RECOMMENDATION 4-1

Federal, state, and local agencies, along with private foundations and philanthropies that invest in research, should include in their portfolios research on the development of preventive interventions that target fathers and other male caregivers. Special attention should be given to the recruitment, retention, and support of men and fathers parenting young children from underserved populations.

RECOMMENDATION 4-2

Federal, state, local, tribal, and territorial agencies, along with private foundations and philanthropies that invest in research, should include in their portfolios research on the development of interventions that are culturally sensitive and tailored to meet the needs of subgroups of children known to be vulnerable, such as those living in chronic poverty, children from immigrant backgrounds, children in foster care, and children with incarcerated parents.

RECOMMENDATION 4-3

To strengthen and expand the impact of evidence-based home visiting programs:

• Federal policy makers should expand the Maternal, Infant, and Early Childhood Home Visiting Program.

• The Health Resources and Services Administration and the Administration for Children and Families should work with program developers to increase flexibility for states and communities, to tailor the program to the needs and/or assets of the community or population being served.

• Federal, state, local, tribal, and territorial agencies overseeing program implementation should continue to strengthen programmatic coordination and policy alignment between home visiting, other early care and education programs, and medical home.

RECOMMENDATION 4-4

Policy makers at the federal, state, local, territorial, and tribal levels and philanthropic organizations should support the creation and implementation of programs that ensure families have access to high-quality, cost-effective, local community-based programs that support the psychosocial well-being of the primary adult caregivers and contribute to building resilience and reducing family stress.

RECOMMENDATION 4-5

Health care providers who care for pregnant women and children should routinely track levels of individual health and social risk among mothers and children over time, using periodic assessments via a short set of scientifically validated measures.
**RECOMMENDATION 5-1**

The U.S. Department of Health and Human Services, state, tribal, and territorial Medicaid agencies, public and private payers, and state and federal policy makers should adopt policies and practices that ensure universal access to high-quality health care across the life course. This includes:

- Increasing access to patient- and family-centered care,
- Ensuring access to preventive services and essential health benefits, and
- Increasing culturally and linguistically appropriate outreach and services.

**RECOMMENDATION 5-2**

To expand accountability and improve the quality of preconception, prenatal, postpartum, and pediatric care:

- Public and private payers should include new metrics of child and family health and well-being that assess quality using a holistic view of health and health equity. Federal, state, and other agencies, along with private foundations and philanthropies that invest in research, should support the development and implementation of new measures of accountability, including key drivers of health, such as social determinants, along with measuring variations by key subgroups to determine disparities;
- Public and private payers, including the Health Resources and Services Administration’s (HRSA’s) Bureau of Primary Care and Maternal and Child Health Bureau, Centers for Disease Control and Prevention, Centers for Medicare & Medicaid Services (CMS), and perinatal and pediatric quality collaboratives, should expand the use of continuous quality improvement, learning communities, payment for performance, and other strategies to enhance accountability; and
- Health care–related workforce development entities should expand efforts to increase diversity, inclusion, and equity in the health care workforce, including diversity-intensive outreach, mentoring, networking, and leadership development for underrepresented faculty and trainees.

**RECOMMENDATION 5-3**

The U.S. Department of Health and Human Services, state, tribal, and territorial government Medicaid agencies, health systems leaders, and state and federal policy makers should adopt policies and practices that improve the organization and integration of care systems, including promoting multidisciplinary team-based care models that focus on integrating preconception, prenatal, and postpartum care with a whole-family focus, development of new practice and payment models that incentivize health creation and improve service delivery, and structures that more tangibly connect health care delivery systems to other partners outside of the health care sector.
RECOMMENDATION 5-4

Transform preconception, prenatal, postpartum, and pediatric care to address the root causes of poor health and well-being—the social, economic, environmental, and cultural determinants of health and early adversity—and to align with the work of other sectors addressing health equity.

The U.S. Department of Health and Human Services should convene an expert panel to reconceptualize the content and delivery of care, identify the specific changes needed, develop a blueprint for this transformation, and implement a plan to monitor and revise the blueprint over time.

Implementation of this recommendation will require:

- An update of clinical care guidelines and standards by the Women’s Preventive Services Initiative, Bright Futures, American College of Obstetricians and Gynecologists, American Academy of Pediatrics, American Academy of Family Physicians, and others actively developing clinical care guidelines and standards to include this new content of care;
- Medical accreditation bodies, relevant programs, and agencies to develop performance monitoring and quality improvement based on this new content of care;
- Clinical care educational authorities, such as the Accreditation Council for Graduate Medical Education, to develop curricula, training, experiences, and competencies based on the updated guidelines; and
- Public and private payers to cover services reflecting this new content of care.

RECOMMENDATION 6-1

Federal, state, local, tribal, and territorial policy makers should implement paid parental leave. In partnership with researchers, policy makers should model variations in the level of benefits, length of leave, and funding mechanisms to determine alternatives that will have the largest impacts on improving child health outcomes and reducing health disparities.

RECOMMENDATION 6-2

Federal, state, local, territorial, and tribal agencies should reduce barriers to participation to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program and Supplemental Nutrition Assistance Program (SNAP) benefits. Receipt of WIC and SNAP benefits should not be tied to parental employment for families with young children or for pregnant women, as work requirements are likely to reduce participation rates.

RECOMMENDATION 6-3

The U.S. Department of Housing and Urban Development, states, and local, territorial, and tribal public housing authorities should increase the supply of high-quality affordable housing that is available to families, especially those with young children.
RECOMMENDATION 6-4

The Secretary of the U.S. Department of Health and Human Services, in collaboration with the Department of U.S. Housing and Urban Development and other relevant agencies, should lead the development of a comprehensive plan to ensure access to stable, affordable, and safe housing in the prenatal through early childhood period. This strategy should particularly focus on priority populations who are disproportionately impacted by housing challenges and experience poor health outcomes.

RECOMMENDATION 6-5

The Center for Medicare & Medicaid Innovation should partner with states to test new Medicaid payment models that engage providers and other community organizations in addressing housing safety concerns, especially focused on young children. These demonstrations should evaluate impact on health, health disparities, and total cost of care.

RECOMMENDATION 6-6

Federal, state, tribal, and territorial policy makers should address the critical gaps between family resources and family needs through a combination of benefits that have the best evidence of advancing health equity, such as increased Supplemental Nutrition Assistance Program benefits, increased housing assistance, and a basic income allowance for young children.

RECOMMENDATION 6-7

The Administration for Children and Families, Maternal and Child Health Bureau, and federal and state regulators should strengthen environmental protection in early care and education settings through expanded workforce training, program monitoring, and regulations.

RECOMMENDATION 6-8

Professional societies, training programs, and accrediting bodies should support expanded or innovative models training of prenatal and childhood health care providers on screening, counseling, and interventions to prevent or mitigate toxic environmental exposures.
RECOMMENDATION 6-9

Federal, state, local, tribal, and territorial governments should support and enforce efforts to prevent and mitigate the impact of environmental toxicants during the preconception through early childhood period. This strategy should particularly focus on priority populations who are disproportionately impacted by harmful environmental exposures. This includes:

- The U.S. Environmental Protection Agency (EPA) fully exercising the authorities provided by Congress to safeguard children’s environmental health under the Toxic Substances Control Act as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act.
- Continued allocation of resources and technical assistance from the federal government through the Centers for Disease Control and Prevention, the EPA, the U.S. Food and Drug Administration, and the U.S. Consumer Product Safety Commission to translate existing data and research findings into actionable policies and practices.
- Ongoing review and updating of environmental exposure levels by federal agencies to reflect health and safety standards specific to the unique vulnerability of children (from fetal development through early development).

RECOMMENDATION 7-1

The committee recommends that early care and education (ECE) systems and programs, including home visiting, adopt a comprehensive approach to school readiness. This approach should explicitly incorporate health promotion and health equity as core goals. Implementing this approach would require the following actions:

- Federal, state, local, tribal, and territorial governments and other public agencies (e.g., school districts, city governments, public–private partnerships) that have decision-making power over ECE programs should establish program standards and accountability systems, such as a quality rating and improvement system, linked with better school readiness and health outcomes and provide adequate funding and resources to implement and sustain these standards effectively.
- The Office of Child Care and the Office of Head Start at the federal level, along with state, local, tribal, and territorial early care and education agencies, should assess the full cost of implementing standards that promote health outcomes and equity as described above, including supporting educators’ own health and well-being, and work with Congress to align funding levels of the major federal ECE programs—child care subsidy and Head Start—accordingly.
- Health and human service entities, the federal Early Learning Interagency Policy Board, state Early Childhood Advisory Councils, and federal, state, local, tribal, and territorial agencies that oversee home visiting and ECE programs should ensure greater programmatic coordination and policy alignment to ensure effective allocation of resources.
- The Office of Planning, Research & Evaluation in the Administration for Children and Families along with the U.S. Department of Education, should examine the feasibility and seek resources to conduct (a) an implementation study to examine the design and implementation of this comprehensive ECE approach that incorporates health standards and (b) an outcomes study that examines the impact on children’s school readiness and achievement, and health outcomes, with particular attention to eliminating disparities and gaps prior to school entry.
RECOMMENDATION 7-2

Building off the 2015 Institute of Medicine and National Research Council report *Transforming the Workforce for Children Birth Through Age 8*, the committee recommends that degree granting institutions, professional preparation programs, and providers of ongoing professional learning opportunities develop or strengthen coursework or practicums that focus on competencies of educators, principals, and early care and education program directors that are critical to children’s health, school readiness, and life success.

RECOMMENDATION 7-3

Federal, state, local, tribal, and territorial policy makers should work with the U.S. Department of Health and Human Services, the Office of Head Start, and Office of Child Care develop and implement a plan to:

- improve the quality of early care and education (ECE) programs by adopting the health-promoting standards discussed in Recommendation 7-1, such as building on the performance standards of Early Head Start and Head Start, and
- within 10 years, expand access to such comprehensive, high-quality, and affordable ECE programs across multiple settings to all eligible children. Disproportionately underserved populations should be prioritized.

The Secretary of HHS should conduct a process evaluation to inform the expansion effort, and, once implemented, conduct rigorous and comparative outcomes studies to ensure that the expansion is having the intended impacts on children and families, with particular attention on what group(s) may be benefitting.

Policy makers and leaders in the health care, public health, social service, criminal justice, early care and education/education, and other sectors should:

RECOMMENDATION 8-1

Support and invest in cross-sector initiatives that align strategies and operate community programs and interventions that work across sectors to address the root causes of poor health outcomes. This includes addressing structural and policy barriers to data integration and cross-sector financing and other challenges to cross-sector collaboration.

RECOMMENDATION 8-2

Adopt and implement screening for trauma and adversities early in life to increase the likelihood of early detection. This should include creating rapid response and referral systems that can quickly bring protective resources to bear when early-life adversities are detected, through the coordination of cross-sector expertise, as covered in Recommendation 8-1.

RECOMMENDATION 8-3

Adopt best practices and implement training for trauma-informed care and service delivery. Sector leadership should implement trauma-informed systems that are structured to minimize implicit bias and stigma and prevent retraumatization. Standards for trauma-informed practice exist in a variety of service sectors, including health care and social services; those standards should be replicated and implemented across systems.
RECOMMENDATION 8-4

Develop a transdisciplinary and diverse workforce to implement culturally competent service delivery models. The workforce should reflect the diversity of populations who will engage in sector services.

RECOMMENDATION 8-5

Improve access to programs or policies that explicitly provide parental or caregiver supports and help build or promote family attachments and functioning by engaging with the families as a cohesive unit. For families with intensive support needs, develop programs or initiatives designed to provide comprehensive wraparound supports along a number of dimensions, such as health care, education, and social services, designed to address needs related to the social determinants of health that are integrated and community based.

RECOMMENDATION 8-6

Integrate care and services across the health continuum, including the adoption of models that provide comprehensive support for the whole person in a contextually informed manner, leveraging and connecting existing community resources wherever possible, with a focus on prevention.

RECOMMENDATION 8-7

Invest in programs that improve population health and in upstream programs that decrease long-term risk and poor health outcomes. These changes should be accompanied by accountability metrics to ensure that the spending is tangibly and demonstrably in service to the goals behind the original funding, but offer more flexibility in how those goals are achieved.
RECOMMENDATION 8-8

The National Institutes of Health, Agency for Healthcare Research and Quality, Centers for Disease Control and Prevention, Health Resources and Services Administration, Centers for Medicare & Medicaid Services, U.S. Department of Education, philanthropies, and other funders should support research that advances the state of the science in several critical ways to advance health equity. Specific actions and research to support include:

- Explore alternative methods to address complex causality
- Expand research into individual differences (heterogeneity) in response to adversity and treatment
- Promote scientific research that includes individuals and families from underrepresented communities
- Promote research that explicitly seeks to understand the interconnected mechanisms of health inequities
- Support research that addresses discrimination and structural racism
- Support research for trauma-informed care and implicit bias training
- Support systematic dissemination and implementation research
- NIH and other funders should support the development of public–private partnerships, or other innovative collaborations, to:
  - build multidisciplinary teams, including but not limited to researchers in neuroscience, endocrinology, immunology, physiology, and metabolism, behavior, psychology, and primary care to identify the most relevant factors in a child’s complex environment that promote resilience and promote outcomes related to physical and mental health.
  - conduct research that measures the impact of chronic stress on all relevant organ systems and determines the specific molecular and biological pathways of interaction during the pre- and postnatal periods, which are directly relevant to potential interventions to address health disparities.

To read the full report, please visit nationalacademies.org/VibrantHealthyKids