

Title

From Pain to Gain: Evidence-based Interventions in Chronic Pain Assessment and Management

Abstract

Economically disadvantaged patients suffering from chronic pain and seeking treatment in a community clinic setting face under-diagnosis, outdated approach, and inconsistent or absent use of a team-based approach. Causes include negative attitudes by medical staff, lack of consistency querying patients about pain, skewed approach toward biologic and pharmacologic treatment, and inconsistent use of interdisciplinary and interprofessional teams. Our goal is to increase focus, improve efficiency, and expand effectiveness of chronic pain treatment in our practice by implementing consistent diagnostic practices, broadening treatment tools and renewing provider enthusiasm toward the best care of chronic pain patients.

Laguna Beach Community Clinic (LBCC) serves approximately 4,500 economically disadvantaged patients per year (88% are living below 200% Federal Poverty Level); an estimated 1,100-1,500 suffer from chronic pain. Potential causes include diabetic neuropathy, fibromyalgia, osteoarthritis, inflammatory arthritis, spinal injuries and others.

Project methodology will replicate other successful Quality Improvement (QI) programs at the clinic, beginning with nomination of a Project Champion, who will guide participation of an interdisciplinary committee. The committee will review industry best practices, adapt treatment plans, create small tests of change, conduct quarterly assessment, and present results internally. Results will be disseminated externally to medical advocacy, continuing medical education, and local community groups.

Clinical outcomes will be evaluated to determine improvement in pain control using QI methodology; validated quality of life surveys will determine true intervention effectiveness. Surveys of medical team will gauge improvement in knowledge and confidence in care for chronic pain patients, and for professional satisfaction managing these complex patients.

Proposal

1. Overall goals and objectives

As a primary care facility providing direct care to approximately 4,500 patients per year, we believe a large cohort of patients at Laguna Beach Community Clinic (LBCC) suffer from chronic pain as a result of varied primary diagnoses. We believe that these patients are under-identified and inadequately treated for their chronic pain. The burden of suffering includes insufficient pain control, inefficient use of opioids, overuse of medical facilities—especially hospital emergency departments—and provider frustration and dissatisfaction.

At our clinic, patients with chronic pain have a need first for reliable identification of their pain and second for excellent care in treatment of their pain. Our staff providers need renewed confidence and improved tools in treating chronic care patients.

Primary project Goal: Addressing these needs, the goal for this project is to increase focus, improve efficiency, and expand effectiveness of chronic pain treatment in our practice by implementing consistent diagnostic practices, broadening treatment tools and transforming provider enthusiasm toward the best care of chronic pain patients.

This project is aligned with the goals outlined by the Pfizer Independent Grants for Learning & Change: clinical outcome improvement, patient quality of life, and team approach. As a direct medical care provider, activities associated with this project will directly impact clinical results attained in a community clinic environment. If successful, this project will improve effectiveness of chronic pain treatment as measured by validated tools, and result in enhanced quality of life for patients. A committee of interdisciplinary and interprofessional staff and volunteers will create value and efficiency in the project. Cumulatively, the result of project activities will advance the standard of care in our practice, and in other practices as the results are shared and replicated by other direct care providers.

The mission of LBCC is to provide excellent medical care regardless of the patient's ability to pay. This embraces our agency goals of achieving superior clinical outcomes while offering accessibility to patients (as measured by low-cost, geographic reach, walk-in availability, weekend hours, and linguistic capability for non-English speaking patients). Efficiency of care delivery is required in this fiscally lean community care setting. This project directly aligns with our agency goals of accessibility and quality by creating a pain management a program which successfully identifies chronic pain patients and then delivers direct treatment based on industry best practices and continuous improvement. A team approach will ensure the prudent productivity required of a non-profit dependent on fiscal caution. Most importantly, we believe this project will encourage accurate diagnosis and effective management of chronic pain which will significantly improve our patients' quality of life.

We expect to reach our project goal by meeting the following key objectives:

- ***Deliverable #1 Recruit, Engage, and Educate a Comprehensive Team:*** By February 28, 2015, LBCC will identify and recruit skilled and motivated members of our clinic staff and

community to join together, recognize the impact of chronic pain, and commit to working collaboratively to achieve our stated goals.

- **Deliverable #2 Identify the Burden of Suffering:** By February 28, 2015, LBCC will establish a procedure to quantify and register the number of patients in the practice experiencing chronic pain and implement protocols to identify the incidence, prevalence, cause, and previous treatment for patients entering the registry thereafter. Patient enrollment in the pain management program will be ongoing.
- **Deliverable #3 Challenge our Current Care:** By March 31, 2015, the committee will compare existing diagnostic and treatment protocols used at LBCC to current and emerging evidence-based guidelines and recommendations.
- **Deliverable #4 Innovate our Care:** By April 30, 2015, the committee will complete the design of clinic-specific and patient-specific team-based treatment plans with implementation of new protocols to begin immediately thereafter in the day-to-day treatment of chronic pain patients.
- **Deliverable #5 Evaluate the Impact:** Between May, 1 2015 and April 30, 2016, the committee will apply a continuous Quality Improvement (QI) model to assess the successes and failures of the new approach to care and to adapt the program as necessary.
- **Deliverable #6 Continuing Medical Education/ Continuing Professional Development Activities:** By August 2016, we will collaborate with community resources for public outreach educating local residents about the treatment of chronic pain and to disseminate project findings to the larger medical community.

2. Technical approach

The national burden of suffering of chronic pain is well documented and studied, as referenced in the Consortium's Request for Proposal. LBCC's "From Pain to Gain" project will have a much more focused approach.

The first investigation will look at our current practice. Anecdotally, we know that chronic pain is a significant problem for our patients. However, we are still a bit in the "don't know what we don't know" phase of discovery. For example, we have had great success in identifying and managing our diabetic patients. We employ simple but effective tools for managing the data (the charts are color-coded uniquely and kept in the same filing units, we have flow sheets to manually manage the data). Despite significant manual data entry, we have been able to monitor biomarkers, medications, and, most importantly, patient self-management. We have demonstrated similar success with HIV and other chronic disease patient populations. Our current systems however do not allow us to easily identify and register chronic pain patients. As we implement our Electronic Medical Records (EMR) system, we will have an opportunity to streamline and expand all of our QI projects. The EMR system will go-live in January 2015.

Successful implementation of the EMR system will require complete commitment and participation from all members of the team. Operations Support (front office and medical

records personnel) will be crucial in designing fields to easily place patients in the Chronic Pain Registry. Nursing (Registered Nurses and Medical Assistants) will take the lead on the design and implementation of tools to identify chronic pain patients. These tools may be as simple as using a pain scale as a vital sign or employing screening questionnaires for all patients. Our approach will evolve as the project unfolds. Providers (Medical Doctors and Nurse Practitioners) will be tasked with research and dissemination of best practices and evidence-based guidelines to the team.

We believe that these technical aspects which are easily achievable. LBCC has always supported a culture of questioning how we practice and how we can do better. The principals of continuous Quality Improvement are already a part of how we practice and care for patients.

LBCC is also committed to the principals of the Patient Centered Medical Home (PCMH), defined by the Agency for Healthcare Research and Quality (AHRQ) as “a medical home not simply as a place but as a model of the organization of primary care that delivers the core functions of primary health care.” The medical home model encompasses five functions and attributes: comprehensive care, patient-centered, coordinated care, accessible services, and quality and safety. We will submit our application for Level 3 PCMH certification in March 2015. As such, we need to keep the patient in the center of the project. We have already included one chronic pain sufferer as a key participant on our team; and will solicit patient input throughout the project. We will consider focus groups or group medical visits.

Education is a key value and another intrinsic part of our agency’s culture. We train NP students from two Universities and have medical students rotate at the clinic during all four years. We conduct medical training events at the clinic which include all staff members. We will design curriculum for staff focused on chronic pain management including diagnosis, treatment and self-management.

The final aspect will be to spread what we have learned and achieved to other community providers. We will partner with the local hospitals to present to their medical and nursing staffs. We will also collaborate with the Orange County Academy of Family Physicians to reach out to the 800 family doctors in our community. To further expand the scope, we will explore collaboration with a Continuing Medical Education (CME) certified provider to develop content for Continuing Professional Development activities and, possibly a module on Chronic Pain for Family Medicine Maintenance of Certification Part IV; the Performance in Practice Modules are grounded in QI and, more specifically, the process of PDSA (Plan, Do, Study, Act) cycles which parallel the activities of this project.

3. Current assessment of need in target area
 - a) Quantitative baseline data

As we previously discussed, currently there is no registry of chronic pain patients in our practice which quantifies the number of chronic pain patients or measures quality of their care. As

complicating factors are addressed initially during an exam, pain may not be discussed. At this time, there is no specific protocol for querying patients regarding pain. Initial quantitative data for the practice includes total number of patients served, number of office visits, demographic information, and encounters by principal diagnosis. Qualitatively, we know chronic pain is a significant factor and a large percentage of our patient care. Chronic pain is sometimes the primary diagnosis but, more often, a confounder of other chronic medical conditions.

In the article “Primary Care Providers Concern about Management of Chronic Pain Patients in Community Clinic Populations” (Upshur CC, Luckmann RS, Savageau JA, Journal of General Internal Medicine Volume 21, Issue 6, pages 652-655, June 2006) the authors state: “Primary care providers in our study reported that over one-third of adult appointments in a typical week involved a patient with chronic pain. While this finding is not a true prevalence estimate, it does indicate that providers in community clinic settings encounter a large number of patients with chronic pain symptoms.”

If we apply these estimates to our patient volumes, as reported in our Annual Utilization Report of Primary Care Clinic submitted to the California Office of Statewide Health Planning and Development (OSHPD), we would estimate that 1,229 patients in our practice suffer from chronic pain. ***By not diagnosing their pain specifically and identifying these patients in a distinct registry, a gap in our clinic’s continuum of care is created, leading to various barriers to effective pain treatment for patients and effective tools for providers.***

There is a larger community gap as well. In south Orange County, the Community Benefits department of Mission Hospital and Mission Laguna Beach has studied both substance abuse in the surrounding communities as well as inappropriate Emergency Department utilization by Chronic Pain patients. The Community Benefits Director has expressed her enthusiasm for collaborating in the “From Pain to Gain” project and has shared data with our team. Of note, only 41 patients accounted for 278 visits to the Emergency Department (between June and August 2014), by visiting the ER on five or more occasions in the three month span. Total ER visits during this duration was 4,503. This translates to a rate of 61.7 per thousand “frequent ER user visits;” the Mission Hospital goal is to reduce that rate by 15% in fiscal year 2015—we hope to positively contribute to that reduction as a community partner of Mission Hospital as this project positively impacts the local community. As we improve care of our own patients and spread our lessons learned to our community, we will work with the local hospitals to measure the impact on the local Emergency Departments.

b) Primary audiences

The primary audiences for this project include chronic pain patients, internal care providers (LBCC staff) and external care providers. Care providers implies interdisciplinary and interprofessional audiences including medical personnel such as medical assistants, registered nurses, nurse practitioners, and both primary and specialty care physicians; social workers; physical therapists; and mental health professionals. Practice management, QI, and data components will include Operations Support staff.

Patients will directly benefit from the project outcomes as their quality of life will be enhanced through improved diagnoses and management of their chronic pain. Eighty-eight percent (88%) of LBCC patients are living below 200% Federal Poverty Level, with approximately 60% living in severe poverty, based on the 2013 Annual Utilization Report to OSHPD. Patients are local shop staff, hotel and restaurant employees, artists, household workers, gardeners, day laborers, and nannies. An estimated 10% are homeless. The patients we serve are at risk of foregoing early medical care of conditions, which negatively affects their morbidity rates and also burdens the healthcare system in the long run. Thirty-eight percent (38%) of patients are Hispanic, many are Spanish speaking only. These cultural and income demographics create potential barriers to treatment of their chronic pain which parallel disparities these groups experience when accessing and utilizing of healthcare in general.

Internal care providers will directly benefit from this project as they gain increased satisfaction through improved knowledge and confidence in their ability to care for chronic pain patients. Establishing consistency in diagnostic practices will be followed by expanding treatment tools and modes; we believe these efforts will renew internal care providers with new enthusiasm with regard to managing these complex patients. Our staff will benefit by improved professional satisfaction, which will ultimately have a positive impact on patient care.

External care providers will benefit as results from this project are disseminated. Positive project results will be shared through Continuing Medical Education/Continuing Professional Development activities and new treatment protocols determined by the project may be portable and scalable to other direct care providers, potentially through a module on Chronic Pain for Family Medicine Maintenance of Certification Part IV. We also hope to demonstrate reduced inappropriate Emergency Department utilization at our local hospitals.

4. Project design and methods

This project will address the needs of patients by first identifying pain patients and then adding them to a chronic pain registry. LBCC has recently contracted with Oregon Coastal Health Information Network to fully implement an EMR system by the end of January 2015, which will include registry capabilities including aggregated demographic, treatment, and clinical outcome data. Existing pain treatments will be measured and evaluated to create a baseline.

Standardized questions, such as a pain scale, will be added to the list of vital signs checked at every exam. A pain scale will be included as a "Fifth Vital Sign" using either a numeric scale or the FACES rating scale. If the initial screen is positive, a more complete assessment, such as the West Haven-Yale Multidimensional Pain Inventory, would be administered by the Medical Assistant or the RN. The NP or MD can then review the assessment tool, register the patient in the EMR Chronic Pain Registry and begin a comprehensive assessment and treatment plan. Using the Bio-Psycho-Social model of patient care, the treatment team will focus on the

following objectives, as outlined in the current “Practice Guidelines for Chronic Pain Management” published by the Agency for Healthcare Research and Quality (AHRQ):

- Optimize pain control, recognizing that a pain-free state may not be obtainable
- Enhance functional abilities and physical and psychological well-being
- Enhance quality of life of patients
- Minimize adverse outcomes

Patient needs for effective treatment and enhanced quality of life will be addressed as project methodology replicates other successful QI programs at the clinic. Led by a Project Champion a team of interdisciplinary and interprofessional staff members will review industry best practices and develop small tests of change within treatment protocols. Aligned with the cycles of Plan, Do, Study, Act (PDSA), the process encompasses identifying an area needing improvement, planning a change, measuring a sample of patients to see if an improvement has occurred, and implementing the proven change for the larger patient population. Evaluation will determine if results show improvement of pain control over baseline measurements. Using the patient registry, pain scales and quality of life survey tools, we will monitor and report the following metrics:

- Effectiveness of pain relief
- Improvement quality of life
- Improvement in function
- Decrease in complications and adverse reactions

This project will also address the needs of our staff providers. Frustration and dissatisfaction in the treatment of chronic pain patients can result in provider burnout and exhaustion. In the article Primary Care Providers Concern about Management of Chronic Pain Patients in Community Clinic Populations (Upshur CC, Luckmann RS, Savageau JA, Journal of General Internal Medicine Volume 21, Issue 6, pages 652-655, June 2006) the authors state “Chronic pain is a common patient complaint in primary care, yet providers and patients are often dissatisfied with treatment processes and outcomes.” They go on to state: “At the same time, as reported in prior studies, providers in this study feel poorly prepared by their professional training for, and dissatisfied with, treating patients with chronic pain.”

Their conclusion: “A substantial proportion of adult primary care appointments involve patients with chronic pain complaints. Dissatisfaction with training and substantial concerns about patient self-management and about opioid prescribing suggest areas for improving medical education and postgraduate training. Emphasis on patient-centered approaches to chronic pain management, including skills for assessing risk of opioid abuse and addiction, is required.”

We found this article after we had written the majority of the application and feel the articles’ findings validate our own concerns and experience.

The team of providers at LBCC will be surveyed before the implementation of the project to establish baselines of knowledge and professional satisfaction in managing care of chronic pain patients. Evaluation will occur again to measure improvement in the provider experience in managing chronic pain patients by comparison to baseline as well as comparison to a control group of providers.

We will work closely with our partners at Mission Hospital and Mission Hospital Laguna Beach to review improvement in statistics or emerging community trends regarding the misuse of hospital Emergency Departments, in particular by substance abusers, chronic pain patients, and frequent/repeat ER patients.

5. Evaluation design

We have identified three practice gaps which will be addressed by this project, the first in Patient Care and Outcomes; the second, in Provider Knowledge and Satisfaction; and third in misuse of hospital Emergency Departments. Finally we will focus on dissemination of project outcomes with the intent that successes and positive impact can be shared and replicated with other medical providers both locally and in other communities.

First, successful impact regarding the Patient Care and Outcomes gap will be evaluated according to the following three metrics discussed in the Project Design and Methods section.

Metric 1: Effectiveness of Pain relief

The data source will be pain scales (the Fifth Vital Sign) taken at every office visit, summated, and reviewed quarterly. We will compare to a sampling of non-chronic pain patients in our practice to evaluate baseline values and any change in the control population during the project.

We are establishing a benchmark of a 30% reduction in patients' pain level during the first six months they are enrolled in the Chronic Pain Registry and "From Pain to Gain" project. This change may be modified as we research the experience of others and learn from the Pfizer Independent Grants for Learning & Change Chronic Pain Collaborative of grantees and stakeholders.

We will also evaluate the continuity of care for patients enrolled in the registry to evaluate patient engagement. We will need to determine causes of "lost to follow up" patients: insurance changes, relocation out of the area, etc. Admittedly, these data may be difficult to capture.

Metric 2: Improvement of Quality of Life and Improvement in Function

Data for these two metrics will be captured using validated patient surveys (such as the West Haven–Yale Multidimensional Pain Inventory). The scales will be administered and reviewed quarterly, and compared with a control group.

We are establishing a benchmark of 20% improvement in Function and Quality of Life after six months of enrollment in the program.

Patient engagement will be evaluated similarly as noted above following patients over time and attempting to determine reasons for absences from continuing the program.

Metric 3: Decrease in Complications and Adverse outcomes

We will monitor and quantify adverse outcomes using the Electronic Medical Record. Data will be reviewed quarterly. We will use a sampling of our Diabetic Registry patients as the control group.

Our benchmark will be a 20% reduction in adverse outcomes during a six month enrollment. All patients will continue to be monitored on an ongoing basis to evaluate engagement.

Second, successful impact regarding Provider Knowledge and Satisfaction will be evaluated according to the following metrics.

Metric 1: Medical Team Knowledge

We will begin with a survey and needs assessment of knowledge and comfort in treating chronic pain patients. Using this input, we will design and deliver Continuing Professional Development (CPD) programs for all team members. We will then conduct post-training assessments (post-tests) including planned practice changes. We will resurvey participants one month after the CPD program to assess if the knowledge transfer has been lasting and effective.

Our benchmark will be a 20% increase in knowledge one month following the conclusion of the CPD program.

Engagement will be monitored by evaluating level of participation and through provider feedback.

Metric 2: Team Member Satisfaction

Prior to any training interventions, we will survey all members of the clinic team regarding their satisfaction with their ability to manage and serve patients with chronic pain. We will re-survey the team midway through and again at the end of the 20 month process. While we certainly expect improvement, we are not choosing a numerical benchmark at this time. The control group will be a sample of family doctors through the Orange County Academy of Family Physicians.

Engagement will be monitored by evaluating level of participation and through provider feedback.

Third, our evaluation will address the community gap of inappropriate Emergency Department utilization by chronic pain patients. The Community Benefits Program for Mission Hospital and Mission Laguna Beach have studied inappropriate Emergency Department utilization at our two local hospitals. The Mission Frequent Emergency Room Visitors report indicates that a substantial percentage of avoidable ER visits are due to patients with behavioral health or substance abuse issues. LBCC's Dr. Thomas Bent has joined the hospital Access to Health Care Task Force to closely study this issue. We will first quantify the number of LBCC patients utilizing the Mission and Mission Laguna Beach ERs on a quarterly basis and monitor the number as we implement the "From Pain to Gain" project.

Lastly, we will focus on dissemination of project evaluation outcomes. As mentioned earlier, we will use our staff CPD activities, QI methods, and outcomes to develop presentations to the local hospital staffs and to the Orange County Academy of Family physicians. We hope to partner with an accredited CME provider, such as the California Academy of Family Physicians to develop credit worthy CME and, possibly, a Maintenance of Certification, Part IV module. Dr. Thomas Bent has previously presented clinic outcomes data in HIV and Diabetes at the American Academy of Family Physicians Annual Scientific Assembly, and we hope to mirror this type of activity with Chronic Pain project.

6. Detailed work plan and deliverables schedule

The preliminary work phase of this project will begin with ***Deliverable #1: Recruit, Engage, and Educate a Comprehensive Team***. This project will utilize a Project Champion and a Project Committee, following a personnel structure currently used in other successful QI modeled programs at LBCC. The clinic Medical Director and Chief Operating Officer, Dr. Thomas C. Bent will serve as Project Champion, bringing together a committee which blends the talents, expertise, and experience of both staff and volunteers with a spectrum of backgrounds. The team will start with the key members specifically listed in the grant, with emphasis on recognition of skills of non-physician professionals. The team will commit to educating each other as well as looking to outside resources for evidence-based guidance. The fourteen-person committee is expected to include nine LBCC staff members (three physicians, two registered nurses, one nurse practitioner, two operations support staff members, and one medical assistant) as well as five LBCC volunteers (one physical therapist/LBCC board member, one psychologist/LBCC board member, two physicians, and one representative from partner agency Mission Hospital). The Project Champion will take the lead on all aspects of the project and managing the efforts of the committee. During this phase, the team members will share knowledge and areas of interest, as well as evaluate understanding and identify skill gaps. Final formation of the Project Committee and will be completed by February 28, 2015. The Project Champion will attend the Pfizer kick-off meeting in February 2015.

The next phase of the project—***Deliverable #2: Identify the Burden of Suffering***—will occur during February 2015 when the Project Champion will partner with the clinic’s Electronic Health Records Lead, Dr. Jorge Rubal, to create a registry of clinic patients experiencing chronic pain. The registry will provide a means to quantify the number of patients in the practice experiencing chronic pain and will track incidence, prevalence, cause, and previous treatment. Additionally, the registry will track metrics which will be used in the evaluation phase of this project. New exam protocols will query patients on their chronic pain. Upon availability of the registry, patients will be enrolled and data input on an ongoing basis. Additionally, LBCC staff providers will complete a baseline survey which will measure their knowledge and confidence in the care of chronic pain patients and also measure their professional satisfaction in treating chronic pain patients. This deliverable will be completed by February 28, 2015.

During March 2015, the work plan will focus on ***Deliverable #3: Challenging our Current Care***. The Project Champion and Project Committee will conduct an independent review of industry best practices and evidence-based guidelines and contrast to current treatment protocols used at LBCC. Analysis of prevalent challenges to caring for chronic care patients will be conducted to inform the committee where barriers exist. This deliverable will culminate by March 31, 2015.

Deliverable #4: Innovate our Care, will take place during April 2015. The Project Champion and Project Committee will adapt current LBCC diagnostic and treatment plans. The team will design and implement educational programs for all team members, design a QI program based on Small Tests of Change, or Plan Do Study Act (PDSA), and measure inappropriate Emergency Department utilization at local hospitals. This deliverable will be completed by April 30, 2015.

Deliverable #5: Evaluate the Impact, this core phase of the project will span twelve months from May 2015 through April 2016 and will apply the tests of change using new treatment protocols during ongoing patient visits for those in the Chronic Pain Registry. A projected 2,750 office visits during this time period will include a subset of patients experiencing chronic pain and who will therefore participate in this project. During this phase, much of the LBCC clinical staff will participate as the project activities will occur around daily clinic office visits involving front office staff, medical assistants, registered nurses, nurse practitioners, and physicians. Evaluation will occur quarterly and will assess metrics discussed in the Project Design and Evaluation Design sections above. The Project Champion and Project Committee will evaluate the successes or failures of new protocols, as well as adapt new tests of change based on result trends. Provider surveys will be conducted to measure improvement in knowledge, confidence, and professional satisfaction resulting from the project implementation. This deliverable will continue for twelve months beginning in May 2015 and culminating April 30, 2016.

The final phase of this project will include spreading the results for scalability and portability to other providers. ***Deliverable #6: Continuing Medical Education/Continuing Professional Development Activities*** will be the development and delivery of CME/CPD programs for professionals external to LBCC. Educational outreach to general audiences will be developed and presented in collaboration with community groups. Presentations will be delivered to

Orange County Academy of Family Physicians, medical staff meetings, and other events. This project may possibly contribute toward a Performance in Practice Module on Chronic Pain for Family Medicine Maintenance of Certification (MD-FP) Part IV, introducing family physicians to individual QI techniques during satisfaction of MC-FP requirements. This phase will continue for five months from May-September 2016.

The Project Champion will participate in the Pfizer face-to-face Convocation and prepare the final report during October 2016. This follow-up portion of the project is expected to last for two months.

Organizational Detail

1. Leadership and organizational capability

Laguna Beach Community Clinic (LBCC) is well-positioned to develop a chronic pain project utilizing recommendations of the Institute of Medicine. Patient volume is statistically significant for assessment. The vast majority (88%) of LBCC's patient population is low-income, with a predominance of racial and ethnic minorities, groups reported as underdiagnosed and undertreated. Quarterly assessment and QI methodology is successfully used for current LBCC diabetic and HIV/AIDS patient groups. With the implementation of an Electronic Medical Records (EMR) system by January 2015, LBCC will apply for Level 3 certification as a Patient Centered Medical Home (PCMH); certification indicates characteristics relevant to this project and inherent in the LBCC culture, including: high continuity of care, culturally and linguistically appropriate services, high accessibility, designated physicians, and utilization of both medical and non-medical partnerships to provide coordinated care. The project design will build on existing chronic pain best practices as determined through review of current publications. Existing partnerships such as those with Mission Hospital Laguna Beach and other community resources will be leveraged for mutual benefit.

The clinic was established in 1970 when a group of concerned physicians and community leaders sought to meet the needs of low-income and medically uninsured people of south Orange County. In 1985, LBCC became a licensed community clinic. Today, the clinic offers non-emergency curative and preventive care, as well as educational services for individuals and families in Orange County and serves as a training site for health care professionals. Our mission is to provide excellent medical care, regardless of the patient's ability to pay. An independent, non-profit, primary care health facility, LBCC manages approximately 15,000 visits annually for 4,500 patients.

Though no longer a free clinic, services are delivered with respect for the dignity of each individual, and patient payments are based on a sliding fee scale and their ability to pay. As a registered Medi-Cal provider, LBCC accepts low-income patients who are newly insured through the Affordable Care Act (ACA); conversely, as an independent clinic, LBCC also welcomes uninsured patients who are ineligible for or opt-out of Medi-Cal. We offer care in the areas of: Women's Health, HIV/AIDS, Prenatal and Postpartum, Teen Clinic, Counseling Services, and Dental Services. Specialty care areas include: cardiology, pediatrics, endocrinology, obstetrics, gynecology, diabetes, and others.

LBCC is one of only two community clinics in south Orange County, and the only one to deliver the full scope of primary care services and six days of urgent care hours. As the only clinic in south Orange County offering walk-in urgent care hours, LBCC serves patients from a long list of surrounding cities—this unique availability means that patients are getting urgent treatment in a clinic setting, avoiding the need for medically unnecessary use of Emergency Rooms for non-emergent, acute needs. Located two blocks from a major transportation hub and within walking distance of a day laborer hiring site, LBCC serves patients from throughout Orange County, but predominantly those who live and/or work in south Orange County.

2. Key Staff capacity

Project Champion, Thomas C. Bent, MD serves as Medical Director and Chief Operating Officer of LBCC. He is a Board Certified Family Physician who has focused his career on the medically underserved. Dr. Bent has extensive experience and enthusiasm for medical education and is a Clinical Professor of Family Medicine at the University of California, Irvine. In addition to teaching medical students and residents, he has many years of experience in designing and presenting Continuing Medical Education and has served as Chair of the American Academy of Family Physicians Commission on Continuing Professional Development. Dr. Bent was named 2014 Medical Student and Resident Preceptor of the Year by the California Academy of Family Physicians (CAFP) Foundation. He is a founding mentor of the CAFP CME Leaders Institute and has mentored many medical students and residents throughout his career. He also is serving as founding faculty for the mentor's workshops, helping prepare new mentors who will serve the Family Medicine Scholars program. He is active in the AAFP state and local chapters and is a member of the OCAFP Board of Directors.

During this project, Dr. Bent will champion all aspects of the project, including coordinating team members, overseeing project activities, monitoring progress toward stated goals using a QI model, and encouraging the team. Dr. Bent will serve as the principal contact for the Consortium for Education and Research in Chronic Pain, attending the planned meetings and preparing the final project report. He will develop the curriculum of educational activities. During the project, Dr. Bent will also deliver direct patient care.

Project Team Member, Nicole Sicotte, RN, MSN Charge Nurse, developed an early love for nursing as a volunteer during high school, going on to earn her master's degree in nursing ten years ago and ultimately following a calling to public health after holding a teaching position. Ms. Sicotte will champion the chronic pain project among all nursing and medical assistant staff members. She will collaborate with all team members in the design and implementation of patient assessment and education tools.

Project Team Member, Melanie Balestra, NP, JD, Pediatric Nurse Practitioner, has worked as a nurse practitioner for over thirty years and an attorney for over twenty years. She is counsel for the California Association of Nurse Practitioners and on the Advisory Board of Nurses Service Organization. She is a volunteer advocate for patients and does pro-bono work for patients as well as volunteering abroad as a nurse practitioner in Africa and Cambodia. Ms. Balestra will collaborate with the medical team in the design and implementation of interdisciplinary educational activities. She will design and deliver education on Medico-legal aspects of pain management. Additionally, she will serve as a patient voice and patient advocate for those living with chronic pain. Ms. Balestra will deliver direct patient care during the project.

Project Team Member, Jorge Rubal, MD, MBA considers his business degree a natural extension of his medical degree, in order to most fully care for the underserved community. He is particularly interested in the underserved patient population, as well as women's health and teen issues. Dr. Rubal is the Associate Medical Director of LBCC and a family physician. Dr. Rubal is the champion of the Electronic Medical Records system implementation project. Additionally, Dr. Rubal is the champion for clinic certification as a Patient Centered Medical Home. He will actively participate in the education design and delivery of this project and will also deliver direct patient care.

Project Team Member, Chau Ngo, MD, Internist and HIV Specialist, began working at LBCC in 2001. With a special interest in diabetes, he serves as champion of the clinic's Diabetes Program. Dr. Ngo brings extensive experience from varied community health positions including Co-Medical Director posts within the University of California, Irvine Medical Center and Universal Care. His involvement in continuous improvement includes participation in the QI Committee with Cal-Optima. With UCI Health systems, he has served on the Business Development Subcommittee, Marketing Strategies Committee, and Operational Management Committee. He has served as Clinical Preceptor at several local colleges.

Project Team Member, Korey Jorgensen, MD, Medical Director Emeritus is a volunteer to this project. Dr Jorgensen began his affiliation with LBCC in 1971 as a volunteer and Family Physician. He was named 2004 California Physician of the Year by the California Academy of Family Physicians. In the 1980's he designed and implemented the HIV Early Intervention program, which has been awarded national recognition and he has been a leader in the fight against the HIV epidemic to this day. Dr Jorgensen has also implemented a QI program that has led to outstanding health outcomes for our patients living with HIV/AIDS. He has been certified by the American Academy of HIV Medicine as an HIV Specialist. Additionally, Dr Jorgensen has extensive experience in addiction medicine and previously serves as director of College Hospital in Costa Mesa, a drug detox and rehabilitation facility. We regret that Dr Jorgensen is retiring from clinical practice in December 2014, but he has committed to serving as a volunteer to the "From Pain to Gain" chronic pain initiative. His experience and insight into primary care, chronic disease management and quality assurance and addiction medicine will enhance all aspects of the project.

Other Project team members include staff: Adriana Sayegh, RN, Clinical Director; Alma Tellez, Operations Support Supervisor; Rubi Alaniz, Operations Support Lead; Nancy Sandoval, Medical Assistant. Project team members who are volunteers/partners to the clinic include: Janet Chance, MD, volunteer neurologist; Mary Kate Saunders, RPT, physical therapist and clinic board member; Marion Jacobs, PhD, volunteer clinical psychologist and clinic board member; Christy Cornwall, Director of Community Benefit, Mission Hospital and Mission Laguna Beach.

Appendix

Project Deliverables Schedule

Grant Term: January 2015-August 2016

Month & Year	Project Deliverable	Associated Activities	Lead Personnel
<p>Month 1: January-February 2015</p>	<p>#1 Recruit, Engage and Educate a Comprehensive Team</p>	<ul style="list-style-type: none"> • Recruit interdisciplinary/interprofessional team • Share knowledge and areas of interest • Evaluate knowledge and skill gaps 	<p><u>Project Champion:</u></p> <ul style="list-style-type: none"> • Thomas C. Bent, MD, Medical Director/COO and Family Physician <p><u>Project Team Members:</u></p> <ul style="list-style-type: none"> • Adriana Sayegh, RN, Clinical Director • Nicole Sicotte, RN, MSN Charge Nurse • Alma Tellez, Operations Support Supervisor • Rubi Alaniz, Operations Support Lead • Nancy Sandoval, Medical Assistant • Melanie Balestra, NP, JD, Pediatric Nurse Practitioner • Jorge Rubal, MD, MBA, Associate Medical Director • Chau Ngo, MD, Internist and HIV Specialist • Korey Jorgensen, MD, Volunteer Physician • Janet Chance, MD, Volunteer Neurologist • Mary Kate Saunders, RPT, Physical Therapist and LBCC Board Member • Marion Jacobs, PhD, Volunteer Clinical Psychologist and LBCC Board Member • Christy Cornwall, Director of Community Benefit, Mission Hospital and Mission Hospital Laguna Beach
<p>Month 1: February 2015</p>	<p>#2 Identify the Burden of Suffering</p>	<ul style="list-style-type: none"> • Create a chronic pain patient registry and establish baseline metrics for treatment effectiveness 	<ul style="list-style-type: none"> • Project Champion • Project Team

Month 1: February 2015		<ul style="list-style-type: none"> Attend Pfizer kick-off meeting 	<ul style="list-style-type: none"> Project Champion
Month 2: March 2015	#3 Challenge our Current Care	<ul style="list-style-type: none"> Design and implement educational programs for all team members Research best practices and evidence-based guidelines Design Quality Improvement program Measure inappropriate Emergency Department utilization at local hospitals 	<ul style="list-style-type: none"> Project Champion Project Team
Month 3: April 2015	#4 Innovate our Care	<ul style="list-style-type: none"> Adapt diagnostic and treatment plans to encompass new protocols and utilize small tests of change Design and implement outreach activities, including utilization of the new EMR to bring chronic pain patients into care 	<ul style="list-style-type: none"> Project Champion Project Team
Month 4-15: May 2015- April 2016	#5 Evaluate the Impact	<ul style="list-style-type: none"> Implement protocols during patient visits Quarterly assessment of treatment plan and adaptation of subsequent tests 	<ul style="list-style-type: none"> Project Champion Project Team LBCC Staff
Month 16-20: May- September 2016	#6 Continuing Medical Education/ Continuing Professional Development Activities	<ul style="list-style-type: none"> Spread the results for scalability and portability to other providers Presentations at OCAFP, Medical Staff meeting, and others 	<ul style="list-style-type: none"> Project Champion Project Team Orange County Academy of Family Physicians Mission Hospital Community Benefits Manager
October 2016		<ul style="list-style-type: none"> Pfizer face-to-face Convocation Final report/reconciliation 	<ul style="list-style-type: none"> Project Champion