Assuring the Maximum Health Potential of North Carolina's Children

The North Carolina Institute of Medicine Task Force Study

Kristie K. Weisner, MA, Pam C. Silberman, JD, DrPH, Samuel L. Katz, MD, Thomas J. Vitaglione, MPH, Dean E. Smith, Gordon H. DeFriese, PhD

The Importance of Child Health

While most North Carolina children are very healthy, too many are starting life with challenges that will affect their abilities to learn, build confidence, achieve success, or simply have hope for their futures. More than 1,600 North Carolina children die each year.[1] Thousands more are abused and neglected, suffer from chronic illnesses, endure untreated dental disease, struggle with disabilities, smoke, or have babies. Many of these children will never finish high school or get a job, and some are likely to abuse future children or be involved in criminal activity. Others will grow up stigmatized by disability or obesity. These children need and deserve a concerted effort through healthy public policies and effective service programs to ensure that resources, support, and opportunities are available to help them grow into healthy and successful adults.

Although previous task forces and commissions have analyzed specific children's health-related issues (e.g., child deaths) or certain child/adolescent populations (e.g., those with special needs), no group had been charged with a comprehensive examination of child health in North Carolina. Recognizing this problem, the former Secretary of the North Carolina Department of Health and Human Services (DHHS), H. David Bruton, MD, asked the North Carolina Institute of Medicine to convene a statewide task force in 1999 to assist the DHHS in formulating a comprehensive child health plan for the state. The goal of the task force was to study health issues facing children in this state and develop recommendations to ensure that all children reach their maximum health potential. Moreover, the plan was to identify gaps and areas of program duplication that need attention in the effort to assure the efficient and effective use of all resources allocated for the benefit of child health in North Carolina.

The North Carolina Institute of Medicine Task Force[2]

The NC Institute of Medicine's Comprehensive Child Health Task Force was chaired by Samuel L. Katz, MD, Wilburt Cornell Davison Professor of Pediatrics and Chair *Emeritus* of Pediatrics at the Duke University Medical Center; and Dean E. Smith, former Men's Head Basketball Coach at the University of North Carolina at Chapel Hill. The Task Force included 37 members, representing health and education professionals, child advocates, and other concerned citizens. The Task Force first examined health problems facing North Carolina children and then identified ways to address these problems. The group assigned priorities to the recommendations after examining the magnitude of the problem (number of children affected or severity of impact) and the known effectiveness of interventions.

Ms. Weisner, Dr. Silberman, and Dr. DeFriese are with the NC Institute of Medicine as Research Associate, Vice-President, and President/CEO, respectively. Dr. Silberman is also with the Cecil G. Sheps Center for Health Services Research at UNC-Chapel Hill. Dr. DeFriese, former Director of the Sheps Center, is also Professor of Social Medicine at UNC-Chapel Hill. Dr. Katz is Professor and Chair Emeritus of the Department of Pediatrics at Duke University Medical Center; Mr. Vitaglione is a Senior Fellow of the NC Child Advocacy Institute; and Mr. Smith was long-time head coach of the University of North Carolina men's basketball team. Address correspondence to Ms. Weisner at NC-IOM, Woodcroft Professional Center, 5501 Fortunes Ridge Drive, Suite E, Durham, NC 27713. Telephone: 919/401-6599, ext. 21. This project was funded by the North Carolina Department of Health and Human Services.

The Task Force's Final Report includes 120 recommendations. Of these, the Task Force identified 10 as highest priority for which steps should be taken immediately toward implementation. Eighteen others should be implemented within the next three-to-five years. The remaining recommendations should also be given serious consideration, but they were judged to be less urgent. The recommendations are organized around three cross-cutting areas that affect children's health and the state's ability to measure and monitor children's health. The cross-cutting themes are

- health education for children and families;
- access to a comprehensive system of care; and
- a comprehensive data system to aid informed decision-making regarding child health policy and program development.

Some of the recommendations under each area will require the initiation of new efforts or programs, others will require the expansion of existing programs, while others will require the maintenance of existing programs.

The State of Child Health in North Carolina

North Carolina has made significant progress in several areas of child health, such as infant and child mortality, immunization, and alcohol and drug use. North Carolina's infant mortality rate has steadily decreased over the last 10 years (from 12.6 deaths per 1,000 live births in 1988 to 9.2 per 1,000 in 1998).[3] The state's child death rate has also declined during the last decade (from 120.6 deaths per 100,000 children under the age of 18 in 1988 to 89.5 deaths per 100,000 in 1998).[4] In addition, North Carolina not only exceeds the national average in the number of children fully immunized by age two with all recommended vaccines, but ranks number one (88% of North Carolina children versus 78% nationally). Another area in which North Carolina ranks well nationally is alcohol and drug use among youth. According to national statistics, fewer North Carolina youth are drinking alcohol or using drugs than youth in other states.[5]

Contributing to these successes are the many excellent health, social services, and educational programs for children in North Carolina. Screening and early identification programs help detect, among other things, children with asthma, elevated blood-lead levels, dental problems, vision and hearing loss, and a variety of metabolic disorders in newborns and young children. The North Carolina Partnership for Young Children (aka North Carolina Smart Start) has continued to work diligently to help children enter school healthy and ready to learn. Moreover, North Carolina has received national acclaim for its expansion of health insurance coverage to uninsured children through Medicaid and NC Health Choice (North Carolina's version of the State Children's Health Insurance Program).

Despite these strides taken by North Carolina to improve child health, the Task Force identified many outstanding problems. For example, North Carolina's teen birth rate exceeds the national average,[6,7] as does the number of women who smoke during pregnancy[8,9]—a risk factor for having a low-birthweight baby.[10] More than 10,000 babies are born each year in North Carolina with very low birthweights.[11] The number of low-birthweight babies is a major reason why North Carolina has the third-highest rate of infant mortality in the country.[12] North Carolina also remains above the national average in child deaths.[13] Disparities in these and other health status levels continue for racial, ethnic, and lower socioeconomic groups.

While most of the 100,000 plus children born each year in North Carolina will be healthy, many will develop a serious health condition. Approximately 20% of North Carolina's children and youth have a "special healthcare need"—a chronic physical, developmental, behavioral, or emotional condition that requires health-related services beyond what is normally needed.[14] For example, about 45,000 children are estimated to have one or more serious chronic conditions, such as cerebral palsy or Down syndrome, and more than 158,000 are estimated to have other functional limitations.[14]

Mental health and substance abuse are also significant problems facing North Carolina's children. As many as 170,000-208,000 (10-12%) children in the state are estimated to have serious emotional disturbances.[15] A large number of children are also substance abusers. About 10% of North Carolina high school students self-reported drinking alcohol at a "heavy" level, and almost 25% of high school students reported "risky" drug use in 1997.[16] Children with these problems often live in poverty, in violent homes, or with parents who have lower educational levels and/or who have a history of legal or other social problems.

Access to health services for children and youth was a major concern of the Task Force. Children need a familiar, reliable, and regular source of healthcare to address the multiplicity of health issues that arise as a child matures. Task Force members opined that all children should have access to healthcare providers who are family-centered and who offer comprehensive, coordinated, compassionate, culturally competent care. As many as six percent of children nationally do not have a regular source of healthcare, and minority children fare even worse (17.2% of Hispanic and Latino children and 12.6% of African-American children).[17]

Adolescents are the least likely segment of our population to use health services. Some adolescents may be reluctant to continue seeing their pediatrician and/or they may have concerns about privacy once they enter their teenage years. Others lack access to specialized care for mental health and substance abuse problems. For these reasons, the Task Force recognized the importance of providing primary and preventive health services in or near

schools. At this time, only about 50 school-based/school-linked health centers are available to young people in North Carolina. Compounding the problem of school health services is the scarcity of school nurses who can dispense medications, care for children with special needs, or provide other vital services. North Carolina averages one nurse per 2,480 students statewide, while the nationally recommended ratio is one school nurse for every 750 students.[18]

For many children in North Carolina, access to healthcare is limited by a lack of insurance coverage. In 1999, almost 226,000 children (11.5% of all children from birth to age 18) were uninsured.[19] More than 119,000 of these children are eligible for either Medicaid or NC Health Choice (e.g., having family incomes less than 200% of the federal poverty guidelines). Another 64,000 uninsured children were from families with incomes between 200 and 300% of the federal poverty guidelines, and 43,000 uninsured children came from families with higher incomes. No state or federally funded insurance coverage is currently available for families with incomes above 200% of the federal poverty guidelines.

Illness, disabling conditions, and access-to-care difficulties were not the only health problems the Task Force examined. The number of injuries and accidents occurring in North Carolina is above the national average. About 25,000 North Carolina children are injured in motor vehicle crashes,[20] and another 11,000 children are injured in high-school sports annually.[21] In 1998, approximately 5,000 children were admitted to a hospital because of injuries.[22] The number of abused and neglected children has grown from 29,749 substantiated victims of child abuse or neglect in State Fiscal Year (SFY) 1994/95 to 37,326 substantiated victims in SFY 98/99. Even worse, national studies suggest that the actual incidence of abuse and neglect is probably much higher than these statistics suggest.

Child abuse, neglect, and other health problems children face are often associated with lower socioeconomic status. Approximately 391,000 children under the age of 18 in North Carolina were estimated to live in poverty in 1996.[30] Poor children die at a rate 2-3 times higher than children who are not poor. Parents of these children may be forced to choose between rent, medication, and proper nutrition for themselves and their children. Almost nine percent of households are unable to meet basic nutritional needs, and 2.6% are classified as "hungry."[31]

Whether it's a poor diet or a lack of physical activity, lifestyle behaviors developed in childhood have a profound influence on a child's health. North Carolina has one of the most sedentary populations in the nation, and this lack of activity is apparent in school-age populations in our state. Only 55% of North Carolina's public school students report participation in vigorous physical activity for 20 or more minutes three days per week.[23] Not surprisingly, students scored 12-15% below the national average in heart-lung fitness tests.[25] North Carolina's children are also two or three times more likely to be obese than children nationally.[24]

Besides inactivity, North Carolina has one of the highest smoking rates in the nation (26% of adults).[25] Ninety percent of these smokers began smoking before the age of 18. In fact, fewer adults than youth in North Carolina smoke. Statistics indicate that 18.4% of middle school students and 38.3% of high school students are current tobacco users.[26] Despite the well-known health consequences of poor nutrition, physical inactivity, and tobacco use, North Carolina does too little to model and teach healthy living behaviors among its youth.

Recommendations

The Task Force recommendations address the issues of poverty, race, learned health behaviors, and access to health services—all of which underlie North Carolina's child health problems. Addressing issues on this scale will take a coordinated commitment of both public and private sector resources. The Task Force hopes their recommendations will serve as a useful blueprint for efforts to improve the health of North Carolina's children. Listed below are the ten recommendations the Task Force believes should be implemented immediately. These are grouped under the categories of cross-cutting themes.

Theme No. 1: One of the many commitments North Carolina must make is a substantial improvement in its **health promotion and disease prevention** efforts for children. Health education programs targeted toward children, their parents, and the general public can help empower children (and adults) to improve and maintain good health.

Expanding the mandatory school-health curriculum is one key aspect of education for health strongly recommended by the North Carolina Institute of Medicine Task Force. North Carolina schools are required to teach the Healthful Living Curriculum in kindergarten through eighth grade and to provide 150 hours of instruction in high school. Unfortunately, far too many gaps exist in both the curriculum and its implementation. The amount of time spent in physical education activities is clearly inadequate to ensure physical fitness. In practice, implementation of the curriculum is not closely monitored since it is not part of the state's "ABC Plan," and schools are not held accountable in this regard.

Implementing a healthful living public awareness campaign is another way to provide health education to children and adults. The average child spends approximately 25 hours per week watching television.[27] Some of this exposure may be educational, but for the most part television watching encourages inactivity and the adoption of other unhealthy lifestyles. Media campaigns can be used to raise individual, family, and community motivation for more healthful living and to counter some of the negative influences in the media themselves. Evidence has shown that mass media campaigns

can help improve healthy behaviors in areas such as smoking, nutrition, and increasing seat belt use.[28]

Expanding the intensive home visiting program statewide is recommended to help improve parenting skills in families with infants and very young children. Intensive home visiting programs have proven effective in providing parenting education and services to new mothers living in poverty. They help reduce child abuse and neglect, injuries, and poison ingestion. They have also helped mothers delay subsequent pregnancies, stay in school, and enter the workforce.

Theme No. 2: In addition to fostering health promotion and disease prevention efforts through education, children should have access to a **comprehensive system of care** that will identify potential health problems and address ongoing health concerns. Examples of recommendations pertaining to improved access include the following six:

Ensuring that all uninsured children have access to health insurance coverage was one of the Task Force's top recommendations. NC Health Choice enrolled almost 57,000 uninsured children in its first year of operation, and a total of more than 74,000 during its second year of operation. However, more than 108,000 uninsured children can still qualify for either Medicaid or NC Health Choice. The Task Force recommended that North Carolina expand its outreach efforts to enroll all eligible children, and expand NC Health Choice to cover uninsured children with family incomes between 200% to 300% of the federal poverty guidelines on a sliding scale basis (53,583 children in FY 2000). Uninsured children with higher family incomes should be allowed to buy into the program at the full premium cost. Since the time of the Task Force's recommendation, the NC Health Choice program stopped enrolling new children as the state reached its spending cap (an average of 68,970). Recently the General Assembly appropriated additional money, so the program was re-opened. Since re-opening the program has grown to about 85,000 children, exceeding the new spending cap. Because of this enrollment growth, the state is considering re-imposing an enrollment cap. The state should expand coverage to include all eligible children as well as other uninsured children with higher incomes.

Expanding the number of school health nurses to at least one school nurse for every 750 students in North Carolina would help ensure that the growing number of students needing medications during school hours and those with more serious healthcare needs can safely attend school. North Carolina currently has an average ratio of one nurse per 2,451 students. Many counties have far worse ratios and some have no nurses in their schools at all. The Task Force recommends increasing the number of school nurses by 150 each year over the coming decade.

Developing a plan to ensure every child has access to a regular source of family-centered, coordinated, comprehensive and culturally-competent healthcare is a recommendation the Task Force believes will help increase children's access to healthcare. Those providing this care can be pediatricians, family physicians, nurse practitioners, or physician assistants, and they may be located in any organization offering continuous primary care for children. This is a particularly difficult problem for adolescents, which might be partially addressed by expanding comprehensive school health programs statewide.

Expanding early identification, referral and treatment of children ages birth-to-five will help identify all children needing early intervention services. While North Carolina has the 10th largest population in the nation, it ranks 27th in the number of young children served by early intervention programs.[29] The state only serves 2.1% of children from birth to age two and only 5.2% of three-to-five-year-olds through such programs. The Task Force also recommended that focus be given to identifying children who have mental health problems or those jeopardized by parental substance abuse problems.

Developing and implementing Medicaid policies to expand the availability of mental health and substance abuse services for children is important to ensure children's access to mental health and substance abuse professionals in both public and private practice. Low reimbursement rates further limit the Area Mental Health Programs' ability to provide services to uninsured or inadequately insured children.

Establishing mandatory case load limits for child protective service, foster care and adoption workers will help assure that adequate staff can promptly investigate allegations of abuse and neglect, and can work with families recovering from abusive situations. The state currently recommends a caseload standard of one worker for 12 families for Child Protective Services investigators and case managers. The Task Force recommended that this ratio be mandated as a maximum. In addition, the foster care and adoptive ratio of one social worker per 15 families should be reduced to one social worker per 12 families.

Theme No. 3: Efforts to improve the health of children in North Carolina are also limited by a lack of timely, valid, and reliable **data on child health and the performance of health and human services programs targeted to children and adolescents.** Decision-makers in North Carolina frequently do not have the information they need. As a result, these decision-makers are often forced to make policy changes based on intuition and anecdotes rather than factual information supported by scientific data.

Healthcare decisions should be made with the best information available to identify need, develop policy alternatives, and evaluate the effectiveness of the policy options for improving child health. To carry out this work, the Task Force recommends that the NC Department of Health and Human Services *create a state-level task force to develop a*

comprehensive child health data system. This should include both the design and creation of such a data system.

Summary

Although efforts to improve the health of our children are being made every day, a larger commitment is required by the public and private sectors of the state if current and anticipated problems related to child health are to be addressed. With the state in financial crisis, it will be difficult to maintain newly achieved health gains and to prevent delay in implementation of other health-saving initiatives. It would be unfortunate if the children of North Carolina were made to suffer until we can resolve our budgeting problems.

The North Carolina Institute of Medicine will continue working with the NC Department of Health and Human Services to implement this plan and to monitor its progress over the next five years. Improving child health in North Carolina will take state, community, and individual efforts. From policy-makers and healthcare providers to teachers and parents, children need the support and guidance of every adult in order to reach their maximum health potential.

The Challenge for Healthcare Professionals

While it will take the dedicated efforts of all North Carolinians to enhance the health status of our children, healthcare professionals have an important and unique role to play. A true system of care for our children will not develop without the commitment of child care providers. To enhance access for our poorest children, all physicians should participate as providers in the Medicaid and NC Health Choice for Children programs. To assure that care is coordinated effectively and efficiently, primary care physicians are encouraged to act as true "medical homes" for children, providing family-centered, culturally-competent care. In addition, providers of specialized care should assure that such care is coordinated with the child's source of primary care.

Because healthcare professionals hold highly respected positions in their communities, they can also improve access to care by advocating for school nurses and school-based health services wherever these services are lacking. Studies have shown that when such access is available, physicians and other providers receive more appropriate referrals, and both the health and school performance of children are enhanced.

Finally, healthcare professionals are challenged to take the lead in their communities to improve health education in the schools and public awareness of good health and lifestyle practices. Once again, the community respect accorded to healthcare professionals makes them trusted messengers of information critical to the future of our children. They are encouraged to both accept and act on this trust.

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