## B. TABLE OF CONTENTS

D. Main Section of the proposal

1. Overall Aim & Objectives ………………………………………………………………. 4
2. Current Assessment of Need in Target Area ………………………………………….. 5
3. Technical Approach, Intervention Design and Methods ……………………………. 9
4. Evaluation Design ……………………………………………………………………………. 12

E. Detailed Work Plan and Deliverables Schedule …………………………………………. 14

References…………………………………………………………………………………………… 25

## D. Main Section of the proposal (not to exceed 10 pages)

### 1. Overall Aim & Objectives:

The overall aim of this initiative is to provide education and support to primary care clinicians in the Johns Hopkins Community Physician (JHCP) network so they can provide evidence- and guideline-based care to their chronic pain patients who are prescribed opioids, in order to improve patient outcomes and reduce the risk for opioid misuse or abuse. The intervention is based on analysis of 5 years of data in JHCP's electronic health record (EHR), with the goal of translating successful interventions into other EHR environments, facilitating the use of templates and smart text for appropriate documentation, and making templates for pain contracts available in EHRs.

The **Pain Action Consulting Team (PACT): A Mentoring Model** program will accomplish this aim by transferring knowledge and skills from pain management experts to primary care physicians (PCPs) to better implement best practices for prescribing of opioid medications for patients with chronic pain. PCPs prescribe more than 70% of opioids. They must be able to balance the benefits of prescribing opioids to treat pain against the risks for serious adverse outcomes, including addiction, unintentional overdose, and death. Unfortunately, many PCPs lack sufficient training in either pain management or substance abuse. Safe and effective opioid therapy requires clinical skills as well as knowledge in both the principles of opioid prescribing and the assessment and management of risks associated with opioid abuse, addiction, and diversion, which complicate clinical judgment. Therefore, safe and effective pain management through the use of opioids requires both knowledge and skills.

Key objectives of this program are to provide participants with the knowledge and skills to:

1. Adhere to established guidelines for opioid prescribing in chronic pain patients
2. Appropriately initiate, modify, and discontinue use of opioids as needed
3. Document assessment of pain and functionality for all patients with pain, especially when treatment with opioids is considered
4. Provide educational resources and opioid medication counseling to inform patients and their family members about treatment options, shared decisions about goals, and expected outcomes of therapy
5. Employ strategies to assess and monitor patients taking opioids for risk for abuse/misuse
6. Engage in an interdisciplinary management strategy and/or referral plan to provide optimal pain management and to prevent or address opioid abuse in patients
7. Fully utilize the checklist and free text components of the EHR to document adherence to pain management and opioid risk reduction best practices

The Pain Action Consulting Team (PACT) Mentoring Program will affect the 200 PCPs in the JHCP network and the estimated 250,000 patients they treat, especially those prescribed opioid therapy to address their pain (to date, n=6179 patients identified in the JHCP EHR records). This project is expected to:

1. Improve clinician's adherence to opioid prescribing and pain management guidelines
2. Improve use of EHR to document assessment, monitoring, and management of both pain and opioid use in chronic pain patients receiving opioids
3. Improve patient-reported outcomes related to pain (eg, pain ratings, satisfaction scores, and function)
4. Increase the percentage of patients receiving opioid medication counseling
5. Increase the percentage of patients screened for relative risk related to abuse or misuse
6. Increase the use of team-based care as measured by the percentage of patients receiving appropriate screening for referrals to psychiatry or addiction medicine consultations

2. Current Assessment of Need in Target Area:

The following gaps have been identified in the care provided for chronic pain patients who are prescribed opioids:

- Lack of adherence to established guidelines for opioid prescribing
- Lack of familiarity with how to initiate, modify, and discontinue opioids
- Failure to document assessment of pain, functionality, and abuse risk for all patients with pain, especially when treatment with opioids is considered
- Ineffective communication with patients and caregivers about the safe use of opioids, treatment options, goals, and expected outcomes of therapy
- Lack of appropriate use of screening tools to assess risk for opioid abuse or misuse
- Failure to develop effective interdisciplinary pain management teams

These gaps were identified based on input from PCPs in the JHCP network, including analysis of 5 years of data on pain management and opioid prescribing in JHCP's EHR system and the patient safety reporting system. In addition, local and national statistics, surveys and analyses of emergency department visits across the United States as reported in the literature, and data collected from participants in Medscape Education programs on pain management were used to identify the gaps between current standard of care and guideline-based practices.

**Patient Data: Prescription Drug Abuse Is a Public Health Emergency**

The patient-level data for the state of Maryland indicate the scope of prescription drug abuse. In Maryland, the number of people seeking treatment for addiction to prescription drugs jumped from 3400 in 2007 to more than 7000 in 2010. The most common prescription drug cited as a problem in Baltimore's treatment clinics is oxycodone. State public health officials reported a 250% increase in poison control calls related to oxycodone from 2007 to 2010. More than half of the intoxication deaths in Maryland in 2010 involved such a prescription opiate. [Kohn 2011]

The United States faces a paradoxical problem: Only 25% of the 50-70 million Americans who have chronic pain are receiving appropriate therapy, while abuse and diversion of prescription pain medications runs rampant.[CLAAD 2012] Prescription drug abuse was associated with

170,000 US emergency department visits in 2006, approximately 91,000 admissions to substance abuse treatment facilities in 2007, and almost 14,000 deaths—a tripling of overdose deaths from opioid pain relievers between 1999 and 2006.[CLAAD 2012]

**Physician Data: At JHCP**

JHCP medical centers use an EHR system with searchable data for key chronic pain management and opioid prescribing criteria. Additional elements may be added in free text boxes that would enable JHCP clinicians to document best practices for managing these patients.

However, a study of EHR records at one of the urban medical centers of the JHCP network that assessed PCP adherence to guidelines for opioid prescribing found deficits that require further education and training. The study included a convenience audit of 50 charts from a population of 414 patients with more than 6 months of opioid use. Only 40% of patients had ever signed an opioid agreement despite an organizational standard requiring contracts for patients prescribed narcotics chronically, and 26% had a urine drug screen in the past 12 months. For 60% of patients, pain reassessment at each visit or any visit was infrequent—meaning pain was only assessed a few times total (over the past couple of years) or they received over 3 refills with no visits. Despite the existence of guidelines recommending that all chronic pain patients receive mental health screening, only 38% of patients had some mental health diagnosis. For the other 62%, they either were not asked or the response was not documented. Providers documented asking about alcohol and/or drug abuse in 80% of patient charts; however, this includes having ever asked or asking once a year. Of that 80% of patients who were asked about drug or alcohol use, 28% had a drug-use history; however, there was no referral to addiction treatment or documentation that addiction was considered, even in a system with access to referral clinics.[Schuettinger 2012]

The need and desire for further pain management education among JHCP clinicians is apparent. During the past 6 months, JHCP offered 4 pain management programs. Participants in these programs and programs held over the past 2 years requested additional programs specific to opioid management more than any other topic, including requests for: detailed information about how to manage opioid patients in day-to-day practice; nonopiate adjuncts; strengths/weaknesses of various opiates; contraindications of various opiates and specific diseases for which opioids are not appropriate; what to do with a high-risk patient who is experiencing real pain; detailed approaches to opioid management specific to the primary care setting; and how to use the pediatric opioid management tool. Clearly, the adoption of opioid risk-reduction strategies by JHCP PCPs requires further education and training.

**Physician Data: Across the Country**

Education on managing pain with opioids while being vigilant for opioid abuse is lacking at all levels for physicians. A survey of 979 US physicians regarding the diversion and abuse of controlled prescription drugs showed the following: Only 19% of surveyed physicians received

any medical school training in identifying prescription drug diversion. Only 40% of surveyed physicians received any training in medical school in identifying prescription drug abuse and addiction. A total of 74% have refrained from prescribing controlled drugs during the past 12 months because of concern that a patient might become addicted to them.[Bollinger 2005]

A national survey including 221 primary care clinicians found that PCPs prescribe opioid medication less frequently than they themselves view as appropriate because of concerns about regulatory oversight, and they have the least confidence in their ability to treat neuropathic and musculoskeletal pain.[Breuer 2010]

A study based on questionnaire responses from 248 PCPs showed that the most common concerns about prescribing opioids for chronic pain were prescription drug abuse and addiction. Other concerns included: adverse effects, tolerance, interaction with other medications, not knowing enough about which opioid to prescribe, and not knowing enough about dosage requirements.[Bhamb 2006]

Results from a Medscape Education initiative involving more than 4000 clinicians, titled *Optimizing Opioid Treatment for Breakthrough Pain*, found that 66% of participants (and 72% of nonparticipants) reported that the greatest barrier to optimal management of pain was their concerns regarding the risk for drug overuse, addiction, and abuse.[Webster 2007]

**Guidelines Are Available But Underused**

Current clinical guidelines make a strong recommendation to assess for risk and current substance abuse, misuse, or addiction during initial contemplation of opioid therapy for chronic pain. Results of these assessments help in developing an opioid treatment plan that minimizes risk for long-term dependence and other substance use problems. Risk stratification helps determine the amount of treatment structure needed in order to control and monitor progress of opioid therapy. Recommendations include urine drug testing, regular face-to-face office visits to evaluate patients' response to opioids and risk for misuse, adhering to a predefined refill schedule (ie, restricting refills of opioids prior to expiration of the previous prescription), and behavioral monitoring of patients on chronic opioid therapy using formal screening instruments.[Chou 2009]

Many clinicians are not familiar with existing evidence-based guidelines and recommendations for safe and effective pain management using opioids.[Paulozzi 2011] Using individualized risk assessments, clinicians can select the most appropriate mode of delivery for opioid therapy. A variety of screening tools are currently available to assist clinicians in determining possible aberrant drug-taking behaviors of patients with pain. But numerous studies have found that these are underused.[Bohn 2011]

In the aforementioned survey of 979 physicians, 43% of physicians did not ask about prescription drug abuse when taking a patient's health history. One third of physicians did not

regularly call or obtain records from the patient's previous (or other treating) physician before prescribing controlled drugs on a long-term basis.[Bollinger 2005]

In another study of over 1600 primary care patients prescribed long-term opioids for chronic pain, monitoring with recommended risk reduction strategies was quite limited even among patients at high risk for opioid abuse: Fewer than 10% of patients received any urine drug testing, only half had regular office-based visits, and 23% received more than 1 early opioid refill. Although patients at increased risk for opioid misuse were more likely to have had urine drug testing, it was still infrequent, with less than one quarter of the patients with 3 or more risk factors having any urine drug test. In addition, patients at increased risk for opioid misuse were more likely to receive more than 1 early refill, but their office-based monitoring was no greater than for persons without any risk factors for opioid misuse.[Starrels 2011]

In the survey of 248 PCPs mentioned earlier, only 6.9% conducted urine drug tests on their patients prior to initiation of opioid therapy, of which only 15% used urine drug tests routinely for patients already undergoing chronic opioid therapy. These low levels of use indicate clinicians are not following the guidelines and using the tools available to them in order to combat misuse, abuse, and diversion of controlled substances.[Bhamb 2006]

**Interdisciplinary Interventions: Necessary But Neglected**

Guidelines recommend that a patient-centered, multifactorial, comprehensive care plan is necessary, one that includes addressing biopsychosocial factors. It is important to have an interdisciplinary team approach coordinated by the PCP to lead a team including specialty areas of psychology and physical rehabilitation.[Turk 2010]

Assessing for psychiatric disorders also is recommended because patients with both psychiatric disorders and chronic pain are at a higher risk of developing a substance abuse disorder. Comorbid psychiatric disorders are common in patients with chronic pain, especially depression, anxiety, substance use disorders, personality disorders, and somatoform disorders.[Ballantyne 2007; IOM 2006] In the JHCP study, of the 38% of patients with documented mental health issues—of which 63% had depression, 21% anxiety, 11% bipolar disorder, and 5% schizophrenia—only 10 referrals to the psychiatric service were documented.[Schuettinger 2012] Expert opinion indicates that these conditions must be taken into account during chronic pain treatment.

The importance of a biopsychosocial approach is further supported by the documented strong relationship between persistence of pain and the presence of a psychological disorder. Psychosocial variables strongly predict long-term and short-term disability and frequency of healthcare visits in patients with chronic pain.[Stamos 2006] Expert opinion advises that it is critical for PCPs to collaborate with colleagues in behavioral health, pharmacy, toxicology, addiction, and pain medicine to share knowledge and consultation on prescribing, monitoring,

and treatment plans.[Liebschutz 2011] In the JHCP study, among 28% of patients who reported a drug-use history, there were no addiction treatment referrals.[Schuettinger 2012]

An analysis of 10 trials involving 1964 patients with chronic low back pain found that intensive biopsychosocial rehabilitation with a functional restoration approach improved pain when compared with outpatient nonmultidisciplinary rehabilitation or usual care.[Guzmán 2007] An interdisciplinary chronic pain management has been shown to be feasible and effective in reducing pain and disability even in a remote rural setting.[Burnham 2010]

The 2011 Institute of Medicine report, *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*, recommends that PCPs—who handle most frontline pain care—should collaborate with pain specialists in cases where pain persists and further calls for primary care providers to deliver coordinated, evidence-based, interdisciplinary pain assessment and care for persons with complex pain.[IOM 2011]

The American Pain Society noted that "evidence is mounting in support of the central role of teamwork in delivering better health care and improving outcomes both in primary care and in pain management. A large and growing body of research supports both the clinical effectiveness and cost-effectiveness of interdisciplinary care including reduction in health care utilization, return to work, and closure of disability claims."[Turk 2010]

## 3. Technical Approach, Intervention Design and Methods:

### Mentoring Models

Mentoring models can be effective when teaching clinicians about complex problems that require knowledge and interdisciplinary focus outside that fall outside traditional training. Because of a relative paucity of such experts and inadequate access to interdisciplinary treatment teams, primary care providers may feel frustrated in managing patients with challenging pain syndromes. Little is known about the impact of mentoring models in treatment of chronic pain based on a Medline search using terms including "mentoring," "pain," "primary care," which showed few relevant studies. [Allen 2011, Egan 1010] Our study would add to the literature by evaluating the impact of mentoring primary care physicians in care of chronic pain patients over a variety of conditions. In addition, because of the e-learning and blogging aspects inherent in our program design we will be able to explore the potential impact of technology on such communications.

The Pain Action Consulting Team (PACT) Mentoring program links pain experts as mentors/consultants with PCPs (mentees) through live and virtual education and interactive consultative activities designed to transfer both knowledge and skills. A baseline assessment of the 200 PCPs in the JHCP network will identify clinicians who prescribe opioids to chronic pain patients; they will be invited to participate in the mentoring program. Data from the patient safety reporting system also will be analyzed to identify PCPs who may benefit from the mentoring program.

Mentees will agree to participate in: 10 hours

- 4 live webinars presented by JHCP - 4 hours
- 1 symposium at JHCP live primary care retreat – 1 hour
- 4 30-minute Group teleconferences with mentors post each webinar- 2 hours
- 2 one-on-one 30-minute individual teleconferences with mentors -1 hour
- Interactive asynchronous mentor:mentee discussions on Medscape associated with webinar summary – 30 minutes
- Chart-stimulated review for outcomes assessment – 1 hour
- Team training—participate in training for support staff in Luncheon Leadership Series (see below) to promote team-based care

Educational Intervention

Leveraging prior work by the Johns Hopkins Pain Curriculum Development Team, pain management experts at Johns Hopkins Medical Center have used adult-education principles to create compelling instructional modules that prepare PCPs to be effective in managing complex patients with chronic pain and to practice safe prescribing of opioids. Curriculum development has followed the strategies recommended by the Institute of Medicine, incorporates content from previously established evidence-based guidelines and diagnostic tools, and teaches practical strategies for safely incorporating opioid medication use into a multidisciplinary pain program.

Live Educational Webinars

Four online live webinars hosted by mentors in the program will deliver the curriculum (below) to JHCP mentees, and a live JHCP symposium in November 2013 will present the outcomes and learnings from the mentor program to the JHCP community.

Webinar 1

- Pain and risk assessment tools: pain, function, mood, addiction risk, and use of pain assessment and risk assessment tools
- Best practices for EHR documentation: a key educational message will be the importance of documenting in the EHR patient-level outcomes and evidence of adherence to guidelines

Webinar 2

- Clinical pharmacology of commonly prescribed opioids
- Clinical strategies: dosage, titration, rotation, alternatives to opioids, and weaning strategies

Webinar 3

- Monitoring and risk mitigation strategies: outcomes, urine drug testing, prescription monitoring program use, emergency department information exchange

Webinar 4

- Interdisciplinary approaches to pain patients: involving the whole team; comorbidities, addiction or abuse risk, managing complications of opioids; roles and communication among providers

Luncheon Leadership Series

JHCP's clinical support staff—which includes more than 65 RNs, 220 medical assistants, and 20 LPNs, all of whom work in patient intake, triage, assisting providers with medication list review, and preparation for prescription refills—will be invited to attend a luncheon held at each of the 20 JHCP medical centers. The programs will be moderated by a Course Director and include mentees from that center to discuss interdisciplinary roles and opportunities for collaboration, including best practices for maintaining and using the EHR for managing chronic pain patients.

Online Posting, Video Commentaries, and Links to Interactive Discussion

A summary of the key learnings from the 4 webinars will be presented in an online text-based activity at Medscape, along with video commentaries from the mentors. This program provides a link to Medscape Discuss, where interactive mentor:mentee dialogues will be hosted. The enduring activity will be measured for participation (monthly participation statistics), satisfaction (CME/CE evaluations forms), and medical knowledge/competence (CME/CE post-tests).

Highlights of the final live JHCP symposium also will be presented online at Medscape in a video panel discussion with the mentors serving as faculty and discussion from the mentees. This program will disseminate the outcomes from the program to Medscape's broad audience.

Mentoring Component

Mentors will be selected based on their authority, experience, and credibility as experts in pain management with familiarity of the challenging world of primary care practice. Mentors will provide consultative help with mentees' chronic pain patients who are prescribed opioids. They will provide group teleconferences and one-on-one telephone consultation for mentees and moderate the online discussion. Mentor roles and responsibilities include:

- Provide a 30-minute teleconference to mentee group following each of 4 webinars (1 per month, April-July 2013)
- Provide two 30-minute one-on-one teleconference consultations to each of 6 mentees during program (April-November 2013)
- Moderate Medscape Discuss online interactive discussion, respond to posts (September-November 2013)

Mentors may optionally participate as faculty for one of the JHCP webinars or live Primary Care Retreat symposium, in the Medscape video commentaries, or in the online presentation of results disseminated through Medscape.

**For each institution/organization/association, describe the specific role that they will undertake to meet the goals of this initiative**.

Johns Hopkins University (JHU) CME Department: Manage and administer the grant, including reconciliation; oversee the development of the course content.

Accredit the educational initiatives (4 live webinars and a live conference CME-

accredited by JHU, presented in the JHCP webinar series, and recapped in 2 Medscape online programs); enroll the mentors.

JHCP's Department of Education: Conduct baseline assessment to identify PCPs who prescribe chronic opioids and invite them to participate in the mentoring program. Deliver the live webinars through the JHCP education network and present results in a live symposium at the Primary Care Retreat. Deliver the Luncheon Leadership Series to JHCP allied healthcare staff. Manage the mentor:mentee teleconferences. Integrate curriculum into ongoing training for provider and clinical support staff. Conduct qualitative assessment on impact of mentoring on the primary care teams.

Medscape Education: Develop and distribute a text-based summary of key learnings from the 4 webinars along with video commentaries from mentors; provide an interactive online dialogue between mentors and mentees via Medscape Discuss. Develop and distribute the summary of the live concluding symposium to disseminate the outcomes and learnings in a video panel discussion including mentors and discussion from mentees. Support development of a publication on the outcomes of the project.

Healthcare Performance Consulting: Conduct the chart-stimulated recall (CSR) on the EHRs and deliver the outcomes assessment analysis.

The success of this pilot mentor program will support our efforts to enroll more mentees and mentors and obtain funding to expand the program.

## 4. Evaluation Design:

**Qualitative assessment on impact of mentoring on the primary care team:** JHCP will develop and test tools to evaluate changes in attitudes, values and knowledge of primary care physicians and their support staff around use of mentoring and team building models regarding management of patients with chronic pain. Based on available literature, we will develop an assessment of clinician and team member perception of patient-team relationships and barriers to effective treatment. These surveys will be distributed to participating physicians and to their clinical support teams before and after interventions.

**Chart-stimulated recall**

Outcomes of the intervention also will be assessed through **level 5 (performance) and level 6 (patient health)** using chart-stimulated recall (CSR), a qualitative and quantitative process of gathering information on clinician decision making and performance by reviewing selected charts with the practitioner in an interview format. CSR has been shown to be a useful tool for identifying educational needs and assessing outcomes of medical education interventions. [Jennett 1998] By interviewing the physician, we will gain insights into how and why data from pain encounters are recorded and vary in the patient record.[Chisholm 2008] Participants select a set of 6-10 charts from their practice based on specific criteria and representing multiple patient visits prior to and after the educational activity. A telephone interview lasting 1 hour

will be conducted by Healthcare Performance Consulting, Inc. Participants will be asked about entries in the charts related to management of chronic pain and opioid prescribing, based on the learning objectives. Questions will be asked to obtain objective information (diagnostic tests done, treatments prescribed, counseling performed) as well as subjective information (clinical reasoning, barriers encountered, etc.) to document:

| **Patient-Reported Outcomes** | **Healthcare Use Measures** |
|---|---|
| Reduction in pain severity, relative to baseline | Total pain-related healthcare use (inpatient, emergency department visits, outpatient, pharmacy, referrals) |
| Reduction in pain interference on function | Frequency of emergent and urgent visits to the PCP |
| Improvements in mood (ie, depression and anxiety) | Prescription opioid doses |
| Treatment satisfaction | |
| **Team Reported Outcomes** | |
| Attitudes, values , knowledge assessment of physicians & team members regarding chronic pain | Survey before and after intervention |
| Attitudes, values , knowledge assessment of physicians & team members regarding mentoring effectiveness | Survey before and after intervention |

Each participant serves as his own control by selecting charts from before and after the mentoring activity. Statistical analysis will be performed using SPSS version 19 in order to determine the effect of the activity on physician performance and patient outcomes. The data from the CSR interviews will be summarized and reported in aggregate form. No personally identifiable information will be reported. The pre- and post-activity data will be analyzed to assess level 5 (performance) and level 6 (patient health) outcomes of the educational activity.

**The primary audiences who will directly use or benefit from the project outcomes are** primary care clinicians and the interdisciplinary team including psychiatrists, addiction specialists, nurses, physical therapists, and other clinicians who care for chronic pain patients.

**How the project outcomes will be broadly disseminated**

The online dissemination of the webinars' summary with expert video commentaries and the video panel discussion of the program results as presented at the live symposium will extend essential learnings to Medscape's audience of 147,000 primary care clinicians. It will also be cross-posted to the membership of 12,000 neurologists, 23,000 anesthesiologists, 32,000 psychiatrists, and the nurse practitioner, physician assistant, and nurse membership. In addition, a publication of the program and its outcomes is planned for further dissemination as an abstract, poster, or full article, with the goal of translating successful interventions into other EHR environments, facilitating the use of templates and smart text for appropriate documentation, and making templates for pain contracts available in EHR.

**E. Detailed Work Plan and Deliverables Schedule** (not to exceed 2 pages):

**Enroll Mentees:** A baseline assessment of the EHRs completed for chronic pain patients by JHCP PCPs will identify those who have patients prescribed chronic opioids. They will be invited to participate in the program. A mentee agreement will define specific expectations and commitments of mentees.

**Enroll Mentors:** A mentor agreement will define specific expectations, commitments, and compensation for mentors. Mentors will be enrolled based on their authority, direct experience, and credibility for the JHCP PCPs as well as for their understanding of the realities of PCP practice.

**Content Development:** Curriculum development will be overseen by the Course Director and the Director of Education for JHCP and Assistant Dean for part-time faculty at Hopkins. The curriculum incorporates content from previously established evidence-based guidelines and diagnostic tools and teaches practical strategies for safely incorporating opioid medication use into a multidisciplinary pain program. The curriculum will be certified for CME credit by JHU Office of CME.

**Content Delivery:** Four online live webinars hosted by mentors in the program will deliver the curriculum to JHCP mentees in their regularly scheduled webinar series. A summary of the key learnings from these webinars will be delivered in an online activity at Medscape, along with video commentaries from each of the mentors. A live JHCP symposium in the fall will present the outcomes and learnings from the mentor program. This symposium will be videotaped and presented online at Medscape to disseminate the outcomes from the program. JHCP will deliver the Luncheon Leadership Series to JHCP allied healthcare staff.

**Mentoring Components:** Mentors will provide a group teleconference following each live webinar and one-on-one teleconferences. Following the online posting of the webinar highlights, mentors will moderate interactive discussion boards and interact with mentees to answer their specific questions on the content presented or on their challenging cases.

**Outcomes Assessment:** A chart-stimulated Review of relevant patient EHRs from pre- and post-intervention periods will be conducted through telephone interviews to provide data for outcomes analysis. A final report will be delivered. The enduring online summary of the 4 webinars will be measured for **participation** (monthly participation statistics), **satisfaction** (CME/CE evaluations forms), and **medical knowledge/competence** (CME/CE post-tests).

**Outcomes Dissemination:** The outcomes presented in the final live JHCP symposium will be disseminated to Medscape's extensive audience cited above. In addition, the team anticipates writing and submitting a publication (abstract, poster, or article) disseminating the outcomes of the program.

| Activity | Start Yr-Mo | End Yr-Mo |
|---|---|---|
| 1. Overall project management | 13-Jan | 14-Jun |
| 2. Develop mentor and mentee agreements | 13-Jan | 13-Apr |
| 3. Identify and enroll mentors | 13-Jan | 13-Apr |
| 4. Conduct and analyze baseline assessment including knowledge & attitudes survey | 13-Jan | 13-Mar |
| 5. Enroll mentees | 13-Feb | 13-Apr |
| 6. Develop schedule for mentor:mentee teleconferences | 13-May | 14-Jun |
| 7. Develop live webinars 1-4 | 13-Jan | 13-Jun |
| 8. Deliver live webinars 1-4 | 13-June | 13-Nov |
| 9. Deliver Leadership Luncheons for practice team building | 13-June | 14-Jan |
| 10. Deliver live mentoring teleconferences | 13-June | 13-Nov |
| 11. Develop online summary of webinars | 13-Oct | 13-Nov |
| 12. Develop video commentaries | 13-Oct | 13-Nov |
| 13. Deliver online summary, video commentaries | 13-Oct | 14-Nov |
| 14. Manage and monitor Medscape Discuss | 13-Oct | 13-Nov |
| 15. Deliver online mentoring discussions | 13-Oct | 13-Nov |
| 16. Develop and deliver live symposium on results at Annual JHCP Provider meeting November 13, 2013 | 13-Nov | 13-Nov |
| 17. Develop online symposium highlights | 13-Nov | 14-Jan |
| 18. Deliver online symposium highlights | 14-Jan | 15-Jan |
| 19. Conduct CSR outcomes interviews | 13-Nov | 14-Jan |
| 20. Deliver outcomes analysis | 14-Mar | |
| 21. Develop publication of results | 14-Mar | 14-May |
| 22. Manage the budget and provide reconciliations | 13-Jan | 14-Jun |

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