Wisconsin Medical Dental Integration (WI-MDI)

Collaborative Charter-Wave 2

Problem Statement

- According to the Centers for Medicaid and Medicare Services, in 2016 only 1 in 5 Wisconsin Medicaid eligible children ages 0-5 years received preventive dental services.
- In Wisconsin there are approximately 100,000 children enrolled in Medicaid who visit their physician before age 5 who do not receive dental care.
- We know that by the time children in Head Start are 5 years old, half of them have developed caries and 1 in 3 have developed it by age 3 years, therefore, we must reach children earlier and more often.
- Children visit a physician up to 8 times between ages 6 months and 5 years giving ample opportunity to prevent dental disease early.
- According to the Pregnancy Risk Assessment Monitoring System (PRAMS), in 2016 only 1 in 2 Wisconsin women received a dental cleaning during pregnancy.
- Evidence suggests that most infants and young children acquire caries-causing bacteria from their mothers. Providing oral health care to pregnant women may reduce the transmission of such bacteria thereby delaying or preventing the onset of caries.

Business Case

Financial Sustainability

Long-term sustainability of this model has a high probability for success. One model in Wisconsin has seen a dental hygienist integrated in the medical team providing oral health screenings, education and prevention services such as fluoride varnish for 30-40 patients in one day. Once the dental hygienist is hired, credentialed and begins seeing patients we anticipate it taking 90 days to reach the 45 patient per day level.

Using a model of 30-40 patients a day, a dental hygienist has the potential to generate a minimum of $660 daily in revenue based on providing a screening and varnish using the current and average Medicaid reimbursement rates (see calculation below). This amount could fluctuate if billing private insurance, if Medicaid rates increase or if additional dental hygiene services are provided (Silver Diamine Fluoride, Prophylaxis, etc.). The labor cost for the dental hygienist is approximately half that, including salary and fringe benefits. Adding in the small amount of funding for disposables and supplies would still make this integration model sustainable long term.

The assumptions we used to forecast the business case in a health care system include:

- Cost to employ dental hygienist: $45/hour (Salary of $35/hour plus 30% fringe). Labor cost for a dental hygienist for an eight-hour day is $360.
- Reimbursement for basic level of care provided: $22/patient using the current Medicaid reimbursement rate (not FQHC encounter rate).
- Billable procedures include:

    - Oral health assessment (D0191) reimbursed at $11; and fluoride varnish (D1206) reimbursed at $13.
    - Consumables per patient: $3.
- Formula: $360 (labor cost of dental hygienist) /$22 (reimbursement per patient) = 17 patients need to be seen by the dental hygienist per day to break even.
- Primary Care Providers typically see 20-22 patients per day (including Well-Child and acute care) and Mid-level Providers typically see 16-18 patients per day. A dental hygienist integrated into a clinical care workflow can also see these patients during their medical appointments.

Provider and Patient Satisfaction

In 2013, the study "Feasibility of collocating dental hygienists into medical practices" was published in the Journal of Public Health Dentistry. Lead author Patricia Braun, MD, MPH concluded:

- Co-locating registered dental hygienists (RDH) into medical practices is feasible and an innovative model to provide preventive oral health services to disadvantaged children.
- Patient satisfaction with services facilitated program implementation. A physician said, "[parents] were very excited that their kid could see a dental provider."
- Providers like the idea. One physician endorsed "the program's incredible flexibility and creativity."
- There is higher investment in the model if dental hygienists are full-time employees and are employed by the practice vs. having an independent business.

VISION:

Statewide system change within Health Care Organizations to integrate a dental hygienist into medical clinics (primary care teams) to increase access to preventive dental care and reduce dental disease burden for young children and pregnant women.

Mission

The mission of the WI-MDI Collaborative is to improve care and outcomes for patients with and at-risk for dental disease. Teams from health systems across Wisconsin will participate in the WI-MDI Collaborative focused on integrating dental hygienists into primary care settings to improve access to primary preventive oral health services (risk assessment, fluoride, prophylaxis, referrals and case management) for children and pregnant women. WI-MDI partners will develop local expertise and shared goals among organizational teams to improve dental disease management and access to preventive oral health services in Wisconsin. The WI-MDI Collaborative will build on evidence to support the financial sustainability of medical dental integrated care models and feasibility to spread the models within Health Systems in Wisconsin.

Collaborative Goals

The goal of the WI-MDI Collaborative is to decrease dental disease in the participating clinics patient populations. There are two Collaborative goals that will be measured using aggregate data from participating clinics throughout the project.

Goal 1. Improve access to primary preventive oral health services.

- **Aim Statement 1:** By December 2021 increase the percent of medical clinics enrolled in WI-MDI that integrate a dental hygienist by XX% from baseline % to __%
- **AIM Statement 2:** By December 2021 increase the percent of patients who respond they are 'extremely or very satisfied' with care provided by an integrated dental hygienist by XX% from XX% baseline to XX%
- **Aim Statement 3**: By December 2021, increase the percent of children ages 6 months -72 months that receive an oral health evaluation by a dental hygienist by 25% from XX baseline to XX%
- **Aim Statement 4**: By December 2021, increase the percent of pregnant women that receive an oral health evaluation by a dental hygienist by 20% from baseline XX % to XX %

Goal 2. Decrease dental disease burden.

- **AIM Statement 5**: By December 2021, decrease the percent of children ages 6 months- 72 months with untreated dental caries by 10% from baseline XX % to XX%
- **AIM Statement 6:** By December 2021, decrease the percent of children ages 6 months- 72 months with caries experience by 10% from baseline XX% to XX%
- **AIM Statement 7**: By December 2021, decrease the percent of pregnant women with untreated dental caries by 5% from baseline % to XX%

Family of Measures

Outcome (monthly):

1. The percentage of medical clinics enrolled in WI-MDI collaborative that integrate a dental hygienist.
2. The percentage of patients who respond they are 'extremely or very satisfied' with care provided by an integrated dental hygienist.
3. The percentage of children between the ages of 6 months and 72 months that received an oral evaluation by a program dental hygienist.
4. The percentage of pregnant women that have received an oral evaluation by a program dental hygienist.

Outcome (biannually):

5. The percentage of children between the ages of 6 months and 72 months, seen within the prior six months, with untreated dental caries.
6. The percentage of children between the ages of 6 months and 72 months, seen within the prior six months, with caries experience.
7. The percentage of pregnant women seen within the prior six months, with untreated dental caries.

Process Measures (monthly):

1. Percent of enrolled MDI teams that have credentialed their integrated dental hygienist with Medicaid.
2. Percent of teams that have integrated dental documentation into their electronic health record (medical or dental).
3. Percent of teams that have developed a sustainable billing process for dental procedures.
4. Percent of teams that have completed mobile dental registration.
5. Patient Encounters of children between the ages of 6 months and 72 months stratified by the percent of patients who received category one procedures: D0191 Assessment of patient, D1330 Oral hygiene instruction, D1310 Nutritional counseling for control of dental disease.
6. Patient Encounters stratified by the percent of patients who received category two procedures: D1206 Topical application of fluoride varnish
7. Patient Encounters stratified by the percent of patients who received category three procedures: D1354 Silver Diamine Fluoride
8. Patient Encounters of pregnant women stratified by the percent of patients who received category one procedures: D0191 Assessment of patient, D1330 Oral hygiene instruction, D1310 Nutritional counseling for control of dental disease.
9. Patient Encounters stratified by the percent of patients who received category two procedures: D1206 Topical application of fluoride varnish
10. Patient Encounters stratified by the percent of patients who received category three procedures: D4355 Full mouth debridement, D4346 Scaling in the presence of…, D4341-D4342 Scaling and root-planning

Data

Each Health System's MDI team will create their own set of aim statements, which are expected to be in alignment with the WI-MDI Collaborative goals. Baseline data will be gathered by the Health System MDI team (either prior to or during the first months of the Collaborative) to inform realistic AIM statement goals unique to the Health System's patient population. The Collaborative Executive Team will strive to help each Health System MDI team achieve the Collaborative goals and their own specific aims. These goals aim high and may take time to achieve, however, experience indicates that using the Collaborative model teams are able to achieve breakthroughs in patient outcomes.

Each Health System MDI Team is required to submit data monthly using the Life QI data platform. A detailed data measurement plan including data definitions will be provided to teams at the first in-person learning session.

METHODS

Funding for the WI-MDI Collaborative is through the *Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin.* The project is funded for three years from January 2019- December 2021. Key project partners include the WI-MDI Executive team, the WI-MDI Advisory Council, the participating Health Systems Medical Dental Integration Teams (MDI Teams) and WI-MDI Faculty.

- **WI-MDI Executive Team** includes Primary Investigators Earnestine Willis, MD, MPH and Constance Gundacker, MD, MPH of the Medical College of Wisconsin and Matt Crespin, RDH, MPH, Dana Fischer, MPH, CHES and Jenna Linden RDH, CDHC of Children's Health Alliance of Wisconsin.
- **WI-MDI Advisory Council** is composed of key stakeholders who are available for technical assistance and responsible for project level guidance. Members include: American Academy of Pediatrics- Wisconsin Chapter, American Family Children's Hospital, Ascension, Children's Hospital of Wisconsin, Gundersen Health, NorthLakes Community Health Center, Sixteenth Street Community Health Centers, St. Vincent Children's Hospital, Wisconsin Dental Association, Wisconsin Dental Hygienist Association, Wisconsin Department of Health Services Oral Health Program, Wisconsin Primary Healthcare Association. This group will meet approximately quarterly for the duration of the three year project.
- **Health System MDI Teams** are teams from the clinics who enroll in the WI-MDI Collaborative and will implement the medical dental integration model. These teams will meet monthly for prep work prior to the start of the Collaborative and then engage in the Collaborative which will include three in-person learning sessions and monthly webinars and check-ins.
- **WI-MDI Collaborative Faculty** include content experts who will provide information at in-person learning sessions and be available to organizational teams on an as-needed basis to provide technical assistance through the duration of the Collaborative.

The WI-MDI Collaborative is a twelve month engagement where Health System MDI Teams will participate for the duration. Each participating organization is expected to identify at least one pediatrician or family physician who routinely sees children for well-child visits to integrate a dental hygienist into the care team. The dental hygienist needs to be hired as an employee of the organization and be in place prior to the start of the WI-MDI Collaborative. The Collaborative will include three in-person meetings and three action periods where teams will test change strategies within their organization. Each participating organization must agree to track specific measures and share these results monthly. During the action periods, teams will participate in monthly virtual group calls and submit data into the LifeQI platform.

Participating organizations must be open to changing policies and systems in order to improve clinical management and efficiency. The WI-MDI Executive Team will guide participating teams to capitalize on the learning and improvement from participating in the Collaborative by coaching senior leaders to develop a system for spreading the practice redesign to other practitioners and clinic locations.

Life QI Platform

Life QI is a web-based dashboard that will house all of the Collaborative documents including project charter, measurement strategy, driver document and change package. Each Health System MDI team will have their own log-in and profile and are required to submit monthly data via the system. Training will be provided prior to the start of and throughout the Collaborative on how to collect and enter data.

Integrated Oral Health Competencies

The final change package of promising strategies for successful integration will be shared at the first in-person learning session. This includes evidence from the Colorado Medical Dental Integration work and Wisconsin based learnings from Sixteenth Street Community Health Center and Ascension.

Medical-Dental Integration competencies include:

- **Engaged leadership (Clinical and System)**
- **Financial sustainability**
- **Team based care principles**
- **Reliable delivery of evidence based dental hygiene care**
- **Patient satisfaction**

Collaborative Expectations

WI-MDI Chair, Executive Team and Faculty will:

- Provide evidence-based information on subject matter, application of that subject matter and methods for process improvement, both during and between Learning Sessions.
- Offer coaching to organizational teams, individual phone calls (as needed), monthly virtual group meetings, emails, and message board in Life QI.
- Provide communication strategies to keep organizational teams connected to the WI-MDI Executive Team and faculty during the Collaborative.
- Build a culture among organizational teams participating in the Collaborative that values 'all teach, all learn'; provides a safe environment for participants to share ideas, successes and failures; and keeps the group focused on accelerating the improvements to reach health outcomes for the patients they serve.
- Upload Collaborative documents into Life QI dashboard and train organizational teams how to use the platform.
- Provide a stipend to cover the travel costs to attend the in-person Learning Sessions including mileage, meal expenses and hotel rooms.
- Provide funding to MDI teams for initial startup costs (i.e. labor, equipment and supplies). Details of how to make requests will be shared by the Executive Team.
- Provide gift card stipend for patient/family member participation in Collaborative sessions.
- Provide Maintenance of Certification part IV credits through the American Board of Pediatrics and the American Board of Family Physicians.

WI-MDI Advisory Council will:

- Advise WI-MDI chair and Executive Council.
- Be available to provide content expertise during in-person meetings and action periods as necessary.
- Act as a liaison to disseminate findings of WI-MDI project to stakeholders and members within their organizations and associations.

Health System MDI Teams will:

- Connect the mission of the WI-MDI Collaborative to a strategic initiative/plan within their organization.
- Provide a senior leader to serve as a sponsor for the MDI team involved in the Collaborative and serve as a champion for the spread of the changes in practices within their health system.
- Perform pre-work activities to prepare for the first Learning Session.
- Send a team to all Learning Sessions including two consistent members, one patient/family member (unless another plan for patient engagement is proposed) and any additional team members.
- Have at least one member of the MDI team participate on each Monthly group call during Action Periods.
- Provide resources to support their team including resources necessary for attending Learning Sessions, time to devote to testing and implementing changes in the practice (approximately 1 FTE for the duration of the Collaborative) and active senior leadership involvement.
- Provide expert staff (Financial, Information System, and Clinical Policy Development) to the MDI team on an as needed basis.
- Perform tests of change leading to implementation of the medical-dental integration model in their clinical practices and across their organization.
- Make well-defined measurements that relate to their aims and enter them at least monthly into the Life QI platform.
- Share information with the Collaborative via brief monthly reports (summary of changes made and data to support these changes) submitted using the Life QI platform.
- Report data on the identified measures monthly.
- Submit reimbursement request for travel associated with Learning Sessions within 2 weeks of section.

Health System Medical Dental Integration Teams (MDI teams)

The ideal MDI team will include the following members.

- One member from senior organization leadership – (organizational sponsor).
- Three to four frontline staff members- including the day-to-day clinic manager, physician, dental hygienist, medical assistant and/or other staff.
- One front office staff responsible for billing, credentialing, scheduling etc.
- One or two patient/ family members currently using the health system.

The MDI team is directly responsible for implementing the medical/dental integration model within their clinic/ health system using the quality improvement framework. Functions and characteristics of this team include:

- Have a working knowledge of medical/dental integration.
- Have a basic understanding of continuous quality improvement, implementing plan-do-study-act cycles and collecting process data.
- Work together as a functioning team that can work at an accelerated pace.
- Have time allotted by senior leadership to work on this project, and are motivated and excited about change and creating an integrated delivery model.
- Can make the work of the team visible to the departments/services that will be involved in the spread by sharing results and inviting other staff members to attend team meetings.

MDI teams will attend the three, two-day, in-person Learning Sessions throughout the twelve month Collaborative to learn from and share their experiences with other MDI teams. Health Systems will determine which members of their MDI team will attend the in-person meetings. Each Learning Session builds on topics and expertise from previous sessions therefore it is not possible to bring a whole new cohort of MDI team members up to speed at each Learning Session. **At least two members of the MDI team must be consistent in their ability to attend all three Learning Sessions during the twelve month Collaborative**. The two consistent members of the MDI team are responsible for disseminating what's learned during the sessions to the entire MDI team. Additional members of the MDI team are encouraged to attend one, or all three of the in-person learning sessions.

In addition to the two consistent MDI team members, one patient/family member is strongly encouraged to attend at least one day of each in-person Learning Session. The patient/family member does not need to be a consistent attendee of all three Learning Sessions, but on at least one day of each Learning Session the health system should have a patient/family member attend. If this is not feasible, please reach out to project staff to identify a plan to gather patient feedback for the project.

Learning Session attendance requirement overview:

- 2 members of the MDI team must commit to attending all three, two-day, in-person Learning Sessions.
- 1 patient/family member must attend at least one day of each Learning Session (can change for each Learning Session).
- Additional members of the MDI team are encouraged to come to any Learning Sessions that they can. This includes one or both days of a Learning Session.

The success of the Collaborative model comes from the engagement of MDI team members. The Learning Sessions will be interactive sessions led by MDI teams who have key learnings to share with others to accelerate the work. Relationship building and a community that has trust between members to ask questions will accelerate the work done across the entire WI-MDI project. Each Learning Session will include “team time” to plan tests of change and next steps to accomplish upon return to clinic.

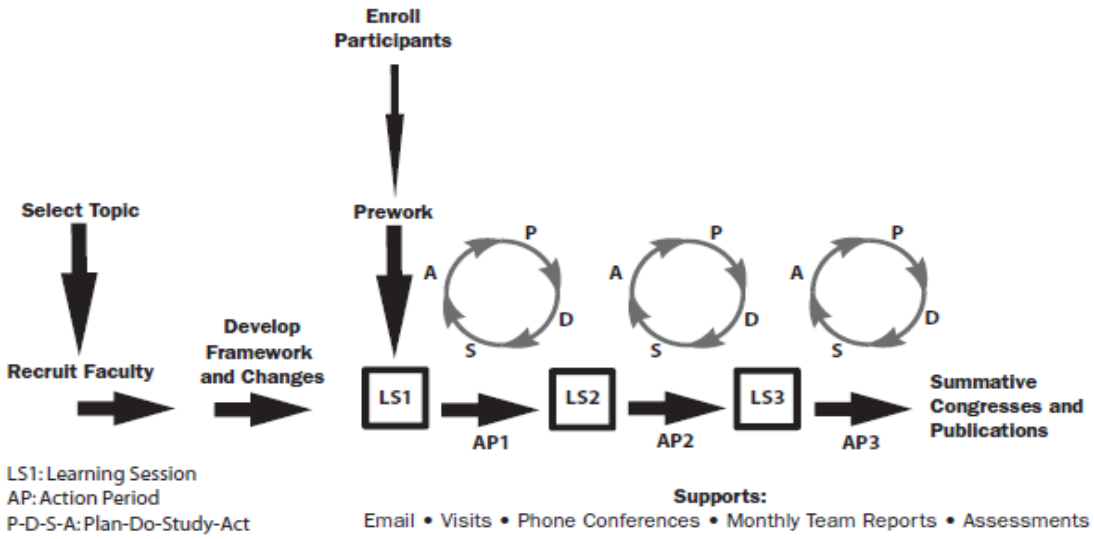
Collaborative Timeline

Enrollment

To enroll in the March 2020 collaborative please return the signed enrollment application (page 11-13 of Charter) to Dana Fischer at dfischer@chw.org by **February 28, 2020**.

The WI-MDI Collaborative structure is following the Institute for Healthcare Improvement Breakthrough Series Model shown in the image below.

Figure 2. Breakthrough Series Model



Learning Sessions

Learning sessions are designed to be a sharing and learning event to support quality improvement activities. Three, two-day, in-person Learning Sessions are planned for the Collaborative and each will focus on a different theme, and build on previous Sessions and activities. Active participation in the Learning Sessions by all organizational teams and WI-MDI faculty will allow sharing and learning of plans, successes, barriers, knowledge, and experiences. Organizational teams will have dedicated team time at each learning session to develop plans, ideas, and problem solve barriers to successful implementation of medical dental integration model.

Additional support to the teams will be offered through phone conferences, emails, and briefings. Clinic teams are encouraged to communicate frequently with each other via email and message board within Life QI.

Action Periods

Action periods occur between Learning Sessions and are when the tests of change are implemented within each MDI team's clinic. Teams will complete Plan-Do-Study-Act cycles and track data. **Monthly group calls** will be scheduled to allow organizational teams to share their lessons learned, ask for assistance, and connect with fellow organizational teams, WI-MDI faculty and the Executive Team.

Data Reporting Requirements

Monthly data reporting will occur through the Life QI platform. Training for all staff on the required family of measures including definitions and how to accurately pull data will be provided at Learning Session 1.

WI-MDI Wave 2

The WI-MDI Executive Team anticipates opening enrollment for a second Collaborative in March of 2020. This Collaborative will follow the same timeline and format and will be open to new Health System teams, additional teams from Health Systems participating in Wave 1, and teams wishing to spread the medical dental integration model to additional patient populations.

WI-MDI Wave 2 Timeline 2020	Date	Learning Session	Technical Assistance Phone calls, emails, connecting to other teams, listserv questions	Group Calls 12:15-1:00 p.m. Third Thursday	Reporting in Life QI Due First Friday following end of each month
Learning Session 1	March	10 and 11	Ongoing as needed	March 19	X
Action Period 1	April			April 16	X
	May			May 21	X
	June			June 18	X
Learning Session 2	July	14 and 15		None	X
Action Period 2	August			August 20	X
	September			September 17	X
	October			October 22	X
Learning Session 3	November	10 and 11		November 19	X
Action Period 3	December			December17	X
	January			January 21	X
	February			February 18	X
	March			March 18	X

Collaborative Executive Team Contact Information

Name	Role	Email	Phone
Dana Fischer	Director	dfischer@chw.org	414-337-4563
Matt Crespin	Chair, Improvement Advisor	mcrespin@chw.org	414-337-4562
Dr. Connie Gundacker	Improvement Advisor	cgundacker@mcw.edu	414-955-7656
Jenna Linden	Improvement Advisor	jlinden@chw.org	
Dr. Earnestine Willis	Organizational Host	ewillis@mcw.edu	

WI-MDI Collaborative Enrollment Form

Please complete the following information and return a signed copy to Dana Fischer dfischer@chw.org by February 28, 2020. If you have any questions or concerns please contact Dana Fischer or Matt Crespin (mcrespin@chw.org).

1. Name of the clinic where the Health System MDI team will integrate a hygienist

Clinic Name	
Street Address	

2. Target Patient Population for integrated care at this clinic (check primary focus)

☐Children age 6 months to-5 years

☐Pregnant Women

3. Organizational Sponsor

Member of senior level leadership at the health system who will act as a liaison between the Health System MDI team and other department/ staff within the health system. This person will connect and make visible the work of the Health System MDI team to other initiatives within the Health System (strategic planning etc.)

Name	
Title/Role	
Email	
Phone	

Organizational Sponsor Signature

I agree to have a MDI team participate in the WI-MDI Collaborative from March 2020- March 2021. I read the above charter and will provide organizational support to my team participating to make integrated oral health services part of our organization's health care delivery system. I will ensure that monthly data is submitted as outlined in the charter and detailed in the data measurement plan to be provided at learning session one.

_____

Signature **Date**

Members of the Health System MDI Team (See page 7 and 8 for expectations.)

Name of the two consistent MDI team members who will attend all 3 Learning Sessions.

Name	
Title/Role	
Email	
Phone	
Yes/ No	Does this person want MOC Part VI credit for participating?

Name	
Title/Role	
Email	
Phone	
Yes/ No	Does this person want MOC Part VI credit for participating?

Name of Family member (s) / patient (s) who is/will be part of the MDI team:

Name	
Title/Role	Patient of Health Care System
Email	
Phone	

Name of additional members of the MDI team:

Name	
Title/Role	
Email	
Phone	
Yes/ No	Does this person want MOC Part VI credit for participating?

Name	
Title/Role	
Email	
Phone	
Yes/ No	Does this person want MOC Part VI credit for participating?

Name	
Title/Role	
Email	
Phone	
Yes/ No	Does this person want MOC Part VI credit for participating?

Name of additional members of the MDI team:

Name	
Title/Role	
Email	
Phone	
Yes/ No	Does this person want MOC Part VI credit for participating?

Name of the dental hygienist hired by the health system (if known):

Name	
Title/Role	
Email	
Phone	

WI-MDI Participation Stipend

The mission of the WI-MDI Collaborative is to improve care and outcomes for patients with and at-risk for dental disease. Teams from health systems across Wisconsin will participate in the WI-MDI Collaborative focused on developing a financially sustainable model of care that integrates dental hygienists into primary care settings to improve access to primary preventive oral health services for children and pregnant women.

Children's Health Alliance of Wisconsin will provide a participation stipend to health systems enrolled and actively participating in the implementation of the WI-MDI Collaborative. The stipend can be used by the health system to ensure active engagement in the WI-MDI collaborative and data measurement requirements.

The project period for Wave 2 is from March 2020-March 2021

Active Engagement in the WI MDI Collaborative

- 2 members of the MDI team must commit to attending all three, two-day, in-person Learning Sessions.
- 1 patient/family member attend at least one day of each Learning Session (can change for each Learning Session) OR identify a plan for active patient engagement at the clinic level.
- Monthly process measures reported in Life QI
- Monthly and Bi-Annual outcome measure reported in Life QI
- Sharing of monthly PDSAs within Life QI
- Staff participation in monthly learning session calls

Stipend Process

- One payment of $2,500 will be provided to (Clinic Name) upon receipt of WI-MDI Collaborative Enrollment form on or before March 1, 2020.
- One payment of $2,500 will be provided to the (Clinic Name) halfway through the project period on October 1, 2020.
- If project team does not meet outline active engagement requirements the stipend may be withheld.
- Complete the contact information on page two of this document and fill out the attached invoice to request the stipend. Send the invoice to Dana Fischer, dfischer@chw.org .

WI-MDI Participation Stipend Agreement

(Name of Organization) agrees to the active engagement requirements of the WI-MDI Collaborative Participation Stipend. Please provide contact information and signature of the main contact person for the WI-MDI project.

_____ _____

Contact Person: Date

Clinic Name:

Email: Phone:

_____ _____

Matt Crespin, RDH, MPH Date

Associate Director, Children's Health Alliance of Wisconsin

mcrespin@chw.org 414-337-4562