InCK Marks believes the CMMI InCK model has the potential to catalyze new planning and collaboration within states, even if states do not apply for or receive specific model funding. The model itself – because it covers the entire population of children prenatal to 21 and all children within that population – represents an opportunity for all states and their health experts, child health advocates, state administrators and policy makers, and practitioner and family champions to move their child health system forward, based upon a much broader definition of health that extends beyond the absence of specific illness or injury and incorporates issues of equity and well-being.

DEFINITIONS OF CHILD HEALTH AND HEALTH EQUITY

Child health is a state of physical, mental, intellectual, social and emotional well-being and not merely the absence of disease or infirmity. Healthy children live in families, environments, and communities that provide them with the opportunity to reach their fullest developmental potential.

– World Health Organization

Health equity is achieving the highest level of health for all people. Health equity entails focused societal efforts to address avoidable inequalities by equalizing the conditions for health for all groups, especially for those who have experienced socioeconomic disadvantage or historical injustices.

– Healthy People 2020

To this end, this Guiding Framework is based upon seven fundamental tenets.

1. The Importance of an Integrated Approach to Child Health
2. Medicaid’s Critical Role
3. The Different Needs and Opportunities by Developmental Stage
4. The Importance of Both New Promotive/Preventive and Treatment Responses
5. The Base of Evidenced-Based Practices to Guide Change
6. The Definition of Value-Based Care as Broader than “Cost-Containment” Care
7. The Importance of Measuring Child Health Based Upon its Broad Definition

It includes an Appendix that describes outcomes, indicators, and both promotive/preventive and treatment programs by six different stages of development.

1. The Importance of an Integrated Approach to Child Health.

Across multiple disciplines, the research is clear that children’s healthy development is dependent upon much more than medical care – although medical care plays an essential role in addressing uniquely medical needs, medical practitioners also play a key role, as trusted messengers, in addressing other health-related needs and providing at least a “warm handoff” to others who can help them. The P.A.R.E.N.T.S. Science shows that multiple disciplines and research point to the same elements needed for healthy child development based upon the broad definition of child health. Particularly at the child
and family level, it is essential to take a holistic and integrated approach to strengthening families to advance child health.

## THE P.A.R.E.N.T.S SCIENCE

**Protective Factors.** Drawing from the risk and protective factors research, the Center for the Study of Social Policy has identified five key protective factors to prevent child abuse and neglect and support healthy development in children: (1) concrete services in times of need, (2) knowledge of child development, (3) resiliency, (4) social ties, and (5) supportive child environments and activities.

**Adverse Childhood Experiences (ACEs).** Drawing on adult reports of adverse experiences in childhood, the Centers for Disease Control and Prevention has shown a strong relationship between those adverse experiences in childhood and health morbidity among adults across both physical and mental health.

**Resiliency.** The research on resiliency—at the individual, family, school and community level—has shown the importance of fostering resiliency to ensuring healthy development. The American Academy of Pediatrics has established a working group to further promote resiliency in health practice.

**Epigenetics.** Recent findings from the science of genetics show that childhood experiences can even affect genetic make-up and therefore transmission to the next generation.

**Neurobiology.** While there is a great deal of plasticity in the brain, neurobiology has shown the critical importance of the first years of life to set the foundation for cognitive development and to establish the basis for healthy social and emotional development. The research on adolescent brain development shows the critical importance of social factors as executive functioning is continuing to develop.

**Toxic Stress.** The Harvard Center for the Developing Child has identified persistent, unrelieved and unmitigated stress as “toxic” to the development of the infant and toddler brain at its most critical period of development—and the need for early interventions to ensure that stresses in early childhood do not produce toxicity.

**Social Determinants of Health.** The World Health Organization and Healthy People 2020 both describe the primary contribution that social determinants—as opposed to bio-medical determinants—have on child development and adult morbidity and mortality. For children, addressing these social determinants require addressing stress, discrimination, and social and economic disadvantage.

### 2. Medicaid’s Critical Role.

In all states, Medicaid serves a very large share of the child population, greatest in the earliest years and for children with special health care needs. In fact, Medicaid serves such a large share of the population and overall child health care costs in the child health system that it, in essence, drives how practitioners can practice. Further, Medicaid’s E.P.S.D.T. benefit requires coverage that is broad-based, developmental, and based upon children’s developmental needs, enabling states to finance, with federal financial participation, many health-related services as well as strictly medical-one.

### CMS Description of EPSDT

The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefit provides comprehensive and preventive health care services for children under age 21 who are enrolled in Medicaid. EPSDT is key
to ensuring that children and adolescents receive appropriate preventive, dental, mental health, developmental, and specialty services.

**Early**: Assessing and identifying problems early

**Periodic**: Checking children's health at periodic, age-appropriate intervals

**Screening**: Providing physical, mental, developmental, dental, hearing, vision, and other screening tests to detect potential problems

**Diagnostic**: Performing diagnostic tests to follow up when a risk is identified, and

**Treatment**: Control, correct or reduce health problems found.

### 3. The Different Needs and Opportunities for Children by Developmental Stage.

While the broadest definition of health applies across the lifespan, there are different ways to define and measure this by child age and different ways to respond effectively. While any distinction by age is somewhat arbitrary, the following is used in this framework to describe these stages and their own age-appropriate outcomes, which can then be employed to dig deeper into programs, practices, and strategies to impact them.

![Overarching Child-Age-Specific Goals](image)

### 4. The Importance of Both New Promotive/Preventive and Treatment Responses.

While the majority of children in the United States receive sufficient medical care to support their overall health and are in resourced families and supportive communities that can meet their other needs, too many are not. For some, the challenges of a health condition and special need require more
intensive medical care and also greater support to the family of the child. Alternative payment models (APM) can provide flexibility in responding to these children in ways that strengthen their and their family’s ability to progress, often reducing re-occurrence of episodes requiring medical care. At most ages, this portion of the Medicaid population represents far less than ten percent of the population, but accounts for more than half of Medicaid expenditures. It is at this level of risk-stratification that designing APMs with the expectation of achieving cost benefits applies.

As importantly, however, there is a much larger share of the child population that is vulnerable to developing or worsening health and developmental conditions, for whom more holistic and preventive services apply. Overall, different studies have estimated that at least 30 percent of young children are progressing along such an “at risk” trajectory, whether or not they have specific diagnoses themselves. This percentage is even higher among the Medicaid population. Alternative service models that respond to more than medical needs can have big benefits in terms of healthy development, although these are likely to require greater, rather than lesser, initial Medicaid investments.

Further, in the infancy-toddler period, the child health practitioner not only sees the child and family much more frequently than in later years and is in a position to initiate promotive and preventive services, the practitioner is often the sole professional who does see the child – the time when such investments have the potential for the greatest benefit.

In the child and adolescent years, most children are in school (or child care) and have others who are addressing social, emotional, and cognitive needs. At the same time, in these later years, the source for treating children with special needs (particularly ones related to their own social and emotional development and life-styles) often is largely within the health system.

In short, the first years of life are ones where Medicaid and the child health system play a particularly important role in preventive and promotive developmental services, while in the child and adolescent years Medicaid and the child health system often must respond to medical needs in coordination with children served in other systems.

5. The Base of Evidence-Based Practices to Guide Change.

While the current in-the-field practice and health care for children primarily addresses strictly medical issues, the field itself has moved to a much broader definition of high-quality care that involves responding more preventively and holistically to child and their families.

From a primary care perspective, these are embodied in Bright Futures, which is recognized federally as the standard for child health care. Bright Futures provides detailed guidance on what should be included within child health supervision visits and has a strong emphasis upon responding to social determinants of health. This provides its own framework for pediatric transformations and for what is entailed in operating what one sourcebook has described as “high performing medical homes.”

As importantly, there is much innovation in the pediatric field both to respond more preventively to children at risk and to respond more holistically to children with special health care needs. There are research- and evidence-based programs; there are research- and evidence-based practice characteristics; and there are research and evidence-based tools that accompany such program
and practice that get to the underlying qualities and attributes of practitioners and their relationships with young children that make programs effective. With respect to the child health practitioner’s role, these have been described as constituting a “high performing medical home,” with roles for Medicaid in financing the office practice, the warm handoff and care coordination needed to respond to children with additional risks or needs, and the health-related services that contribute to child health, many of which can be covered under Medicaid.

**Design for High Performing Pediatric Medical Homes in Medicaid**

<table>
<thead>
<tr>
<th>Well-Child Visits</th>
<th>Care Coordination / Case Management</th>
<th>Other Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Comprehensive well child visits as required under EPSDT.</td>
<td>- Individualized, with intensity commensurate with need.</td>
<td>- Child/family support programs, including those designed to be collocated in primary care (e.g., Healthy Steps, Project DULCE).</td>
</tr>
<tr>
<td>- Adherence to AAP Bright Futures scope and schedule.</td>
<td>- Routine care coordination for all as part of medical home.</td>
<td>- Integrated behavioral health in primary care setting.</td>
</tr>
<tr>
<td>- Screening for physical, developmental, social-emotional-behavioral health, maternal depression and other social determinants of health.</td>
<td>- Intensive care coordination/ case management for those with higher needs identified.</td>
<td>- Referrals to and integration with other services such as home visiting, family support, early intervention, early childhood mental health, and other programs.</td>
</tr>
<tr>
<td>- Anticipatory guidance and parent education, as required in EPSDT and Bright Futures.</td>
<td>- Structured, family-focused approach to assess and respond to medical and non-medical health-related needs.</td>
<td></td>
</tr>
<tr>
<td>- Family engagement, focused on two-generation approaches to ensuring child health</td>
<td>- Linkages to community resources, with active identification and engagement of those resources.</td>
<td></td>
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<tr>
<td>- Other primary care practice augmentations (e.g., Reach Out and Read).</td>
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</tbody>
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One of the major emphases of InCKMarks is to identify and share such effective programs, practices, and tools for consideration by states in developing proposals. As importantly, this Framework emphasizes that these on-the-ground efforts to develop or adapt such practices – which exist in all states – be drawn upon and form the basis for developing and assessing the value of the service delivery and payment reform models as they are being developed. The Guiding Framework Appendix begins to enumerate these for both promotive/preventive and treatment approaches across the different developmental stages.

### 6. The Definition of Value-Based Care as Broader than “Cost-Containment” Care.

Value-based care and value-based payment systems must recognize both the short-term and long-term value of health and health-related services for children. With respect to the description of a high performing medical home compared with the current status of providing only basic medical care, the high performing medical home clearly has more VALUE. In a value-based system, it therefore needs to be compensated at a higher level than current care, one sufficient to incent providers to engage in that care and sustain their practices when they do.
For children without current high cost conditions, however, there are not necessarily immediate cost offsets from providing a high performing home. There are evidenced-based services at all stages of child development that improve child health, with high long-term benefits and values. These do not have to be part of the APM designed to secure Medicaid savings within the InCK Model (and are not likely to save immediate Medicaid costs) but can and should be advanced through changes to the financing of primary care services that promote and sustain high-value primary.

In some instances, value-based care can also be cost-containment care. Less than ten percent of children on Medicaid account for over half of all Medicaid costs, with some the result of preventable re-hospitalizations or placements or re-occurrences of conditions requiring costly medical care. There are programs and practices, particularly those involving more care coordination and linkages to other health-related services, that have proved very cost-effective and helped contain and even reduce Medicaid spending. These also require attention, and any savings from them can be used to finance programs and practices that are more preventive in nature and improve healthy development, but without such immediate health system cost offsets.

In developing value-based payment and service systems, it is essential that there is at least as much attention to practice innovations as to actuarial manipulations. While $16 million is a substantial amount of funding for planning, design, and implementation, it can easily be consumed solely in developing risk-stratification metrics and models and conducting actuarial analyses of short-term cost implications. InCKMarks strongly emphasizes that the planning work not begin with such APM development, but with identifying outcomes goals for the initiative and what transformation in child health practice needs to occur to achieve them.

7. The Importance of Measuring Child Health Based Upon its Broad Definition.

As the broader definition of health encompasses and as evidenced-based practices are showing, improving child health goes beyond traditional medical measures of health. Health measures and metrics must develop to encompass this broader definition. This includes social, emotional, cognitive, and developmental health as well as physical health, and includes the presence of protective factors and the absence of social risk factors, as well. These are needed at the practice level, the program level, and the population level, and need to be guided by the broad definition of health. In this context, a child’s attachment, self-regulation, resilience, hope, and mindfulness all are part of the definition of present good health and predictors of future health trajectories.

Again, for all children, but particularly for young children, healthy development cannot be considered outside the context of the child’s home and family environment. As the slide below shows, improving child health requires identifying and addressing household material well-being, parent personal well-being, family social well-being, and parent-child relationship well-being, as core to achieving child-specific well-being. Most of the evidenced-based programs and practices enumerated in the Appendix go beyond child-specific responses to address at least some of these other issues affecting child well-being.
Appendix: Outcomes, Indicators, and Exemplary Programs by Stage of Development.

For each of the developmental stages, there not only is a different overall child health outcome but different indicators that can be used to measure that outcome. There also are different programs, practices, and tools that can be built upon in developing service delivery models. This includes ones for more preventive and developmental services for children who are at some risk but not experiencing major health concerns and ones for children who currently are either experiencing high health costs or very likely to in the immediate future. The Chart below is one of the six charts in the Appendix, one for each of the developmental stages. Others are included in an Appendix to this report, downloadable from www.inckmarks.org.

InCK Marks: BIRTH TO THREE DEVELOPMENTAL STAGE: GOALS, INDICATORS, AND HIGH VALUE PRACTICES

Overarching Child Goal
Optimal physical health, secure attachment and early development of self-regulation, language, and identity (dependent upon safe, sufficient, stable, and nurturing home environment)

Companion Home Goal
Safe, sufficient, stable, and nurturing home environment

Indicators
**Child-Specific Outcome Indicators.** No unidentified and untreated congenital abnormalities, BMI, physical and language and cognitive and social and emotional development within normal parameters (measured using instrument like ASQ and ASQ-SE and others), no unplanned moves or child welfare or foster care involvement

**Child-Specific Process/Performance Measures.** Regular complement of well-child visits and developmental/social screens, including autism screening

**Contextual and Home Indicators:** household food security, household housing adequacy and affordability, unplanned moves/homelessness, family income (poverty level), parental stability, parental personal well-being (mental health, substance abuse, domestic violence), family social connections, trauma/adverse childhood experiences screen, stable early care and learning placement

**High Value Preventive Practices, Programs, Tools, and Models**

Features within comprehensive well-child visits conforming to *Bright Futures* and employing developmental and SDOH screens (well-visit planner, Reach Out and Read, SEEK)

Additional developmental surveillance and follow-up care coordination/targeted case management to children and families identified with some social (Help Me Grow, Medical Legal Partnerships, HealthySteps, MyChild, 1st Five San Diego, Primary Care Iowa, Maricopa Health Systems, etc.)

Follow-on services and support: Tiered support for parenting (e.g. Triple P), home visiting (including Child FIRST, Healthy Families, Nurse Family Partnerships), patient-support groups, family support and resource centers, Part C operationalized to provide very early identification and response to risk (Massachusetts, Hawaii)

**High Value Practices for Risk-Stratified Populations**

Intensive response services to families at risk of child placement/child protective service system involvement (Wraparound Milwaukee, New Jersey crisis response teams, intensive family preservation services, Child FIRST, Early Childhood Mental Health Consultation, Child Parent Psychotherapy)

Intensive care coordination and parent training and respite and support and assistive technology services for medically complex infants (Circle of security planning, family-centered medical homes with highly individualized case plans with integrated teams and family-directed care, care coordination collaborative model, Circle of Security, Therapeutic Nursery/Early Care & Learning)

Other identified services for managing chronic conditions, including asthma (home assessments and remediation of asthma triggers, parent training and support)

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Note: InCK Marks will provide more information on all these issues in the “core issues” part of this website. The full Appendix, which includes similar Charts for the other five developmental stages, is downloadable from www.inckmarks.org.