Illinois Children's Healthcare Foundation

Illinois Children's Healthcare Foundation, Children's Mental Health Initiative (CHMI)

Evaluation Report – Due April 30, 2014

Introduction

The CMHI is an ambitious initiative and we are grateful for the work each community is doing to accomplish its goals. A primary goal is to learn as much as we can about how together we are affecting positive change in the lives of children and their families across the State of Illinois. Another significant focus is sustainability – how can we make sure that this important work continues to be done once the Foundation has completed its funding? Ongoing support from those outside of the Foundation will likely be driven by the ability of each community to prove, through outcome measures, a significant impact as a result of the work being done. This report will serve as a foundation for the May 13 – 14 Evaluator's Meeting. One purpose of this report is provide data which will inform the evaluation process at the cross-site level in the monitoring years and inform the local evaluation for the remainder of the grant period and beyond. The number of hours each community is spending gathering, processing and reporting data will be part of the equation as we look at the cost benefit analysis for both the cross-site and local evaluations and discuss with you what are the most meaningful and useful measures for both the Foundation and the communities going forward. Thank you for your time and efforts. We look forward to reading your report.

Project Name: Springfield MOSAIC

County(s) or City Served: Springfield, IL

Legal Name of Lead Agency: Mental Health Centers of Central Illinois

Project Director Name: Melissa Stalets

Local Evaluator Information

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If you have more than one local evaluator please provide the contact information below for each evaluator in the same format as set forth above

Community Demographics

Age Group of Children Served: 0-17

TABLE #1

	# Children in Community	# Children Screened	# Children with Positive Screens	# Children Assessed^	# Children Referred*	# Children Treated
Year 1 (2012)	26000 (city)	2339	637	35^	272*	175
Year 2 (2013)	26000 (city)	6700	unknown	53^	833*	615

^MOSAIC is not doing a conventional SART model. Only a small portion of kids receiving one-on-one counseling are formally assessed. For those that are assessed, typically the assessor is the same clinician who will provide treatment.

*Most of these referrals are post-positive-screen referrals, not post-assessment referrals. Also, referral data is not complete as we only have complete referral data from one primary care site.

Estimated number of Children to be screened in Years 3: 15,000 (SIU Department of Pediatrics will join MOSAIC on 5/1 and the Koke Mill group has expanded to include 5 more physicians. In addition, we will be expanding our screening at our target middle and high schools to include all students).

Local Evaluation

1. List the original Goals for your Local Evaluation Plan (LEP).

These are the research questions from the original LEP.

SCREENING	Cross-Site Evaluation	Local Evaluation
#s Screened	1. How many are screened in District 186 each year? How many of these are from the target neighborhood ? How many are screened within each zip code of 186?	2. How many are screened within the neighborhood? Within SIU Family Medicine? Within the three initial participating schools?
Positive Screens	3. Of those screened, how many receive a positive screen? What is the incidence of each risk domain from the screen? How frequently and in what patterns do co-occurring risks appear?	4. How many of the positive screens show low intensity of problems? How many show high intensity? When do clinicians discuss positive screening results with parents?
ASSESSMENT		
#s Assessed	1. Of those who receive a positive screen, how many receive an assessment? And of those who receive an assessment, how many receive an appropriate assessment? How many receive any kind of assessment within 30 days of referral? How many referring clinicians and families receive completed assessment report(s) within six days of assessment?	2. How many children screened positive receive a triage assessment? How many children screened with low intensity of problems do not have success in brief treatment and are subsequently referred for triage or other assessment? How many children screened with high intensity of problems are referred for further assessment after receiving brief treatment?
Diagnosed Conditions	3. How many assessed children have diagnosable development and mental health problems? What is the incidence of each diagnosis? How frequently and in what patterns do co-occurring diagnoses appear?	
Family Satisfaction	4. How many families report understanding assessment results and treatment needs? Receiving child care if needed? Receiving transportation if needed? Being able to relate their concerns, etc. in their own language?	
Treatment Provider Satisfaction	5. How many treatment providers report being satisfied with the assessment information they received and their access and relationships with others helping the child?	6. What do assessment providers do to engage families?
Family Characteristics		8. What are the key characteristics of the families of children referred for assessment? -Family resources -Neighborhood conditions

		-Parental Stress -Family functioning -Family network -Social support -Parent education -Parent employment status
Child Characteristics		9. What are the key characteristics of children referred for assessment? -Race/ethnicity -Income -School attendance -School misbehavior -School achievement
TREATMENT		
#s Treated	1. How many children are referred for treatment? How many children begin receiving appropriate treatment within 30 days after completion of assessment report? How many children within each zip code receive appropriate treatment? How many referrals in child's treatment plan are addressed?	2. How many children with low problem intensity receive Triple P? How many children with high problem intensity, after triage and/or other assessments, receive treatment, and what kind of treatment do they receive?
Primary Care Participation	3. How many children have a/their primary care physician participating on their treatment team?	
Treatment Accessibility	4. How many children receive treatment within a one hour commute of their home?	5. How many families keep their treatment appointments? What are the reasons that families do not keep appointments? 6. How many families drop out of treatment prematurely? What are their reasons for doing so?
Child Improvement	7. How many treated children show improvement in the short-term and long-term?	8. How many Triple P sessions do families attend?
Parent/Family Improvement	9. How many parents of treated children show improvement?	10. How many families show improvement in family functioning?
Parenting Education		11. How many families (of both treated and other children) participate in Chicago Parent Program? How many CPP sessions do families attend?
Participation Neighborhood Activities		12. How many neighborhood youth/children participate in supervised neighborhood activities?
Treatment Personnel	13. How many treatment personnel serve District 186?	14. How many providers are trained in Triple P? How many providers offer Triple? How many school behavior interventionists serve children? What is the effect of their services? How many agencies are trained in CPP? How many agencies offer CPP and when?
Family Expectations of & Satisfaction with Treatment		15. What do families/children expect from treatment? How many families are satisfied with the treatment they receive?
MEDICAL HOME		
	1. How many community children are enrolled in a medical home?	

SUSTAINABILITY		
Financial	1. Is the initiative financially sustainable?	
Human Resources	2. Is there a system in place to recruit, select, train, orient, utilize, and, if necessary, reassign professionals needed to implement the initiative?	
Community Support	3. Is there adequate community involvement and commitment to sustain the initiative?	4. How engaged are MOSAIC leaders? How engaged in MOSAIC are other stakeholders in the care of children with mental health needs?
NEIGHBORHOOD		
Staff Time Allocations		1. What efforts are made by the staff assigned to the target neighborhood?
Neighborhood Leadership		2. How engaged in MOSAIC is the neighborhood?

2. List the current Goals for your LEP. If they remain the same simply state "Remain the Same". If they have been changed, please provide an explanation for the modifications.

In this chart, original, unchanged research questions from the plan remain in black. Questions that have been canceled or altered are marked with a ~~strikethrough~~. New questions are presented in blue. For an explanation of changed questions, see chart in section 3.

SCREENING	Cross-Site Evaluation	Local Evaluation
#s Screened	5. How many are screened in District 186 each year? How many of these are from the target neighborhood ? How many are screened within each zip code of 186?	6. How many are screened within the neighborhood? Within SIU Family Medicine? ~~Within the three initial participating schools?~~ Within participating 186 schools? Within Koke Mill medical center? Within SIU Pediatrics? Within Head Start?
Positive Screens	7. Of those screened, how many receive a positive screen? What is the incidence of each risk domain from the screen? How frequently and in what patterns do co-occurring risks appear?	8. ~~How many of the positive screens show low intensity of problems? How many show high intensity? When do clinicians discuss positive screening results with parents?~~ Within clinical settings, how are screens and corresponding data managed and referred within a given practice, including EHR usage?
ASSESSMENT		
#s Assessed	7. Of those who receive a positive screen, how many receive an assessment? And of those who receive an assessment, how many receive an appropriate assessment? How many receive any kind of assessment within 30 days of referral? How many referring clinicians and families receive completed	8. ~~How many children screened positive receive a triage assessment? How many children screened with low intensity of problems do not have success in brief treatment and are subsequently referred for triage or other assessment? How many children screened with high intensity of problems are referred for further assessment after receiving brief treatment?~~ How many children who are referred for clinician services

	assessment report(s) within six days of assessment?	utilize those services, including all types of one-on-one counseling with or without formal assessment?
Diagnosed Conditions	9. How many assessed children have diagnosable development and mental health problems? What is the incidence of each diagnosis? How frequently and in what patterns do co-occurring diagnoses appear?	
Family Satisfaction/ Engagement	10. How many families report understanding assessment results and treatment needs? Receiving child care if needed? Receiving transportation if needed? Being able to relate their concerns, etc. in their own language?	How well do MOSAIC clients engage in counseling services as compared to traditional outpatient clients? Indicators include number of treatment sessions, number of no shows, treatment intensity, and other factors.
Treatment Provider Satisfaction	11. How many treatment providers report being satisfied with the assessment information they received and their access and relationships with others helping the child?	12. What do ~~assessment~~ treatment providers do to engage families? What do residents and attending physicians think about the MOSAIC embedded care model and the associated instruments and processes involved?
Family Characteristics		8. What are the key characteristics of the families of children referred for assessment? -Family resources -Neighborhood conditions -Parental Stress -Family functioning -Family network -Social support -Parent education -Parent employment status
Child Characteristics		9. What are the key characteristics of children referred for assessment? -Race/ethnicity -Income -School attendance -School misbehavior -School achievement
TREATMENT		
#s Treated	16. How many children are referred for treatment? How many children begin receiving appropriate treatment within 30 days after completion of assessment report? How many children within each zip code receive appropriate treatment? How many referrals in child's treatment plan are addressed?	~~17. How many children with low problem intensity receive Triple P? How many children with high problem intensity, after triage and/or other assessments, receive treatment, and what kind of treatment do they receive?~~ How many children with mild positive screens receives special tier 2 interventions in the schools? Does participation in these programs have a measurable impact on children's behavior? How many children who are referred for clinician services utilize those services, including all types of one-on-one counseling with or without formal assessment?
Primary Care Participation	18. How many children have a/their primary care physician participating on their treatment team?	
Treatment Accessibility	19. How many children receive treatment within a one hour commute of their home?	~~20. How many families keep their treatment appointments? What are the reasons that families do not keep appointments?~~ 21. ~~How many families drop out of treatment prematurely? What are their reasons for doing so?~~

		How well do MOSAIC clients engage in counseling services as compared to traditional outpatient clients? Indicators include number of treatment sessions, number of no shows, treatment intensity, number of treatment planning sessions, number of total services codes, and number of no shows/cancelations per time period.
Child Improvement	22. How many treated children show improvement in the short-term and long-term?	~~23. How many Triple P sessions do families attend?~~
Parent/Family Improvement	24. How many parents of treated children show improvement?	~~25. How many families show improvement in family functioning?~~
Parenting Education		~~26. How many families (of both treated and other children) participate in Chicago Parent Program? How many CPP sessions do families attend?~~ How many individuals participate in parenting programs?
Participation Neighborhood Activities		27. How many neighborhood youth/children participate in supervised neighborhood activities?
Treatment Personnel	28. How many treatment personnel serve District 186?	~~29. How many providers are trained in Triple P? How many providers offer Triple? How many school behavior interventionists serve children? What is the effect of their services? How many agencies are trained in CPP? How many agencies offer CPP and when?~~
Family Expectations of & Satisfaction with Treatment		~~30. What do families/children expect from treatment? How many families are satisfied with the treatment they receive?~~
MEDICAL HOME		
	2. How many community children are enrolled in a medical home?	
SUSTAINABILITY		
Financial	5. Is the initiative financially sustainable?	
Human Resources	6. Is there a system in place to recruit, select, train, orient, utilize, and, if necessary, reassign professionals needed to implement the initiative?	
Community Support	7. Is there adequate community involvement and commitment to sustain the initiative?	8. How engaged are MOSAIC leaders? How engaged in MOSAIC are other stakeholders in the care of children with mental health needs? What costs and benefits do community leaders perceive from their participation in MOSAIC?
NEIGHBORHOOD		
Staff Time Allocations		3. What efforts are made by the staff assigned to the target neighborhood?
Neighborhood Leadership		~~4. How engaged in MOSAIC is the neighborhood?~~

3. Complete Table #2. Start with the original elements of the plan and indicate whether they are still part of the plan, whether new elements have been added and the reason for deletion or inclusion.

In this chart, original, unchanged research questions from the plan remain in black. Questions that have been canceled or altered are marked with a ~~strikethrough~~. New questions are presented in blue.

TABLE #2

Date Initiated	Item Being Measured	How being Measured	Rationale	Results
	How many are screened within the neighborhood? Within SIU Family Medicine? ~~Within the three initial participating schools?~~ Within participating 186 schools? Within Koke Mill medical center? Within SIU Pediatrics? Within Head Start?	Screening results from BESS, ASQ, and PSC screening instruments in the various sites	Breaking out our results by location is done because we serve a wide variety of demographic and socioeconomic groups.	See Appendix A
	9. How many of the positive screens show low intensity of problems? How many show high intensity? ~~When do clinicians discuss positive screening results with parents?~~	For school-based BESS instruments, there are moderate and high positives. For other sites, there are just positives and negatives with subdomains.	In one of the schools, high positives are referred to counseling while moderate positives are referred for Tier 2 interventions.	2014 School results: Matheny- 258 total 71 Elevated 34 Extremely Elevated; Washington- 219 total 32 elevated 17 extremely elevated Southeast- 154 total 23 Elevated 15 Extremely Elevated
	Within clinical settings, how are screens and corresponding data managed and referred within a given practice, including EHR usage?	For SIU CFM screens, every screen gets a chart audit and all referrals to the clinician are also backtracked. From this work, we have identified a wide range of ways in which CFM physicians handle positive screens and the corresponding data.	The chart audits are a necessity to identify positives, but we have also learned a great deal about SIU processes via this approach.	For example, in January 2014, we shared a spreadsheet with CFM leaders outlining 98 problematic screening cases from one quarter of chart audits. Several types of problems were identified, including undocumented screens, positive screens not referred, referrals not documented, and a few incorrectly scored screens.

	How many children who are referred for clinician services utilize those services, including all types of one-on-one counseling with or without formal assessment?	The number of patients who meet (1-on-1 or with parents) with clinicians are extracted from three separate EHR systems (SIU CFM, Koke Mill Med, MHCCI).	Formal assessment is not a big part of the service delivery model for MOSAIC, particularly for the integrated care approach used in primary care settings. Although the school-based MHCCI do in fact do formal assessment, this is a smaller part of the patient load currently. The number of patients formally assessed would thus grossly misrepresent the number of patients that are receiving post-referral care. Accordingly, we focus instead on the number of patients who have seen the MOSAIC clinicians.	**Children receiving 1-on-1 clinician services** **2012** School-based- 39 kids SIU CFM- 96 kids **2013** School-based- 67 kids SIU CFM- 179 kids Koke Mill- 330 kids **Partial 2014** School-based- 31 kids
	How well do MOSAIC clients engage in counseling services as compared to traditional outpatient clients? Indicators include number of treatment sessions, number of no shows, treatment intensity, number of treatment planning sessions, number of total services codes, and number of no shows/cancelations per time period.	Record-level patient contacts for school-based and SIU-based patients were extracted from the appropriate EHRs and compared with similar data for 1400 traditional youth outpatients. Results were processed to produce treatment engagement outcomes like total sessions, total treatment sessions, number of no shows, sessions per time period, and others.	MOSAIC's approach of embedding clinicians in schools and primary care aims to make it easier for disadvantaged families to engage in services and stick with it. These outcomes are in many ways one of the best indicators of how well this approach works compared to business as usual. An additional rationale for this measure is that MOSAIC is considering applying for an AHRQ grant to scale up our school-based model.	- MOSAIC clients more disadvantaged than control, more exposure to violence - MOSAIC clients engaged in service longer and had <u>substantially more therapy sessions than control</u>; Also more therapy per days engaged - MOSAIC clients had fewer no shows per days engaged <u>Regression models controlling for demographics and socioeconomics</u> <u>MOSAIC</u> 25% increase in service codes; 25% increase in treatment planning; 72% increase in therapy

				sessions; 50% reduction in crisis intervention; 40% reduction in no shows per 100 days
	What do ~~assessment~~ treatment providers do to engage families? What do residents and attending physicians think about the MOSAIC embedded care model and the associated instruments and processes involved?	Residents, physicians, PAs, and nurse practitioners at primary care sites will be surveyed annually. Practices utilized by clinicians for engaging families are shared at periodic meetings between clinicians, management, and evaluators. These strategies are not systematically documented at this time.	The integrated care model at SIU CFM and Koke Mill are new developments spurred by MOSAIC. This approach to mental health treatment for youth is new to most participating physicians, and we wanted to gauge their reactions to the model thus far.	See appendix B for results from the SIU CFM physician survey administered in March 2014.
	What are the key characteristics of the families of children referred for assessment? -Family resources -Neighborhood conditions -Parental Stress -Family functioning -Family network -Social support -Parent education -Parent employment status	The RSSP survey, which consists of three validated instruments and some additional questions, is administered to parents who engage their child in counseling through MOSAIC and sign the research consent. Typically the survey is administered at the first or second appointment.	Some of the MOSAIC sites serve exceptionally disadvantaged areas. We wanted to understand the socioeconomic and social circumstances of the families we served in considerable detail. This information can help us understand treatment engagement outcomes and the needs of the community.	See appendix D.
	9. What are the key characteristics of children referred for assessment? -Race/ethnicity -Income -School attendance -School misbehavior -School achievement	These data are extracted from the District 186 central database for kids whose parents complete the research consent.	These data help us understand the school experiences and challenges of students receiving MOSAIC. Low attendance rates, for example, are a barrier for both academic improvement and engagement in treatment services.	Students in treatment as of 4/13; 56% K- 2nd grade 89% Free/reduced lunch 95% 62703 and 62702 zip codes (less affluent areas of town) 40% have less than 90% attendance rate 78% have less than 95% attendance rate
	~~31. How many children with low problem intensity receive Triple P? How many~~	De-identified behavioral data (number of event on each of 4 point severity scale) will be extracted from District 186 databases for the kids	Due to the high volume of positive screens on the BESS (30%+), only the most severe positives could	Behavior results will not be extracted from 186 databases until the conclusion of the 2013-14 school year. There were 42

	~~children with high problem intensity, after triage and/or other assessments, receive treatment, and what kind of treatment do they receive?~~ How many children with mild positive screens receives special tier 2 interventions in the schools? Does participation in these programs have a measurable impact on children's behavior?	participating in new Tier 2 interventions. Datapoints will be taken for at least two quarters prior to the intervention and at least two quarters after the intervention began.	be offered counseling services. The school decided to create special Tier 2 interventions for kids who had more moderate positive screens. We of course want to evaluate these programs to see if they have any impact on child behavior.	Tier 2 participants in the 2012-2013 school year, and another 42 in 2013-2014.
	~~How many children with low problem intensity receive Triple P? How many children with high problem intensity, after triage and/or other assessments, receive treatment, and what kind of treatment do they receive? How many Triple P sessions do families attend? How many families show improvement in family functioning? How many families (of both treated and other children) participate in Chicago Parent Program? How many CPP sessions do families attend? How many providers are trained in Triple P? How many providers offer Triple? How many school behavior interventionists serve~~	Triple P and the Chicago Parenting Program were not implemented thru MOSAIC, so all evaluation questions associated with those programs have been removed from the plan.	After reviewing Triple P in more detail, MOSAIC leadership determined that it would be too expensive to sustain. Staff were trained in the Chicago Parent Program in 2013, but the program has not be implemented at this time due to low demand.	

	~~children? What is the effect of their services? How many agencies are trained in CPP? How many agencies offer CPP and when?~~			
	How many individuals participate in parenting programs? What efforts are made by the staff assigned to the target neighborhood?	Sign-in sheets from parenting programs and work logs from neighborhood outreach workers are used to compile these counts.	Although Triple P and Chicago PP were not implemented, parenting programs are still conducted. The circumstances of those programs prevent consenting parents and thus collecting more detailed data on the effects of the programs. So our data collection on these programs is largely restricted to outputs.	See Appendix E
	How engaged are MOSAIC leaders? How engaged in MOSAIC are other stakeholders in the care of children with mental health needs? What costs and benefits do community leaders perceive from their participation in MOSAIC?	The MOSAIC Stakeholder (a multidisciplinary group of 30+ local leaders) is surveyed annually.	MOSAIC is a system change effort that requires substantial buy-in and participation from a wide variety of partners. We wanted to examine how these partners feel about their participation in MOSAIC and their views on decision making processed within the initiative.	See Appendix C for a summary of results from 2012 and 2013 administrations of this survey. The 2014 administration is taking place in April.

4. What are the implications of your findings for your community?

Although there are several noteworthy findings from the evaluation activities conducted to date, we see four as particularly important:

a. Families on the East side of Springfield face very high rates of positive screens and particularly challenging socioeconomic and social circumstances. Springfield is a racially and socioeconomically segregated community, and though there is some basic understanding that the East is poor, the full extent of the challenges for those neighborhoods may not be fully understood by some professionals. These data and anecdotal information from neighborhood outreach works certainly help make the case that innovative approaches and wrap around services may be needed to adequately serve this population.

b. Our comparative analyses provide preliminary evidence that offering mental health services in local schools can substantially improve the treatment engagement outcomes for the disadvantaged population noted in the point above. Additional data analysis will be needed to strengthen this claim, but the school-based delivery model seems to be very promising.

c. Survey results from SIU CFM and clinician outputs from SIU CFM and Koke Mill indicate that the integrated mental health model used in primary care settings is (a) positively regarded by a strong majority of participating physicians and (b) able to keep full-time clinicians busy with a relatively full schedule. Additional data collection is definitely needed to determine if this approach produces benefits for patients compared to traditional outpatient models, but a majority of physicians believe that it engages more patients in treatment and offers other benefits over traditional approaches. Also, the workload of the integrated clinicians indicates that these positions have a good chance of being sustainable through billing.

d. Results from the chart audits at SIU CFM have revealed a pretty wide variety of problems or inconsistencies in how screening results are scored, recorded, and acted upon by physicians and nurses at CFM. Anecdotal information and EHR examination at Koke Mill have also revealed some important limitation in how screening data are managed. In order to achieve sustainable, thorough tracking of positive screens within local primary care settings, changes in both technical systems and user training may be needed.

5. **What, if anything, is being done in response to these implications and findings**?
   a. The data we have produced on the high needs of MOSAIC families has been useful in a number of ways. The information has been used to seek additional funding for young children and their caregivers (Women for Women grant), with a focus on poor, single mothers living in the east side. We also are in early stages of discussions with Bright Promises Foundation regarding possible partnership around trauma and children. In addition, the MOSAIC steering committee represents a good cross-section of providers and other stakeholders, and it will be a useful forum for educating the community about east side needs.
   b. The comparative analyses that show promising results are going to be expanded to include more schools and primary care sites. If the results from the school-based MOSAIC sites continue to be as strong as preliminary data indicate, there is a very good chance that MOSAIC leaders will respond to an AHRQ RFP in the fall to scale-up this model to more schools. We are also expanding our evaluation of the promising elementary school by adding Tier 2 students to the evaluation plan.
   c. These data on the sustainability of integrated clinicians and the satisfaction of participating attending and resident physicians will be very useful in recruiting additional medical practices. Also, while sustainability and partner satisfaction are certainly vital for this model, we also want to determine if the model offers advantages over the traditional outpatient referral approach. Accordingly, we are expanding our comparative analyses to include the integrated primary care models in addition to the school-based models.
   d. Three major primary care sites in Springfield are aligning their EHRs over the course of the next year. The CIO for the system is a primary care doctor who is also a strong advocate for screening. We have met with him and shared our finding regarding data problems with screening results in existing EHRs. He has vowed to correct those problems as the new EHR is implemented.

6. **What aspects of the evaluation are currently succeeding**?

Several aspects of the evaluation are successful, including the RSSP surveys of parents in treatment, surveys of physicians, surveys of the stakeholder group, data collection from district 186, and the comparative analyses of the integrated care school-based model. The surveys all have relatively high response rates and produce useful information. The comparative analyses not only produce useful information but also may provide strong enough evidence to aid sustainability efforts through additional grantseeking. The chart audits of SIU CFM could also be regarded as successful in some ways because they produce a wide variety of useful information on local processes. The time involved with those chart audits, however, also makes them a challenge.

7. What challenges have you encountered?

Early on, MOSAIC leaders decided to focus on creating sustainable data collection approaches that would be built into existing systems rather than slapped on top of existing practices. For primary care, that meant aiming to collect screening information, including total screens and positives by domain, from the main EHR systems operating at our primary care sites. Data collection from EHRs has been the single biggest challenge by far. Getting a clinician at one site to consent patients and getting timely screening information from Head Start has also been challenging, though these are much smaller concerns than the EHR issue.

8. How have you addressed each challenge?

For SIU EHR information, we have secured direct data access and conducted our own chart audits as a stop gap measure. Although we pressed for improvements to the SIU EHR from the very beginning, they have been unable to deliver anything more than very minor improvements at this time. The volume of screens at Koke Mill and other data access issues make the chart audit approach implausible for that site. We believe that sampling a portion of these Koke Mill cases could be a good way to provide a solid estimate of positive rates with a feasible workload. We asked NTI if sampling would be an acceptable approach from their perspective. We never received a response. Ultimately, the EHR data management issue will not be fully resolved until the EHRs are integrated across sites in the next year or so.

The issue with one clinician not consenting patients has been resolved. The problem arose in part from an issue of workflow and scheduling.

The issue regarding timeliness of data submissions from our Head Start site has improved somewhat. They have met the last two deadlines. Engaging the supervisor of the individuals in question has been helpful in that regard.

9. Are there any plans to modify the LEP in year 3? If so, how and why are you implementing these modifications?

In Year 3, some evaluation elements that have not yet been implemented will begin. These elements include (a) the analysis of pre and post behavior statistics for school-based counseling recipients and Tier 2 recipients, (b) expansion of the physician survey to at least one more primary care site, and (c) expansion of the comparative treatment engagement analysis to include two new schools and possibly two primary care sites.

10. Do you have any plans to modify the LEP during the monitoring years? If so, why and what are those plans?

The original LEP called for an in-depth assessment of provider practice change as a result of MOSAIC in the fourth year. This is still planned, unless there is an additional year of implementation funding, in which case the assessment will be shifted to year five in order to provide more time for practices to have changed.

11. **Please provide a graphic model delineating the work flow for data gathering for the elements of the LEP. Provide a brief narrative explaining the model. Include either on your model or in your narrative the average number of hours spent per week on each step of the process.**

See Appendix F

12. **Please provide a graphic model delineating the work flow for data gathering for the elements of the Cross-site Evaluation. Provide a brief narrative explaining the model. Include either on your model or in your narrative the average number of hours spent per week on each step of the process.**

See Appendix F

13. **Complete Attachment A. The purpose of Attachment A is to get a better understanding of the actual workings of the evaluation process and to understand any challenges associated with the reporting structure associated with the project.**

14. **Discuss the intersection between the LEP and the cross-site evaluation. How is the cross-site benefitting the evaluation process and/or informing the LEP?**

We have combined our answers to questions 14 and 15 into one response, which is below.

15. **Are there ways to improve the interaction between the cross-site and the LEP which would be beneficial to your community?**

There have been two minor ways that interaction with the cross-site evaluation has benefited the LEP. First, the chart audits necessary at SIU CFM have shed some light on problematic processes in primary care. That information is somewhat valuable for primary care, though it may not justify the considerable time expenditures necessary to produce the information. Second, our physician survey was developed in part in response to an NTI suggestion. The specific instrument and measures NTI wanted us to use would not have provided valid data, but we developed our own more valid instrument in response and implemented it.

The cross-site evaluation provides only modest benefit to our community. The structure of the evaluation itself does not correspond very well to the work that is being done. As a result, the cross-site does not adequately inform the Foundation about the breadth or depth of the work we are doing. And, because there is too little communication from NTI back to our community about the cross-site evaluation, it is not informing our work to the degree one would hope. It might even be argued that the cross site, because of the time and effort it requires from us, diverts resources away from evaluation activities that are more beneficial to us. For example, to obtain the rate of positive screens and the positive domains among screens administered at SIU Center for Family Medicine requires time-consuming chart audits conducted by graduate assistants, which then limits that pace at which we can add schools and other providers to the MOSAIC effort.

Although it likely is too late to change the items included in the cross-site evaluation, its impact on our community might be mitigated by taking a look at the value of the data that are required and eliminating those pieces that are of less value. For example, if a consistent rate for positive screens is found in one setting for several quarters, is there value to be gained by continuing to collect that data? In our community, the clinician in the school setting does both the mental health assessment and provides treatment. Thus, the data points related to the time between assessment and treatment and the usefulness of assessment for treatment are of no value. Moving healthcare from volume to value is a monumental shift in our practices and tracking. We are committed to improving tracking, monitoring and flagging systems of care, but in the meantime we would appreciate focusing on evaluation activities that accurately reflect the work that is being done through the MOSAIC.

16. List and explain lessons learned to date regarding the evaluation of this project.

First, EHR data is exceptionally messy. The combination of technical limitations and inconsistent human usage means that these data require substantially more time to process than anticipated. Second, administrative sign-offs will almost always take longer than expected. We have encountered that issue with school districts somewhat, but particularly with Koke Mill, where sign-off took 6+ months longer than anticipated. Another large primary care site has been close to reaching an agreement to use MOSAIC services, but then backed out due to leadership change.

17. How have the lessons learned been applied or influenced the project?

EHR issues have motivated our plan to "do screening right" when the local EHRs are aligned over the next year or so. We've also devoted considerably more support staff time to working on EHR data, largely out of necessity. On the issues of administrative sign-offs and leadership turnover, there is no easy answer. We started our conversations with the Memorial/Koke Mill administrator in late 2011, a full year before we started at the site. We tried multiple approaches to expedite the administrative sign-off without any luck. Leadership turnover is simply a fundamental challenge of this type of work, and there is probably nothing we could have to alter the negative impact of this leadership change on MOSAIC.

18. If you had the opportunity to go back to the beginning of the project, what, if anything, would you do differently in connection with evaluation?

In hindsight, more time during the planning year should have been spent examining the data capabilities of primary care. (It should be noted that initially we thought that the SIU clinician would be using MHCCI's EHR, but that situation changed.) Attempting to use EHR data from the cross-site screening data was a promising idea in some respects because it would ensure that data collection was sustainable after the grants were over. That approach would integrate screening data collection as deeply as possible into the day-to-day practice of primary care. However, we did not anticipate the severity of the complications we encountered or the difficulty making EHR upgrades. If we had the chance to do it again, we would instead create supplemental data collection that we could control directly. In the meantime, we could push for thorough EHR improvements and then institute EHR-based data collection once the changes were made. We ended up

doing chart audits as a temporary stop gap until EHR improvements were made, but that took much, much longer than we were initially told.