment of environmental risk factors, help with smoking cessation and avoidance of drugs and alcohol, genetic counseling, and prescriptions to avoid becoming pregnant again too soon.¹²

Access to Preconception, Prenatal, Postpartum, and Interconception Care

Working to improve the health of women before, during, and after pregnancy can lead to improvements in health and well-being for both women and their children. However, more than one in five women of childbearing age in North Carolina do not have health insurance and, therefore, may not have access to affordable routine preventive health care.¹³ Under the current health insurance system, women of childbearing years age 21 and older who do not have access to health insurance through their job, spouse, or parents^a only qualify for full Medicaid coverage if they have children or are disabled. Working women with children whose income does not exceed 50% FPG (\$11,500 for a family of four in 2012) and non-working women with children whose income does not exceed 37% FPG (\$8,500 for a family of four in 2012) may be eligible for Medicaid. Pregnant women with family incomes up to 185% FPG may be eligible for Medicaid for Pregnant Women (described previously).

Women and men with incomes up to 185% FPG may qualify for family planning services through North Carolina Medicaid's Be Smart Family Planning Waiver (FPW). The FPW provides family planning services to women and men of childbearing age whose income is at or below 185% FPG (\$46,600 for a family of four in 2012). The goals of the FPW are to reduce the number of unintended pregnancies and to increase utilization of and continuation rates for contraceptive use among the target population. Eligible men and women receive comprehensive family planning services including family planning visits and counseling, birth control, screening, early pregnancy detection, and education for sexually transmitted infections.

The Patient Protection and Affordable Care Act (ACA) expands health care coverage options for women with low-income and makes them more affordable. Effective January 1, 2014, Medicaid eligibility will expand to all nonelderly adults with family incomes under 138% FPG (\$31,800 for a family of four in 2012).^b Currently, most women of childbearing age are not eligible for Medicaid so the ACA would greatly expand Medicaid coverage of this population. Additionally, under the ACA, families with incomes between 138-400% FPG who do not have access to employer-based health insurance would be eligible for subsidies. These subsidies would help families with incomes between 138-400% FPG purchase health care coverage through the newly created health benefit exchange, which

a Children up to age 26 can be covered under their parents health insurance coverage.

b Under the June 2012 Supreme Court ruling, states do not have to expand Medicaid eligibility up to 138% FPG. North Carolina has not made a decision about Medicaid expansion.

Working to improve the health of women before, during, and after pregnancy can lead to improvements in health and well-being for both women and their children.

There is a need for greater coordination of care across health professionals and providers.

will provide a marketplace for private health insurance. The ACA requires everyone to purchase health insurance or pay a penalty starting January 1, 2014. Under the ACA, health insurance plans, including Medicaid and coverage purchased through the health benefit exchange, will be required to provide preventive care, as is typically provided as part of preconception and interconception, as well as prenatal care.

Improving Care Transitions for Women and their Young Children

In addition to the need for continuous access to health care to improve pregnancy and birth outcomes, there is a need for greater coordination of care across health professionals and providers. Problems with quality of care often occur at the transitions between sites of care: between hospital providers and primary care providers or between primary care providers and specialty providers. Patient health and safety are often compromised during transitions of care due to inappropriate or inadequate patient information transfer, medication errors, and lack of follow-up care. Appropriate care transitions result in lower rates of complications and readmissions and, therefore, lower health care costs.¹⁴

Appropriate care transitions result in lower rates of complications and readmissions.

For pregnant women and their children, poor coordination of care often occurs during care transitions between obstetrical, hospital, primary care, pediatric, inpatient, and other health care providers. For example, information exchange between the obstetrical provider and the pediatrician is extremely important for pregnant women with substance abuse disorders. The exchange of this information during care transitions may impact the newborn's social-emotional and mental health. CCNC is currently working on improving care transitions for patients considered high-risk. Sharing patient information between providers, while keeping within the confines of HIPAA and other privacy laws, can improve the quality of care for patients as well as reduce unnecessary costs. Therefore, the Task Force recommends:

Recommendation 3.1 Improve Care Transitions for Women and Young Children

To enhance patient health and safety and ensure appropriate continuity of care and care coordination, Community Care of North Carolina, the North Carolina Obstetrical and Gynecological Society, North Carolina Academy of Family Physicians, North Carolina Pediatric Society, Division of Public Health, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, and other partners should identify or develop best practices to ensure appropriate transitions of care for women and young children between obstetrical, primary care, pediatric, and other health care providers.

Nurturing, Responsive Relationships and High Quality Environments

Young children's social-emotional development is influenced positively and negatively by a variety of factors, as discussed in Chapter 1. Protective factors improve health and contribute to healthy development.¹⁵ Common protective factors for young children's social-emotional development include nurturing families, safe neighborhoods, access to health care, and access to high quality early care and education.^{16,17} Risk factors impair health and make it more difficult for young children to reach their developmental potential.¹⁵ Common risk factors for impaired social-emotional development include poverty, a parent with depression and/or substance abuse problems, unsafe physical environments, being a victim of abuse, and exposure to toxic stress.¹⁶ The impact of protective and risk factors is cumulative. This means more protective factors are associated with developmental resilience while more risk factors are associated with greater developmental vulnerability.¹⁸ Research has shown that warm, stable, loving relationships with caregivers and exposure to high-quality, safe environments can help mitigate the negative impact of risk factors.¹⁹ Additionally, both are essential for positive social-emotional development for all children.

All aspects of young children's development, including brain development, depend on the quality and reliability of young children's relationships with their caregivers, both within and outside the family.²⁰ In their earliest years, children exist within a web of relationships which include parents, caregivers, teachers, and, eventually, peers. When babies are born, they must find a way to connect with the adults around them who provide their care. Infants' brains develop through their interactions with the world, and parents and other caregivers are, in a sense, the entirety of an infant's world. Through repeated interactions with caring adults, infants learn how to form and foster relationships.²¹ In these relationships, infants watch adults in order to learn how to experience, respond to, and express emotions. When adults provide loving, caring, and consistent care, infants learn they are valued and that the world is predictable. Infants earliest relationships give them the basis of feelings, behaviors, and expectations that they will bring to future relationships with adults and peers. Nurturing responsive relationships provide the individualized responses, mutual interactions, and emotional connections that stimulate the growth of the infant's heart and mind.²²

High quality, safe environments promote positive social-emotional development by providing both safe physical spaces that promote active learning and predictable and supportive interactions that help young children learn appropriate behaviors.²³ Young children need predictable routines to help foster a sense of security and control and support the development of confidence and competence. A high quality environment that promotes learning for young children has a safe space for infants to play and engage with toys; children to

Expanding parents' and other caregivers' knowledge and understanding of the important role they play in their child's development, and how to interact with their children to support social-emotional development can enhance young children's development.

sit, crawl, and learn to walk; things to climb on; toys that are accessible and age-appropriate; and pictures and mirrors at child-height. In high quality environments, caregivers help children learn appropriate behaviors and how to regulate their emotions. For example, caregivers can acknowledge and label children's emotions by choosing books and songs that discuss feelings. In high quality group care settings, the space is designed so children can engage in play together and caregivers encourage and help children learn to interact with one another through social games and play.²³

To help promote and encourage nurturing, responsive relationships, parent and other primary caregivers need information about young children's social-emotional development and about how to engage in the kinds of interactions that promote social-emotional development. Parents can be supported in providing high quality environments through education on how to establish predictable routines and how to teach social, emotional, and other skills through play and other activities. Expanding parents' and other caregivers' knowledge and understanding of the important role they play in their child's development, and how to interact with their children to support social-emotional development can enhance young children's development.

Research over the past 20 years has greatly increased our knowledge of how young children develop, the foundational role of social-emotional development, and strategies for supporting healthy social-emotional development. However, this knowledge has not been fully translated and disseminated to policymakers and the public.²⁴ There is a need to increase awareness and understanding of the importance of young children's social-emotional development, the factors that impact young children's social-emotional development, and what can be done to promote young children's social emotional development. Therefore, the Task Force recommends:

Recommendation 3.2: Raise Awareness of the Mental Health, Social, and Emotional Needs of Young Children (PRIORITY RECOMMENDATION)

The North Carolina Early Childhood Advisory Council (ECAC), in collaboration with the North Carolina Department of Health and Human Services, the North Carolina Infant and Young Child Mental Health Association, Prevent Child Abuse North Carolina, National Alliance on Mental Illness North Carolina, North Carolina March of Dimes, North Carolina Families United, North Carolina Healthy Start Foundation, The North Carolina Partnership for Children, Inc., and North Carolina Pediatric Society should develop and implement a communications strategy to raise awareness of the importance of infants' and young children's social-emotional and mental health. The campaign should provide specific messages about what adults and others can do to promote young children's social-emotional development and reduce developmental risk factors.

- a) **As part of the communications strategy, potential partners (e.g., March of Dimes, local North Carolina Partnerships for Children, domestic violence advocates) should be identified. Campaign messages should describe the importance of social-emotional development during pregnancy and the early years as the foundation for all other development, as well as the inextricable link between young children’s mental health, physical health, and cognitive development. In addition, the campaign should include messages that explain:**
- 1) Experiences during pregnancy and the early years shape the architecture of the brain, setting the stage for future learning and development. Positive, safe, stable interactions with loving, responsive adults are critical for brain development. Exposure to adversity (toxic stress), in the absence of strong relationships with caregivers, negatively impacts brain development.**
 - 2) The value of investing during pregnancy and the early years and the role of evidence-based strategies to improve early social-emotional development.**
 - 3) The impact of women’s physical and mental health throughout her childbearing years on future generations, including the impact of tobacco, alcohol, and depression on healthy births.**
- b) **The campaign should include strategies to provide families and caregivers information on:**
- 1) How to support young children’s social-emotional development.**
 - 2) How to be educated consumers of health care and behavioral health services for children.**
 - 3) How to advocate for children with social-emotional and mental health needs and their families.**

In addition to the need to increase awareness and provide general education about what can be done to improve young children’s mental health, there is a need for more comprehensive education and training for parents, caregivers, providers, and others who interact with young children. Although there are a number of evidence-based programs aimed at parents or early care and education providers or public health workers, there is only one evidence-based program currently being implemented in North Carolina that provides a comprehensive population-level system of parenting and family support to promote young children’s social-emotional development. The Triple P Positive Parenting Program is a “multi-level, evidence-based parenting and family support system

Triple P provides evidence-based public health approach to improving parenting skills and child outcomes.

designed to prevent behavioral, emotional, and developmental problems in children, or halt their progression and reduce their severity.”²⁵ Triple P aims to increase protective factors, including parental confidence, the use of positive parenting practices, the capacity and confidence of service providers, community capacity, and interagency collaboration. Triple P aims to reduce risk factors including parents’ use of harmful or ineffective parenting practices, parental stress, depression, and conflict, and reduces the prevalence of early onset behavioral and emotional problems among young children.

Triple P provides an evidence-based public health approach to improving parenting skills and child outcomes through a multi-level system of interventions.²⁶ Level one is a broad-based parenting information campaign, similar to the Task Force Recommendation 2.2. Levels 2 and 3 involve training public health and other social service providers, primary care providers, and others who interact with young children and their families to provide brief interventions for parents and caregivers with specific concerns about mild behavior difficulties. Level 2 provides consultations while Level 3 includes some skills training for parents and caregivers. Level 4 provides intensive parenting skills training. Level 5 provides intense behavioral family intervention for parents of children with behavior problems and family adjustment difficulties and parents who are at risk of child abuse and neglect. Psychologists, social workers, allied health professionals, school counselors, and nurses can be trained to provide levels 4 and 5 of Triple P.²⁷ Community-wide implementation of Triple P involves training providers at multiple levels so that evidence-based intervention and treatment are available and easily accessed by families. The cost of Triple P implementation varies, ranging from approximately \$250,000 for a smaller county like Gaston to \$1,000,000 for a larger county like Wake.²⁵ Wide-scale implementation in nine South Carolina counties found the cost of Triple P to be less \$1 per child ages 0-8 for level 1 and less than \$12 per child for provider training.²⁸ Studies have shown Triple P significantly reduces child maltreatment, child out-of-home placements, and hospitalizations or emergency-room visits for child maltreatment injuries.²⁶ Triple P has also been shown to reduce conduct disorder cases by up to 26%.²⁹ It is estimated that every \$1 invested in Triple P results in \$6 in benefits due to decreased child abuse and neglect incidence, health care costs, and crime as well as increases in high school graduation rates.³⁰

Pitt County has fully implemented all levels of Triple P through funding from the Centers for Disease Control and Prevention. Implementation is underway in Alamance County through funding from DPH using federal funds provided by the federal Substance Abuse and Mental Health Services Administration. DPH is also funding Triple P in Alleghany, Ashe, Cabarrus, Madison, and Watauga counties. Additionally, implementation of Triple P is planned for select communities in northeastern North Carolina as part of the Race to the Top–Early Learning Challenge Grant. (See Chapter 2 for more information on the Early Learning

Challenge Grant.) The Task Force supports the implementation of Triple P in pilot communities and supports its expansion if shown to be effective in North Carolina. Therefore, the Task Force recommends:

Recommendation 3.3: Educate Families, Caregivers, and Providers on Young Children’s Mental Health

The Division of Public Health (DPH) should continue to support the implementation of the Triple P Positive Parenting Program to educate parents, caregivers, and providers on how to promote young children’s social-emotional development in pilot communities. If shown to be effective in North Carolina through program evaluations, DPH, in partnership with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, the Division of Social Services, Smart Start, and other partnering agencies should support expansion of Triple P across the state. DPH should provide a plan for expansion to other communities across the state, including the costs of implementation along with projected longer-term cost savings (if any), to the Joint Legislative Oversight Committee on Health and Human Services of the North Carolina General Assembly by May 15, 2015.

References

1. Center on the Social and Emotional Foundations for Early Learning. Pyramid Model for Promoting Social Emotional Competence in Infants and Young Children. http://www.challengingbehavior.org/do/resources/documents/pyramid_model_handout.pdf. Accessed May 24, 2012.
2. Centers for Disease Control and Prevention. Preconception Care and Health Care: Overview. <http://www.cdc.gov/preconception/overview.html>. Accessed June 8, 2012.
3. Moos M. Connecting the dots: Health status before pregnancy and pregnancy outcomes. Presented to: Task Force on the Mental Health, Social, and Emotional Needs of Young Children and their Families Meeting 4-29-2011; April 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Moos_4-29-11.pdf. Accessed May 10, 2012.
4. Centers for Disease Control and Prevention. Preconception Care and Health Care: Information for Health Professionals Recommendations. <http://www.cdc.gov/preconception/hcp/recommendations.html>. Published May 1, 2012. Accessed June 8, 2012.
5. Healthy People 2020. Maternal, Infant, and Child Health. U.S. Department of Health and Human Services website. <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=26>. Published May 01, 2012. Accessed April 30, 2012.
6. Office on Women's Health. Prenatal care and tests. Office of the Assistant Secretary for Health, US Department of Health and Human Services website. <http://www.womenshealth.gov/pregnancy/you-are-pregnant/prenatal-care-tests.cfm>. Published September 27, 2010. Accessed May 10, 2012.
7. Berrien K. North Carolina Department of Health and Human Services. Pregnancy Medical Home. <http://www.ncdhhs.gov/dma/pmh/PMHPresentation032010.pdf>. Published March 2011. Accessed April 10, 2012.
8. Badura M, Johnson K, Hench K, Reyes M. Healthy start lessons learned on interconception care. *Womens Health Issues*. 2008;18(6 Suppl):S61-6.
9. D'Angelo D, Williams L, Posner S, Zapata L. Preconception and interconception health status of women who recently gave birth to a live-born infant—Pregnancy risk assessment monitoring system (PRAMS), united states, 26 reporting areas, 2004. *MMWR Morb Mortal Wkly Rep*. 2007;56(SS-10).
10. Johnson K, Posner S, Biermann J, Cordero J. Recommendations to improve preconception health and health care. *MMWR Morb Mortal Wkly Rep*. 2006;55:1-23.
11. Conde-Agudelo A, Rosas-Bermudez A, Kafury-Goeta A. Birth spacing and risk of adverse outcomes: a meta-analysis. *JAMA*. 2006;295(15):1809-1823.
12. Moos M. Model for Interconceptional Care Plans. <http://www.beforeandbeyond.org/uploads/Model%20Interconceptional%20Care%20Plans.pdf>. Published 2002. Accessed April 26, 2012.
13. March of Dimes Foundation. March of Dimes Foundation. Census Data on Health Insurance Coverage of Women and Children. Washington, D.C. <http://www.marchofdimes.com/censushighlights2009.pdf>. Published 2009. Accessed May 24, 2012.
14. Coleman EA, Parry C, Chalmers S, Min S. The care transitions intervention: Results of a randomized controlled trial. *Arch. Intern. Med*. 2006;166(17):1822-1828.
15. Rethinking MCH: The Life Course Model as an Organizing Framework. Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services. <http://www.hrsa.gov/ourstories/mchb75th/images/rethinkingmch.pdf>. Published November, 2010. Accessed May 10, 2012.
16. National Scientific Council on the Developing Child. The Timing and Quality of Early Experiences Combine to Shape Brain Architecture. Working Paper No.5. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.

17. National Center for Mental Health Promotion and Youth Violence Prevention. Promoting Children's Mental Health: The SAMHSA /CMHS Prevention and Early Intervention Grant Program. <http://oilspilldistress.samhsa.gov/publications/monographs/promoting-children%E2%80%99s-mental-health-samhsa-cmhs-prevention-and-early-interven>. Published 2001. Accessed April 27, 2012.
18. Shonkoff JP, Phillips DA. National Academy Press. From Neurons to Neighborhoods: The Science of Early Childhood Development. Washington, DC. http://www.nap.edu/openbook.php?record_id=9824. Published 2000. Accessed April 27, 2012.
19. National Scientific Council on the Developing Child. The Foundations of Lifelong Health Are Built in Early Childhood. <http://www.developingchild.harvard.edu>. Published 2010. Accessed April 27, 2012.
20. National Scientific Council on the Developing Child. Excessive Stress Disrupts the Architecture of the Developing Brain. Working Paper No. 3. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
21. Foulds B, Eggbeer L, Hunter A, Yates T, Wittmer D, Petersen S. The Center on the Social and Emotional Foundations for Early Learning, Vanderbilt University. Infant Toddler Module 1: Social Emotional Development within the Context of Relationships. <http://csefel.vanderbilt.edu/inftodd/mod1/script.pdf>. Accessed May 10, 2012.
22. National Scientific Council on the Developing Child. Young children develop in an environment of relationship. Working Paper No.1. <http://www.developingchild.net>. Published 2004.
23. Center on the Social and Emotional Foundations for Early Learning. Module 2: Responsive Routines, Environments, and Strategies to Support Social Emotional Development in Infants and Toddlers. http://csefel.vanderbilt.edu/resources/training_infant.html#mod1. Published July 2008. Accessed May 10, 2012.
24. Shonkoff JP, Bales SN. Science does not speak for itself: Translating child development research for the public and its policymakers. *Child Development*. 2011;82(1):17-32.
25. Triple P - Positive Parenting Program. Population Project Proposal to North Carolina Department of Public Health. Published 2011.
26. Prinz R, Sanders M, Shapiro C, Whitaker D, Lutzker J. Population-based prevention of child maltreatment: The US triple P system population trial. *Prevention Science*. 2009; 10(1):1-12.
27. Sanders MR. Triple P-positive parenting program as a public health approach to strengthening parenting. *J. Fam. Psychol*. 2008;22(4):506-517.
28. Foster EM, Prinz RJ, Sanders MR, Shapiro CJ. The costs of a public health infrastructure for delivering parenting and family support. *Children and Youth Services Review*. 2008;30(5):493-501.
29. Triple P Positive Parenting Program. Cost-effectiveness analysis. Executive Summary. http://www.triplep.net/cicms/assets/pdfs/pg1as100gr5so8_v.pdf. Accessed May 10, 2012.
30. Washington State Institute for Public Policy. Return on Investment: Evidence-Based Options to Improve Statewide Outcomes: April 2012 Update. Olympia, WA. <http://www.wsipp.wa.gov/rptfiles/12-04-1201.pdf>. Published April 2012. Accessed May 10, 2012.

Within the framework for strengthening early childhood mental health and social-emotional development, prevention includes screening and targeted supports. Screening provides a mechanism to identify primary care providers, especially mothers, and children at risk of or in need of social-emotional and mental health supports. Once identified, targeted supports include social and emotional supports to prevent or resolve outstanding concerns. For parents, this includes brief counseling and support for mild mental health or substance use problems. For children, prevention and early intervention strategies include explicit instruction in social skills and emotional regulation. Comprehensive treatment for parents and children with more intensive social-emotional and mental health needs is discussed in Chapter 5.

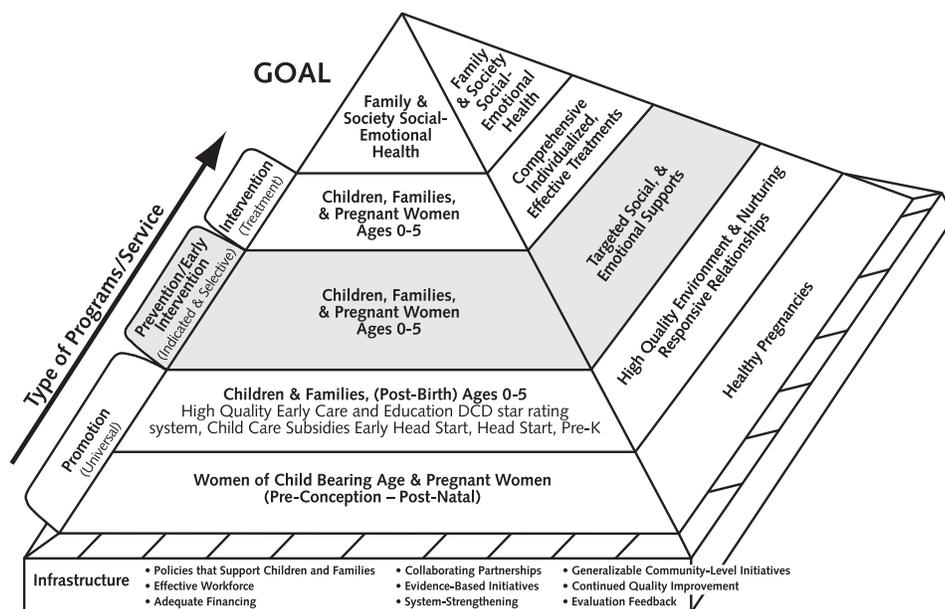


Prevention Through Early Intervention With Primary Caregivers of Young Children *Maternal Depression*

Approximately 10-20% of mothers are affected by prenatal and postpartum depression.¹ The percentage rises to 60% for teens and other mothers who

Within the framework for strengthening early childhood mental health and social-emotional development, prevention includes screening and targeted supports.

Figure 4.1
Pyramid for Strengthening Early Childhood Mental Health and Social Emotional Competence in Young Children



Note. This pyramid model conceptualizes the critical building blocks for achieving healthy mothers and healthy children. The front face of the pyramid explains the individuals and families who receive programs and services, which are divided up by the following categories: promotion, prevention, and intervention. The pyramid’s side face lists the goals associated with the program/service recipients(s). these are further divided according to the socioecological model of health behavior. The foundation of the pyramid represents the necessary system-building blocks.

**Approximately
10-20% of
mothers are
affected by
prenatal and
postpartum
depression.**

**Many women
are afraid to talk
about depression
with their health
providers and
many health
providers do
not screen for
depression.**

have low incomes.² Prenatal depression can negatively affect the health of the mother and developing child as well as contribute to poor fetal attachment. Pregnant women with depression also are more likely to engage in risk-taking behaviors, such as substance abuse, and may decrease compliance with prenatal care.¹ Pregnant women with depression are more likely to deliver preterm and low birthweight babies.¹ Untreated prenatal depression is also associated with increased rates of maternal suicide.¹

Postpartum depression is the most common complication associated with childbirth. Postpartum depression negatively affects the health of the mother and can permanently impact the health and development of the infant.¹ Mothers suffering from postpartum depression may experience unbearable loneliness, insecurity, anxiety attacks, and guilt along with feeling sad, useless, helpless, and hopeless. Postpartum depression leads some mothers to isolate themselves. In order to escape depression, some may have thoughts of using violence towards themselves or their baby.³ Mothers experiencing depressive symptoms retain more negative perceptions of their baby and of their performance as a mom.

Depression after childbirth impedes maternal emotional health and impairs parenting. Because mothers are emotionally disengaged, bonding and creating a positive mother-infant relationship is disturbed. Mothers who are depressed play less frequently with their infants and have fewer verbal interactions with them, which impairs development.⁴ Postpartum depression compromises the mother's ability to care for and develop a healthy relationship with her child, which is critical for healthy infant development. Often there is less positive attribution of the child and increased child behavior leading to irritability and hostility. Interaction is compromised; there can be less sensitive and attuned interactions. That is, mothers may be more controlling or apathetic to the baby and indifferent to caregiving. Because the mother may be withdrawn, there can be disturbed social interactions. There is also impeded attention to and judgment for infant health and safety. Infants whose mothers have postpartum depression are more likely to have delayed social-emotional, cognitive, and linguistic development as well as long-term mental health problems.¹ Essentially, they do not get their needs for consistent emotional nurturance, appropriate stimulation, and protection met. Adoptive parents and fathers can also experience depression. The mental health of all primary caregivers impacts the quality of care they provide and, in turn, impacts the child's development and well-being.¹

Unfortunately, many women are afraid to talk about depression with their health providers and many health providers do not screen for depression. Women report mistrust and fear of judgement as reasons for not discussing depression with their health care providers.¹ Providers also report barriers including lack of training to diagnose, counsel, and treat depression; inadequate time; limited treatment options due to lack of or inadequate insurance coverage; and a lack of mental health professionals available for referral.¹ Many tools exist to screen for depression among adults, including mothers before and after birth. A number of

groups recommend screening pregnant and postpartum women including the US Preventive Services Task Force, the American Congress of Obstetricians and Gynecologists (ACOG) Committee on Obstetric Practice, and the American Academy of Pediatrics Bright Futures. Screening is only effective if adequate treatment and follow-up resources are available and affordable, which is not the case in many areas and for many women.¹

Health insurance plans, both public and private, are well positioned to help increase the detection and treatment of maternal depression. By encouraging providers to screen for maternal depression, educating patients, and covering mental health treatment services and care coordination, health plans could have a substantial impact on detection and treatment. (See Recommendation 5.2 in Chapter 5.) As part of the Medicaid Pregnancy Medical Home Initiative, women receiving Medicaid receive a prenatal and postpartum depression screening. Under the Patient Protection and Affordable Care Act (ACA), preventive screenings, including prenatal and postpartum depression screening, must be covered by insurers at no cost to patients. (For further discussion of treatment for maternal depression, see Chapter 5.)

In addition to screening for maternal depression as part of health care provided to the mother, there is increasing interest in screening mothers as part of infant well-baby visits. Since the early identification of women at-risk for postpartum depression may lead to a decrease in long-term negative effects on child development, the American Academy of Pediatrics (AAP) recommends that pediatricians screen mothers for postpartum depression at baby's 1, 2, and 4 month visits.⁵ The Bright Futures guidelines, a set of health supervision guidelines to direct the provision of health care to children from the prenatal period through age 21, recommend screening mothers for depression at baby's 1, 2, and 6 month visits.⁶ The Affordable Care Act mandates that all private insurance plans (except for those that are considered "grandfathered plans") must provide coverage of the Bright Futures clinical preventive services for infants, children and adolescents without any cost sharing.^a

Current North Carolina Efforts to Screen for Depression

Community Care of North Carolina's (CCNC) Pregnancy Medical Home (PMH) requires all contracted providers to use a standardized risk screening assessment to identify patients at high risk for pre-term birth. Contract PMH providers receive \$50 for completing the initial screen during pregnancy and \$150 for completing the postpartum visit.⁷ Mothers whose children receive Medicaid can be screened for depression as part of infant well-child visits, however there is no compensation for screening parents. However, parents can be seen under their child's Medicaid coverage for up to six mental health visits with a primary care provider, licensed clinical social worker, psychiatrist or psychologist.²

^a Patient Protection and Affordable Care Act, Pub L No. 111-148, §1001, amending Sec. 2713 of the Public Health Service Act, 42 USC 300gg-13.

Health insurance plans, both public and private, are well positioned to help increase the detection and treatment of maternal depression.

Alcohol use during pregnancy is the leading cause of preventable birth defects associated with mental and behavioral impairment.

Maternal Substance Use

Substance use during pregnancy is linked to poor pregnancy outcomes. Substance use includes alcohol, tobacco, misuse of prescription drugs, and the use of illicit substances such as methamphetamines, marijuana, and cocaine. While all substance use during pregnancy can harm fetal development, alcohol produces the most serious fetal brain impairment.⁸ Therefore, the Task Force focused most heavily on maternal alcohol use. However, all types of maternal substance use can negatively affect fetal development and parenting skills. Alcohol is the example used in this report, but the recommendations around substance use apply to all substances, not just alcohol.

The risks of alcohol use during pregnancy have been studied in depth and are well understood. The use and abuse of alcohol during pregnancy poses the same risks as alcohol use in general for the women, including unintentional injuries, violence, and poisoning as well as negative long-term health problems.⁹ However, alcohol use poses even greater risks to the developing fetus. When a pregnant woman drinks alcohol, it passes across the placenta to the fetus, thus impairing fetal development. Drinking alcohol during pregnancy may lead to pregnancy complications such as miscarriage, stillbirth, or premature delivery.

Alcohol use during pregnancy is the leading cause of preventable birth defects associated with mental and behavioral impairment.¹⁰ Alcohol use during any stage of pregnancy can harm the developing fetus. A pregnant woman who drinks any alcohol is at risk for having a child with a fetal alcohol spectrum disorder (FASD). One in eight pregnant women report alcohol use in the past 30 days and 2% report binge drinking.¹¹ In 2009 in North Carolina, 50% of pregnant women reported drinking in the three months prior to pregnancy and 8% reported alcohol use during the final three months of pregnancy.¹²

The US Surgeon General advises all pregnant women and women who may become pregnant to abstain from alcohol.¹⁰ FASDs, including alcohol-related birth defects and alcohol-related neurodevelopmental disorder, are estimated to occur in 10 live births per 1,000 births in the US each year, which equates to more than 12,000 cases per year in North Carolina.^{10,13} Although no cure exists, FASDs are 100% preventable by completely avoiding alcohol consumption during preconception and pregnancy. Currently, no “safe” level of alcohol use during pregnancy has been established. During the first three months of pregnancy, alcohol appears to be the most harmful. While drinking at any point during pregnancy is risky, consuming larger amounts of alcohol (including binge drinking) appears to increase the risk of harm more than drinking small amounts of alcohol.¹⁴

Fetal alcohol syndrome (FAS) is the most severe FASD diagnosis. FAS occurs in approximately one to two live births per 1,000 births in the US, which equates

to more than 200 births per year in North Carolina.^{15,16b} To meet the criteria for diagnosis, maternal alcohol use must be confirmed, the infant or child must possess a characteristic set of facial anomalies, and there must be evidence of growth retardation and brain abnormalities.¹⁷ An individual with FAS may have the following complications: abnormal heart structure; behavior problems; mental retardation; problems in structure of the hands, eyes, nose, or mouth; poor growth before birth; slow growth and poor coordination after birth; and, in severe cases, the infant may die soon after birth.¹⁴ FAS is not limited to a childhood disorder because exposure to alcohol as a fetus can result in lifelong mental and physical disabilities and may increase the risk for later alcohol, tobacco, and other drug dependence in adults.¹⁸⁻²⁰

In addition to causing problems during pregnancy, postpartum substance use can negatively impact the social-emotional well-being and development of young children. The 2007 National Survey on Drug Use and Health found that 14% of children ages 0-5 lived with a parent who abused or was dependent on alcohol or an illicit drug.²¹ Parental substance use can lead to chaotic, unpredictable home environments, which impairs young children's social-emotional development,²¹ and disrupts the bonding process that is so critical for development. Substance use impairs parents' ability to engage in nurturing, responsive relationships and to provide high quality environments that are essential for the social-emotional development and mental health of young children.²¹

Parental substance abuse and dependence is a complex and costly chronic illness that has significant ramifications for children. Screening pregnant women and parents of young children is the first step towards providing appropriate medical intervention—whether brief or intensive. Screening typically involves using a limited set of questions to identify if conditions exist and whether more thorough evaluations and referrals are needed.²² There are many avenues for treatment depending on the severity of the problem. Early interventions are needed for parents who have not yet become addicted but are at risk for addiction; treatment is needed for those who are addicted. (See Chapter 5 for more on treatment.) Improved identification of substance use prior to or early in pregnancy can reduce prenatal substance dependency and its devastating effects on the mother and developing fetus. Utilizing consistent evidence-based medical protocols for parents or other caretakers who are at risk for substance

Postpartum substance use can negatively impact the social-emotional well-being and development of young children.

b Birth defects linked with alcohol use during pregnancy are called Fetal Alcohol Spectrum Disorders (FASD). Disorders grouped as FASD include Fetal Alcohol Syndrome (FAS), Alcohol-Related Neurodevelopmental Disorder (ARND), Alcohol-Related Birth Defects (ARBD) and Partial Fetal Alcohol Syndrome (PFAS). These birth defects include physical, mental, behavioral and/or learning disabilities.² Birth defects linked with alcohol use during pregnancy are called Fetal Alcohol Spectrum Disorders (FASD). Disorders grouped as FASD include Fetal Alcohol Syndrome (FAS), Alcohol-Related Neurodevelopmental Disorder (ARND), Alcohol-Related Birth Defects (ARBD) and Partial Fetal Alcohol Syndrome (PFAS). These birth defects include physical, mental, behavioral and/or learning disabilities. For more information, see: Program, The North Carolina Teratogen Information Service and Fetal Alcohol Prevention. (2011). *Alcohol During Pregnancy*. Accessed 30, 2012, from NC Pregnancy.org

Utilizing consistent evidence-based medical protocols for parents or other caretakers who are at risk for substance abuse problems can positively impact the social-emotional development and mental health of young children.

abuse problems can positively impact the social-emotional development and mental health of young children.

The most common way to identify substance abuse risk during pregnancy and postpartum is through the use of screening methods including self-report, interview, and observation. The American College of Obstetricians and Gynecologists recommends providers screen all pregnant women for substance use, abuse, and dependency.²³ However, many providers do not screen for substance use. As with maternal depression, screening is only effective if adequate treatment and follow-up resources are available and affordable which is not the case in many areas and for many women. CCNC has been promoting the use of an evidence-based screening, brief intervention, and referral into treatment (SBIRT) protocol in primary care practices throughout the state. Early identification is a critical first step toward engaging substance dependent parents in treatment.

Current North Carolina Efforts to Reduce and Screen for Prenatal and Postpartum Substance Abuse

As part of the North Carolina Medicaid Pregnancy Medical Home Model, pregnant women receiving Medicaid are screened for tobacco and substance abuse. A positive screen triggers a more thorough assessment as well as care management to help ensure women receive appropriate treatment services.⁷ The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services funds prenatal and maternal substance abuse programs, through the North Carolina Perinatal and Maternal Substance Abuse Initiative, which are specifically designed to meet the needs of women who are using substances while they are pregnant and/or parenting and the needs of their children. More information on these programs is available in Chapter 5.

North Carolina's Fetal Alcohol Prevention Program and the North Carolina Teratogen Information Service provide prevention education to pregnant women, women of child-bearing age, significant others, and the professionals who work with them about the dangers of substance use during pregnancy. Information on referral sources is also made available. The North Carolina Teratogen Information Service, housed at Mission Hospital's Fullerton Genetics Center in Asheville, maintains a confidential toll-free information service, the Pregnancy Exposure Riskline (1-800-532-6302), to answer questions and provide information on exposures (i.e., alcohol, medications, illegal substances, environmental chemicals, and other harmful substances). North Carolina's Fetal Alcohol Prevention Program also provides training for professionals and caregivers of children with FASD and resources for professionals and families regarding children with suspected or confirmed diagnoses of FAS or FASD.

Family Violence

Family violence, including physical, emotional, and sexual abuse, negatively affects children's mental health and social-emotional well-being when the

violent behavior is directly inflicted on the mother and/or the child, and when the child witnesses family violence on his or her mother.²⁴ Half of domestic violence cases include children under the age of 5.²⁵ Studies have found that during an occurrence of family violence, a child is present 85-90% of the time. Of those children who witnessed family violence, 50% were also abused directly.²⁶ The Adverse Childhood Experiences (ACE) Study found that 22% of adults were victims of sexual abuse as a child, 13% witnessed their mothers or step mothers treated violently, 11% suffered recurrent physical abuse, and 11% suffered from emotional abuse during their childhood.²⁷

In North Carolina, 4.4% of women reported abuse during pregnancy.²⁸ Pregnant women and mothers affected by family violence are more likely to suffer depression and anxiety, and have trouble parenting, have lower self-esteem, and have trauma symptoms.²⁹ Mothers' mental health problems resulting from family violence situations directly affect their parenting ability. Mothers may be compromised in their ability to understand the ongoing needs and experiences of their child, show affection towards their child, and focus on their child's personality and behavior characteristics.²⁹ Mothers who are victims of family violence have a more negative representation of themselves and their infants, and are less securely attached to their infants.³⁰ High levels of the stress hormone cortisol during pregnancy, in combination with low mother-infant attachment, are associated with impaired cognitive development in infants.³¹ Additionally, women who are abused are six times more likely to be diagnosed with substance abuse problems, and three times more likely to be diagnosed with depression compared to women who are not abused.³² As discussed, substance abuse and depression interfere significantly with mothers' ability to care for their children.

Exposure to family violence compromises the emotional, physical, social, and cognitive well-being of children. Children experience behavior changes such as excessive irritability, sleep problems, emotional distress, fear of being alone, immature behavior, and problems with toilet training and language development. In one study, children exposed to family violence had 40% lower reading abilities at early ages.²⁴ Children exposed to family violence are at higher risk for alcoholism and alcohol abuse, chronic obstructive pulmonary disease, depression, fetal death, health-related quality of life, illicit drug use, ischemic heart disease, liver disease, intimate partner violence, multiple sexual partners, sexually transmitted diseases, smoking, suicide attempts, unintended pregnancies, early initiation of smoking, early initiation of sexual activity, and adolescent pregnancy.^{24,24,24} Studies have shown that infants and young children exposed to severe family violence show symptoms of post-traumatic stress disorder.³³ National data shows that compared to the national average, children who are exposed to family violence are 15 times more likely to be physically and/or sexually assaulted. Children who grow up in environments with family violence are also more likely to use family violence as a way to dominate their interpersonal relationship, thus creating a cycle of family violence.²⁴

Mothers' mental health problems resulting from family violence directly affect their parenting ability.

Exposure to family violence compromises the emotional, physical, social, and cognitive well-being of children.

Improved identification and, when applicable, brief intervention or referral to treatment should help reduce the devastating effects of mental health problems, substance use, and family violence on young children and their families.

In 2010, 126,612 children received assessment for child abuse and neglect in North Carolina. Additionally, 6.8% of the children in North Carolina suffered recurrent maltreatment.³⁴ Infant victims of family violence often have significantly delayed brain development. The brain of the child exposed to interpersonal violence increases activity in the “survival” portion of the brain, thereby depriving resources from other parts of the brain. The parts of the brain that are deprived of energy during early development fail to form and the child loses neuronal synapses in these regions. Research has shown reduced neuronal mass in the brains of abused children for areas where executive functioning, rational thinking, and decision-making occur, exacerbating the children’s irrational behavior, and lack of appropriate executive functioning and decision making.²⁵

Current North Carolina Efforts to Reduce Family Violence

As with maternal depression and substance use, through coverage of screening for family violence, educating patients, and mental health treatment services and care coordination, health plans could have a substantial impact on detection and treatment. (See Recommendation 5.2.) As part of the North Carolina Medicaid Pregnancy Medical Home Model, pregnant women receiving Medicaid are screened for family violence. A positive screen triggers a more thorough assessment as well as care management to help ensure women receive appropriate treatment services.⁷ The American College of Obstetricians and Gynecologists recommends screening pregnant women for domestic violence and the American Academy of Pediatrics recommends screening parents for family violence.^{35,36} Under the Affordable Care Act (ACA), screening and counseling for interpersonal domestic violence must be covered by insurers at no cost to patients.³⁷ Additionally, under the Bright Futures Recommendations for Preventive Pediatric Health Care, which are used to guide pediatric care provided as part of North Carolina’s Medicaid program and will be used to guide care provided through private insurance under the ACA, young children should be screened for family violence at their initial visit and yearly thereafter.

Family Preservation Services, funded by the North Carolina Division of Social Services (DSS) through the Federal Family Preservation and Family Support Services Program, provides short-term, intensive in-home services to prevent children at-risk for placement outside of the home from being removed from the home. Young children who are alleged or found to have been abused or neglected, have emotional or behavioral disturbances, or have medical needs that, with assistance, could be met at home are eligible.³⁸ DSS also provides funding to local Departments of Social Services to support Family Violence Prevention Services which provide programs to prevent family violence and to provide shelter and assistance to victims of family violence.

Improving Screening and Early Intervention for Primary Caregivers of Young Children

Screening pregnant women and parents of young children is the first step towards providing appropriate intervention for mental health, substance use, and family violence—whether brief or intensive. Improved identification and, when applicable, brief intervention or referral to treatment should help reduce the devastating effects of mental health problems, substance use, and family violence on young children and their families. There are many avenues for treatment, depending on the nature and severity of the problem. Early interventions may be appropriate in some cases, whereas others will need more intensive treatment, as discussed in Chapter 5. Utilizing consistent evidence-based protocols to provide screening, triage, referrals, and treatment can positively impact the social-emotional development and mental health of young children. Therefore, the Task Force recommends that North Carolina establish care and reimbursement standards to promote women and children’s mental health. (See Recommendation 5.2)

Children with Social-Emotional and Mental Health Needs

Most young children will master the major social-emotional developmental tasks during the first five years without difficulty. However, a significant number of young children will experience difficulties mastering these tasks. Children experiencing difficulties exhibit atypical, and often challenging, behaviors. In an infant, such behaviors may include excessive crying, being hard to soothe, and exhibiting a lack of engagement in social interactions and play.³⁹ Among toddlers and preschoolers, such behaviors may include trouble eating or sleeping; being unusually quiet or withdrawn; engaging in destructive behaviors such as hitting, fighting, and screaming frequently; and having difficulty forming relationships with caregivers, teachers, and peers. While most children experience phases of fussiness, anxiety, disobedience, tantrums, and even aggression, such phases are typically short and situation specific. Children going through phases of challenging behavior and their parents can be helped by brief interventions aimed at preventing or resolving such behaviors. Persistent, intense, and pervasive challenging behaviors in young children indicate social-emotional and mental health needs that warrant more intense intervention. (For more information on intervention, see Chapter 5.) Early identification and treatment can have a profound and positive effect on social-emotional problems as well as improve outcomes for children with serious disorders.⁴⁰ Within the framework used by the Task Force for strengthening early childhood mental health and social-emotional development, prevention includes early identification and brief intervention.

Screening for Social-Emotional Development and Mental Health Needs

The first step to providing effective intervention and treatment for young children is identifying the problem. There are a number of effective evidence-based

Early identification and treatment can have a profound and positive effect on social-emotional problems as well as improve outcomes for children with serious disorders.

Currently, there is no standard process for screening, brief intervention, referral, assessment, and treatment.

screening tools to identify atypical and delayed social-emotional development. Some can be completed by parents as part of a health visit or by other caregivers or teachers. Others must be administered by trained professionals. Children that are identified as having social-emotional needs may need a brief intervention or may need more intensive clinical treatment. Brief interventions, including consultations with the child's parent(s) on how to manage specific challenging behaviors, could occur as part of a routine health visit, a meeting with a social worker, or in consultation with a psychologist or school counselor. Children with more intense social-emotional and mental health needs may need to be referred for further assessment by a professional. The professional can provide a more detailed diagnosis and work with the family or caregivers to develop an appropriate treatment plan. Currently, there is no standard process for screening, brief intervention, referral, assessment, and treatment. Because of the critical role that screening and brief intervention play in identifying and treating young children with social-emotional and mental health needs, the Task Force recommends that North Carolina establish care and reimbursement standards to promote women and children's mental health. (See Recommendation 5.2)

As with maternal depression and substance use, health insurance plans, both public and private, are well positioned to increase the detection and treatment of young children's social-emotional and mental health needs. By encouraging providers to screen for atypical or delayed social-emotional development and by covering brief interventions, intensive treatment services, and care coordination, health plans could have a substantial impact on detection and treatment. (See Recommendation 5.2.)

The American Academy of Pediatrics and the Maternal and Child Health Bureau of the Health Resources and Services Administration of the US Department of Health and Human Services have developed Bright Futures. Bright Futures Recommendations for Preventive Pediatric Health Care ⁶ provides theory- and evidence-based guidelines for providing preventive pediatric care. Bright Futures recommends providers perform basic psychosocial and behavioral assessments as well as developmental surveillance at all young child preventive visits. Such assessments and surveillance can be done through observation and discussion with parents or through the use of screening tools. Bright Futures recommends the use of a developmental screen at the 9, 18, and 30 month visits. North Carolina's Medicaid child health program currently covers the preventive care services outlined in Bright Futures. Under the ACA, private health plans will be required to cover the preventive care services outlined in Bright Futures at no cost.

In addition to following the Bright Futures guidelines in the Medicaid program, North Carolina's Assuring Better Child Health and Development (ABCD) Project has worked to increase the use of practical, standardized, and validated screening tools. The ABCD project has worked with CCNC networks to promote developmental, social-emotional, and autism screening tools as well

as a maternal depression screen as part of young child visits.⁴¹ The project began with the developmental screen in 1999 when only 15% of children ages 0-2 receiving Medicaid received such screenings. By 2008, 85% of children ages 0-5 receiving Medicaid received a developmental screen.⁴¹

Family Strengthening and Parenting Skills Promotion

All children need adult guidance on how to appropriately express their emotions, play cooperatively with peers, and on how to solve social problems. However, some children will need systematic and focused instruction to learn specific social-emotional skills including self-regulation, expressing and understanding emotions, and friendship skills. With the right skills, parents and other caregivers, early care and education providers, and others can provide explicit instruction in social skills and emotional regulation. Children who have trouble controlling anger need to be taught strategies to calm down. Children who have difficulty making friends can be taught skills such as sharing, taking turns, requesting and receiving help, and giving compliments. Research shows that young children who have the ability to recognize and understand feelings in oneself and others are healthier, less lonely, engage in less destructive behavior, and have greater academic achievement.⁴² Parents and other caregivers and educators can teach children the skills needed to have a strong emotional vocabulary. For example, adults can read books or play games to help children identify different emotions in themselves and others. Through consultations and skills training, parents and other caregivers and early care and education providers can learn how to provide this type of instruction for young children. Preventive evidence-based family strengthening and parenting skills programs can help foster the kind of enriching home environment, secure relationships, and interactions that promote young children's social-emotional development and mental health.

North Carolina Efforts to Provide Prevention Services

Home Visiting Programs

Home visiting programs are an effective way to provide a wide array of services and supports to pregnant women and new families. Home visiting programs send nurses, social workers, or other professionals into the homes of families considered at-risk to assess needs and to help families connect to services and supports including health care, early intervention, and parenting skills classes. These programs have been shown to improve maternal and child outcomes.⁴³ Currently North Carolina has a variety of nurse home visiting programs that target parents before and after birth, as well as low-income, teenage, and other at-risk families. Participation in these programs is voluntary and programs are often staffed by trained peers from the community being served.

North Carolina has four evidence-based home visiting programs: the Nurse Family Partnership (NFP), Healthy Families America (HFA), Early Head Start Home-Based Program Option (EHS), and North Carolina Parents as Teachers (PAT). (See Appendix B for more information about these programs.)

Preventive evidence-based family strengthening and parenting skills programs can help foster the kind of enriching home environment, secure relationships, and interactions that promote young children's social-emotional development and mental health.

There is a great need for evidence-based in-home and out-of-home programs to improve family functioning and parenting skills and to help families connect with needed services and supports.

These programs are offered in various counties throughout the state. NFP is administered in 10 sites and serves 16 counties across the state (Buncombe, Cleveland, Columbus, Edgecombe, Gaston, Guilford, Halifax, Hertford, McDowell, Mecklenburg, Northampton, Pitt, Polk, Robeson, Rutherford, and Wake). By the end of 2012, NFP will expand to 11 sites serving 17 counties (with the addition of Forsyth). There are six HFA affiliated sites in eight counties across the state (Burke, Durham, Mecklenburg, Mitchell, Nash, Rowan, and Yancey). Each site offers slightly different services in response to varying family and community needs. Last year, North Carolina's EHS served 3,700 children and 379 pregnant mothers in 39 counties with 29 agencies. PAT is an evidence-based curriculum used throughout the state. Funding for these programs comes from federal, state, and local governments as well as private foundations and other organizations.

In June 2011, the North Carolina Maternal, Infant and Early Childhood Home Visiting Program was awarded \$3.2 million per year for three years to fund nine-community grant recipients. Currently, 7-community grant recipients serving 25 counties are funded. (The grant can also support an additional two programs.)^c The grant is intended to connect families considered at-risk to services that can improve a "child's health, development, and ability to learn – such as health care, developmental services for children, early education, parenting skills, child abuse prevention, and nutrition education or assistance."⁴⁴ North Carolina is using the grant to support existing efforts to build evidence-based home visiting programs focused on improving the well-being of families with young children. To continue receiving funding and to potentially expand the program to reach more recipients, initial recipients must report quarterly results on selected benchmarks and show measureable change in outcomes in three-years.

Durham County is testing another promising practice called Durham Connects. This initiative provides in-home nurse visits to all parents of newborns born in Durham County. The program has shown improvements in health outcomes and is being expanded as a model to select northeastern counties as part of the Race to the Top–Early Learning Challenge Grant. (See Chapter 2 for more information on the grant.) In addition to these evidence-based and promising home visiting programs, Newborn Home Visit Services are available for all newborns by contacting the local health department. In this program, a nurse visits the baby and caregiver in the home to provide information on infant health and care, follow up on the newborn screening, and provide education and social support.

^c The seven agencies selected are the following: the Buncombe County Department of Health Center (Buncombe county); Barium Springs Home for Children (lesser Burke county); Center for Child and Family Health (northeast and central Durham, 120 blocks); Gaston County Health Department (Gaston, 38 census tracks); Northampton County Health Department (serving Northampton, Halifax, Edgecombe, and Hertford Counties); Robeson County Health Department (Robeson and Columbus Counties); the Toe River Health Department (Mitchell and Yancey Counties).

Family Strengthening and Parenting Skills Programs

In addition to home visiting programs, the Division of Public Health (DPH), Smart Start, Prevent Child Abuse North Carolina, the Division of Social Services (DSS), and others support family strengthening and parenting skills programs. For example, DPH funds family strengthening programs through the Adolescent Parenting Program, local health departments, and as part of pilot programs such as NC Launch and the Race to the Top–Early Learning Challenge Grant transformation zone. These programs include elements such as teaching parents the basics of child development and positive parenting techniques, promoting children’s cognitive and social-emotional development, and helping families connect with support services. Evidence-based family strengthening and parenting skills being implemented in North Carolina include Triple P, Incredible Years, Incredible Years BASIC Preschool Parent Training Program, Parents as Teachers, Nurse-Family Partnership, Healthy Families, and Strengthening Families. (See Appendix B for more information about these programs.) Additionally, other foundations, organizations, and religious entities provide funding for evidence-based family strengthening and parenting skills programs in their communities.

There is a great need for evidence-based in-home and out-of-home programs to improve family functioning and parenting skills and to help families connect with needed services and supports. (See Recommendation 2.2 in Chapter 2 and Recommendation 3.3 in Chapter 3.) These types of preventive programs are designed to work with all families. However, due to limited resources they are typically targeted to families and children who are deemed to have risks. Families may be defined as having risks for a number of reasons including low family income, parental substance use, children with identified behavioral problems, and family involvement with DSS due to allegations of neglect or maltreatment. Evidence-based family strengthening and parenting skills programs positively impact the social-emotional development of young children who are at-risk for poor development. However, due to the small nature of most of these programs, the variety of funders and venues for access, the variation in availability and eligibility across counties, and the lack of knowledge about such programs, it can be difficult for parents to get connected to these beneficial programs. There is a need for an easy way for parents and families to find information on programs and services to support young children’s social-emotional development and mental health. Therefore, the Task Force recommends:

Recommendation 4.1: Develop a Web-Based Clearinghouse of Programs and Services for Young Children with Mental Health Needs

North Carolina private foundations and other funding sources should provide \$125,000 to the North Carolina Infant and Young Child Mental Health Association, Early Childhood Advisory Council, and other partners to develop, deploy, and maintain a web-based clearinghouse of information on programs and services available to children and families with mental health, social, and emotional needs at the state and county level. Information provided should include availability, eligibility criteria, costs, and evidence about the effectiveness of the programs and services.

Additionally, there is a need to expand evidence-based programs providing prevention and early intervention to address the social-emotional and mental health needs of young children and their families. (See Recommendation 2.2 in Chapter 2 and Recommendation 3.3 in Chapter 3.) There is also a need to increase the knowledge and skills of the early care and education provider workforce so they are better able to foster young children's social-emotional development and mental health. For more information on existing efforts and recommendations, see Chapter 2.

References

1. National Institute for Health Care Management Foundation. Identifying and Treating Maternal Depression: Strategies & Considerations for Health Plans. http://nihcm.org/pdf/FINAL_MaternalDepression6-7.pdf. Published June 2010. Accessed April 27, 2012.
2. Knitzer J, Theberge S, Johnson K. The National Center for Children in Poverty. Reducing Maternal Depression and Its Impact on Young Children: Toward a Responsive Early Childhood Policy Framework. http://www.nccp.org/publications/pdf/text_791.pdf. Published January 2008.
3. Beck CT. The lived experience of postpartum depression: A phenomenological study. *Nurs. Res.* 1992;41(3):166-170.
4. Fowles ER. The relationship between maternal role attainment and postpartum depression. *Health Care Women Int.* 1998;19(1):83-94.
5. Earls MF. Committee on Psychosocial Aspects of Child and Family Health, American Academy of Pediatrics. Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics.* 2010;126(5):1032-1039.
6. Bright Futures, American Academy of Pediatrics. Recommendations for Preventive Pediatric Health Care (Periodicity Schedule). <http://practice.aap.org/content.aspx?aid=1599>. Published 2008. Accessed May 9, 2012.
7. Berrien K. North Carolina Department of Health and Human Services. Pregnancy Medical Home. <http://www.ncdhhs.gov/dma/pmh/PMHPresentation032010.pdf>. Published March 2011. Accessed April 10, 2012.
8. National Research Council. The National Academies Press. "Front Matter." Fetal Alcohol Syndrome. Washington, DC. <http://www.nap.edu/openbook.php?isbn=0309052920>. Published 1996.
9. Centers for Disease Control and Prevention. Alcohol and Public Health. <http://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm>. Published October 28, 2011. Accessed April 11, 2012.
10. US Surgeon General. Surgeon General's Advisory on Alcohol Use in Pregnancy. U.S. Department of Health & Human Services website. <http://www.surgeongeneral.gov/news/2005/02/sg02222005.html>. Published February 21, 2005.
11. Centers for Disease Control and Prevention. Fetal Alcohol Spectrum Disorders (FASDs). <http://www.cdc.gov/ncbddd/fasd/data.html>. Published December 11, 2011. Accessed April 11, 2012.
12. North Carolina State Center for Health Statistics. The PRAMS Survey: Alcohol Use. <http://www.schs.state.nc.us/schs/prams/2009/#1>. Published March 09, 2012. Accessed April 11, 2012.
13. May PA, Gossage JP. Estimating the prevalence of fetal alcohol syndrome: A summary. *Alcohol Research & Health.* 2001;25(3):159.
14. US National Library of Medicine. Fetal alcohol syndrome. <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001909/>. Published August 15, 2011. Accessed April 30, 2012.
15. Abel E. Plenum Press. Fetal alcohol syndrome and fetal alcohol effects. New York, NY. Published 1983.
16. North Carolina State Center for Health Statistics. Selected Vital Statistics for 2010 and 2006-2010: North Carolina. <http://www.schs.state.nc.us/schs/vitalstats/volume1/2010/nc.html>. Accessed May 9, 2012.
17. National Research Council. The National Academies Press. Fetal Alcohol Syndrome: Diagnosis, Epidemiology, Prevention, and Treatment. Washington, DC. http://www.nap.edu/openbook.php?record_id=4991&page=4. Published 1996. Accessed May 9, 2012.
18. Yates WR, Cadoret RJ, Troughton EP, Stewart M, Giunta TS. Effect of fetal alcohol exposure on adult symptoms of nicotine, alcohol, and drug dependence. *Alcohol. Clin. Exp. Res.* 1998;22(4):914-920.

19. Streissguth AP, Aase JM, Clarren SK, Randels SP, LaDue RA, Smith DF. Fetal alcohol syndrome in adolescents and adults. *JAMA*. 1991;265(15):1961-1967.
20. Dorris M. (1989) *The Broken Cord*. New York, NY: Harper & Row Publishers.
21. Office on Child Abuse and Neglect, Children's Bureau, ICF International. Child Welfare Information Gateway. Chapter 3: How Parental Substance Use Disorders Affect Children. <http://www.childwelfare.gov/pubs/usermanuals/substanceuse/chapterthree.cfm>. Published 2009. Accessed May 9, 2012.
22. Center for Substance Abuse Treatment. Substance Abuse and Mental Health Services Administration. *Substance Abuse Treatment: Addressing the Specific Needs of Women*. Treatment Improvement Protocol (TIP) Series 51. HHS Publication No. (SMA) 09-4426. Rockville, MD. <http://kap.samhsa.gov/products/manuals/tips/pdf/TIP51.pdf>. Published 2009. Accessed May 10, 2012.
23. American College of Obstetricians and Gynecologists. ACOG committee opinion no. 422: At-risk drinking and illicit drug use: Ethical issues in obstetric and gynecologic practice. *Obstet. Gynecol.* 2008;112(6):1449-1460.
24. The United Nations Children's Fund (UNICEF), Secretariat for the United Nations Secretary-General's Study on Violence against Children. Behind Closed Doors: The Impact of Domestic Violence on Children. <http://www.unicef.org/protection/files/BehindClosedDoors.pdf>. Published 2006. Accessed May 21, 2012.
25. Sullivan K. Why is early childhood mental health critical? Presented to: the North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families 3-10-11; March 10, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Sullivan_2011-3-10.pdf. Accessed May 21, 2012.
26. Domestic Violence and Its Impact on Children's Development. Department of Community Service, New South Wales. http://www.community.nsw.gov.au/docswr/_assets/main/documents/dv_paper.pdf. Published September 24, 2002. Accessed May 21, 2012.
27. National Center for Chronic Disease Prevention and Health Promotion. Adverse Childhood Experiences (ACE) Study. Division of Population Health, US Centers for Disease Control and Prevention website. <http://www.cdc.gov/ace/prevalence.htm>. Published September 20, 2010. Accessed May 21, 2012.
28. North Carolina State Center for Health Statistics. North Carolina Department of Health and Human Services. 2009 PRAMS Data Tables: Physical Abuse. <http://www.schs.state.nc.us/schs/prams/2009/#19>. Published March 09, 2012. Accessed May 24, 2012.
29. Huth-Bocks AC, Levendosky AA, Bogat GA. The influence of domestic violence on the development of the attachment between mother and young child. *Psychoanalytic Psychology*. 2011;28(4):512-527.
30. Huth-Bocks AC, Levendosky AA, Theran SA, Bogat GA. The impact of domestic violence on mothers' prenatal representations of their infants. *Infant Mental Health Journal*. 2004;25(2):79-98.
31. Bergman K, Sarkar P, Glover V, O'Connor TG. Maternal prenatal cortisol and infant cognitive development: Moderation by infant-mother attachment. *Biol. Psychiatry*. 2010;67(11):1026-1032.
32. Office for the Prevention of Domestic Violence. New York State. National Data on Intimate Partner Violence. <http://opdv.state.ny.us/statistics/nationaldvdata/nationaldvdata.pdf>. Published September 2010. Accessed May 21, 2012.
33. Bogat GA, DeJonghe E, Levendosky AA, Davidson WS, von Eye A. Trauma symptoms among infants exposed to intimate partner violence. *Child Abuse Negl.* 2006;30(2):109-125.
34. Action for Children North Carolina. 2011 North Carolina Child Health Report Card. [http://www.ncchild.org/sites/default/files/2011%20CHRC%20\(FINAL\).pdf](http://www.ncchild.org/sites/default/files/2011%20CHRC%20(FINAL).pdf). Published 2011. Accessed May 10, 2012.
35. Lapp T. ACOG addresses psychosocial screening in pregnant women. The Committee on Health Care for Underserved Women of the American College Obstetricians and Gynecologists. *Am. Fam. Physician*. 2000;62(12):2701-2702.

36. American Academy of Pediatrics. Initial History Questionnaire. http://www.synspectrum.com/Child_History_Questionnaire.pdf. Published 2010. Accessed May 24, 2012.
37. HealthCare.gov. Affordable Care Act Rules on Expanding Access to Preventive Services for Women. US Department of Health & Human Services website. <http://www.healthcare.gov/news/factsheets/2011/08/womensprevention08012011a.html>. Published August 1, 2011. Accessed May 24, 2012.
38. Child Welfare Information Gateway. Family Preservation Services. Children's Bureau, Administration for Children and Families, US Department of Health and Human Services website. <http://www.childwelfare.gov/supporting/preservation/>. Accessed June 6, 2012.
39. Powell D, Dunlap G, Fox L. Prevention and intervention for the challenging behaviors of toddlers and preschoolers. *Infants and Young Children*. 2006;19(1):25-25-35.
40. National Scientific Council on the Developing Child. Mental Health Problems in Early Childhood Can Impair Learning and Behavior for Life. Working Paper No.6. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
41. Earls M. Expanding innovation through networks: The assuring better child health and development (ABCD) project. *NC Med J*. 2009;70(3):253.
42. Joseph G, Strain P, Ostrosky. M.M. Center on the Social and Emotional Foundations for Early Learning. Fostering Emotional Literacy in Young Children: Labeling Emotions. What Works Brief #21. <http://eclkc.ohs.acf.hhs.gov/>. Published 2008. Accessed May 10, 2012.
43. Cawthorne A, Arons J. Center for American Progress. There's No Place Like Home: Home Visiting Programs can support pregnant women and new parents. Published January 2010. Accessed May 10, 2012.
44. US Department of Health & Human Services. HHS Allocated \$88 Million for Home Visiting Program to Improve the Wellbeing of Children and Families. <http://www.hhs.gov/news/press/2010pres/07/20100721a.html>. Published 21 July 2010. Accessed 30 November 2011.

Within the framework for strengthening early childhood social-emotional development and mental health, intervention is about comprehensive, individualized, intensive treatment for the pregnant women, mothers, and young children with persistent social-emotional and mental health challenges. Interventions are aimed at resolving problem behaviors as well as supporting the development of new skills. It's essential that pregnant women and mothers of young children with persistent mental health and substance abuse disorders have access to this level of treatment. The goal of treating mothers is to improve the mother's well-being and health as well as the child's environment and relationship with his or her mother. A subset of young children with social-emotional and mental health needs also need access to this level of treatment. Research shows that intervening early can have a profound and positive effect on social-emotional problems as well as improve outcomes for children with serious disorders.¹

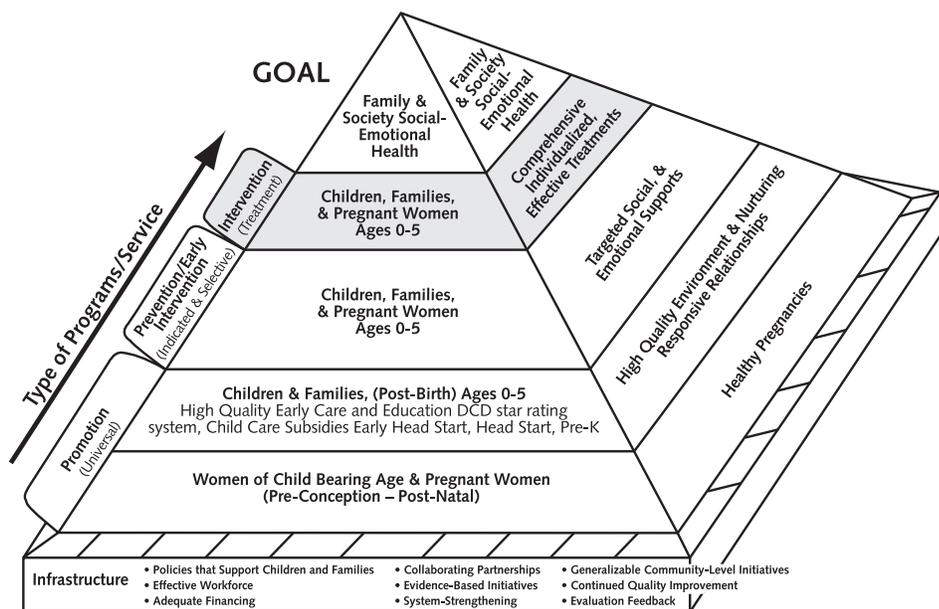


Mental Health and Substance Use Treatment for Pregnant Women and Mothers of Young Children

Poor mental health and substance use during pregnancy and the early childhood years negatively impacts the health of the mother and child and impairs the

Intervention services provide comprehensive, individualized, intensive treatment for the pregnant women, mothers, and young children with persistent social-emotional and mental health challenges.

Figure 5.1
Pyramid for Strengthening Early Childhood Mental Health and Social Emotional Competence in Young Children



Note. This pyramid model conceptualizes the critical building blocks for achieving healthy mothers and healthy children. The front face of the pyramid explains the individuals and families who receive programs and services, which are divided up by the following categories: promotion, prevention, and intervention. The pyramid's side face lists the goals associated with the program/service recipients(s). these are further divided according to the socioecological model of health behavior. The foundation of the pyramid represents the necessary system-building blocks.

Poor mental health and substance use during pregnancy and the early childhood years negatively impacts the health of the mother and child and impairs the mother-infant relationship which is critical for social-emotional development and mental health.

mother-infant relationship which is critical for social-emotional development and mental health. As discussed in the Chapter 4, pregnant women and mothers of young children should be screened for mental health and substance use problems. Screening is the first step in identifying mental health and substance use disorders. If the initial screening indicates there may be a problem, a more thorough assessment is needed. The purpose of assessment is to gather detailed information needed to define the problem, make a diagnosis, and develop a treatment plan that meets the needs of that individual.² While screenings and brief interventions for mental health and substance use disorders can be done by a range of health professionals, a thorough assessment should be performed by qualified and trained clinicians. Once the assessment is complete, a diagnosis and referral for treatment can be made and a treatment plan can be developed. In addition to a treatment plan for the mother, the needs of the child should also be considered. The children of mothers with mental health and substance use disorders often have impaired relationships with their mothers. Successfully treating the mother's mental health and substance use disorders does not usually solve the problems in the mother-child relationship—which is critical for healthy social-emotional development—unless there is an explicit therapeutic focus on the relationship.³

Barriers to Treatment

Mental health disorders can disrupt the mother-child relationship. In particular, the Task Force focused on maternal depression due to prevalence and the documented impact of maternal depression on the mother-child relationship. Maternal depression is a medical disorder that can negatively affect a woman's ability to function as a mother, which can harm family functioning and young children's social-emotional, cognitive, and language development.⁴ Women with maternal depression respond well to treatment. The most common forms of treatment for maternal depression are psychotherapy, pharmacotherapy, or a combination of both. However, mothers cite many barriers to treatment including the cost of treatment/lack of insurance coverage, lack of knowledge about the impact of depression and where to seek treatment, time constraints, and a reluctance to take medications.⁵ Of those women who are screened and have a score indicating a need for treatment, most do not see a professional for treatment.⁵

Substance use impairs a mother's ability to provide a nurturing, responsive relationship and high quality environment, both of which are essential for young children's social-emotional development and mental health.⁶ Furthermore, alcohol use during pregnancy is the cause of the leading preventable birth defect associated with mental and behavioral impairment.⁷ Research shows that gender plays a role in the physical effects of substance use, patterns of use, barriers to treatment, access to treatment, and effectiveness of treatment. For example, women have more severe complications and health problems from substance use than men, women develop substance use disorders faster than men, women who have substance use disorders are more likely to have partners

with substance use disorders which can then impact treatment engagement and outcomes, and women are more likely to be primary caregivers which is a barrier to receiving treatment.² Additionally, research has shown that women have unique needs when it comes to substance use treatment. Gender-specific factors which influence treatment and recovery include the importance of relationships, the influence of family, the role of substance abuse in sexuality, the prevalence and history of trauma and violence, and common patterns of co-occurring disorders.² Similarly, women often also need access to treatment which addresses pregnancy, child care, child services, and parenting skills.² Meeting these needs is critical to increasing treatment engagement and retention as well as improving outcomes for women and their children.⁸

Being responsible for the care of dependent children is one of the biggest barriers for women receiving treatment.² Out-patient programs typically do not provide child care and very few residential programs offer dyadic treatment or allow mothers to have their children with them. Treatment for pregnant women is also difficult to find due to challenges around providing counseling, prenatal care, infant care, and services for older children within one program.² In addition to the lack of treatment programs designed for pregnant women and mothers of young children, many women fear the legal consequences of entering treatment, including losing custody of their children.² Other barriers to treatment include not being ready to stop using the substances, cost and health insurance barriers, social stigma, and not knowing where to go for treatment.^{7,9}

Coverage for Treatment Services

As discussed in previous chapters, more than one in five women of childbearing age in North Carolina do not have health insurance and, therefore, do not have access to affordable mental health services.¹⁰ About 51% of women receive Medicaid coverage during pregnancy.^a Medicaid for Pregnant Women^b covers services to treat conditions that may complicate pregnancy, including depression and substance use. Through North Carolina's Pregnancy Medical Home Model, pregnant women with mental illness including depression and substance abuse, receive additional care management services through a pregnancy care manager. Care managers work with individuals to determine needs, establish care plans, and connect individuals to needed care. However for most women, Medicaid coverage currently ends 60 days postpartum. Under the Affordable Care Act (ACA) states have the option to expand Medicaid coverage to cover more low-income adults (those with incomes up to 138% FPG, or \$31,800 for a family of four in 2012). (At the time of writing, North Carolina had not made a decision on Medicaid expansion.)

a Goldsmith, Catharine. Behavioral Health Section, Clinical Policy Programs, North Carolina Division of Medical Assistance, North Carolina Department of Health and Human Services. Written (email) communication May 24, 2012.

b Eligibility periods ends on the last day of the month in which the 60th postpartum day occurs. (North Carolina Division of Medical Assistance, A Consumer's Guide to North Carolina Health Care Coverage Programs for Families and Children. North Carolina Department of Health and Human Services website. <http://www.ncdhhs.gov/dma/medicaid/famchld.pdf>. Accessed May 10, 2012.)

Successfully treating the mother's mental health and substance use disorders does not usually solve the problems in the mother-child relationship unless there is an explicit therapeutic focus on the relationship.

Women often need access to treatment which addresses pregnancy, child care, child services, and parenting skills. Meeting these needs is critical to improving outcomes for women and their children.

The majority of women who have private health insurance have mental health benefits. As of January 1, 2011, private employer based health insurance plans with more than 50 employees must provide mental health and substance use disorder benefits on parity with physical health benefits^c (according to the federal Mental Health Parity and Addiction Equity Act of 2008).¹¹ This should increase women's access to mental health care and treatment for substance use problems. In addition, the ACA extends the same mental health and substance abuse parity to other small group and non-group plans beginning in 2014. Thus, most health plans will provide coverage for mental health and substance abuse disorder services.¹²

Individuals with mental health needs who have Medicaid coverage or who are uninsured are referred to the Local Management Entity-Managed Care Organization (LME/MCOs) serving their area.^d As discussed in Chapter 2, LME/MCOs receive limited state funding to provide mental health services to target populations. North Carolina's target population includes pregnant women needing treatment for alcohol or drug use disorders, but does not include pregnant women with other mental health concerns.^{13,14}

Current North Carolina Efforts to Provide Mental Health and Substance Use Treatment for Mothers

The University of North Carolina at Chapel Hill's Center for Women's Disorders in the Department of Psychiatry has clinical programs aimed at improving women's perinatal mental health. The Perinatal Mood and Anxiety Disorders Program targets women with mood and anxiety disorders during pregnancy and postpartum. The Perinatal Psychiatry Inpatient Unit is a five bed inpatient unit that provides inpatient care for women with serious mood conditions during pregnancy or postpartum. The Center also offers Interpersonal Psychotherapy, an evidence-based psychotherapy program to treat perinatal mood disorders; Partner-Assisted Therapy, which involves the spouse, partner, or a family member to continue treatment in the home; and Mindfulness-Based Cognitive Therapy, a group therapy for individuals with a history of depression.¹⁵

There are a number of programs and initiatives that provide substance abuse services, including treatment, to women and their families before and after the birth. The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) and the Division of Public Health (DPH) fund a substance use specialist position at the Alcohol/Drug Council of North Carolina. The substance use specialist provides technical assistance, training, and education regarding screening and referral for pregnant women and maintains a list of residential substance abuse services (including numbers of beds available for these women and their children). DMH/DD/SAS also funds the North Carolina Teratogen Information Service which provides prevention,

^c If they cover mental health benefits.

^d By 2013, the current system of Local Management Entities will be replaced by a system of Local Management Entities-Managed Care Organizations.

education, and support activities, helps with patient evaluations and referrals, and operates the Pregnancy Exposure Riskline, which provides evidence-based, clinical information to patients and health care professionals about exposure to harmful substances during pregnancy and lactation. In addition, DMH/DD/SAS, through the LME/MCOs, provides support for qualified substance abuse professionals to be stationed in local Departments of Social Services (DSS), to provide screening, assessment, care coordination, and referral services to families involved with their local DSS.

DMH/DD/SAS also supports the North Carolina Perinatal and Maternal Substance Abuse Initiative (PMSAI), which funds 21 specialized programs for women, before and after birth, with a substance related disorder. PMSAI includes residential services for pregnant and parenting women. Residential programs typically provide substance abuse treatment, life skills training, parenting education, child care, and transportation.¹⁶ The PMSAI also supports transitional and outpatient programs for women. All of these programs are specifically designed to meet the needs of women who are using substances while they are pregnant and/or parenting and the needs of their children. Women can enter treatment with their children and receive comprehensive gender-specific substance abuse services as well as treatment for their children. The children served benefit from the services provided by the local health departments (pediatric care), early intervention programs, local child mental health providers, and child services coordination. Space in these programs is limited and many programs maintain waitlists.

While North Carolina has a number of programs and services targeting pregnant women and mothers of young children who have substance abuse disorders, the number of residential programs that are able to accommodate women with children is limited. Additionally, there are few options available for women before and after birth who need comprehensive treatment for depression or other mental health concerns, or for treating the mother and infant/young child relationship. Therefore, the Task Force recommends:

Recommendation 5.1: Expand Treatment Services for Mothers with Substance Use and Mental Health Challenges

The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), in collaboration with the North Carolina Division of Medical Assistance, the North Carolina Department of Health and Human Services housing specialists, the North Carolina Housing Finance Agency, and the North Carolina Division of Social Services should examine options to expand the array of treatment options for pregnant women and mothers with mental health and substance use disorders, including supports for women in their own home as well as residential treatment services. In particular, DMH/DD/SAS and partners

More than one in five women of childbearing age in North Carolina do not have health insurance and, therefore, do not have access to affordable mental health services.

should explore options for women with young children who need to be in developmentally-appropriate environments to engage in mother-child treatment while their mother receives targeted treatment. DMH/DD/SAS should bring recommendations about resources needed to address these needs to the Joint Legislative Oversight Committee on Health and Human Services of the North Carolina General Assembly, no later than June 30, 2013.

Early identification and treatment can have profound and positive effects on social-emotional problems as well as improve outcomes for children with serious disorders.

Treatment for Young Children’s Social-Emotional Development and Mental Health

It is estimated that between 9-14% of young children have serious and persistent emotional and behavioral health disorders (approximately 91,000 children ages 0-5 in North Carolina)^e These children struggle to experience, regulate, and express emotions; form close and secure interpersonal relationships; and explore the environment and learn. They display repeated challenging behaviors that interfere with learning and positive engagement with caregivers and other children which jeopardizes care and preschool placements, disrupts family functioning, and affects growth and development in other domains. Challenging behaviors may include physical and verbal aggression, property destruction, severe tantrums, self-injury, noncompliance, and withdrawal. The intensity, frequency, and duration of such challenging behaviors is what distinguishes them from typical behavior during early childhood years.¹⁷ Examples include:

- An infant with a substance abusing mother who is neglected and has delayed social development.
- An extremely fussy infant or very quiet infant who does not develop a secure relationship with her caregiver and has delayed social development.
- A toddler who responds to stressful situations by biting and kicking is avoided by other children and, therefore, does not develop the social skills needed to successfully interact with others.
- A 4-year old who does not respond to directions, is defiant and argumentative, and is expelled out of preschool.

Children who exhibit challenging behaviors at this level are vulnerable. In the short-term, challenging behaviors impact relationships with caregivers, peers, and teachers; in the long-run, persistent challenging behaviors can be the precursor to lifelong physical and mental health problems if left untreated.¹⁷ North Carolina’s Great Smoky Mountains Study indicates that these children are at substantially greater risk for: school dropout, childcare and school expulsion, drug or alcohol abuse, unplanned teen pregnancy, and conviction of crimes.¹⁸ Early identification and treatment can have profound and positive effects on social-emotional problems

^e Based on 757,664 children ages 0-5 in 2010, 12%=90,920 children (0.12*757,664 = 90,920) (Office of State Budget and Management. July 1, 2010 County Total - Single Year Ages. http://www.osbm.state.nc.us/demog/countytotals_singleage_2010.html. Accessed June 20, 2012)

as well as improve outcomes for children with serious disorders.¹ The goal of treatment is to address and resolve problem behaviors before the behaviors become entrenched and seriously impact a child's current and future well-being.

As discussed in Chapter 4, there are many avenues for a child to be referred to a mental health provider including parents, pediatricians or other health care providers, early care and education providers, public health and other social service agencies, or the North Carolina Court System. Depending on the source of the referral, the child's age, the exact nature of the social-emotional and mental health needs, and the child's health insurance status, the young child could be referred to the Children's Developmental Services Agency (CDSA), LME/MCO, the Local Education Agency, or a private mental health professional.

Coverage for Treatment Services

Federal Individuals with Disabilities Education Act

Young children ages 0-5 with significant social-emotional and mental health needs may qualify for treatment services under the federal Individuals with Disabilities Education Act (IDEA). In North Carolina, IDEA services are provided through the Infant-Toddler Program (ITP) for children ages 0-36 months and through the Preschool Program for children ages 3-5. (See Chapter 2.) The criteria for qualifying for the ITP are determined by the state, within the guidelines set by federal IDEA Part C.¹⁹ To qualify for ITP in North Carolina, children with a social-emotional, cognitive, physical, communication, or adaptive developmental delay must meet a specific level of delay^f or have an established condition.¹⁹ Established conditions related to social-emotional and mental health development include fetal alcohol syndrome (FAS) and attachment disorder.¹⁹ Children ages 3-5 with atypical social-emotional development that could interfere with their ability to learn may qualify for special education and other related services (such as speech therapy, occupational therapy, physical therapy, transportation, etc.) through the North Carolina Preschool Program. Children who qualify for services under IDEA receive evaluations and care coordination at no cost. Coverage and cost of intervention services varies based on the child's insurance status and income level. (See Table 5.1.)

Private Health Insurance

Parents of children ages 0-5 with social-emotional and mental health needs may seek help from local mental health providers directly, or be referred to treatment. Children with private health insurance coverage receive services according to their coverage plan. See "Coverage for Treatment Services" under "Mental Health and Substance Use Treatment for Pregnant Women and Mothers of Young Children" above for more information.

^f The delay must be documented at a minimum of two standard deviations from the norm on a standardized test in one area of development or one and a half standard deviations from the norm in two or more areas. (North Carolina Infant and Toddler Program. New Eligibility Definition for the NC Infant Toddler Program. North Carolina Department of Health and Human Services website. <http://www.bearly.nc.gov/data/files/pdf/EligibilityDefn.pdf>. Accessed May 9, 2012.

The goal of treatment is to address and resolve problem behaviors before the behaviors become entrenched and seriously impact a child's current and future well-being.

Table 5.1
Eligibility for Treatment and Care Coordination Services, by Age and Insurance Status

	Treatment	Care Coordination
Private Insurance		
All Ages	Private providers (may or may not need prior approval depending on insurance plan)	May or may not get care coordination, depends on insurance plan.
Ages 0-36 Months, ITP Eligible	If qualify for Infant-Toddler Program (ITP), Children's Developmental Services Agency (CDSA) would cover treatment services not covered by private insurance plan based on a sliding fee scale.	CDSA
Ages 3-5, Preschool Program eligible	No coverage for mental health services.	No care coordination
Medicaid		
Ages 0-36 Months	6 mental health visits per year without a diagnosis 16 unmanaged mental health visits per year Additional mental health visits require prior approval from Value Options"	Medicaid-enrolled children with high-risk, high-costs, high-acuity health needs (e.g., asthma, congestive heart failure, chronic obstructive pulmonary disease, and diabetes) may receive care coordination through Community Care of North Carolina (CCNC). Children ages 0-5 who have been exposed to toxic stress and children with persistent social-emotional or behavioral health conditions may qualify for care coordination through Care Coordination for Children (CC4C).
ITP eligible	If qualify for ITP, CDSA would cover treatments not covered by Medicaid based on a sliding fee scale.	CDSA
Ages 3-5	6 mental health visits per year without a diagnosis 16 unmanaged mental health visits per year Additional mental health visits require prior approval from Value Options."	Medicaid-enrolled children with high-risk, high-costs, high-acuity health needs (e.g., asthma, congestive heart failure, chronic obstructive pulmonary disease, and diabetes) may receive care coordination through CCNC. Children ages 0-5 who have been exposed to toxic stress and children with persistent social-emotional or behavioral health conditions may qualify for care coordination through CC4C.
Preschool Program eligible	No coverage for mental health services.	
Medicaid for Pregnant Women	Medicaid covers services to treat conditions that may complicate the pregnancy, including depression and substance use. Coverage ends 60 days postpartum.	Pregnant and postpartum women who are screened and found to have mental health conditions that may complicate their pregnancy or ability to bond with the infant, including depression and substance abuse, receive additional care management services through a CCNC pregnancy care manager.
Other Adults	8 unmanaged mental health visits (with a diagnosis) per year. Parents can receive 6 mental health visits under their child's Medicaid coverage. Additional mental health visits require prior approval from Value Options.	CCNC provides care coordination for the adult Medicaid population with high physical health needs and low behavioral health needs. LME/MCOs provide care coordination for the adult Medicaid population that has high behavioral health needs and low physical health needs.
Uninsured		
Ages 0-36 Months	No coverage for treatment, must pay out-of-pocket.	No care coordination
ITP eligible	If qualify for ITP, CDSA would cover treatment services based on a sliding fee scale.	CDSA

	Treatment	Care Coordination
Ages 3-5	LME/MCO Target Population: young children ages 3-6 with atypical social-emotional and behavioral development, exposure to physical or sexual abuse or other environmental situations that could significantly delay social-emotional development, or a parent with substance use or mental health disorder. Children in this population who seek treatment through the LME/MCO should get treatment through state funding to the LME/MCO. Children receiving state-funded services must pay out-of-pocket expenses according to a state-designed sliding scale related to family income.	Unlikely to qualify for care coordination. However, LME/MCOs provide care coordination for the population with high behavioral health needs and high costs.
Preschool Program eligible	No coverage for mental health services.	
Prenatal and Postpartum Women	LME/MCO Target Population: pregnant women needing treatment for an alcohol or drug use disorder. Women in this population who seek treatment through the LME/MCO should get treatment through state funding to the LME/MCO. Women receiving state-funded services must pay out-of-pocket expenses according to a state-designed sliding scale related to family income. Prenatal and postpartum women with other mental health concerns are not part of the LME/MCO target population. They must pay for treatment services out-of-pocket.	Unlikely to qualify for care coordination. However, LME/MCOs provide care coordination for the population with high behavioral health needs and high costs.
Other Individuals	Individuals who meet the LME/MCO target population definitions should get treatment through state funding to the LME/MCO. Individuals receiving state-funded services must pay out-of-pocket expenses according to a state-designed sliding scale related to family income.	Unlikely to qualify for care coordination. However, LME/MCOs provide care coordination for the population with high behavioral health needs and high costs.

Medicaid

Children receiving Medicaid may be referred to a local mental health provider by their primary care provider or, for children ages 3-5, they may be referred to the LME/MCO for further assessment and referral to treatment. Children receiving Medicaid can receive up to 6 mental health visits without a diagnosis and up to 16 visits without prior authorization. If more than 16 visits are needed, the services must be approved by Value Options (or the LME/MCO, if the LME has converted into a Managed Care Organization), the managed care mental health and substance abuse services operator for Medicaid, regardless of whether the child went through Value Options to first obtain treatment.⁸

Uninsured Children

As discussed earlier in this chapter, limited state funding for mental health services for the uninsured is allocated for target populations. Young children ages 3-5 who exhibit atypical social-emotional and behavioral development, have been exposed to physical or sexual abuse or other environmental situations that could significantly delay social-emotional development, or parents with substance use or mental health disorder are included in the target population.²⁰

⁸ Currently Value Options must approve mental health and substance abuse services for most Medicaid recipients. In the Durham, Eastpointe, and Piedmont LME catchment areas, the LME approves services. (ValueOptions. North Carolina Medicaid. ValueOptions websites. http://www.valueoptions.com/providers/Network/North_Carolina_Medicaid.htm. Accessed May 11, 2012.) Under the new LME/MCO structure, the LME/MCO will approve services for the population ages three and older. Value Options will continue to approve services for children 0-36 months.

There is a need to establish standard protocols for the tools and methods used for screening, triage, assessment, referrals, and clinical treatment.

Parents of children receiving state-funded services must pay out-of-pocket expenses according to a state-designed sliding scale based on family income. Uninsured children ages 0-2 who do not qualify for treatment services through the CDSA must pay the full cost of mental health services out-of-pocket.

Improving the Quality of Women and Young Children's Social-Emotional and Mental Health Care

Currently many variables affect an individual's chance of receiving the kind of high quality mental health treatment services that have been shown to make a positive difference in the lives of women and young children. Health insurance coverage is critical to helping people pay for needed health care services. However, simply having health insurance does not guarantee identification or treatment of social-emotional and mental health needs. Whether or not a provider screens for depression, substance use, and atypical social-emotional development; the quality of the tool used; whether or not the provider is trained in providing brief intervention services; the availability of providers to provide more intensive treatment services; the knowledge of and ability to refer to local mental health providers; and the types of treatment available through local providers all play a role in determining whose needs are identified, whether or not appropriate treatment is received, and the quality of treatment.

There is a need to establish standard protocols for the tools and methods used for screening, triage, assessment, referrals, and clinical treatment to address the social-emotional and mental health needs of pregnant women, young children ages 0-5, and their families. As discussed in Chapter 2, evidence-based programs and interventions are those that have been proven, through evaluation, to achieve positive health outcomes. Whenever possible, the state should encourage the use of evidence-based, or evidence-informed, strategies to provide screening, triage, assessment, referrals, and treatment. In addition to improving the quality of care women and young children receive, clearly defined protocols could help both providers and families better navigate the system.

In addition, the state can do more to encourage and reward behavioral health providers to use evidence-based screening and assessment tools, to obtain training in evidence-based treatment methods, and to deliver evidence-based treatment with fidelity via the state's adopted System of Care (SOC) framework. (See Chapter 3 for more information on SOC.) However, the current Medicaid and DMH/DD/SAS payment system is largely based on a fee-for-service model. Health care and behavioral health professionals are paid for each procedure or treatment provided, regardless of whether evidence-based treatments, shown to achieve positive outcomes, were used. In the context of the waiver, the state should begin to move to a value-based payment system that pays providers, in part, based on the outcomes achieved. In order to accomplish this goal, DMA, CCNC, DMH/DD/SAS, LME/MCOs, and other appropriate partners should define age-appropriate, validated behavioral health process and outcome

measures to tie to performance-based payments. In addition, the state should maintain a list of health care professionals who have received training and are rostered in evidence-based treatment methods.

This is a particularly opportune time to transition to a performance-based payment system. As discussed, LME/MCOs are responsible for managing, coordinating, facilitating, and monitoring mental health, developmental disability and substance abuse services and funding at the local level. In addition to providing screening, triage, and referral to treatment services for the population ages 3 through adult, under the state's 1915(b)/(c) Medicaid waiver, the Division of Medical Assistance (DMA) contracts with the LME/MCO to provide mental health, developmental disability, and substance abuse services for the counties they serve. LME/MCOs receive a capitated payment to provide services for their area. Under the waiver, LME/MCOs will be able to pay providers differential rates, limit the provider network,^h and provide some care management services. These new options provide opportunities to incentivize providers and improve the quality of services provided. In a waiver context, getting the right services and supports to the individual in need at the right time is crucial to the broader success of the waiver. For effective child outcomes, a Child and Family Team, with membership specific to each child's strengths and needs and comprised of those who the family identifies as service providers and supports, work together to plan appropriate services and supports for each child and family. The Child and Family Team develop, implement, monitor, and revise the Person-Centered Plan based on team review of the ongoing comprehensive clinical and developmental assessments. When services and supports are implemented in a System of Care framework, positive outcomes and savings will accrue, not only in the public mental health sector, but in other health and human services as well.²¹ It should be noted as part of North Carolina's system change via the 1915 (b)(c) waiver, all of North Carolina should be implementing or should have implemented SOC as outlined above in order to ensure the efficacy of the system, both fiscally and, more importantly, qualitatively for the child and family.

There is an identified need to improve current systems for screening, triage, assessment, referral, and treatment for both women and young children. Doing so could increase the number of individuals whose needs are identified and referred to treatment and, ultimately, improve the quality of care delivered and the outcomes for women and children served. Therefore, the Task Force recommends:

The state should begin to move to a value-based payment system that pays providers, in part, based on the outcomes achieved.

^h After the first year.

Recommendation 5.2: Establish Care and Reimbursement Standards to Promote Women and Children’s Mental Health (PRIORITY RECOMMENDATION)

- a) **The North Carolina Division of Medical Assistance (DMA), in collaboration with Community Care of North Carolina (CCNC), Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), Division of Public Health (DPH), and the North Carolina Infant and Young Child Mental Health Association (NCIMHA) should identify evidence-based or evidence-informed prevention programs, screening tools, triage, assessment, referral protocols, and clinical guidelines, for:**
 - 1) **Pregnant women using or abusing alcohol or other harmful substances.**
 - 2) **Women with prenatal or postpartum depression or other mental health disorders.**
 - 3) **Infants and young children with social-emotional and mental health needs.**
 - 4) **Women and children who have experienced family violence or other trauma.**
- b) **DMA, CCNC, DMH/DD/SAS, Local Management Entity/Managed Care Organizations (LME/MCOs), DPH, and NCIMHA should define age-appropriate, validated behavioral health and social-emotional and mental health process and outcome measures on which to tie performance-based incentive payments.**
- c) **DMA, CCNC, DMH/DD/SAS, DPH, LME/MCOs, and NCIMHA should develop value-based Medicaid payments that provide additional reimbursement to professionals who are in the roster and provide evidence-based or evidence-informed protocol in clinical settings and natural environments (e.g. home, primary care, early care and education), and report process and outcome measures for the following populations:**
 - 1) **Pregnant women using or abusing alcohol or other harmful substances.**
 - 2) **Women with prenatal, perinatal or postpartum depression or other mental health disorders.**
 - 3) **Infants and young children with social-emotional and mental health needs and their families.**

4) Women and young children who have experienced family violence.

- d) Private insurers should also implement changes to incentivize health care professionals to use evidence-based screening, assessment, referral, and clinical treatment protocol for similar populations.**

Care Coordination and Care Management

Effective social-emotional and mental health interventions often involve more than one provider and more than one system of care.²² Therefore, linkages between providers and systems (e.g. public health, mental health, early care and education) are critical to ensuring children and families receive the services and support that they need (such as medical care, family support, and transportation). Even if the resources are available and linkages exist, families may need assistance understanding and navigating multiple providers and systems. (Table 5.1 on pages 94-95 provides an illustration of the various systems and policies that providers and families must navigate when trying to obtain treatment and care coordination services.) Care coordination (also referred to as service coordination or case management) includes efforts to assure young children and their families are connected with needed services and supports. Care coordinators also help improve communication between families and providers. Care coordination has the potential to reduce some of the barriers to treatment that families face.²²

Care coordinators can help families understand the types of services their child needs as well as connect them with providers, monitor treatment, and provide follow up to ensure that services are received and are adequate to meet the child's needs. Additionally, care coordinators may help identify services and supports to meet other family needs which affect children's development (e.g. nutrition services and parent skills training). Care coordination is a benefit that is provided to some children and families through private health insurance, Medicaid, or other programs. Who is eligible and what types of support are offered through care coordination vary widely. Care coordination is available to some participants receiving services through North Carolina's public systems, including the Infant and Toddler Program, the Preschool Program, CCNC, CC4C, and the LME/MCOs.

Care management programs assist high-risk or high-cost populations, or populations with specific diseases. Care managers may provide individuals with educational materials, in-person or telephonic consultations from nurse care managers or social service specialists, a personalized plan of care, transition care after hospitalizations, and identification and coordination of other community resources. Most often, if individuals do not fall into the high-risk categories that the case managers screen for, the individuals do not receive case management services.

Linkages between providers and systems are critical to ensuring children and families receive the services and support that they need.

Care coordination includes efforts to assure young children and their families are connected with needed services and supports.

Infant and Toddler Program

Children ages 0-36 months with delayed social-emotional development or established conditions that qualify for North Carolina's Infant and Toddler Program (ITP), may receive care coordination services (service coordination) through Children's Developmental Services Agencies (CDSA). As discussed in Chapter 2, eligible children receive a thorough assessment and then work with a service coordinator to develop an Individualized Family Service Plan (IFSP), which outlines the needs of the child and family. Service coordinators organize services and supports to meet those needs and provide monitoring and follow-up to ensure that services are received and are adequately meeting needs. If services are not meeting the needs of the child and family, the service coordinator is responsible for making adjustments to the IFSP and services. The job of the service coordinator is to ensure that the needs identified in the IFSP are met which, depending on the child and family being served, may require intensive support. Service coordination is provided at no cost to families. (See Chapter 2 for more information on ITP.)

ITP service coordinators have training to work with infants and toddlers with specific developmental needs. They are trained to identify those needs and have extensive knowledge of the various services and supports available to meet the specific developmental needs of eligible children and their families. (See Chapter 2 for more on the types of services and supports.) ITP service coordinators generally do not have training or experience in meeting the medical needs of children. Children enrolled in ITP who have extensive medical needs may receive care management or care coordination through CCNC, CC4C, or private health insurance.ⁱ

CCNC

Community Care of North Carolina (CCNC) serves all of North Carolina's Medicaid population and provides care management, through a CCNC network care coordinator, for the high-risk, high-cost, and high-acuity Medicaid populations. CCNC screens their claims records to identify individuals and providers who fall in these populations. High-cost diseases targeted by CCNC include asthma, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), and diabetes. If the children covered by CCNC do not have the high-cost diseases, they are not targeted at all for care management. CCNC care management does not specifically target children with mental health needs. The number of young children with social-emotional and mental health needs receiving care management through the current CCNC system or referred to CC4C for care coordination from CCNC is not well defined but probably low. (See Chapter 2 for more information on CCNC.)

CCNC care managers do not have specific training on meeting the needs of children, they have general training on how to work with patients with high

ⁱ Earls, Marian, MD, FAAP. Lead Pediatric Consultant, Community Care of North Carolina. Written (email) communication June 20, 2012.

medical needs, regardless of age. CCNC care managers do not have training on early childhood development or on community resources to meet the needs of young children. A CCNC network care manager's caseload may include children who have been identified as priority patients because of high cost (or costs not consistent with their risk group), overuse of the emergency department, or hospitalizations. Children getting care management through CCNC are more likely to have a chronic medical condition such as asthma, diabetes, or anemia. However, primary care providers can refer patients to a CCNC care manager for reasons other than chronic medical conditions. If a child is working with a CCNC network care coordinator, the care manager may provide some assistance in managing psychosocial issues affecting the child.^j

Care Coordination for Children

Children ages 0-5 who have been exposed to toxic stress, including but not limited to physical or emotional abuse, neglect, extreme poverty with family chaos, persistent parental substance use and severe and enduring maternal depression, and children with persistent social-emotional or mental health conditions may qualify for care coordination through Care Coordination for Children (CC4C).^k CC4C care coordinators can work with children who are not eligible for services through the ITP but still have social-emotional problems or have known risks for social-emotional developmental problems.^l CC4C care managers focus on the healthy development of young children within the context of the family. Eligible young children who have social-emotional and mental health needs work with a CC4C care manager to address identified needs that impact the child's health. CC4C is family-focused—care managers can meet with families in their home, in their community, and over the phone. CC4C is provided at no cost to the family. (See Chapter 2 for more information on CC4C.)

CC4C care managers have more expertise around children's development, including toxic stress and social-emotional development, than CCNC care managers but less than ITP service coordinators. CC4C care managers also have training on meeting the medical needs of young children as well as on the services and supports targeting young children such as early care and education resources, immunizations, and the Women, Infants, and Children (WIC) program.^m CC4C care managers may make referrals to the CDSA or Preschool Program, home visiting programs, or parenting skills programs. Care managers may also coordinate with the LME/MCO (see below) and community-based mental health providers to address domestic violence, parental substance use, an unsafe or unstable home, parental depression or other mental health issues.

Care coordination has the potential to help ensure young children with social-emotional and mental health needs are connected to and receive the types of services and supports that they need.

^j Earls, Marian. Lead Pediatric Consultant, Community Care of North Carolina. Written (email) communication, June 20, 2012.

^k Sexton, Carolyn. Project Manager, Care Coordination for Children. Written communication, June 4, 2012.

^l Earls, Marian. Lead Pediatric Consultant, Community Care of North Carolina. Written (email) communication, June 20, 2012.

^m Earls, Marian. Lead Pediatric Consultant, Community Care of North Carolina. Written (email) communication, June 20, 2012.

**LME/MCOs,
with approval,
can invest some
of their savings
in prevention
and early
intervention—
especially if these
services can help
reduce more costly
interventions.**

Local Management Entity/Managed Care Organization

LME/MCOs provide care coordination services for consumers with high risks or who incur high costs. Under the LME/MCO, a “high-risk” consumer is one who has “been assessed as needing emergent crisis services 3 or more times in the previous 12 months” and a “high-cost” consumer is one “whose treatment plan is expected to incur costs in the top 20% of expenditures for all consumers in a disability group.”²³ While very young children are unlikely to be “high-risk” consumers, they may be “high-cost” consumers, because high cost consumers are designated separately for each of six age/disability groups.²³ LME/MCO staff work with individuals receiving care coordination through the LME/MCO to develop a Person Centered Plan of care and facilitate connections to primary health providers. The number of young children receiving care coordination through the current LME system is unknown but is not likely very high.

Developing Protocols for Care Coordination

As described above, there is potential overlap between individuals eligible to receive care coordination services through the CDSAs, CCNC, CC4C, and LME/MCOs. To address this, DMA and DMH/DD/SAS developed a “four quadrant model” to determine which agency has responsibility for providing care coordination services. Under this model, an individual’s physical and mental health needs are classified as high or low and care coordination is determined by the combination of type of need, level of need, and age. Because CCNC care coordination, CC4C, and the LME/MCOs are all in a state of transition right now, they are still working out which children receive which type of care coordination.

Care coordination has the potential to help ensure young children with social-emotional and mental health needs are connected to and receive the types of services and supports that they need. Thus, the Task Force recommends that DMH/DD/SAS, DMA, DPH, DPI, LEA, CCNC, CC4C, CDSAs, and LME/MCOs develop integrated protocols outlining which children receive care coordination from each program, how to coordinate care as children transition from one program to another, and how to strengthen collaboration and co-management in the care of the child by providers within the different systems. (See Recommendation 5.3.)

Addressing Gaps in the System

LME/MCO Role in Meeting Young Children’s Social-Emotional and Mental Health Needs

One of the benefits of the new LME/MCO system is LME/MCOs, with approval from the state and the Center for Medicare and Medicaid Services, can invest some of their savings in prevention and early intervention—especially if these services can help reduce more costly interventions. As discussed previously, research shows that promoting young children’s social-emotional development can change the trajectory of children’s lives and generate savings and societal benefits.²⁴⁻²⁶ Programs and services that promote young children’s positive

social-emotional development can help reduce the need for more costly interventions.¹ Therefore, the Task Force recommends that LME/MCOs invest in social-emotional and mental health promotion and prevention programs for young children at risk of social, emotional, and mental health needs. (See Recommendation 5.3.)

While LME/MCOs are supposed to meet the needs of young children ages 3-5 who have social-emotional and mental health needs, it is unclear how many children receive basic services and care coordination through the current LME system. Under the new LME/MCO arrangement, LME/MCOs are also responsible for doing a community needs assessment and crafting a plan for meeting the mental health needs of the communities they serve. As part of the community needs assessment, the LME/MCO must assess the “population in the catchment area, identified gaps in the service array, including gaps for underserved populations, perceived barriers to service access, and the number and variety of age-disability providers for each service...[in addition] the LME/MCO shall assess community need and provider capacity for children’s services within the LME/MCO catchment area”²³ As part of their plan to address community needs, LME/MCOs must ensure there are providers available to meet the needs of the community. If providers are not available, LME/MCOs must submit “a plan for developing a local provider community.”²³ Because the needs of young children are different from older children and adults, the Task Force recommends that each LME/MCO retain a staff person trained on young children’s social-emotional development and mental health who is responsible for ensuring that the needs of this population are met. Furthermore, these staff members should understand and be able to interact with the various systems that play a role in meeting the social-emotional and mental health needs of young children in their community. (See Recommendation 5.3.)

Identifying and Treating Young Children Ages 0-36 Months

It is likely that more children meet the North Carolina ITP eligibility criteria due to a developmental delay in social-emotional development or related established conditions than are being identified and served, primarily due to the inherent difficulties in identifying and assessing infant/toddler mental health and social-emotional delays.

A child who qualifies for ITP due to significant social-emotional developmental delays or established conditions related to social-emotional development and mental health has, under the program, a service plan with specific outcomes. Based on the outcomes, services are available for the child and family such as community-based rehabilitative services, psychological, social work and family counseling services. (See Chapter 2 for more information on the ITP program including the types of services and supports they provide and how they are provided.) While data are not available to say how many of the children who are currently enrolled qualify on these grounds, data show that few children are

Few children with significant social-emotional delays and established conditions, related to social-emotional development and mental health, are qualifying for and enrolling in ITP.

receiving these types of services. Data based on headcount and services on October 31, 2011, revealed that 9,960 children were enrolled in ITP. Of the children enrolled on this date, 49 children (<1%) were receiving psychological services, 25 children (<1%) were receiving social work services, and 89 children (<1%) were receiving family counseling services.ⁿ These data indicate that few children with significant social-emotional delays and established conditions, related to social-emotional development and mental health, are qualifying for and enrolling in ITP.

One issue is that the assessment of social-emotional development is more difficult to quantify using a standard of delay, and may require the use of specialized tools. Children's functioning in this area of development is particularly variable across days and settings, especially compared to other developmental domains. Additionally, diagnosing mental health disorders in infants and toddlers is complex, partly due to the need to include an assessment of the relationship between the child and primary caregiver in the diagnostic process. Obtaining a diagnosis of attachment disorder in children ages 0-36 months, whether due to reluctance on the part of the family or diagnosing clinician can be difficult, and questions remain regarding the diagnostic criteria. Identification of children with FASDs is dependent on accurate reporting of maternal alcohol use during pregnancy, and diagnosis of FAS requires identification of physical signs by healthcare professionals, as well as identification of developmental delays which can be subtle. The North Carolina Early Intervention Branch, within the Division of Public Health, has identified these issues and has developed an Early Intervention Task Force on Assessment of Social-Emotional Development. This group is working on developing strategies for better identification of social-emotional delays within the current ITP eligibility criteria. The Task Force is reviewing evaluation tools that may be used to identify children with delays in this area and is developing guidance regarding practices that will enhance the program's ability to identify and serve these children. The Task Force is also considering what training for staff and intervention providers would be helpful in achieving the program's goals in this area. Recommendations from the Early Intervention Task Force are due to the state program office in August 2012.

The Task Force supports the work of the Early Intervention Task Force to improve identification of social-emotional delays and established conditions related to social-emotional development and mental health. There is also a need to identify a health home for children ages 0-36 months who have social-emotional and mental health needs that do not meet the eligibility criteria for ITP. A child's health home should have the capacity to address physical health needs, as well as the social-emotional development and mental health needs of the child. CCNC primary care health homes can provide some of these services, but may not be able to address the child's social, emotional and mental health

ⁿ Carroll, D.E., Early Intervention Branch Head, Women's & Children's Health Section, Division of Public Health, North Carolina Department of Health & Human Services. Written (email) communication. May 15, 2012.

There is a need to identify a health home for children ages 0-36 months who have social-emotional and mental health needs that do not meet the eligibility criteria for ITP.

needs if the needs are significant. Based on the four-quadrant model, discussed earlier, the LME/MCO would have primary responsibility for serving as the health home if the person has low physical health needs, but high mental health needs. However, the LME/MCOs can only serve as health homes for children once they reach age three. Therefore, the Task Force recommends further exploration of which system or program is best suited to provide a health home that addresses the physical, social-emotional, and mental health needs of young children under the age of three. (See Recommendation 5.3.)

As discussed throughout this report, too many young children with social-emotional and mental health needs fall through the cracks between primary health care providers and providers of mental health, early intervention, child welfare, and early care and education services. The state can play an important role in removing barriers, and providing support and guidance on how to move toward more integrated services. In taking such steps, the state can lead the way towards developing a more comprehensive, coherent, and integrated system of care for this population. Therefore, the Task Force recommends:

Recommendation 5.3: Enhance Prevention, Promotion, Treatment, and Care Management for Young Children with Mental Health Needs (PRIORITY RECOMMENDATION)

- a) The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) should work with the Division of Medical Assistance (DMA) to amend the 1915(b)/(c) waiver to include integrated comprehensive social-emotional and mental health promotion and prevention programs for young children at risk for social-emotional and mental health problems and their families who could be supported through 1915(b)/(c) savings.**
- b) DMH/DD/SAS and DMA should require every Local Management Entity/Managed Care Organization (LME/MCO) to have at least one staff member trained on young children’s social-emotional development and mental health (e.g., the System of Care (SOC) coordinator, access, utilization review; or other clinical staff) who, with support from LME/MCO management, is responsible for ensuring that the needs of this population are being met and that the state’s adopted SOC philosophy is adhered to.**
- c) DMH/DD/SAS and DMA should require every LME/MCO to have, as a part of their provider network, appropriately qualified and trained providers who can adequately address the service and support needs of young children’s social-emotional development and mental health, who participate with the LME/MCO in ensuring that the needs of this**

population are being met for those living in the catchment area, and work to ensure that the state's adopted SOC framework is adhered to.

- d) DMH/DD/SAS, DMA, Division of Public Health (DPH) including the North Carolina Infant and Toddler Program (ITP) Children's Developmental Services Agencies (CDSAs), Department of Public Instruction (DPI), local education agencies (LEAs), Community Care of North Carolina (CCNC), Care Coordination for Children (CC4C), and LME/MCOs should develop integrated protocols outlining which children (prenatal through age 5) receive care coordination, the process for authorizing and paying for services, how to apply the SOC framework to this population, and how to strengthen collaboration and coordination in the care of the children and their family by providers within the different systems. In addition, the groups should:
- 1) Ensure that children and their families at risk for social-emotional and mental health problems receive appropriate care coordination services per SOC guidelines. The groups should create eligibility criteria for at-risk children that recognize the linkages between different domains of development (e.g. cognitive, language, and social-emotional). The eligibility criteria should also include, but not be limited to, eligibility based on problems within the parent-child dyad.
 - 2) Examine the process for transitioning children at age 3 from the early intervention system through the CDSAs and into other appropriate systems of care providers.
- e) DMH/DD/SAS, DMA, DPH, ITP, CDSAs, CCNC, CC4C, and LME/MCOs should examine the current application of SOC framework for children ages 0-36 months to ensure that children at risk of social-emotional and mental health problems have a health home that addresses the physical, social-emotional and mental health needs of the child. Specifically, the group should determine whether children at risk of, or identified with, social-emotional or mental health needs should be served within the CDSA system, CCNC, or LME/MCOs (or combination thereof), the costs of these services, and how these services should be funded and coordinated. As part of this effort, the group should consider how to expand eligibility within the CDSA for certain high priority at-risk individuals, such as children who display developmental delays and have other environmental risk factors.
- f) DMH/DD/SAS, DMA, DPH, DPI, LEA, CCNC, CC4C, CDSA, and the LME/MCOs should educate providers, care coordinators, and the public on what the System of Care for young children with social-emotional and mental health needs and their families is and how to navigate, participate in, and build capacity from it.

References

1. National Scientific Council on the Developing Child. Mental Health Problems in Early Childhood Can Impair Learning and Behavior for Life. Working Paper No.6. <http://www.developingchild.net>. Published 2004. Accessed April 27, 2012.
2. Center for Substance Abuse Treatment. Substance Abuse and Mental Health Services Administration. *Substance Abuse Treatment: Addressing the Specific Needs of Women*. Treatment Improvement Protocol (TIP) Series 51. HHS Publication No. (SMA) 09-4426. Rockville, MD. <http://kap.samhsa.gov/products/manuals/tips/pdf/TIP51.pdf>. Published 2009. Accessed May 10, 2012.
3. Shonkoff JP, Garner AS. Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012;129(1):e232-46.
4. Gladstone TRG, Beardslee WR. Treatment, intervention, and prevention with children of depressed parents: A developmental perspective. In: Goodman SH, Gotlib IH, eds. *Children of Depressed Parents: Mechanisms of Risk and Implications for Treatment*. Washington, DC, US: American Psychological Association; 2002:277-305.
5. National Institute for Health Care Management Foundation. Identifying and Treating Maternal Depression: Strategies & Considerations for Health Plans. http://nihcm.org/pdf/FINAL_MaternalDepression6-7.pdf. Published June 2010. Accessed April 27, 2012.
6. Office on Child Abuse and Neglect, Children's Bureau, ICF International. Child Welfare Information Gateway. Chapter 3: How Parental Substance Use Disorders Affect Children. <http://www.childwelfare.gov/pubs/usermanuals/substanceuse/chapterthree.cfm>. Published 2009. Accessed May 9, 2012.
7. US Surgeon General. Surgeon General's Advisory on Alcohol Use in Pregnancy. U.S. Department of Health & Human Services website. <http://www.surgeongeneral.gov/news/2005/02/sg02222005.html>. Published February 21, 2005. Published January 4, 2007.
8. Green CA. Gender and use of substance abuse treatment services. *Alcohol Research & Health*. 2006;29(1):55.
9. Scott Robins S. NC perinatal & maternal substance abuse initiative. Presented to: North Carolina Institute of Medicine Task Force on the Mental Health, Social, and Emotional Needs of Young Children and Their Families; May 20, 2011; Morrisville, NC. http://www.nciom.org/wp-content/uploads/2011/02/Scott-Robbins_5-20-11.pdf. Accessed May 14, 2012.
10. March of Dimes Foundation. Census Data on Health Insurance Coverage of Women and Children. Washington, D.C. <http://www.marchofdimes.com/censushighlights2009.pdf>. Published 2009. Accessed May 24, 2012.
11. Substance Abuse & Mental Health Services Administration. Mental Health Parity and Addiction Equity Act. <http://www.samhsa.gov/healthreform/parity/>. Published May 5, 2011. Accessed May 9, 2012.
12. Sarata K. Congressional Research Service. Mental Health Parity and the Patient Protection and Affordable Care Act of 2010. Washington, DC. <http://www.ncsl.org/documents/health/MHparity&mandates.pdf>. Published 28 December 2011. Accessed May 10, 2012.
13. North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services. North Carolina Department of Health and Human Services. *Integrated Payment & Reporting System (IPRS) Target Population Details - FY 2010-11*. Child Mental Health Assessment Only (CMAO). <http://www.ncdhhs.gov/mhddsas/providers/IPRS/Targetpopulations/targetpop-cmh-10-11.pdf>. Published Jan 16, 2009. Accessed May 11, 2012.
14. North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services. North Carolina Department of Health and Human Services. *Integrated Payment & Reporting System (IPRS) Target Population Details - FY 2010-11*. Adult Substance Abuse Assessment Only (ASAO). <http://www.ncdhhs.gov/mhddsas/providers/IPRS/Targetpopulations/targetpop-asa-10-11.pdf>. Published November 14, 2008. Accessed May 11, 2012.

15. University of North Carolina at Chapel Hill School of Medicine. Center for Women's Mood Disorders: Patient Care. http://www.psychiatry.unc.edu/wmd/patient_care. Accessed June 4, 2012.
16. NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services. Women's and Children's Substance Abuse Initiatives. NC Department of Health and Human Services website. http://www.ncdhhs.gov/mhddsas/providers/women_child_SA/index.htm. Published May 18, 2012. Accessed May 11, 2012.
17. Powell D, Dunlap G, Fox L. Prevention and intervention for the challenging behaviors of toddlers and preschoolers. *Infants and Young Children*. 2006;19(1):25-25-35.
18. Costello EJ. Center for Child and Family Policy, Terry Sanford Institute of Public Policy, Duke University. Children's Mental Health: Strategies for Providing High Quality and Cost-effective Care. Chapter 1 Part II. The Great Smoky Mountains Study: A detailed picture of children's mental health in western North Carolina. http://www.childandfamilypolicy.duke.edu/pdfs/familyimpact/2006/BriefingReport_06.pdf. Published May 17, 2006. Accessed June 4, 2012.
19. North Carolina Infant-Toddler Program. NC Department of Health and Human Services. New Eligibility Definition for the NC Infant Toddler Program. <http://www.bearly.nc.gov/data/files/pdf/EligibilityDefn.pdf>. Accessed May 9, 2012.
20. NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services. *Integrated Payment & Reporting System (IPRS) Target Population Details - FY 2005-06*. Temporary Assistance for Needy Families (TANF). <http://www.ncdhhs.gov/mhddsas/providers/IPRS/Targetpopulations/targetpop-track05-06r.pdf>. Published October 11, 2005. Accessed May 10, 2012.
21. Administration on Children, Youth and Families Children's Bureau. US Department of Health and Human Services. Systems and Organizational Change Resulting from the Implementation of Systems of Care. Washington, D.C. <http://www.childwelfare.gov/management/reform/soc/communicate/initiative/evalreports/reports/SystemsandOrganizationalChangeReport.pdf>. Published 2010. Accessed June 20, 2012.
22. Johnson K, Rosenthal J. National Academy for State Health Policy. Improving Care Coordination, Case Management, and Linkages to Service for Young Children: Opportunities for States. http://www.commonwealthfund.org/~media/Files/Publications/Fund%20Report/2009/Apr/NASHP_Care_Coordination_April_2009.pdf. Published April 2009. Accessed May 11, 2012.
23. NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services. NC Department of Health and Human Services. DMH/DD/SAS - LME/MCO Waiver Contract. <http://www.ncdhhs.gov/mhddsas/providers/1915bcWaiver/lme-mco-waiver-sfy11contract-final.pdf>. Published January 30, 2012. Accessed May 11, 2012.
24. National Scientific Council on the Developing Child. The Foundations of Lifelong Health Are Built in Early Childhood. <http://www.developingchild.harvard.edu>. Published 2010. Accessed April 27, 2012.
25. Kilburn M, Karoly L. RAND Corporation. The Economics of Early Childhood Policy. Santa Monica, CA. http://www.rand.org/pubs/occasional_papers/OP227.html. Published 2008. Accessed April 26, 2012.
26. Washington State Institute for Public Policy. Return on Investment: Evidence-Based Options to Improve Statewide Outcomes: April 2012 Update. Olympia, WA. <http://www.wsipp.wa.gov/rptfiles/12-04-1201.pdf>. Published April 2012. Accessed May 10, 2012.

The future of North Carolina’s prosperity depends on our ability to foster the health and well-being of our children. Health in the earliest years—beginning with a mother’s pre-conception health—provides the foundation upon which future development depends. Young children’s social-emotional well-being, or mental health, affects how children relate to and interact with others, how they learn, and how well they are able to manage their emotions.

New scientific evidence from multiple fields, including neuroscience, genetics, and the behavioral and social sciences confirms that developmental and biological disruptions during the prenatal period and formative years can impair functioning, increase vulnerability to health problems later in life, and change the actual structure of a young child’s developing brain. Significant adversity in early childhood, including trauma, abuse and persistent poverty, can cause stress that disrupts a young child’s brain circuitry and other systems. Failure to address these issues at an early age can lead to inordinate physical health, mental health, education, and criminal justice system expenses.

This knowledge, as well as, the growing body of research which shows that investments focused on children under 5 years of age have the potential to generate savings and benefits to society that more than repay their costs, should inform and undergird all decision-making with regard to spending and programs intended to affect North Carolina’s children and their families. The Task Force developed recommendations to address gaps that exist in our current services, supports, and systems that work to meet the social-emotional and mental health needs of young children and their families. Recommendations from the Task Force include:

- Creating a coordinated, integrated system to meet the social-emotional and mental health needs of young children and their families.
- Promoting awareness and understanding of the importance of young children’s social-emotional and mental health.
- Improving treatment to meet the social-emotional and mental health needs of young children and their families.
- Developing the professions that work most closely with young children, especially early educators and health care practitioners.

The Task Force recommendations include many strategies that could be pursued at the state, county, and local levels. Taken together, they provide guidance on how to create the kind of coordinated, integrated system that is needed to support the social-emotional development and mental health of all young children. Therefore, many of these strategies are interdependent. For example, increasing awareness and early identification will only bring benefits if systems are in place to provide the services and supports children and families need



The Task Force recommendations provide guidance on how to create the kind of coordinated, integrated system that is needed to support the social-emotional development and mental health of all young children.

to ensure problems are addressed, and evidence-based therapies can only be expanded if there is an adequately trained professional workforce to deliver those therapies. The effectiveness of any specific policy option is dependent, in part, on the success of other efforts to build a more coordinated, comprehensive system to address the social-emotional and mental health needs of young children and their families. There is no single policy solution, rather, the Task Force recommendations include a wide variety of options that could be pursued and promoted by both public and private stakeholders. To make a real difference, North Carolina needs to engage simultaneously in multiple strategies. Implementation of the recommendations will have a meaningful impact on the lives of North Carolina's youngest children and their families as well as generate large economic returns for all of North Carolina.

	NCGA	ECAC	Philanthropic Organizations	DMH/DD/SAS	Other Public Agencies	Other
VISION						
<p>Recommendation 2.1: Operationalize a Comprehensive, Coordinated System for Young Children’s Mental Health</p> <p>The North Carolina Early Childhood Advisory Council (ECAC) should operationalize a cross-systems plan which includes all North Carolina agencies that fund and serve the physical, social-emotional, and mental health needs of young children and their families.</p>		✓				
<p>Recommendation 2.2: Strengthen and Expand Evidence-Based Programs</p> <p>The ECAC, in collaboration with state and local agencies and North Carolina philanthropic organizations, should strengthen and expand the availability of evidence-based programs to improve young children’s mental health for more families in North Carolina.</p>	✓ Funding TBD	✓	✓	✓	✓ DPH, DMA	✓ CCFH, NCIMHA, NCPC, NCPIC, NC Child Treatment Program, PCANC
<p>Recommendation 2.3: Develop a Data System to Monitor and Evaluate Changes in Young Children’s Health</p> <p>The ECAC, in collaboration with the Department of Health and Human Services (DHHS), the Division of Public Instruction (DPI), CCNC, and the North Carolina Partnership for Children (NCPC) should ensure that data are available and utilized for on-going assessment of the status of young children’s health, including the social-emotional health of young children and their families. Data should be used to identify outstanding needs and treatment gaps, modify funding priorities to meet the largest unmet needs, and monitor the effectiveness of interventions.</p>	✓ Funding TBD	✓	✓	✓	✓ CCNC, DHHS, DPI	✓ NCPC
<p>Recommendation 2.4: Increase Understanding of the Role of Social-Emotional Development Among Early Care and Education Professionals</p> <p>The ECAC should ensure that funding for early educator development and quality improvement through the Early Learning Challenge Grant is maintained. Additional efforts should be made to align early educator professional development standards at the pre-service, in-service, and continuing</p>		✓			✓ NCCCS, DCDEE, CRRRC	✓ NC Colleges and Universities, NCPC

	NCGA	ECAC	Philanthropic Organizations	DMH/DD/SAS	Other Public Agencies	Other
education levels with the Early Learning Development Standards. Specifically, there should be an increased focus on the social-emotional domain of development.						
<p>Recommendation 2.5: Address Clinical Workforce Development Needs</p> <p>The North Carolina Infant/Child Mental Health Association should work with DMA, in collaboration with DMH/DD/SAS, DPH, DSS, the University of North Carolina System, the Area Health Education Centers, and others to identify training needs and to address barriers to developing an effective mental health workforce which meets the clinical needs of young children ages 0-5 and their families.</p>				✓	✓ AHEC, DMA, DPH, DSS	✓ NCIMHA, NC Families United, NCPS, NC Psychiatric Association, NC Psychological Association, NCSSA, UNC System
PROMOTION						
<p>Recommendation 3.1: Improve Care Transitions for Women and Young Children</p> <p>To enhance patient health and safety, and to ensure appropriate continuity of care and care coordination, CCNC, the North Carolina Obstetrical and Gynecological Society, North Carolina Academy of Family Physicians, North Carolina Medical Society, North Carolina Pediatric Society, DMH/DD/SAS, and other partners should identify or develop best practices to ensure appropriate transitions of care for women and young children among obstetrical, primary care, pediatric, and other health care providers.</p>				✓	✓ CCNC, DPH	✓ NCAFP, NCOGS, NCPS
<p>Recommendation 3.2: Raise Awareness of the Social-Emotional and Mental Health Needs of Young Children (PRIORITY RECOMMENDATION)</p> <p>The ECAC, in collaboration with DHHS, should develop and implement a communications strategy to raise awareness of the importance of young children’s mental, social, and emotional health.</p>		✓			✓ DHHS	✓ NAMI NC, NC March of Dimes, NC Families United, NC Healthy Start Foundation, NCIMHA, NCPC, NCPS, PCANC

	NCGA	ECAC	Philanthropic Organizations	DMH/DD/SAS	Other Public Agencies	Other
<p>Recommendation 3.3: Educate Families, Caregivers and Providers on Young Children’s Mental Health</p> <p>DPH should continue to support the implementation of the Triple P—Positive Parenting Program, which educates parents, caregivers, and providers on how to promote young children’s social-emotional development, in pilot communities.</p>				✓	✓ DPH	✓ PCANC
PREVENTION						
<p>Recommendation 4.1: Develop a Web-Based Clearinghouse of Programs and Services for Young Children with Mental Health Needs</p> <p>North Carolina private foundations and other funding sources should provide \$125,000 to the North Carolina Infant/Young Child Mental Health Association (NCIMHA) and other partners to develop and maintain a web-based clearinghouse of information on programs and services available to children and families with mental health, social, and emotional needs at the state and county level. Information collected should include service availability, eligibility criteria, cost, and evidence involving the effectiveness of the programs and services.</p>		✓	✓			✓ NCIMHA
INTERVENTION						
<p>Recommendation 5.1: Expand Treatment Services for Mothers with Substance Use Disorders and Mental Health Challenges</p> <p>DMH/DD/SAS, in collaboration with DMA and DHHS housing specialists, the Division of Social Services (DSS), and the North Carolina Housing Finance Agency should examine ways to expand the array of treatment options for pregnant women and mothers with substance use and mental health disorders, including supports for women in their own home as well as residential treatment services.</p>	✓ Funding TBD			✓	✓ DMA, DHHS, DSS, HFA	

	NCGA	ECAC	Philanthropic Organizations	DMH/DD/SAS	Other Public Agencies	Other
<p>Recommendation 5.2: Establish Care and Reimbursement Standards to Promote Women and Children’s Mental Health (PRIORITY RECOMMENDATION)</p> <p>DMA, in collaboration with CCNC, DMH/DD/SAS, DSS, DPH, and LME/MCOs should identify evidence-based or evidence-informed screening tools, triage, assessment, referral protocols and clinical treatment guidelines. The organizations should also develop a system of value-based payments for select populations including: pregnant women using or abusing alcohol or other harmful substances, women with mental health disorders, young children with social-emotional and mental health needs, and women and children who have experienced family violence.</p>				✓	✓ CCNC, DMA, DPH, LME/MCOs	✓ NCIMHA, Benchmarks, NC Psychiatric Association, NC Psychological Association, NCPIC
<p>Recommendation 5.3: Coordinate Promotion, Prevention, and Intervention Services for Young Children with Mental Health Needs (PRIORITY RECOMMENDATION)</p> <p>The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), Division of Medical Assistance (DMA), Division of Public Health (DPH), Community Care of North Carolina (CCNC), Care Coordination for Children (CC4C), Children’s Developmental Services Agencies (CDSAs), and Local Management Entities/Managed Care Organizations (LME/MCOs) should examine the current system of care for children ages 0-5 to ensure children at risk of or those with already identified social-emotional and mental health needs have a health home that addresses the physical, social, emotional and mental health needs of the child. As part of this examination, DMH/DD/SAS and partners should develop integrated protocols outlining the criteria for determining which agency is responsible for providing screening, assessment, care coordination, and treatment services for young children with social-emotional and mental health needs, the process for authorizing and paying for services, and how to strengthen collaboration and co-management in the care of the child by providers within the different systems.</p>		✓		✓	✓ CC4C, CCNC, CDSA, DMA, DPH, DSS, LME/MCOs	✓ NCIMHA

Acronym	Full Name
AHEC	Area Health Education Center
CC4C	Care Coordination for Children
CCFH	Center for Child and Family Health
CCNC	Community Care of North Carolina
CCRRC	Child Care Resource and Referral Council
CDSA	Children's Developmental Services Agencies
DCDEE	Division of Child Development and Early Education, North Carolina Department of Health and Human Services
DHHS	North Carolina Department of Health and Human Services
DMA	Division of Medical Assistance, North Carolina Department of Health and Human Services
DMH/DD/SAS	Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, North Carolina Department of Health and Human Services
DPH	Division of Public Health, North Carolina Department of Health and Human Services
DPI	North Carolina Department of Public Instruction
DSS	Division of Social Services, North Carolina Department of Health and Human Services
ECAC	North Carolina Early Childhood Advisory Council
HFA	North Carolina Housing Finance Agency
LME/MCOs	Local Management Entity/Managed Care Organizations
NAMI NC	National Alliance on Mental Illness North Carolina
NCAFP	North Carolina Academy of Family Physicians
NCCCS	North Carolina Community College System
NCGA	North Carolina General Assembly
NCIMHA	North Carolina Infant and Young Child Mental Health Association
NCOGS	North Carolina Obstetrical and Gynecological Society
NCPC	The North Carolina Partnership for Children, Inc.
NCPIC	North Carolina Practice Improvement Collaborative
NCPS	North Carolina Pediatric Society
NCSSA	North Carolina Social Services Association
PCANC	Prevent Child Abuse North Carolina
PCANC	Prevent Child Abuse North Carolina
UNC	University of North Carolina

Chapter 2: Vision

Recommendation 2.1: Operationalize a Coordinated System for Young Children's Mental Health

The North Carolina Early Childhood Advisory Council (ECAC) should collaborate with state partners to develop and operationalize a cross-systems plan for all North Carolina agencies that fund and serve the physical, social, emotional, and mental health needs of infants, young children and their families. As part of this plan, the ECAC should consider ways to promote the social-emotional development of children including:

- a) Strategies to fund and facilitate the coordination of programs/services across systems.
- b) How to develop shared data systems to facilitate better planning and treatment.
- c) Ways to increase access to and reduce barriers to health promotion, prevention and treatment faced by families.
- d) Ways to incentivize quality early care and education and the use of evidence-based practices.
- e) How to support the development and implementation of cross-system plans in local communities that align with and inform the state goals and plan.

Recommendation 2.2: Strengthen and Expand Evidence-Based Programs

The North Carolina Early Childhood Advisory Council (ECAC), in collaboration with state and local agencies, non-profits, and philanthropic organizations, should expand evidence-based strategies to improve young children's mental health for more families in North Carolina. As part of this effort:

- a) The ECAC, in collaboration with North Carolina philanthropic organizations, Prevent Child Abuse North Carolina, and state and local agencies, should focus new funding on evidence-based strategies or, if unavailable, theory-based strategies that support and strengthen the social and emotional well-being of infants, young children and their families.

- b) The ECAC should work with other partners, including but not limited to representatives from the North Carolina Division of Public Health, the North Carolina Division of Medical Assistance, North Carolina Child Treatment Program, the North Carolina Infant/Young Child Mental Health Association, Prevent Child Abuse North Carolina. The North Carolina Partnership for Children, Inc., and North Carolina Practice Improvement Collaborative to review the needs of the population ages 0-5 for each county in North Carolina, the existing evidence-based programs that are being implemented in North Carolina, evidence about costs and outcomes (e.g. impact on early childhood social and emotional well-being, readiness for school, and other measures of early child well-being), numbers of children and families impacted, sustainability over time, and resources needed to implement these programs with fidelity. Based on this analysis, the group should identify priority programs for expansion to other parts of the state, as well as existing or new resources needed to support this expansion. The ECAC should present this plan to the North Carolina General Assembly no later than May 15, 2015.**
- c) All funders of strategies to improve the mental health of infants and young children should provide funding to evaluate program implementation in North Carolina to determine the impact on the social-emotional health and well-being of infants and young children and their families.**

Recommendation 2.3: Develop a Data System to Monitor and Evaluate Changes in Young Children's Health

- a) The Early Childhood Advisory Council (ECAC), in collaboration with the North Carolina Department of Health and Human Services, North Carolina Department of Public Instruction, Community Care of North Carolina, Center for Child and Family Health and The North Carolina Partnership for Children, Inc., should ensure that data are available and utilized for ongoing assessment of the status of young children's health, including the social-emotional health of young children and their families by:**

 - 1) Defining the data required for measuring social-emotional health and treatment.**
 - 2) Identifying sources of data elements that are currently collected.**
 - 3) Developing a plan to collect data for elements not in existing data systems, and link those data to existing data, with appropriate safeguards to ensure data security and protection of privacy.**

- 4) **If additional funding is needed, the ECAC should report to the Joint Legislative Oversight Committee on Health and Human Services of the North Carolina General Assembly about resources needed to collect this data no later than June 30, 2014.**
- 5) **Establishing an ongoing monitoring system to measure population-based changes in health, with the ability to look at physical, social-emotional, and mental health independently.**
- b) **Data should be used to identify outstanding needs and treatment gaps. As this information becomes available, it should be used to modify priorities for funding for new evidence-based practices to address the largest unmet needs. Data should also be used to monitor the effectiveness of interventions.**

Recommendation 2.4: Increase Understanding of the Role of Social-Emotional Development Among Early Care and Education Professionals

The Early Childhood Advisory Council should ensure that funding for early educator development and quality improvement through the Race to the Top—Early Learning Challenge Grant is maintained. Additional efforts should be made to align early educator professional development standards at the pre-service, in-service, and continuing education levels with the Early Learning Development Standards. In particular, there should be an increased focus on the social-emotional domain of development. To make these changes:

- a) **North Carolina Community College System (NCCCS) and North Carolina universities should embed Early Learning and Development Standards into their early childhood education programs.**
- b) **NCCCS should expand the Early Childhood Associate Certificate and Degree core requirements to include EDU 154 Social/Emotional/Behavioral Development.**
- c) **The Division of Child Development and Early Education should require all early care and education licensed facilities to have at least one administrator or staff trained on the Early Learning and Development Standards and Curricula by June 30, 2016.**
- d) **At least 20% of the trainings provided by the Child Care Resource and Referral Council should have social-emotional development as the main focus. Training should be made available to families and staff in all early care and education settings.**

Recommendation 2.5: Develop the Workforce that Provides Social-Emotional and Mental Health Supports and Services

The North Carolina Infant and Young Child Mental Health Association should work with the Division of Medical Assistance, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, Division of Public Health, Division of Social Services, University of North Carolina System, Area Health Education Centers, North Carolina Psychiatric Association, North Carolina Psychological Association, North Carolina Pediatric Society, North Carolina Families United, North Carolina Social Services Association, and others to identify the training needs and address barriers to developing an effective workforce to meet the clinical needs of young children ages 0-5 and their families. As part of their work, this group should consider:

- a) The competencies that support the range of physical and behavioral health professionals and paraprofessionals who address the social-emotional and mental health needs of young children ages 0-5 and their families.
- b) How to incorporate these competencies into pre-service and in-service education through credentialing or certification courses.
- c) How these competencies can be demonstrated.
- d) The need for clinical training sites and clinical training supervision for this workforce.
- e) Whether a young child certification system is needed to document provider competence to effectively address the socio-emotional and mental health needs of young children and their families.

Chapter 3: Promotion

Recommendation 3.1 Improve Care Transitions for Women and Young Children

To enhance patient health and safety and ensure appropriate continuity of care and care coordination, Community Care of North Carolina, the North Carolina Obstetrical and Gynecological Society, North Carolina Academy of Family Physicians, North Carolina Pediatric Society, Division of Public Health, Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, and other partners should identify or develop best practices to

ensure appropriate transitions of care for women and young children between obstetrical, primary care, pediatric, and other health care providers.

Recommendation 3.2: Raise Awareness of the Mental Health, Social, and Emotional Needs of Young Children (PRIORITY RECOMMENDATION)

The North Carolina Early Childhood Advisory Council (ECAC), in collaboration with the North Carolina Department of Health and Human Services, the North Carolina Infant and Young Child Mental Health Association, Prevent Child Abuse North Carolina, National Alliance on Mental Illness North Carolina, North Carolina March of Dimes, North Carolina Families United, North Carolina Healthy Start Foundation, The North Carolina Partnership for Children, Inc., and North Carolina Pediatric Society should develop and implement a communications strategy to raise awareness of the importance of infants' and young children's social-emotional and mental health. The campaign should provide specific messages about what adults and others can do to promote young children's social-emotional development and reduce developmental risk factors.

- a) As part of the communications strategy, potential partners (e.g., March of Dimes, local North Carolina Partnerships for Children, domestic violence advocates) should be identified. Campaign messages should describe the importance of social-emotional development during pregnancy and the early years as the foundation for all other development, as well as the inextricable link between young children's mental health, physical health, and cognitive development. In addition, the campaign should include messages that explain:
 - 1) Experiences during pregnancy and the early years shape the architecture of the brain, setting the stage for future learning and development. Positive, safe, stable interactions with loving, responsive adults are critical for brain development. Exposure to adversity (toxic stress), in the absence of strong relationships with caregivers, negatively impacts brain development.
 - 2) The value of investing during pregnancy and the early years and the role of evidence-based strategies to improve early social-emotional development.
 - 3) The impact of women's physical and mental health throughout her childbearing years on future generations, including the impact of tobacco, alcohol, and depression on healthy births.

- b) **The campaign should include strategies to provide families and caregivers information on:**
- 1) **How to support young children’s social-emotional development.**
 - 2) **How to be educated consumers of health care and behavioral health services for children.**
 - 3) **How to advocate for children with social-emotional and mental health needs and their families.**

Recommendation 3.3: Educate Families, Caregivers, and Providers on Young Children’s Mental Health

The Division of Public Health (DPH) should continue to support the implementation of the Triple P—Positive Parenting Program to educate parents, caregivers, and providers on how to promote young children’s social-emotional development in pilot communities. If shown to be effective in North Carolina through program evaluations, DPH, in partnership with the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, the Division of Social Services, Smart Start, and other partnering agencies should support expansion of Triple P across the state. DPH should provide a plan for expansion to other communities across the state, including the costs of implementation along with projected longer-term cost savings (if any), to the Joint Legislative Oversight Committee on Health and Human Services of the North Carolina General Assembly by May 15, 2015.

Chapter 4: Prevention

Recommendation 4.1: Develop a Web-Based Clearinghouse of Programs and Services for Young Children with Mental Health Needs

North Carolina private foundations and other funding sources should provide \$125,000 to the North Carolina Infant and Young Child Mental Health Association, Early Childhood Advisory Council, and other partners to develop, deploy, and maintain a web-based clearinghouse of information on programs and services available to children and families with mental health, social, and emotional needs at the state and county level. Information provided should include availability, eligibility criteria, costs, and evidence about the effectiveness of the programs and services.

Chapter 5: Intervention

Recommendation 5.1: Expand Treatment Services for Mothers with Substance Use and Mental Health Challenges

The North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), in collaboration with the North Carolina Division of Medical Assistance, the North Carolina Department of Health and Human Services housing specialists, the North Carolina Housing Finance Agency, and the North Carolina Division of Social Services should examine options to expand the array of treatment options for pregnant women and mothers with mental health and substance use disorders, including supports for women in their own home as well as residential treatment services. In particular, DMH/DD/SAS and partners should explore options for women with young children who need to be in developmentally-appropriate environments to engage in mother-child treatment while their mother receives targeted treatment. DMH/DD/SAS should bring recommendations about resources needed to address these needs to the Joint Legislative Oversight Committee on Health and Human Services of the North Carolina General Assembly, no later than June 30, 2013.

Recommendation 5.2: Establish Care and Reimbursement Standards to Promote Women and Children's Mental Health (PRIORITY RECOMMENDATION)

a) The North Carolina Division of Medical Assistance (DMA), in collaboration with Community Care of North Carolina (CCNC), Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS), Division of Public Health (DPH), and the North Carolina Infant and Young Child Mental Health Association (NCIMHA) should identify evidence-based or evidence-informed prevention programs, screening tools, triage, assessment, referral protocols, and clinical guidelines, for:

- 1) Pregnant women using or abusing alcohol or other harmful substances.
- 2) Women with prenatal or postpartum depression or other mental health disorders.
- 3) Infants and young children with social-emotional and mental health needs.

- 4) **Women and children who have experienced family violence or other trauma.**
- b) **DMA, CCNC, DMH/DD/SAS, Local Management Entity/Managed Care Organizations (LME/MCOs), DPH, and NCIMHA should define age-appropriate, validated behavioral health and social-emotional and mental health process and outcome measures on which to tie performance-based incentive payments.**
- c) **DMA, CCNC, DMH/DD/SAS, DPH, LME/MCOs, and NCIMHA should develop value-based Medicaid payments that provide additional reimbursement to professionals who are in the roster and provide evidence-based or evidence-informed protocol in clinical settings and natural environments (e.g., home, primary care, early care and education), and report process and outcome measures for the following populations:**
 - 1) **Pregnant women using or abusing alcohol or other harmful substances.**
 - 2) **Women with prenatal, perinatal or postpartum depression or other mental health disorders.**
 - 3) **Infants and young children with social-emotional and mental health needs and their families.**
 - 4) **Women and young children who have experienced family violence.**
- d) **Private insurers should also implement changes to incentivize health care professionals to use evidence-based screening, assessment, referral, and clinical treatment protocol for similar populations.**

Recommendation 5.3: Enhance Prevention, Promotion, Treatment, and Care Management for Young Children with Mental Health Needs (PRIORITY RECOMMENDATION)

- a) **The Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) should work with the Division of Medical Assistance (DMA) to amend the 1915(b)/(c) waiver to include integrated comprehensive social-emotional and mental health promotion and prevention programs for young children at risk for social-emotional and mental health problems and their families who could be supported through 1915(b)/(c) savings.**

- b) DMH/DD/SAS and DMA should require every Local Management Entity/Managed Care Organization (LME/MCO) to have at least one staff member trained on young children’s social-emotional development and mental health (e.g., the System of Care (SOC) coordinator, access, utilization review; or other clinical staff) who, with support from LME/MCO management, is responsible for ensuring that the needs of this population are being met and that the state’s adopted SOC philosophy is adhered to.
- c) DMH/DD/SAS and DMA should require every LME/MCO to have, as a part of their provider network, appropriately qualified and trained providers who can adequately address the service and support needs of young children’s social-emotional development and mental health, who participate with the LME/MCO in ensuring that the needs of this population are being met for those living in the catchment area, and work to ensure that the state’s adopted SOC framework is adhered to.
- d) DMH/DD/SAS, DMA, Division of Public Health (DPH) including the North Carolina Infant and Toddler Program (ITP) Children’s Developmental Services Agencies (CDSAs), Department of Public Instruction (DPI), local education agencies (LEAs), Community Care of North Carolina (CCNC), Care Coordination for Children (CC4C), and LME/MCOs should develop integrated protocols outlining which children (prenatal through age 5) receive care coordination, the process for authorizing and paying for services, how to apply the SOC framework to this population, and how to strengthen collaboration and coordination in the care of the children and their family by providers within the different systems. In addition, the groups should:
- 1) Ensure that children and their families at risk for social-emotional and mental health problems receive appropriate care coordination services per SOC guidelines. The groups should create eligibility criteria for at-risk children that recognize the linkages between different domains of development (e.g. cognitive, language, and social-emotional). The eligibility criteria should also include, but not be limited to, eligibility based on problems within the parent-child dyad.
 - 2) Examine the process for transitioning children at age 3 from the early intervention system through the CDSAs and into other appropriate systems of care providers.
- e) DMH/DD/SAS, DMA, DPH, ITP, CDSAs, CCNC, CC4C, and LME/MCOs should examine the current application of SOC framework for children ages 0-36 months to ensure that children at risk of social-emotional and mental health problems have a health home that addresses the physical,

social-emotional and mental health needs of the child. Specifically, the group should determine whether children at risk of, or identified with, social-emotional or mental health needs should be served within the CDSA system, CCNC, or LME/MCOs (or combination thereof), the costs of these services, and how these services should be funded and coordinated. As part of this effort, the group should consider how to expand eligibility within the CDSA for certain high priority at-risk individuals, such as children who display developmental delays and have other environmental risk factors.

- f) DMH/DD/SAS, DMA, DPH, DPI, LEA, CCNC, CC4C, CDSA, and the LME/MCOs should educate providers, care coordinators, and the public on what the System of Care for young children with social-emotional and mental health needs and their families is and how to navigate, participate in, and build capacity from it.**

Strengthening, and Parenting Skills Programs Supported by the State and Other Partners in North Carolina

Head Start

Websites: http://ncchildcare.dhhs.state.nc.us/general/mb_headstart.asp

Services: Provides comprehensive services to low-income children age 3 to 5 and their families including education, nutrition, parent support, health, dental, and mental health services. No fewer than ten percent of children served must have special needs. The program is designed to prepare children for school and to help break the cycle of poverty.

Early Head Start serves pregnant women and children ages 0 to 3 years. Early Head Start programs have the same basic aims and objectives as the Head Start program—to support the developmental needs of very young children and expectant mothers and to help break the cycle of poverty.

Migrant/Seasonal Head Start serves children of migrant and seasonal workers, and their families. Migrant/Seasonal Head Start services are administered across the State of North Carolina by a network of agencies and delegate agencies.

Location: Statewide.

Target Population: Primarily low-income children ages 0-5 and their families. Categorical eligibility extends the target population to include children in foster care; children and families experiencing homelessness; and children and families receiving public assistance (like TANF benefits).

Number Served: Served over 20,000 children in program year 2010-11. Over 3,000 children and expectant mothers were enrolled in Early Head Start in program year 2010-11. Migrant/Seasonal Head Start programs served over 900 children ages 0-5 and expectant mothers in program year 2010-11.

Financing: Federally funded by the US Department of Health and Human Services. (Note: Funding requires a 20% non-federal share match by grantees.)

Evaluation: The Head Start Impact Study found that Head Start has a positive impact on school readiness in preschool children. However, by the end of kindergarten or first grade, Head Start children (those starting at age 4) were at about the same level as those in the control group. Children who began Head Start at age 3, however, continued to show improved outcomes after kindergarten and first grade. Other subgroups of children also showed continued positive outcomes. Source: http://www.acf.hhs.gov/programs/opre/hs/impact_study/reports/impact_study/executive_summary_final.pdf.

Administering Agency: Head Start and Early Head Start programs are funded by the federal government. Funding goes directly to the local agencies (like private non-profits, Community Action Agencies, and public school systems) that administer the program and provide services.

Appendix B Evidence-Based Home Visiting, Family Strengthening, and Parenting Skills Programs Supported by the State and Other Partners in North Carolina

Other: According to the NC Head Start Association, Head Start and Early Start are evidence-based practices that provide cognitive, health, social, and socio-emotional, and economic benefits to children and their parents. Taxpayer satisfaction is also noted in this report. Sources: <http://www.ncsheadstart.org>, <http://www.nhsa.org>

Contact: Khari Garvin, State Collaboration Director, NC Head Start, khari.garvin@ncmail.net

Healthy Families America

Website: <http://www.healthyfamiliesamerica.org/home/index.shtml>

Services: This intensive, home-based family support program aims to prevent and/or reduce child abuse, facilitate positive parent/child interaction, and increase parenting skills while promoting child health and identifying special needs. The program provides home visits beginning prenatally or at birth and lasts for 3-5 years after the birth of the baby. The model is based on 12 critical elements derived from over 30 years of research and with focus on three categories: service initiation, service content, and staff characteristics.

Location: County-level, 8 Counties: Charlotte (Mecklenburg County), Durham (Durham County), Morganton (Burke County), Winston-Salem (Forsyth County), Goldsboro (Wayne County), Nashville (Nash County), Spruce Pine (Mitchell/Yancey Counties).

Target Population: The project serves low-income, high-risk families.

Number Served: Do not have data.

Financing: Smart Start funded HFA projects in 3 counties in FY09-10: Burke, Durham and Orange. Project Connect is funding an expansion program in Wayne County and a new program in Nash County in FY '11-'12. The North Carolina Department of Public Health, through the federal Maternal, Infant, Early Childhood Home Visiting funding, is funding an expansion of Healthy Families in Durham and a new Healthy Families program in Mitchell and Yancey counties.

Evaluation: This program improves positive parenting practices, improves family health, improves school readiness for the children, and increases self-sufficiencies of mothers. Source: http://www.healthyfamiliesamerica.org/publications/research_folder.shtml.

Administering Agency: Prevent Child Abuse America

Contact: Jeannie Ownbey, 828-433-7187, jownbey@bariumsprings.org.

Incredible Years BASIC Parent Training Program—Early Childhood

Website: <http://www.incredibleyears.com/>

Services: The Incredible Years (IY) Parent Training Program is an evidence-based, 14-week parenting skills course that strengthens families by building parents' skills and promoting children's cognitive, social, and emotional skills. The IY-Early Childhood program primarily works with families of children ages 2-5 who are already experiencing challenging behaviors (i.e., aggressive and behavioral problems in early childhood classrooms and at home). Parents receive training on parenting basics including: effective discipline, how to give praise and set limits, how to play with their children, and how to deal with challenging behaviors.

Location: County-level, 15 Counties (SFY2012): Chatham, Durham, Orange, Surry, Yadkin, Brunswick, Nash, Edgecombe, Cherokee, Clay, Guilford, Rockingham, Robeson, Transylvania and Wayne.

Target Population: Parents or caregivers with children ages 2-5 years who demonstrate aggressive and behavioral problems in early childhood classrooms and at home, and may be expelled from their preschool.

Number Served: Do not have data.

Financing: State and Federal funds including Smart Start funds, The Duke Endowment, Duke Energy Foundation, Department of Social Services, and Department of Public Health

Evaluation: In 2009 a report authored by UNC's FPG Child Development Institute, concluded that after participating in the Incredible Years, there was a significant decrease in the frequency of children's problem behaviors. Also participating parents reported a significant increase in their use of "appropriate discipline, positive parenting, and clear expectations." Source: The Incredible Years BASIC Parent Training, May 2008 Evaluation Report, http://www.incredibleyears.com/IA/incredible-years_ncu-smart-start_5-08.pdf.

Administering Agency: Prevent Child Abuse North Carolina; The North Carolina Partnership for Children, Inc.

Contact: Sarah Currier, scurrier@preventchildabusenc.org, or Donna White, dwhite@ncsmartstart.org.

North Carolina Parents as Teachers

Website: <http://www.ncpat.org/>

Services: Parents as Teachers (PAT) is a voluntary family education and support program provides the information, support services, and encouragement parents need to help their children optimally develop during the crucial early years of life. The program provides personal/home visits by certified parent educators, parent group meetings, development and health screenings, and linkages and referrals to community networks and resources.

Appendix B Evidence-Based Home Visiting, Family Strengthening, and Parenting Skills Programs Supported by the State and Other Partners in North Carolina

Location: County-level, 61 Counties, 89 PAT programs. Alamance, Anson, Beaufort, Bladen, Brunswick, Buncombe, Burke, Cabarrus, Catawba, Cherokee, Chowan, Clay, Cleveland, Columbus, Craven, Cumberland, Currituck, Dare, Davidson, Davie, Duplin, Durham, Edgecombe, Forsyth, Gaston, Granville, Greene, Guilford, Harnett, Haywood, Henderson, Hertford, Hoke, Iredell, Jackson, Johnston, Lee, Lenoir, Lincoln, Macon, Mecklenburg, Nash, Onslow, Orange, Pasquotank, Person, Pitt, Randolph, Richmond, Rockingham, Rowan, Rutherford, Sampson, Scotland, Stanly, Surry, Swain, Union, Wake, Watauga, Wilson

Target Population: The PAT model focuses on children from birth to kindergarten entry.

Number Served: Do not have data.

Financing: State, federal and private funds including Smart Start funds, Head Start, Even Start, local public school systems, other early childhood programs, and other local, private, state, and federal funds.

Evaluation: A collection of peer-reviewed articles for the PAT program can be found online at: http://www.parentsasteachers.org/images/stories/documents/Research_bibliography_06_2010.pdf. Additionally, SRI International, a third-party research institute, conducted an evaluation of the PAT program in Winston-Salem.

Administering Agency: Parents as Teachers National Center, Inc.

Evaluation: NC self-assessment evaluation NC PAT, Source: www.ncpat.org/. National Evaluation on PAT, Source: http://www.parentsasteachers.org/images/stories/documents/Research_Quality_Booklet.pdf.

Contacts: Donna White, NCPC, dwhite@ncsmartstart.org or Robin Roberts, 919-571-8092 (ext. 15), ncarolinapat@aol.com

Nurse Family Partnership

Website: <http://www.nursefamilypartnership.org/locations/North-Carolina>

Services: Nurse Family Partnership (NFP) is a home visitation program aims to improve health, well-being, and self-sufficiency of low-income, first-time parents and their children. The program pairs first-time, low-income mothers with registered nurses throughout their pregnancy and until the baby turns two. Through guided evidence-based practices, participating mothers learn how to transform their own lives and their babies' lives by making better health, education and life choices.

Location: County-level, 15 counties: Buncombe, Cleveland, Columbus, Edgecombe, Guilford, Halifax, Hertford, Mecklenburg, Northampton, Pitt, Robeson, Rutherford, Polk, McDowell, and Wake.

Target Population: First-time, low income (at or below 200% of the federal poverty level) women. Women enter the program by the 28th week of pregnancy.

Evidence-Based Home Visiting, Family Strengthening, and Parenting Skills Programs Supported by the State and Other Partners in North Carolina

Number Served: Do not have data.

Financing: State, federal and private funds including The Duke Endowment, Kate B. Reynolds Charitable Trust, Blue Cross and Blue Shield of North Carolina Foundation, North Carolina Department of Health and Human Services-Division of Public Health, North Carolina Partnership for Children, Inc.

Evaluation: “North Carolina Nurse-Family Partnership: Evidence-Based Nurse Home Visitation Program and Health Care Reform,” Source: <http://www.preventchildabusenc.org/wp-content/uploads/2009/05/Evidence-Based-Home-Visitation-Program-and-Health-Care-Reform.pdf> and “Early Childhood Interventions: Proven Results, Future Promise,” 2005, Source: <http://www.rand.org/pubs/monographs/MG34>.

Administering Agency: North Carolina Division of Public Health

Contact: Laura Louison, 919-707-5601, laura.louison@dhhs.nc.gov

Strengthening Families Program

Website: <http://www.strengtheningfamiliesprogram.org/>

Services: Provides a family and parent strengthening program that meets once a week for fourteen weeks. The program combines science-based child life-skill building, parenting-skill training, and family life-skill education in order to improve child’s social/life skills and a family’s functioning. The program allows for families to develop their own support groups. Families and support groups may receive booster sessions from the staff as necessary.

Location: County-level, 8 Counties and 1 Boundary: Orange, Surry, Yadkin, Cherokee, Clay, Wake, Swain, Graham, and the Qualla Boundary.

Target Population: High-risk families, whose children may be at-risk of drug abuse or social/emotional/and/or educational developmental delays. The high-risk intervention lasts for 14 weeks for the age groups: 3-5, 6-11, and 12-16.

Number Served: Do not have data.

Financing: State funds.

Evaluation: According to several internal evaluations, SFP graduates report the following outcomes: improved parenting skills and family relationships, improved academic success; and decreased substance abuse, aggression and emotional programs in the children. Source: <http://www.ncpic.net/2009/sa2-strengthening-families-program-sfp/>.

Administering Agency: North Carolina Division of Mental Health, Substance Abuse Services, and Developmental Disabilities

Contacts: Dr. Henry Whiteside, Lutra Group, hwhiteside@lutragroup.com

Appendix B Evidence-Based Home Visiting, Family Strengthening, and Parenting Skills Programs Supported by the State and Other Partners in North Carolina

Triple P

Website: <http://www.triplep.net/>

Services: Triple P is a multi-level parenting and family intervention program that aims to prevent severe emotional, behavioral, and developmental problems in children by promoting positive and nurturing relationships between parent and child. By increasing parents' sense of competence in their parenting abilities, parents improve their communication and reduce parenting stress. Additionally, the program provides parents with primary care provider advice and discussion on children's developmental and behavioral issues. The program has five intervention levels of increasing intensity, including the following: (1) universal media campaign that targets all parents in a community and involves social marketing and health promotion, (2) offers primary care providers advice and discussion to parents on children's developmental and behavioral issues, (3) targets children with mild to moderate behavior difficulties and includes active skills training for parents, (4) provides an intensive 10-session individual or 8-session group parent training program for children with more severe behavioral difficulties, (5) "Enhanced Triple P" is offered to families that complete a level four Triple P intervention.

Location: County-level, 8 Counties: Davidson, Pitt, Alamance, Alleghany, Ashe, Cabarrus, Madison, and Watauga counties. Additionally, implementation of Triple P is planned for select communities in northeastern North Carolina as part of the Race to the Top–Early Learning Challenge Grant.

Target Population: Available to all parents with children ages 0-5, but geared towards parents and their children who are at-risk for child maltreatment.

Financing: State and Federal funds, see Chapter 3 for more information.

Evaluation: A national, internal evaluation of the program illustrates the population-level benefits and feasibility of the program, Source: <http://www.triplep-america.com/documents/Prinz%20et%20al%202009%20Prev%20Science.pdf>.

Contact: Marshall Tyson, 919-707-5640

North Carolina Institute of Medicine

630 Davis Drive, Suite 100

Morrisville, NC 27560

919.401.6599

www.nciom.org

www.ncmedicaljournal.com