

# ***Systems Interventions to Improve the Management of Chronic Musculoskeletal Pain***

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## ***Session Co-Chairs***

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# Welcome

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- Please introduce yourself
- State your name and primary stakeholder affiliation



# Housekeeping

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## **Today's webinar is open to the public and is being recorded.**

- Members of the public are invited to listen to this webinar.
- Topic briefs and other materials are available on the PCORI site.
- Comments may be submitted via chat. No public comment period is scheduled today.

## **Reminders for the group**

- Please signify your intent to speak by standing your name placard on end.
- Where possible, we encourage you to avoid acronyms in your discussion of these topics.

## **For those on the phone**

- If you experience any technical difficulties, please alert us via chat or email [support@meetingbridge.com](mailto:support@meetingbridge.com).



# Systems Interventions for Management of Chronic Musculoskeletal Pain

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- Purpose: Compare effectiveness of health systems interventions at the primary care and specialized pain program levels
  - Alternative modules, technology, and tools to improve patient self management
  - Alternative models to improve primary care quality of chronic pain management
  - Alternative models of interdisciplinary care coordination



# Systems of Pain Management

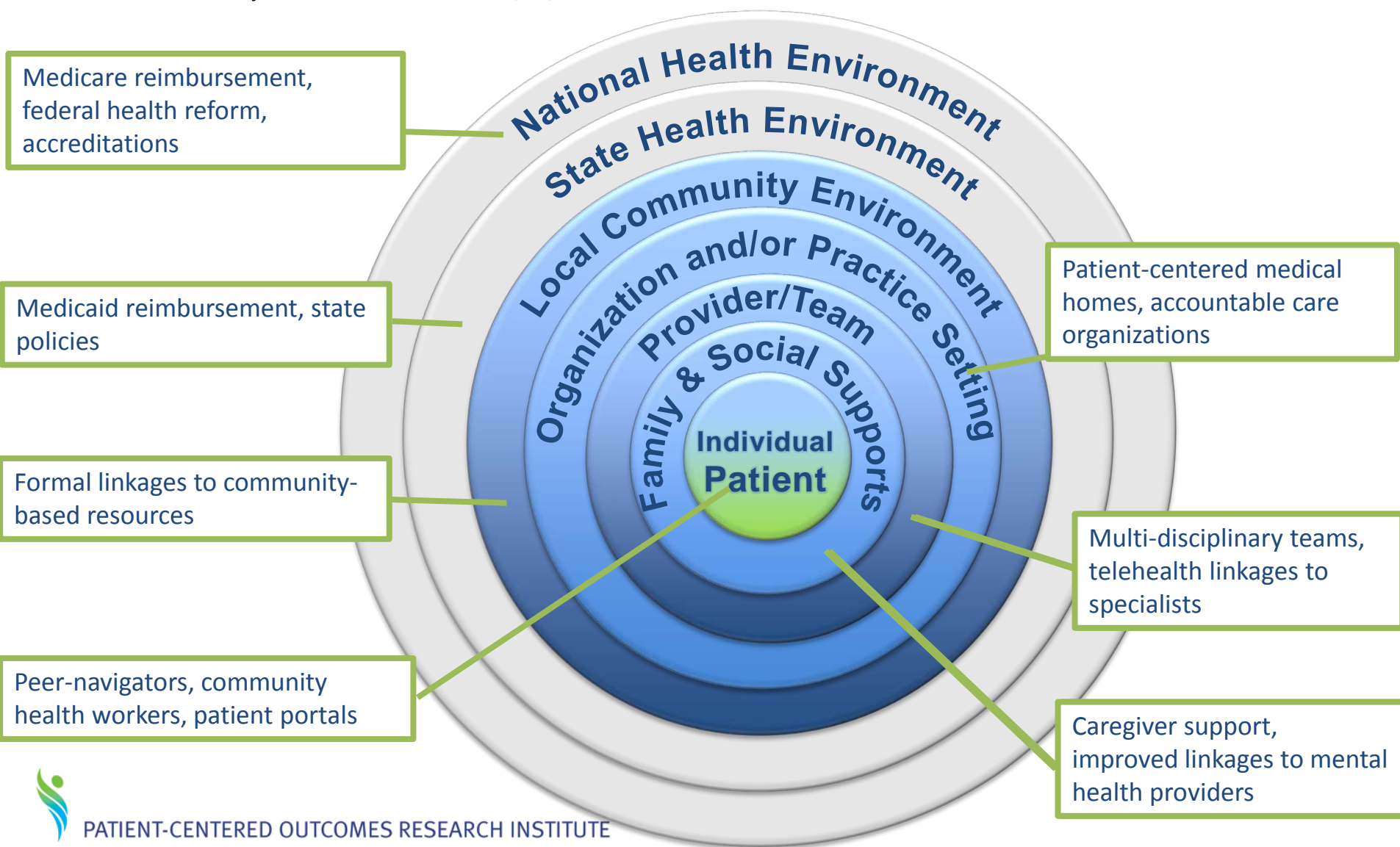
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- Introduction to the Topic
- Evidence Gaps
- Research Implementation
- Research Questions
- Questions for Discussion



# The Healthcare System

Figure adapted from: Taplin, SH; Clauser, S., et al. (2012). Introduction: Understanding and Influencing Multilevel Factors across the Cancer Care Continuum. *Journal of the National Cancer Institute*, 44, 2-10.



# Introduction to the Topic

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- **Definition:** Chronic musculoskeletal pain is a musculoskeletal pain condition with no identifiable underlying serious or specific disorder, not resolved in less than 3 to 6 months
- **Settings include:**
  - Primary care
  - Specialized care
    - Pain specialist
    - Complementary and Alternative Medicine providers
    - Cognitive/behavioral therapist
  - Multi-disciplinary pain programs



# Introduction to the Topic

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- **Types of Musculoskeletal Pain Management:**
  - **Level I:** primary care setting. Patient actively involved. Usually includes participation in an exercise program, physical therapy, behavioral management, pharmacologic therapy.
  - **Level II:** referral to a multi-disciplinary team, pain specialist or specialized pain center.
    - **Multidisciplinary Pain Program (MPP):** comprised of at least four components: 1) medical therapy; 2) behavioral therapy; 3) physical reconditioning; 4) education; a partial MPP includes only 2 or 3 of these components.



# Introduction to the Topic

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- **Patient-Centeredness:**

- Experiencing pain is unique, subjective experience, requiring tailoring to each individual
- Effectiveness of treatment is largely dependent on patients' involvement
- Pain management outcomes of importance include: achieving functional goals, improving quality of life, reducing suffering, depression, anxiety and stress, and reducing pain
- Outcomes for health systems include: reduced time to achievement of functional goals, improved efficiency of care, improved patient satisfaction with care

- **Evidence Base to Date:**

- Evidence in establishing that active engagement of patients in their treatment improves pain outcomes, psychological outcomes, but quality is low
- Internet-based interventions show increased knowledge, adherence, social support, but largely cohort studies
- Multi-disciplinary pain programs, with specific components, are effective when compared with standard medical care and compared with other non-multi-disciplinary treatments



# Evidence Gaps

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- Level I:

- Supported Self-Management

- Need to determine which self-management programs work for which patients, and how they can be best implemented
- Little consensus on which self-management interventions should be targeted towards which pain outcomes

- Patient Interaction with Primary Care Physicians (PCP)

- Need for more research about the discussion between PCPs and patients regarding shared decision-making
- No high-quality evidence linking PCP-patient interaction to outcomes
- Significant lack of data regarding pain management interventions in racial and ethnic minorities; need for culturally sensitive pain report methods



# Evidence Gaps

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- Level II:

- Multi-disciplinary Pain Programs
  - Little known about the effects of various components within an MPP
  - Lack of evidence on the effectiveness of programs for different diagnoses (e.g., fibromyalgia, widespread musculoskeletal disease)
  - Lack of long term studies; need randomized control trials (RCTs) with high follow up rates
  - Lack of RCTs in the US
- Setting:
  - Evidence needed on quality of inpatient vs outpatient treatment



# Research Implementation

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- **Likelihood of Implementation**

- To date, adoption of evidence based protocols in chronic pain management is low
- The growth of Accountable Care Organizations and Patient-centered Medical Homes facilitate mechanisms to promote adoption of evidence-based protocols and increase collaboration across providers

- **Durability**

- Basic approach to many of the systems interventions for chronic pain management has been evolving slowly- high likelihood of durability



# Methodology Standards for PCOR: Standards for Formulating Research Questions

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- Identify specific populations and health decision(s) affected by the research
  - Describe: 1) the specific health decision the research is intended to inform, 2) the specific population for whom the health decision is pertinent, and 3) how study results will inform the health decision
- Identify and assess participant subgroups
  - Identify participant subgroups of interest and, where feasible, design the study with adequate precision and power to reach conclusions specific to these subgroups
- Select appropriate interventions and comparators
  - Comparator treatment(s) must be chosen to enable accurate evaluation of effectiveness or safety compared to other viable options for similar patients. Describe how the chosen comparator(s) define the causal question, reduce the potential for biases, and allow direct comparison
- Measure outcomes that people representing the population of interest notice and care about
  - Identify and include outcomes the population of interest notices and cares about (e.g., survival, function, symptoms, health-related quality of life) and that inform an identified health decision



# Question refinement process

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- **Step 1: Discuss the questions submitted by the group**
  - » Identification of populations, interventions, comparators, outcomes, duration and settings
  - » PCORI Tier 3 Criteria
- **Step 2: Rank the questions in order of priority**
- **Step 3: Refine the top 2-3 research questions**
  - » Expanded discussion of specific populations of interest, health decisions, and treatments
  - » Consideration of study design, challenges to conducting research on specific question, and ongoing work in the field



# Research Questions: Level I

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- **Technology and Tools to Improve Patient Activation in Chronic Pain Self-Management**
  - 1. Compared with usual care, can pain and functioning be improved in patients with low back pain and musculoskeletal pain using specific motivational interventions, (e.g., motivational enhancement treatment (MET) or compliance-enhancing interventions, internet based self management programs), that improve engagement and patient self management of chronic pain?
- **Use of Technology to Improve Physician Knowledge and Self-efficacy in Management of Chronic Pain**
  - 2. What is the comparative effectiveness in improving patient functioning, quality of life and reducing pain of different tools, modules, and technologies for educating and supporting primary care practitioners in managing patients with chronic musculoskeletal pain compared with usual care?
- **Technology and Tools to Improve the Physician/Patient Interaction in Chronic Pain Management**
  - 3. Does implementation of the eCPQ (electronic Chronic Pain Questions) into a health system's EMR (electronic medical records) in a family practice or primary care setting result in better chronic pain care in patients with chronic low back pain, osteoarthritis, fibromyalgia or musculoskeletal pain compared to standard of care?



# Research Questions: Level II

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- **Appropriate Referral of Chronic Pain Patient to MPP**

- 4. What is the comparative effectiveness of incorporating risk triage systems into primary care for making decisions about referral to multidisciplinary teams versus usual care on patient outcomes (or what is the comparative effectiveness of different time intervals before referral)?

- **Comparison of Primary-care-based Interventions Versus MPP**

- 5. What is the comparative effectiveness of multi-disciplinary pain management programs vs the use of different tools, modules and technology for educating and supporting primary care practitioners in managing patients with chronic musculoskeletal pain on reduction of pain, achievement of patient goals, and improvement of function?
- 6. For patients with chronic musculoskeletal pain (including chronic low back pain), what is the comparative effectiveness of pain clinic care as compared with a comprehensive, primary care-based, patient-centered approach in improving physical function, reducing pain, and optimizing quality of life?
- 7. For older adults with chronic musculoskeletal pain (including chronic low back pain), what is the comparative effectiveness of pain clinic care as compared with geriatrician-directed care for optimizing physical function and patient/caregiver quality of life?



# Research Questions: Level II

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- **Changes in the Composition of Pain Management Team**

- 8. What are the comparative benefits and risks (in pain and disability outcomes) of standalone chiropractic care versus chiropractic care delivered as part of a multidisciplinary panel including chiropractors and medical doctors for adults with chronic low back pain [also for chronic neck pain]?

- **Comparison Across Different Models of Team-based Care**

- 9. What is the comparative effectiveness of alternative models of coordinated pain management- such as specialized, integrated pain centers versus coordinated care models that emphasize cross-provider data- and communication-sharing (e.g., patient-centered medical homes) for treatment of chronic musculoskeletal pain?



# PCORI Tier 3 Criteria

**Patient-Centeredness:** is the comparison relevant to patients, their caregivers, clinicians or other key stakeholders and are the outcomes relevant to patients?

**Impact of the Condition on the Health of Individuals and Populations:** Is the condition or disease associated with a significant burden in the US population, in terms of disease prevalence, costs to society, loss of productivity or individual suffering?

**Assessment of Current Options:** Does the topic reflect an important evidence gap related to current options that is not being addressed by ongoing research.

**Likelihood of Implementation in Practice:** Would new information generated by research be likely to have an impact in practice? (E.g. do one or more major stakeholder groups endorse the question?)

**Durability of Information:** Would new information on this topic remain current for several years, or would it be rendered obsolete quickly by new technologies or subsequent studies?



# Questions for Discussion

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- Based on your perspective, are these the right broad categories of major gaps in knowledge for systems interventions for managing chronic musculoskeletal pain?
- In which of these areas is the need for additional patient centered outcomes research most compelling, and why?



# Prioritization

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- Please check your email. You will receive a link to a prioritization exercise through the tool “Surveygizmo”.
- You will see the newly revised questions discussed this morning. Please rank the questions in order of priority, with 1 being highest.
- Once you have completed the prioritization exercise, you may leave for lunch.
- We will resume our discussion by 1pm.



# LUNCH

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*12:15pm – 1:00pm*



# Results from Prioritization

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- Top three questions:
  - 1.
  - 2.
  - 3.



# Final Question Refinement

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- What are the challenges raised in conducting research on these questions, and how might those challenges be addressed?
- What is the most appropriate study design? What are the advantages and disadvantages of particular designs?
- Is there ongoing work in this area that PCORI should consider? If so, how could PCORI best fund research to complement this work?



# Prioritized Question 1

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Identify PICOTS related to each question:

- Population/Patient Problem:
- Interventions:
- Comparison:
- Outcomes:
- Timing:
- Settings:



# Prioritized Question 2

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Identify PICOTS related to each question

- Population/Patient Problem:
- Interventions:
- Comparison:
- Outcomes:
- Timing:
- Settings:



# Prioritized Question 3

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Identify PICOTS related to each question:

- Population/Patient Problem:
- Interventions:
- Comparison:
- Outcomes:
- Timing:
- Settings:



# Closing Remarks

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- Meeting summary will be distributed in a few weeks
- Prioritized questions and deliberations from workshop will be shared with PCORI leadership
- PCORI governance will determine next steps



# Thank You



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