The importance of child health to school readiness and early elementary success is widely accepted. Yet, many state and community efforts to improve school readiness focus primarily on strengthening early learning systems such as child care and preschool. Too often child health is viewed as separate and distinct from early childhood care and learning rather than as an integral part of an overall school readiness strategy.

While there are many exemplary health programs, practices and policies that view child health in the context of child development and school readiness, these are not yet a central part of most state and community policy discussions on how to improve school readiness and early elementary success. Often, early learning and care practitioners, advocates and policymakers have a limited understanding of the potential for health services to identify and begin to address the developmental, behavioral, social and environmental issues confronting young children.

This Issue Brief describes research and practice that speaks to a much broader role for the health system in improving children’s healthy development and school readiness, and how policies can help ensure that young children receive preventive and developmental health care; establish links between child health, early learning, early intervention and family support systems; and improve the environments in which children live.

The Colorado Context

There are compelling reasons for Colorado to integrate child health into its school readiness strategies. Colorado ranks 44th among states for the percentage of uninsured children and 51st for the percentage of uninsured children living at or below 200% of the federal poverty level. Prior to the current economic downturn, Colorado experienced the highest national increase (73%) in the number of children living in poverty. At the end of 2007 approximately 180,000 Colorado children were without a usual source of care or medical home, even though they were eligible for, or enrolled in Medicaid or Child Health Plan Plus. Current economic turmoil will only exacerbate these numbers in the near future.

» MAKING HEALTH A CORE COMPONENT OF AN EARLY CHILDHOOD DEVELOPMENT SYSTEM

Child health is not the only factor in ensuring that children start school ready to succeed, but it plays a significant role. Children absent from school for chronic health conditions risk falling behind in their schoolwork. Children with untreated vision problems cannot track printed letters and words across a page and learn to read. According to Oral Health America, oral disease in children is responsible for more than 51 million lost school hours each year. Child health care services play a key role in the early identification of developmental, behavioral, social, environmental and biological conditions that affect children’s ability to learn.

The essential role of health, nutrition and mental health services in promoting children’s readiness for and success in school has been depicted in the diagram on page 2 by the Early Childhood Systems Workgroup, a collaborative of national organizations and interests that have promoted comprehensive state approaches to early childhood system development. The diagram presents health, mental health and nutrition as one of four interconnected, core components of an overall early childhood system. Strong links across the components are essential to ensuring children get the services and supports they need. Particularly in the case of young children, families are key partners in ensuring that children receive the necessary services and supports within each component.
Connecting Child Health and School Readiness

**The Early Childhood Colorado Framework**

Like several other states, Colorado is pursuing a systemic approach to supporting young children’s health and development. With input from a variety of stakeholders, Colorado has developed a collective vision on behalf of young children and their families — The Early Childhood Colorado Framework. This framework emphasizes the importance of a strong, coordinated and integrated approach to comprehensive early childhood resources and services and identifies specific access, quality and equity outcomes for young children and families across each of the early learning, health, mental health and family support systems. [http://earlychildhoodcolorado.org/systems_building/](http://earlychildhoodcolorado.org/systems_building/)

**HEALTH CARE AND EARLY CHILD DEVELOPMENT**

Historically, modern medicine started by first treating infectious disease, then addressing issues of chronic illness and disability. Increasingly, and particularly for young children, the role of the health system is viewed in much broader terms of disease prevention and health promotion. This formulation recognizes both biological and social determinants of health and the essential role of the family and community, as well as the child health practitioner, in ensuring children’s healthy development. This evolution provides the opportunity to expand the role of child health in addressing children’s developmental, behavioral, social and environmental needs, in addition to their physical health. Since disease prevention and health promotion affect the trajectory of children’s development, including reducing risk factors and strengthening protective ones, a good deal of the emphasis in child health must be on regular check-ups and anticipatory guidance and education for parents to promote healthy child development.

The American Academy of Pediatrics’ *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Families* provides comprehensive guidelines for pediatric practices in providing well-child care, based upon evidence of effective practice. The guidelines include regular, age-appropriate developmental screening of children, guidance to parents to provide an environment that promotes healthy child development, and attention to children’s cognitive, social and physical development. Dr. Ed Schor, Vice President of The Commonwealth Fund, has presented the desired outcomes for such well-child care in the table on page 3. These outcomes constitute many of the essential building blocks for educational success as well as good health.
## OUTCOMES OF WELL-CHILD CARE DURING THE FIRST FIVE YEARS OF LIFE

<table>
<thead>
<tr>
<th>Well-Child Care</th>
<th>Contribution to School Readiness</th>
</tr>
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| **Child Physical Health and Development** | • All vision problems detected and corrected optimally  
• All hearing problems detected and managed  
• Management plans in place for all chronic health problems  
• Immunizations complete for age  
• All congenital anomalies/birth defects detected  
• All lead poisoning detected  
• All children free from exposure to tobacco smoke  
• Good nutritional habits and no obesity; attained appropriate growth and good health  
• All dental caries treated  
• Live and travel in physically safe environments |
| **Child Emotional, Social and Cognitive Development** | • All developmental delays recognized and treated (emotional, social, cognitive, communication)  
• Child has good self-esteem  
• Child recognizes relationship between letters and sounds  
• Child has adaptive skills and positive social behaviors with peers and adults |
| **Family Capacity and Functioning** | • Parents knowledgeable about child’s physical health status and needs  
• Warning signs of child abuse and neglect detected  
• Parents feel valued and supported as their child’s primary caregiver and function in partnership with the child health care provider  
• Maternal depression, family violence and family substance abuse detected and referral initiated  
• Parents understand and are able to fully use well-child health care services  
• Parents read regularly to the child  
• Parents knowledgeable and skilled to anticipate and meet a child’s developmental needs  
• Parents have access to consistent sources of emotional support  
• Parents linked to all appropriate community services |

Note: Regular font bullets are those outcomes for which child health care providers should be held accountable for achieving. Italicized bullets are those outcomes to which child health care providers should contribute by educating parents, identifying potential strengths and problems and making appropriate referrals, but for which they are not independently responsible.

The primary health practitioner’s role is particularly important in the timely identification of and response to potential issues affecting young children’s healthy development (e.g., hearing, vision or speech and language developmental delays). For many young children, the primary health practitioner is the only professional who sees them and is in a position to identify early childhood developmental concerns.8
A comprehensive well-child approach to providing health care services is emerging in the field. Not all children have access to a regular source of care, or medical home, which can provide ongoing developmental and health promotion care. Health care financing systems have generally been based on an adult health model that has not supported developmental health services. The structure of pediatric practice itself requires modification to incorporate into routine care the exemplary practices embodied in the American Academy of Pediatrics’ Bright Futures guidelines.

As states and communities develop school readiness strategies, they should also develop a well-child approach to child health care by providing high-quality health insurance coverage, ensuring access to primary and developmental health care services for all children and creating effective links to the early learning, family support, special needs and early intervention components of an overall early learning system.

» ENSURING CHILDREN HAVE COMPREHENSIVE HEALTH COVERAGE

Child health insurance coverage is necessary to ensure that children receive comprehensive, primary care services. Children without health insurance are less likely to receive primary and preventive health services, less likely to have special needs identified and addressed in a timely fashion, and more likely to experience generally poorer overall health.

INCREASED ENROLLMENT

Illinois established an All Kids statewide program that allows parents to enroll their children in a public program, with a sliding fee schedule. Parents at higher income levels pay the full cost of coverage. Illinois’ experience shows that when health insurance is available for all children, more parents seek out assistance. This has dramatically increased the participation rate among children who were already qualified for Medicaid or SCHIP health insurance coverage.

STREAMLINED ENROLLMENT

Louisiana has taken extensive actions to streamline its re-enrollment procedures by establishing processes that examine administrative data systems, such as food stamp participation and wage data, to verify parents’ income eligibility. Louisiana has been able to reduce the percentage of children terminated from Medicaid and SCHIP for administrative reasons to less than 1%, while many states’ rates of administrative termination are much higher.

The federal Medicaid and SCHIP programs have been instrumental in expanding child health coverage, even with the decline in employer-sponsored health insurance coverage. Currently, three in 10 young children (birth through five years of age) receive their health care coverage either through Medicaid or SCHIP, and the majority of children with special health care needs are covered under these programs.

At the same time, a majority of the nine million uninsured children in America are eligible for but not currently enrolled in these public insurance programs. Colorado’s Medicaid and Child Health Plan Plus (CHP+) programs provide health care coverage to more than 360,000 children and their parents. Nonetheless, nearly 100,000 of Colorado’s estimated 170,000 uninsured children are eligible for but not enrolled in the programs. Under the current public and private system of health insurance coverage, covering more children in most states requires additional efforts to enroll and retain coverage for children already eligible for Medicaid or SCHIP.
Providing children with comprehensive services that include oral, mental and developmental health coverage involves additional expectations for private health insurance and in some instances wrap-around public health coverage through premium assistance plans to bolster private coverage. The following efforts have been effective in states and communities in significantly expanding young children’s access to comprehensive health coverage:

- Simplify and streamline eligibility forms and requirements for enrolling in Medicaid and SCHIP
- Provide outreach through public campaigns and through incentives to community-based organizations to enroll eligible families
- Offer presumptive eligibility for Medicaid and SCHIP – temporary coverage that enables children to receive care while their eligibility for full benefits is being determined
- Offer 12-month continuous eligibility for Medicaid and SCHIP
- Streamline re-enrollment processes with administrative tools, such as food stamp participation and Department of Labor data, for determining continued eligibility
- Expand the financial eligibility for enrollment in SCHIP, with a sliding fee schedule for family participation based upon ability to pay
- Establish Family Opportunity Act provisions to provide Medicaid coverage for children with special health care needs up to 300% of the federal poverty level
- Construct premium assistance programs under Medicaid and SCHIP that wrap-around comprehensive benefits for children who qualify for both those programs and employer-sponsored coverage
- Ensure that safety net providers within communities have the resources and support to provide primary and preventive child health services
- Require or offer incentives for private health insurance plans to provide comprehensive child health benefits, particularly around primary and preventive health services
- Establish an overall system to offer children at any income level an affordable child health coverage option and place expectations on parents to ensure their children are covered.13

There are examples of effective policies, some at the state and some at the community level. Even absent comprehensive health care reform, states can expand child health coverage and improve the comprehensiveness of that coverage. Moreover, as states and the federal government seek broader health care reform, they can incorporate many of these policies to ensure that the health care and developmental needs of young children are met in a health coverage system that historically has focused primarily on adult health coverage.
EXPANDING THE PROVISION OF COMPREHENSIVE CHILD HEALTH SERVICES

When viewing child health in the context of contributing to school readiness, one key to children’s healthy development is the quality and type of health services children receive. Medicaid and SCHIP are the largest insurers of young children, particularly children from low-income families and those with special needs who are most at-risk of starting behind their peers at kindergarten entry. Medicaid and SCHIP policies and practices regarding coverage and care are critical to improving children’s healthy development. Since these programs cover such a large share of the young child population, they also have a major influence on overall child health practice.

The Medicaid program has created the opportunity and expectation for comprehensive child health services under its Early Periodic Screening, Diagnosis and Treatment (EPSDT) benefits. EPSDT requires state Medicaid to reimburse for both identifying and then providing all “medically necessary” services for children for their healthy development, including services that go beyond what otherwise are included in state Medicaid coverage plans. EPSDT has afforded states opportunities to expand primary and preventive services and receive matching federal funds, as well as given young children and their parents legal rights to coverage. While EPSDT does not extend to SCHIP programs, a number of states used SCHIP funding to expand their Medicaid programs and therefore provide EPSDT benefits under SCHIP.

The following are some examples of state actions, in particular, to improve their Medicaid coverage of these primary, preventive and developmental health services:

• Provide outreach through Medicaid care coordination or case management to all children to enroll them in medical homes and participate in primary and preventive health services
• Establish separate billing codes for developmental screenings (such as Ages and Stages) by primary child health practitioners and track the degree to which young children receive developmental screenings
• Provide adequate reimbursement for comprehensive EPSDT visits and ensure that health care providers deliver comprehensive care

IDENTIFICATION AND RESPONSE AT BIRTH

Hawaii’s Healthy Start program established a screening process at the time of birth to identify families who could benefit from home visitation to improve their children’s healthy development. Largely conducted within hospitals and integrated into the health care provided in those settings, the simple screening process is an effective method of connecting families to assistance.

• Provide reimbursement for care coordination services that go beyond identifying biological and medical issues to identifying and responding to social determinants of health
• Include parental depression screening and referral for care as a billable part of well-child care
• Include primary care practitioners in oral health screening and preventive oral health care for young children

Colorado Medical Home Initiative

The Colorado Medical Home Initiative is a statewide effort to build systems of quality health care for all children in Colorado while increasing the capacity of providers to deliver such care. The medical home model is an approach to health care that ensures all providers of a child’s care operate as a team, that families are critical members of that team, and that all team members understand the importance of quality, coordinated medical, mental and oral health care. In 2007, the Colorado General Assembly established a state goal of increasing the number of children who receive care consistent with the Medical Home approach. The Colorado Medical Home Initiative, housed at the Colorado Department of Public Health and Environment and coordinated in partnership with the Department of Health Care Policy and Financing and community stakeholder advocates, is working to promote and implement the medical home approach in local communities across Colorado.

www.medicalhomecolorado.org
• Develop state strategies and funding support for expanding the adoption of primary, preventive and developmental health practices within the primary child health practitioner community.\textsuperscript{14}

While Medicaid is key to the expansion of comprehensive child health services, the private health insurance sector should also ensure that its policies cover child health practices around developmental and behavioral services. If research-based strategies like Reach Out and Read – where primary care practitioners encourage parents to read to their children and provide them children’s books at well-child visits – are to become part of ongoing pediatric practice, they need to be supported within the public and private system’s overall financing structure.

The child health practitioner community – pediatricians, pediatric nurse practitioners, family practitioners and physicians’ assistants – needs to be supported in making practice changes. In all states, there are leaders in these practice communities who can be enlisted as champions and can support diffusion of new practices to their colleagues. States and communities can play a significant role in providing resources and incentives for the training, professional development activities and hands-on support to make these changes in addition to establishing policies that promote practice changes:

• Establish demonstration programs to work with the child health practitioner community in conducting developmental screenings as a part of well-child care
• Adopt pay-for-performance or other incentives to support further expansion of comprehensive well-child practices
• Establish Healthy Child Development Offices or Councils, with key roles for the child health practitioner community, to recommend policy changes to promote such comprehensive child health services.\textsuperscript{15}

\section*{CONNECTING CHILD HEALTH TO OTHER EARLY CHILDHOOD SERVICES}

In many respects, child health providers play the role of “first responder” to a wide variety of issues that affect young children’s healthy development and readiness for school. Collaboration between the primary care child health practitioner and other services and supports for children and their families is essential to promoting healthy development. Particularly for very young children, child health practitioners are the near universal point of professional contact with the child. Nearly 90\% of all young children see a child health provider at least annually for a check-up, while less than one-third are in any childcare setting, the next most common contact with a formal service system.

\section*{DEVELOPMENTAL SURVEILLANCE AND SERVICES}

Connecticut’s Help Me Grow program employs a three-part strategy to address young children’s developmental issues and needs. First, Help Me Grow works with child health primary practitioners to screen for developmental and social as well as biological issues during well-child visits. Second, the program supports telephone care coordinators who work with families to identify needs and to go beyond referring to scheduling visits with appropriate providers. Third, Help Me Grow supports community health liaisons who identify both formal and informal resources for families in the communities and strengthen connections across them.

\section*{COMMUNITY NETWORKS OF SUPPORT}

Community Care of North Carolina establishes regional networks that provide case management services for children on Medicaid and SCHIP that seek to identify and address children’s comprehensive needs, and reduce reliance upon emergency and hospital care caused by failure to provide strong primary and preventive health services. Research has shown substantial savings through Community Care in reduced hospitalization and emergency room use for children with diabetes and asthma.
There are two essential ways that policies can support child health practitioners to ensure better links across health, early learning, family support and programs addressing children’s special needs. First, states and communities can establish specific referral protocols and expectations for collaboration across community providers and resources for young children and their families. Fortunately, there are an increasing number of exemplary practices – including Connecticut’s Help Me Grow program and Community Care of North Carolina – that can be looked to for adaptation and replication. Such programs start with comprehensive primary and preventive health services, then link young children and their families to support services at the community level.

Second, policies can support and finance child health practitioners to take on consultation roles and sometimes share offices with other community providers serving young children in order to better provide specific services to young children and their families. This is particularly important in helping early care and education providers respond to children’s special health and developmental needs, emotional or behavioral as well as medical needs. Nurse consultants to early care and education programs can provide assistance to those programs in ensuring a healthy environment for all children, and providing special assistance to children with special needs.

Mental health consultants to early care and education and family support programs can help develop effective treatment and management plans to respond to young children’s challenging behaviors. Specific state and community policies that can promote such effective links include:

- Provide demonstration funding for exemplary programs such as Help Me Grow and Community Care, building in expansion and replication strategies
- Enhance care coordination efforts for young children and their families and offer training across different systems providing such coordination
- Build shared databases and registries to identify common clients across different programs and services
- Create explicit referral and service protocols between health and special education (particularly Early Intervention under Part C of the Individuals with Disabilities Education Act) and health and child protective services
- Support nurse consultants and mental health consultants to provide training and guidance to early care and education and family support programs.

Colorado’s Early Childhood Councils
Colorado’s Early Childhood Councils are a recent legislative expansion (HB06-1062) of the Consolidated Child Care Pilots that existed from 1997-2006. Currently, 31 Early Childhood Councils are active in 56 of Colorado’s 64 counties. Each Council is a community-based collaborative working to build a comprehensive early childhood system that connects children and families to resources and quality services in early care and education, health, mental health and family support. The goal is to build a firm local foundation for an early childhood system, recognizing that individual communities have different needs and varying degrees of capacity and access to resources. The Colorado Trust has committed $5 million over five years (2009-2013) to support the early childhood councils in integrating health services and health providers into their local systems building efforts.
Every child can benefit from a primary source of health care, but every child also lives in a family, neighborhood and community that should offer a healthy environment and promote good health practices. While there is a major role for child health practitioners to play in providing developmental health services to young children and their families, there also is a broader role for public health and health care providers to play in creating a healthy environment within the community for young children and their families.

Gains have been made in decreasing the incidence of sudden infant death syndrome (SIDS) due to much broader public education and awareness of the importance of children being put to sleep on their backs. Similarly, public awareness of the need for and proper use of infant seats in automobiles have protected young children from injuries and deaths in automobile accidents. Although still far too prevalent, lead poisoning among infants and young children has been dramatically reduced by lead abatement campaigns in older housing. Policies that states and communities can enact to support broader public health actions to improve children's healthy development include:

- Create lead abatement education and action strategies specifically within neighborhoods with older housing stock and high rates of blood-lead levels in young children.
- Establish initiatives around nutrition and exercise that have a specific aspect focusing upon infants and toddlers.
- Initiate task forces to examine the impact of the environment on the prevalence and severity of asthma in young children and the steps necessary to address environmental contributors.
- Support work in community health centers and other safety net providers in poor neighborhoods that enables them to be a locus for broader health-related community programming, including peer support group activities.
- Establish coalitions across parks and recreation, libraries, community centers and health systems to establish more healthy spaces and places that parents can take young children within their neighborhoods.

**COMMUNITY PARTNERSHIPS FOR HEALTHY DEVELOPMENT**

The Eastside Community Partnership in Richmond, Virginia represents a community coalition led by the Vernon Harris Community Health Center that has fostered multiple community and family support activities that draw upon resident initiative in addressing child and family needs. These include both formal and informal supports to parents of young children focused upon healthy child development. The Partnership is an example of the way in which a health provider within a community can bridge clinical practice with community building.
SUMMARY

The goal of medicine is not only to treat illness and injury but to promote wellness in a very broad context. Just as the early years are crucial in determining lifelong approaches to learning and intellectual growth, they also set the stage for healthy development. As early childhood systems-building proceeds in states, there are many opportunities to better integrate health services and the health provider community into state school readiness plans and actions. Schools and early learning programs provide an excellent opportunity to connect children with health care services. Likewise, health care providers can serve as “first responders” by aiding in the early identification and treatment of developmental delays that would otherwise impede school readiness if undetected.

As states and communities work to create good learning environments for young children within early care and education settings, they need to ensure these are healthy environments for young children and families. As states and communities work to ensure young children have access to quality medical care, they need to ensure that care promotes healthy social, emotional and cognitive development. Early learning and well-child care are integrally related, and both are needed to ensure all children start school healthy and ready for success.

By integrating and linking child health care with other systems and services, communities can improve the health and well-being of young children and their families. Practitioners and policymakers can play a variety of roles to help link services and supports across early learning, health and human service sectors and forge innovative partnerships to support the healthy development of all children.
END NOTES

5 The Early Childhood Systems Workgroup includes many of the national organizations and interests that have promoted comprehensive state approaches to early childhood, including organizations charged with implementing major foundation initiatives. The Workgroup developed this formulation to provide a common framework in providing technical assistance to states and communities. The National Governors’ Association Center for Best Practices, one of the members, is producing a policy brief that provides a more detailed description of this framework. Bruner, C., & Lovejoy, A. (2009). Building Brighter Futures Policy Brief. Washington, DC: NGA Center for Best Practices.
8 Child and Family Policy Center (2008). The Healthy Child Story Book: Policy Opportunities to Improve Children’s Healthy Development: A Focus Upon Medicaid and SCHIP. Des Moines, IA.
14 The Assuring Better Child Health and Development (ABCD) Initiatives of the Commonwealth Fund have supported states in taking a number of these actions. The National Academy for State Health Policy has produced reports on these actions. See, in particular: Kaye, N., & Rosenthal J. (2008). Improving the Delivery of Health Care that Supports Young Children’s Healthy Mental Development: Update on Accomplishments and Lessons from a Five-State Consortium. National Academy for State Health Policy and The Commonwealth Fund.