AMCHP
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Innovation Station
Sharing Best Practices in Maternal & Child Health

Iowa's 1st Five Healthy Mental Development Initiative

Location: Iowa
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Category: **Promising Practice**

TITLE V/MCH BLOCK GRANT MEASURES ADDRESSED
#6 Percent of children, ages 9 through 71 months, receiving a developmental screening using a parent-completed screening tool **#11** Percent of children with and without special health care needs having a medical home

BACKGROUND

Research tells us that a significant portion of young children are not receiving adequate developmental surveillance and screening. Specifically, a significant percentage of primary care providers use observation alone, a method which identifies only 30% of developmental concerns. Emotional development in young children is now known to be as important as physical, cognitive, and language development. When developmental concerns are not identified, then it is less likely families will get linked to community-based intervention services. Additionally, many providers are not aware of available resources, even when a concern is identified.

1st Five focuses on children with less intensive needs who are at risk of developmental concerns that may play out later in life if left untreated as a young child. Caregiver depression, family stress, behavioral concerns, or increased risk of developmental delay are some of the issues that may trigger a provider referral to **1st Five**. On average, for every one referral made to a **1st Five** Developmental Support Specialist from a primary care provider office, an additional 3-6 referrals are identified once the **1st Five** Developmental Support Specialist begins working with the family.

Early exposure to adverse experiences, such as poverty, exposure to intimate partner violence, abuse, and family turmoil, predicts the emergence of later physical and mental health problems, including psychological disorders like depression. The more adverse experiences in childhood, the greater the likelihood of developmental delays and other problems.

About one in eleven infants will experience their mother's major depression in their first year of life. Children who experience maternal depression early in life may experience lasting effects on their brain architecture and persistent disruptions of their stress response systems. Many mothers may not be identified as having a treatable condition, and only 15 percent obtain professional care. Early intervention for caregiver depression can decrease and even reverse the negative effects on young children.

While there is no "magic age" for intervention, it is clear that, in most cases, intervening as early as possible is significantly more effective than waiting. The brain is much more adaptable in the first five years of life than it is by the time a child starts school. Early treatment of delays or concerns leads to improved outcomes for the family and the child, whereas later intervention is less effective.

In addition to improved outcomes for the individual child and family, early interventions lead to considerable savings to society over the long term, with the biggest savings from decreased criminality in adulthood. Several national studies have demonstrated that every dollar invested in early childhood yields $3-$17 in return. The RAND group estimated a government savings of $18,611 per child who underwent early intervention in the Elmira Prenatal/Early Infancy Project, and a savings of $13,289 per child for individuals receiving intervention in the Perry Preschool Project (figures in 1996 dollars).

However, many children and families do not receive the intervention they need. Programs like **1st Five** are key to helping primary care providers identify children and families who could benefit from early intervention and connecting them with available services.

Iowa's **1st Five** Healthy Mental Development Initiative builds upon lessons learned from Iowa's Assuring Better Child Health and Development Initiative (ABCD II). ABCD II was a 3-year project funded by the Commonwealth Fund and the National Academy for State Health Policy (NASHP) to improve developmental outcomes and children's readiness

to learn. ABCD II focused on Medicaid-enrolled children with the goal of preventing the need for more intensive and expensive care at a later age.

The ABCD II project demonstrated that it is possible to improve patient care through providers' use of the Child Health and Development Record (CHDR), a standardized developmental surveillance tool. The value of private-public partnerships at the community level provides the opportunity to link children and families to services. Iowa's **1st Five** initiative uses these best practices to create a system of care between private and public providers that enhances high quality well-child care.

According to NASHP (October, 2012), "The Assuring Better Child Health and Development Initiative (ABCD) was formed in 2000 with a focus on supporting young children's healthy development because there was strong evidence and growing recognition that early intervention can change the trajectory of a child's life. Children at risk for developmental delay were not being identified as early as they could be and, even after identification, many children waited too long to receive services. The American Academy of Pediatrics was also near release of a statement that made explicit recommendations about surveillance and use of standardized screening tools to help identify developmental delays. The time was right for states to engage with this critical issue."

PROGRAM OBJECTIVES

The four main objectives of the **1st Five** Healthy Mental Development Initiative are to:

1. Increase the number of primary care providers who are using a standardized developmental screening tool to identify children who are at-risk or need low level interventions.
2. Provide infrastructure building activities such as working with primary care providers and nurse managers on the implementation of developmental surveillance and screening.
3. Educate Early Periodic Screening, Diagnosis, and Treatment (EPSDT) providers and other community providers to increase the knowledge of the importance of developmental screening and social determinants of health.
4. Provide developmental support services to families and provide feedback on referrals to primary care providers.

TARGET POPULATION SERVED

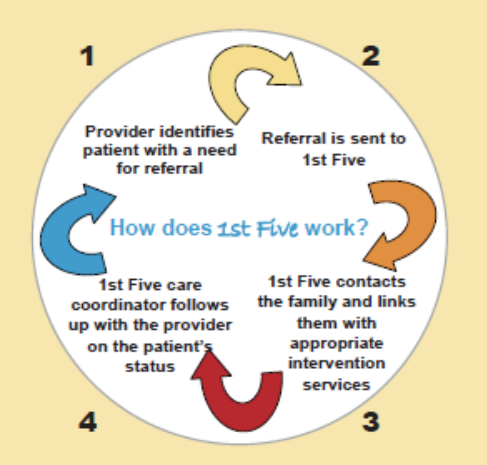
1st Five serves children from birth through age 5 years. The focus is on children with less intensive needs who are at risk of developmental concerns that may play out later in life if left untreated as a young child. **1st Five** is approaching statewide implementation with 88 of Iowa's 99 counties covered in State Fiscal Year 2017. Most of this expansion has occurred since 2013. From program inception through 2015, over 10,000 needs were identified and over 21,000 connections were made to community resources to support children's development.

PROGRAM ACTIVITIES

Based on lessons learned from the ABCD II project, primary care providers are approached by **1st Five** Site Coordinators to engage with **1st Five**. Site Coordinators offer an overview of standardized surveillance and screening tools and are able to assist with a variety of questions about the tools.

In addition, the Iowa Department of Public Health contracts with the Child Health Specialty Clinics at the Division of Child and Community Health within the University of Iowa Department of Pediatrics to offer direct consultation between primary care consultant experts and local primary care practices. This consultation provides physician and nurse practitioner expertise in the use of developmental surveillance and screening tools and lends peer-to-peer primary care professional connection.

The **1st Five** Model also serves as a successful example of a community utility model. The model supports primary care and public health professionals working together, and facilitates connection to community resources.



1st Five helps to enhance patient care by:

- Promoting primary care provider use of standardized surveillance and screening tools to assess social-emotional development and family risk factors.
- Helping providers integrate developmental screening tools into their practices.

- Linking children and their families to community resources to improve access to appropriate follow-up care.
- Providing feedback to providers on each referral.

Current implementation includes:

- 18 Coordinating **1st Five** Sites based in local Title V Maternal, Child, and Adolescent Health (MCAH) agencies
- 88 Iowa counties

PROGRAM OUTCOMES/EVALUATION DATA

1st Five's Reach in Iowa (2007-2016):

- 200+ Healthcare practices
- 600+ Healthcare providers
- 136,971+ Estimated number of children birth to age 5 reached
- 8,860+ Families referred from health providers into **1st Five**
- 21,000+ Connections from **1st Five** out to community services
- ~3 Community connections made for each family engaged in **1st Five** care coordination

In the Fall of 2016, **1st Five** providers were surveyed focusing on their work with young children, their involvement and outcomes of the **1st Five,** and suggestions for the Initiative. The survey link was shared with 121 providers and there were 49 surveys with at least a partial response (40% response rate). Five were begun and not completed. A central goal of the **1st Five** Initiative is to expand and support the universal use of screening and surveillance tools in health practices. Most **1st Five** providers are using or implementing surveillance tools. Providers reported that the top barriers to implementing surveillance included lack of time, lack of staff, and lack of training in performing surveillance. Eighty-nine percent of responding **1st Five** providers reported that **1st Five** had helped to reduce these barriers to implementing surveillance activities. When asked about screening activities 74% of responding providers reported that they had received support from **1st Five**. Those providers also reported a high level of satisfaction with that support. Eighty-eight percent of respondents reported that **1st Five** had helped reduce barriers to implementing screening which were largely the same barriers to surveillance such as time and capacity and a lack of referral sources.

Over the past three years the use of a high-quality surveillance tool by **1st Five** practices has increased to 79 percent in 2016. Over the same three-year time period the percent of **1st Five** practices using a high-quality screening tool has steadily increased from 40 percent in 2014, to 44 percent in 2015, and a high of 64 percent in 2016. The data used to calculate this measurement is obtained from site coordinators. Site coordinators report the surveillance and screening procedures of each of their engaged practices as part of a bi-annual data collection.

PROGRAM COST

In State Fiscal Year 2017, **1st Five** is funded by a combination of $3,275,059 in state funds and $1,099,412 in federal Medicaid funds for a total budget of $4,374,471. This budget supports 18 local Title V Maternal, Child, and Adolescent Health agencies which serve as **1st Five** Sites, staffing at the Iowa Department of Public Health, and contracted services through the University of Iowa Child Health Specialty Clinics and the Child and Family Policy Center.

ASSETS & CHALLENGES

Assets

- Organizations addressing early childhood concerns, such as Prevent Child Abuse Iowa, Central Iowa ACES 360, and others, have supported **1st Five**.
- Steadily increasing funding since 2013.
- **1st Five**'s efforts are consistent with scientific evidence regarding early brain development and with national efforts and performance targets.
- Partnership with Iowa Medicaid.

Challenges

- Many competing demands on primary care provider time and efforts, resulting in difficulty with full implementation of the **1st Five** model, including developmental surveillance and screening at recommended intervals.
- Recruitment of primary care practices in all counties within funded service delivery areas.

Overcoming Challenges

- The University of Iowa Child Health Specialty Clinics has revised and expanded the ways that **1st Five** practices are able to make connection with practice consultants.
- Contractual performance measures and incentives have been revised to encourage engagement of primary care practices in all covered counties.

LESSONS LEARNED

In scaling the program from ABCD II to the nearly statewide effort that exists today, a number of lessons continue to be learned. Continual efforts to examine and ensure program progress are underway on a number of levels. As examples, one such effort involving program delivery is included here along with one example at the statewide program level.

Contracts with local MCAH agencies are renewed each year as funds are available. An MCAH agency may be responsible for a range from one to fifteen Iowa counties. Contracts include a variety of expectations but also include a specific performance measure. An example of using quality improvement data to improve program performance is reflected in the current contract performance measure: "The Contractor shall increase the utilization of nationally recognized standardized developmental screening tools among primary care practices by 5% within every county of their service area by April 15, 2017." Previous data indicated that contractors may not have reached all counties. This performance measure was clarified to encourage full outreach for the program.

At the program level, a data point of interest is "Percent of primary care providers engaged". In piloting the program's ability to track this data point, the data was showing a percentage that was lower than expected. As such, through the contract with Child Health Specialty Clinics, **1st Five** has engaged the assistance of the Office of Statewide Clinical Education Programs (OSCEP) within the University of Iowa Carver College of Medicine to assess the percentage of primary care providers who see children. Data will be available in coming months to indicate whether a significant number of providers do not see children and therefore should not be included as part of the measure.

FUTURE STEPS

Recognizing that long-term outcomes are important to understanding the benefits of **1st Five**, efforts are underway to examine possibilities for a longer-term study of the impact of **1st Five**. Existing data collection and program evaluation will also continue. The program uses continual improvement strategies to increase and demonstrate program effectiveness.

The number of Iowa counties served by **1st Five** has increased steadily since 2013. As resources become available, the program remains ready to expand to remaining areas of Iowa.

COLLABORATIONS

Collaborations at a variety of levels support and enhance **1st Five**.

- **1st Five** is an affiliate of the Help Me Grow National Network.
- The Iowa Department of Public Health (IDPH) administers **1st Five** through contracts with local Title V Maternal, Child, and Adolescent Health Agencies.
- IDPH contracts with the University of Iowa Child Health Specialty Clinics for program support such as practice consultation, telehealth, and assistance with program performance measurement strategies.
- IDPH contracts with the Child and Family Policy Center for program evaluation.
- Local **1st Five** Site Coordinators participate in early childhood coalitions and work groups in their service delivery areas.
- A number of organizations with a mission to support early childhood programs are advocates of the **1st Five** model.
- Local primary care practices work closely with **1st Five** Site Coordinators and Developmental Support Specialists to implement the **1st Five** model.
- **1st Five** connects families to existing local services and support programs.

PEER REVIEW & REPLICATION

Early research on the **1st Five** model took place during the ABCD II pilot, including study of one urban pediatric and one rural family medicine practice. After implementation of the enhanced surveillance/screening procedures, rates of adequate screening increased to 98% in the pediatric practice and 88% in the family practice; only 22 of 400 children did not get adequate developmental surveillance. Screening for social-emotional problems was lower in both practices at baseline than it had been for general developmental problems, with adequate screening for 65% in the pediatric practice and 36% in the family practice. When records were reviewed after implementation of the model, screening rates improved to 95% in the pediatric practice and 89% in the family practice.

Since expansion from the ABCD II project to a statewide program, **1st Five** has not experienced peer review. Should the effort to establish a long-term outcomes study be realized, it is anticipated that peer review will be part of that process.

RESOURCES PROVIDED

The **1st Five** website includes additional information: www.idph.iowa.gov/1stFive.

Key words: Early Childhood, Early Intervention, Young Children, Surveillance, Screening, Primary Care, Public Health, Community Utility, 1st Five

For more information about programs included in AMCHP's Innovation Station database, contact:

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