SIM Child Psychiatric Access Project

Evaluation Plan

Vendor:
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Prepared by:
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INTRODUCTION

Over a 12 month period, the prevalence of any childhood behavioral health condition is 13.1%. These conditions include attention deficit disorder, major depression, anxiety, as well as mood, thought and conduct disorders. In Rhode Island, the need for pediatric behavioral health services is significant, and meeting the demand is challenging.

The nation currently struggles with a shortage of child psychiatrists, which is a barrier to improving childhood behavioral health. This workforce shortage prevents many children and adolescents with behavioral health issues from getting timely, high quality care. This is challenging for pediatric primary care practitioners (e.g. pediatricians, family medicine physicians who treat children and pediatric nurse practitioners). These practitioners often accept responsibility, albeit reluctantly, for the mental health care of their young patients due to limited access to psychiatric referral options, which includes prescribing of psychiatric medications. Pediatric primary care practitioners express significant concerns about assuming this treatment responsibility, given limited training in psychiatry.

The Child Psychiatric Access Project is a system change initiative in Rhode Island that aligns with the guiding principles of the state's SIM Operational Plan and Population Health Plan. In support of improved health for all Rhode Islanders, both the SIM Operational Plan and Population Health Plan seek to:

1. Make investments that better integrate behavioral health and physical health
2. Change the focus of the health care payment system toward value and less on volume
3. Increase use of data to provide feedback to policy makers, providers and consumers about quality of care, outcomes, costs/benefits of specific health care interventions
4. Address the social and environmental determinants that affect the overall health of individuals
5. Empower consumers, both individuals and families, to assume greater control and choice over their own health care
6. Support health care providers who are embarking on practice transformations that emphasize value over volume and providing services in the least restrictive settings possible (such as community based versus hospital interventions)
7. Identify and address disparities in health outcomes across various population groups or communities

Evaluation Goals

The goal of this evaluation is to assist the RI SIM project in determining if the following project goals are achieved:

1. Increased availability of mental health care for children and adolescents by introducing psychiatric consultation services into the scope of primary care practices.
2. Creation of a strong primary care/specialist mentoring relationship between primary care practitioners and child psychiatrists.
3. Promotion of the rational use of scare specialty resources for the most complex and high risk children and adolescents.
4. Alignment and integration with RI SIM Grant Operational Plan and Population Health Plan
5. Collection of data to track key indicators, including, but not limited to
a. type and amount of services provided  
b. number of children and adolescents served and their psychiatric diagnoses  
c. number of pediatric primary care practitioners accessing the program's services

**Overarching Evaluation Planning**

The RI State Evaluation Team has the primary responsibility for overarching evaluation planning. This report will outline a comprehensive evaluation plan for the Rhode Island SIM Child Psych. Access Project. The evaluation plan will result in a continuous process for identifying areas of improvement through program evaluation and recommendations of solutions to implement. Using the *Centers for Disease Control and Prevention (CDC)* Framework for Program Evaluation in Public Health as a foundation, evaluation planning will include:

- Engaging stakeholders;
- Describing the program as depicted by the Rhode Island SIM Operational Plan and additional procurement documents;
- Focusing the evaluation design to align with SIM-outlined goals and metrics, Steering Committee areas of interest, and return on investment study need;
- Gathering credible evidence using existing defined measures, available and/or improved data collection, and methods to address other identified gaps/needs;
- Justifying conclusions on an ongoing and annual basis using findings from mixed methods evaluation, qualitative and quantitative analysis, and other anecdotal evidence;
- Ensuring usefulness of findings and sharing lessons learned with internal and external partners.

As depicted in the figure, proper evaluation follows a meaningful, dynamic and recursive process. Applying methodological rigor at each step of the process, the RI State Evaluation Team will ensure that the SIM Steering Committee and appropriate stakeholders are receiving accurate, usable information upon which to base decision impacting program management and sustainability.

**Step 1: Engage Stakeholders**

Stakeholder engagement is the first step in the cyclical evaluation process. The persons who will be implementing or affected by the strategies defined are the stakeholders. Obtaining input from stakeholders in the development of this evaluation plan remains critical. Stakeholders also help to ensure that we are asking the right questions, collecting the right data, and using our evaluation results effectively. For the purposes of the RI State Evaluation, there are three primary groups which will be consulted with and engaged throughout the process.
1) **Those Involved in Program Operations:** Persons or organizations involved in program operations have a stake in how evaluation activities are conducted because the program might be altered as a result of what is learned. A major stakeholder group which will be engaged in the process are the program specific vendors. Those vendors will be integral in setting the evaluation agenda for their programs and providing evaluation data. The evaluation team will read the procurement documents and have regular conversations with vendors for which they responsible for conducting more in-depth evaluation.

2) **Those Served or Affected by the Program:** Persons or organizations affected by the program, either directly (e.g., by receiving services) or indirectly (e.g., by benefitting from enhanced community assets), will be identified and engaged in the evaluation to the extent possible. In the context of the SIM program evaluation this can include providers, clients, patients, and others in the health care system. Given the mixed-methods approach to be utilized, these individuals and groups will be vital to gathering credible evidence upon which to base conclusions.

3) **Primary Users of the Evaluation:** Primary users of the evaluation are the specific persons who are in a position to do or decide something regarding the program. In practice, primary users will be a subset of all stakeholders identified. For the purposes of the RI SIM evaluation, the primary users of the evaluation will be the SIM leadership team and the program specific vendors. The SIM leadership will be involved in designing and conducting the evaluation. There will be monthly check-ins with the primary staff and scheduled reports.

In the context of the evaluation of the Child Psych. Access program the following stakeholders have been identified:
Table 1. Stakeholders and role in evaluation of Child Psych. Access Program

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Interests/perspectives</th>
<th>Role in the evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bradley Hospital</td>
<td>Vendor – involved in program operations</td>
<td>Evaluation team will consult with vendor, read scope of work and operational plan to understand project goals and objectives,</td>
</tr>
<tr>
<td>SIM Interagency Team/Ann Detrick</td>
<td>Involved in program operations</td>
<td>Evaluation team will read vendor contract to understand deliverables and objectives. Will share draft evaluation plan for feedback/revision.</td>
</tr>
<tr>
<td>Children and families receiving services</td>
<td>Those served and affected by the program</td>
<td>Will provide data for analysis in evaluation plan – potential for both quantitative and qualitative data collection to address key evaluation questions.</td>
</tr>
<tr>
<td>Pediatric Medical Providers &amp; Systems</td>
<td>Those served and affected by the program</td>
<td>Will provide data for analysis in evaluation plan – potential for both quantitative and qualitative data collection to address key evaluation questions.</td>
</tr>
<tr>
<td>SIM Steering Committee/ Marti Rosenberg</td>
<td>Primary user of evaluation</td>
<td>Will receive draft evaluation plan to allow for modification. Will be recipient of evaluation reports.</td>
</tr>
<tr>
<td>SIM Interagency Planning Team/ Ann Detrick</td>
<td>Primary user of evaluation</td>
<td>Will receive draft evaluation plan to allow for modification. Will be recipient of evaluation reports.</td>
</tr>
<tr>
<td>Bradley Hospital</td>
<td>Primary user of evaluation</td>
<td>Will receive draft evaluation plan to allow for modification. Will be recipient of evaluation reports.</td>
</tr>
</tbody>
</table>
Step 2: Describe the Program

Program descriptions will be used to convey the mission and objectives of the program being evaluated. This will frame the program goals and strategies in order to begin to focus the primary evaluation questions. The RI State Evaluation Team will have access to the SIM Operational Plan, vendor contractors and the ability to engage stakeholder groups to create a deep understanding of the programs. Program descriptions will include discussion of need, expected effects, activities, resources, stage of development, context, and the logic model.

Need. A statement of need describes the problem or opportunity that the program addresses and implies how the program will respond:

Over a 12 month period, the prevalence of any childhood behavioral health condition is 13.1%. These conditions include attention deficit disorder, major depression, anxiety, as well as mood, thought and conduct disorders. In Rhode Island, the need for pediatric behavioral health services is significant, and meeting the demand is challenging.

The nation currently struggles with a shortage of child psychiatrists, which is a barrier to improving childhood behavioral health. This workforce shortage prevents many children and adolescents with behavioral health issues from getting timely, high quality care. This is challenging for pediatric primary care practitioners (e.g. pediatricians, family medicine physicians who treat children and pediatric nurse practitioners). These practitioners often accept responsibility, albeit reluctantly, for the mental health care of their young patients due to limited access to psychiatric referral options, which includes prescribing of psychiatric medications. Pediatric primary care practitioners express significant concerns about assuming this treatment responsibility, given limited training in psychiatry.

The program will target any child or adolescent in Rhode Island who presents to a pediatric primary care practitioner with evidence of a possible, or likely, mental health disorders is eligible for the psychiatric consultation service. The point of entry is a pediatric primary care practice location.

The Child Psychiatric Access Project is a system change initiative in Rhode Island that aligns with the guiding principles of the state’s SIM Operational Plan and Population Health Plan.

Expected Effects. Descriptions of expectations convey what the program must accomplish to be considered successful over a specified period of time:

After reviewing the program contract and discussions with appropriate stakeholders including with the vendor and SIM staff; the primary expected effects of the program are to:

1. Increased availability of mental health care for children and adolescents by introducing psychiatric consultation services into the scope of primary care practices.
2. Creation of a strong primary care/specialist mentoring relationship between primary care practitioners and child psychiatrics.
3. Promotion of the rational use of scare specialty resources for the most complex and high risk children and adolescents.

Stage of Development. During the RI State Evaluation, the programs will be evaluated over different stages of development. The primary focus of our evaluation will be during implementation and outcome stages. During implementation, program activities are being
field-tested and modified; the goal of evaluation is to characterize real, as opposed to ideal, program activities and to improve operations, perhaps by revising plans. During the last stage, enough time has passed for the program’s effects to emerge; the goal of evaluation is to identify and account for both intended and unintended effects.

At this initial point, the program has been procured and is in its initial implementation stage as it began taking patient calls December 15, 2016.

**Context.** Descriptions of the program’s context should include the setting and environmental influences (e.g., history, geography, politics, social and economic conditions, and efforts of related or competing organizations) within which the program operates. The primary context of interest is an understanding of the broader, related SIM activities as well as national health policy changes which might impact program goals and delivery.

Bradley Hospital's Child Psychiatric Access Project will be embedded in the organization’s Pediatric Referral Consultation Clinic (PERC) which supports better integration of psychiatry in the scope of pediatric practice. This program has existing capacity to assist nine pediatrician primary care practices. Current services include prompt consultations, including recommendations for prescribing of medications; face to face psychiatric evaluations, as needed, with return to the treating primary care practitioner for ongoing medication management following stabilization; phone availability for ongoing collaborations; and referral to other mental health services and programs, based on the needs of the child/adolescent.

**Resources.** Resources include the time, talent, technology, equipment, information, money, and other assets available to conduct program activities. The ROI and economic evaluations will require an understanding of all direct and indirect program inputs and costs.

The primary resource being utilized will be staff positions at Bradley Hospital to coordinate and provide the necessary services. This will include 1.0 FTE Board Certified Child Psychiatrist, .5 FTE LICSW/LMHC, and .5 FTE Care Coordinator with the following responsibilities.

**Child and Adolescent Psychiatrist: 1.0 FTE**
1) Telephonic consultations with pediatric primary care practitioners
2) Face to face evaluations of children and adolescents for diagnostic clarifications and pharmacological consults
3) Face to face brief treatment of children and adolescents, when deemed clinically appropriate
4) Involvement in outreach, education and training activities for pediatric primary care practitioners
5) Involvement in community engagement activities to build a stronger referral network in the community.
6) Participation in information sharing and relationship building on behalf of Bradley Hospital with key SIM initiatives focused on integration of behavioral and physical health care (e.g., PCMH-Kids).

**LICSW/LMHC: .5 FTE**
1) Face to face evaluations
2) Telephonic support to children and families
3) Identification of specific therapy needs and making referrals
4) Provision of interim care for families
5) Involvement in outreach, education and training activities for pediatric primary care practitioners
6) Involvement in community engagement activities to build a stronger referral network in the community

_Care Coordinator: .5 FTE_
1) Scheduling for face to face appointments (brief intake over the phone)
2) Chart preparation/insurance verification/billing and coding
3) Faxing reports to pediatric primary care practitioners and outside agencies as needed
4) Data collection.

**Activities.** Specific program activities descriptions demonstrate how each program activity relates to another and clarifies the program’s hypothesized mechanism or theory of change. Also, program activity descriptions should distinguish the activities that are the direct responsibility of the program from those that are conducted by related programs or partners.

The program will operate during normal business hours (8:30 AM to 5PM), exclusive of Saturdays and Sundays. If a child/adolescent patient of a pediatric primary care practitioner is experiencing a mental health crisis after normal business hours, the practitioner will access the Bradley Hospital/Hasbro Children’s Hospital emergency access pathway.

The program has at its core the following elements:

**Initial Elements:**
1. **Staff recruitment**
   The staff will include: 1.0 FTE Board Certified Child Psychiatrist; .5 FTE LICSW/LMHC; and .5 FTE Care Coordinator.

2. **Enrollment of Pediatric Primary Care Practitioners/Practices:**
   The process of enrolling practitioners/practices into the program will emphasize outreach and relationship building with community providers throughout the state. This may include visits to pediatric primary care practitioners’ offices to introduce Bradley’s new program staff and to provide written protocols about services including emergency on-call procedures. After the initial enrollment phase, Bradley staff will reach out to pediatric primary care practices that have not used their services in the prior quarter.

3. **Training and Mentoring of Pediatric Primary Care Practitioners/Practices**
   As the Child Psychiatric Access Project introduces program protocols, there will be a focus on creating a culture of empowerment of pediatric primary care practitioners. The Bradley psychiatrist generally will not write prescriptions; instead, the psychiatrist will work with the pediatric primary care practitioner who does the prescribing.

4. **Orientation of Practitioners/Practices to Data Collection and Reporting Requirements**
   Generally, the pediatric primary care practitioner or practice will use its own medical information system for case files and for building its own set of referral information. The Bradley staff will be responsible for collecting and reporting data necessary for program evaluation.

**Outputs/services:**
1. Psychiatric Telephone Consultation: The psychiatrist for the program provides telephonic consultation with a pediatric primary care practitioner in response to his/her diagnostic or therapeutic question. These phone calls will be returned within 30 minutes after the request for assistance is made. The psychiatrist may recommend that the practitioner prescribe a particular medication and dosage to address the needs of the child or adolescent. The psychiatrist will also recommend protocols to practitioners regarding the frequency of face to face contact with children and adolescents who have been prescribed psychiatric medications in order to assure safe, appropriate management of their care.

2. Psychiatrist or Clinical Nurse Specialist Face to Face Evaluation: The psychiatrist for the program, another PERC child psychiatrist or clinical nurse specialist may conduct a face to face evaluation of the child/adolescent and, if needed, provide brief treatment on a transitional basis, pending return to the pediatric primary care practitioner for ongoing treatment or pending referral to services by a specialty mental health referral source. (Note that the psychiatrist for the program can perform other work during the coverage period, provided that he/she responds to phone calls within 30 minutes of a request).

3. Social Work and Care Coordination: The Social Worker will provide, as needed, face to face evaluations, brief treatments and family support to stabilize the child or adolescent. The Social Worker, with the assistant of the Care Coordinator, will assure that the family accesses ongoing behavioral health services, as needed. This may include referral for ongoing mental health counseling or other interventions by non-psychiatrist clinical staff at Bradley or other community organizations. At all times, community versus inpatient treatment will be the goal for children and adolescents with behavioral health conditions. Inpatient services will only be considered when a child or adolescent's condition represents a clear and present danger to his/her own safety and/or that of others. As is customary, Bradley Hospital will coordinate with public and private insurers regarding availability of coverage for any extended services which a child or adolescent is assessed to need.

4. Community engagement: Through this project, Bradley Hospital will take steps to build a stronger referral network through ongoing outreach to, and dialogue with, referral partners in local communities. These outreach activities will also provide opportunities for information sharing, relationship building and collaboration between Bradley, a recognized leader in the child and adolescent mental health field, and other community organizations which serve or advocate for children (e.g., Community Health Teams, Community Mental Health Centers, etc.). Community engagement activities will include regular participation with an identified group of stakeholders and pediatric leaders who are championing another Rhode Island SIM initiative, Primary Care Medical Homes (PCMH-Kids). PCMH-Kids represents nine primary care practices in Rhode Island, serving children, adolescents and families. These nine practices are receiving support to increase the quality of their medical services through supplemental payments and on-site, distance and collaborative learning and coaching services.

5. Training, mentoring and education sessions: During the start-up phase of the program, as Bradley Hospital enrolls and orients pediatric primary care practitioners into the program, Bradley will conduct a needs assessment. This will include a survey sent to practitioners to get input on their areas of interest and preferred methods of learning about behavioral health conditions and treatments. Bradley will then foster training opportunities for these practitioners. These training opportunities might include:
• Collaboration with Bradley Pediatrics Department on inclusion of behavioral health topics in regular pediatric grand round sessions;
• Periodic presentations to practitioners in their respective trade associations (e.g., Rhode Island Pediatric Society, Family Practice Association);
• Listserv (electronic mailing distributions) with updates in the field of child and adolescent behavioral health;
• Invitations to the Bradley Conference lecture series (with Continuing Medical Education credits) that Bradley Hospital sponsors annually. Among upcoming trainings for the next year are sessions on eating disorders and substance abuse. Bradley Hospital will maintain documentation of the training opportunities offered to the pediatric primary care practitioners participating in the program.

**Broad Outcomes:**
Through the expansion of the existing PERC services for additional pediatric practices, Bradley expects to have:
1. Cumulative number of pediatric primary care practices participating in the program: 100
2. Cumulative number of pediatric primary care practices enrolled in the program: 240
3. Cumulative number of patients attributed to practices participating in the program:
   240,000 estimated, which represents approximately 1,000 patients for each pediatric practice
4. Patients served under child psychiatry access program: 2,500

The projected break-out by type of encounters is:
1. 40% telephone consultations
2. 29% care coordination, community engagement and referrals to community based-mental health providers for further mental health evaluation and services, as needed
3. 11% face to face psychiatric evaluation
4. 10% phone discussion with parents/family
5. 3% face to face follow-up visit with children/adolescents and families, if appropriate.
**Logic Model.** A logic model describes the sequence of events for bringing about change by synthesizing the main program elements into a picture of how the program is supposed to work. A logic model will be created which identifies and assumptions concerning conditions for program effectiveness and provides a frame of reference for the evaluation of the program.

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**Child Psych Access Program will...** Maximize & support team-based care Better integrate behavioral health into primary care

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**Evaluation will...** Explore ROI – does the program keep children out of less restrictive setting?

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**Data will support...** Children are cared for in their PCP’s offices rather than in EDs or hospitals. PCPs who are more confident in their ability to treat children with behavioral health issues. More integration between physical and behavioral health in PCP offices.
**Step 3: Focus the Evaluation Design**

Designing an evaluation process that allows for making interim adjustments to programmatic direction, improving the way interventions are implemented, and providing iterative evidence to stakeholders on program success is critical. According to the Centers for Medicare and Medicaid Services (CMS), program evaluation for SIM must include regular, quantifiable measurement of model impact.

**Overall Purpose:**

The goal of this evaluation is to assist the RI SIM project in determining if the following project goals are achieved:

1. Increased availability of mental health care for children and adolescents by introducing psychiatric consultation services into the scope of primary care practices.
2. Creation of a strong primary care/specialist mentoring relationship between primary care practitioners and child psychiatrists.
3. Promotion of the rational use of scarce specialty resources for the most complex and high-risk children and adolescents.
4. Alignment and integration with RI SIM Grant Operational Plan and Population Health Plan.
5. Collection of data to track key indicators, including, but not limited to:
   a. type and amount of services provided
   b. number of children and adolescents served and their psychiatric diagnoses
   c. number of pediatric primary care practitioners access the program's services

**Evaluation Questions**

The following overarching evaluation questions guide the evaluation of the SIM effort:

- Showcase how the model being used work;
- Determine what related activities most support success;
- Evaluate return on investment within the behavioral health and primary care system; and
- Quantify overall performance, including system, process, and population health outcome measurements.

The table below lists the overarching evaluation questions and their related sub-questions to be utilized as the focus of the evaluation.

**Table 2. Fundamental evaluation questions for Child Psych Access Program**

<table>
<thead>
<tr>
<th>Evaluation Question</th>
<th>Specific sub-questions</th>
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<tbody>
<tr>
<td><strong>Showcase how the model being used is working</strong></td>
<td>1. How many practices have access to services?</td>
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<td></td>
<td>2. How many practitioners have access to services?</td>
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<tr>
<td></td>
<td>3. How many patients have access to consultation?</td>
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<td>4. When are they primarily contacted for consultation (to assess future staffing needs)?</td>
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<td></td>
<td>5. How quick is the follow-up?</td>
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<td>6. How many training sessions of each type have been conducted in practitioner settings?</td>
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<td></td>
<td>7. What types of outreach efforts have been utilized</td>
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</table>
to strengthen referral network by working with PCHM-Kids?

| Determine what related activities most support success | 1. What forms of outreach were utilized to enroll practices and practitioners?  
2. What is the practitioner satisfaction with services?  
3. What is practitioner satisfaction with training sessions?  
4. What is the confidence of PCPs to treat children with behavioral health issues following training sessions? |
| --- | --- |
| Evaluate return on investment | 1. How many patients who received consultation were subsequently admitted for care?  
2. What is the cost per consultation?  
3. What is the estimated number of clients diverted from in-patient services?  
4. Payer source for all patients served  
5. Type and volume of service provided |
| Quantify overall performance, including system, process and population health outcomes | 1. % telephone consultations  
2. % care coordination, community engagement and referrals to community-based mental health providers for further mental health evaluation and services as needed  
3. % face to face psychiatric evaluation  
4. % phone discussion with parents/family  
5. % face to face follow up visit with children/adolescents and families if appropriate  
6. Break out of patients served by age and gender, and where volunteered, race and ethnicity  
7. Break out of patient diagnoses including but not limited to depression, anxiety and substance abuse  
8. Number of patients with two or more diagnoses  
9. Number of patients reporting contemplation of suicide  
10. Number of youth reporting attempted suicide  
11. Number of patients prescribed medication, including those prescribed one, two or three medications |
Step 4: Gather Credible Evidence
The RI State Evaluation Team will be gathering data to address the key evaluation questions from a variety of sources, utilizing a variety of methods. The evaluation team will collect their own data using survey methods, semi-structured interviews, and other appropriate means. Analyses related to program specific evaluation will require access to reporting from the vendors and the SIM Core Staff will ensure the evaluation team has appropriate access to the data. Some analyses will use existing data sets and/or access to new common datasets being developed and supported by the SIM program such as the All Payer Claims Database.

The RI State Evaluation Team will continue to work with the SIM staff to ensure appropriate measures and practices are being implemented to address the Driver Diagram components.

Data Collection
We will be using several data collection methods, including both qualitative and quantitative methods, for our SIM evaluation. Using multiple procedures for gathering, analyzing, and interpreting data, the evaluation will gain greater credibility and provide a clearer picture of the program. We will make modifications as needed to account for the evolving nature of the program. Although we are adopting a mixed methods general approach, there will be many evaluation questions in program specific evaluations that will at least, initially, rely primarily on a single method of data collection, whether that be quantitative or qualitative. As the results are analyzed and interpreted in later steps, there is the possibility to incorporate mixed methods approaches to gain a deeper understanding of the question, its implications, and potential solutions.

The term “mixed methods” refers to research that advances the systematic integration of quantitative and qualitative data within a single investigation or sustained program of inquiry. The basic premise of this methodology is that such integration permits a more complete and synergistic utilization of data than do separate quantitative and qualitative data collection and analysis.

Applying a mixed methods approach has several advantages, such as:

**Compares quantitative and qualitative data.** Mixed methods are especially useful in understanding contradictions between quantitative results and qualitative findings.

**Reflects participants’ point of view.** Mixed methods give a voice to participants and ensure that study findings are grounded in participants’ experiences.

**Provides methodological flexibility.** Mixed methods have great flexibility and are adaptable to many study designs, such as observational studies and randomized

The core characteristics of a well-designed mixed methods research included in our evaluation strategy involves the following:

1. Collecting and analyzing both quantitative (closed-ended) and qualitative (open-ended) data.
2. Using rigorous procedures in collecting and analyzing data.
3. Integrating the data during data collection, analysis, or discussion.
4. Using procedures that implement qualitative and quantitative components either concurrently or sequentially, with the same sample or with different samples.
trials, to elucidate more information than can be obtained in only quantitative research.

Collects rich, comprehensive data. Mixed methods also mirror the way individuals naturally collect information—by integrating quantitative and qualitative data. For example, sports stories frequently integrate quantitative data (scores or number of errors) with qualitative data (descriptions and images of highlights) to provide a more complete story than either method would alone.

Uses of Mixed Methods Research Designs

The program specific evaluation plans will utilize mixed methods approaches of several designs in order to strategically use appropriate data collection methodologies to address unique evaluation questions. The approach taken will be determined by the essential question being asked in the program specification evaluation. The use of a flexible, agile mixed methods approach will allow the RI State Evaluation Team to help identify, explore, and offer solution for root cause issues limited the reach and efficacy, and therefore the impact of the SIM grant.

Validate findings using quantitative and qualitative data sources. Evaluators will use a convergent design to compare findings from qualitative and quantitative data sources. It involves collecting both types of data at roughly the same time; assessing information using parallel constructs for both types of data; separately analyzing both types of data; and comparing results through procedures such as a side-by-side comparison in a discussion, transforming the qualitative data set into quantitative scores, or jointly displaying both forms of data. For example, the evaluation team will gather qualitative data to assess the personal experiences and program satisfaction while also gathering data from survey instruments measuring satisfaction. The two types of data can provide validation for each other and also create a solid foundation for drawing conclusions about the programs.

Use qualitative data to explore quantitative findings. This explanatory sequential design typically involves two phases: (1) an initial quantitative instrument phase, followed by (2) a qualitative data collection phase, in which the qualitative phase builds directly on the results from the quantitative phase. In this way, the quantitative results are explained in more detail through the qualitative data. For example, findings from instrument data about provider programmatic adoption rates can be explored further with qualitative focus groups to better understand how the personal experiences of individuals match up to the instrument results. This kind of study illustrates the use of mixed methods to explain qualitatively how the quantitative mechanisms might work.

Develop survey instruments for quantitative assessment. Yet another mixed methods study design could support the development of appropriate quantitative instruments that
provide valid measures to address SIM related questions. This *exploratory sequential design* involves first collecting qualitative exploratory data, analyzing the information, and using the findings to develop a psychometric instrument well adapted to the sample under study. This instrument is then, in turn, administered to a sample of a population. For example, a study could begin with a qualitative exploration through interviews with primary care providers to assess what constructs should be measured to best understand improved quality of care. From this exploration, an instrument could be developed using rigorous scale development procedures that is then tested with a sample. In this way, researchers can use a mixed methods approach to develop and test a psychometric instrument that improves on existing measures.

The following table outlines the specific evaluation questions derived above and indicates the potential data source to be utilized in the evaluation. It needs to be clear that these are initial questions and based upon the mixed-methods designs are described above, the data could be used in convergent, explanatory, and sequential designs which would necessitate follow-up data sources, questions, and methods.

### Table 3. Primary initial evaluation questions and relevant data sources.

<table>
<thead>
<tr>
<th>Evaluation Question</th>
<th>Specific sub-questions</th>
<th>Data Source (Quarterly)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Showcase how the model being used is working</strong></td>
<td>1. How many practices have access to services?</td>
<td>1. Vendor – Quant.</td>
</tr>
<tr>
<td></td>
<td>2. How many practitioners have access to services?</td>
<td>2. Vendor – Quant.</td>
</tr>
<tr>
<td></td>
<td>3. How many patients have received consultation?</td>
<td>3. Vendor – Quant.</td>
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<td></td>
<td>4. When are they primarily contacted for consultation (to assess future staffing needs)?</td>
<td>4. RI State eval team coordination with vendor – Quant.</td>
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<tr>
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<td>5. How quick is the follow-up and when are there issues not hitting 30 minute target?</td>
<td>5. RI State eval team coordination with vendor – Quant.</td>
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<td>6. How many training sessions of each type have been conducted in practitioner settings?</td>
<td>6. RI State eval team coordination with vendor – Quant.</td>
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<tr>
<td></td>
<td>7. What types of outreach efforts have been utilized to strengthen referral network by working with PCHM-Kids?</td>
<td>7. RI State eval team coordination with vendor – Quant.</td>
</tr>
<tr>
<td><strong>Determine what related activities most support success</strong></td>
<td>8. What forms of outreach were utilized to enroll practices and practitioners?</td>
<td>8. RI State eval team coordination with vendor – Mixed</td>
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<tr>
<td></td>
<td>9. What is the practitioner satisfaction with services?</td>
<td>9. RI State eval team coordination with vendor – Mixed</td>
</tr>
<tr>
<td></td>
<td>10. What is practitioner satisfaction</td>
<td>10. RI State eval team coordination with vendor – Mixed</td>
</tr>
<tr>
<td><strong>Evaluate return on investment</strong></td>
<td><strong>Quantify overall performance, including system, process and population health outcomes</strong></td>
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<tr>
<td>11. What is the confidence of PCPs to treat children with behavioral health issues following training sessions?</td>
<td>17. % telephone consultations 18. % care coordination, community engagement and referrals to community-based mental health providers for further mental health evaluation and services as needed 19. % face to face psychiatric evaluation 20. % phone discussion with parents/family 21. % face to face follow up visit with children/adolescents and families if appropriate 22. Break out of patients served by age and gender, and where volunteered, race and ethnicity 23. Break out of patient diagnoses including but not limited to depression, anxiety and substance abuse 24. Number of patients with two or more diagnoses 25. Number of patients reporting contemplation of suicide 26. Number of youth reporting attempted suicide 27. Number of patients prescribed medication, including those prescribed one, two or three medications</td>
<td></td>
</tr>
<tr>
<td>14. What is the estimated number of clients diverted from in-patient services?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Payer source for all patients served</td>
<td></td>
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</tr>
</tbody>
</table>
**Step 5: Justify Conclusions**

The RI State Evaluation Team will use appropriate analytic techniques based upon the mixed-methods design to analysis and interpret the data being collected and collated. Given that the evaluation framework is a cyclical process, it is imperative that data is analyzed in a timely manner to allow for rapid interpretation and actionable outcomes.

Depending upon the evaluation question and its subsequent mixed-methods design, analyses will include basic count and descriptive data, thematic qualitative interpretation, ROI analyses, relational tests, and other appropriate techniques.

Justifying conclusions will be conducted through use of standards, analysis and synthesis, interpretation, judgment, and recommendations. This will form the structure and basis of the written reports for the SIM leadership and Vendor.

**Standards.** Using explicit standards distinguishes evaluation from other approaches to strategic management in which priorities are set without reference to explicit values. These standards will have been identified for each specific evaluation project and contextualized with appropriate metrics.

In the context of the Child Psych Access evaluation, there are stated goals of:

1. Cumulative number of pediatric primary care practices participating in the program: 100
2. Cumulative number of pediatric primary care practices enrolled in the program: 240
3. Cumulative number of patients attributed to practices participating in the program: 240,000 estimated, which represents approximately 1,000 patients for each pediatric practice
4. Patients served under child psychiatry access program: 2,500

The RI State Evaluation Team will continue to work with the stakeholders to identify appropriate targets and standards for its analysis.

**Analysis and Synthesis.** Analysis and synthesis of an evaluation’s findings might detect patterns in evidence, either by isolating important findings (analysis) or by combining sources of information to reach a larger understanding (synthesis). Mixed method evaluations as described above will require the separate analysis of each evidence element and a synthesis of all sources for examining patterns of agreement, convergence, or complexity.

**Interpretation.** Interpretation is the effort of figuring out what the findings mean by drawing on information and perspectives that stakeholders bring to the evaluation inquiry. The results of the analyses will be interpreted by the RI State Evaluation Team to determine their practical significance.

**Judgments.** Judgments are formed by comparing the findings and interpretations regarding the program against one or more selected standards. In this evaluation format, the standards will have been created and vetted by the broader SIM leadership as reflected in their driver diagram and metrics set.

**Recommendations.** Recommendations are actions for consideration resulting from the evaluation. Recommendations for continuing, expanding, redesigning, or terminating a
program are separate from judgments regarding a program's effectiveness. Draft recommendations will be shared with the stakeholders (SIM leadership and appropriate vendors) prior to finalizing them.

**Step 6: Ensure Use and Share Lessons Learned**

The RI State Evaluation Team is committed to providing regular updates both informally and formally to the SIM leadership and staff. These updates and reports will summarize the evaluation questions, data collection methodology and data sources, as well as in analytic outcomes and their interpretation. The reports and data stories will be built so that the SIM leadership and program specific vendors will be able to quick assess current program status related to objectives, identify any gaps and specify root causes in order to inform appropriate next steps. The reports will be delivered on a rotating, quarterly basis such that each of the program specific model evaluations will have a more detailed report on an annual basis. There will also be a summative annual report that discuss the broad range evaluation efforts and insights into the overarching evaluation questions.

Data will be collected by the RI State Evaluation Team on an on-going, as needed basis as well as quarterly from the vendor and SIM staff. This data will be used to present quarterly data snapshots to the vendor and SIM staff and to develop a more comprehensive annual report using the template as described above. This structure will facilitate quality improvement efforts as well as strategic investment and sustainability questions.

**Quarterly Data Snapshots:**

- July 1, 2017
- October 1, 2017
- January 1, 2018
- July 1, 2018
- October 1, 2018
- January 1, 2019

**Annual Report:**

- April 1, 2018
- April 1, 2019