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Transforming Adolescent Healthcare Delivery in the State of Michigan



Child Health Evaluation
and Research Center



BACKGROUND

The childhood years, particularly the adolescent years, represent a critical opportunity not only for preventing problem behaviors and identifying health conditions, but also for enhancing health. Children and adolescents lacking in social, emotional and behavioral health are at high risk for short-and long-term problems. Left untreated, social-emotional health issues may result in adolescent delinquency, gang involvement, incarceration, and substance abuse. Behavior problems that surface in early childhood are the single best predictor for several long-term outcomes—in addition to an array of physical, mental, and sexual health risk behaviors and disorders.

A CALL FOR TRANSFORMATION

The adolescent years mark the formation of health behavior patterns that have lifelong ramifications. Given that access to early identification, prevention and intervention services in childhood has been shown to mitigate risks typically experienced in the adolescent years, **a transformation of healthcare could substantially benefit children and adolescents.**

A GAP IN THE SYSTEM

Numerous studies, most recently a national report by the Institute of Medicine (IOM), document the enormous number of missed opportunities by healthcare providers. Research shows that adolescents are not receiving recommended preventive care services and that their mental health and reproductive health needs often are not identified and treated according to evidence-based recommendations. **When adolescents are asked how they experience healthcare, they cite a number of gaps and concerns**, including healthcare providers not spending enough time to get to know them; confidentiality protections not being ensured; a focus on their problems rather than on their strengths; unappealing office space with little relevant, adolescent-specific information or support; and minimal opportunity for engaging with providers or giving feedback. **As a result, many adolescents simply drop out of the health system, foregoing the care they need.**

The Michigan Departments of Health and Human Services and Education have undertaken a critical initiative to address this disparity in care, funding a three-year project to partner with organizations proposing innovative and transformative approaches in the delivery of healthcare to these adolescent populations.

PROJECT AIM

Healthcare transformation can be defined as the introduction of a new concept, idea, service, process or product aimed at improving treatment, diagnosis, education, outreach, prevention and research with the long-term goals of improving quality, safety, outcomes, efficiency, costs, and ultimately health. A transformation of healthcare delivery considers the whole child or teen in its approach and is a sustainable practice change.

Transformation of care is focused on building appropriate care and sustainable access with four key priorities:

1. Improving access to primary healthcare (physical and behavioral)
2. Improving clinical health outcomes
3. Decreasing health disparities by reducing the burden of chronic disease through focusing on and funding high need communities
4. Integrating primary care & public health (primary prevention) through the application of innovative collaborative care models

Transforming adolescent healthcare delivery across diverse communities

Transformational projects were selected to change healthcare delivery in ways that were sustainable and measurable. Transformational service delivery models were funded that met the unique needs of underserved children and/or adolescents by providing new strategies for healthcare service delivery, new ways of working with children and adolescents, and/or use of new technologies. Seven leading organizations were selected across the state of Michigan, including:

- Cherry Street Health Services
- Community Health Center of Branch County
- Health Department of Northwest Michigan
- Henry Ford Health System
- Starfish Family Services
- University of Michigan, Adolescent Health Initiative
- Western Michigan University Children's Trauma Assessment Center

From initiatives designed to develop, implement and test the broad utility of new healthcare delivery models – to unique applications of technology to improve individual care and population management – each of these transformational demonstration projects have one common focus:

The identification of needs, and integration of comprehensive and holistic care – designed especially for unique populations of underserved adolescents.

The demonstration projects were categorized into three overarching categories of transformation, by:

1. Improving youth experience
2. Increasing access
3. Improving mental health

1. Transforming Care by Improving Youth Experience and Enhancing Site Expertise

When youth are asked how they experience healthcare, they cite a number of gaps and concerns, including healthcare providers not spending enough time to get to know them; confidentiality protections not being ensured; a focus on their problems rather than on their strengths; unappealing office space with little relevant information or support; and minimal opportunity for engaging with providers or giving feedback. As a result, many youth simply drop out of the health system, foregoing the care they need. These transformational models are designed to address and mitigate this critical gap-in-care.

Kent County: Integrated Pediatric Patient Centered Medical Home

Bettering the health of our community through integrated, patient-centered care that empowers patients and their families to make healthy choices.

Cherry Health transformed healthcare for children and adolescents through the development of an interdisciplinary, team-based, integrated healthcare model as part of a comprehensive patient centered medical home. Target populations included children and adolescents with overweight and obesity, asthma, and mental health issues.

Washtenaw County: Adolescent Champion Model

Transforming the healthcare landscape to address the strengths, vulnerabilities and unmet needs of adolescents and young adults.

The University of Michigan Adolescent Health Initiative's (AHI) award-winning Adolescent Champion model transforms the delivery of adolescent healthcare by developing interdisciplinary teams of health center providers and staff who serve as agents of change and drive practice improvements throughout the health center. AHI provides Adolescent Champion teams with a comprehensive health center assessment tool and customized implementation plan, targeted quality improvement initiatives, innovative training and professional development opportunities for staff at all levels of the health center, and ongoing, personalized technical assistance to support the development of adolescent-centered medical homes.

2. Transforming Care by Increasing Access

Both urban and rural areas present unique challenges to accessing quality medical and mental healthcare. In addition, underserved youth face a further set of barriers and challenges. Financial barriers impact not only payment for care but ability to reach care (e.g., transportation) and access recommended treatments. Lack of knowledge or understanding of the healthcare system (or “system factors”) and treatment options by youth and/or their caregiver can also significantly impact access, as well as barriers resulting from cultural differences, language, and health literacy. The following transformational projects were designed to address these challenges utilizing an innovative approach to both technology and human resources.

Branch County: CHC School Telehealth Program

Empowering adolescents to become healthy adults through innovative, state of the art healthcare delivery systems.

The Community Health Center of Branch County transformed school-based healthcare through the use of telemedicine and EMR systems. By blending technological efficiencies with an alternative staffing design (RN on site and NP through telemedicine) they improved healthcare access and services to youth in rural school districts.

Wayne County: Enhanced Mobile Care through School Nurses

Creating a supportive environment of services that empowers children and families to take ownership of their health.

Henry Ford Health System’s School-Based and Community Health Program transformed school-based healthcare through the use of two mobile medical units (Hank and Clara) and utilization of full-time RNs in 3 school sites. Adding a registered nurse on site in each school improved accessibility and allowed for a more comprehensive and efficient approach, maximizing healthcare being delivered and subsequent impact on health outcomes.

3. Transforming Care by Improving Mental Health

There is growing evidence that a significant percentage of youth experience poor social-emotional health, often resulting in challenging behaviors. Children and adolescents lacking in social, emotional and behavioral health are at high risk for experiencing a number of short- and long-term problems. If left untreated, these same youths are more likely to experience adolescent delinquency, gang involvement, incarceration, and substance abuse. The following projects sought to integrate the provision of medical and behavioral healthcare – with a goal of improving effectiveness of care and overall outcomes and quality of life for underserved youth.

Emmet/Antrim Counties: The HUB: Integrated Community Connections

Empowering families to thrive by using the right knowledge, support, and tools to navigate the circumstances that influence their long term health and wellness.

The Health Department of Northwest Michigan (HDNW) transformed school-based healthcare through the implementation of the Pathways Community HUB Model. The impacts of THE HUB Community Connections Program are improved family independence, positively impacting child and adolescent health; improved adolescent health status; and improved school connectedness and engagement. By narrowing focus onto the families and adolescents at highest risk, HDNW

is helping at-risk families break down barriers and aims to embody the statement: Healthier kids learn better, better learners graduate, and students that graduate go on to lead more successful, happy lives.

In addition to THE HUB Community Connections program, HDNW aimed to transform school-based healthcare by redesigning the service delivery system to full integration of physical health and mental healthcare. The school-based health center teams are innovating a healthcare system where clients are offered comprehensive care within the clinic setting, differentiating between the need of physical health and behavioral healthcare, and also realizing the full potential of expanding the model of integration beyond the clinic's walls into the school building and the community.

Van Buren County: Universal Trauma Screening, Assessment and Intervention

Connecting the hearts and heads of child-serving professionals to enable them to see at-risk youth and families through a trauma-informed lens.

The Western Michigan University's Children's Trauma Assessment Center (CTAC) transformed Van Buren primary healthcare through strengthening partnerships between the intermediate school district, private/community mental health, health department, school-based health center and a subset of primary care practices through addressing the complex issues associated with traumatic stress in adolescents. CTAC employed a trauma-informed, resiliency-focused model to accomplish this that ultimately contributed to optimized physical and emotional well-being for Van Buren adolescents, as well as a more resilient Van Buren workforce.

Wayne County/Inkster: Office of Integrated Healthcare

Removing the silos that prevent whole body health and wellness by guiding medical practices through physical and mental healthcare integration.

Starfish Family Services transformed adolescent healthcare by creating an Office of Integrated Healthcare utilizing the Integrated Healthcare Implementation Model to provide non-integrated primary care practices the expertise, consultation, staff and technical support needed for successful implementation of integrated behavioral healthcare. This Office of Integrated Healthcare is becoming a resource to support any practice seeking assistance in fully integrating physical and behavioral healthcare.

OVERALL PROJECT IMPACTS

The seven projects funded through the Transformational Grant program employed a range of strategies to improve various aspects of healthcare for adolescents. Reflecting the breadth of projects, multiple methods to evaluate the impact of these efforts were employed. The evaluation focused on the Transformational Grant funding period of FY 2014-2016. Evaluation methods included:

- Practice surveys of providers and their adolescent patients at participating clinical sites
- Monitoring trends in volume and type of health services provided to adolescent patients at participating sites
- Analyzing Medicaid administrative data to identify patterns in behavioral health services for Medicaid-enrolled adolescents at participating sites

- Analyzing data from the Michigan Care Improvement Registry (MCIR) to identify patterns of HPV vaccination for adolescents at participating sites

Key findings for each of these methods are detailed below.

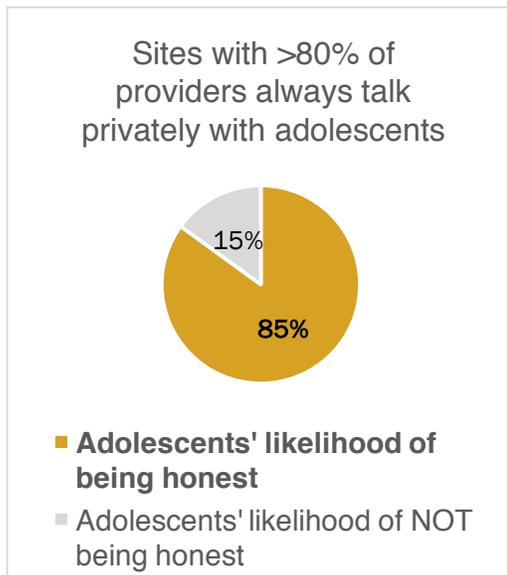
KEY FINDINGS FROM PRACTICE SURVEYS OF PROVIDERS & ADOLESCENTS

Five Transformational Grant projects included efforts to enhance clinicians' capability and confidence in providing care to adolescents in either the school or primary care setting. At these sites:

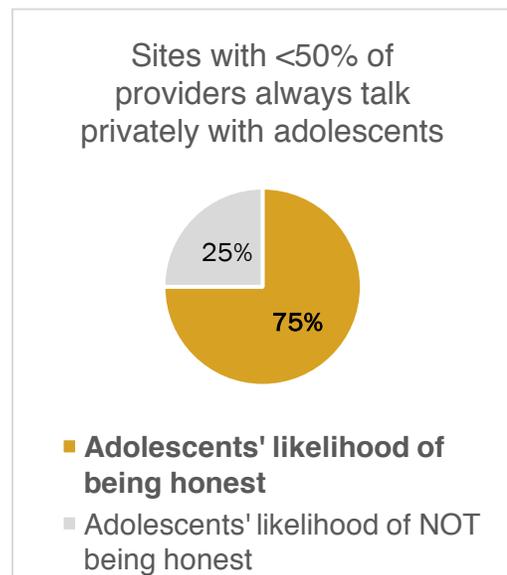
- Providers report a noticeable improvement in using strategies to improve communication with adolescent patients.** Tracking surveys from baseline to the final year of the project, there was an increase of more than 20 percentage points in the proportion of providers who reported they *always* talk with adolescent patients privately, without a parent in the room (from 41% to 62%), and who *always* use a standardized tool to assess whether adolescents are engaging in risky behaviors (from 23% to 51%).
- Providers report implementing private time with adolescents leads to open and honest communication.** At sites with a high proportion (>80%) of providers who report *always* talking privately with adolescent patients, adolescents were more likely (85% versus 75%) to rate themselves as being completely honest when talking with the provider about their health behaviors and concerns, compared to sites where <50% of providers *always* talk privately with adolescent patients.

More private time with adolescents

Less private time with adolescents



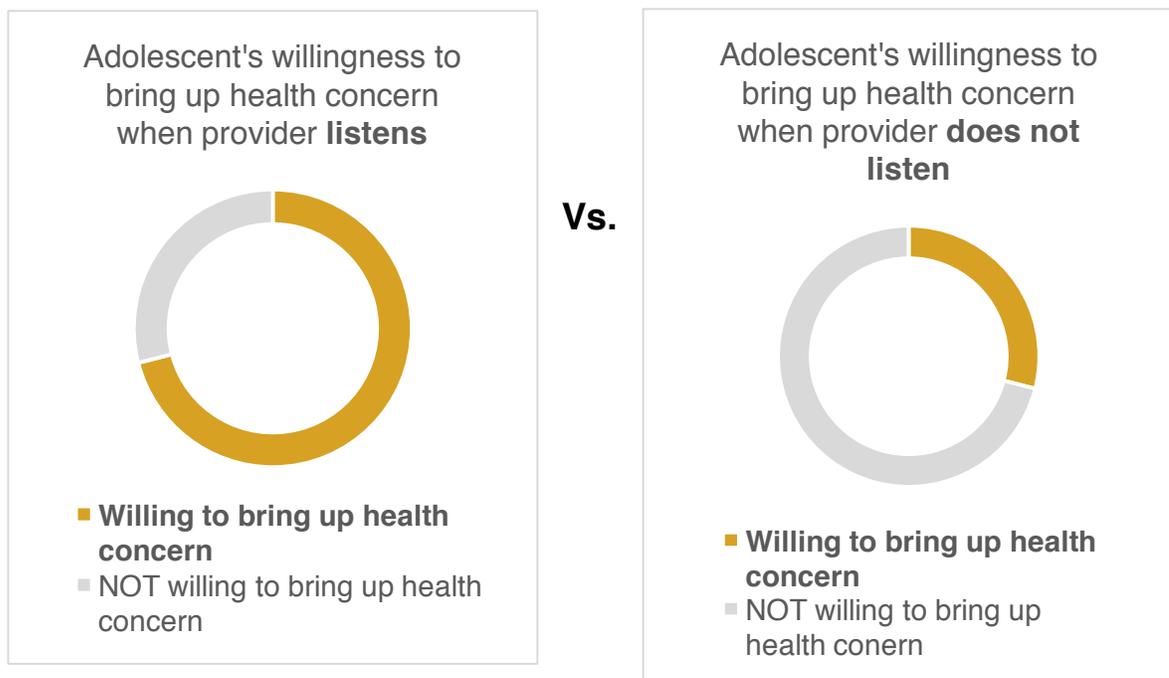
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- Providers have become more comfortable with the range of adolescent needs.** By the end of the project, 99% of providers agreed that they were comfortable caring for all types of adolescent patients. In addition, the proportion of providers who *strongly agree*

that they have sufficient options to connect adolescent patients with behavioral health providers tripled from baseline to the final year of the project (from 9% to 27%).

- **Adolescents reported improvements in the way providers interact with them during visits.** By the final year of the project, more than 95% of adolescents gave their provider positive ratings on key actions during the visit: listening carefully, showing respect, explaining things in a way an adolescent can understand, spending enough time with them, and asking about both physical and mental health.
- **Improvements in provider interactions may signal their interest in adolescents' health concerns.** Adolescents who reported their provider always listens carefully to them were 2.5 times more likely to say they are willing to bring up their health concerns during the visit, even if the provider doesn't ask (71% versus 29%).



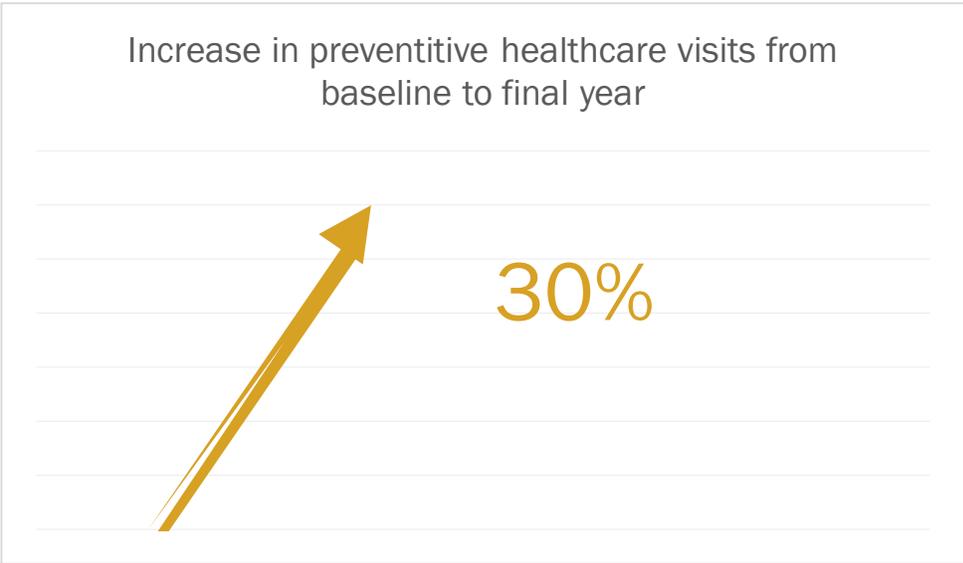
Three Transformational Grant projects focused on introducing behavioral health services in primary care settings where none existed. At these sites:

- **Focused training on addressing behavioral health issues during primary care visits has led to greater provider confidence.** Providers reported significantly increased confidence in their ability to identify mild and moderate behavioral health issues (from 35% to 48%), knowing where to refer patients for behavioral health services (from 12%-33%), and supporting parents to follow through on the referrals (from 5% to 25%).
- **Onsite assistance helped to reduce barriers to behavioral healthcare.** Providers reported decreases in all areas initially rated as major barriers to identifying and addressing behavioral health issues, including lack of screening tools (from 14% to 0%), their own knowledge deficits (from 100% to 77%), parent unwillingness to seek behavioral health care (from 29% to 19%), and lack of referral options (from 67% to 46%).

KEY FINDINGS ON VOLUME & TYPE OF ADOLESCENT HEALTHCARE

Historically adolescents utilize healthcare at lower levels than other age groups. Five Transformational Grant projects included efforts to increase the volume and type of healthcare delivered to adolescents. According to the internal administrative data at clinical sites participating in these projects:

- **Overall volume of adolescent healthcare has increased at participating clinics.** The total number of adolescent visits per year at participating clinics increased by 20% from baseline to the final project year.
- **Adolescents are receiving more preventive care.** For the final year of the project, 30% more adolescent patients had received a preventive care visit at participating clinics, compared to the baseline year. In addition, the total number of preventive care visits provided to adolescents at project clinics increased by 21% from baseline to the final project year.



- **The volume of behavioral healthcare is increasing.** From baseline to the final year of the project, behavioral health services visits increased by 40%, and the number of adolescent patients receiving any type of behavioral health service increased by 25%. Three-quarters of participating clinics reported an increase in behavioral health referrals.

KEY FINDINGS ON BEHAVIORAL HEALTHCARE FOR MEDICAID-ENROLLED ADOLESCENTS

Many adolescents are believed to have unrecognized behavioral health issues and limited access to behavioral health services. For Transformational Grant projects focused on

introducing or enhancing behavioral health services, analysis of Medicaid claims across the three years of the project highlight important trends:

- **Participating primary care clinics have dramatically increased their use of standardized risk/developmental screening tools for adolescents.** In the baseline year, only 2% of Medicaid-enrolled adolescent patients had received standardized screening. This jumped to 12% in the final year – an increase of over 500%.
- **Broader screening is facilitating more behavioral health service use.** As more adolescents are screened, providers will identify more patients who require additional services. The proportion of Medicaid-enrolled adolescents at the participating primary care clinics receiving behavioral healthcare increased 16% across the three project years. By the final year, 1 in 5 Medicaid-enrolled adolescents was receiving some type of behavioral health service.



KEY FINDINGS ON HPV VACCINATION

Human papillomavirus (HPV) vaccine is refused by parents more often than other adolescent vaccines, which is likely related to provider hesitance to discuss the vaccine. In addition, low rates of healthcare visits limit many adolescents from completing the three-part HPV vaccine series. For Transformational Grant projects focused on expanding access to care, and improving provider communication with adolescents and their parents, MCIR data show:

- **School health clinics play a critical role in helping adolescents complete the HPV vaccine series.** By the final year of the Transformational Grant project, the HPV vaccination rate for girls who received at least one dose at their school health clinic was at least 10 percentage points higher than the vaccination rate for students who received doses only at non-school sites.
- **Greater comfort and communication with adolescent patients has yielded improved HPV vaccination rates.** In primary care practices that received training on adolescent-friendly care, the proportion of girls who completed the HPV vaccine series increased by over 20 percentage points, and the boys increased by 24 percentage points, from baseline to the final year of the project.

These evaluation results demonstrate that the Transformational Grant projects have had a positive impact on provider interactions with adolescent patients, on adolescents' willingness to engage honestly and openly with providers, and on adolescents' receipt of preventive and behavioral health services.

HIGHLIGHTS OF MODEL SUCCESSES IN EACH CATEGORY

Improving youth experience

Certifying “Champions” to Improve Adolescent Care at Pediatric and Family Medicine Practices | University of Michigan Adolescent Health Initiative, Washtenaw County MI

This initiative sought to improve the existing primary care system in which most adolescents receive medical services. Physicians within primary care offices were trained and certified as “Adolescent Champions” and led the organizational, cultural, and service delivery changes necessary for each practice to improve adolescent care. This model included the development of both a curriculum for training and certification for Adolescent Champions, and a toolkit to support their post-training work in transforming clinical care within their primary care settings.

A review of adolescent responses to the Transformational Grant practice surveys pre- and post-model implementation revealed an increase in positive ratings from adolescents receiving care within health centers implementing the Adolescent Champion model.

Adolescents provided feedback on the Health Center **Environment** through questions about health information received, if the environment was welcoming, and if they would recommend the Health Center. These responses were grouped and the percent of adolescents responding *Definitely* or *Mostly Yes* is depicted in the table below.

Adolescents also provided feedback on their **Relationship** with the Health Center Provider through questions about listening skills and respect shown. Adolescents provided feedback on their **Interaction** with the Provider through questions about the Provider’s explanations, time spent during the visit, and interest in the physical and mental health of the adolescent. Adolescent responses were grouped into categories and percent of adolescents responding *Always* or *Usually* is depicted in the table below. **While the rates of satisfaction were extremely high at baseline, they still increased across all measures throughout the project time period.**

*The percent reported in the table below is the **percent of adolescents** who felt positive about the Health Center **environment** and positive about their **relationship and interaction** with the Health Center Provider.*

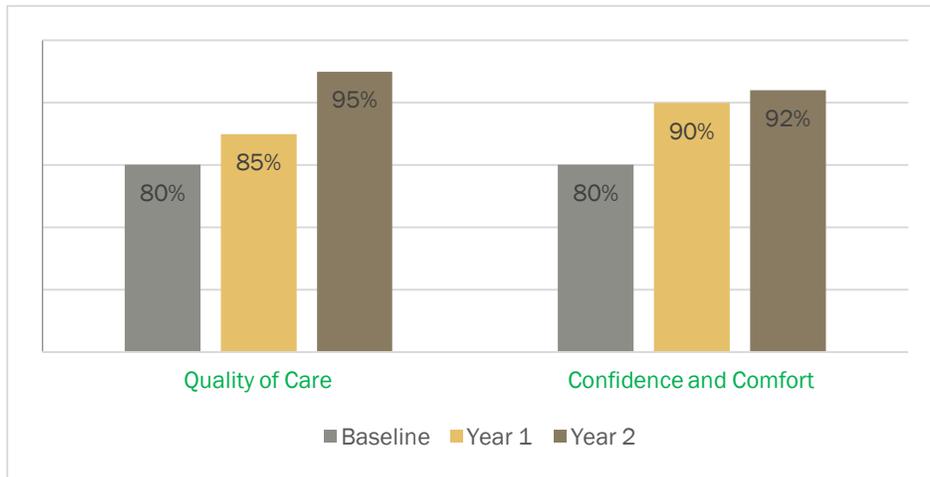


A review of Healthcare Provider responses to the Transformational Grant practice surveys pre- and post-model implementation revealed an increase in positive ratings from providers working in health centers implementing the Adolescent Champion model.

Provider feedback on the **Quality of Care** delivered to adolescents was obtained through questions about assessing and counseling on risky behaviors, talking privately (without a parent), and asking about the physical and mental health of the adolescent. Provider responses were grouped into categories and percent of providers responding *Always* or *Usually* is depicted in the table below.

Feedback on their **Confidence and Comfort** in caring for adolescents was obtained through questions on confidence and comfort level. Provider responses were grouped into categories and percent of providers responding *Definitely* or *Mostly Yes* is depicted in the table below. **While the rates of care were 80% at baseline, they increased into the 90 percentiles across all measures throughout the project time period.**

*The percent reported in the table below is the percent of **providers** who felt positive about the **quality of care** provided to adolescents and their **confidence and comfort** in caring for adolescent patients.*



Increasing access

Increasing Access to Care in Rural Schools through Technology and Innovative Staff Design | Community Health Center of Branch County, Branch County MI

This project delivered a combination of live care and telemedicine in rural schools to students who were previously unable to access services. In addition, this project demonstrated a model with an expanded scope of RN-provided healthcare services. A registered nurse provides on-site health services across multiple rural schools and state-of-the-art tele-health equipment links the onsite nurse with physicians and a nurse practitioner in a local community pediatric office. An EHR system enhances collaboration, work flow and data collection. By combining this alternative staffing model with the latest in tele-health technology, this project demonstrates a successful and affordable model of tele-health delivery that can be successfully replicated across underserved, remote communities.

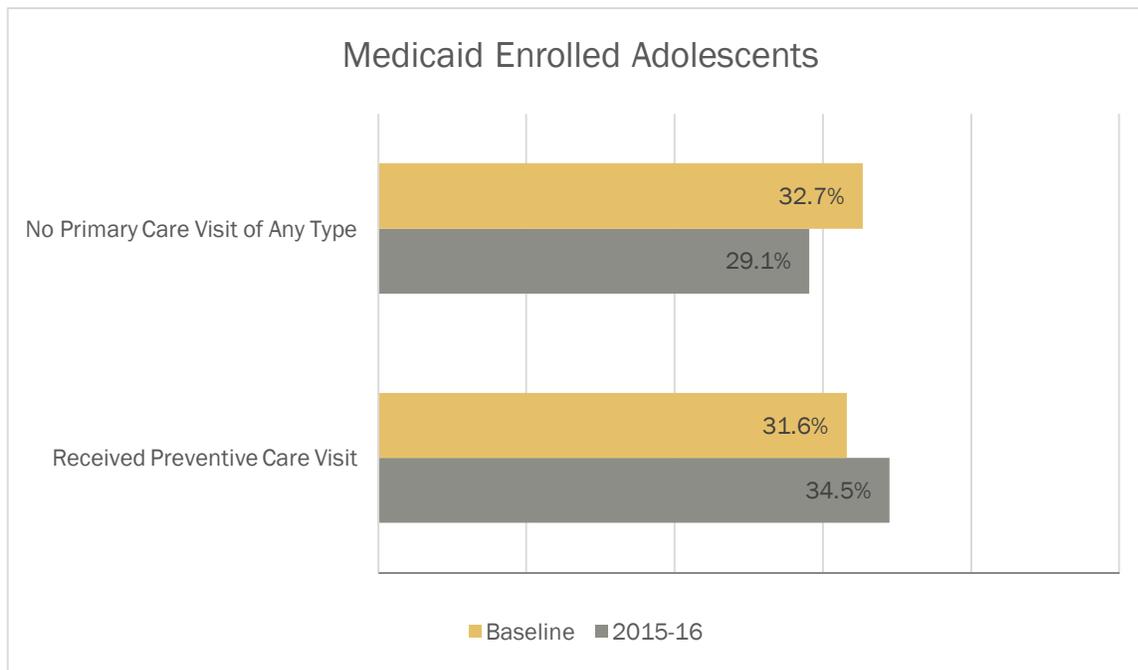
A larger population of the youth served through the Branch County tele-health initiative were insured through Medicaid. An analysis of Medicaid only claims for these youth provides insight into the success of the program in increasing access. Key findings from this analysis are detailed below.

When adolescents lack access to primary care, they may overuse the emergency room setting. Conversely, access to an adolescent-friendly primary care site may prevent unnecessary use of the emergency department.

- **As telemedicine became established through the TG project, more Medicaid-enrolled adolescents received primary care.**
 - Data demonstrate a 10% decrease in the proportion of adolescent patients with no primary care office visit during the year, from 32.7% in 2013-14 to 29.1% in 2015-16.
 - Telemedicine linked visits were the only office visits for 52 adolescents in 2013-14, 78 adolescents in 2014-15, and 73 adolescents in 2015-16.
- **Telemedicine reduces the number of adolescents with ER-only care.** Among Medicaid-enrolled adolescents who made ER visits but no in-person visits to Coldwater Pediatric & Adolescent Medicine, an average of 20% had telemedicine visits during the same school

year. These telemedicine visits allowed providers to ensure appropriate recovery and to review medications and other self-management strategies.

- **Preventive care visits increased with the establishment of telemedicine.** Rates of preventive care visits to Coldwater Pediatric & Adolescent Medicine increased from 31.6% in 2013-14 to 34.5% in 2015-16. This finding suggests that the linkages established through telehealth may facilitate the identification of students in need of preventive care. Additionally, non-billable preventive visits were provided through telemedicine for 118 adolescents in 2013-14, 347 adolescents in 2014-15, and 466 adolescents in 2015-16.



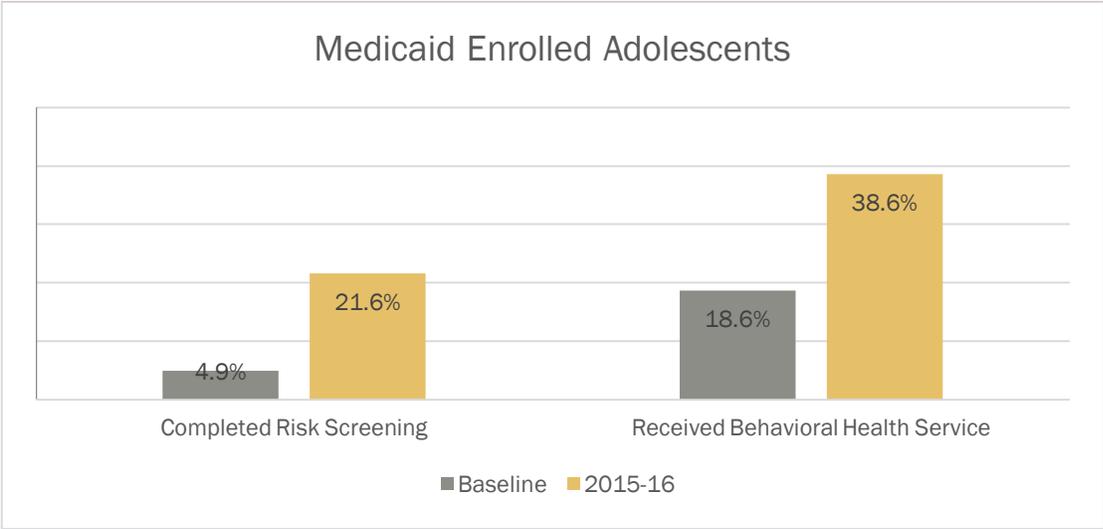
Improving mental health

Integrating Primary Physical and Behavioral Healthcare at School Based Health Centers | Health Department of Northwest Michigan

This project employed a multi-pronged approach to integrating physical and behavioral healthcare, increasing access to behavioral health services, identifying needs, supporting referrals and improving associated outcomes. A Pathways Community HUB model improved linkages and collaboration with patient centered medical homes; improved the system by which at-risk adolescents within a community are identified and connected to care services; and improved data collection and outcomes reporting – which was utilized to identify population needs and further improve integrated care delivery.

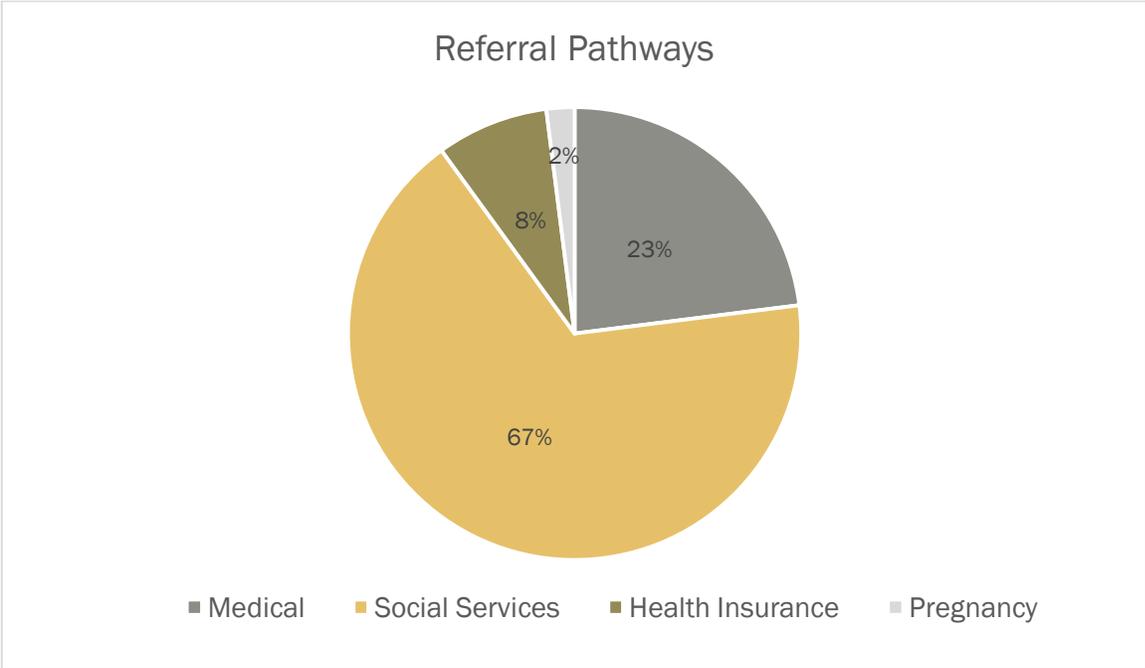
Evaluation of Medicaid claims data for the participating health centers revealed the Pathways Community HUB model was successful in increasing behavioral health services for adolescents in Northwest Michigan:

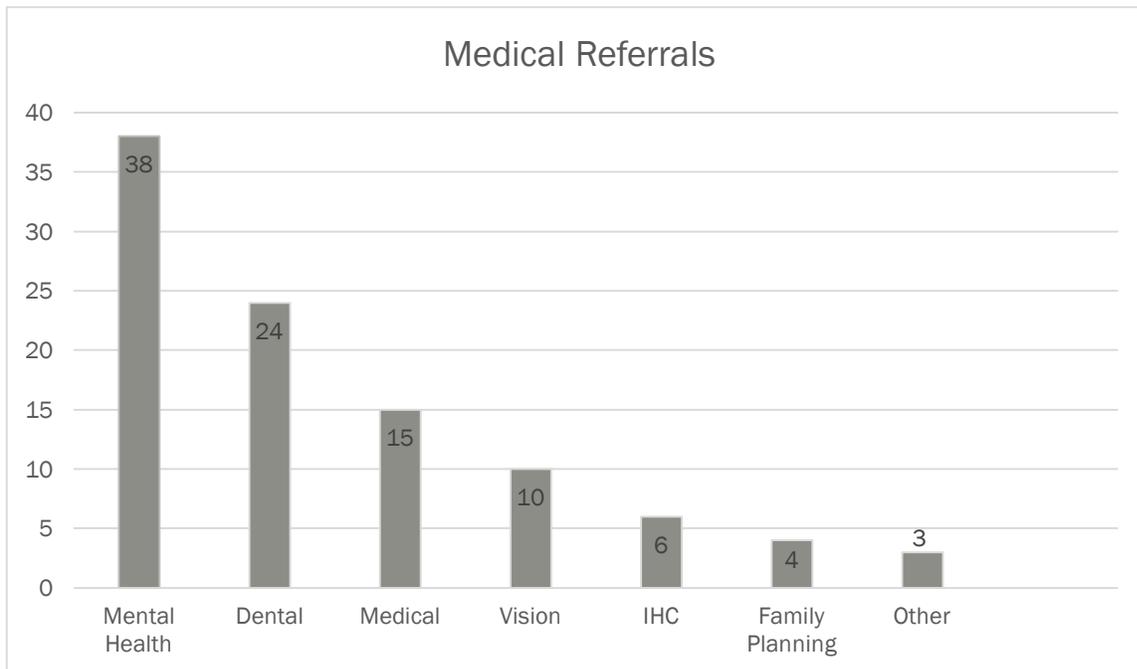
- There was a significant increase in youth who had a risk screen and who received at least one behavioral health service. Together, these results indicate that the behavioral health integration at Ironman and Hornet Health Centers resulted in an expansion of behavioral healthcare for Medicaid-enrolled youth.



Analyses of the data submitted directly by the participating Ironman and Hornet Health Centers also indicate improvements in both access to care and behavioral health services:

Review of the data on the total number and type of referrals throughout the Pathways Community HUB project reveals **significant increases in the overall volume of facilitated referral pathways to social services and medical services for families during the grant period** - 36 referrals in 2014-15 and 85 referrals in 2015-16 for a total of 121 referrals, **behavioral health was the top medical referral category.**





INSIGHTS FROM THE FIELD: QUALITATIVE FINDINGS AND BEST-PRACTICE RECOMMENDATIONS

Even in the best executed initiative, there’s always room for improvement. Case-based examination of what worked well and what could have been done better provides valuable insight for not only the project at-hand, but a starting point for future initiatives and innovations. Following are some of the highlights, key themes, and recommendations that emerged from the practitioners and professionals participating in the Transformational Grant:

- **Consistent, open communication and transparency are critical in increasing participation – and trust – of adolescents, their parents and the community.** Don’t be discouraged if you don’t achieve immediate results.

As the Community Health Center of Branch County team learned first-hand: “**Trust is earned over time**; the best way to gain buy-in and grow participation is by consistently providing quality care to gain word-of-mouth referrals and testimonials.” The Health Department of Northwest Michigan shared a similar experience, “When working with parents and adolescents, keeping them engaged is always a concern. Using techniques like Motivational Interviewing can help – and **showing genuine concern is essential.**”

Western Michigan University Children’s Trauma Assessment Center built trust with hands-on, high-touch approach: “The center-based school we served has long struggled with engaging families in school-related matters...our staff met the families in their homes to discuss assessment results and behavioral changes seen as a result of project activities. Intergenerational trauma became a focus, and **we saw this focus help us engage parents of struggling teens.**”

- **Engaging the support of champions and community partnerships played an essential role in both initial success and long-term sustainability.** As providers, we advise

patients to ask for help and utilize the resources available to them. For projects tackling transformation of the current healthcare system – this advice not only applies – it’s mission-critical. Leveraging the support of community partnerships lessens the burden on any one group, ensures a breadth of best-in-class services for patients, supports faster initial growth, and creates a reference network for future growth.

For Starfish Family Services champions were selected early – and proved critical for transforming practice workflow: “We identified staff champions as a part of the implementation process, and we collaborated continuously with these individuals to promote necessary changes in the work environment (with both administrative staff and physicians). These individuals were instrumental in reinforcing and promoting the value of integrative healthcare.”

Cherry Street Health Services experienced the benefits of community partnerships in the day-to-day execution of their program: “**It allows us to get our patients’ needs met, and takes some of the burden of the process for us.**” In addition, strong program champions provided much needed support in the vulnerable time between program launch (when the program was utilizing valuable time and resources) and when the first measurable outcomes were captured. “Our biggest champions are those with influence in our organization. We’ve had turnover in staffing, and in between turnover the administration asked us to prove the worth of key positions. **Our champions are willing to go to bat for the program and argue for the impact it has had when it is being questioned.**”

The University of Michigan Adolescent Health Initiative benefited from the value of their stakeholder network in initial program expansion, as “**existing champions became good sources of referrals for new sites.**” And the Health Department of Northwest Michigan have found their champions remain engaged – contributing to sustainability and growth: “The advisory committee was **an integral part of both planning and implementing this project – but also planning for future projects** – as many of them remain engaged in the projects that have developed as a result of our work.”

Western Michigan University Children’s Trauma Assessment Center applied their trauma expertise to selecting champions and offer unique advice for the evaluation and selection of key influencers: “We have learned long ago that actions speak louder than words. This starts with analyzing body language of individuals during trainings. We also paid close attention to resiliency of professionals and how they handled stress and duress in the workplace. Finally, relatedness is a key factor when identifying champions. **Professionals that relate well to others involved in all levels of the organization were targeted early and we sought to develop relationships with these individuals.** Many of our best trauma champions resulted from these efforts. We all knew that identifying and nurturing potential champions in key positions in the organization is critical. Helping practice managers, nursing care managers, behavioral health clinicians become more trauma-informed and selling them on the project was instrumental in moving us forward. **These individuals quickly spread the word in multiple directions and enhanced practice buy-in was the result.**”

- **Grant participants embraced a wide variety of models for transforming adolescent healthcare, but the outcomes and key benefits ultimately aligned – with improvements in integration, care coordination and access – culminating in better health and wellness now, and creating the foundation for success as they become adults.**

The Henry Ford Health System mobile health, and the Community Health Center of Branch County telehealth, initiatives increased adolescent access in schools – reducing barriers of time and cost for parents while improving health – both physical and mental for students. As the Branch County team described: “It’s all about removing the barriers that interfere with school performance and ultimately enable these teens to have a better quality of life as an adult. ***We are helping adolescents create a strong foundation – learning how to access the healthcare system and care for themselves in the future.***”

The Health Department of Northwest Michigan also improved access – with a holistic approach: “Including health insurance, driver’s license, and job assistance – ***the essential infrastructure that helps with stabilization of family needs and ultimately enables students to concentrate on succeeding in school.***” The University of Michigan Adolescent Health Initiative saw system wide improvements in the provision of health and wellness services for adolescents: “This initiative raised the bar for overall investment in adolescent care, improved processes for confidential services and risk screening, standardized chlamydia screening procedures, increased multidisciplinary professional development opportunities and transgender friendly modifications to EMR fields, as well as creating improvements in the physical environment, policies and procedures related to adolescent centered care.”

➤ **Participants in the grant reported on the value of normalization and integration of behavioral health in adolescent practice, for a whole person – whole family approach.**

Across the population adolescents have a high unmet need for behavioral health, and social stigmas remain – among teens themselves, their families, and community culture. Grant participants reported valuable insight gained from first-hand experience and focus on adolescent behavioral health during these initiatives.

Western Michigan University Children’s Trauma Assessment Center shared, “Teens were able to understand the impact of stress on their brain and body function. They were also able to finally understand why their family members act the way they do when under stress.” The Health Department of Northwest Michigan expanded on the value of a family-centric approach: “***We have gained a much greater understanding of the complexity of our clients’ needs looking at the ‘Whole family’ versus just the child.*** These needs are just as important and help you see the complete picture.”

At Starfish Family Services, “The behavioral health counselors were able to normalize patient concerns, and through their presence and psychoeducation reduce the stigma of behavioral health. This approach created a new ‘norm’ of healthcare that includes social/emotional and behavioral health issues.” Cherry Street Health Services reported on the ultimate value of reducing the stigma of mental health issues: “***It’s now safe for families to access behavioral health services they have always needed but were too intimidated to access before.***”

➤ **While these transformational care initiatives showed improvements in patient care – the innovative programs also proved beneficial for providers and the practices they work in.**

Cherry Street Health Services’ program achieved system-wide organizational change: “We have advanced the pediatric model of integration – which fits with what we are doing organizationally. ***It has pushed us to learn the newest theories and models of patient***

care and has given us an opportunity to implement them. It's also expanded the experience of staff, for example – increasing the utilization of social workers beyond just outpatient therapy. We are now a team addressing some of the most common chronic conditions of childhood.” Starfish Family Services experienced similar benefits: “The transformation of practices not only impacted the clinics, but also the physicians and medical personnel we worked with. **Provider awareness of behavioral health concerns within their patient population increased – as well as the value of whole-body health and wellness.**”

The team at Western Michigan University Children’s Trauma Assessment Center reported change at every level: “Primary care physicians, nurse care managers, behavioral health clinicians, educators, school administration, school social workers, health department nurses, all demonstrated enhanced awareness and knowledge as well as practice change as a result of this project. The entire school’s culture changed. **The teachers were also participants and saw the students in a totally different light – relationships were forever changed for the better.**”

- **When asked what they would have done differently, the majority of participants would have made changes in the planning phase – prior to program launch – particularly around data and outcomes.**

The team at Western Michigan University Children’s Trauma Assessment Center would have made a small change – mainly starting off on a smaller scale. “**We would have started with a smaller, very directed approach and then expanded** – this would have allowed us to gain traction faster and build on the momentum.”

In hindsight, Cherry Street Health Services would have increased their focus on data: “We would have gotten better data reports to start with – we would have hired a data person from the start.”

The University of Michigan Adolescent Health Initiative also experienced data challenges, including: “Keeping sites engaged and on track in the midst of their other health center and health system priorities. Sites reported that it was challenging to do the required data collection. **Not all sites had the capacity or ability to easily pull required information, which was made more challenging if some of the data requests didn’t feel particularly valuable to their site...**We would have moved the customer discovery process into the planning period rather than later in project – to get greater insight into these barriers.”

Starfish Family Services would have had increased the priority of evaluation – setting and measuring outcomes. “**Our experience over the last three years has helped us to drill down some of the actual needs of moving into a more outcomes-driven program which can also be business oriented.** We don’t have the answers yet, but we are much closer to developing the business case for integrated healthcare as well as figuring out how to measure the outcomes for patients and clinics – which are especially important for demonstrating value in an area of healthcare where there is no reimbursement currently available.”

- **What’s next? Transformational grant participants report they’ve laid the groundwork for sustainable models that will continue to improve adolescent health well into the**

future. In many cases – have extended their momentum, success, and experience or skills gained from this initiative, to the creation of brand new programs to fill gaps in adolescent care.

For Starfish Family Services, participation provided valuable experience in data evaluation and partnership building that allowed them to create the right infrastructure for long-term financial sustainability: “We now have data from the evaluation to support new partnerships in the future and we understand the cost of the behavioral health coach service much better. **We were able to test the implementation model and make adjustments based on real world experiences** – and the final product will reflect those experiences.”

Western Michigan University Children’s Trauma Assessment Center reports the creation of a successful program – and one that will leave a lasting effect for the community: “We are extremely proud of our accomplishments in Van Buren, we strongly believe that we have built a solid foundation after this 3-year effort. If the momentum we started can continue, we also see Van Buren ultimately serving as a state and national rural model for trauma-informed practice.”

The Health Department of Northwest Michigan described benefits that extended well beyond the current initiative: “**This project served as an excellent foundation that has prepared us to replicate the work in several other projects and our experience contributed to the strength of our position in grant submissions.** We have become very involved in advocacy work for policy change that allows for reimbursement for community health worker services and have engaged in negotiations with our Medicaid Health Plans to provide community health worker services for reimbursement.”

And the University of Michigan Adolescent Health Initiative achieved not just a sustainable model – but the foundation and momentum for much more: “The opportunity to create this model led to the development of a Replication Partner model, a fee for service structure and securing additional grant funding. The ability to share resources developed and pilot data results also helped gain recognition through presentations at national conferences and receiving local and national awards.”