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Facilitating a Quality Improvement Approach to Childhood Adversity Screening in Primary Care: A Handbook



Institute for Health
Policy and Practice



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HANDBOOK PURPOSE AND ACKNOWLEDGEMENTS

The purpose of this handbook is to guide pediatric and family practice primary care clinics and/or quality improvement (QI) organizations to initiate a process to screen for and respond to Adverse Childhood Experiences (ACEs). This handbook is based on the experience of the New Hampshire Pediatric Improvement Partnership (NH PIP) in supporting five New Hampshire pediatric practices in developing and piloting workflows to address ACEs within their patient population. The handbook provides a short background on project need, followed by a description of the initial implementation plan and required modifications due to varied factors. Next, this handbook outlines the results and lessons learned from of the project's process evaluation. Finally, the handbook concludes with an improved and updated description of this QI process for replication elsewhere.

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Special thanks to the practices that participated in this pilot project. Your dedication to acknowledging and addressing childhood trauma will make the field better for all.

Contact the NH PIP (nhpip@unh.edu) with questions or comments.

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PROJECT BACKGROUND

Research has demonstrated that adverse childhood experiences (ACEs) can have significant short and long-term effects on the health and well-being of children, adolescents, and teens.¹ In 2012, the American Academy of Pediatrics (AAP) released a policy statement outlining the critical role of the medical home in identifying and responding to ACEs.² In June 2018, the NH Pediatric Improvement Partnership (NHPIP) released a report that shared descriptions of provider-identified challenges to implementation in New Hampshire pediatric clinics.³ It also included a set of recommendations for New Hampshire clinics. Three of these recommendations were to 1) provide clinician training on trauma-informed care; 2) increase public awareness about ACEs and Social Determinants of Health (SDOH); and 3) conduct research to help clinics operationalize team-based care to address ACEs. Implementation strategies for clinic settings need to be established to be able to replicate processes for addressing ACEs efficiently. The Trauma-Informed Care in Pediatrics Quality Improvement Project described here was designed to advance these three recommendations.

Challenges presented by the COVID-19 pandemic have increased the need for trauma-informed practice even further. In August 2021, the AAP released a statement calling for building resilience in the face of the traumatic events of the pandemic.⁴ Utilizing Relational Health, they urge clinic teams to foster resilience against these adverse events for patients and families in pediatric primary care. In July of 2021, the Surgeon General released an advisory titled, *Protecting Youth Mental Health*, drawing attention to the “alarming increases in the prevalence of certain mental health challenges” brought on by the pandemic and the urgent need to address this crisis. Recommendations for health care providers included implementing Trauma-Informed Care (TIC) principles, routinely screening for ACEs, identify and address mental health needs of family members, combining efforts with community partners and building multidisciplinary teams.⁵ All of these recommendations are included in this project design.

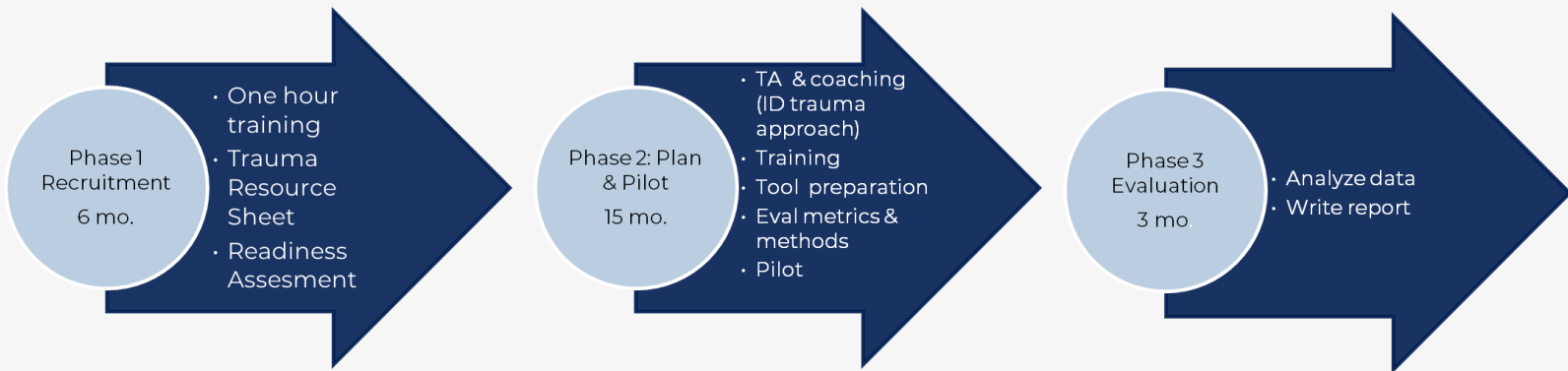
PROJECT GOALS AND DESIGN

The goals of this project were to: 1) increase pediatric primary care clinician knowledge about trauma-informed care as well as existing tools to support addressing trauma in primary care settings and 2) support four NH pediatric primary care clinics in using quality improvement and systems thinking principles to pilot process(es) to detect and respond to prolonged and excessive activation of a child's stress response system, also known as toxic stress.⁶ Objectives to achieve these goals included: 1) building the competency of pediatric clinicians to assess and treat traumatic stress through training and specialist consults; 2) guiding each clinic team in developing care process(es) to address toxic stress through the provision of coaching and tools; and 3) facilitate the use of rapid cycle change methods to pilot and refine the drafted care process(es).

The project evaluation plan focused on assessing execution and impact of, as well as, satisfaction with this quality improvement effort. Process metrics evaluated the implementation of and participation in project activities, as well as clinic participant satisfaction with project activities. Impact metrics included screening and referral performance metrics and assessing changes in practice systems and processes to deliver trauma-informed care. In this handbook, we will outline both process and impact evaluation methods used. However, the results section will focus on only process evaluation metric findings that impact future replication of this QI project.

This QI project was conducted in three phases (See **Figure 1**). Phase One focused on increasing awareness about trauma-informed care and clinic recruitment, Phase Two on implementation of a fifteen-month quality improvement process, and Phase Three on analysis and reporting of project results. Towards the end of Phase One, the COVID-19 pandemic began. In response to this and other factors, modifications were needed to the implementation design. The below section details original activities planned, modifications made, and evaluation methods executed by project phase.

Figure 1: Implementation Approach by Phase



PHASE ONE

Phase One consisted of providing in-person clinic trainings on toxic stress and recruiting clinics for Phase Two. To facilitate clinic recruitment, a one-hour, on-site presentation was offered at clinics in four high-need NH communities. Delivered by local trauma specialists, this one-hour training provided an overview of ACEs, the impact of toxic stress on child development, and principles of trauma-informed care. Free continuing medical/nursing education (CME/CNE) were provided. Following the training, project staff outlined and discerned clinic interest in a fifteen-month quality improvement process on screening for and responding to ACEs/trauma. Interested clinics completed a readiness assessment (See **Appendix A**) outlining roles and responsibilities of both the clinic and project staff. The target was to recruit one clinic per community for Phase Two. In addition, project staff gathered information from clinics and organization websites, then conducted phone calls with local family support organizations to create a community-specific referral resource sheet for the clinic(s).

Modifications to Phase One activities were necessary for several reasons. One target community already had a trauma-informed care in pediatrics effort occurring; a new community was selected. In another target community, two clinics were interested in participation. With the help of the project funder, resources to support participation of both clinics was obtained. Finally, in another community, none of the clinics approached had capacity to participate in the QI project. In response, project staff used existing relationships with clinics throughout NH to recruit a final clinic (outside the four target communities) for Phase Two.

Phase One evaluation activities centered on assessing the impact of and satisfaction with the one-hour trauma-informed care presentation. Clinicians attending the training completed a set of pre-post trauma questions to assess knowledge changes. Satisfaction with the training content and presenters was assessed via a separate survey conducted by the CME/CNE provider organization who in turn provided a summary report to project staff. Lastly, project staff tracked the number of completed Phase Two applications received.

PHASE TWO

Phase Two consisted of a fifteen-month QI process supporting clinics in planning and piloting a workflow to screen and respond to ACEs within their patient population. Each clinic was assigned a skilled practice facilitator for the duration of the process. During the first nine months, the facilitator walked the clinic team through a guide developed by project staff to answer four key questions: who to screen, what screening tool to use, how to implement the screening tool, and what to do with results. Simultaneously, each clinic team completed a trauma-informed care site self-assessment to identify opportunities for the clinic to strengthen their use of trauma-informed care principles. The facilitator then supported the clinic in selecting strategies to address identified priorities.

During the nine-month planning phase, project staff also coordinated meetings of the clinic team with local family support resources. These meetings served to enhance clinic knowledge about available local services and to discuss effective referral processes. Family support resources included: the community mental health center, family resource center, domestic violence shelter/coalition, and community action program. In two communities, project staff also arranged meetings of the clinic with their local Adverse Childhood Experiences Emergency Response Team. In one community, the project also coordinated meetings with the local health department and mobile crisis team (these two family support resources were only available in the one target community). At the meetings, clinics and the referral organizations discussed services available and how to refer to them in light of the COVID-19 pandemic. Closed loop referrals were also discussed.

For the duration of the six-month pilot period, the facilitator met monthly with each clinic team to support the use of quality improvement science, including plan-do-study-act cycles (**Appendix B**)

to their screening and response workflows as well as review updated performance data. During this timeframe, clinics were provided access to trauma and psychiatry experts for provider-to-provider patient consults. To schedule a consult, the primary care clinician completed a short request form which was sent to the trauma/psychiatry experts for follow-up. Based on clinic needs, three advanced trauma trainings were also provided on the topics of provider resilience, discussing trauma and its impact with families, and a case study from Maine of how one primary clinic organized their ACE/trauma screening. At project end, each clinic team was provided an electronic workbook that included team meeting records, their current workflow, a list of local resources for referrals, and a cross walk to apply for Maintenance of Certification (MOC) Part Four (quality improvement) points.

Modifications were also necessary to Phase Two work. Originally, all clinics were to start the fifteen-month process at the same time. However, extended recruitment time was needed to fill two clinic spots as a result of the impact of the COVID-19 pandemic on clinic capacity. As such, our model evolved into a “Cohort One” of three clinics followed by a “Cohort Two” of two clinics that started six months later. Extended recruitment time also required shortening the QI process to twelve months for the Cohort Two clinics. In-person monthly meetings of the clinic teams and the facilitator were pivoted to a virtual format due to the pandemic. In response to clinic need, project staff also created an educational resource sheet for caregivers and children/youth about trauma and resilience. Due to limited use of provider-to-provider patient consults, we also amended the consult format to include virtual “lunch and learn” sessions where the trauma/psychiatry experts provided short presentations about common treatment questions/issues. Development of community-specific resource sheets was moved from Phase One to Phase Two in order to capitalize on the timing of the community meetings.

Three steps in the workflow development process were particularly challenging for clinics. First, clinic teams found the volume of tools available to screen for ACEs and resilience overwhelming. In response, project staff created an Excel tool in which clinics could enter the criteria most important to them for screening tool selection (e.g. cost, length, population to screen, symptoms vs. exposure) and receive a shortened list of tools meeting their criteria. This filtering process greatly reduced the time clinic teams spent on tool(s) selection.

Second, establishing a consistent screening response protocol among all providers proved difficult. In response, project staff developed a risk prioritization framework (See **Appendix C**) that factored in screen score, protective factors present, symptomology, and clinic capacity to determine appropriate follow-up care and referrals. Grounded in a comprehensive public health approach to trauma, the framework included care next steps for all risk categories (low to no risk, moderate risk, high risk). Ultimately, the determination of whether the risk level was considered a “significant” result was a clinical call made by the provider with their patient. Lastly, to reduce the data collection burden and improve accuracy, project staff developed a registry spreadsheet to help practices collect performance metric data (See **Appendix D**). This spreadsheet allowed teams to enter de-identified data about patients screened including age range, person completing the screener, screen result and recommended follow-up actions. All but one practice used the registry tool. Practices submitted the data spreadsheets monthly. The registry tool standardized the data collection format across practices, thus aggregate performance metrics could be easily computed.

Phase Two evaluation activities focused on assessing the impact of and satisfaction with the fifteen-month process. Facilitators worked with each clinic to determine how they would collect and submit data monthly for the below performance metrics:

- Number and percent of eligible patients assessed for ACEs
- Number and percent of patients with a significant screening result
- Number and percent of patients with significant screening result with a documented referral for services, and, if feasible, for what types of services

In addition, a balancing measure—effect of screening on visit length—was collected. A balancing measure determines whether an improvement in one area adversely impacts another. Changes in clinician knowledge and confidence in addressing ACEs/trauma were measured via a set of questions completed by clinicians at the beginning, the nine-month point, and the end of the process. Changes in clinics’ relationships with local referral agencies were assessed via a two-question tool implemented pre- and post- process. At the beginning and end of the fifteen-month process, a trauma-informed care site self-assessment was completed by the team

to gauge changes in capacity to deliver trauma-informed care. Satisfaction with supports provided during the planning and pilot phase were collected via surveys. Given the novel nature of this project, facilitators also systematically logged observations about each clinic's planning and pilot experience.

PHASE THREE

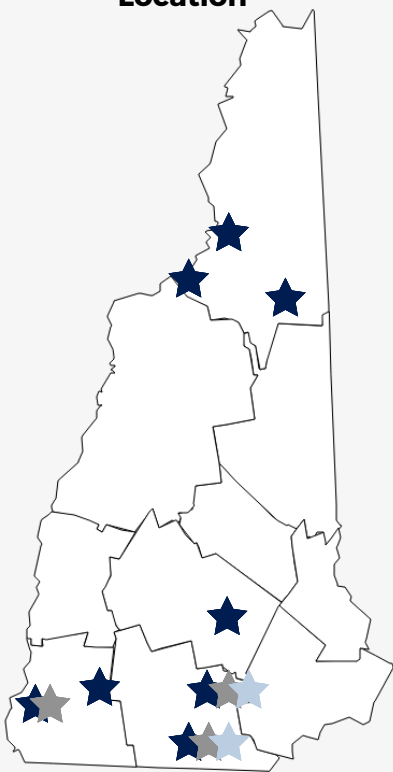
Phase Three involved conducting quality assurance checks, data analysis, and report writing. Quantitative data analysis focused on assessing changes over time in performance metrics. Qualitative data from the facilitator logs and community meeting minutes were coded and analyzed to explore relationships between the workflow development process and project impact. Results of this analysis will be included in a separate document.

RESULTS

The below section reviews data by project phase, evaluating implementation of this QI process including participation in and satisfaction with trainings provided, utility of project supports, and data collection challenges.

PHASE ONE

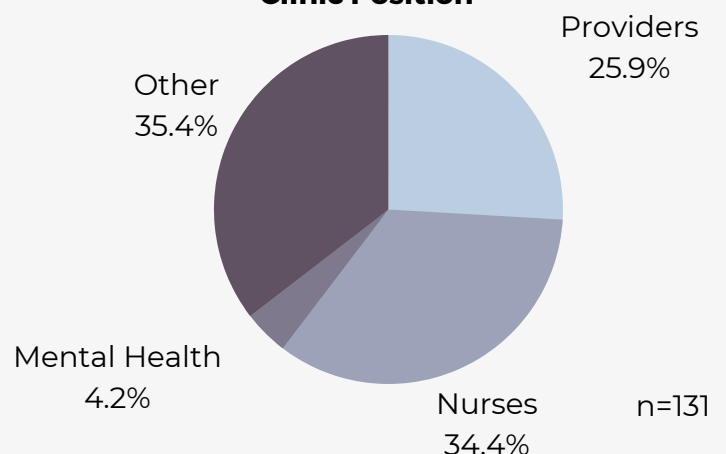
Figure 2: Map of New Hampshire Showing Clinic Geographic Location



During Phase One, thirteen one-hour, introductory-level trauma trainings were delivered at pediatric practices around the state. In total, 191 individuals at 13 clinics were trained. See **Figure 2** for a map of NH communities where presentations were given. Attendees included clinical staff as well as front office workers, management, and entire care teams. In total, 34.4% of the people trained were nurses, 25.9% were providers, 4.2% were mental health clinicians, and 35.4% were “other” office staff (See **Figure 3**). Training evaluation results revealed that 95% of respondents completing the evaluation survey considered trauma an important topic to address. Relatedly, 91% indicated that the training increased their knowledge, skills, or practice of trauma-informed care. The most common constructive criticism of the training was that more time was needed.

Of the thirteen practices hosting a trauma 101 training, five decided to participate in Phase Two including two clinics from Coos County, one from the Monadnock Region, one from Nashua, and one from Concord. Four of these five practices were in rural designated areas.

Figure 3: Training Participants by Clinic Position



PHASE TWO

All five clinics completed Phase Two of the project. Three clinics finished in fifteen months while two clinics completed in twelve months. Clinic teams varied in size with the largest consisting of eleven members and the smallest having two members. With respect to advanced trainings provided during Phase Two, 100% of attendees completing the evaluation surveys rated the information in these trainings as either very or extremely important. 100% of training survey respondents also said that these trainings increased their knowledge, skills, or practice in the advanced training topic. Teams especially appreciated learning about and from the experiences of other clinicians/clinics currently screening for ACEs. Provider-to-provider teleconsults were made available to clinic teams, seven were completed.

In total, twenty-one meetings of clinics with local referral resources were completed. Significant inter-team variation in responses to the two-question survey assessing communication and relationship with local referral resources prevented evaluation of pre and post changes. Anecdotal quotes from clinicians during the community meetings revealed the need for and usefulness of these meetings with local referral resources (See **Figure 4**).

Figure 4: Clinician Quote

"I am thrilled to learn that this resource (family resource center) exists in our community. I definitely have families I could have been referring."

-Pediatrician

Data collection challenges precluded collection of some evaluation data. All clinics were able to track and report the numbers of patients/caregivers screened, but it was difficult for them to collect and report the numbers of patients eligible for screening. Thus, computing the percentage of the eligible target population screened was not feasible. Later in the project, clinic teams did identify a feasible solution of running claims data reports. Claims data provided accurate information on visits to determine patients eligible for screening and was less burdensome than developing manual processes. Over the project course, some clinicians left their clinic and new ones were hired. Consequently, project staff were not able to match a sufficient number of clinician responses over time to knowledge and confidence questions about trauma-informed care which precluded statistical significance testing.

Finally, the project team did not receive any evaluations from the provider-to-provider teleconsults.

Satisfaction surveys after the planning phase and at project end revealed strong team support for facilitation and resources provided. All teams found remote facilitation very useful and affirmed the usefulness of the trauma-informed care site self-assessment, practice guide, screener selection tool, and registry tool. Teams found the community referral resource meetings especially useful according to the surveys. Most clinics found the fifteen-month process to be the right amount of time though one clinic felt the planning phase of nine months was too long. This clinic indicated prior to the project start having strong workflows for screening already in place, thus less time was needed for workflow development. All clinics intended to continue screening for ACEs, and some planned on expanding screening to other clinic providers and/or other clinics in their health care system.

LESSONS LEARNED

Four major themes emerged, including use of a flexible implementation approach, establishing an effective project team, enhancing supports to address clinic needs, and challenges to data collection.

FLEXIBLE IMPLEMENTATION

A flexible implementation approach proved key. The process design did not prescribe a specific screening tool or target population. Each clinic had its own culture, challenges, resources, and needs. By giving clinic teams the freedom to select tools and processes that work for them, it created buy-in and an increased likelihood of sustaining the screening process. For example, clinic teams selected at which visits/ages screening was to be completed which allowed them to target visits with few clinical preventive services scheduled. The advent of the COVID-19 pandemic during the implementation process required project adjustments, such as virtual facilitation and meetings with community referral organizations. The pandemic also impacted clinic recruitment time. As such, we needed to shorten the project period for the Cohort Two clinics from fifteen to twelve months by shortening the planning phase by three months. In addition, the pandemic required clinics to continually modify their screening process. For example, all clinics originally planned to have caregivers/patients complete the screening tool in the waiting room. However, changing office protocols to mitigate virus spread required clinic teams to find alternative ways to administer the screens.

Shifting the facilitation delivery from in-person to virtual worked equally well. This transition did not reduce team participation or contribution at meetings. The virtual format also led to efficiencies such as meetings starting and ending on time which is generally not the case with in-person clinic meetings. Additionally, the virtual format reduced project staff time and travel costs. Finally, the schedule of one-hour, monthly meetings proved the perfect balance of meeting length and frequency. This schedule provided sufficient time for teams and facilitator to review team progress, address barriers, and discern next steps. A monthly schedule provided teams the time needed to complete assigned tasks but not enough time to lose momentum.

EFFECTIVE PROJECT TEAM

Lessons about clinic team composition and functioning were observed. Enlisting a provider champion proved key to securing buy-in and commitment, especially of other providers and clinic leadership. Teams with strong clinic leadership support had an easier time implementing changes such as modifications to electronic health records or changing processes that involved other departments. Teams comprised of members from an array of disciplines at the clinic (e.g., social work/behavioral health, medical, care management) and clinic office functions (e.g., front desk personnel, medical assistants, care coordinators) who “touched” the process executed changes faster and more efficiently.

Addressing individual and team-level self-care practice was beneficial. Stress can greatly impact the effectiveness of a team. The global pandemic exacerbated already high clinic team stress levels due to rapidly shifting office protocols, staffing shortages, and limited capacity of community referral resources. During monthly meeting with teams, resources, and guidance on maintaining team effectiveness by addressing self-care needs were continually revisited.

ENHANCING SUPPORTS PROVIDED

Enhancing available supports proved to be helpful to clinics throughout the QI process. Developing a mechanism to help teams select a screening tool based on criteria important to them, (e.g., number of questions, cost, or previous use in a primary care setting) made the selection process much more effective and efficient by narrowing the number of tools to review. Developing a risk-stratification framework to standardize screening response across providers and clinics was critical to assuring care and data consistency across clinics. As noted previously, providing clinics an Excel-based registry tool standardized data collection across clinics making data aggregation easier. QI tools such as SMART goals, process mapping, plan-do-study-act cycles, and control plans were instrumental to establishing goals, developing workflows, piloting changes, and planning for sustainability. Teams benefitted from using the trauma-informed care site self-assessment tool to evaluate opportunities to enhance their delivery of trauma-informed care. Additionally, from an evaluation perspective, use of the trauma-informed care site self-assessment facilitated looking at change

over time in score. Of note, after completing this QI process, project staff learned of an updated version of the tool that was used. This tool, Organizational Self-Assessment: Adoption of Trauma-Informed Care Approaches in a Primary Care Setting (TIPC-ODA) can be found on the National Council for Behavioral Health website: [here](#).

Clinic teams needed more assistance than anticipated with brokering connections with local referral resources. Project staff planned to coordinate meetings and make introductions, but then let the clinic and the local referral resource engage in discussion by themselves. Based on observation, this approach was altered to have the facilitator moderate the discussion to bridge the connection between patient needs and services available in the community. This observation rang particularly true for referrals resources beyond external behavioral health providers.

Project staff anticipated the need for provider-to-provider consults with trauma and/or psychiatric clinicians about a patient with a significant result. Unexpectedly, few consults were requested. This said, clinic teams did appreciate trainings done by providers/clinics already screening for ACEs.

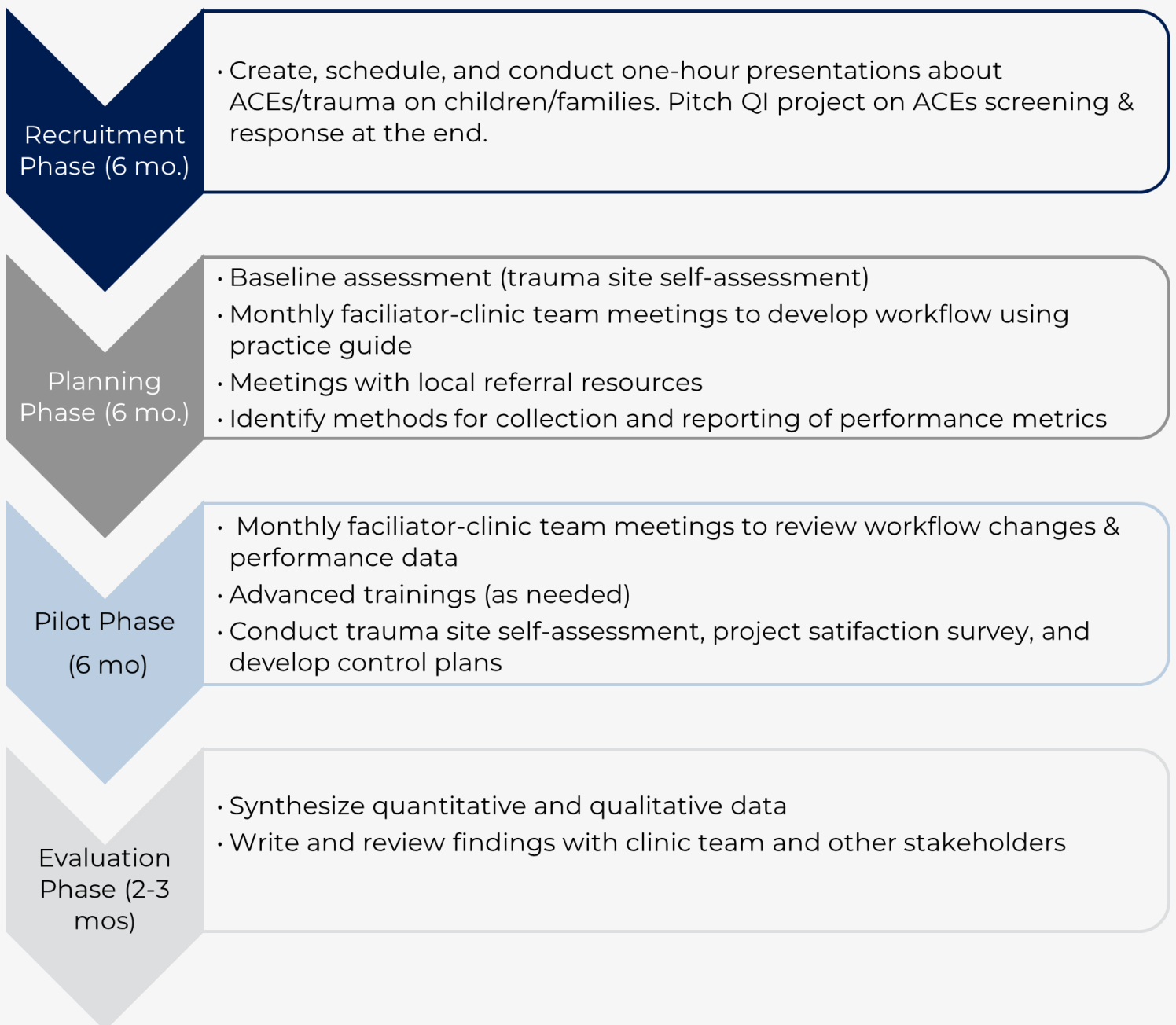
DATA CHALLENGES

Data collection and reporting were observed to be challenges. Starting discussions early into the planning phase about data collection and reporting is paramount. Significant lead time is needed for the clinic team to identify a workable data collection and reporting strategy. For example, use of EHRs to collect and report data can require an extended timeline as IT department queues and approval processes can be long. Using claims data to obtain accurate denominators for computing percent of population screened is recommended. Balancing evaluation measurement with team survey completion fatigue is necessary. As such, making decisions about which evaluation data is “nice” to have versus “needed” holds true. For example, until further refined, holding off on implementing the two-question survey to assess changes in clinic relationship with local referral resources is prudent. Instead, collecting qualitative observations during meetings appears more fruitful. Evaluating clinical consults may be another concession.

UPDATED QI PROJECT IMPLEMENTATION MODEL

Based on the aforementioned experience piloting this QI process, an updated model for replicating this work is provided below. Tools included in report appendices are indicated as well.

Figure 5: Updated ACEs Screening and Response Process

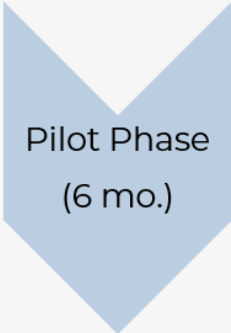




Offering one-hour, on-site, introductory level training about ACEs/trauma followed by a pitch for participation in a QI process worked well for recruiting practices. On-site presentations provided the added benefit of rapport-building with clinic staff. Offering free CMEs and refreshments (when allowed) were also helpful. Developing an online survey for interested clinics to complete a brief readiness assessment (**Appendix A**) proved efficient. Receiving completed practice agreements about roles and responsibilities can be a long process, especially for clinics in large health systems. Project staff may need to meet with multiple system leaders prior to signing the agreement.

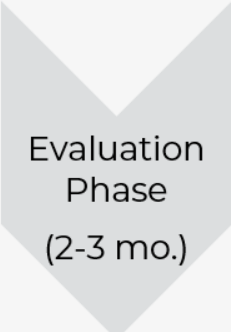


Shortening the planning phase from nine to six months is feasible and will be better received by clinics. At the outset, having clinics complete a trauma informed-care site self-assessment (see Lessons Learned section) is useful to evaluate training/resource needs and changes in trauma-informed care delivery over time. Monthly facilitator-team meetings guided by the steps outlined in the practice guide work well. (A Guide to Trauma-Informed Pediatric Primary Care is available for download on the NH Pediatric Improvement Partnership Website at www.nhPIP.org). Two key process efficiencies are using the risk-stratification framework (**Appendix C**) and the screener selection tool (also on the NHPIP website). The former tool streamlined team decision making about screening response and supports a standardized approach across clinicians and clinics. The latter tool speeds up the screen selection tool process by narrowing down the number of tools to review based on clinic values. Though time-consuming, having project staff arrange and facilitate meetings of the clinic team with key community referral organizations is paramount to ensure the clinic team is aware of available resources to mitigate trauma and build resilience.



Pilot Phase
(6 mo.)

Moving into the pilot phase, continuing with monthly facilitator-team meetings kept momentum for testing their screening workflow. At these meetings, the facilitator and team reviewed 1) results of the plan-do-study-act cycles testing their screening workflow making modifications as needed and 2) current performance metric data as well as troubleshoot any data collection/quality issues. If needed, additional advanced trainings can be done. One month prior to project end, the team should complete the trauma-informed care site self-assessment again. The final facilitator-team meeting should be dedicated to reviewing changes in the site-self assessments and developing control plans to continue and spread the screening process. Creating for each clinic an Excel-based workbook containing the final screening workflow, performance metric summary charts, and control plans is advised. Additionally, a post-pilot survey assessing team satisfaction and perceived impact of the QI process should be fielded.



Evaluation
Phase
(2-3 mo.)

During the final phase, the project team conducts quality assurance of all data collected, analyzes evaluation data, develops a final report/presentation slide deck about the QI process and reviews it with clinics teams prior to public distribution of findings.

APPENDICES

Appendix A

Readiness Assessment

Q1 Do you believe participation in a Quality Improvement initiative on childhood trauma will benefit your patients?

- Yes (1)
 - No (2)
-

Q2 Successful QI projects take multiple levels of support and coordination. Do you think any of the following would be obstacles or barriers to participation in the project?

- Staff time/availability (1)
 - Workflow Processes (2)
 - Data reporting capabilities (3)
 - Patient and family engagement (4)
 - leadership support (5)
 - lack of local referral resources to meet famil/child needs (6)
 - Prioritization of project among other initiatives or changes (7)
 - Other (Please describe) (8) _____
-

Q3 This project will be best implemented by a multi-disciplinary practice team. Knowing this team may still be in development, please list below who would likely serve on the project team:

Project Champion (1) _____

Practice Manager (2) _____

Provider (3) _____

Clinical Support Staff (4) _____

Clerical Support Staff (5) _____

Patient Families (6) _____

Other (7) _____

Q5 Have you ever participated in a measurement-based QI initiative?

Yes (1) _____

No (2)

Q6 Please describe below any additional strengths your organization would bring to participating in a QI project addressing adverse childhood experiences/childhood trauma.

Appendix B

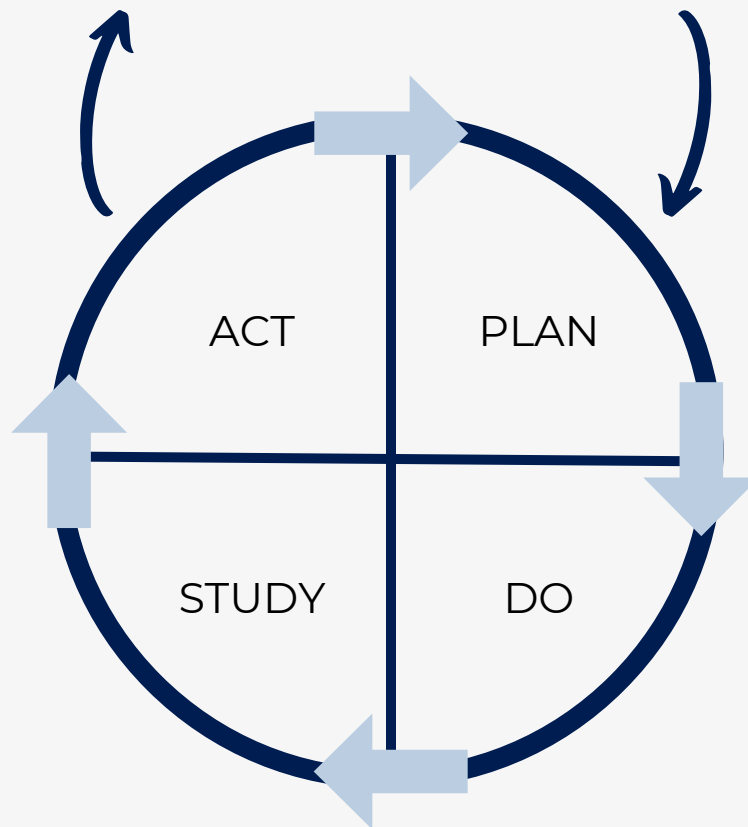
Plan-Do-Study-Act Cycle

MODEL FOR IMPROVEMENT

What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?



Appendix C

Risk Assessment

1. Risk Categorization Classification:

Clinics used the following three-level risk classification system to discern appropriate next steps based on screening results. This risk categorization is rooted in the public health response approach articulated by Garner and Saul in their book *“Thinking Developmentally: Nurturing Wellness in Childhood to Promote Lifelong*

Risk Category	Screening Assessment	Example of Screen Results Meeting This Classification	Follow-Up Action
Low Risk	Screening identifies no concerns for toxic stress OR that sufficient buffers are available to keep toxic stress in check.	Screening identifies no risk factors OR one to three risk factors that are already being addressed effectively by the family	Primary prevention¹ strategies include: <ul style="list-style-type: none"> • anticipatory guidance about toxic stress, • positive parenting techniques, and • promoting family bonding.
Moderate risk	Screening identifies multiple concerns for toxic stress, though child/family is not exhibiting trauma symptoms	Screening identifies one or more risk factors for toxic stress and limited family capacity/resilience to address the risk factor(s).	Above primary prevention activities PLUS Secondary prevention² strategies include: <ul style="list-style-type: none"> • Identifying and addressing barriers (ex. social determinants of health) to families having safe, stable and nurturing relationships (ex. facilitating linkages to food or housing) • Augmenting family coping capacity and resilience (parenting classes, youth mentoring programs, etc.)
High Risk	Screening identifies multiple concerns for toxic stress OR patient/parents are exhibiting/have been diagnosed with trauma symptoms or disease	Screening identifies four or more risk factors for toxic stress OR child/family is currently exhibiting trauma symptoms or has trauma-related diagnosis (regardless of number of risk factors)	Above primary prevention activities PLUS Tertiary prevention³ approaches including: <ul style="list-style-type: none"> • Addressing trauma-related symptoms/conditions (e.g., Trauma-informed Cognitive-Behavioral Therapy) • Rebuilding unhealthy family relationships (e.g., Child-Parent Psychotherapy)

¹ Primary prevention refers to interventions focused on preventing risk factors for toxic stress

² Secondary prevention refers to interventions focused on preventing identified risk factors from leading to toxic stress levels leading to trauma symptoms and diseases.

³ Tertiary prevention refers to interventions focused on mitigating trauma-related symptoms and diseases.

2. Significant Result: Assessment risk score classified as a Medium or High is considered significant result.

3. Proposed Grouping of Screening Rates

- Infant up to age 2
- Preschool (3-5 years)
- Elementary (6-11 years)
- Adolescent (12 to 18 years)

Appendix D

Registry given to clinics included space for child name and date of birth for follow up. Data submitted to researchers omitted Personal Health Information.

Data collection spreadsheet set up:

Pediatric ACES Registry							
Date	Name	DOB	Age Screened	Screener Complete By	Screener Declined	Assessment Risk Score	Significant
1/1/2022			Infant/Toddler	Primary Caregiver	Primary caregiver not present	No/Low Risk	Yes
1/1/2022			Preschool	Other	Not enough time	Moderate Risk	No
1/1/2022			Elementary Age	Child	Caregiver not interested	High Risk	
1/2/2022			Adolescent/Teen		Other	Unknown Risk	
1/2/2022			Other				

Cont. referral data collected:

	cont. Pediatric ACES Registry (referrals)		Optional	
	Referral Initiated	Referred To	Date Referral Initiated	Date Referral Followed up
	Yes - To external resources	Youth Mentoring Program		
	Yes - To internal resources	Home Visiting Program		
	Yes - Already linked to resources	Youth Mentoring Program		
	No - Resources declined	External Behavioral Health Services		
	No - Documented referral	Non-Behavioral Health Therapy		
		Psychiatric Services		

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