Preventing disability and improving pain care among injured workers in Washington State

Pain at Work Symposium

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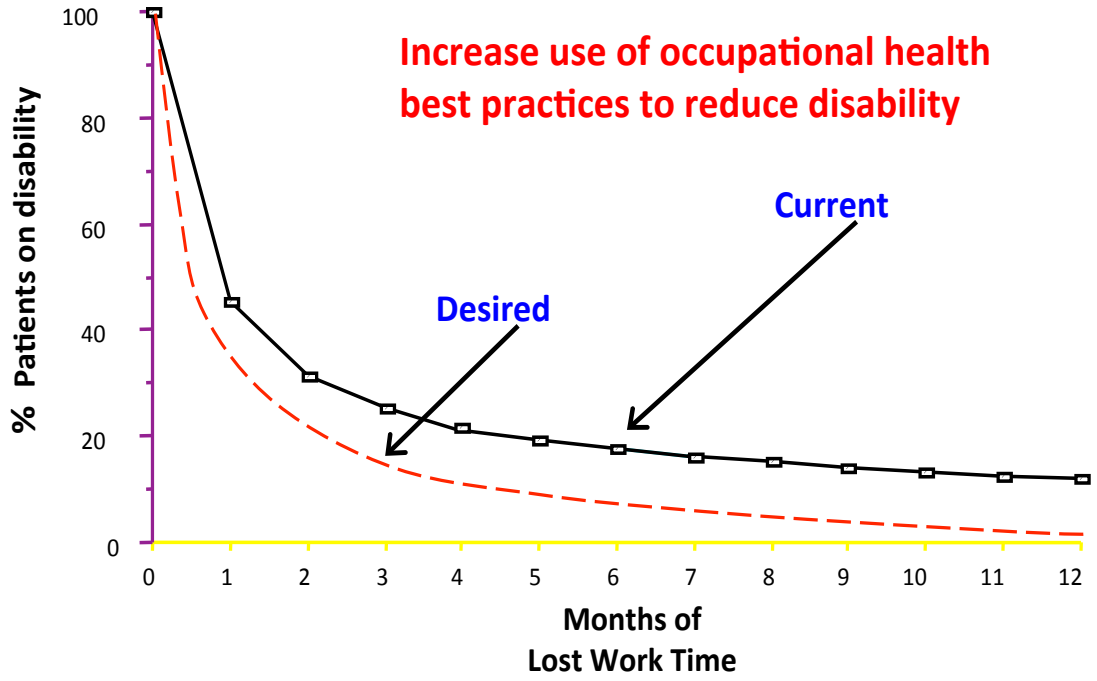
Prevent Chronic Disability Through Improving Workers' Compensation Health Care



Cheadle A et al. Factors influencing the duration of work-related disability. Am J Public Health 1994; 84:190–196.

The State of US Health, 1990-2010
Burden of Diseases, Injuries, and Risk Factors*

- Years lived with disability 2010
  - Low back pain — 3.18 million YLD
  - Major depressive disorder — 3.05 million YLD
  - Other MSK disorders — 2.6 million YLD
  - Neck pain — 2.13 million YLD
  - Anxiety disorders — 1.86 million YLD
  - Diabetes (#8) — 1.16 million YLD
  - Alzheimer's (#17) — .83 million YLD
  - Stroke (#23) — .63 million YLD

*JAMA 2013; 310: 591-608

What is the relationship between health care delivery and prevention?

Disability Prevention: Changing the Paradigm

Primary prevention → **Prevent workplace injuries and illnesses**

Secondary prevention → **Prevent disability among workers with work-related injuries and illnesses**

Tertiary prevention → **Prevent disability progression to reduce residual deficits and dysfunction in workers with established disability**

Franklin et al. 2013. Disability Prevention. In: Encyclopedia of Pain. RF Schmidt and GF Gebhart, eds. Springer-Verlag: Berlin. DOI 10.1007/978-3-642-28753-4

Why is disability prevention so important?

- 5-10% of cases account for 75-80% of costs
- Most of the cases developing long term disability were routine, non-catastrophic injuries
- Transition from acute/subacute to chronic pain is equivalent to development of long term disability
- Disabled workers frequently experience family disruption and lifelong inability to return to productive work
- A relatively small number of providers account for a large proportion of these cases
  - Bernacki et al, J Occup Environ Med 2010; 52: 22-28

Strategic Focus in WA State

- **Use best evidence to pay for services that improve outcomes and reduce harms for injured workers**
- Identify efficient method for identification of workers at risk for long term disability
- Incentivize collaborative delivery of occupational health best practice care sufficient to prevent disability

History of Medical Care in Workers' Compensation

- Some of the worst care in America-repeated surgery, inaccurate diagnoses, workers with rather simple injuries (backs, CTS) can become increasingly disabled while they are in workers comp
- Outcomes of surgical procedures in workers comp far worse than in non workers comp-reasons unclear-4 fold increased risk for unsatisfactory outcome:

  Harris et al, JAMA 2005; 293:1644-52

What has contributed the most to decade long pattern of increased disability duration?

- Use of harmful treatments, which contribute to prolonged disability: opioids, spinal surgery (lumbar fusion)
- Multiple diagnosis problem (eg, TOS)
- Bad docs

WA State Laws Require Evidence-Based Health Care Purchasing Decisions

2003-Prescription Drug Program for all agencies-uses evidence within drug classes to determine coverage (SSB 6088)

2003-all agencies to conduct formal assessment of scientific evidence to inform coverage, track outcomes (SHB 1299)

2005-Agencies to collaborate on coverage and criteria (guidelines)- (Budget Proviso) -Opioid dosing guideline-June, 2010

2006- WA State Health Technology Assessment Program- uses evidence of safety, efficacy, and cost to determine coverage for devices/interventions/test (HB 2575)

2011-Bree Collaborative: establishes public/private collaborative on guidelines and research, including anti-trust protection (HB 1311)

2011-Workers Comp Health Reform-includes authority to require compliance with evidence based guidelines and define harmful care using evidence (SSB 5801)

WA Laws-ESSB 2575
2006

"A health technology not included as a covered benefit…shall not be subject to a determination in the case of an individual patient as to whether it is medically necessary.."

Agency Medical Directors Group Website

AMDG agency medical directors' group

"A collaboration of state agencies, working together to improve health care quality for Washington State citizens"

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AMDG Mission Statement

The Agency Medical Directors' Group (AMDG) mission is to maximize the value, quality, safety, and delivery of state purchased health care.

AMDG Goals

AMDG members collaborate across state agencies to accomplish the following goals:

1. Identify and assess ways to improve the quality of healthcare delivered to Washington citizens,
2. Promote the cost-effective purchase of health care services, and
3. Simplify the administrative burden for providers in Washington's health care financing and delivery systems.

"These goals support RCW 41.05.013 on coordinating state purchased health care programs and policies."

Opioid Dosing - Quick Links

- **FREE** Online CME credits available for 2015 Interagency Guideline on Prescribing Opioids for Pain
- AMDG 2015 Interagency Guideline on Prescribing Opioids for Pain (1.75 MB PDF)
- Summary of AMDG Opioid Guideline (367 KB PDF)
- 2015 Primary Pain Care Conference
- Opioid Dose Calculator
- Assessment Tools
- Other Resources

AMDG Priorities

The AMDG's medical directors and senior policy makers focus available resources on the following priority areas that provide immediate and long-term benefits for Washington's health care delivery system:

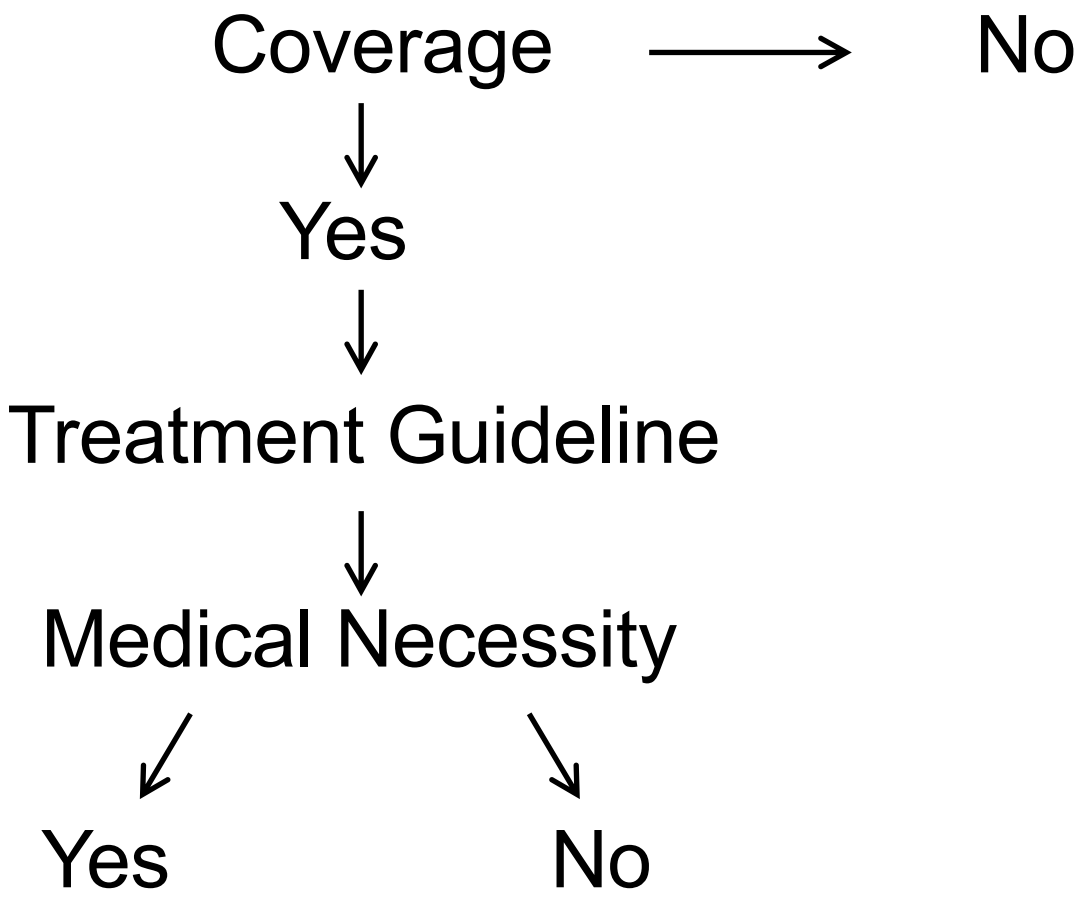
1. **Protect public health:** by advancing initiatives and programs that keep people safe and improve their health.
2. **Purchase high value care:** so public funds are used wisely for high quality care.
3. **Implement evidence-based best practices:** by using research to produce policies and guidelines on clinical topics that affect everyone.
4. **Coordinate state health care coverage and purchasing:** to make efficient use of resources.
5. **Support and integrate healthcare reforms:** that affect all Washington citizens.

AMDG outputs

- RWJ funded task group on technology assessment-Ramsey et al, Am J Manag Care 1998; 4: SP188-199
- AHRQ funded EBM conference for state health policy makers-2004-directly led to HB 2575 (2006)
- Produce, implement and disseminate evidence-based opioid guidelines-2007, 2010, 2015
    - **>44,000 hits on AMDG website since Jan, 2016**
- Health technology assessment dossiers
- June 2017: State-of-the-art conference on health care coordination/collaborative care for pain; http://www.agencymeddirectors.wa.gov/collaborativecaresymposium.asp
- Bree Collaborative-opioid metrics; dental opioid guideline; draft peri-operative opioid guideline

Evidence-Based Decisions in Workers Compensation

- A Conceptual Framework



DLI Practice Guidelines

A. Developed by Agency Medical Directors Group for all WA public payers

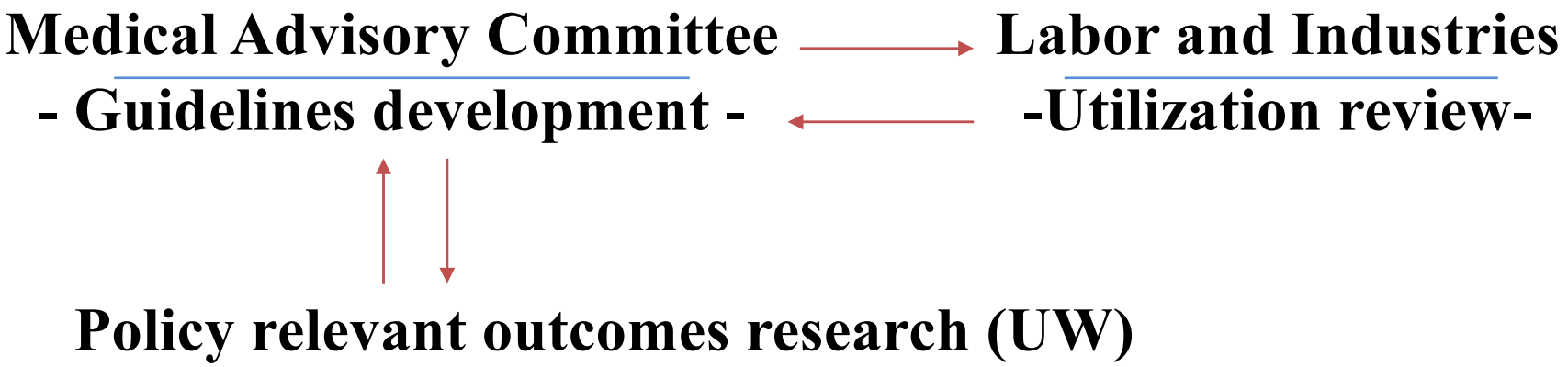
- Interagency Guideline on Opioid Dosing for Chronic Non-Cancer Pain-developed April 2007, updated June 2010 and June 2015
  - Established first "yellow flag" dose of opioids (120 mg/day MED) at which consultation recommended if pain and function not improving
  - New CDC guidelines-90 mg red flag, 50 mg yellow flag
  - ESHB 2876 repealed older, permissive rules and establish new rules by June, 2011, also based on "yellow flag" dose
- 2015 AMDG opioid guideline endorsed by Statutory Bree Collaborative for statewide implementation

WA Laws-ESSB 5290-2007
- Medical and Chiropractic Advisory Committees -

"…advise… on matters related to the provision of safe, effective, and cost-effective treatments for injured workers, including…development of practice guidelines and coverage criteria,…technology assessments, review of medical programs…"

Translate outcomes research into treatment guidelines

Advice and consent from Medical Advisory Committee



Lumbar Fusion Outcome

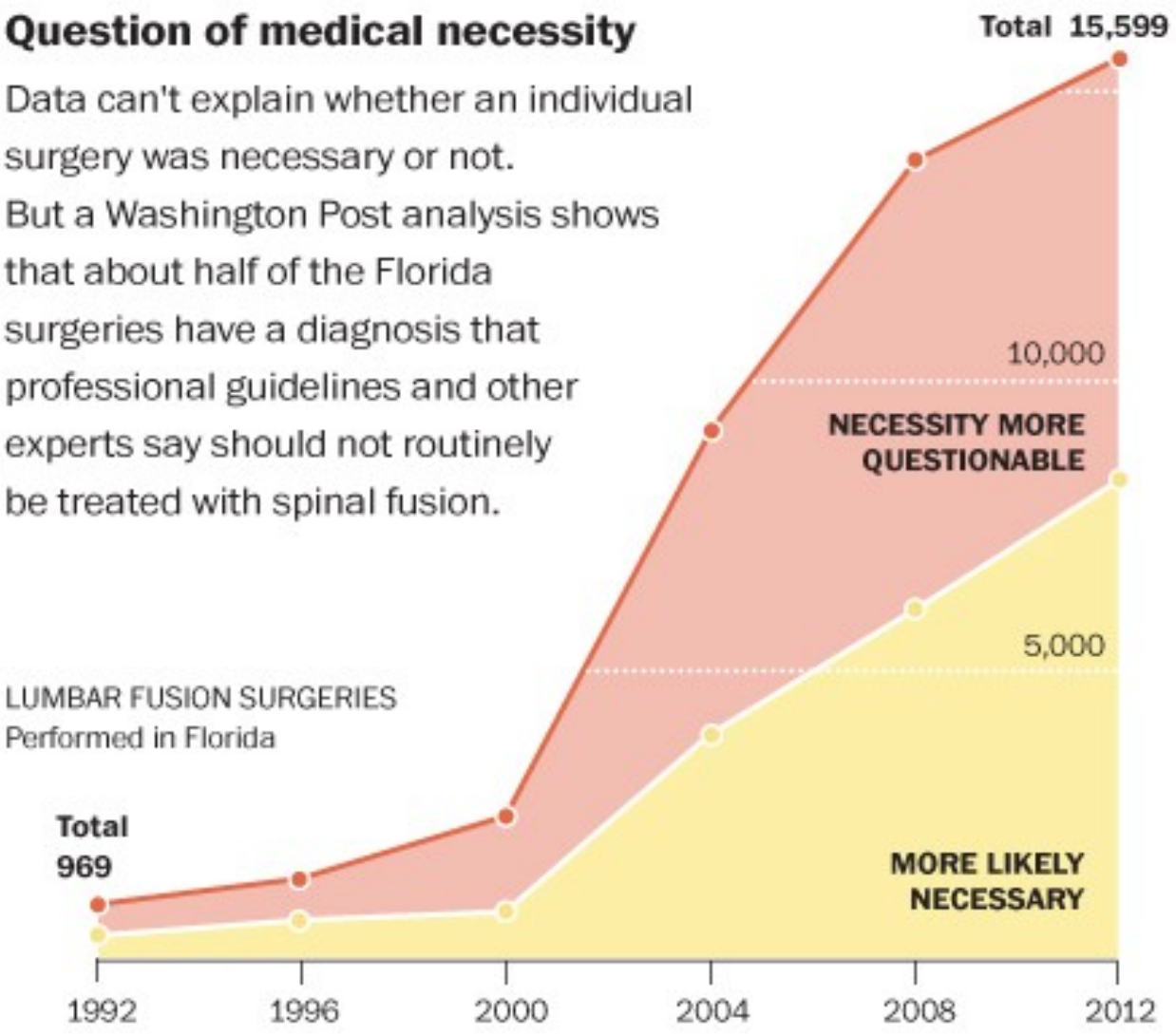
Probability of Ending Total Disability: Lumbar Fusion Group Versus Historical Control

	Lumbar fusion group n=388	Historical control group	RR (95% CI)
One year after lumbar fusion	.16	.24	.66 (.50-.84)
Two years after lumbar fusion	.32	.36	.88 (.73-1.0)
Three years after lumbar fusion	.49	.52	.93 (.80-1.1)

RR=unadjusted relative risks; CI=confidence interval

Adapted from Franklin et al. Spine 1994;17:1897-1904

Washington Post 10/27/2013



L&I Lumbar Fusion, SIMPs & Pensions

Year	Procedure count	Avg. number of years*	Number of SIMPS	Number of claims §	% On pension
2000	407	3.9		157	41%
2001	419	3.9		166	41%
2002	447	3.3		190	44%
2003	418	3.7		164	40%
2004	412	3.5		156	39%
2005	366	3	190	113	33%
2006	382	3.5	230	112	31%
2007	341	3.1	269	86	26%
2008	345	3.3	277	87	26%
2009	415	3.3	365	66	17%
2010	412	3.7	549	42	11%
2011	403	3.5	632	10	3%
2012			528		

*Avg. number of years from claim established to lumbar fusion date
§Number of claims that received a fusion that are currently on pension

Spine SCOAP outcomes after spine surgery

- N=1965 spine surgery candidates with baseline and at least one follow up interview; 80.6% with elective fusion
- Overall 306/528 (58%) improved in Oswestry by at least 15/100 points at 12 months among those with moderate/severe symptoms
- Odds of functional improvement if:
  - Workers comp 0.20 p<.001
  - Current smoker 0.43 p<.01
- Odds of NRS back pain improvement if:
  - Rx opiate use 0.65 p<.65

WA HTA 1/15/2016 Lumbar fusion

- **HTCC Coverage Determination:**
- Lumbar fusion for degenerative disc disease uncomplicated by comorbidities is **not a covered benefit.**
- **Implemented by DLI March, 2016**

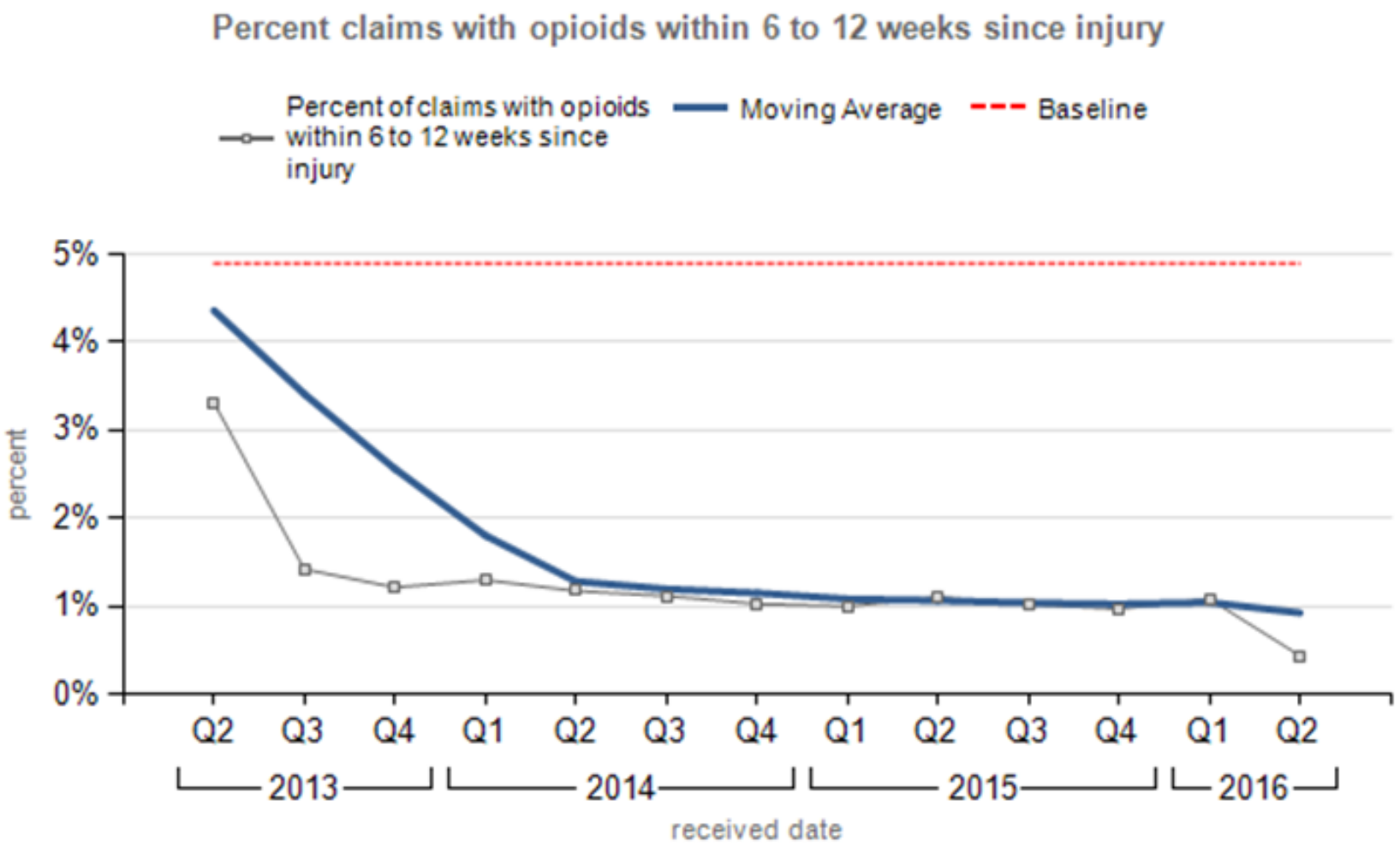
Early Opioids and Disability in WA WC

- Population-based, prospective cohort
- N=1843 workers with acute low back injury and at least 4 days lost time
- Baseline interview within 18 days(median)
- 14% on disability at one year
- Receipt of opioids for > 7 days, at least 2 Rxs, or > 150 mg MED doubled risk of 1 year disability, after adjustment for pain, function, injury severity

Source: Spine 2008; 33: 199-204

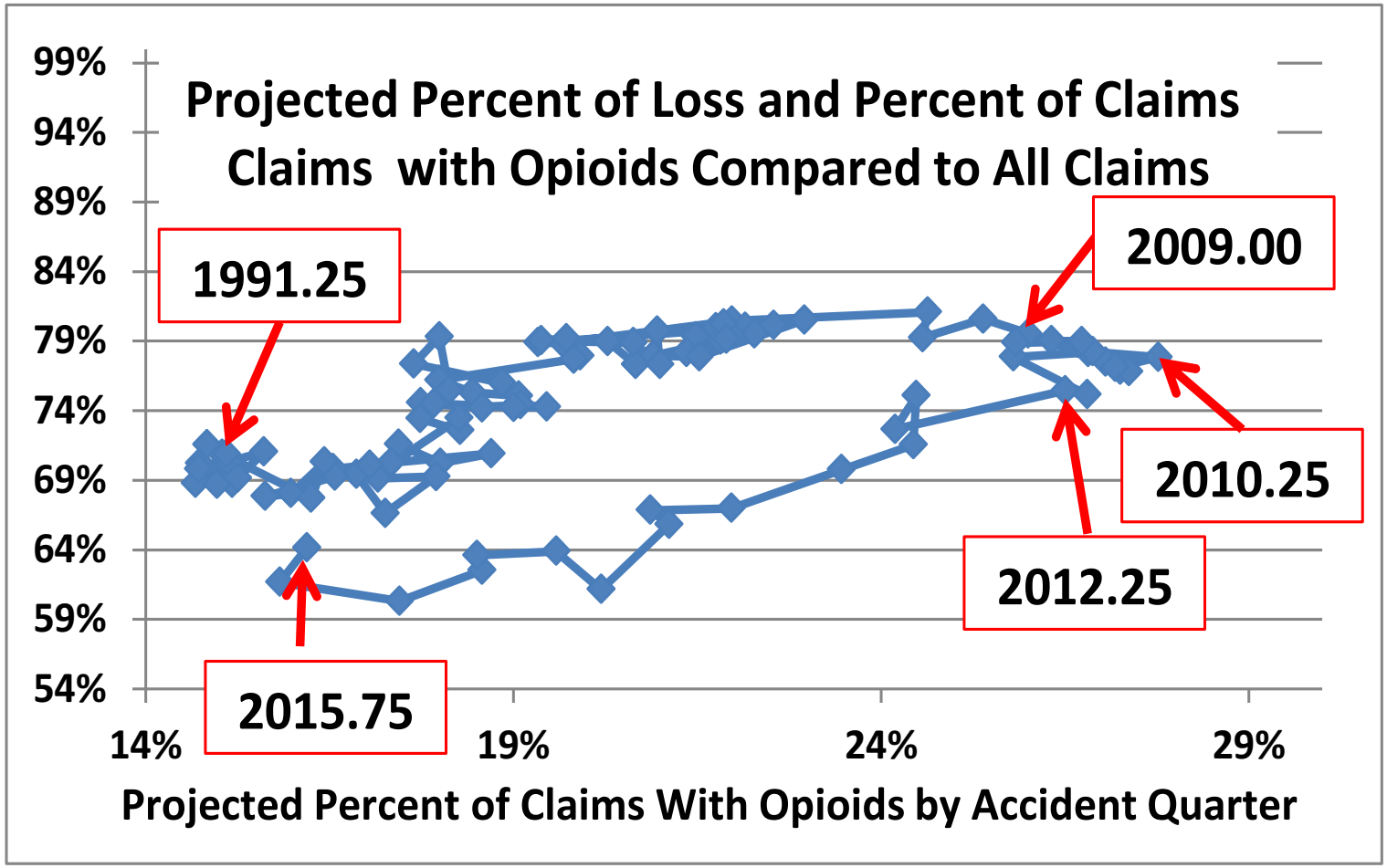
Claims With Opioid Prescriptions within 6 to 12 Weeks of Injury

Washington State Department of Labor & Industries

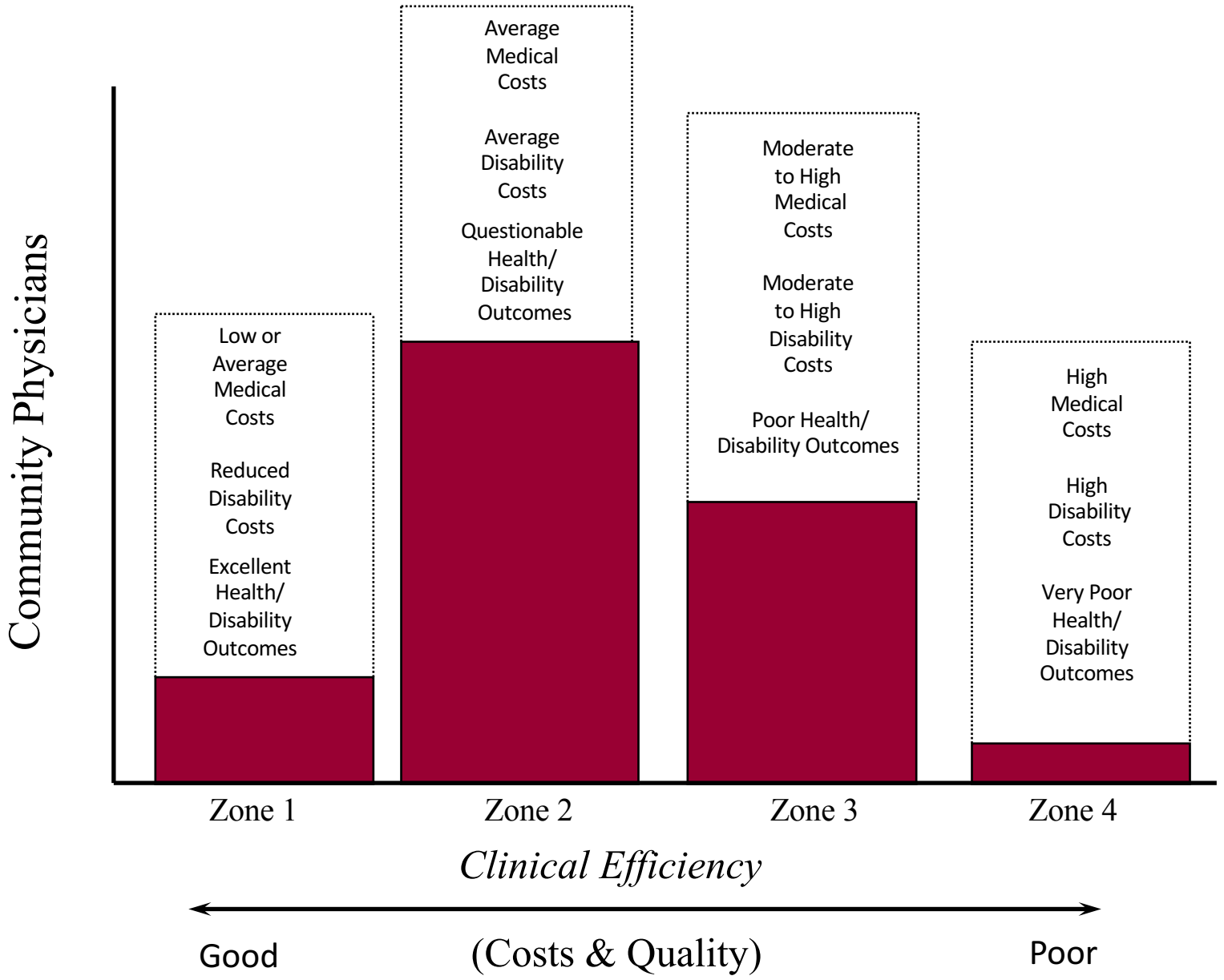


Data as of 7/3/16

The Franklin-Mai Opioid Boomerang
1991-2015 WA Workers Compensation



Distribution of Quality of Care



Does physician education work for all docs?

- Docs in Zones 1-3 most amenable to education by Guidelines, mentors, and peer pressure
- Docs in Zone 4 are the least amenable to education, have the highest variation in practice, conduct the most controversial procedures, and cause the most harm

State Medical Boards do not have the legal authority to systematically identify and stop very bad care

L&I Medical Provider Network - Update

	Number	Percent of Approved	
Applications Processed	**26,132**		
Providers Approved	**23,522**		
Administratively withdrawn*	**2,610**		
Providers reviewed by credentialing committee^	**446**	**1.9%**	
Total non-approved providers	**159**	**0.7%**	
Percent Approved			**99.3%**

A legislative mandate makes it the attending provider's job to follow the guidelines

RCW 51.36.010

"Network providers must be required to follow

The department's evidence-based coverage decisions and treatment guidelines, policies, and must be expected to follow other national treatment guidelines appropriate for their patient"

- In other words, our policies for network

providers are THE medical standard of care in the WA workers comp system

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Washington Workers' Compensation Disability Risk Identification Study Cohort (D-RISC)*

- Prospective, population based
- Low back injury and carpal tunnel syndrome
- For LBP, N=1885 workers enrolled and completed baseline interview (median 18d)
- Predictors of disability at 1 year

CDC/NIOSH RO1 OH04069-end 8/31/2007

**Turner, Franklin, Wickizer, Fulton-Kehoe et al. ISSLS Prize Winner: Early Predictors of Chronic Work Disability: A Prospective, Population-Based Study of Workers With Back Injuries. Spine 2008; 33: 2809-2818*

Assessed >60 variables in 8 risk factor domains at baseline:

- **Sociodemographic**
- **Employment-related** (e.g., industry, job physical and psychosocial demands, offer of job accommodation, job duration)
- **Pain and function** (multiple measures, including Roland)
- **Clinical status** (e.g., injury severity, radiating pain, previous injuries, comorbidities)
- **Health care** (e.g., provider specialty)
- **Administrative/legal** (e.g., attorney)
- **Health behavior** (tobacco use, alcohol use, BMI)
- **Psychological** (catastrophizing, blame for injury, recovery expectations, work fear-avoidance, Mental Health)

D-RISC–Primary Outcome

At 1 year: 261 of the 1,885 study participants (13.8%) were receiving work disability compensation (information obtained from workers' compensation administrative database).

Baseline Predictors of 1 Yr Work Disability, Final Multi-domain Model (OR of worst category, adjusted for all other variables in model)

- Injury severity rating (from medical records) (3.7)
- Previous injury with > 1 month off work (1.6)
- Roland Disability Questionnaire score (7.0)
- Multiple pain sites (1.7)
- Job is hectic (2.2)
- No employer offer of job accommodation (1.9)
- First provider seen for injury (ref=Primary care; Occupational Medicine 1.8, Chiropractor 0.4, Other 1.9)

AUC=0.88 (excellent ability to predict 1 year disability)

Conclusions-D-RISC Study

- Factors in multiple domains, internal and external to worker, are important in the development of chronic back-related work disability
- Injury severity is an important risk factor, but even after adjusting for this and other factors, more widespread pain, greater physical disability, job factors, health care provider type, and prior work disability were significant predictors of chronic work disability
- Results support clinical impressions that patients with similar clinical findings vary in disability outcomes, likely due to factors other than biological ones

Conclusions-D-RISC Study

- The biopsychosocial conceptualization of pain might benefit from greater emphasis on environmental factors (e.g., health care provider, employer, and family responses, and work and economic factors) that may interact with biological and psychological factors to affect disability
- Societal problem of chronic disabling back pain will likely require development of new, expanded approaches to prevention and treatment that consider environmental factors

Screening for Disability Risk Linked to Delivery of Occ Health Best Practices

Positive Functional Recovery Questionnaire (FRQ)

- Not worked for pay in past two weeks
- Pain interference ≥ 5
- Back and leg pain **OR** pain in multiple body sites
- Available at **http://deohs.washington.edu/occepi/frq**

Functional Recovery Interventions (FRI)

- Graded exercise/activity
- Address low recovery expectations
- Address any fear of usual activity reinjuring or worsening condition
- Flag additional HSC focus on RTW

Screen → Assess → Intervene

FRQ

Functional Recovery Questionnaire

self-administered version

Name

	Please indicate your answers in this column
1. During the past week have you worked for pay?	☐ Yes **STOP here. You are done – thank you** ☐ No **Please continue**
2. In the past week how much has pain interfered with your ability to work, including housework?	*Please circle one number* 0 1 2 3 4 5 6 7 8 9 10 *No interference* … *Unable to carry on any activities*
3. Do you have persistent, bothersome pain? ☐ No **Please go to question 4 below** ☐ Yes **In the next column to the right, please indicate where you have pain**	☐ Head ☐ Neck ☐ Shoulder(s) ☐ Arms/Hands ☐ Abdomen/Pelvic Area ☐ Hips/Buttocks ☐ Legs/Feet ☐ Chest/Rib Cage ☐ Upper/Mid Back ☐ Low Back ***without*** *any leg pain* ☐ Low Back ***with*** *pain, numbness, or tingling that travels down your leg*
4. Since your injury, has your employer offered you light duty, part time work, a flexible schedule, special equipment, or other job modifications if needed to allow you to work?	☐ Yes ☐ No
5. How certain are you that you will be working in six months?	*Please circle one number* 0 1 2 3 4 5 6 7 8 9 10 *Not at all certain* … *Extremely certain*
6. Are you concerned that your work will make your injury or pain worse?	☐ Yes ☐ No

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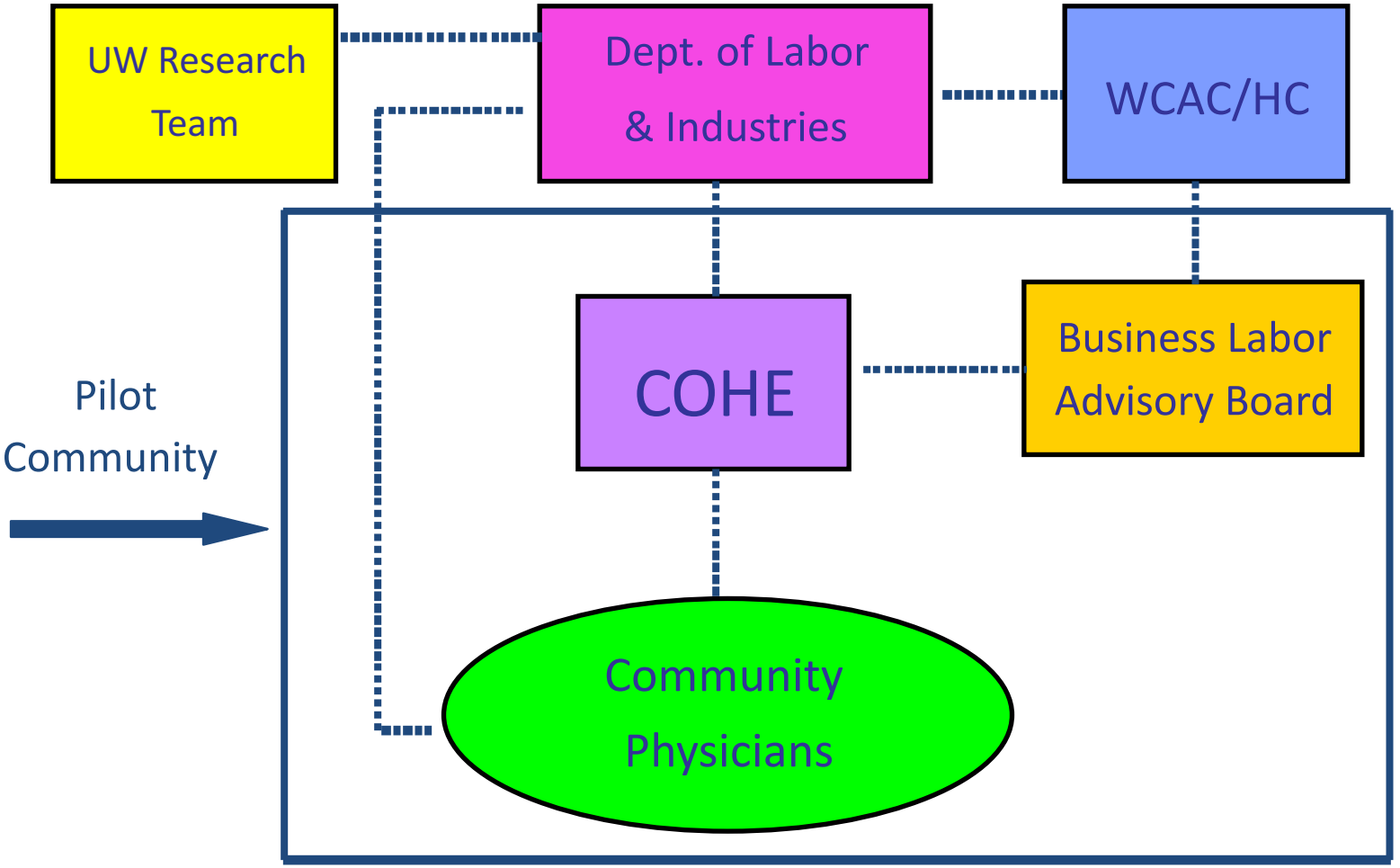
Important components of Centers of Occupational Health and Education (COHE) Model

- This is a health care system, not an insurance company, intervention
- Health system institutional support
- Occupational health leadership
- Business/labor advisory committee
- Community-based
- Health services coordination function is critical

COHE Organization and Governance



Key Results from COHE Pilots

Wickizer et al, Medical Care; 2011: 49: 1105-11

One year follow up

- 20% reduction in likelihood of one year disability, 30% reduction for back injuries
- Among COHE participating doctors, high adopters of best practices had 57% fewer disability days than low adopters

Eight year follow-up-*Submitted:* *26% reduction in permanent disability (SSDI offset, TPD, 5 yrs TL) among back sprains and other sprains*

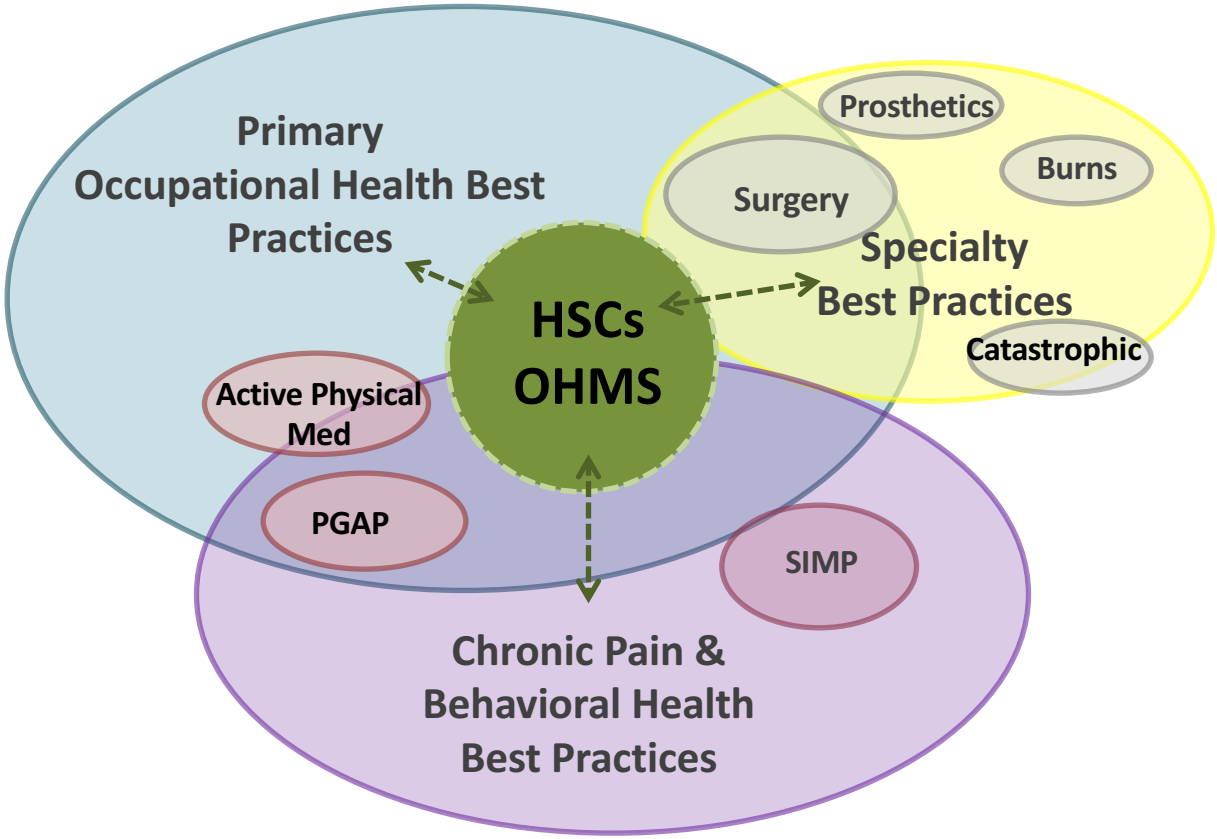
US Dept of Labor Demonstration projects

- https://www.federalregister.gov/documents/2017/09/29/2017-20338/request-for-information-on-potential-stay-at-workreturn-to-work-demonstration-projects
- >$100 million for up to three projects
- In current Federal budget

Healthy Worker 2020

Innovation in Collaborative, Accountable Care

An Occupational Health Home for the Prevention and Adequate Treatment of Chronic Pain



Emerging Best Practices

Emerging Surgical Best Practices

Four best practices selected from the literature by a focus group of attending providers & surgeons related to:

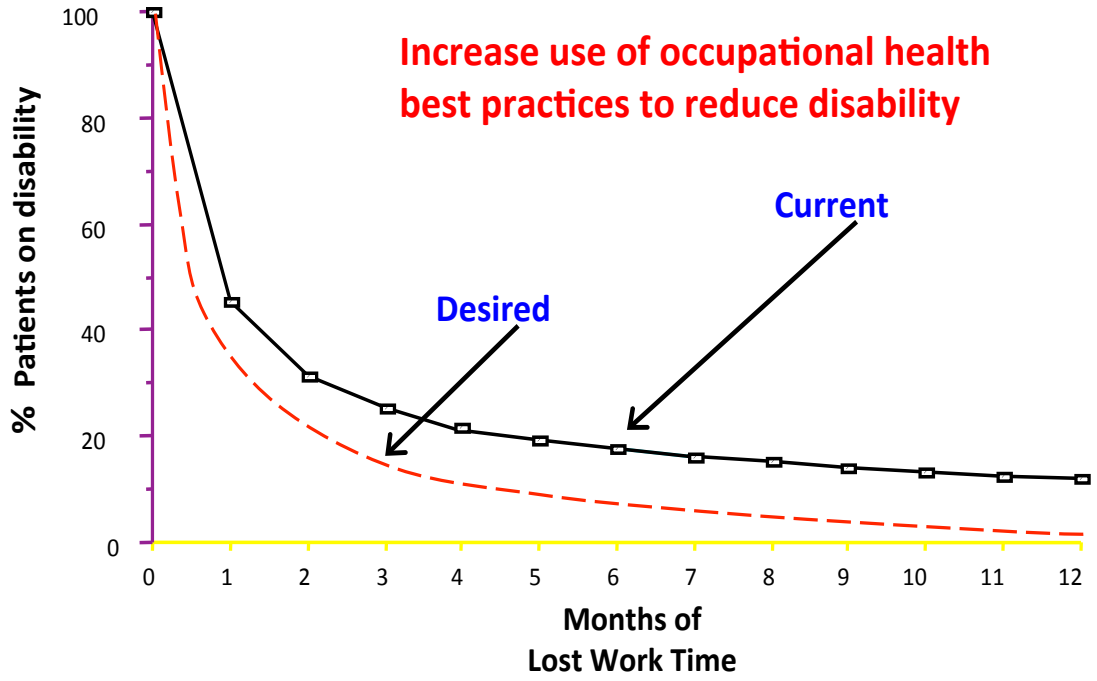
- Transition of Care
- Return to Work

Creation of a Surgical Health Services Coordinator to:

- Coordinate care and transitions
- Help providers with complicated cases

http://www.lni.wa.gov/ClaimsIns/Providers/Reforms/EmergingBP/#4

Prevent Chronic Disability Through Improving Workers' Compensation Health Care



Cheadle A et al. Factors influencing the duration of work-related disability. Am J Public Health 1994; 84:190–196.

Sample Training Slide: Orientation to Collaborative Care: What a Collaborative Care Manager Does

Coordinates and delivers care

- Care plan coordination
- Helps patient adhere to treatment and medication
- Facilitates referrals & helps patient connect to services
- Outreach to patients who miss appointments
- Flexible delivery of care by phone or in person

Provides evidence-based care

- Tailored behavioral treatments to meet patient's goals
- Care management is brief; re-evaluate & reset goals if progress is not being made; & step up care if needed
- Care team treatment includes chronic pain and/or behavioral health treatment and appropriate pharmacological care if needed

The future health workforce:

New* roles/functions

- Care coordination
- Care/case management
- Care transition management ?
- Patient navigation
- Health coaching
- Patient education
- Community health worker ?
- Community health team
- Community paramedicine
- Health IT ?
- Recovery coaches

Who will perform?

- Physicians/NPs/PAs
- RNs
- Pharmacists
- Licensed practical nurses
- Social workers
- Nurse assistants
- Medical assistants
- Home care aides
- EMTs/Paramedics
- Receptionists
- Family members
- Patients
- Others?

Occupations? Skills? Or Both?

*or being defined differently

Healthy Worker 2020

Best Practices for:

Primary Occupational Health Care

Ensure ongoing care provided to injured workers is delivered using available best practices.

Surgical Care

Ensure surgical care provided to injured workers is delivered using available best practices; explore the opportunity to use innovative payment methods.

Chronic Pain and Behavioral Health Care

Implement methods to prevent chronic pain and/or behavioral health issues from creating or extending disability. Create a stepped care pathway that includes collaborative care and appropriate clinical care steps.

Physical Medicine

Develop best practices for physical therapists that will encourage early use of active care with a focus on function.

Catastrophic Care Services

Implement internal and external support systems for IW with catastrophic injuries.

Model of Care

Care Coordination

Opioid Prescribing Best Practices

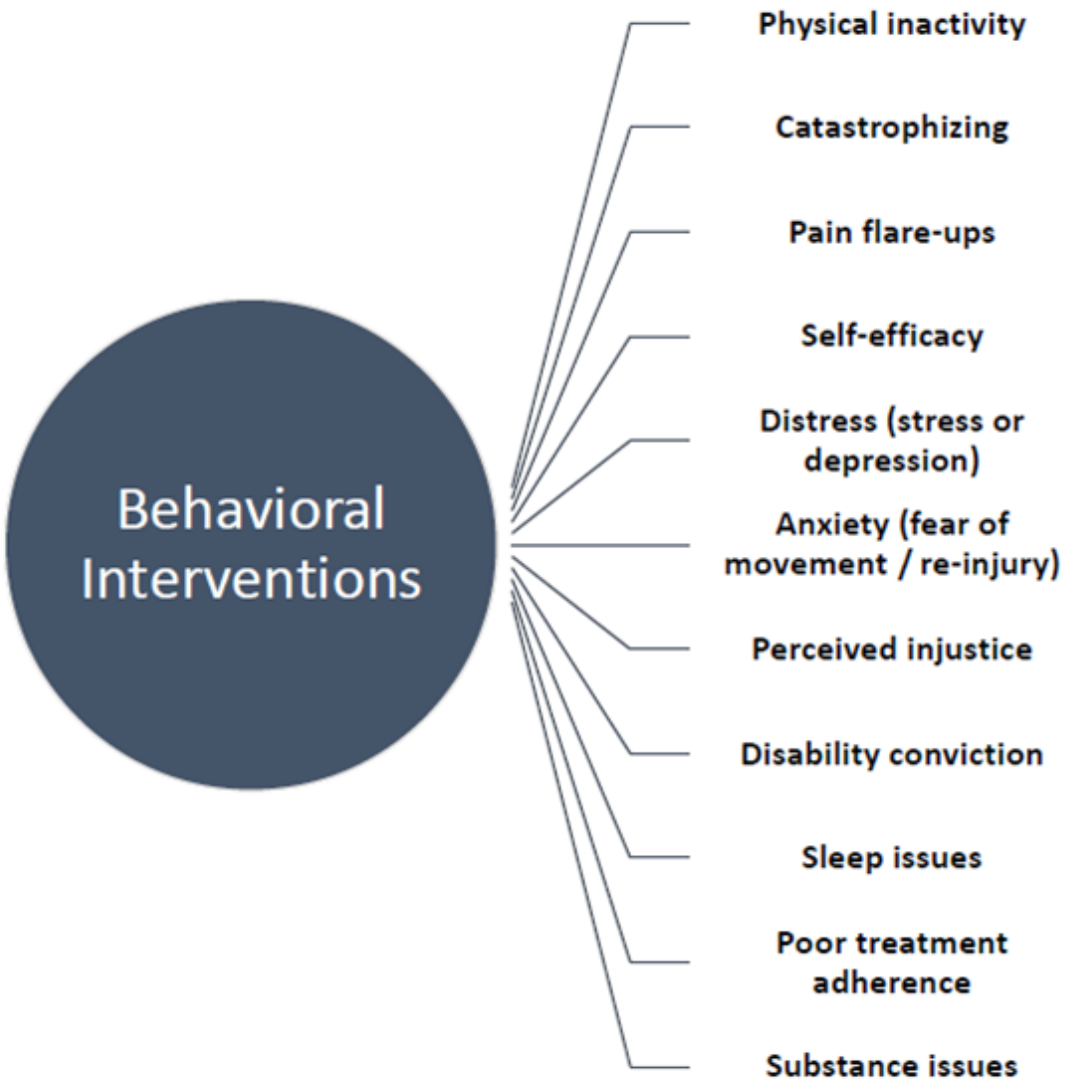
Incentive Methods

Operations

Healthy Worker 2020

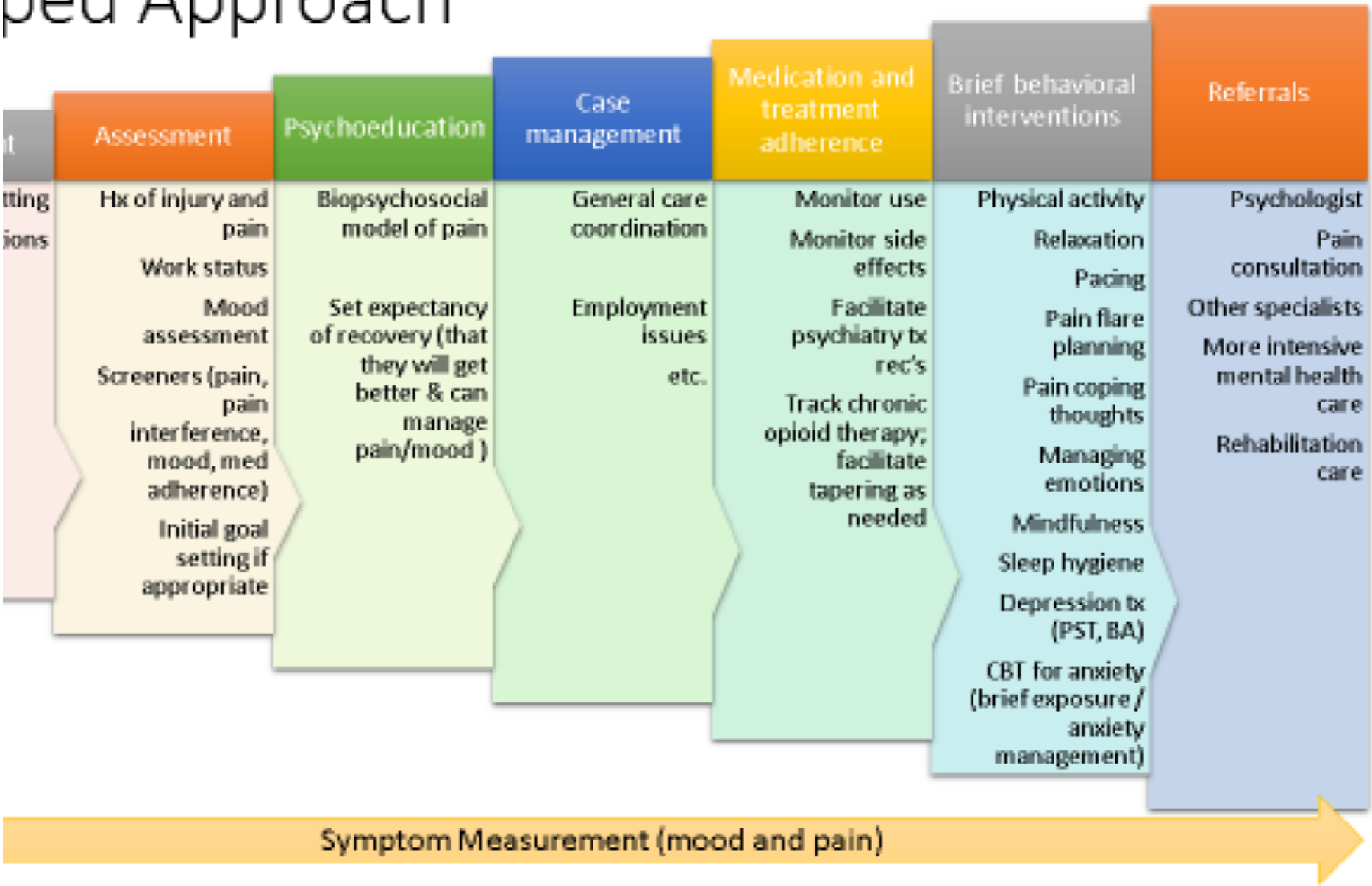
Innovation in Collaborative, Accountable Care

Cluster	Status
Core Occ. Health Model/System (*Community and Organizational leadership, Mentors, Information systems, aligned payment)*	**Existing** Program needs updates for add on components and capacity.
Core Occ. Health Best Practice Cluster (Assigned coordination, timely and complete ROA, APF, Barriers to RTW, Conference and Plan, Functional measures, PGAP, standard work/defined handoffs and plan, follow EBM guidelines*)*	**Existing** best practices need integration; standardization and full deployment strategies
Surgical Best Practice Cluster (Core Occ BP, Min DAW; Access timelines standards, documented RTW plan, Warranty and Bundle Purchasing)	Mix of **existing** best practices, pilot, **and new** model
Chronic Pain and Behavioral Health Collaborative Care Services *(Stepped care; regular consult with behavioral and/or pain expert; brief interventions; functional measures, EBM pain interventions)*	**New** best practices; research underway
Structured Multidisciplinary Pain Evaluation and Program	**Existing** program Needs Evaluation and Update to Integrate with Vision
Opioid Prescribing Best Practice Cluster *(Guideline compliant; functional measures; coordinate dose info.; taper and dependence)*	**Existing** best practices need integration and full deployment
Structured Physical Medicine Best Practice Cluster *(Core Occ BP; standard referral criteria; active treatment; stepped care w/goals; fx measures)*	**New** best practices; data analysis started
Catastrophic Services and Centers of Excellence *(E.g. Chemical Illness; Catastrophic Burn, TBI, Spinal Cord Injury, Amputee, Multiple Trauma; enhanced case management, discharge and life plan)*	**Existing** and **new** services. Deployment underway.



Psychosocial Risk / Symptoms

ped Approach



Emerging Examples Of Stepped Care Management/Collaborative Care For Pain

- VA Health System Stepped Care Model of Pain Management
  - Dorflinger et al. A Partnered Approach to Opioid Management, Guideline Concordant Care and the Stepped Care Model of Pain Management. J Gen Int Med 2014; Suppl 4, 29: S870-6.
- Vermont Spoke and Hub regional support for medication assisted treatment for opioid use disorder/severe dependence
- WA state Centers of Occupational Health and Education/Healthy Worker 2020

Improve Systems/Community Capacity To Treat Pain/Addiction

- Deliver coordinated, stepped care services aimed at improving pain and addiction treatment
  - Cognitive behavioral therapy or graded exercise to improve patient self-efficacy
  - Opioid overdose case management by ED to identify behavioral health needs, evaluate for MAT, notify providers involved and discuss recommendations (e.g.Vermont spoke and hub)
- Develop systematic method to evaluate all patients on opioids for chronic pain to determine best treatment pathway-stay on opioids if proven effective, taper plan with multimodal care, MAT if addicted
- Collaborative care conference June 2017: http://www.agencymeddirectors.wa.gov/collaborativecaresymposium.asp

THANK YOU!

For electronic copies of this presentation, please e-mail Laura Black: ljl2@u.washington.edu

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