TITLE PAGE

Title of Project: Aligning Pain Care in Our Communities

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1. Structured Abstract

Interstate Postgraduate Medical Association, Mayo Clinic Health System Southwestern Wisconsin, and the La Crosse County Public Health Department developed a collaborative education, practice facilitation, and quality improvement program to reduce misuse of opioids in managing chronic pain. Project goals included achieving consistency across physicians in safe opioid/narcotic prescribing, improving identification of depression in patients with chronic pain, and engaging community resources in the treatment of patients with chronic pain through standardization of care across Mayo Clinic Health System Southwest Wisconsin (MCHS SWWI). The six participating clinics improved their rates of patient medication agreements (26%), depression screening (26%), urine drug screening (8%) and use of an opioid risk assessment tool (7%). Physicians and clinical staff report increased confidence in treating chronic pain patients (14%) and identified standardized processes and improved teamwork as the overall project gains.

Key Words

Chronic pain patient - The chronic pain patients included individuals 18-75 years of age diagnosed with chronic pain and prescribed an opioid medication for at least three months. This excluded post-op, end of life care, hospice, cancer pain, or if opioid prescribed by someone other than the participating physician.

MOC - Maintenance of Certification.

PDMP – Prescription Drug Monitoring Program.

2. Purpose

Interstate Postgraduate Medical Association, Mayo Clinic Health System Southwestern Wisconsin and the La Crosse County Public Health Department developed a collaborative education and practice facilitation program to reduce misuse of opioids in managing chronic pain, achieve consistency across physicians in safe opioid/narcotic prescribing, improve identification of depression in patients with chronic pain, and engage community resources in the treatment of patients with chronic pain through standardization of care across Mayo Clinic Health System Southwest Wisconsin (MCHS SWWI). The primary objective was to provide systematic care for chronic pain patients following evidence based clinical standards for the treatment of chronic pain.

3. **Scope** (Background, Context, Settings, Participants, Incidence, Prevalence)

Background

Opioid problems and the fall-out from addiction are a community problem across the United States. *Aligning Pain Care in our Communities* incorporated a wide spectrum of community stakeholders in planning and project execution. This project stemmed from several ongoing initiatives and relationships in the La Crosse area that addressed abuse, misuse and addiction. Dr. Cheri Olson, principal investigator and member of the La Crosse County Board of Health, recognized the need for community and private healthcare collaboration.

Engaging with community stakeholders allowed development of clinic based educational sessions that addressed varied community issues surrounding opioid and other pain medication issues. Our intention and result was to integrate education, practice facilitation, and existing community and statewide initiatives within MCHS SWWI to achieve our project purpose.

Context

Our partnership was developed with the intent to engage multiple family medicine clinics within the MCHS SWWI and in doing so cross county and state lines to embrace a chronic pain patient initiative that had potential for further spread within other communities and additional Mayo Clinic Health System clinics.

Settings

Working within the MCHS SWWI region, we recruited 6 family medicine clinics. Four of the clinics were in Wisconsin, one in Iowa and one in Minnesota. One site was a family medicine residency clinic. Six sites located in five counties across three states participated in this project.

Participants

Clinical participants from the sites included a total of 107 physicians, nursing, and clinical support staff. Preliminary focus groups held in January 2016 included other community individuals as well as physicians and clinical support staff. The breakdown of these participants is identified in the table below.

CLINICAL AND COMMUNITY PARTICIPANTS

LOCATION	Participating Physicians	Participating Clinical Support staff	Public Health and Community Representation
FOCUS GROUP PARTICIPANTS	8 Representing Mayo and Gunderson Health Systems	7	4 Public Health Workers 2 Local Mayors 1 Judge 2 Law Enforcement Personnel

			2 Community Advocate 1 Recovering Addict
LA CROSSE FAMILY RESIDENCY, WI	16	10	1 La Crosse County PH Representative
LA CROSSE FAMILY MEDICINE, WI	7	10	1 La Crosse County PH Representative
TOMAH, WI	11	24	2 Monroe County PH Representatives
PRAIRIE DU CHIEN, WI	4	6	1 Crawford County PH Representative and the local Sheriff
CALEDONIA, MN	2	8	2 Houston County PH Representative
WAUKON, IA	5	4	1 Crawford County PH Representative and the local Sheriff

Incidence and Prevalence

Data indicate that in Wisconsin, prescription drugs are the second most common drug used for recreational purposes after marijuana. In 2009, 20.5% of Wisconsin high school students reported ever taking a prescription drug (such as OxyContin®, Percocet®, Vicodin®, Adderall®, Ritalin®, or Xanax®) without a doctor's prescription. This is identical to the US average of 20%.[1] An increase in prescription opioids is correlated with an increase in heroin use. Heroin represents a leading health risk behavior and deadly consequence to the residents living in the city of La Crosse and surrounding communities. Just three years ago, heroin was almost a non-existent issue in the small and safe community of just over 50,000 people bordering the Mississippi River. It has now become one of the city's most pressing issues with 24 overdose deaths documented between 2010 and 2013. Hundreds more in the region have escaped a similar fate only because of pre-hospital naloxone administered by emergency medical service (EMS) providers working with Tri - State Ambulance.[2] The number of drug overdose deaths - a majority of which are from prescription drugs - in Wisconsin doubled since 1999 when the rate was 4 per 100,000. Nationally, rates have doubled in 29 states since 1999, quadrupled in four of these states and tripled in 10 more[3]. Wisconsin, like the rest of U.S. is facing an opioid crisis.

As a result of this epidemic, the State of Wisconsin Medical Examining Board now requires two hours of mandatory education for all licensed physicians. This requirement began in January of 2017 and serves as recognition of the critical role that health care providers play in helping to solve this problem.

[1] Wisconsin State Council on Alcohol and Other Drug Abuse, Reducing Wisconsin's Prescription Drug Abuse: A Call to Action; January 2012.

[2] La Crosse County Heroin and Other Illicit Drug Task Force, Recommendations and Report to the La Crosse County Criminal Justice Management Council, Health and Human Services Board, Judiciary and Law Committee, and the La Crosse County Board; April 2014.

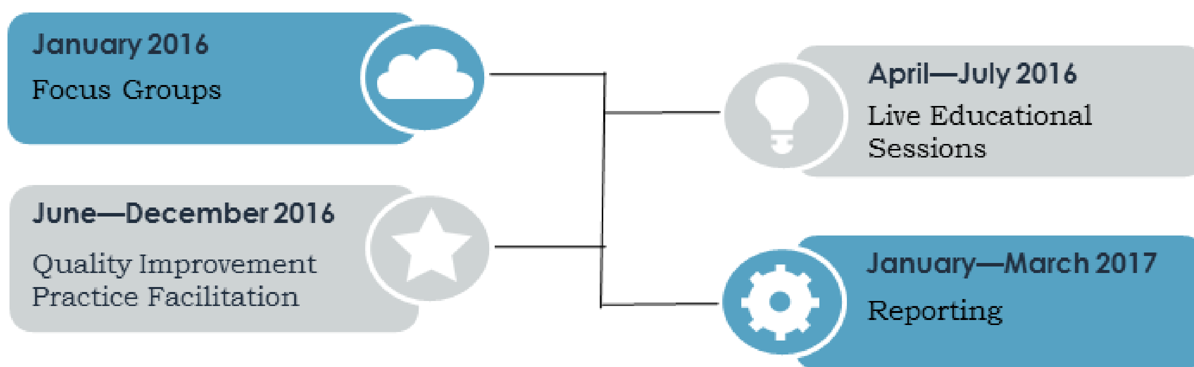
[3] Prescription Drug Abuse, Strategies to Stop the Epidemic, Trust for American's Health

4. **METHODS** (Study Design, Data Sources/Collection, Interventions, Measures, Limitations)

Study Design

This project was designed and implemented collaboratively with physicians and community health professionals working with quality improvement and educational specialists. The project was approved by the MCHS SWWI Quality Council prior to implementation. The project design promoted clinic based team engagement and respected the independence of the clinics while requiring participation through a common PDSA based improvement process.

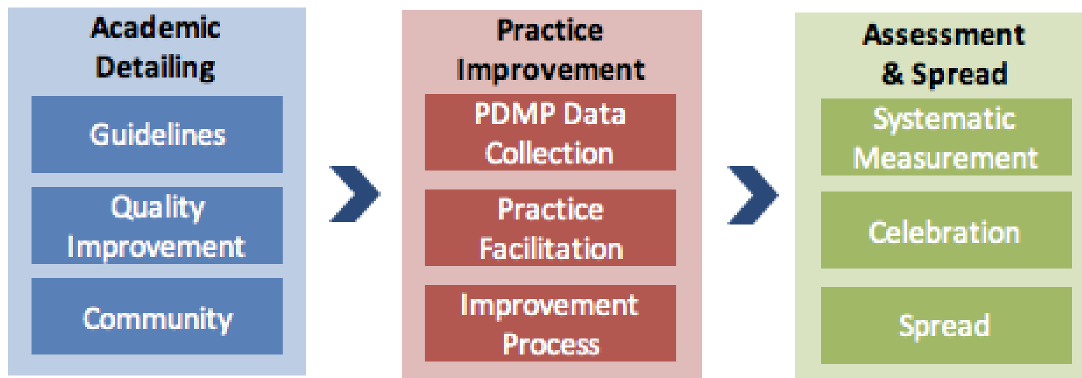
Timeline:



Recruitment and Planning: The project team began bi-monthly meetings upon project award in December 2015. These initial meetings established our timeline and finalized project design, roles, and responsibilities. Clinic recruitment began in early January. The six participating Mayo family medicine clinics including a residency clinic and one site each in Minnesota and Iowa.

Focus Groups: Two focus groups were held in January of 2016 to provide insight for educational planning. These discussions included physicians, clinic administration, nursing staff, community members including judicial, law enforcement and patients. Interested clinics were invited to participate in the focus group and inform others of their local needs as they treated chronic pain patients in their community. At the focus group conclusion, each attendee was asked to list their number one priority for this improvement initiative. We categorized these responses into physician, patient, and public health perspectives.

The focus groups served as an anchor throughout project design and implementation. The following graphic identifies our study design and approach.



Live Education Sessions: Three academic detailing sessions were developed. The first session addressed safe opioid prescribing and the newly release CDC guidelines on chronic pain management. Dr. Rod Erickson and Dr. David Onsrud provided these live sessions in each participating clinic. The second session focused on quality improvement principles and how this project would integrate practice facilitation, PDSA, and Maintenance of Certification Part IV requirements. Dr. Cheri Olson provided these live sessions in each participating clinic. The third session was uniquely developed for each clinic using community resources. Al Bliss from the La Crosse County Public Health Department coordinated these sessions with corresponding local community resources. A general presentation was developed and then each county tailored the presentation and provided a local resource guide on services available in prevention, addiction and recovery. Two of the county health departments then invited the local Sheriff to the presentation. All of Academic Detailing sessions were approved for one *AMA PRA Category 1™ Credits*.

Patient Identification: A registry of patients for each of the participating physicians was generated using the Wisconsin Prescription Drug Monitoring Program. Nursing staff and a Mayo data analyst then worked to verify the patient lists and remove non-chronic pain patients. Once each site had their registry list, baseline measures were gathered through chart review on four different metrics: patient medication agreements, urine drug screens, depression screens and use of an opioid risk tool. Each clinic team selected their specific measure for improvement.

Practice Improvement: Using practice facilitation and the IPMA Maintenance of Certification Part IV (MOC) Pain module, clinics began improving the standard of care for chronic pain patients in each of the participating clinic sites. Team training was held with the nursing team lead at each clinic site to kick-off the QI project. IPMA staff addressed how to access resources in the MOC Pain Module, reinforced basic QI principals, and reviewed project due dates and timeline cycles for two PDSA cycles.

Clinic sites then began their own quality improvement projects beginning June 2016. First steps were to complete process maps, identify causes to low measure results and discuss what to try to make improvements. IPMA and Mayo project team members worked individually with all teams throughout the quality improvement project. Project staff provided individual and team

support, answering questions, assisting with documentation, and monitoring progress as the sites worked through two cycles of change approximately 2 months apart. Patient measures were collected during the two PDSA QI cycles and again two months post interventions.

Analysis: The final component of the study design was to analyze the results. The entire project team analyzed and reviewed quantitative and qualitative results for project outcomes, sharing, and reporting.

Data Sources/Collection

Quantitative and qualitative data was gathered pre, during and post project. The following table provides a breakdown of the types of data available for analysis from pre, during, and post project data collection.

	PRE	**DURING**	**POST**
QUANTITATIVE	PDMP generated patient registry for internal database. Baseline on four metrics.	Two interim measures on one patient data metric.	Post completion measures on all four metrics.
QUALITATIVE	Pre evaluation by participating staff.	PDSA /QI cycle worksheets.	Post evaluation. MOC Reflection.

Quantitative: The Wisconsin PDMP was used to generate patient lists that became registries for each site. Patient data was extracted from the medical record for the baseline measures. Medical record information from the patient registries provided the quantitative results of the project. Using the patient registry information on the four measures was gathered; medication agreement, urine drug screen, depression screen, and use of an opioid risk tool, at the beginning of the quality improvement initiative for a baseline measure. Data was collected after two PDSA cycles and two-three months post project completion.

Qualitative: Pre and post project evaluations, PDSA cycle worksheets, and the MOC reflection questions all serve as qualitative assessment information for the project. All clinic staff were asked to complete an evaluation and survey at the first academic detailing session. If staff missed that first session but were going to participate in the quality improvement project, they were given the opportunity to complete and return the evaluation. All staff were asked to complete a post evaluation at the end of the project with similar questions to the pre for comparison purposes.

Interventions

The initial project interventions included the three academic detailing sessions focused on the CDC guidelines and safe prescribing, quality improvement, and community engagement. The improvement efforts were designed to use IPMA's MOC Part IV quality improvement online chronic pain module. This provided uniformity for the quality improvement process, readily available tools, and resources for all sites. Physicians completing the MOC Part IV requirements were awarded points by the American Board of Family Medicine. Clinical staff completing the process were awarded *AMA PRA Category 1™ Participation Credits.*

Each site selected a clinical and administrative lead for the project. The project team including Kate Nisbet and Pam Kittleson with IPMA and Dr. Cheri Olson and Janel Tunison from Mayo provided practice facilitation for all clinics as they worked through a quality improvement project. After determining a baseline measure for each of the four measures: patient medication agreement, urine drug screen, depression screening, and opioid risk, each site selected one measure for improvement and developed an AIM statement. Two sites (Caledonia and Prairie) focused on improving rates of depression screening for chronic pain patients. The other four sites (Waukon, Family Residency, Family Medicine, and Tomah) selected patient medication agreements as their improvement target. All sites worked through two PDSA cycles of improvement using process maps, fishbone diagrams, team meetings, and small tests of change.

The project team assisted with the facilitation of the quality improvement projects by offering individual support as needed, publishing a quarterly newsletter with best practices and success stories, holding group and individual trainings, and offering data analyst time for the measure updates during the two PDSA cycles.

Measures

The chronic pain patients included individuals 18-75 years of age diagnosed with chronic pain and prescribed an opioid medication for at least three months. Registries excluded post-op, end of life care, hospice, cancer pain, or if opioid prescribed by someone other than the participating physician.

The four clinical, quantitative measures identified as data sources are define as:

- Patient medication agreement on file in medical record.
- Urine drug screen administered within the previous 12 months noted in the medical record.
- Depression screen noted in medical record.
- Opioid therapy related risk assessment within the previous 12 months noted in the medical record.

Limitations

There were several project limitations with our design.

Study Design: Several design decisions influenced the data we collected. The study didn't include a clinic control site to allow comparison to the intervention clinics. This study focused on improving clinic process measures that influence physician decision making for chronic pain patients therefore we did not measure change in patient health status or pain. A chronic pain registry did not exist within the clinics and the data could not be extracted from the EMR due to lack of resources. Our initial design included tracking of patient morphine milligram equivalent. This was not achievable in our PDMP driven registry implementation.

Clinic variation: Clinic participation was driven by internal leadership and commitment. Not all sites participated equally in the process. Multiple offers for assistance were made to the clinics: some clinics welcomed the support while others preferred to work independently. Our assessment tools focused on individual attitudes and changes because of this project. We did not have an assessment mechanism for teamwork effectiveness. The project leads hypothesized that team-based improvement projects that were internally driven would improve provider morale. We did not have any assessment tools to evaluate this.

5. **RESULTS** (Principal Findings, Outcomes, Discussion, Conclusion, Significance, Implications)

Principal Findings

The family medicine clinics realized improvement in use of opioid agreements, depression screening, urine toxicology screening and use of opioid risk assessment. Five of the six sites exceeded their AIM statements for their targeted measure.

Clinic	Targeted Measure	Project Aim Goal	Baseline	Cycle 1	Cycle 2	17-Feb
Caledonia	Depression Screening	45%	29%	35%	55%	58%
Prairie du Chien	Depression Screening	65%	34%	43%	68%	72%
Waukon	Opioid Agreement	15%	5%	6%	6%	8%
La Crosse Residency (FHC)	Opioid Agreement	50%	31%	32%	76%	85%
La Crosse Family Medicine (MCHS)	Opioid Agreement	20%	16%	29%	37%	45%
Tomah	Opioid Agreement	75%	51%	61%	80%	86%

Physician self-assessment of confidence in managing chronic pain patients increased 14.8% as a result of the project. However, that confidence was not confirmed in their self-assessment of how much they changed their management of chronic pain patients (0.4% increase).

Physicians and team members were equally engaged in the implementation and assessment of this project. The academic detailing education sessions were rated as effective and appropriate for practice even though not all participating clinicians were able to attend all three sessions. No meaningful differences in physician and clinical staff assessments were noted.

The MOC process as implemented through the MOC module was an effective method to encourage, monitor, facilitate and measure the improvement process in the participating clinics.

Outcomes

Participants: Clinic participation across six sites in five counties located in three states impacted 107 unique health care providers. The chronic pain population was 1249 for the participating sites.

Focus Groups: The two focus groups provided diverse and often contradictory perspectives and insight from the four main constituencies: clinicians, public health workers, community leaders, and patients. These separate perspectives informed the overall message of this project. Clinicians noted a lack of tools to support chronic pain patients, lack of support for change from administration, and general burden of caring for the needs of complex patient. Community leaders noted the impact of addiction on education, social services, and law enforcement. The patient perspective was given from a recovering addict who sits on the La Crosse County Heroin Task Force who felt strong enough to share her views. She said please don't judge me and be sensitive to my needs as a recovering addict. The public health message addressed a common theme from their perspective.

- Don't share
- Dispose of properly, and
- Lock them up

They asked the physician community to spread these messages when prescribing opioids. These concerns were new to many of the physicians and clinical staff participating in the focus groups. The project leads added these public health concerns to the clinical education.

Education: The academic detailing sessions held in each clinic location were well attended by physicians and clinic staff. Attendance numbers are listed below. In addition, the education was evaluated for both effectiveness and appropriateness to practice. The summary results of these measures are provided below.

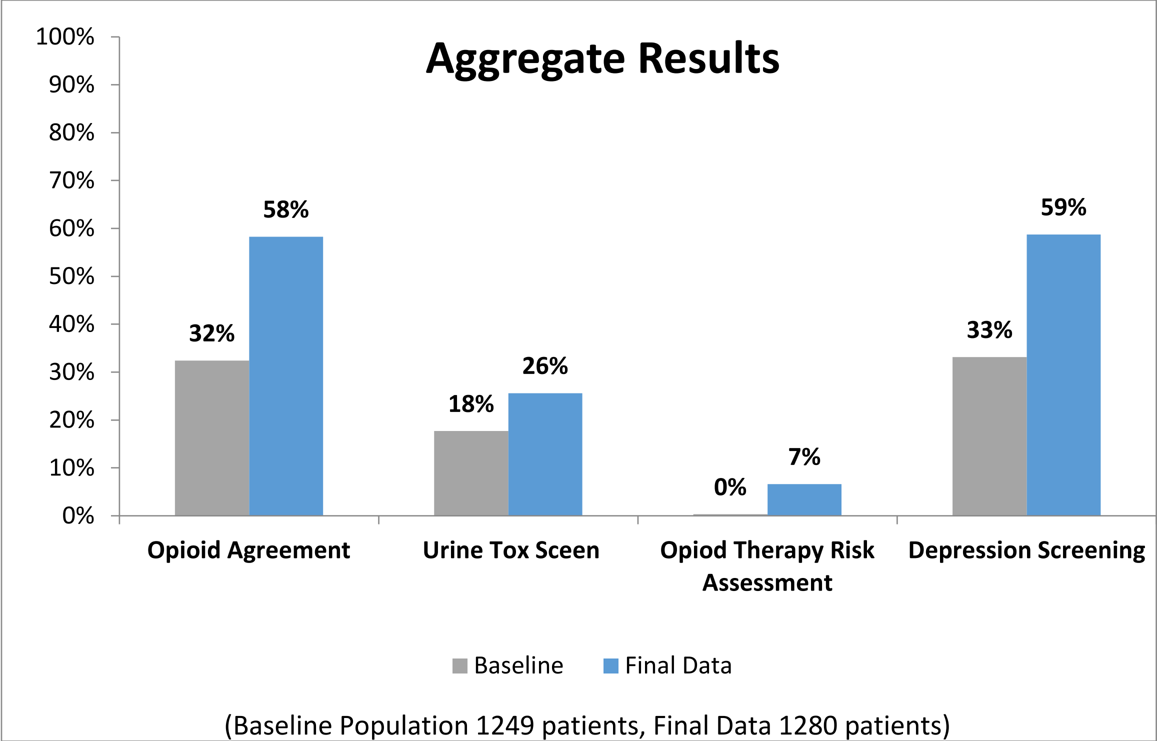
Summary Attendance	**Academic Detailing #1**	**Academic Detailing #2**	**Academic Detailing #3**
MD/DO	26	20	26
NP/PA	2	1	1
RN	21	16	19
MA/LPN/Other	27	17	20
Total	76	54	66
Effective Presentation	100% agreed on effectiveness (Scale =Yes, No)	Average score 4.74, 98% agree or strongly agree (Scale 1-5, 1 Strongly Disagree - 5 Strongly Agree)	Average score 4.58, 94% agree or strongly agree (Scale 1-5, 1 Strongly Disagree - 5 Strongly Agree)
Appropriate for my Practice	98% agreed on appropriateness (Scale = Yes/No)	Average score 4.78, 100% agree or strongly agree (Scale 1-5, 1 Strongly Disagree - 5 Strongly Agree)	Average score 4.63, 95% agreed or strongly agree (Scale 1-5, 1 Strongly Disagree - 5 Strongly Agree)

PDMP: Before the PDMP registries could be generated, physicians needed to register for their state PDMP. The Wisconsin, Minnesota, and Iowa PDMP's are all accessible and share information providing a means to track patients across these state lines. The six participating clinics realized a change from 15 registered physicians and delegates to over 100.

Quality Improvement Process: 62 clinicians participated in a quality improvement project. For many, this was their first time participating in a quality improvement project. Twenty-six physicians and 10 staff completed the entire quality improvement process and the MOC required reflections. The impact on individual patient lives is summarized below:

- ***325*** Additional patients with a medication agreement.
- ***325*** Additional patients screened for depression
- ***100*** Additional patients with a urine drug screen
- **87** Additional patients screened for opioid risk

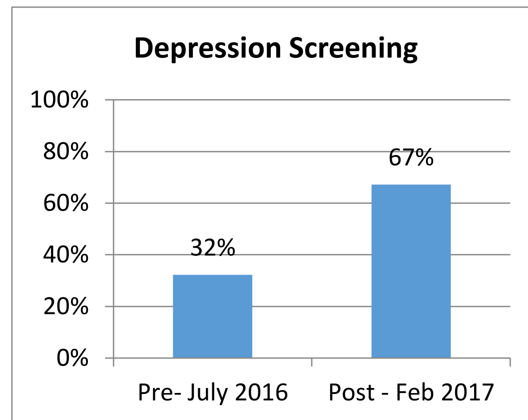
The chart below provides the aggregate results from their baseline measure and their two-month post intervention measure for each of the four clinical data measures.



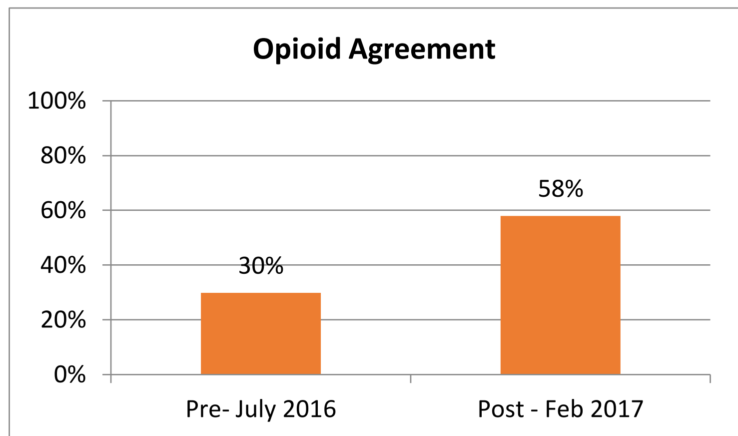
(Baseline Population 1249 patients, Final Data 1280 patients)

Individual Clinic Results: Chart review of identified patients provided the baseline data for each clinic. Clinics then reported data on their selected measure at the end of each PDSA cycle. A final measurement was taken for the 4 measures at two months post completion of their QI project.

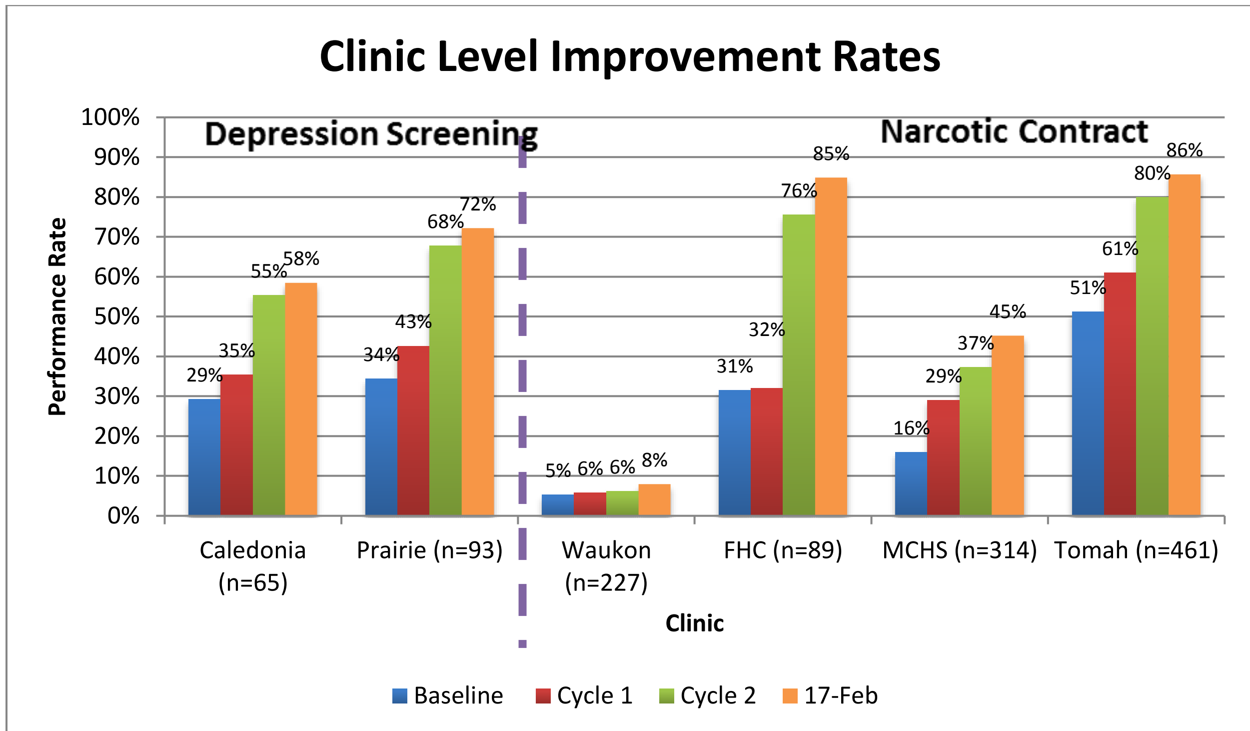
Data from the two clinics that selected depression screening (Caledonia and Prairie) show a 35% improvement in number of patients screened for depression. February 2017 data includes 180 patients in the denominator.



Data from the four clinics (Waukon, La Crosse Residency, La Crosse Family Medicine and Tomah) that selected opioid agreements as their improvement measure show a 28% improvement rate in their patients who complete an opioid use agreement. February 2017 data includes 1,100 patients in the denominator.



Data from each clinic highlighting the improvement rates for their selected improvement measure is highlighted below. (FHC is La Crosse Residency, MCHS is La Crosse Family Medicine).



Qualitative: Change in physician and staff confidence, attitude and change were measured through pre intervention and post intervention data collection. Those completing the MOC process also completed reflection questions on the improvement process.

Of the 107 unique individuals that participated in at least one educational activity, 76 returned the pre-evaluation administered at the conclusion of AD #1, 49 returned the on-line survey post-evaluation. Thirty-four physicians and staff completed the pre and post evaluations. The results are summarized only for those 34 individuals completing both the pre and post evaluations.

Results of those evaluations are provided in the following tables. The first table, provided below, reflects confidence in management and plans to change the management of chronic pain patients. The scoring scale: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), Strongly Agree (5).

	All Clinicians n=34			Physicians n=13			Clinical Staff n=21		
	Avg Pre Answer	Avg Post Answer	Change	Avg Pre Answer	Avg Post Answer	Change	Avg Pre Answer	Avg Post Answer	Change
I am confident in my management of these patients.	3.61	4.15	14.8%	3.5	4.4	23.9%	3.67	4.00	9.1%
I plan to change how I manage these patients. / I have changed how I manage these patients as a result of participating in this project	4.10	4.12	0.4%	4.5	4.2	-6.0%	3.83	4.05	5.6%

As part of the evaluations, physicians and staff were asked to evaluate their current use of treatment agreements, depression screening, and additional metrics. Pre and post evaluation scores identify differences in how participants view their current practice in the care of chronic pain patients. The scoring scale: Never (1), Rarely (2), Sometimes (3), Very Often (4), Extremely Often (5).

Current Practice

	All Clinicians n=34			Physicians n=13			Clinical Staff n=21		
	Avg Answer Pre	Avg Answer Post	Change	Avg Answer Pre	Avg Answer Post	Change	Avg Answer Pre	Avg Answer Post	Change
Use of treatment agreements	3.72	4.46	19.9%	3.77	4.62	22.4%	3.67	4.31	17.5%
Screen for depression	3.73	4.45	19.2%	3.46	4.46	28.9%	3.94	4.44	12.8%
Complete urine drug screening	3.28	3.74	14.0%	3.08	3.77	22.5%	3.50	3.71	6.1%
Assess pain using a pain inventory tool	3.73	3.52	-5.8%	2.69	3.31	22.9%	4.53	3.67	-19.0%
Assess for risk of aberrant drug use behavior or addiction using ORT DIRE (or similar tool)	1.96	2.80	43.0%	1.77	2.85	60.9%	2.18	2.75	26.0%
Assess function with BPI, FAQ5 (or similar tool)	1.59	1.86	16.7%	1.38	1.92	38.9%	1.89	1.75	-7.4%
Routinely check the WI PDMP database	3.07	4.45	44.9%	3.46	4.38	26.7%	2.73	4.50	64.6%
Follow MCHS policies and procedures for the management of chronic pain patients	3.81	4.57	19.9%	3.42	4.54	32.8%	4.14	4.59	10.8%
Work with community and public health resources for safe opioid use education	2.04	2.63	29.0%	1.83	2.33	27.3%	2.21	2.87	29.5%
Work with community and public health resources for addiction services and prevention	2.04	2.60	27.6%	2.00	2.50	25.0%	2.07	2.69	30.0%
Work together with my care team to manage these patients	4.03	4.68	16.0%	4.00	4.77	19.2%	4.05	4.61	13.8%

Pre and post evaluations provided the same list of patient care and asked clinicians to evaluate the amount of change they want to make in the pre evaluation. In the post evaluation, clinicians were asked to reflect on the amount of change they felt they made. As a result, pre and post evaluation scores identify differences in how staff view practice change. The scoring scale: Already Do This (1), No Change (2), Little Change (3), Some/Moderate Change (4), Great Deal of Change (5).

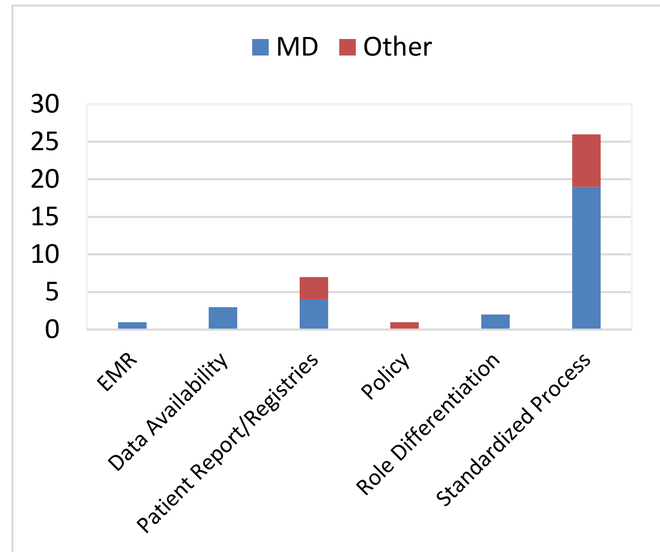
Practice Changes

	All Clinicians n=34			Physicians n=13			Clinical Staff n=21		
	Avg Answer Pre	Avg Answer Post	Change	Avg Answer Pre	Avg Answer Post	Change	Avg Answer Pre	Avg Answer Post	Change
Use of treatment agreements	4.17	4.23	1.2%	3.95	3.85	-2.6%	4.38	4.60	5.1%
Screen for depression	4.12	3.65	-11.4%	3.88	3.59	-7.6%	4.38	3.72	-14.9%
Complete urine drug screening	4.23	3.52	-16.7%	4.08	3.23	-20.8%	4.37	3.85	-11.8%
Assess pain using a pain inventory tool	3.65	2.75	-24.7%	3.85	2.64	-31.5%	3.40	2.93	-13.9%
Assess for risk of aberrant drug use behavior or addiction using ORT, DIRE (or similar tool)	3.85	3.13	-18.6%	3.85	3.33	-13.3%	3.85	2.79	-27.6%
Assess function with BPI, FAQ5 (or similar tool)	3.78	2.47	-34.6%	3.65	2.50	-31.6%	3.95	2.42	-38.8%
Routinely check the WI PDMP database	4.42	4.07	-8.0%	4.29	3.65	-15.0%	4.54	4.45	-1.8%
Follow MCHS policies and procedures for the management of chronic pain patients	3.63	3.37	-7.1%	3.35	3.28	-2.2%	3.90	3.45	-11.5%
Work with community and public health resources for safe opioid use education	3.67	2.82	-23.3%	3.35	2.96	-11.6%	4.00	2.57	-35.7%
Work with community and public health resources for addiction services and prevention	3.69	2.68	-27.3%	3.35	2.82	-15.8%	4.04	2.50	-38.1%
Work together with my care team to manage these patients	3.83	3.65	-4.9%	3.50	3.63	3.6%	4.23	3.67	-13.3%

As part of the MOC Quality Improvement process, MOC reflection questions were analyzed by project staff. Individual responses were categorized by theme. The following tables provide summary findings of those MOC reflections from the 36 MOC completers (10 physicians, 26 clinical staff).

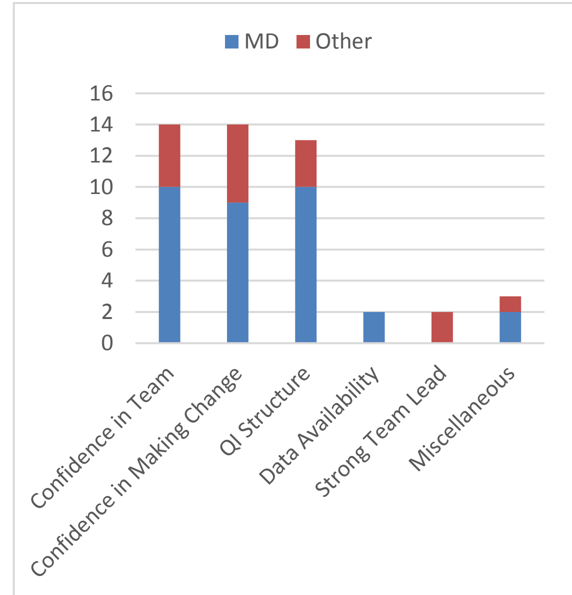
Best Practices

Participants were asked to identify the best practices that resulted from the quality improvement work. Standardized processes were universally identified as the best practice.



QI Process Reflection

In reflecting on the QI process itself, participants were asked to evaluate confidence in making changes in practice, working with your team, and the practice facilitation staff. Findings indicate strong confidence in team, the QI structure, and the ability to make change.



Key Lessons Learned

In reflecting on key lessons learned, teamwork and the QI structure both rated very high. This scatter plot provides individual clinic reflections on key lessons learned.

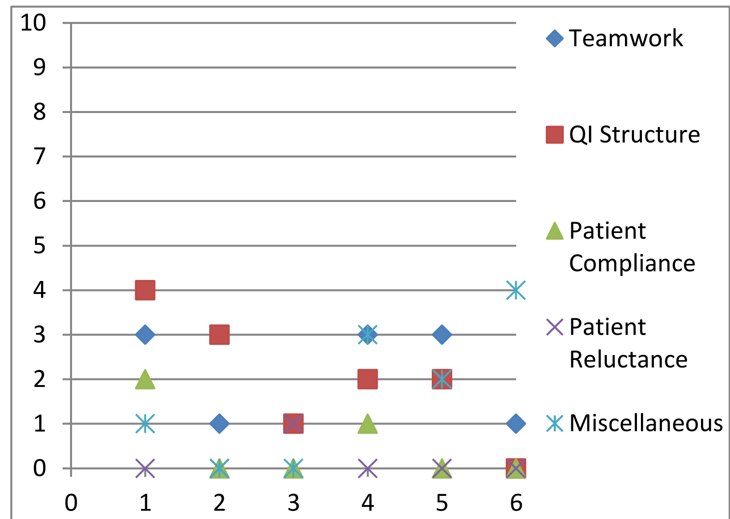


Figure 1 Clinic 1 is La Crosse Residency Clinic. Clinic 2 is Caledonia. Clinic 3 is Waukon. Clinic 4 is La Crosse Family Medicine. Clinic 5 is Tomah, Clinic 6 is Prairie du Chien.

Participation in Quality Improvement

Overall 83% of participants indicated that they would participate in a quality improvement project again.

Discussion

Participation: Clinic staff participation varied by clinic. Some sites (Caledonia) had nearly all staff participate in some portion of the project. Other sites (La Crosse Family Medicine) had a higher percentage of clinical staff participate. MOC credit may have encouraged physicians needing credit to participate. Participation in the project was determined by each clinic. This project was designed to support rather than dictate their progress through the improvement process. Most clinics fully embraced their participation.

Focus Groups: The varied background of focus group participants led to rich discussion that served as a foundation for the academic detailing curriculum. The connections established during those meetings continue to grow through the communities.

PDMP: Use of the PDMP to initiate the patient registry provided an easy to use solution to registry development that aligned with legislative changes in Wisconsin. Increasing the number of registered physicians and their delegates linked this project to required process changes within the practices.

Patient Clinical Measures: The project design required clinics to improve one of the approved measures. The clinics selected either depression screening or use of an opioid agreement. Results indicated that all four measures increased during the project suggesting that awareness of the measures and focus on chronic pain management allowed the clinics to examine all their processes. Five of the six clinics exceed their initial aim statement in their selected focus area.

Pre and Post Project Evaluations: Participants completing the pre and post evaluation identified multiple areas of improvement in their delivery of care to chronic pain patients.

- Increased use of treatment agreements, depression screening, urine drug screening, and use of a pain inventory tool. The magnitude of the increased use of treatment agreements and depression screening aligns with the focused areas of improvement within the clinics.
- Participants reported an increased use of the opioid risk tool and the Opioid Risk Tool (ORT). Their self-evaluation indicates that gaps remain. Conversation with the project lead noted that these is not well integrated into the existing EHR and are more complex to use.
- Participants noted increased use of the PDMP.
- Participants reported that their current practice was more aligned with MCHS policies and procedures.
- Participants reported that they have an increased awareness of community health resources and recognize a remaining gap in their current use of these resources.
- Participants report improved team management of patients with chronic pain.

MOC Reflections: Our review of the MOC reflection comments identified several key areas of impact in this project. Key areas of impact and change were in the use of standardized processes and increased teamwork. The MOC reflection comments identify key areas of impact and provide insight into the project teams. One completer noted "This ***process*** has made it possible for each team member to have a role in monitoring the use of pain medication. I am more confident in my team and I feel that I am not alone anymore." Another MOC completer noted "I learned that ***working as a team*** we can make a major impact. I was impressed with the number of opportunities captured when we utilized our tools."

Overall satisfaction with the quality improvement process: The physicians and clinical staff found the process valuable as 83% of those completing the improvement process indicated that they would enroll in a quality improvement project again.

Conclusions

By coming together in a public health - private health partnership and using education, practice facilitation, and quality improvement we changed clinic performance and culture while opening doors for community partnerships.

The project met its goal of improved management of patients with chronic pain. Five of the six clinic sites ***exceeded*** their AIM statement goals. This resulted in an increased use of treatment agreements and depression screening for patients. While not a focus of the program, increased scores in urine drug screening and opioid risk assessment were also achieved. Participants were more confident in their management of chronic patients yet did not link their improvements to changing patient outcomes. Gaps remain in the use of urine drug screening, use of risk assessment tools, and the use of community resources. All the clinics reported increased use of standardized process, improved teamwork, and increased PDMP usage.

Among the more significant outcomes is the spread of this project within Mayo Clinic Health Systems, within the Mayo Clinic Enterprise, within La Crosse County, within adjacent counties, in Wisconsin, and nationally. This project was recognized by the Mayo Clinic Quality Academy as a Gold project, the highest level of recognition for a quality improvement project. The project team leads are now part of system wide initiatives in chronic pain management.

Keys to Success: Our project team identified several keys to the success of the project. Our team held bi-monthly project meetings to keep everyone on track and current. We wrote and distributed project newsletters to all clinic team members including project status reports, upcoming dates and deadlines and stories from clinic sites. We utilized the talents of each partner for meetings and project assistance. Non-clinical staff was assigned to assist with data pulls for the clinical measures and clinics were offered a stipend to cover some of the cost of the project leader.

Barriers: Our partnership encountered challenges and barriers during the project implementation. Selected barriers and their resolution are highlighted below.

Barrier or Limitation	**Resolution**
Lack of patient registries or ability to extract patient records from the EMR	Used the WI PDMP to build site specific registries
Registration for PDMP	Trained computer assistants from Mayo administration to assist with registration and assigning delegates
Adequate staff time was not allocated to the project	Used project team to complete data pulls
Quality improvement was new to most sites	Group training sessions and individual practice facilitation assisted practices with less experience. A common improvement framework made the process easy to follow.
Not all clinics were completely engaged in the project or the process	Data reflects participation but the staff liked the project

Unanticipated Outcomes: Unexpected project outcomes include our principal investigators becoming experts within MCHS, Mayo Clinic, and the community. The principle investigators were invited to present project results and barriers to a listening session of Wisconsin legislators. The focus on the community/clinician partnership has led to a county wide initiative, the "La Crosse Promise", focusing on shared treatment objectives and processes for chronic pain patients to improve safety of the community while treating each patient with respect. Physicians within MCHS are now more likely to discuss safe medication disposal with their patients.

There were also some patient focused outcomes we didn't foresee. Participating clinicians found that by screening patients for opioid risk and depression, previously unknown cases of sexual abuse were discovered, depression was diagnosed, and patients admitted to addiction and sought help. Patient satisfaction rates were not affected even as greater accountability was implemented in the system.

Significance

Spreading our Results and Work: The project team has already spread the word of this project's success. After completing the final data collection, posters for each site were created to hang in their clinic. These posters reflected not only the clinical results but the process each site went through to make their changes and improvements. A sharing session was held in March of 2017 for each project team to present on their project, comment on key successes and barriers. This sharing session was attended by clinic leadership, administrative and medical leadership, project teams, members of the community and more. Over 60 people were in attendance.

Additionally, our work has been shared within the Mayo Health System, the State of Wisconsin and beyond. Examples of project success include:

- Mayo Quality Conference award winning poster March 2017
- Mayo Clinic Quality Academy GOLD project status May 2017
- Chronic pain metrics being incorporated onto performance boards for all primary care clinics
- Physician leadership serving as experts for Mayo Clinic Enterprise chronic opioid prescribing guideline spread in 2017/2018
- Physician leadership assisted in development of pain EHR tools for July 2017 EPIC conversion
- Project funding providing an opportunity to continue work with non-participating providers and community health in Monroe and Richland counties

- Presentation at the Wisconsin Public Health Association Conference May 2017
- Applications to the NAPCRG and ABMS 2017 conferences

Implications

The following implications were identified by our project team:

- Physicians and their teams can incorporate and improve best practices for treating and monitoring their chronic pain patients.
- Ongoing work is needed to link development of standardized processes to improved patient outcomes.
- Partnerships are critical to improving the health of the community. This project was a first step and the opportunity needs to be continued.
- There are gaps that remain, specifically the use of opioid risk assessments, urine drug screens and improving patient pain.
- Accurate and up to date registries with standardized and relevant measures are needed in chronic pain. A standardized workflow needs to support their use.
- Clinic leadership at the physician and administrative level is key.
- Support delivered to the clinics is necessary for quality improvement. Planning for this support increases the chance for success.
- The MOC Module ensured a similar process and the ability for clinics to successfully complete two PDSA cycles.
- Systems need to determine how much standardization across chronic pain patient care processes is required and at what cost of time and resources.

6. Attachments Provided with Report Submission

- Clinician Pre Evaluation and Post Evaluation tools
- Academic Detailing Session Slide Sets (3)
- Individual clinic, La Crosse County and final project posters (8 total posters)
- June 2017 CX2 Presentation