Addressing Chronic Pain: Integrating Physical Function Services into Community Health Centers

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CHRONIC PAIN: AN ONGOING PUBLIC HEALTH CRISIS

Chronic pain is a widely recognized public health epidemic. Chronic pain may negatively affect an individual's biological, psychological, social, and economic state of being, thereby impacting entire communities. Chronic pain also disproportionately affects certain populations, such low-income adults, women, and adults over 65 years old (Institute of Medicine (U.S.), 2011). Approximately 20.4% of adults in the United States experience chronic pain with 8% suffering from chronic high-impact pain (Dahlhamer et al., 2018). The estimated cost of chronic pain in the United States is $560-635 billion annually, including $261-300 billion accounting for health care costs alone (Institute of Medicine (U.S.), 2011). Related to the economic burden of chronic pain is the cost of prescription opioid misuse and overdose, which is estimated to be $78.5 billion annually (Florence et al., 2016).

Acknowledgement of chronic pain as a pervasive issue has led organizations to develop policies, initiatives, and healthcare benefits to address the crisis. The St. Louis Regional Health Commission (RHC) has made advances to improve chronic pain treatment options for the St. Louis safety net population. The RHC's Gateway to Better Health (GBH) patient population has a rate of musculoskeletal chronic pain (non-cancer pain lasting three months or longer) almost double that of the general population. In response, the RHC implemented a Physical Function Improvement Benefit, which integrates physical function services within community health centers (CHCs) to prevent and manage chronic pain.

The patient population at CHCs is largely an underserved demographic. These individuals disproportionately have chronic pain and often have less access to treatment options. While health insurance coverage is a major contributor, other social and structural barriers, such as inadequate transportation, lack of access to childcare, inability to miss work, and limited resources to attend multiple visits at various locations, limit care. There is extensive room for improvement in addressing chronic pain at the primary care level. Primary care providers (PCP) are often burdened in CHCs by limited resources to treat patients with complex multimorbidity, short appointment times, and lack of specialty care referral options due to lack of insurance.

Physical function experts, such as chiropractors, occupational therapists, and physical therapists, provide evidence-based, non-pharmacological therapies which are effective in the management of chronic pain (Tick et al., 2018). Integrating physical function services into CHCs may reduce social and financial barriers for patients, as well as decrease the burden placed on the PCP. Providing access to physical function experts will allow for more substantial upstream efforts in treating chronic pain and increases equitable access to effective treatment therapies. This paper provides a blueprint for integrating physical function services into other CHCs beyond the St. Louis region.

Definitions:

Pain

"An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage" (International Association for the Study of Pain, 2020).

Notes accompanying the definition

- Pain is always a personal experience that is influenced to varying degrees by biological, psychological, and social factors.
- Pain and nociception are different phenomena. Pain cannot be inferred solely from activity in sensory neurons. [Therefore, there is often discordance in diagnostic testing (e.g., severity of spinal arthritis on an X-ray) and patient symptoms (e.g., low back pain).]
- Through their life experiences, individuals learn the concept of pain.
- A person's report of an experience as pain should be respected.
- Although pain usually serves an adaptive role, it may have adverse effects on function and social and psychological well-being.
- Verbal description is only one of several behaviors to express pain; inability to communicate does not negate the possibility that a human or a nonhuman animal experiences pain.

Chronic pain

"Chronic pain is pain that persists or recurs for longer than three months" (International Association for the Study of Pain, 2019).

Acute pain

Pain that starts suddenly and has a specific cause, like an injury or illness, and lasts a short time. It alerts the patient to seek help.

Physical Function Experts

These are providers dedicated to the improvement of their patients' physical health and function. They could include chiropractors, physiatrists, occupational therapists, physical therapists, etc.

Physical Function Services

These are treatment therapies that improve healthy moving and functioning. They could include evaluation, exercise therapy, neuromuscular re-education, etc. and are provided by *Physical Function Experts.* Transdisciplinary models of care and active treatment therapies are prioritized.

THE ST LOUIS REGIONAL HEALTH COMMISSION AND THEIR CHRONIC PAIN INITIATIVE

St. Louis Regional Health Commission

The RHC is a network of individuals and organizations with the responsibility and commitment to improve health care access, health outcomes, and health equity in St. Louis City and County. The RHC was formed out of the necessity to preserve health care access to the safety-net population in response to the closure of the last remaining public hospital in St. Louis in 2001.

Gateway to Better Health Program

The Gateway to Better Health Program provides access to primary and specialty health care services for approximately 22,000 low-income, uninsured individuals in St. Louis City and County annually. The RHC provides coordination, monitoring, and reporting for this program. The program was designed to provide uninsured patients a bridge in care until they were able to enroll in health insurance coverage options available through the Affordable Care Act. Gateway to Better Health was approved on July 28, 2010, by the Centers for Medicare and Medicaid Services (CMS) and provides up to $30 million annually in funding for primary and specialty care as well as other outpatient services.

Chronic Pain Initiative

The RHC's 2017 study titled *Orthopedic Referral Study: Assessment of Current Practices and Recommendations Regarding the Care of Patients with Musculoskeletal Problems* had two major findings: (1) Gateway to Better Health patients have a high prevalence of musculoskeletal chronic pain (non-cancer pain lasting three months or longer), and (2) multifaceted opportunities exist to improve chronic pain treatment and prevention for patients in the St. Louis safety network. These findings prompted the RHC Advisory Boards to prioritize chronic pain as a key focus area from 2018 to 2020. The Chronic Pain Initiative, focused on musculoskeletal pain lasting three months or longer, encompasses three primary streams of work: 1) policy reform, 2) clinical improvement, and 3) public health communications. Ultimately, the Chronic Pain Initiative aims to prevent the chronification of pain for GBH members and improve the treatment of chronic pain in the St. Louis region for Gateway patients.

The Physical Function Improvement Benefit

In line with its Chronic Pain Initiative, the RHC was granted approval by DSS and CMS to add a Physical Function Improvement Benefit to its Gateway to Better Health program starting January 2021. This covers integrated physical function services in CHCs. The benefit aims to help these clinics to better manage musculoskeletal pain, ultimately improving prevention and treatment of chronic pain. The benefit uses the terms "physical function services" and "physical function experts" to describe multidisciplinary treatment approaches that address musculoskeletal issues and improve the health and function of patients. See more detailed definitions on page 3.

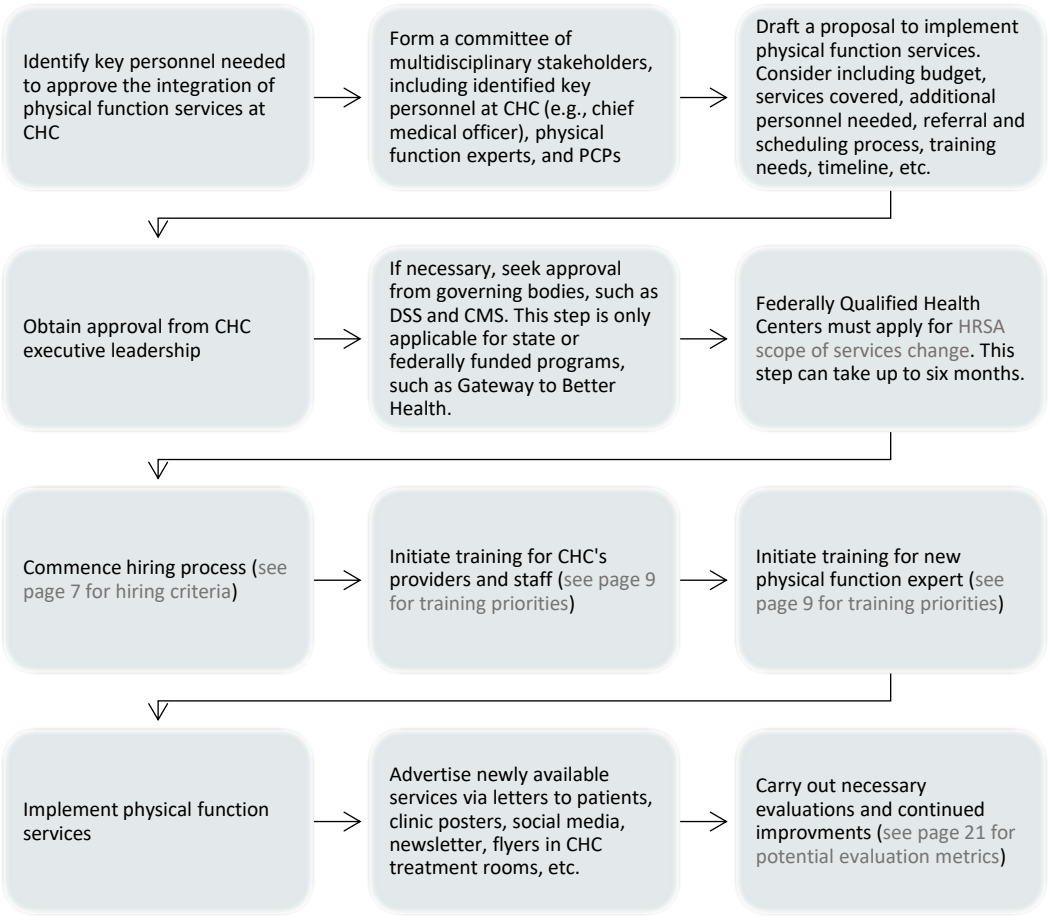
A GUIDE TO IMPLEMENTING PHYSICAL FUNCTION SERVICES

This guide is based on the strategic planning and implementation of the Physical Function Improvement Benefit within the Gateway to Better Health (GBH) program. This guidance comes from a group of multidisciplinary providers and diverse stakeholders, including public health experts, CHC leaders, primary care physicians, physiatrists, psychologists, physical therapists, occupational therapists, chiropractors, and others. The principles listed below emerged as key priorities in service implementation for the Physical Function Improvement Benefit and can be applied to other integration efforts.

Principles of Physical Function Services at Community Health Centers

1. **Increase access** to physical function experts for the safety net patient population
2. **Establish co-location** of physical function experts on-site at CHCs
3. **Promote transdisciplinary** pain management within the primary care home model
4. **Provide patients with individual encounters** with physical function experts
5. **Maximize reach** by providing classes, group visits, and ongoing provider training on chronic pain
6. **Focus on patient self-activation, empowerment, and healthy movement**
7. **Utilize trauma-informed principles**: ask patients "What happened to you?," not "What's wrong with you?"
8. **Prioritize function and occupation** (daily life activities): ask patients "What matters to you?," not "What's the matter with you?"
9. **Emphasize that people in chronic pain are not defined by their pain**
10. **Emphasize conservative, cost-effective, and evidence-based health care**
11. **Recognize and treat co-occurring disorders** including substance use disorder, behavioral health, and other chronic diseases like diabetes and hypertension
12. **Prioritize the shortest course and lowest effective dose of the safest medication** when opioids are required
13. **Emphasize prevention** of the chronification of pain
14. **Improve and share** best practices for chronic pain management

Recommended Steps for Implementation



Staffing Model

Health centers should maintain at least one physical function expert on-site and integrated into their primary care health home. However, experts of multiple disciplines may be needed to provide all the necessary physical function services. If contracting, health centers can vet personality traits and receptiveness to trauma-informed practices and integration through the screening interview and contract requirements. Salary and benefits are deferred to the health centers' preferences; the RHC budgeted $50.00/hour and 15% fringe benefits for full time employees and contractors. See table 4 for suggested budget.

Recommended Hiring Criteria

1. Position qualifications:
    a. DC required for chiropractor; DPT recommended for physical therapist; OTD recommended for occupational therapist
    b. 3-5 years of experience preferred
2. Desired abilities and characteristics:
    a. Prioritization of active treatment to promote patient empowerment
    b. Understanding of contemporary treatment, evidence-based, and conservative (cost effective) care. Academic affiliation preferred
    c. Experience with diagnosing and treating common issues in diverse patient populations and a commitment to health equity
    d. Experience and willingness to deeply collaborate with other professionals, especially PCP, nurse, Community Health Worker, and behavioral health consultant
    e. Ability to move and think fast in unpredictable environment
    f. Ability and eagerness to apply a trauma-informed lens

Note for Federally Qualified Health Centers (FQHCs):

HRSA requires FQHCs to apply for a change of scope in services when adding a service that was not previously offered. Adding the service(s) will provide malpractice coverage under the Federal Tort Claims Act (FTCA).

Please be aware that the application process can take six months or longer. FQHCs can apply for scope expansion for multiple disciplines simultaneously (e.g., chiropractic, occupational therapy, physical therapy, acupuncture). FQHCs must integrate services within 120 days of approval.

FQHCs are advised to contact their HRSA project officers with any questions.

g. Competence/confidence to direct medical concerns directly to PCP

h. Proactive stance in selecting patients who could benefit from physical function services

i. Interest and ability to teach the primary care team about physical function therapies

j. Ability to work within the confines of a busy primary care clinic with limited appointment times and reduced patient visit frequency

k. Ability to be flexible and innovative to optimize the first patient visit

Staffing Models

Consider various staffing models:

a. Hiring
   i) Consider piloting services in a reduced capacity and scaling up clinical hours as demand increases
   ii) Review state legislation (e.g., see "Missouri Laws to Consider When Staffing Physical Therapists")

b. Independent contractor
   i) Independent contractors will depend on coverage by public payers (e.g., Medicaid)
   ii) Consider contracted payer model where CHC is incentivized to maximize physical function services
   iii) CHC may be required to provide malpractice coverage

c. Professional school partnership
   i) School partnership may be more financially feasible
   ii) Partnership offers mutual benefits as it provides institutions with crucial teaching sites for students
   iii) Long term sustainability requires offsetting most costs (including clinician salary)

Missouri Laws to Consider When Staffing Physical Therapists:

1. Missouri's "Anti-POPTS Law" (§334.253) prohibits a physician to make a referral to a physical therapist with whom the physician's employer has a financial relationship. CHCs could face complications hiring a physical therapist; however, contracting on-site would avoid these legal complications

2. Lack of "Direct Access" (§334.506) may impose some limitations in services. Physical therapists can only provide a limited set of services without prescription or direction of an approved health care provider (including physicians, physician assistants, advanced practice registered nurses, chiropractors, surgeons, podiatrists, and dentists).

Training Priorities

Training should prioritize the practice of trauma-informed care, promotion of health equity, and adherence to best practices in treating chronic pain. Training should also encourage team-based care through continuous education from multidisciplinary perspectives. This allows for a more profound, mutual understanding of everyone's role in addressing chronic pain, ultimately leading to successful implementation and ongoing integration efforts.

CHCs have significant experience with multidisciplinary service integration. Centers should leverage preexisting institutional knowledge to extend their integration skills to include physical function expertise.

New Physical Function Experts Training Priorities

1. Prioritize trauma-informed care by encouraging physical function experts to:
    a. Promote safety by obtaining consent before touching a patient
    b. Establish rapport with patient at the first visit
    c. Set realistic expectations to promote trust
2. Promote health equity in providing care for patients in pain
3. Encourage physical function experts to take the following actions to maximize a single visit (while working within the confines of limited time and space):
    a. Build rapport and trust
    b. Practice motivational interviewing
    c. Understand that education is vital (e.g., when hurt does not equal harm, functional goal setting, moving past the pain identity, promoting self-management, etc.)
    d. Follow up when able, but optimize the visit even if follow-up is not feasible
    e. Leverage team members who have known the patient longer and earned their trust
4. Foster integration and collaboration among physical function experts to reduce siloed practice and competition
    a. Promote routine case conference amongst different physical function experts to ensure alignment & collaboration
    b. Encourage co-referrals (as capacity allows) to maximize skillset
5. Encourage evaluation efforts and integration improvements

All Health Center Providers and Staff Training Priorities

1. Provide a brief evidence-based update on pain, including:
    a. Differences between chronic and acute pain
    b. Overlap of physical and emotional suffering
    c. Need for an integrated, transdisciplinary, and trauma-informed approach to pain management
    d. The negative effects of over-testing acute and subacute musculoskeletal (MSK) conditions have on pain chronification and other unnecessary interventions (e.g., ordering advanced imaging such as an MRI for non-specific low back pain may provide imaging findings that may lead to unnecessary invasive interventions such as spine surgery)
    e. The effects of labeling MSK conditions may have on have on a patient's perception of their pain (e.g., using terms such as disc degeneration in a 60 year old patient with age appropriate joint changes may induce pain catastrophizing and can result in further persistence of pain and disability)
2. Discuss the new physical function services, including:
    a. Internal referral guidelines to physical function experts
    b. Evaluation metrics
3. Align expectations, including the following reminders:
    a. Patient education, activation, and empowerment will be key
    b. Physical function experts cannot be expected to cure chronic pain but can work towards functional goals of the patient
    c. Chiropractors and physical therapists can triage physical ailments, diagnose and treat MSK concerns, and identify and refer medical concerns to the appropriate clinicians

Promoting Collaboration and Continuous Learning

1. Provide ongoing opportunities for collaboration, team-based learning, and refinement of integration process
2. Include physical function experts at staff/provider orientations and regular provider meetings
3. Promote continuous communication between physical function expert and PCP via EHR on patient care
4. Prioritize training for new incoming staff about physical function services (e.g., host half-day rotations with new PCP and physical function experts as part of onboarding process)
5. Enable physical function experts to present yearly at provider meetings and to share their expertise about physical function therapies on patient cases (e.g., physical function experts can educate team on managing pain, best practices for requesting imaging, etc.)
6. Include physical function expert in team huddles

Recommendations for Internal Referrals to the Physical Function Expert

Patient Access

Services may be offered to new and established CHC patients. While the model is based on individual patient encounters, health centers may also provide integrated services to a wider patient population through group classes and/or Community Health Worker outreach on musculoskeletal pain management.

Appointment Times

Appointment lengths will often vary by type. New patient visits should be allotted up to one hour, whereas follow-up visits may be allotted up to 30 minutes. In this integrated model, some physical function experts may need to help patients in a timeframe that is shorter than a traditional unintegrated delivery model.

Scheduling

Scheduling details should be deferred to the health center's preferences. However, it is encouraged to offer a combination of scheduled appointments and flexible appointments with warm hand-offs from the PCP. It is also recommended to have some access to same-day appointments, especially for acute conditions. Arrangement of the schedule should be structured with designated time slots for new patient and follow-up patient visits, as well as flexible slots to accommodate same-day visits and PCP warm hand-offs.

Collaboration and Communication

Health centers are encouraged to leverage their current expertise with close team integration to incorporate the new physical function expert(s) (e.g., by utilizing learnings from behavioral health consultant integration). When possible, warm hand offs with the physical function expert are strongly encouraged. Likewise, if a patient is experiencing fear of movement or other mental health concerns, utilizing the behavioral health consultant in collaboration with the physical function expert may be beneficial.

Follow-up communication from the physical function expert to the PCP through the electronic health record should be compulsory. Also, when a patient is directed to the physical function expert prior to the PCP visit, the PCP should be informed in a timely manner.

Referral Requirements

Once it is determined a patient has a non-urgent musculoskeletal (MSK) complaint, and the patient expresses interest in seeing the physical function expert, no further care is needed by the PCP for the specified complaint (exceptions may include medication change).

Providers may put in an "eval and treat" referral for the respective ICD code to the physical function expert for further triage. This presupposes one provider in the physical function team (e.g., chiropractor) has the scope to order testing. Physical function experts may also provide the PCP with current imaging (ACR) guidelines to guide decision-making if imaging should be ordered concurrently before the patient is seen by the physical function expert.

Referral Pathway

Referral pathways are deferred to the health centers' preferences as well. The following models provide variations in recommended referral pathways. Patients may see the physical function expert before or after the PCP or behavioral health consultant. Health centers may choose to have their triage nurses schedule patients with the physical function expert first, according to schedule demands and operation leadership's preferences. Ensuring a seamless referral system will allow for a patient to obtain timely, upstream evaluation and care for their pain complaint.

Figure 1. PCP-Initiated Referral Pathway

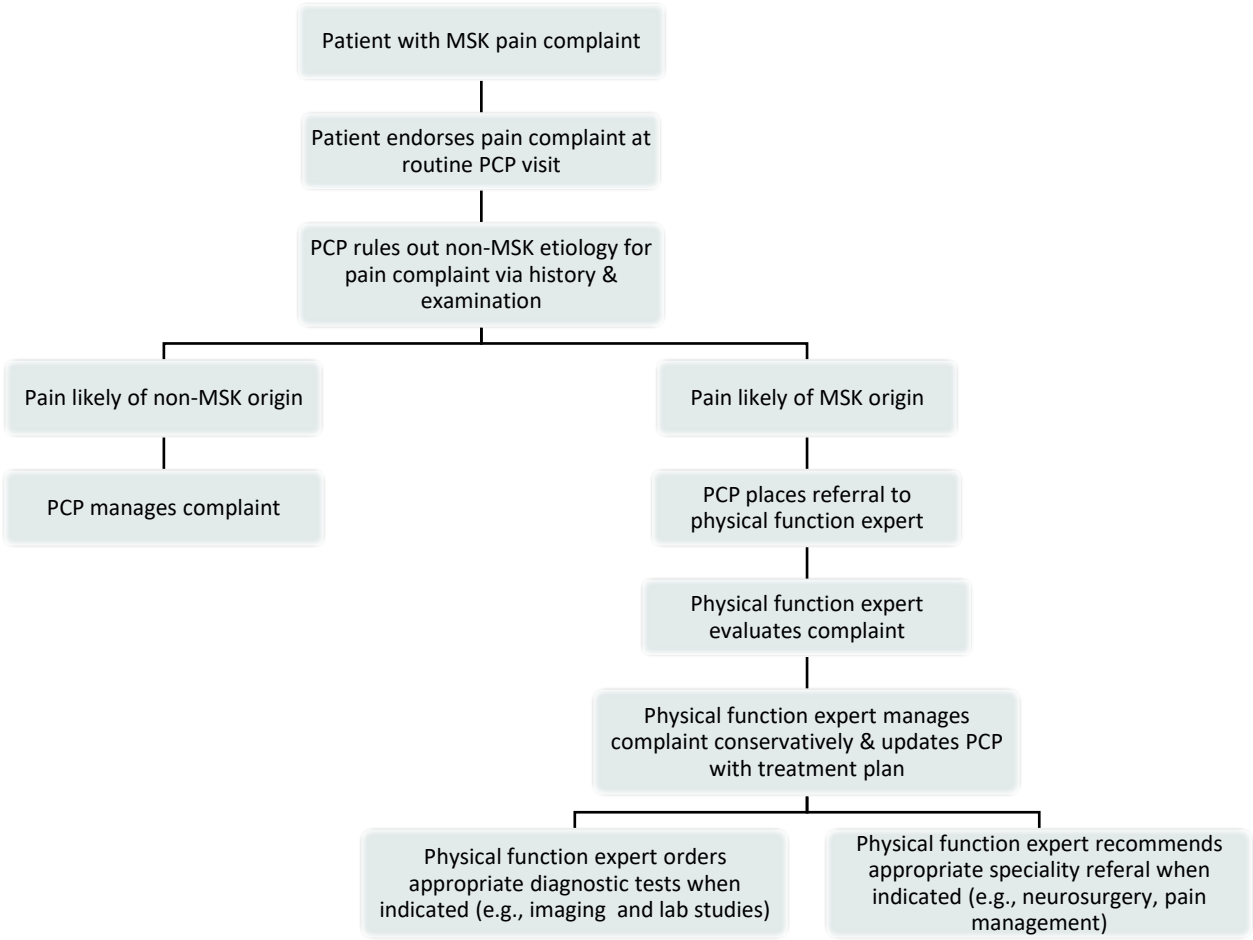


Figure 2. Patient-Initiated Referral Pathway

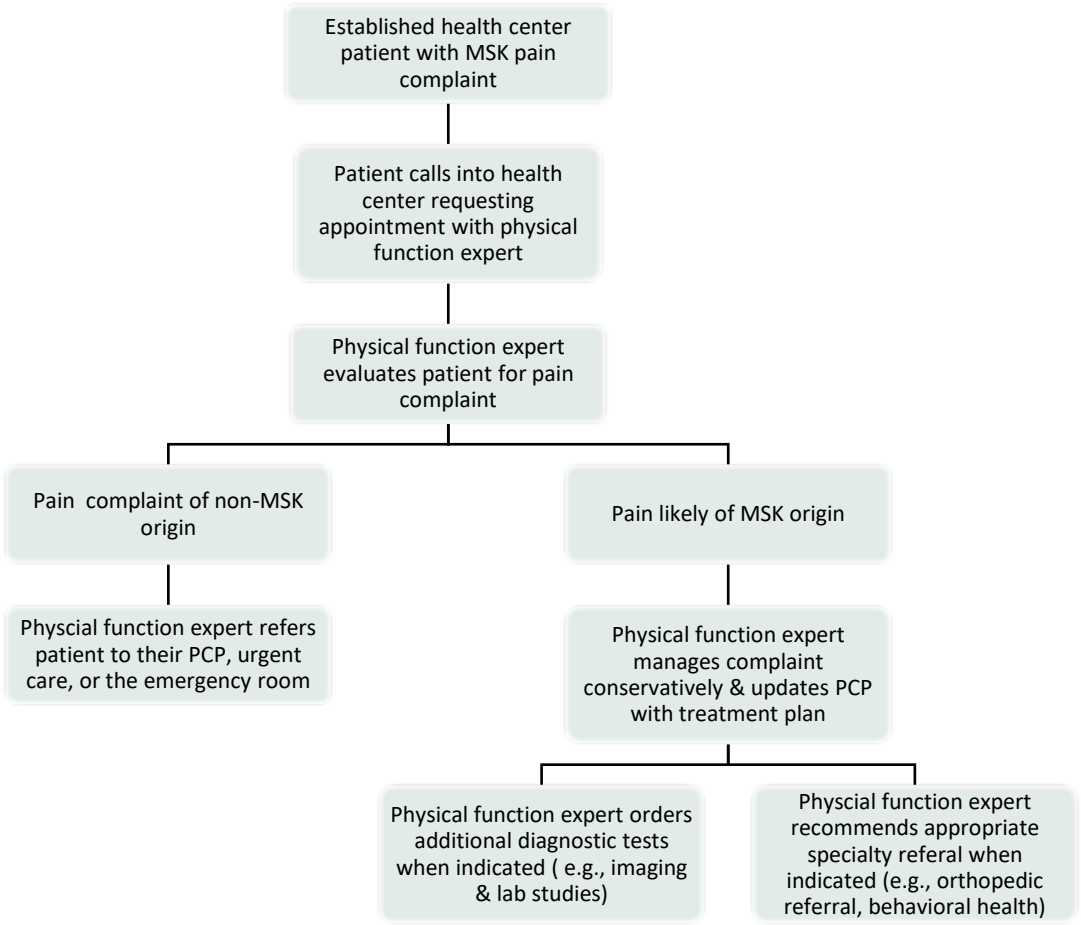
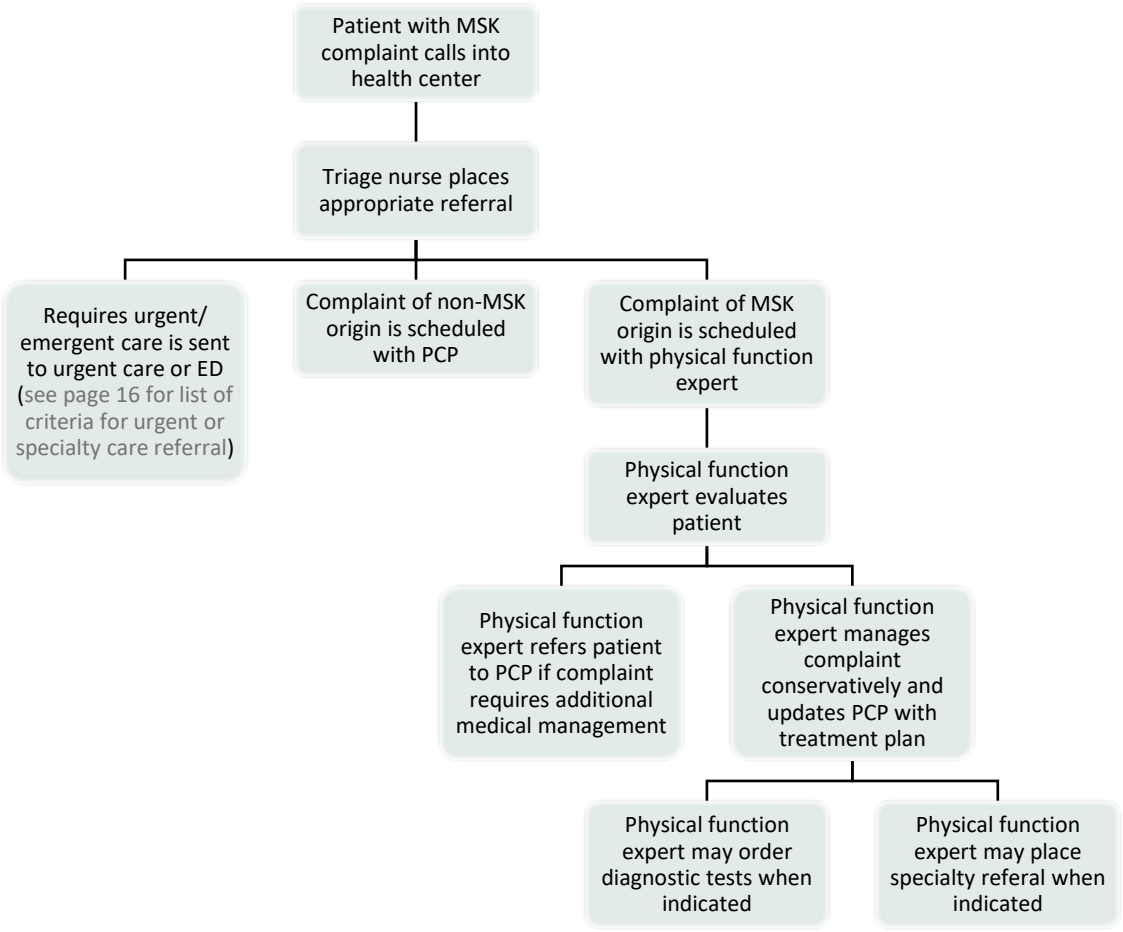


Figure 3. Nurse-Initiated Referral Pathway



Conditions/Diagnoses to Refer to a Physical Function Expert

Nonexclusive List of Conditions Commonly Referred to Physical Function Experts*

1. MSK pain (neck, back, shoulder, leg), including acute pain and chronic pain
    a. Strains/sprains
    b. Osteoarthritis and other joint pathology
    c. Bursitis/Tendinitis
    d. Sciatica
    e. Thoracic Outlet Syndrome
    f. "Whiplash"
    g. Nonsurgical spinal stenosis
    h. Complex Regional Pain Syndrome, Fibromyalgia, and other nonspecific pain
    i. Chronic headache
    j. Muscle spasms
    k. Repetitive use (e.g., Carpal Tunnel Syndrome)
2. Mobility or movement issues
3. Dizziness, balance issues, falls, and weakness
4. "Prehab" for cancer treatment or surgery
5. Neurological disorders (acquired brain injury, degenerative, post stroke)
6. Chronic disease such as diabetes or hypertension
7. Fall risk assessments

Capabilities of a Physical Function Expert (Specifically Physical Therapists and Chiropractors):

1. Triage physical ailments (e.g., identify which patients require immediate medical assistance, referral to the emergency department, or spinal surgery consults)
2. Diagnose and treat MSK concerns (e.g., acute or chronic knee pain, sprained ankle, back pain)
3. Identify medical concerns not amenable to physical function expert and refer these to the appropriate team members on site
4. Teach strategies for self-management and patient empowerment

Benefits of Treatment Could Include:

1. Preventing chronification of pain
2. Decreasing the pill burden on communities
3. Supporting PCPs
4. Improving patient wellbeing and pain-related disability
5. Reducing imaging and associated costs

** Multiple physical function experts of different disciplines would be needed to satisfy this entire list.*

Conditions When a Pain Complaint Should Be Prioritized for Physical Function Expert

1. Acute pain at high risk of turning chronic
2. Chronic pain with high functional impairment
3. Pain with co-occurring disorders (e.g., mental illness, substance use, diabetes, hypertension)
4. Pain with unclear diagnosis (when PCP is at the point of ordering imaging)

Urgent/Emergent Symptoms Prompting Triage Elsewhere

The following symptoms should NOT be referred to the physical function expert first; these may be referred instead to the emergency department, a spine surgeon, a medical provider, or behavioral health expert, according to health center's clinical triage.

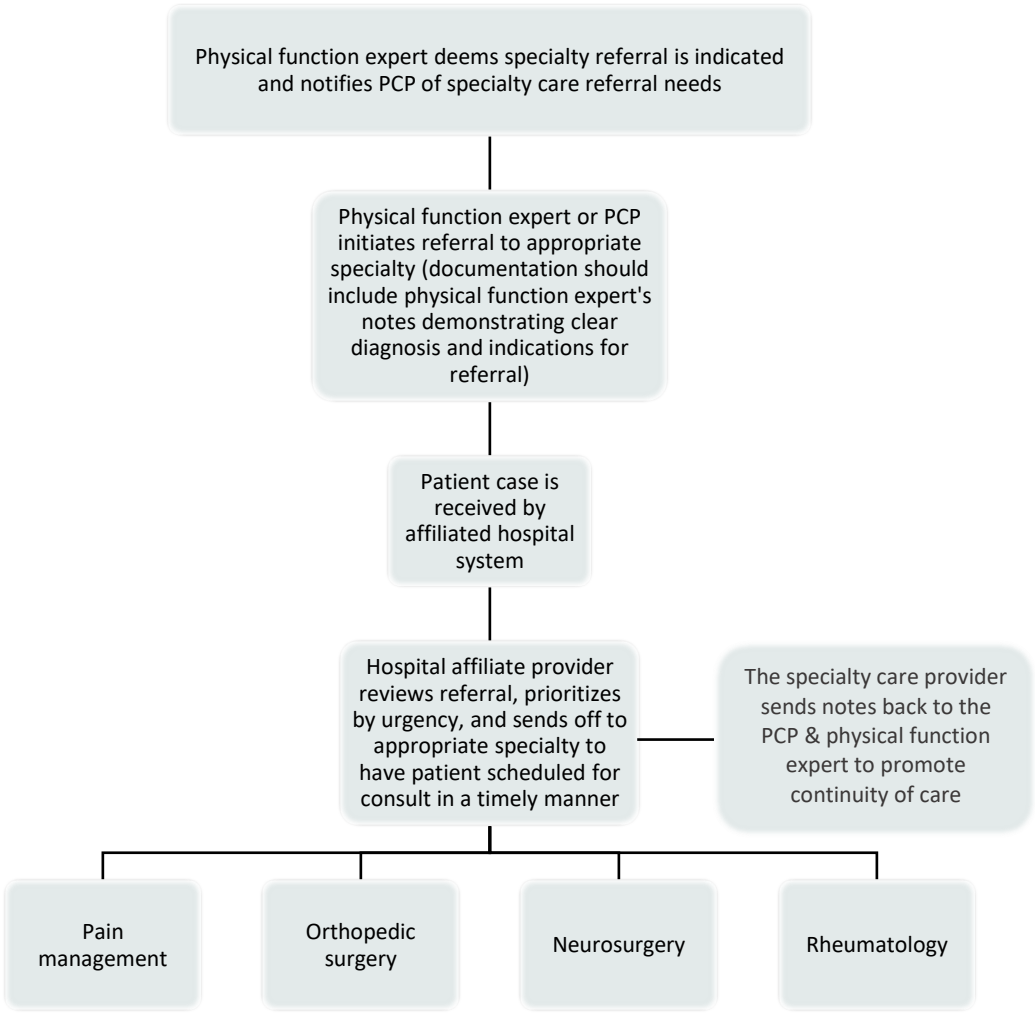
1. Dizziness, vomiting, or fever
2. Signs of abrupt neurologic dysfunction (bowel/bladder dysfunction, significant progressive weakness/paresthesia, saddle anesthesia, or other rapidly progressive neurologic symptoms)
3. Acute psychosis
4. Signs of cardiovascular or abdominal pathology (unevaluated chest pain, abdominal pain, etc.)
5. Other emergent conditions

Physical function experts also recognize these red flags and know to triage accordingly if these symptoms first become apparent during their encounter.

Recommendations for External Referrals to Specialty Care

While physical function experts possess the training and skills necessary to manage most MSK pain complaints, there are scenarios in which a patient may need a prompt referral to specialty care (e.g., pain management, neurosurgery). Implementing a system whereby patients are evaluated, accurately diagnosed, referred to the most appropriate specialty, and scheduled for a timely consult, may eliminate unwanted outcomes due to inefficiencies in the referral process. Positioning the physical function expert to triage external referrals, while retaining a provider at affiliated hospital systems to ensure the referral loop is closed, can greatly reduce unnecessary referrals and long wait times. See Figure 4 for an illustration of this model.

Figure 4. External Referral Pathway



Physical Function Services Provided

The listed services are included in Gateway to Better Health's Physical Function Improvement Benefit. The benefit prioritizes active codes to ensure evidence-based, conservative care, as opposed to a retail health care model. Prioritization of these services lead to an increased use of active therapies and promote patient self-activation, aligning with the principles of the benefit.

Table 1: Prioritized CPT Codes

Code	Description
97110	Therapeutic Exercise
97112	Neuromuscular Re-Education
97116	Gait Training
97140	Manual Therapy
97530	Therapeutic Activities
97535	Self-Care/Home Management Training

Table 2: Prioritized Evaluation and Reevaluation Codes

Code	Description
	Physical Therapy
97161	PT Evaluation: Low Complexity
97162	PT Evaluation: Moderate Complexity
97163	PT Evaluation: High Complexity
97164	PT Re-Evaluation
	Occupational Therapy
97165	Occupational Therapy, Low Complexity
97166	Occupational Therapy, Moderate Complexity
97167	Occupational Therapy, High Complexity
97168	Reevaluation of Occupational Therapy
	Chiropractic
99201-05	Evaluation and Management – New Patient
99211-15	Evaluation and Management – Established Patient

Table 3: CPT Codes Optional to Provide

Code	Description
	Occupational Therapy
97760	Orthotics Fitting
Code	***Chiropractic***
98940	Chiropractic manipulative treatment (CMT); spinal, one or two regions
98941	Chiropractic manipulative treatment (CMT); spinal, three or four regions
98942	Chiropractic manipulative treatment (CMT); spinal, five regions
98943	Chiro, manipulation, extraspinal, one or more regions
Code	***Acupuncture***
97810	Acupuncture, 1 or more needles; without electrical stimulation, initial 15 minutes
97811	Acupuncture, 1 or more needles; without electrical stimulation, for each additional 15 minutes
97813	Acupuncture, 1 or more needles; with electrical stimulation, initial 15 minutes
97814	Acupuncture, 1 or more needles; with electrical stimulation, for each additional 15 minutes

Recommended Space and Equipment

The following is a list of recommended items for the provision of physical function services. A more detailed list may be curated by other physical function experts. During the RHC's strategic development, a proposed budget for necessary items was estimated to be $5,000.00 for office equipment and $12,000 for therapy equipment and tools (see Table 4).

Figure 5. List of Suggested Physical Function Service Equipment and Tools

Space	Diagnostic Equipment	Office Equipment and Tools	Replenishable Items
• Exam room • Exam/ treatment table • Clean wall (height and width of an adult) • Full length mirror • Chair with arms • Hallway • Sink access	• Reflex hammer • Tuning fork • Monofilaments • Dynamometer • Aesthesiometer • Vitals monitor	• Desk • Chair • Laptop • Computer license • Printer • Locked cabinet	• Table paper • Disposable exam gowns/ shorts • TheraBand • Elastic therapeutic tape • Topical Analgesics (e.g., Biofreeze, Capsaicin)

Suggested Budget

The following budget outlines the funds needed to integrate physical function services into a CHC.

When feasible, consider allocating budget funds to obtain support staff personnel. Ensuring a staff member is available to tend to the schedule, room patients, obtain vitals, and retrieve necessary external health records, may assist in patient care.

Table 4: Estimated Costs for Necessary Physical Function Service Equipment and Tools

Items	Cost
Therapy equipment	$12,000.00
2 exam/treatment tables Table paper Resistance bands Mirrors Portable curtain Free weights Goniometer Reflex hammer	
Office equipment	$5,000.00
Desk Chair Laptop Computer license Printer Locked cabinet	
Physical function expert salary	$10,000 per month for 1 FTE ($50.00 per hour with 15% fringe benefits)
Support Staff (optional)	$2,800 per month for 1 FTE
TOTAL	$131,000 ($154,000 per year + $17,000 one-time expenses)

Recommendations for Evaluation

Continuous evaluation of the newly implemented physical function services is necessary to measure effectiveness and identify areas for improvement. Integrating prioritized metrics into the CHC's electronic medical record could improve evaluation efforts. The RHC recommends considering the following list of evaluation metrics.

Table 5: Recommended Evaluation Metrics

	Metric	Suggested Collection Source
A.	Number of unique patients seen by physical function expert	Claims data
B.	% of patients with an MSK-related diagnosis who receive services from the physical function expert	Claims data
C.	% of patients who receive a follow-up visit	Claims data
D.	Cost reductions for system of care (includes imaging, specialty care consultations, interventions, and surgeries)	Claims data
E.	PCP self-reported adequate resources available for treatment of MSK pain after implementation of services	Annual provider survey
F.	PCP self-reported job satisfaction after implementation of benefit	Annual provider survey
G.	PCP self-reported decrease in opioid prescribing after implementation of services	Annual provider survey
H.	Patient self-reported functional improvement after receiving at least one service	Annual patient survey
I.	Patient self-reported increase in movement after receiving at least one service	Annual patient survey
J.	Patient functional improvement	CHC collect and report data with Patient Specific Functional Scale
K.	Change in employment status after receiving at least one service	CHC collect and report data

Recommendations for Continuous Improvement

Integration success not only relies on evaluation, but also using data to inform organizational processes and implement changes. Below is a list of monitoring and improvement tips.

1. Maintain and refine the program and its processes
    a. Provide periodic support/audit of billing and collections to ensure sustainability
    b. Establish pre-defined triggers for hiring addition physical function expert(s) based on patient volume and access
    c. Catalog recurring equipment needs (e.g., topical analgesics, exercise bands) with routine ordering to ensure adequate supply
        i) Consider request for proposals from vendors to supply at lower/no cost
2. Establish workflow monitoring
    a. Establish monthly and yearly patient volume targets
    b. Establish targets for time from referral to appointment with physical function expert
    c. Track time from initial physical function consult to follow-up appointment

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Resources

Chronic Pain Prevention and Treatment Policy Paper
Follow the link for access to the RHC's policy paper highlighted in this document.
https://1s4g6c1ylxer1li24cn557f1-wpengine.netdna-ssl.com/wp-content/uploads/sites/63/2020/04/FINAL-Chronic-Pain-Policy-Paper-1.24.19.pdf

Motivational Interviewing
The National Council for Mental Wellbeing provides resources for those involved in treating individuals with physical and mental health conditions. See the link for resources on motivational interviewing.
https://www.thenationalcouncil.org/wp-content/uploads/2020/04/Motivational-Interviewing-Tools-in-Primary-Care-2.22.11.pdf?daf=375ateTbd56

Non-pharmacological Treatments for Chronic Pain (literature review)
Combining various evidence-informed treatments should aim to address the biological, psychological, and social aspects of chronic pain. This resource outlines the evidence of effective treatments to holistically approach chronic pain care.
https://www.beyondpainstl.com/literature-review

St. Louis Department of Public Health Opioid Prescribing and Pain Management Toolbox
Listed here are evidence-based guidelines for providers to deliver pain management and opioid use disorder treatment.
https://opioids-stlcogis.hub.arcgis.com/pages/providertoolbox

Provider Resources
The Beyond Pain STL website provides a wealth of resources to better equip providers with the necessary tools to address chronic pain in their daily practice. Included are provider action steps for managing chronic pain, education on the connection between trauma and emotional/ physical pain, trauma-informed care, and community resources.
https://www.beyondpainstl.com/medical-providers

Patient Resources
The Beyond Pain STL website houses resources for patients suffering from chronic pain. Understanding and taking ownership of one's pain is important in recovery. These tools include education on sleep, nutrition, exercise, mindfulness techniques, and access to the chronic pain workbook.
https://www.beyondpainstl.com/patients

St. Louis Regional Health Commission Chronic Pain Initiative
A summary of the RHC's Chronic Pain Initiative and related documents.
https://www.stlrhc.org/current-work/chronic-pain-initiative/