The Atlantic Mentorship Network Pain & Addiction Presents

# CHRONIC PAIN: Explaining the Unexplainable

## Applying Emerging Science to Patients Including Those with Co-occurring Addiction


October 13th 2022, 6:30PM-8:30PM
Fredericton, New Brunswick

# Chronic pain: Explaining the Unexplainable

Applying **Emerging Science** to Patients Including Those with **Co-occurring Addiction**

Dr. Maureen Allen CCFP-EM(PC) FCFP

# Presenter Disclosure

- Presenter: Dr. Maureen Allen
- **No relationships** with financial sponsors
- **No memberships** on advisory boards or speakers' bureau
- **No disclosure** of financial support

# My background

- Maritimer living in NS
- Typical rural practice (a little bit of everything)
- My interests include models of care that connect us
- Atlantic Mentorship Network: https://www.atlanticmentorship.com
- NS-PMP medical support

# How many of you think I look familiar?

# What I Hope You Learn

- What's **NEW** in Pain science
- How our **approach** to chronic pain is **changing**
- Tips/Strategies you **can use in your clinic**
- What to do when **pain** and **addiction collide**


WITH
KNOWLEDGE
COMES
POSSIBILITY


CFP MFC
CANADIAN FAMILY PHYSICIAN • LE MÉDECIN DE FAMILLE CANADIEN
PEER Simplified Chronic Pain Guideline is Now Available!


Time to PIVOT and SHIFT

# Case 1: Gary

- 47 yo male
- Legacy patient
- **“Hurts everywhere”**
- **High-intensity** pain
- **Chronic** abdominal pain
- **Crohn’s** disease
- Gabapentin 3200mg
- Ativan 2mg tid ~60 DEDD
- Hydromorphone 8mg “as needed” ~6/day ~320 MEDD

DEDD: Diazepam equivalent dosing
MEDD: Morphine equivalent dosing

# Case 2: Jess

- 47 yo female
- **Chronic** LBP
- **High-intensity** pain
- **Total body pain**
- Son comes in
- “You need to **help my mom**, she’s injecting and selling her medication”
- Hydromorph Contin 24mg tid
- Hydromorphone 8mg “as needed”
- ~480mg MEDD
- Gabapentin 2700mg

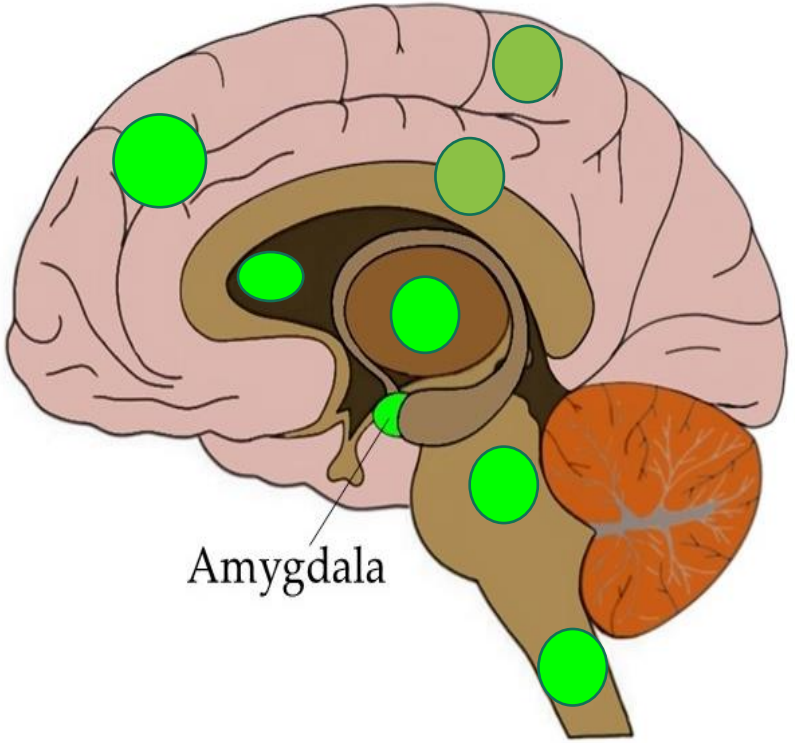
DEDD: Diazepam equivalent dosing
MEDD: Morphine equivalent dosing

# What do these cases have in common?

- They **both** have pain
- They both have **significant suffering**
- Both have **“Total body pain”**
- They’re both **doing the best** they can
- They’re both **using opioids** to manage **pain**
- It **doesn’t mean** their present use is OK

# What is pain?

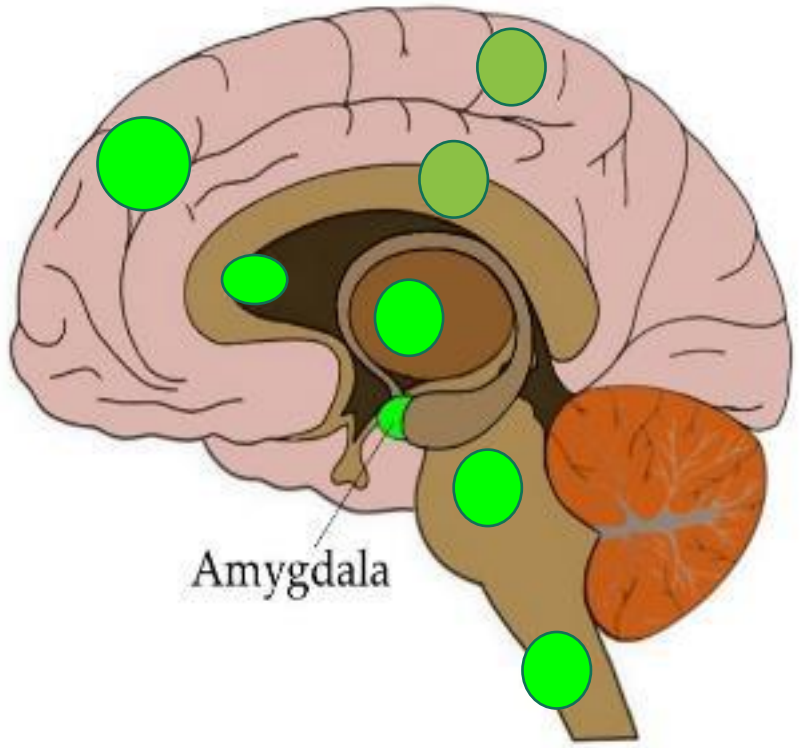
- **Danger** signal
- Comes from our **brain**
- Essential for human **survival**
- **Protection** of tissue




Morton, D. L., Sandhu, J. S., & Jones, A. K. (2016). Brain imaging of pain: state of the art. *Journal of pain research*, *9*, 613. Accessed at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5019436/pdf/jpr-9-613.pdf

# Historically…

- **Biomedical model**: 19th and early 20th century
- **Biopsychosocial model:** Late 20th century:

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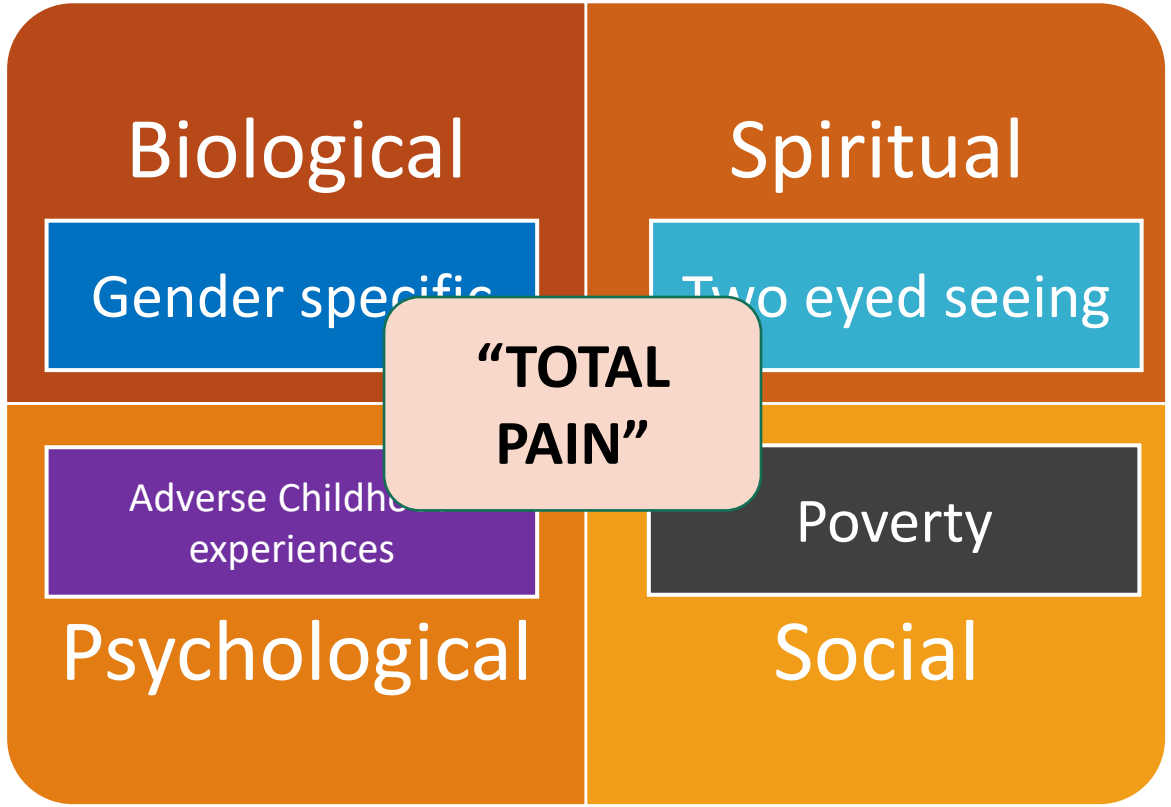
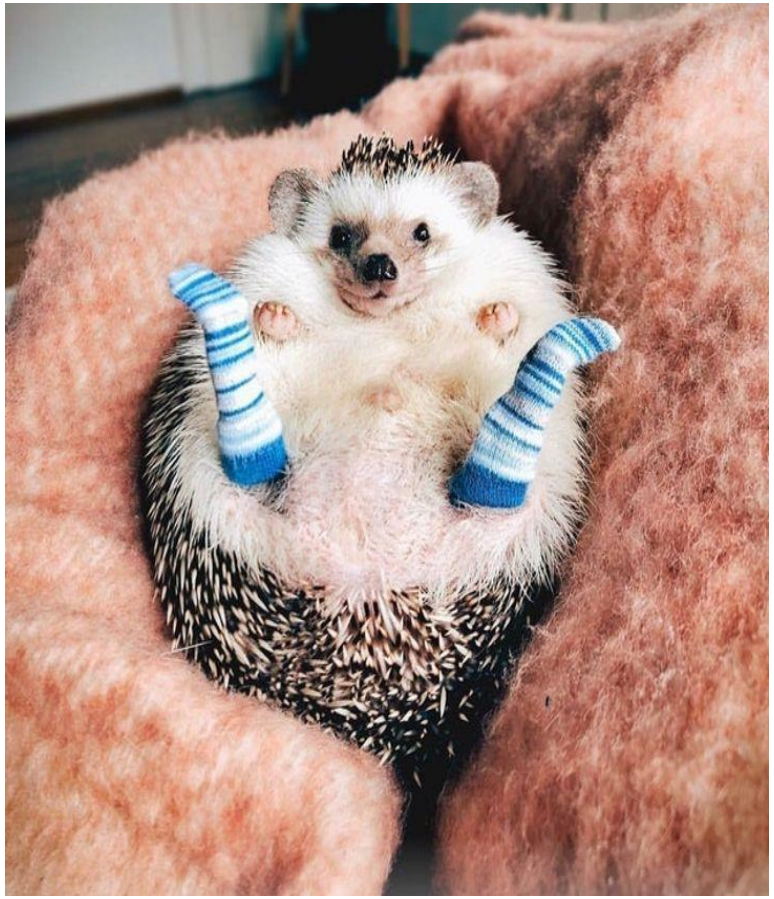
# Biopsychosocial model

- **Multidimensional** lens
- **Shapes** our assessment and management
- **Individual**-specific



# **21st century**: Pain Science continues to evolve

- **Neuroimaging** (fMRI, PET, etc.…) is teaching us a lot about the role of the **brain** in the **development** and **maintenance** of **chronic pain and SUD**
- More importantly..
- How our approach needs to **change**



# Why change?

- "**Despite** the prevalence of chronic pain and the subsequent search for effective therapies, an **optimal approach** in primary care management **remains elusive**." (Korownyk, 2022)
- "Helpless as healers"

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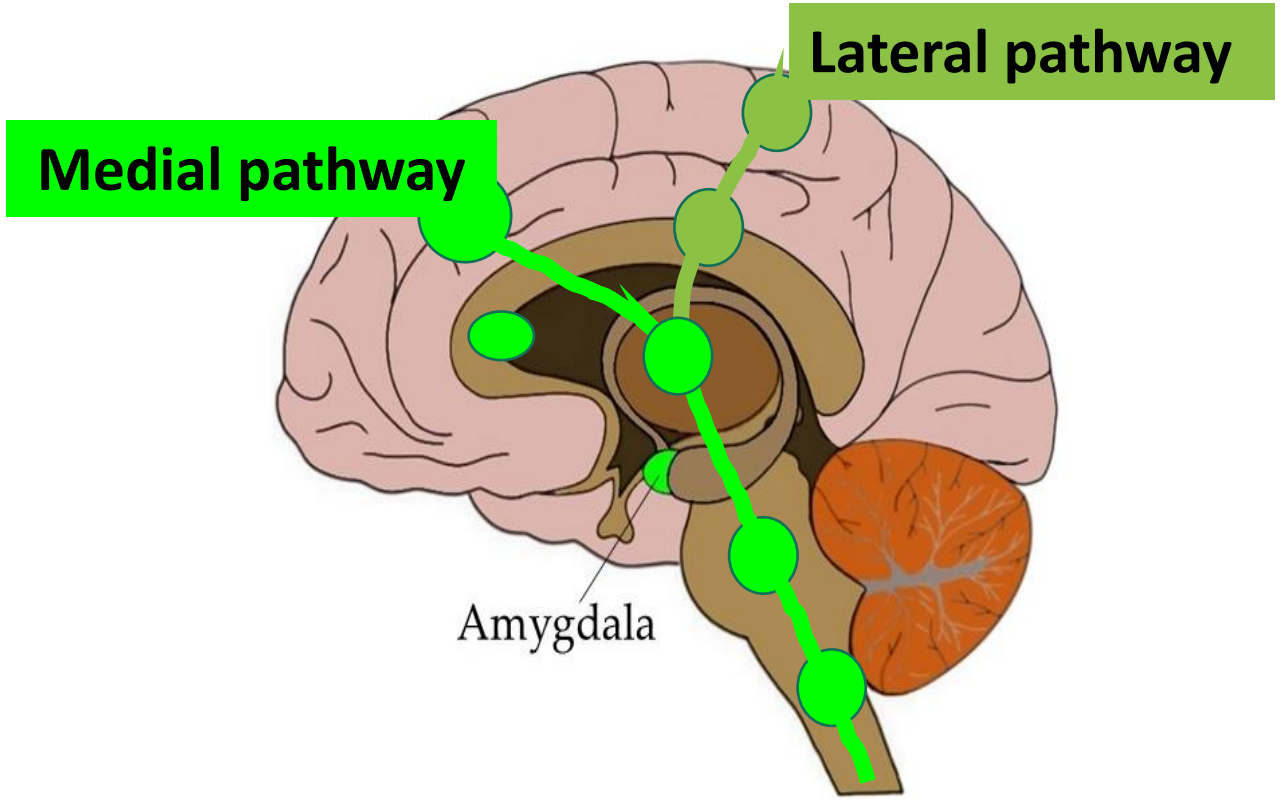
# Neuroimaging has given us a **visual map** of the brain

- **When** it's in pain
- What happens when it **transitions** to **chronic pain**
- Not one **"processing"** center
- **Multiple, interconnected** processing centers
- 2 major pathways

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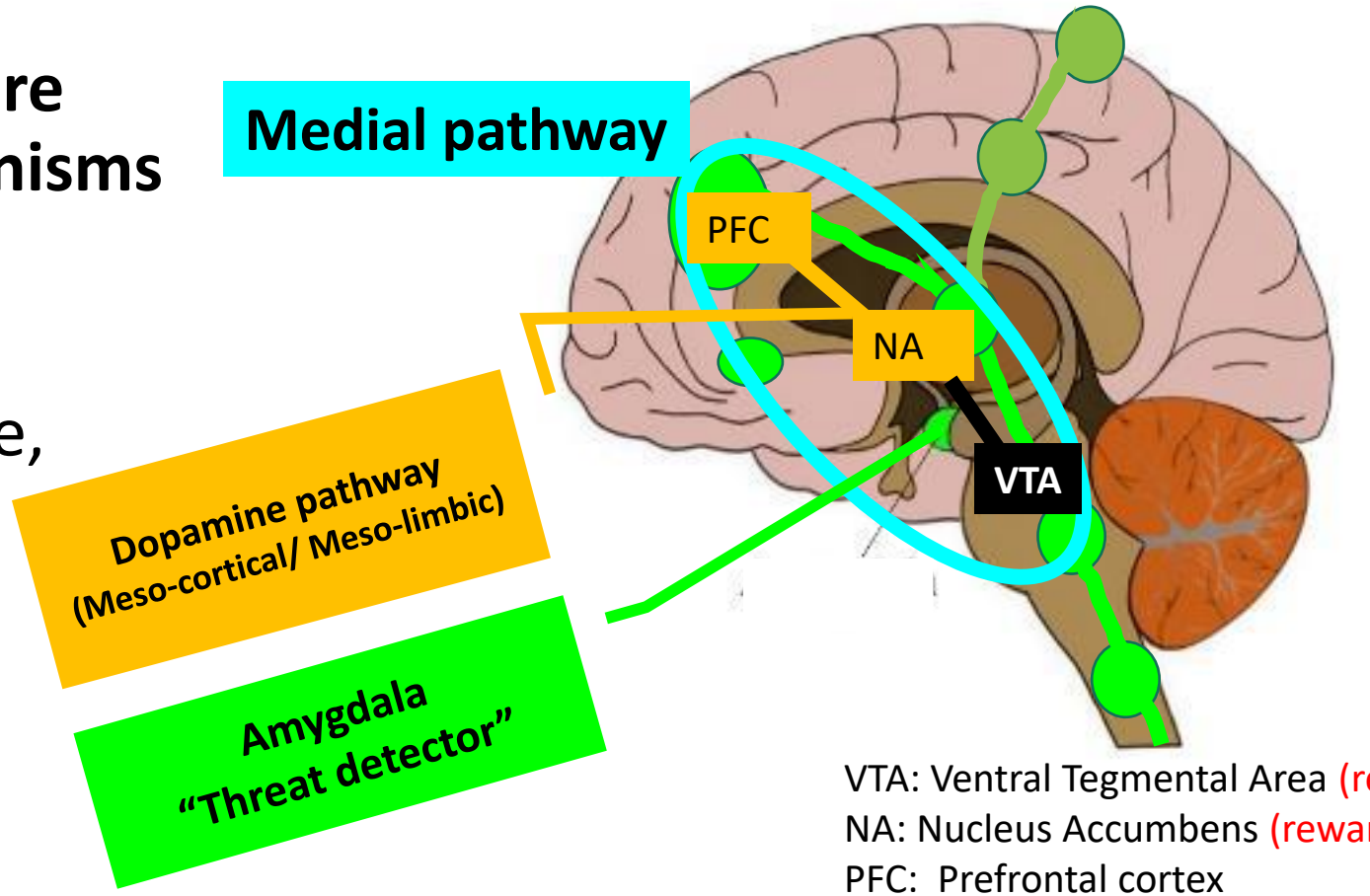
# Neuroimaging has also shown us that ….

- Pain and addiction **share** common **brain mechanisms**
- **Also** share common **neurochemistry** (endorphins, dopamine, noradrenalin…)
- **“Reward” pathway**
- **“Threat detector”**




VTA: Ventral Tegmental Area (reward)
NA: Nucleus Accumbens (reward)
PFC: Prefrontal cortex

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Risk mitigation
COUMADİN® 5mg
Tablet
28 tablet
Varfarin sodyum 5mg
NDC 50458-579-30
30 Tablets
Xarelto
(rivaroxaban)
Tablets 20 mg
janssen
Rx only

# Risk stratification:
# **Predicting the future**

## Opioid Risk Tool

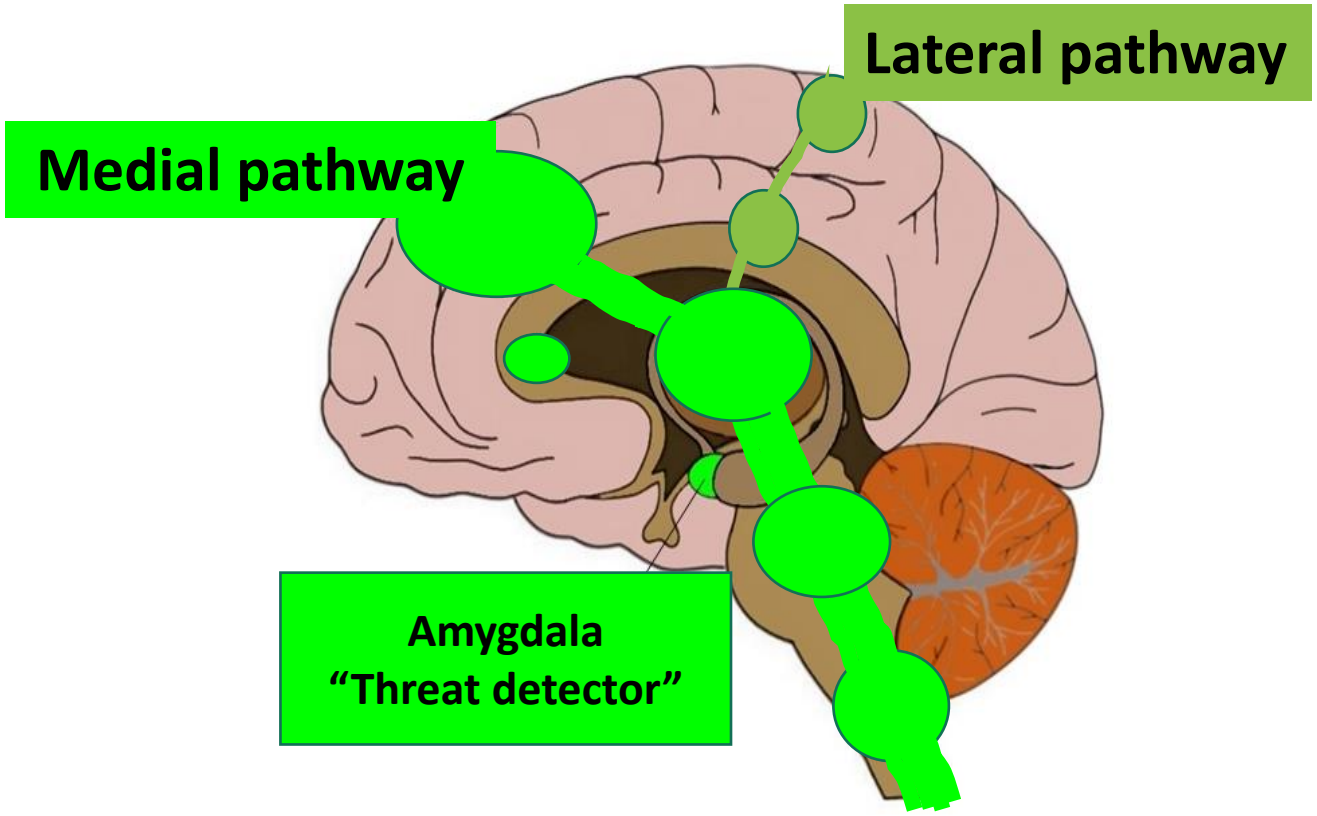
This tool should be administered to patients upon an initial visit prior to beginning opioid therapy for pain management. A score of 3 or lower indicates low risk for future opioid abuse, a score of 4 to 7 indicates moderate risk for opioid abuse, and a score of 8 or higher indicates a high risk for opioid abuse.

| Mark each box that applies | Female | Male |
|---|---|---|
| **Family history of substance abuse** | | |
| Alcohol | 1 | 3 |
| Illegal drugs | 2 | 3 |
| Rx drugs | 4 | 4 |
| **Personal history of substance abuse** | | |
| Alcohol | 3 | 3 |
| Illegal drugs | 4 | 4 |
| Rx drugs | 5 | 5 |
| **Age between 16—45 years** | 1 | 1 |
| **History of preadolescent sexual abuse** | 3 | 0 |
| **Psychological disease** | | |
| ADD, OCD, bipolar, schizophrenia | 2 | 2 |
| Depression | 1 | 1 |
| **Scoring totals** | | |

**Addiction risk**
90%: Under 40 years
85%: Under 18 years

# Let’s come back to pain and fMRI

- Hashmi (2013)
- LBP: **Transition** from acute pain to Chronic pain (~ 1 year)
- The **longer pain** was present the brain began to **shift focus**
- To medial pathway…
- **Medial prefrontal cortex** and **AMYGDALA’s**

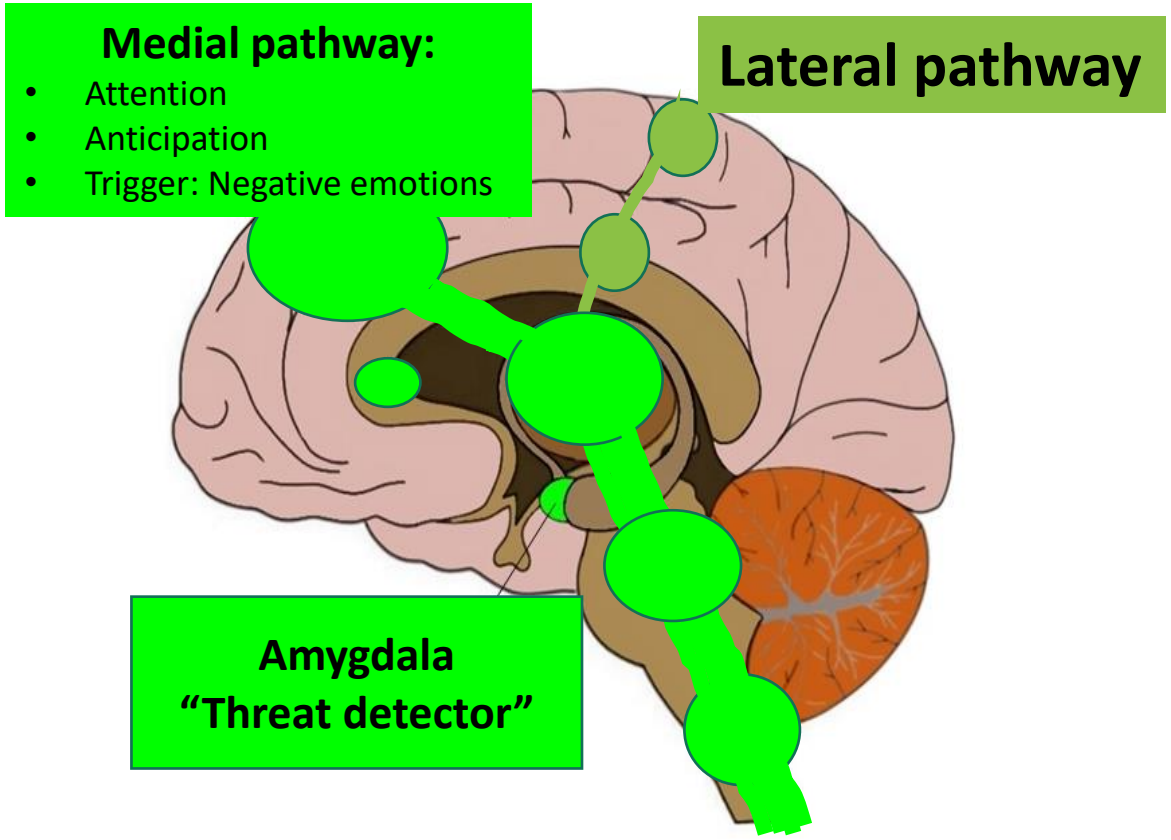



Hashmi, J. A., et. al. (2013). Shape shifting pain: chronification of back pain shifts brain representation from nociceptive to emotional circuits. *Brain*, *136*(9), 2751-2768.

Accessed at: https://academic.oup.com/brain/article/136/9/2751/291636

# Why was this important?

- **Increased** the brain's **attention to pain**
- **Increased focus on avoiding worsening pain**
- In other words…
- The brain **learned** to be more **pain-focused (attention)** and **to avoid** worsening pain **(anticipation)**
- **Negative emotive triggers** were the **warning** and **fuel** that drove the process
- Fear, danger, anger, sadness, perceived injustice

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# **Why** would our brain do this?

- **Evolution**: Protection and Survival
- When **our brain believes** that there is **something wrong** or a **potential threat** exists **it responds with pain**
- **That's WHY we have pain**
- Over time, our brain **gets better** at **being in pain** and **avoidance** of worsening pain **through Faulty wiring** (neuroplasticity)

# **Not everyone** relates to “fear or danger”

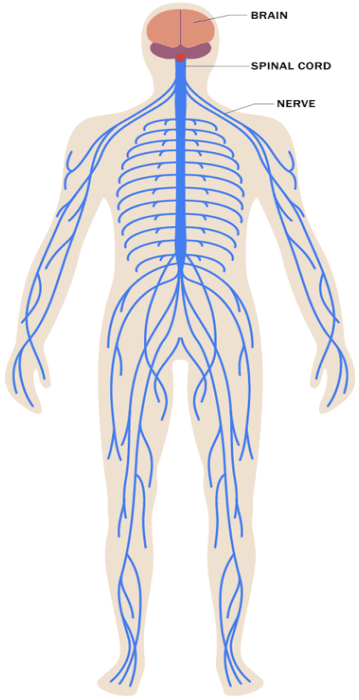
- Anything that makes us **feel threatened** will be **interpreted as a** form of fear (danger) by the brain **(Negative emotions)**
- “Unease”

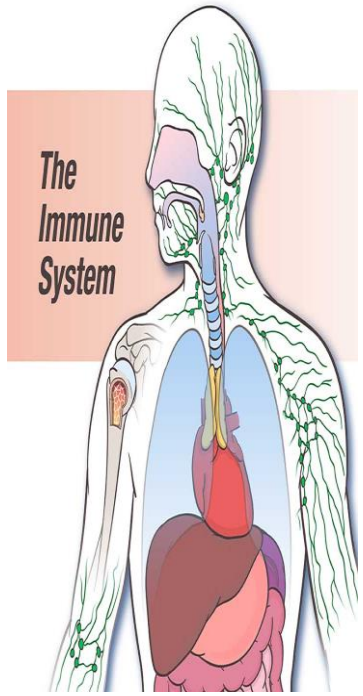
# Now what?

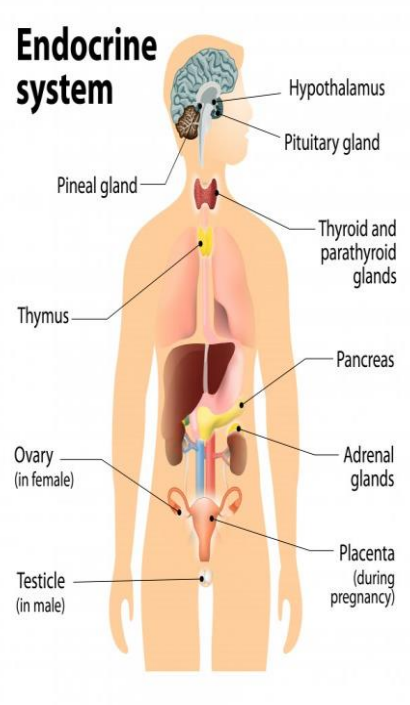
- How do **we translate** this **new knowledge** into our clinical guidelines?
- **Understanding** the **science and how the transition** happens matters
- It also **fascinating**

# The **NORMAL pain pathway** and what the **SCIENCE** is telling us **about HOW** it get's **ALTERED?**

- **3 major body** systems involved in **pain processing** and **pain signaling**

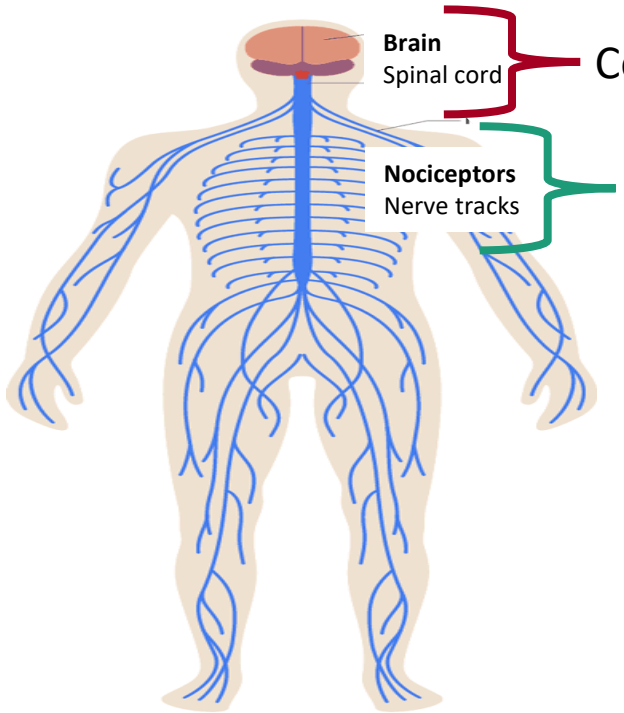


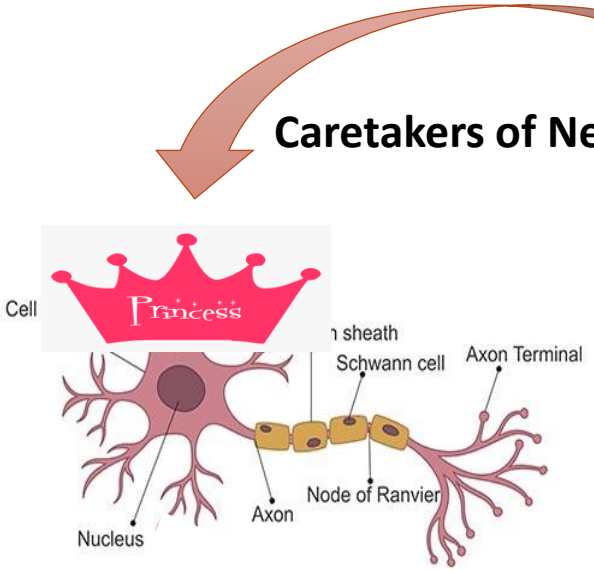



# A. NERVOUS SYSTEM:

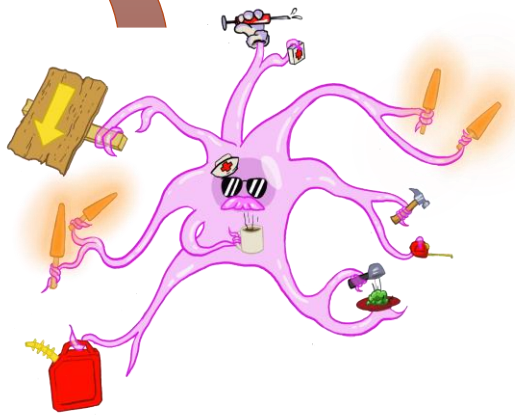
NERVOUS SYSTEM




NERVE CELLS
(2 TYPES)




Neuron



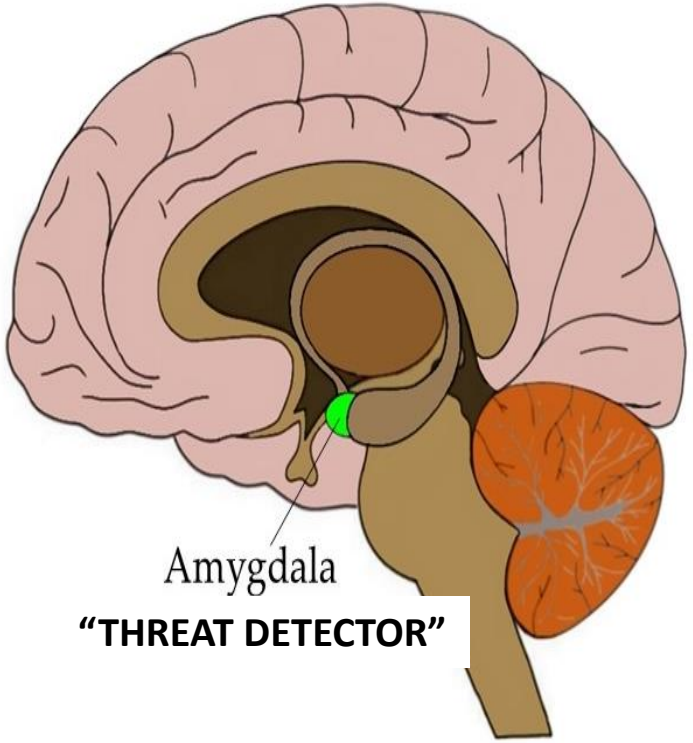
Non-neuronal:
Glial cells

# 2-Ways the **NERVOUS SYSTEM** can **TRIGGER PAIN**

- **Nociceptors** (Objective)
- **Brain** (Subjective)
- **ALL PAIN** however
- 100% of the time is **PROCESSED** by our **brain**
- Even though **we feel** it in our **body**

# **PAIN** and the **BRAIN**

- Our **brain** has the ability to affect **where, when, and how much pain** we experience…
- Our **primitive** brain is **hard-wired** to respond to **ALL "HIGH-ALERT" signals**
- Been that way since the dawn of man or woman
- In general, we **can't control WHEN** it happens but **we can control HOW** we respond

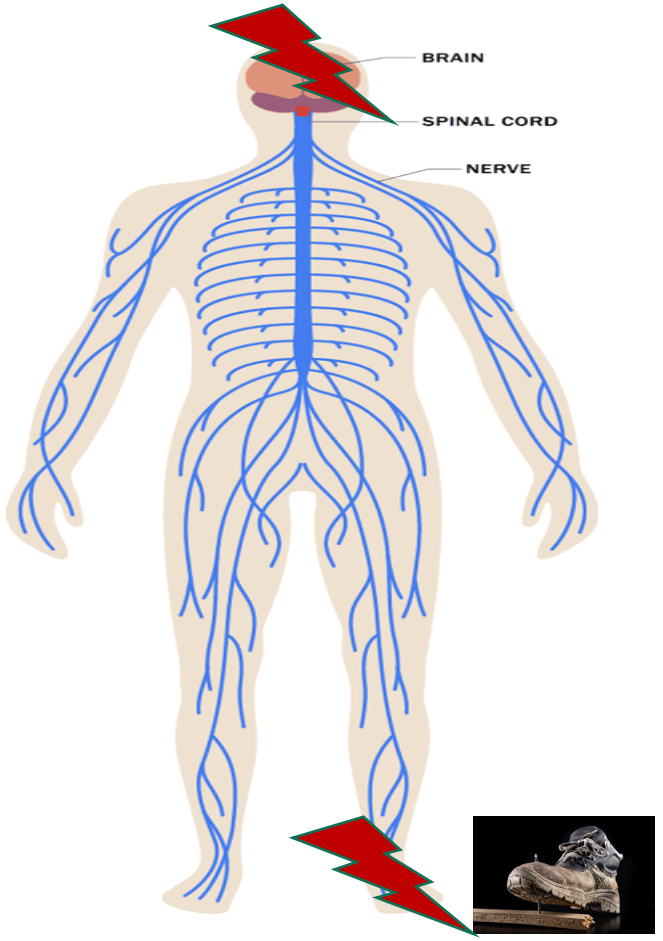


# **How do** we know that **PAIN** can be **TRIGGERED by our brain**?

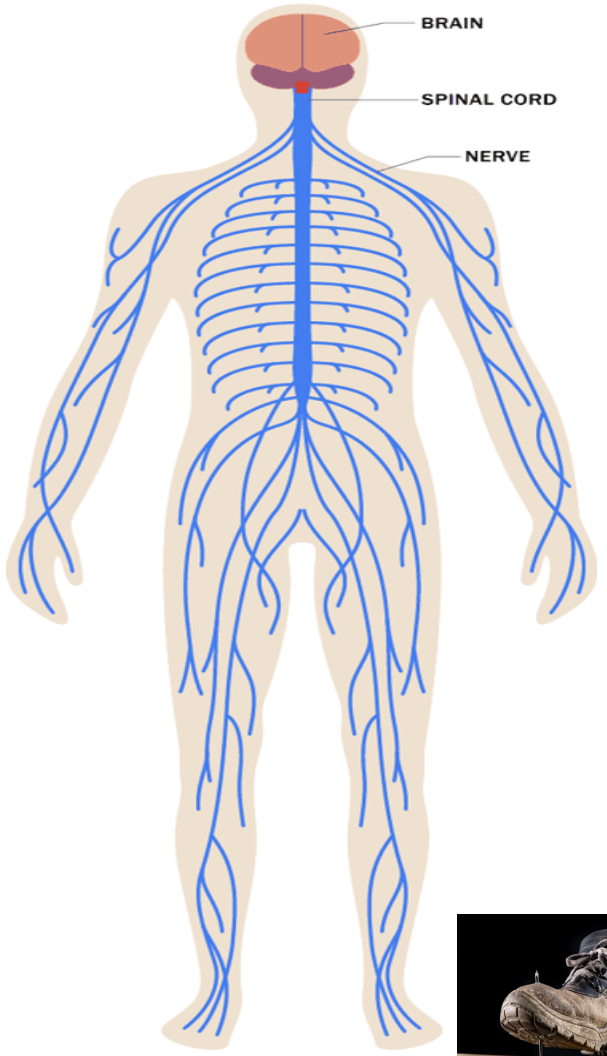
- fMRI
- Documented story of the nail and the boot (NEJM,1995)

# Does that mean his pain wasn't real?

- Absolutely not, his pain **was real**
- **Messages** were sent **from his foot**
- His **Brain processed** this information based on **memory** and what he could **see and feel**
- His **pain receptors** sent out **DANGER signals** that were experienced as "**INTENSE" PAIN**



# Why was his **pain so INTENSE?**

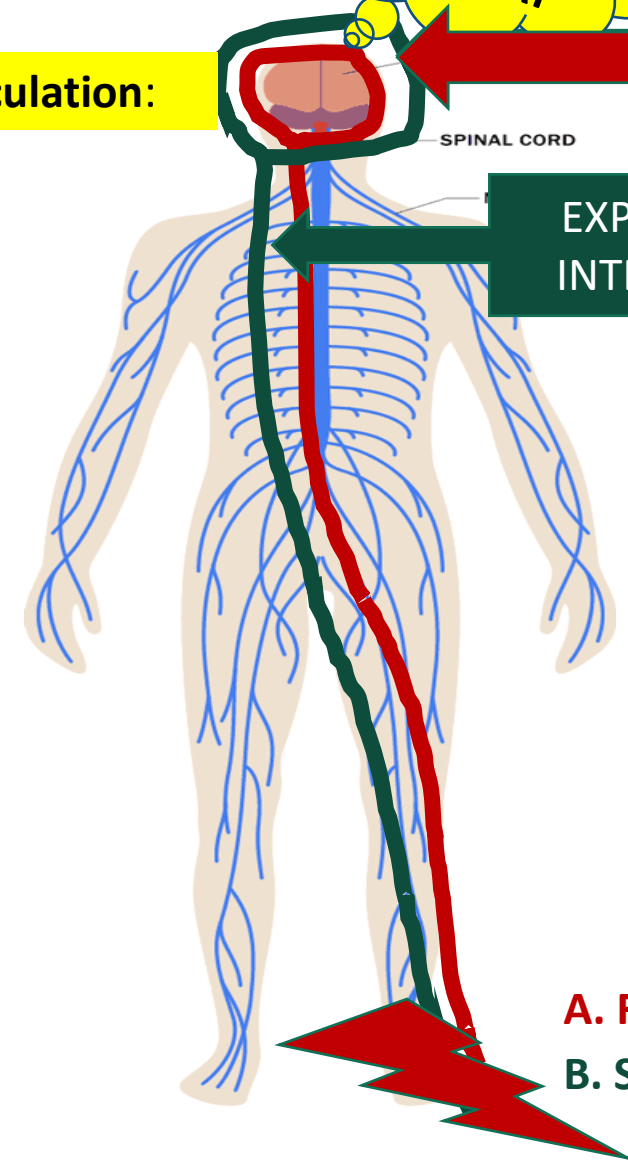



- Pain signals **travel** through our **nervous system** by **two routes**
- **Quickly:** Fast track or **“first pain”** (A-delta fiber)
- **Slowly**: Slow track or **“second pain”** (C fiber)

I'm STUCK and CAN'T GET AWAY

Brain **makes a calculation**:

Often we feel ***NO PAIN***



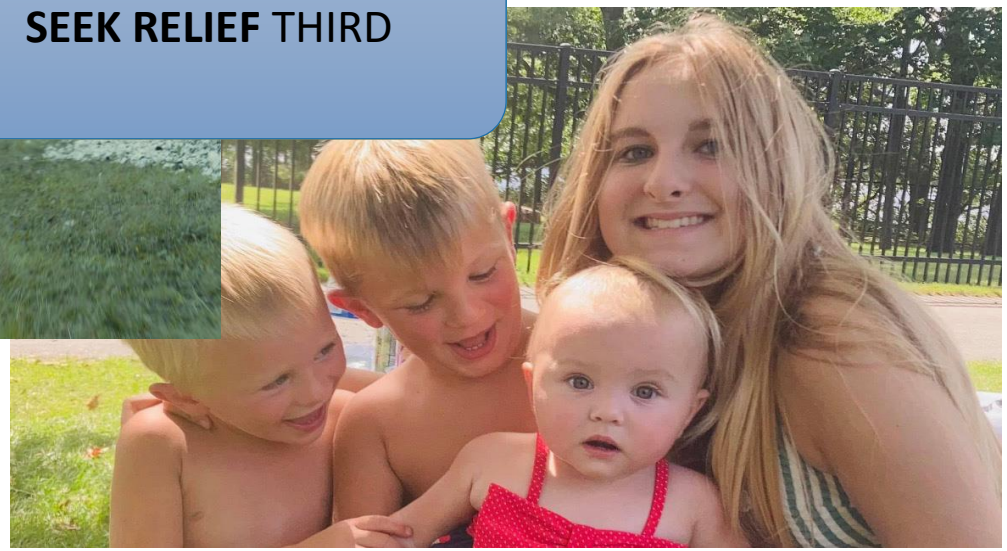

EXPERIENCES INTENSE PAIN

**A. First pain (A delta fiber)**

**B. Second pain (C fiber)**

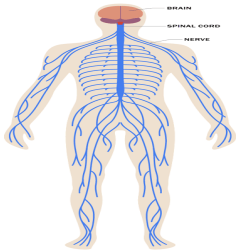
# **Why** would our brain and pain circuitry be wired this way?

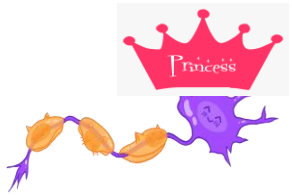
**SEEK RELIEF** THIRD

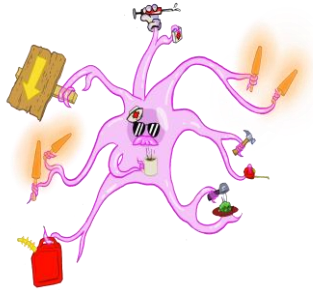


# B. ENDOCRINE SYSTEM

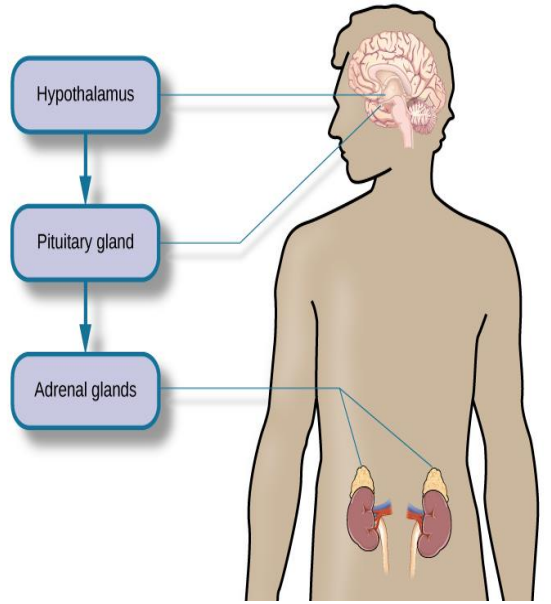
**A. NERVOUS SYSTEM**



**B. ENDOCRINE SYSTEM**

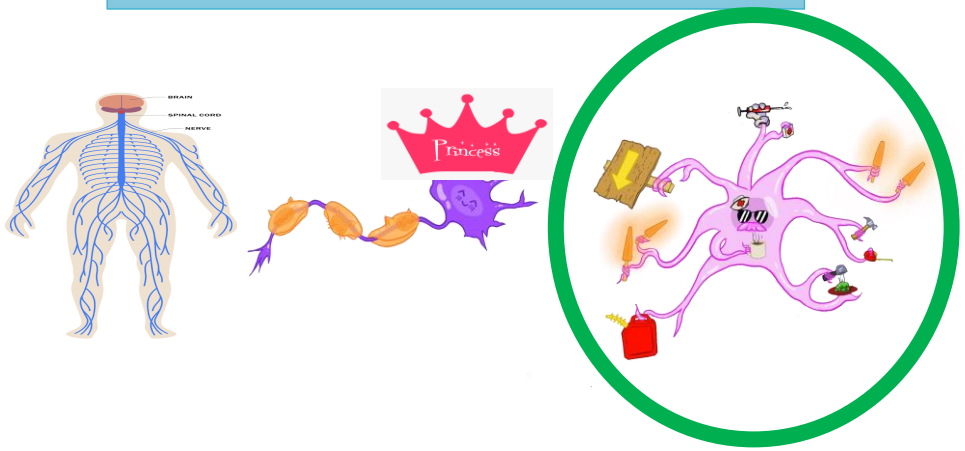



**Provides fuel** to respond to "**threats**"

- **ALARM CHEMISTRY** (adrenalin, cortisol)

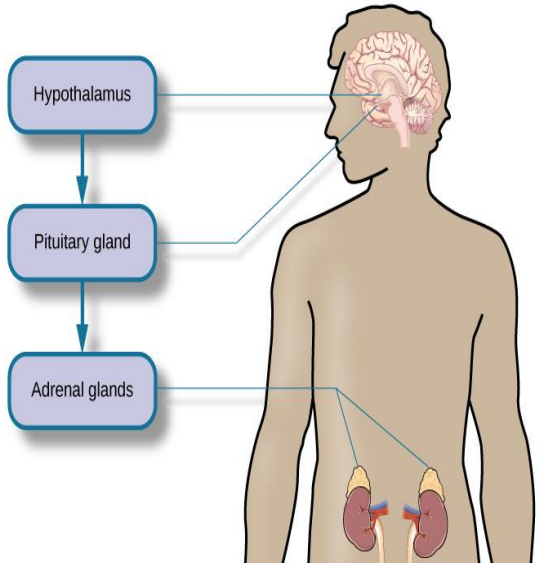
# C. IMMUNE SYSTEM

## A. NERVOUS SYSTEM




1. **SURVIVAL** first
2. **PROTECTION** second
3. **RELIEF** third

## B. ENDOCRINE SYSTEM




FUEL to respond to **“threats”**

- **ALARM CHEMISTRY**

## B. IMMUNE SYSTEM

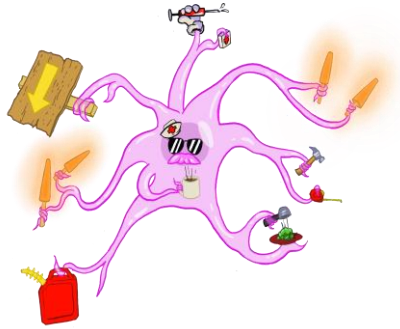

Inflammatory response:
**Glial cells**

**INFLAMMATORY CHEMISTRY**
help injuries
**heal**

# C: GLIAL CELLS

**C. IMMUNE SYSTEM**


Neuron

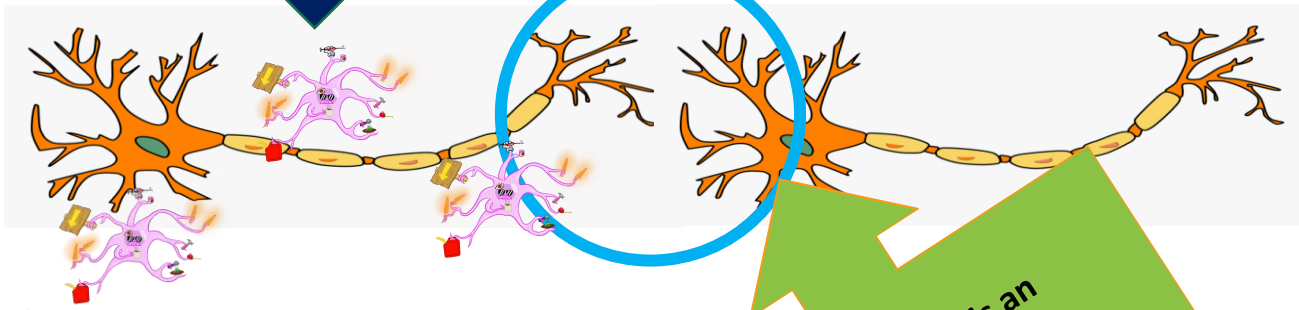


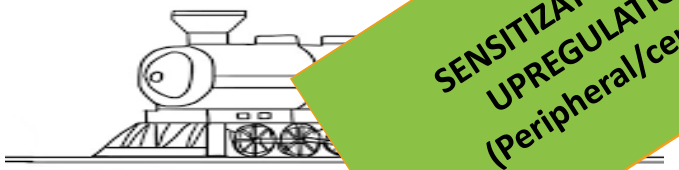
Glial cell

**Proinflammatory** mediators:
(cytokines, chemokines)

GLIAL cells are being directed by Neurochemistry (threat)

Where neurons talk to each other "electrical bursts"





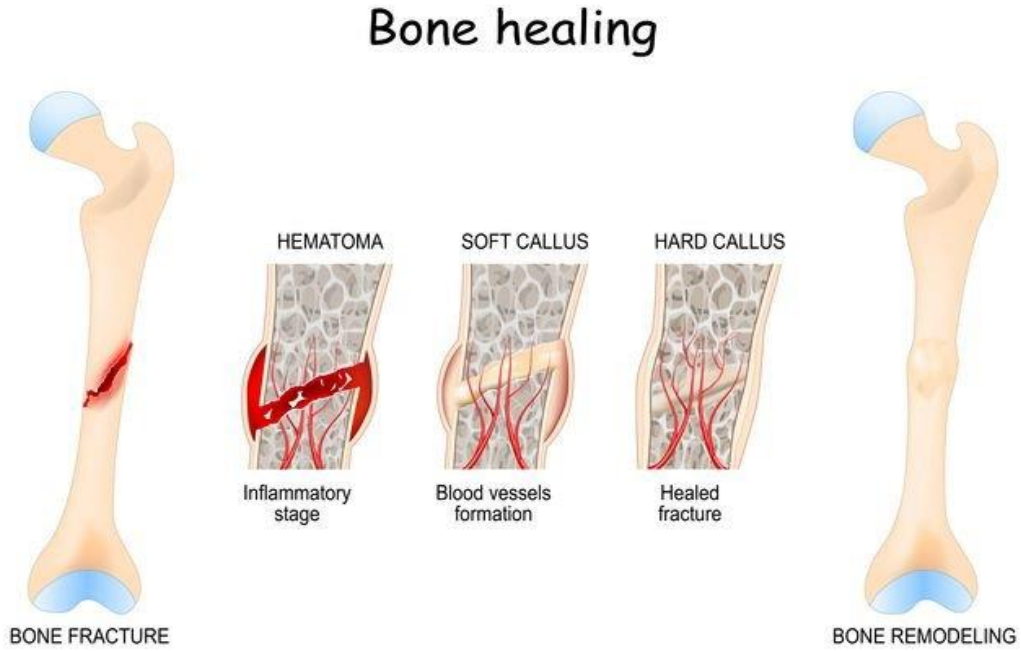
**SENSITIZATION is an UPREGULATION (Peripheral/central)**

# Let’s look at the TWO Types of Pain

- **Acute pain** (Nociceptive, structural, short-term)
- **Chronic pain** (Nociplastic, neuroplastic, long-term)

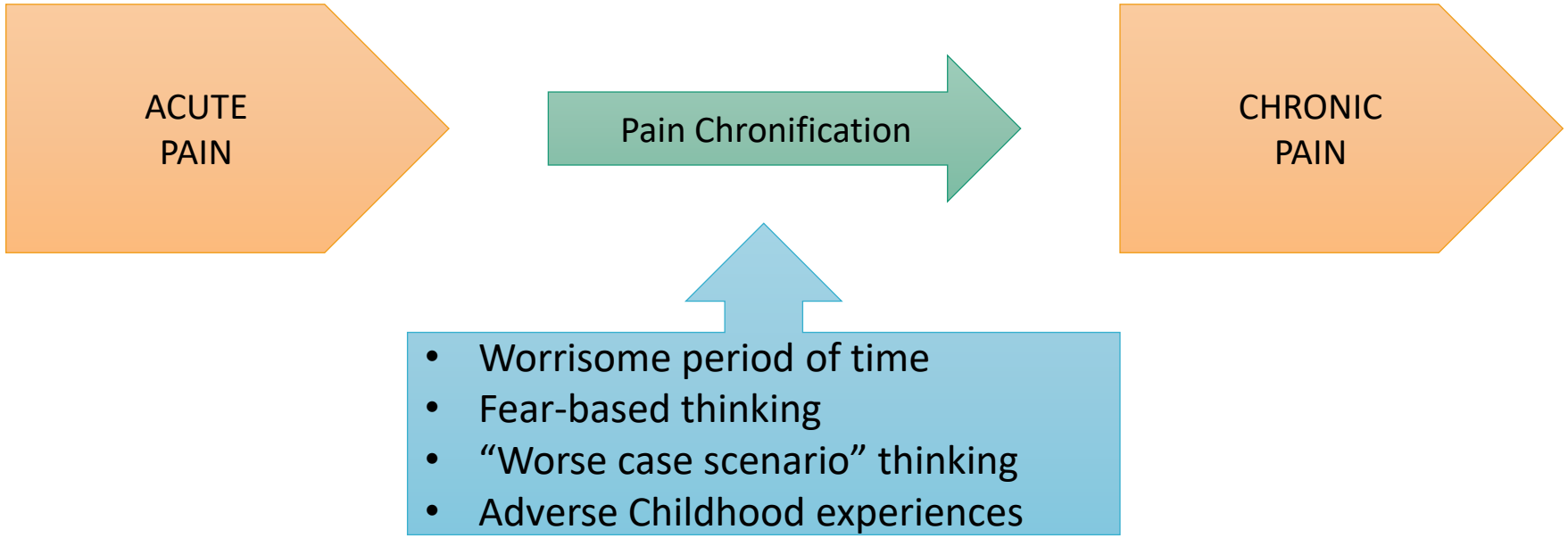
# What is **ACUTE** or **Structural pain?**

- **Our normal** response to an **injury, illness, or surgery**
- **Has biological purpose**
- Remains until **tissue heals**
- Should see **some relief** by 2 weeks
- 0-3months




0-3 months

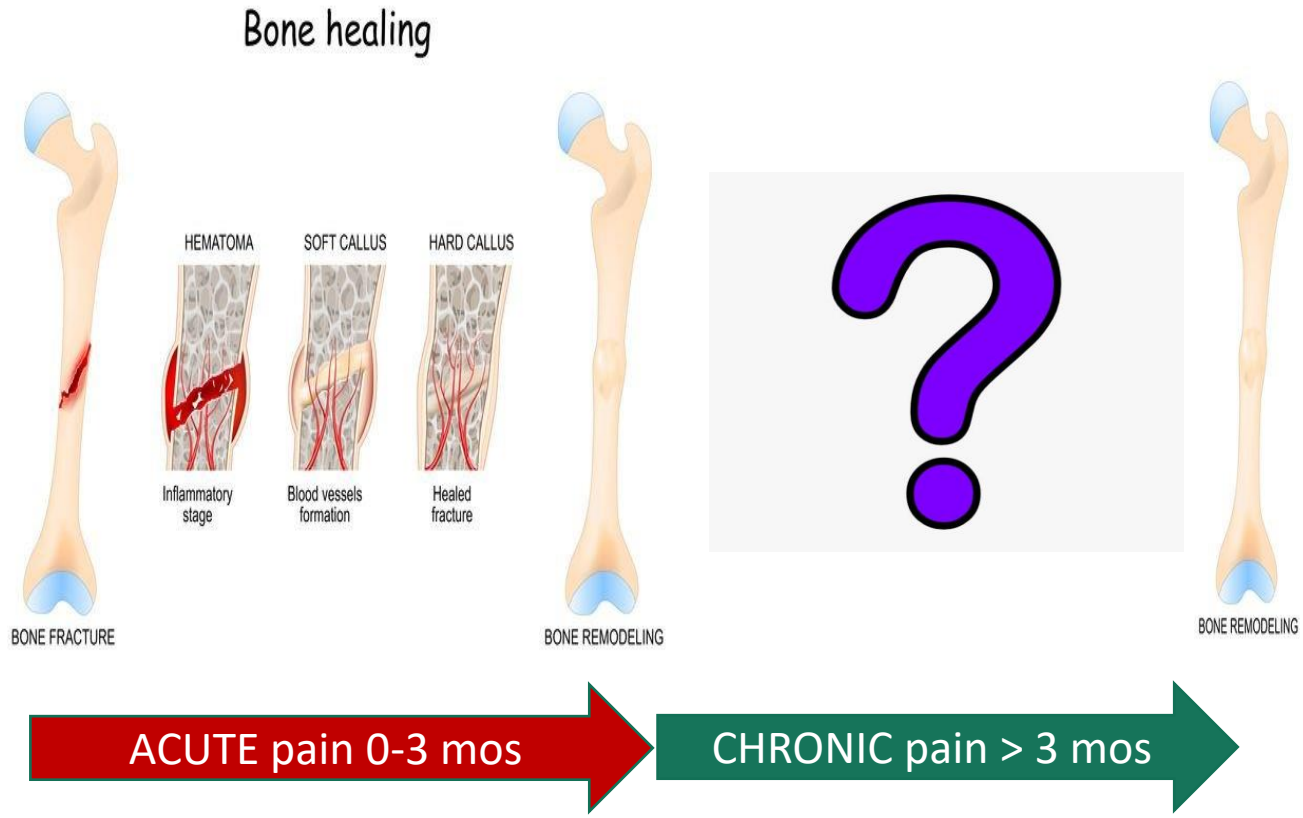
# **ANY ACUTELY** Painful Condition Can transition to chronic pain




Morlion B, Coluzzi F, Aldington D et al. Pain chronification: What should a non-pain medicine specialist know? Current Medical Research and Opinion. 34:7, 1169-1178. (2018) DOI: 10.1080/03007995.2018.1449738.

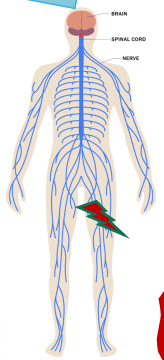
# What is **CHRONIC** or **NEUROPLASTIC** pain?

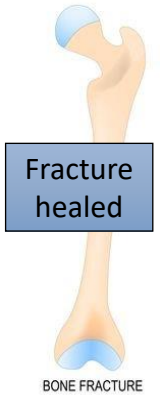
- Pain that **persists** beyond **normal tissue** healing
- Serves **no** biological purpose
- > 3 months



# What's happening with CHRONIC or NEUROPLASTIC PAIN

~~SURVIVAL~~
PROTECT
SEEK RELIEF




Fracture healed

Nociceptors remain ACTIVATED

The Endocrine system STAY activated

GLIAL cells Stay ACTIVATED

Immune system stays ACTIVATES

GLIAL cells BECOME OVERACTIVE

This ALTERs NEURONS in your Brain and BRAIN

NEUROPLASTIC CHANGES
"Faulty signal"

Pain continues

# CHRONIC pain

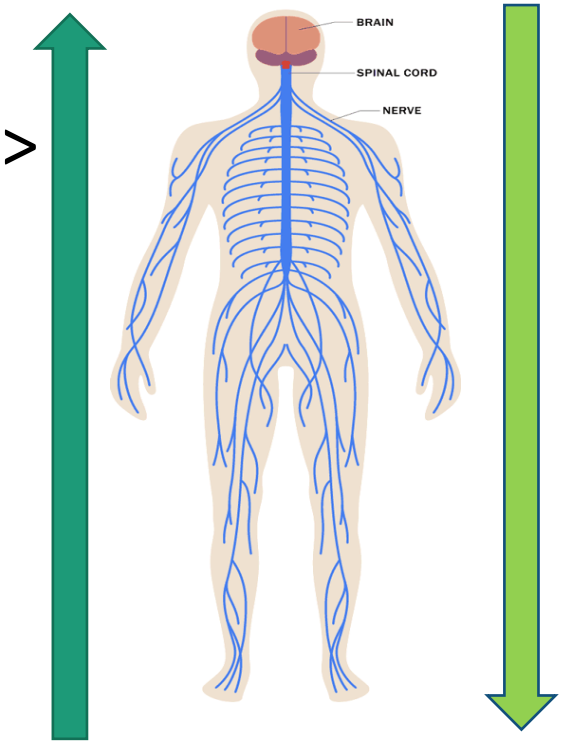
- Caused by an **altered or changed** nervous system (Faulty wiring)
- The process that makes it happen is called **NEUROPLASTICITY**
- Often referred to as an **atypical** form of **neuropathic** pain

# PAIN PATHWAY

## (ACUTE PAIN)

## NOCICEPTIVE PAIN

- **NOCICEPTIVE-CIRCUITRY** > Higher-learning circuitry
- **Bottom-up messaging**




## (CHRONIC PAIN)

## NEUROPLASTIC PAIN

- **HIGHER-LEARNING CIRCUITRY** > nociceptive circuitry
- **Top-down messaging**

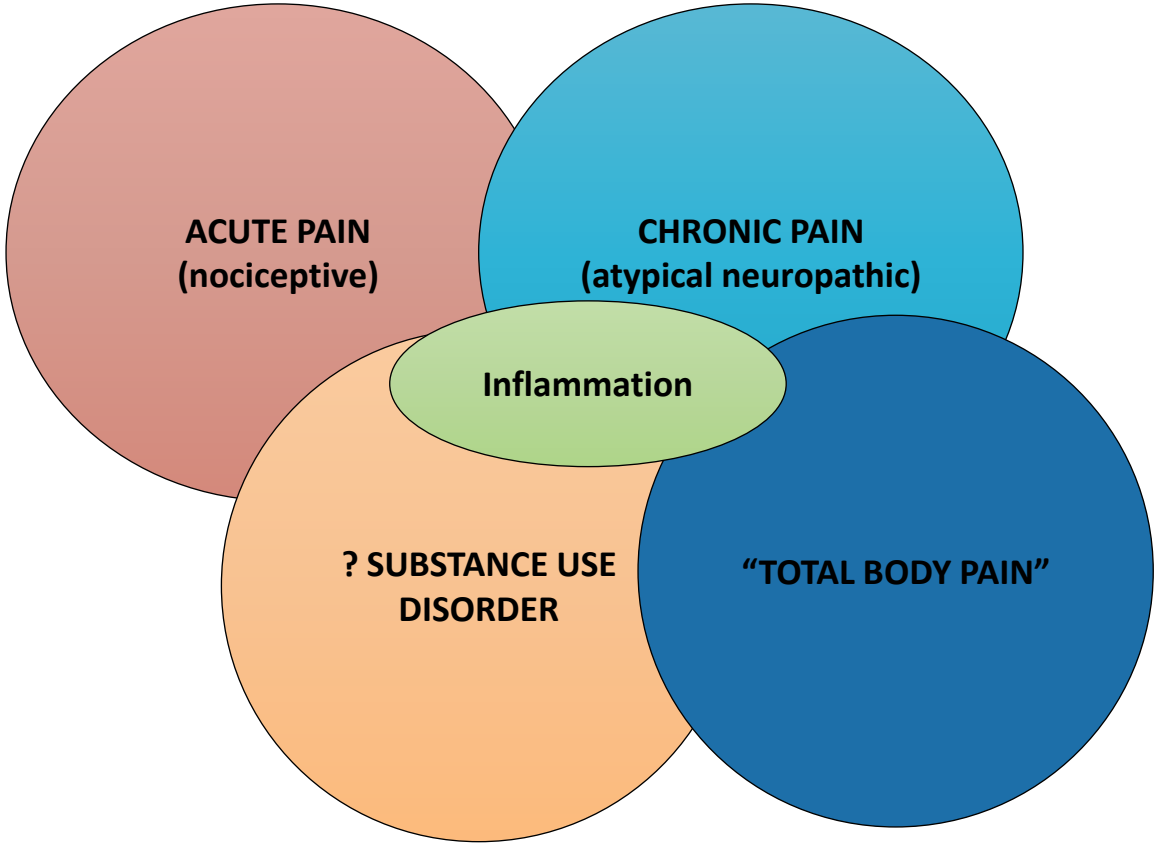
# “You think it’s all in my head Doc?”

- **Ask:** “Do you feel pain?”
- **Answer:** “Yes”
- **Response:** “Then your pain is real”

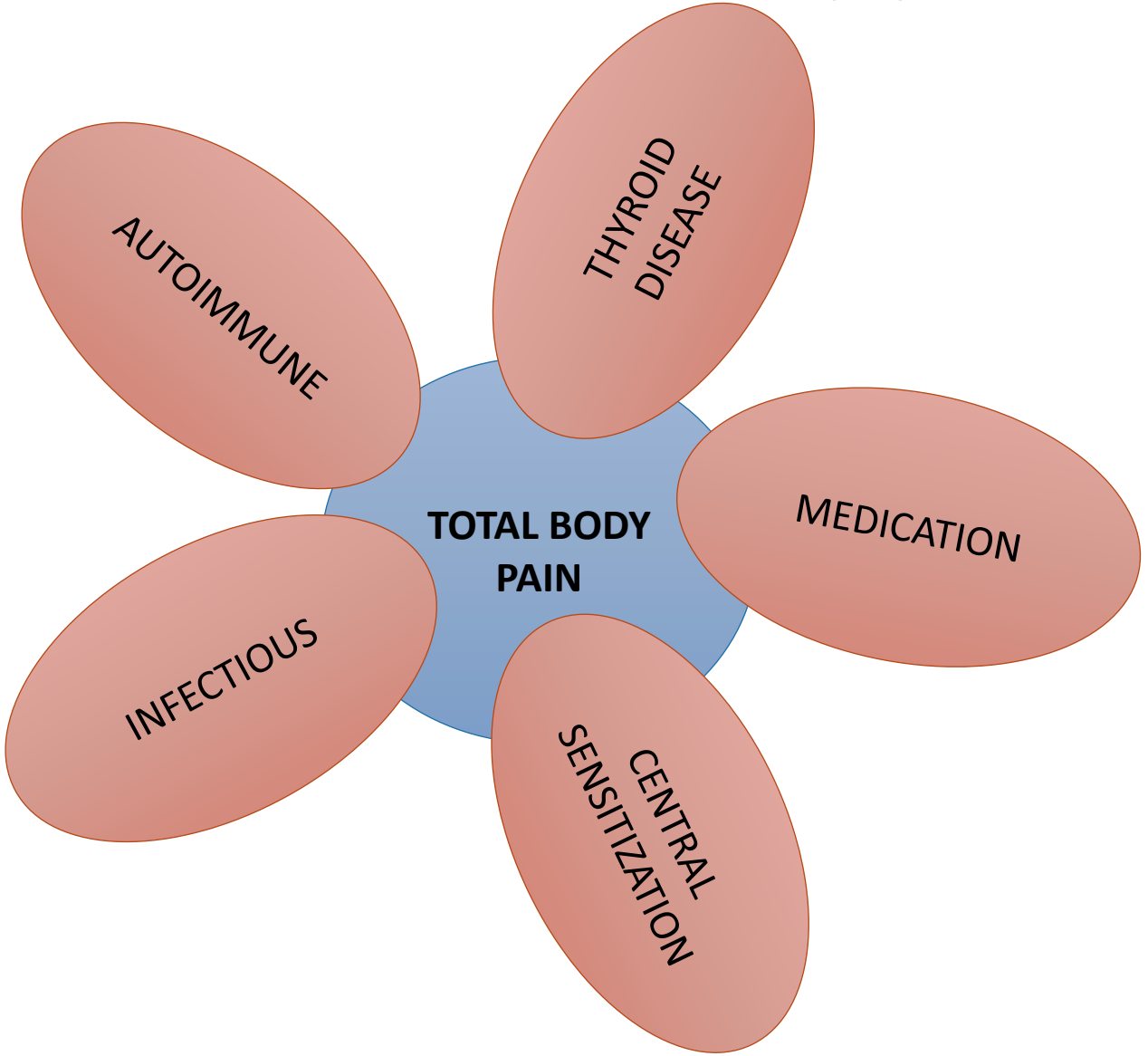
# Can **ACUTE** pain and **CHRONIC** pain be happening at the same time?

- **Absolutely !!**
- Sometimes it’s **hard to know**
- However, they have **distinct characteristics**

# To make it more confusing….

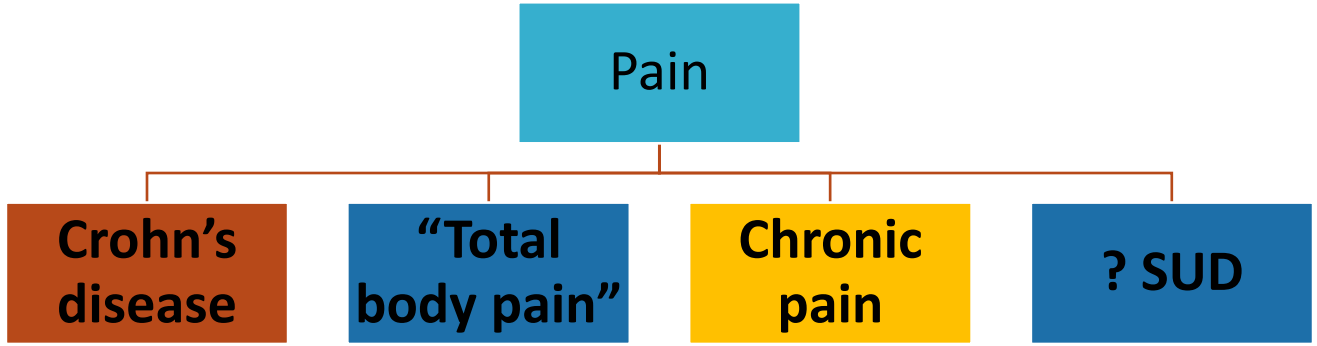


# Causes of “Total body pain”



# Case 1: Gary

- 47 yo male
- Legacy patient
- **“Hurts everywhere”**
- **Chronic** abdominal pain
- **Crohn’s** disease
- DEDD~60mg
- MEDD: ~320mg




DEDD: Diazepam equivalent dosing
MEDD: Morphine equivalent dosing

# How do I know if the patient has **ACUTE** pain (structural) or **CHRONIC** pain (neuroplastic)?

- Let's look at **EVIDENCE**
- Begin by **separating** them out

# What have you **been told**…
# **or…**
# This is **what I hear you say…**

**Pain**

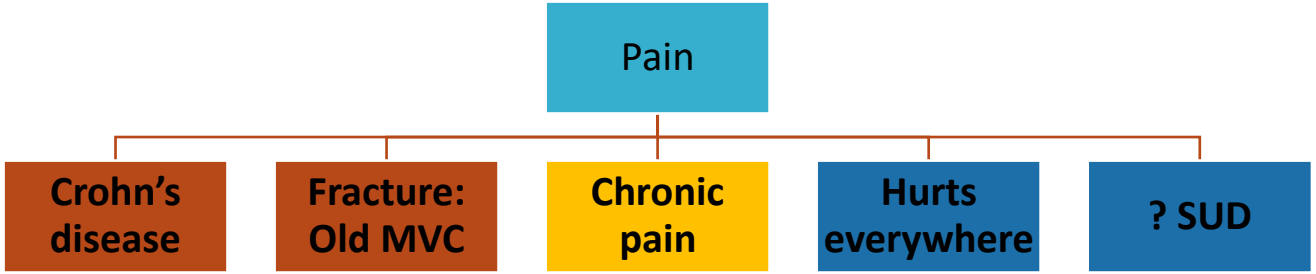
**NO** longer **ACUTE** pain, even if it **started as a structural** problem

**NEUROPLASTIC PAIN "CHRONIC"**

- Degenerative causes (aging changes)
- Old fracture
- Car accident in the past
- Fall in the past
- Work-related injury
- Pregnancy
- Complications from surgery
- Nerve damage
- Cancer treatment
- Etc..

# Case 1: Gary

- 47 yo male
- Legacy patient
- “Hurts everywhere”
- Chronic abdominal pain
- Crohn’s disease
- Gabapentin 3200mg
- DEDD~60mg
- MEDD: ~320mg




DEDD: Diazepam equivalent dosing
MEDD: Morphine equivalent dosing

# PAIN CHARACTERISTICS

## ACUTE PAIN

## (STRUCTURAL PAIN)


- Often **TRIGGERED** by an injury, illness, or surgery
- **CONFINED** to the injured area
- **Pain** gets better with healing
- **PREDICTABLE**
- Tissue **HEALS** and pain **RESOLVES**


## CHRONIC PAIN

## (NEUROPLASTIC PAIN)

- **“Came out of the blue”**
- Can be **“WIDESPREAD”** (total body pain)
- May have **multiple unexplained symptoms**
- **Skin** can be **painful to touch** or **feel altered**
- Has **NO** pattern
- **Pain UNPREDICTABLE**
- Pain **INCONSISTENT** or **FLUCTUATE**
- **Gets better** or **goes away** if they’re doing something they love
- **Tissue heals** BUT **pain persists**

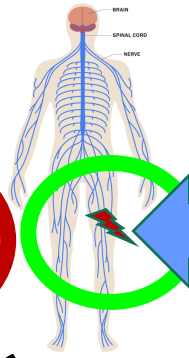
# WHAT DRIVES CHRONIC PAIN?

What else is going on in their life?

Calming techniques
Pain-protective behaviors

BRAIN FEELS DANGER

PAIN




**Local changes:**
Neuroplastic
(hyperalgesia/allodynia)

PROTECT

**Burning and muscle fatigue**

SEEK RELIEF

STRUCTURAL TRIGGERS

# What are “Calming Techniques”

- Anything that **dials down** the threat
- **“Habits and behaviors”** (some good some, not so good)
- **Health care providers** can be impactful
- What **we promote** as a calming technique **matters!!**

# What are PAIN PROTECTIVE BEHAVIORS?

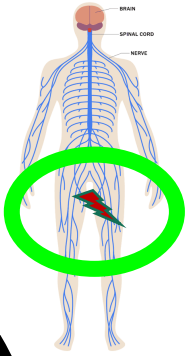
- **Natural response** to pain (pain tuck, straight leg walking, etc.)
- **Form** of **calming technique**
- **Ok** if **SHORT-TERM** but **NOT if LONG-TERM**
- Contribute to **“Wear and tear”** and ongoing “**muscle tension**”
- When **corrected** they can sometimes lead to **structural triggers** which is a form of **“Safe pain”**

# WHAT IS THE REMEDY?

6. ENGAGE with "PAIN REPROCESSING THERAPY"

BRAIN FEELS DANGER

PAIN




2. INTRODUCE Structural-based interventions (topicals, injections, etc.)

5. EXPLAIN Structural triggers as "SAFE PAIN"

STRUCTURAL TRIGGERS

PROTECT

3. EXPLAIN and ADDRESS Excessive Muscle work and burning sensation

SEEK RELIEF

4. EXPLORE
- Calming techniques
- Pain-protective behaviors

# What is Pain Reprocessing therapy?

- **Rewiring technique**
- **Reduce** the **pain danger alarm** signals and **promote SAFETY**
- **Goal** is to **reduce fear, frustration,** and **excessive attention** to the pain
- Uses **third-wave psychotherapies** (Mindfulness, Acceptance-commitment therapy, DBT)
- **Cognitive defusion**
- Can **help acute** pain as well
- Lumley (2019)


Feb 2022: Potter et al.
March 2022: Korownyk et al.

Oct 29, 2021: Chronic pain: Can our brain fix it?

Lumley, M. A., & Schubiner, H. (2019). Psychological therapy for centralized pain: an integrative assessment and treatment model. *Psychosomatic medicine*, *81*(2), 114. Accessed at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6355353/pdf/nihms-1512285.pdf

# What the heck is Cognitive Defusion?

- **Looking AT thoughts, rather than FROM them**
- **Noticing** thoughts **rather than getting caught up** or **buying into** the thought
- **Letting thoughts come and go** rather than **holding onto** the thought
- "It's just a thought. I'm the one that gives it power."

# **Why** is the **SAFETY** message **so important**?

- **“Feeling safe”** is the **antidote** to “feeling danger”
- When **our brain believes** that there is something wrong with our body **it responds with pain**
- **That’s WHY we have pain**
- If we can **embrace a different message that our brain has** made a mistake and **our body is fine**
- Our brain can **dial down the threat**
- **That’s hard to do!!**

# Why is it hard to do?

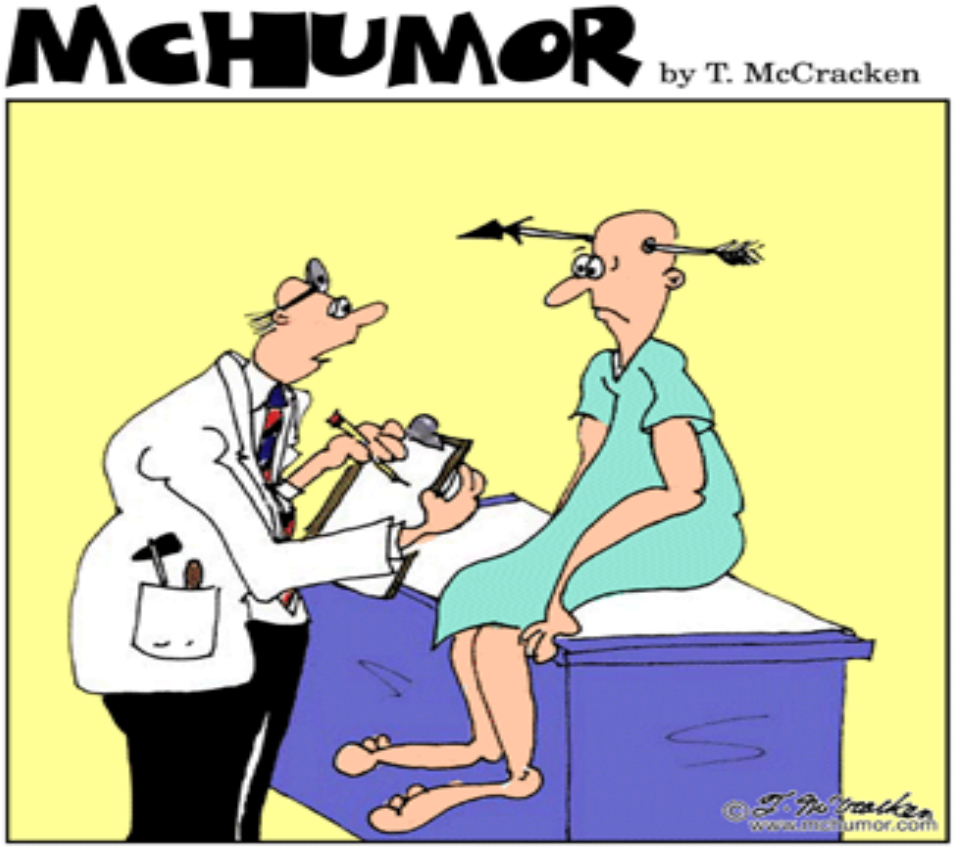
- **It FEELs UNNATURAL**
- **It’s** not **human nature to be UNAFRAID** of something **that is PAINFUL**

# Next Steps

- How can we help patients **feel LESS DANGER?**
- “Meet them **where they** are…
- at a distance…
- with **curiosity** and **compassion…**
- through a lens of **safety”**

# Approach

**PRIOR to VISIT** → **DURING VISIT** → **AFTER VISIT**




"Off hand, I'd say you're suffering from an arrow through your head, but just to play it safe, I'm ordering a bunch of tests."

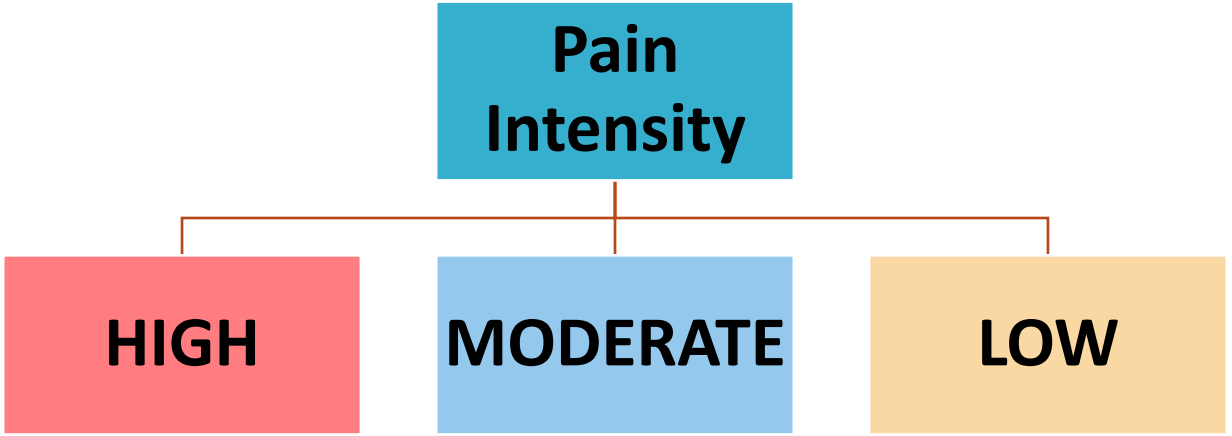
# Approach: Prior to Visit

| **Briefly Review chart** |
| --- |
| Recent investigations? |
| Pharmacotherapy? |
| Any Red or yellow flags? |
| Avoid the temptation of excessive/repetitive testing UNLESS indicated |

| **ANY HIGH-RISK PHARMACOTHERAPY?** |
| --- |
| Anticlotting drugs: DOAC's, Warfarin |
| Immunosuppressives: Steroids |
| Hypnotic sedatives |
| Benzodiazepines |
| Opioids |
| Stimulants |

| Seek out CT, PPB, or excessive muscle work that could be contributing | |
| --- | --- |
| Calming techniques | |
| Pain protective behaviors | |
| Excessive muscle work and burning | |

# During the VISIT




- **The brain feels a lot of “DANGER”**
- **Information often hard to process**
- **Use KIS principle**

- **Less threat**

# Framework

**Messaging**
**"Psychological tools"**

**Assessment**

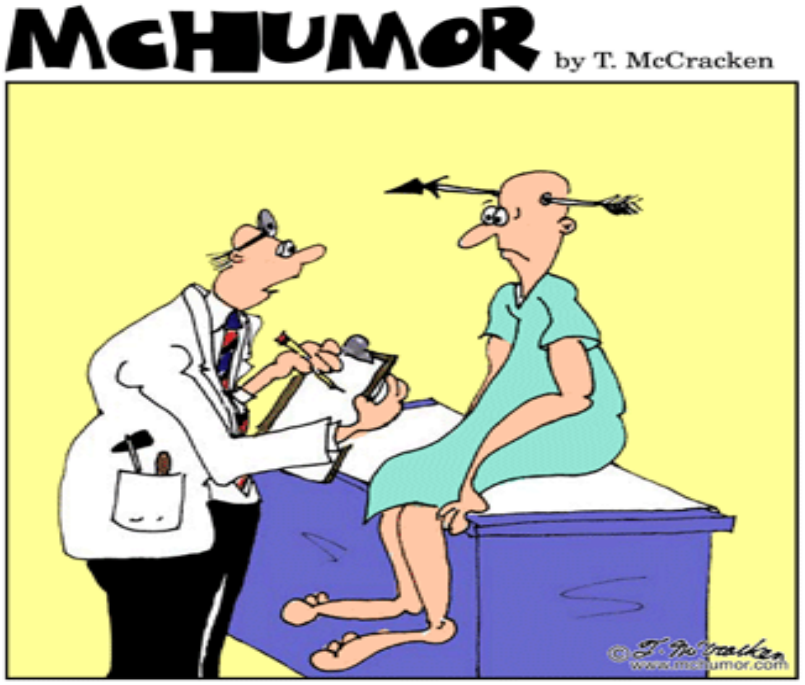
**Non-Pharmacological**

**Pharmacological**

**Risk Management**

# What to do During the visit

- **LISTEN** to the pain story (Mechanism?)
- **ACKNOWLEDGE** suffering (Believe them!!!)
- **EXAM** carefully (Any new pathology or progression of a pre-existing condition?)
- **RECOGNIZE** they're doing the best they can



# General Approach

- **VIEW** all interventions and alternative therapies through a lens of **SAFETY**
- **MAXIMIZE** non-opioid and non-cannabinoid therapies
- **RISK STRATIFY** for harm if opioids and cannabinoids used
- **MANAGE RISK by MAPing** out an approach

# MAPing

- **MONITOR** use for aberrancy or complications
- **ADJUST** immediately if aberrancy
- **PRESCRIBE** using principles of **HARM REDUCTION** (limit quantity etc.)


BC Centre on Substance Use: Urine Drug Testing in Patients Prescribed Opioid Agonist Treatment. 2021.
Canadian Guidelines for Safe and Effective Opioid use in CNCP. 2017.

# Case 1: Gary

- 47 yo male
- Legacy patient
- **“Hurts everywhere”**
- **Chronic** abdominal pain
- **Crohn’s** disease
- Gabapentin 3200mg
- DEDD~60mg
- MEDD ~320mg

DEDD: Diazepam equivalent daily dose
MEDD: Morphine equivalent daily dose

# Few Pearls prior to visit

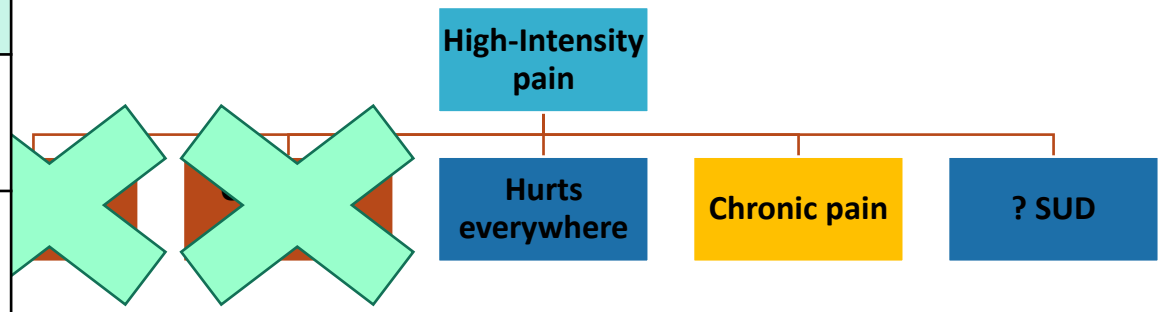
- **Avoid** the temptation to add more medication
- Recognize that he is just using the tools that you've given him to **"get relief"**
- Consider that **you'll be unlikely** to **"taper"** him **UNLESS** he is motivated
- You **still need** to **mitigate risk** and **complications**

# Case 1: Gary

- 47 yo male
- Legacy patient
- Hurts everywhe
- Crohn's disease

| Prior to visit: Briefly Review chart |
|---|
| Previous investigations? |
| Pharmacotherapy? |
| Red or yellow flags? |
| Resist more testing unless indicated |

| Any HIGH-RISK PHARMACOTHERAPY? |
|---|
| Anticlotting drugs: DOAC's, Warfarin |
| Immunosuppressives: Steroids |
| Hypnotic sedatives |
| Benzodiazepines |
| Opioids |
| Stimulants |




| Explore CT, PPB, and muscle work | |
|---|---|
| **Calming techniques** | SA opioids, IA BZD, Gabapentin, **long resting time, isolation** |
| **Pain protective behaviors** | **Pain tuck** |
| **Excessive muscle work** | **Abdominal, low back, neck** |

# Goal

- **Prioritize safety** (patient and community)
- Reduce his risk of dying (Narcan etc.)
- Make pain more **tolerable**, improve **function**, and, **avoid** excessive **daytime** sedation
- Reduce his **pain focus (attention)**
- Reduce his **anticipation**
- **Where** to start?
- Start with **pharmacology**

If the patient has received **more than 100mg MEDD without adequate pain relief**, consider **opioid-induced pain**, **pain-induced withdrawal**, **psychological** suffering, or **diversion**, in your differential as well as **addiction.**

# What is Opioid-induced hyperalgesia?

- **Paradoxical** response to opioid use
- Etiology **unsure**
- **NMDA** receptor

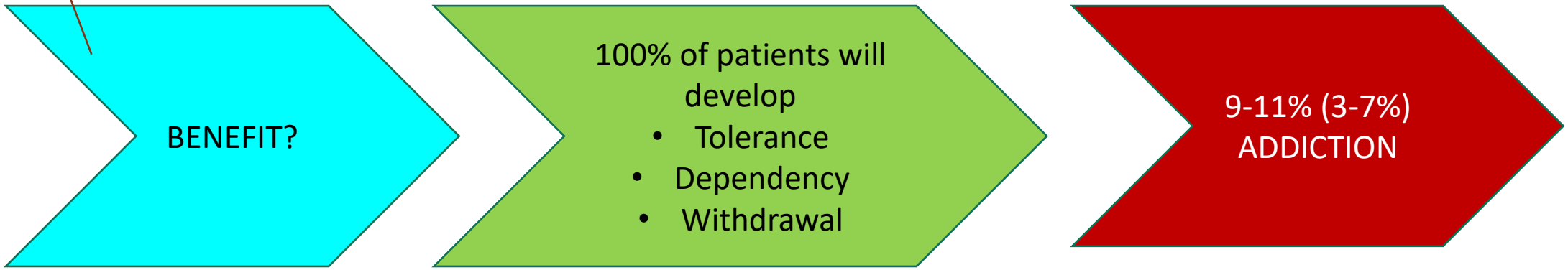
**Table 1. Common Characteristics of Opioid-Induced Hyperalgesia**

- Worsening pain over time in spite of, and because of, increases in opioid dose
- Nociceptive sensitization
- Area of pain more diffuse
- Pain of lesser quality and harder to pinpoint

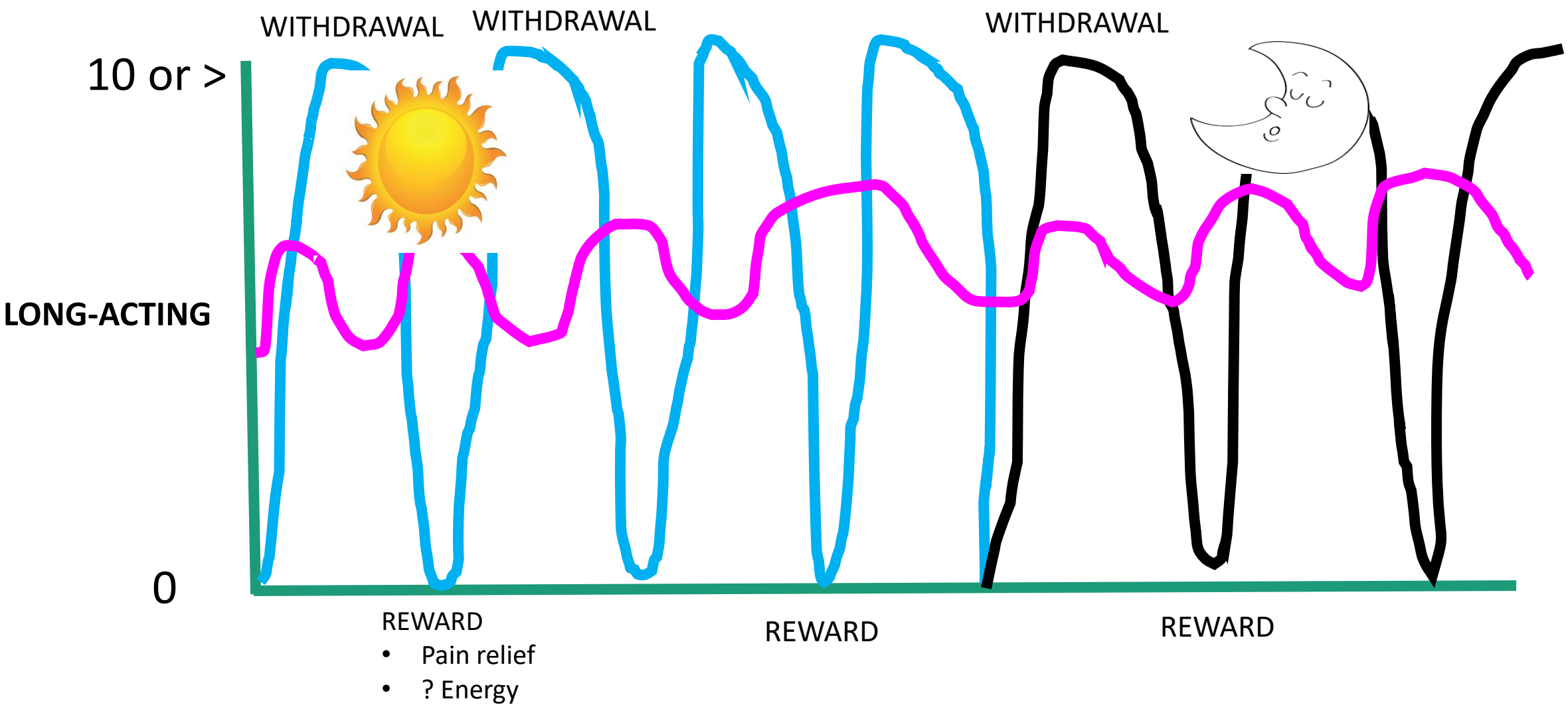
*Source: References 3, 4, 6, 26.*

# How else do opioids and BZD impact pain and contribute to SUD?

You're **using them for pain**, how else do they help?



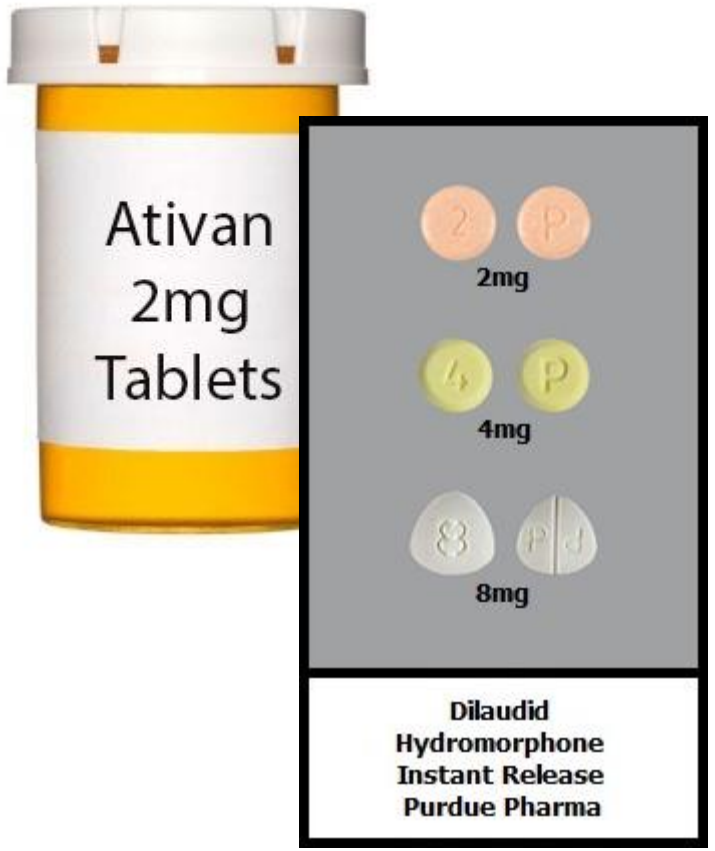
# GARY's SHORT-ACTING PHARMACOTHERAPY



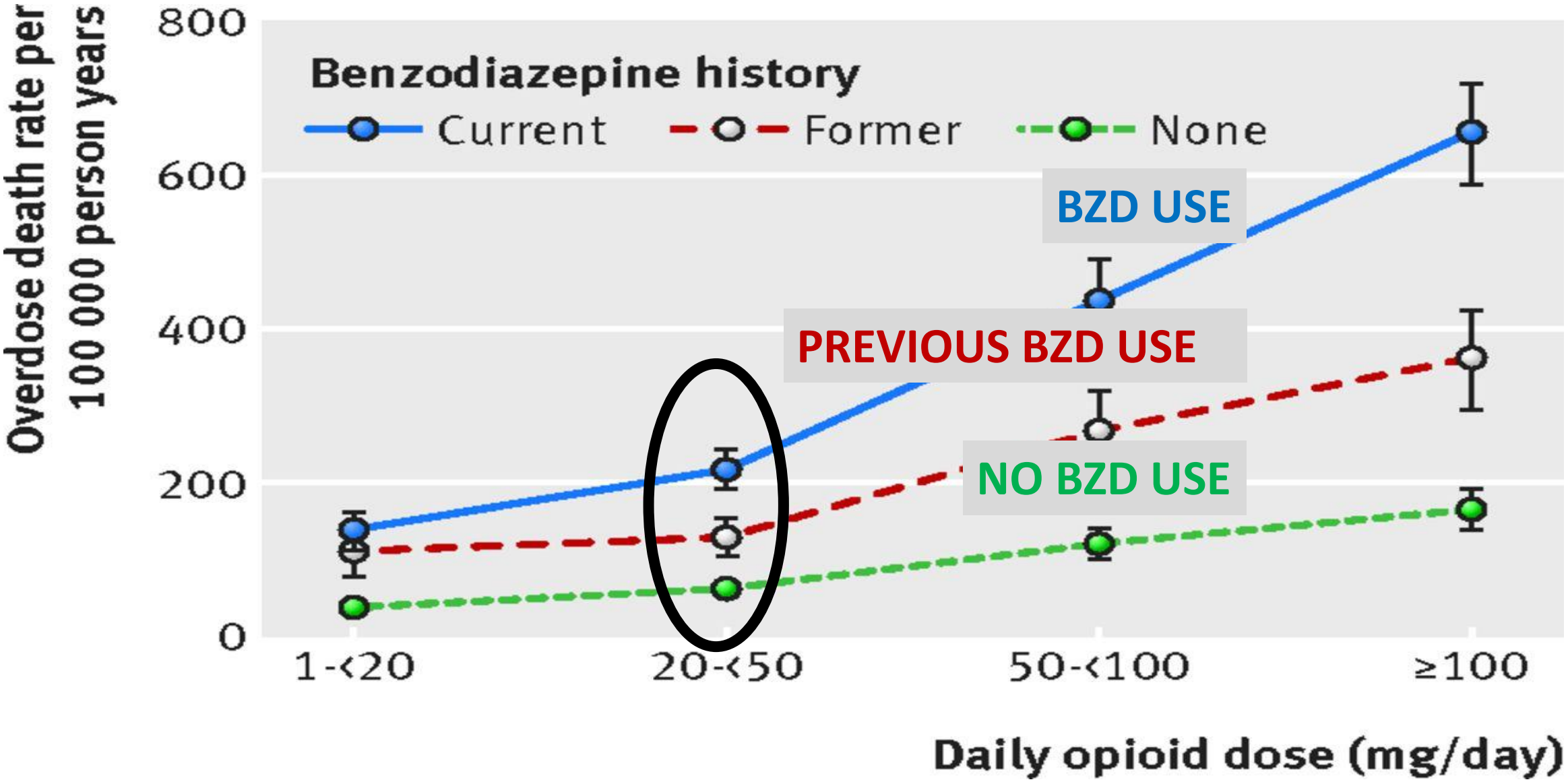

- Pain relief
- ? Energy

# Complications of use

- Increase **anticipation** (withdrawal mediated pain)
- Increase **attention** (more pain focus)
- **Sleep** disruption
- **Central** sleep apnea
- **Low** Testosterone
- **Narcotic bowel syndrome**
- Opioid-induced **hyperalgesia**
- **Opioid use disorder**



# When Benzodiazepine and Opioid come together



# What are the options for Gary?

- It depends…
- Why is he doing so poorly?
- Is this OUD?
- Is this OIH?
- Is this diversion?
- What other factors may be contributing?


MacDougall, P. (2022). In long-term, higher-dose opioid use, dose tapering was linked to overdose and mental health crises. *Annals of internal medicine*.

# First steps

- Is he **taking what** is being **prescribed?**
- Have we done **any screening?** (UDS/GC-MS/pill counts)
- Any **aberrancy?**
- If aberrancy is present **respond immediately** (Partial fill, daily dispensing, ORP)
- **If addiction**….
- Full court press

# Are They Taking What's Being Prescribed?

**URINE DRUG SCREENING**

Point-of-care:
**Immunoassay**
(Local lab)

- Screening tool
- Interpreting can be challenging

**Gas chromatography/ Mass Spectrometry**

- Highly reliable

**PILL COUNTS**

- The Prescriber
- The Pharmacist

# UDS Pearls

- Make UDS a **routine practice** like annual blood work or an INR (coumadin)
- **Never** make UDS about **“catching”** someone
- If POC not concordant **don’t jump to conclusions** and **don’t take it personally**
- Be **curious and compassionate** from a **distance**
- If **aberrancy**, give partial fills but don’t cut them off (Daily, biweekly, weekly, etc.)
- **Send urine** for GS-MS

# How Do We Know If He Has Addiction?

## 5 C's of Addiction


1. Chronic
2. Loss of Control
3. Compulsion
4. Use despite negative consequences
5. Cravings **(Pain relief, energy boost, etc.…)**

# Approach

- **He agrees** present plan not helping
- **Limit** dispensing
- **Once you confirm use…**
- **Stabilize** withdrawal
- LA versus SA (literature mixed)
- Switch **1/3 over to LA**
- **Controlled taper** or **maintenance?**
- Continue to **monitor for complications** related to opioids and BZD (sleep apnea, falls, addiction)

# How often do you monitor?
# It depends…

| Monitoring based on risk | | | | |
|---|---|---|---|---|
| Risk level | In person/year | UDT/year | Pill count/year | Mass Spec |
| Low | 4 | 2 | 2 | 1 |
| Moderate | 4 | 4 | 4 | 1 |
| High | 6 | 6 | 6 | 2 |

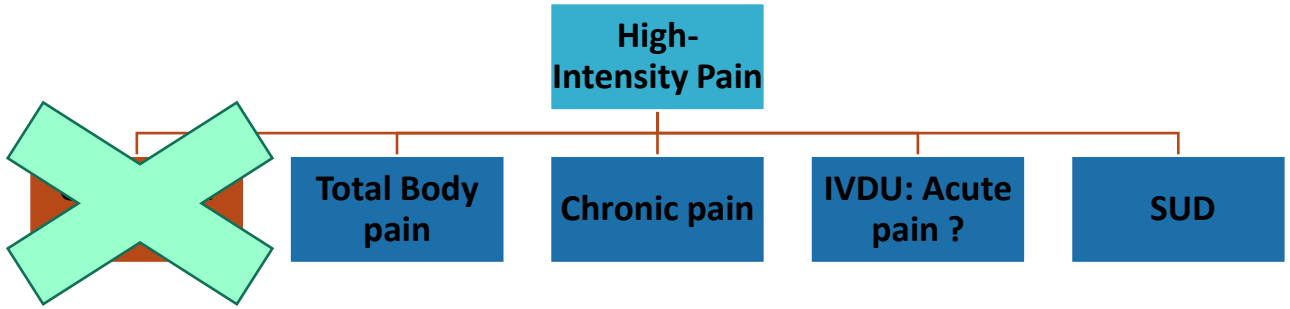
TOPCARE: Transforming Opioid prescribing in Primary care. http://mytopcare.org

# Case 2: Jess

- 47 yo female
- Chronic LBP
- Son comes in

| Prior to visit: Review chart |
|---|
| Previous investigations? |
| Pharmacotherapy? |
| **Red or yellow flags**?<br>• No in-person visit ~ 2 years<br>• Family concerns |

| HIGH-RISK PHARMACOTHERAPY |
|---|
| Anticlotting drugs: DOAC's, Warfarin |
| Immunosuppressives: Steroids |
| Sedative Hypnotics |
| Benzodiazepines |
| Opioids |
| Stimulants |




| Explore calming techniques, pain protective behavior and muscle work. | |
|---|---|
| **Calming techniques** | Injecting opioids and cocaine |
| **Pain protective behaviors** | Pain tuck |
| **Muscle work** | "Total body pain" (OIP, central sensitization) |

# Goal

- **Prioritize safety** (patient and community)
- **Reduce** her risk of dying (Narcan, clean needles, etc.)
- Make pain more **tolerable**, improve **function**, and, **avoid** daytime sedation
- Reduce **pain focus (attention)**
- Reduce **anticipation (withdrawal-mediated pain)**

# Next steps?

- Bring her in
- Confirm son's concerns
- What next?
- BTW…
- Jess is **not interested** in getting help, track marks are an "allergic reaction" and **her son is out** to get her because he's the "junky" not her
- She tells you that, "I'm just trying to manage my **pain**"

If an **active addiction** is present, **treat** the **addiction first**.

# Priority?

- **RECOGNIZE** that she is doing the best she can at this moment
- Recognize her **Fear** of being “cut off”
- **Shame** that she is injecting
- **Stabilize** withdrawal and her “cravings” for pain relief
- Exam her for any **new** pathology related to her IVDU?

# Prioritize safety and NOT moral or ethical reasoning

- Switch her to **daily witnessed**
- **Opioid rotation OAT** (Kadian, Suboxone, Methadone)
- Here's the problem…
- We **don't know** what she's taking and what she is diverting
- **What is a "safe"** starting dose…
- Kadian 50mg daily witness
- Clonidine 0.1 mg

# Also

- Limit Gabapentin and BZD to daily
- ECHO/Blood work
- Give her **tools** to mitigate harm (Narcan, clean needles, etc.)

# Summary

- Pain science is **changing** how we think about and how we  respond to pain and SUD
- Meet them **where they are** at a distance with **curiosity** and **compassion** through a lens of **safety**
- **Reach out** for support: This work is hard
- **Medicate** to the **pain mechanism** and **not** the degree of **suffering**
- **Never** let a patient tell you **how to prescribe** a dangerous drug

# Here to help and support you

- NS-PMP support
- AMN support
- Atlantic Mentorship Network: https://www.atlanticmentorship.com
- My contact:
- jimandmoe@eastlink.ca
- (902) 870-0853

# References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7. MacDougall, P. (2022). **In long-term, higher-dose opioid use, dose tapering was linked to overdose and mental health crises.** *Annals of internal medicine*.

# Other responses (if open)

- The pain you're feeling today is **not caused** by the same mechanism that caused your pain **when it started**."
- "Your body has **healed** the original injury **even though it feels** like the **injury is still there** or **something is wrong** or **damaged** in that part of your body."
- "The **pain** you're experiencing **today** is caused by **changes** that are occurring in your **pain system** which has become **more protective, more intense,** and **more unpredictable.**"
- This type of pain can even **change** how **your skin** feels or _____.
- "We call this **chronic pain** or **neuroplastic pain**."
- "Chronic pain or neuroplastic pain is **not** a dangerous pain. It is however **impactful and disruptive** but it is a **safe** pain."

# Atlantic Mentorship Networks

# About the Atlantic Mentorship Network

Our Aim

## Providing support for you in your practice

Tools, resources and initiatives targeted toward primary health care providers in managing pain and substance use disorder

## Fostering a culture of shared learning

The inter-professional nature the Network provides the knowledge and experience of over 20 health care disciplines and enhances connectedness, cooperation and collaboration between health care providers which encourages consistency in practice

## Enabling high quality care for patients

Our initiatives will support you to deliver high quality pain and substance use disorder holistic inter-disciplinary approach care based on the best available evidence, practice standards, and guidelines.

# Our Objectives

What guides our work

## Professional Development

Deliver practical and focused continuing professional development opportunities for health care professionals based on identified learning needs.

## Collaboration

Improve collaborations between healthcare professionals through mentorship.

## Inter-professional Structure

Provide a structure for healthcare professionals to work more closely across institutional and professional boundaries.

## Leadership

Provide leadership in the development of evidence informed policy dialogue with key stakeholders related to pain and addiction management.

# Our Supports

Our initiatives and tools are designed to engage and support the learning needs of primary health care providers

## Tools and Resources

Our website hosts information and resources to increase knowledge, skills, and confidence support you in making practice changes in key topic areas

## Self-Directed Learning

We will provide continuing professional development opportunities that allow you to learn at your own pace

## Webinars and Workshops

Webinars are offered to provide information in key topic areas to support shared learning and workshops will support applied learning

## Mentorship

Looking for professional and personal growth? We provide opportunities that allow transfer of knowledge, skills, information and perspectives

## Conferences

Opportunities to gather with peers (either virtually or in-person) with featured speakers to learn, share, and showcase best practices

## Online Forums

The forums provides a means for providers to connect virtually to “crowd source” solutions, connect with colleagues to share expertise, experience and receive support

# Adaptive Mentoring

A specific form of mentoring with the following features:

1

## Mentoring that adapts to the needs of the mentee

- Primary care learning is heterogenous
- Mentoring Form: one to one, group and peer
- Mentoring Environments: in person, email, telephone, video conferencing

2

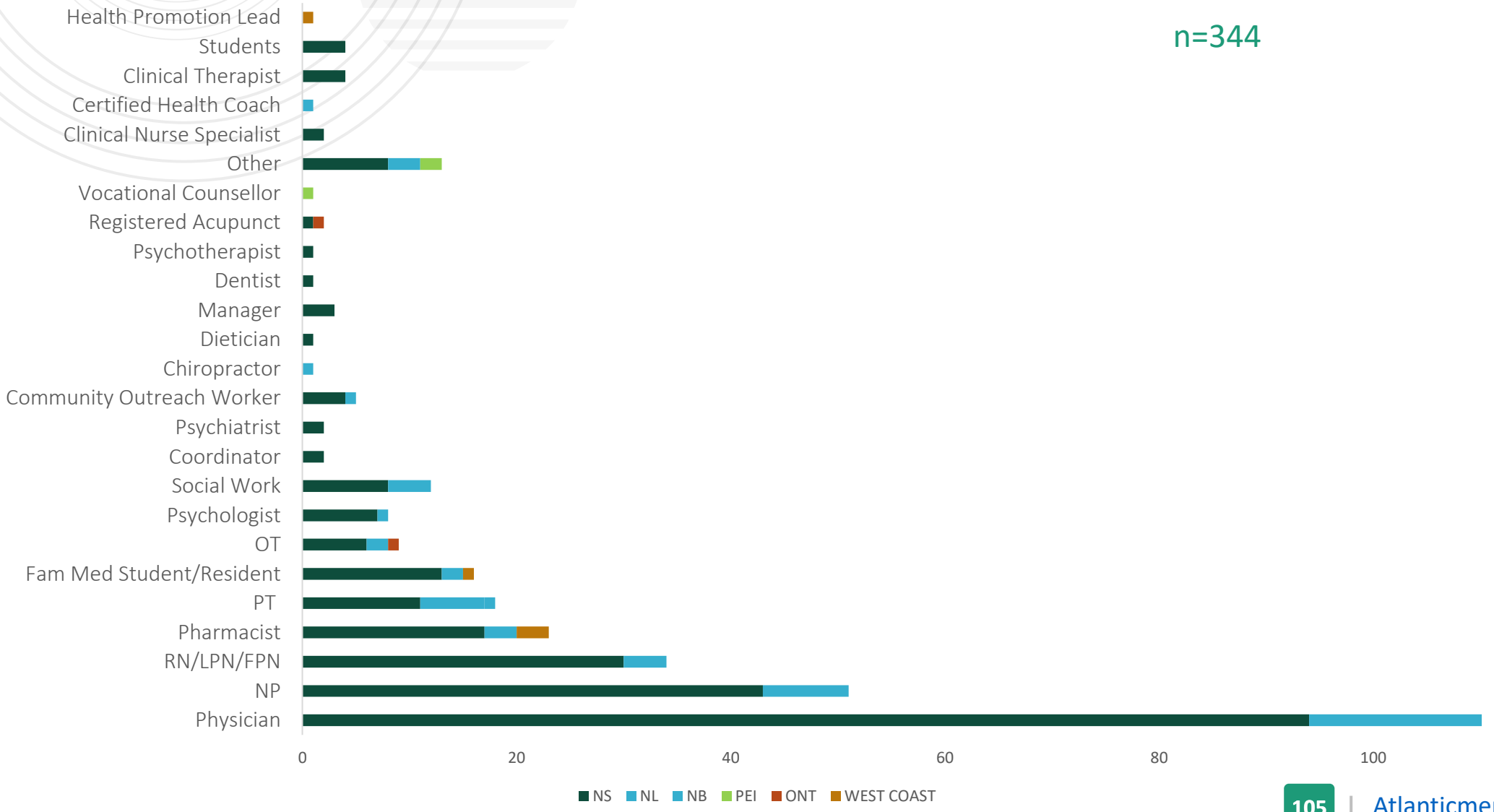
## Mentoring that is rooted in creating compassionate communities for mentees and mentors

3

## Mentoring that provides bi-directional value for the mentors and mentees addressing knowledge, clinical behavior and resilience.

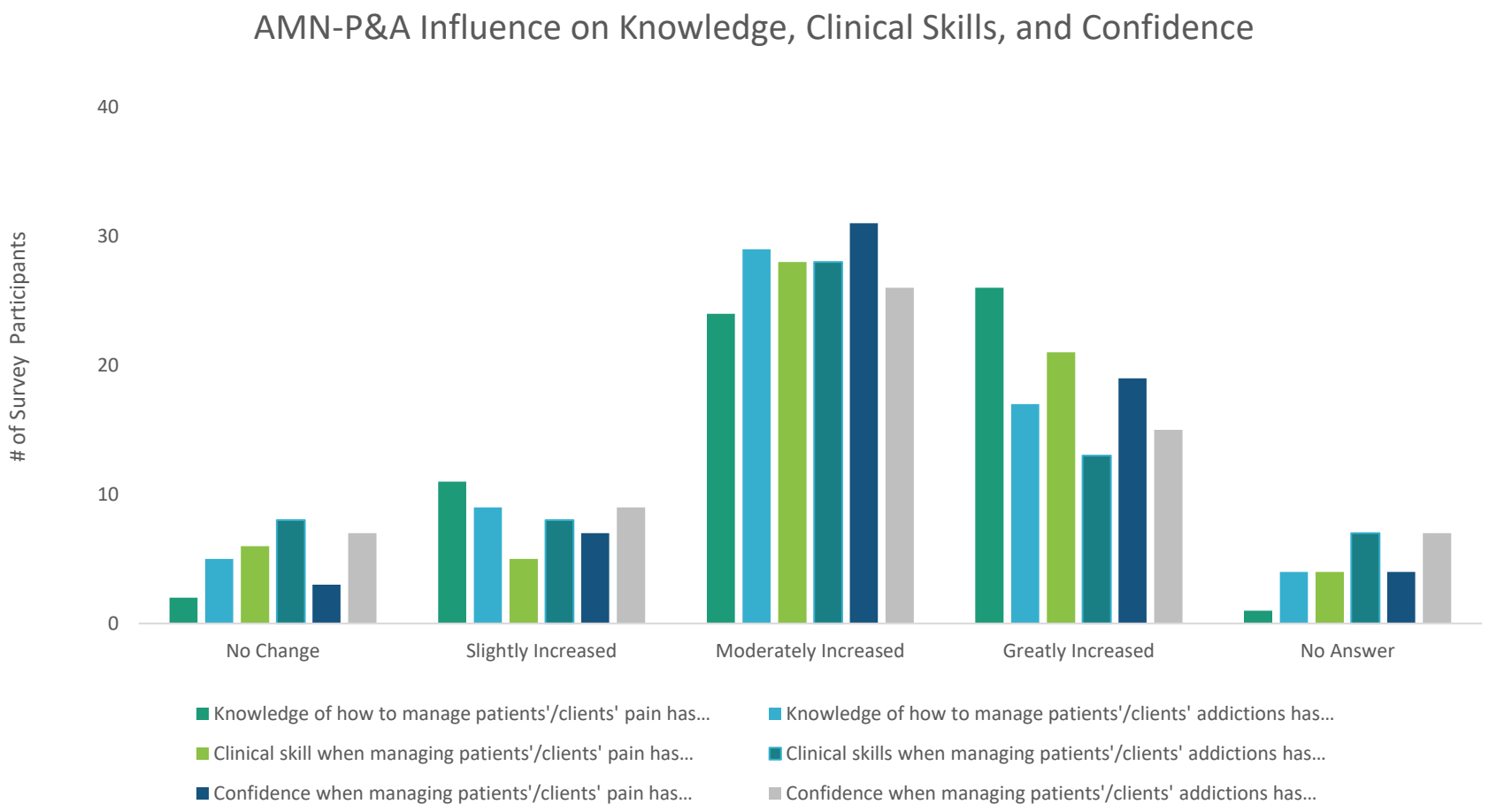
# AMN-P&A Overall Membership

n=344



# 2019 AMN – P&A Evaluation

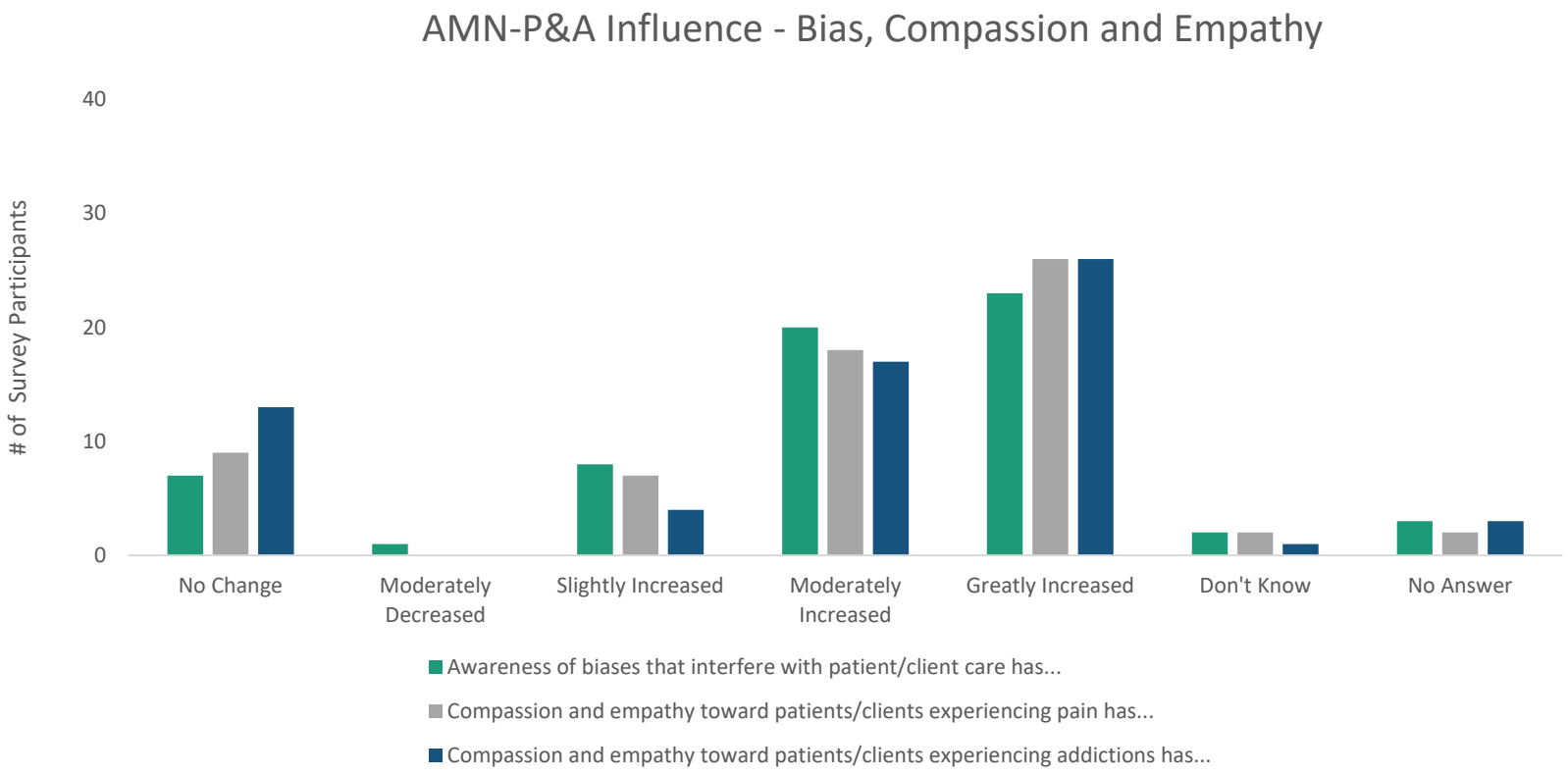
# Key Findings




% of participants who reported a Moderate/Great Increase:

75% in knowledge
70% in clinical skills
71% in confidence

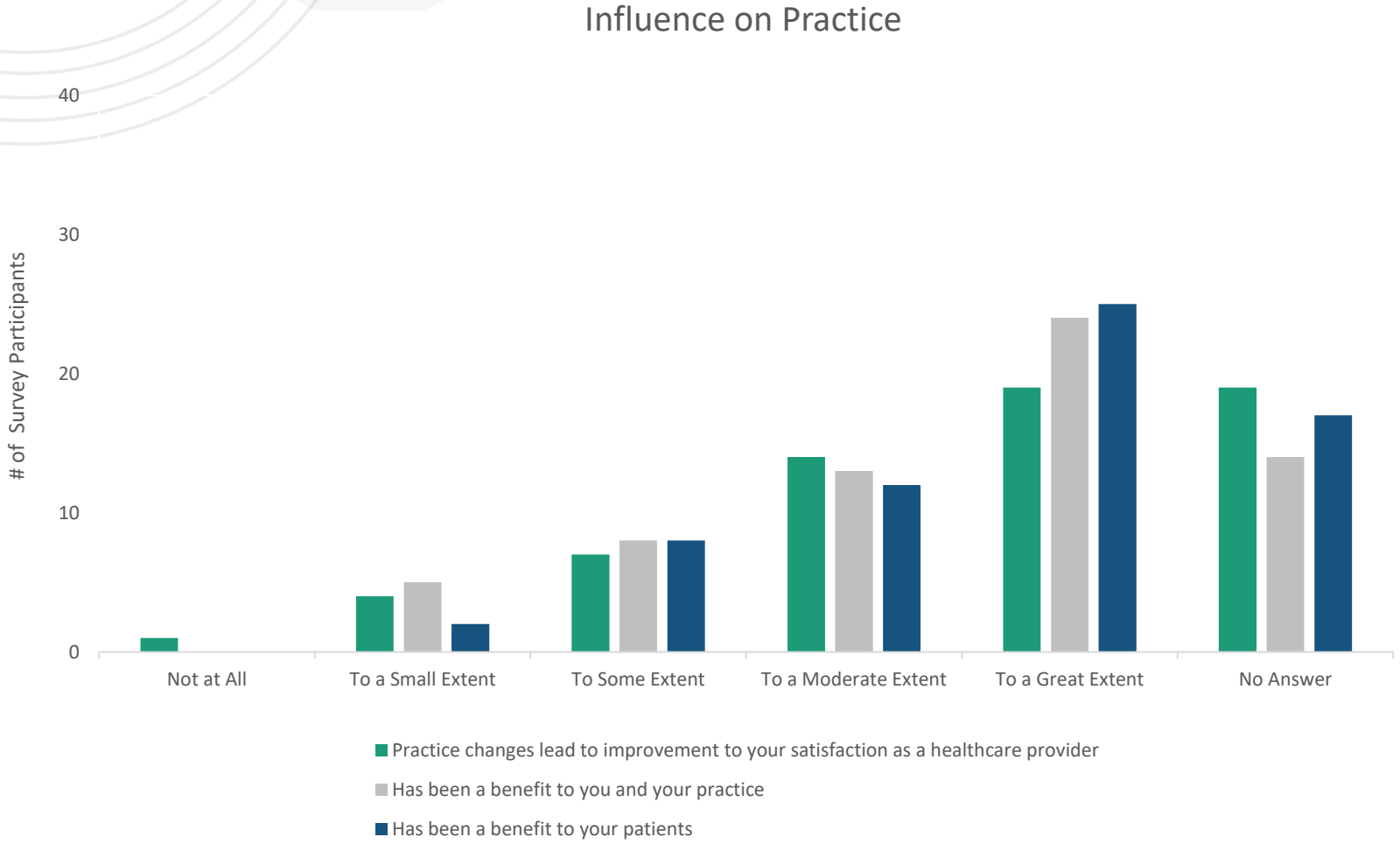
# Key Findings



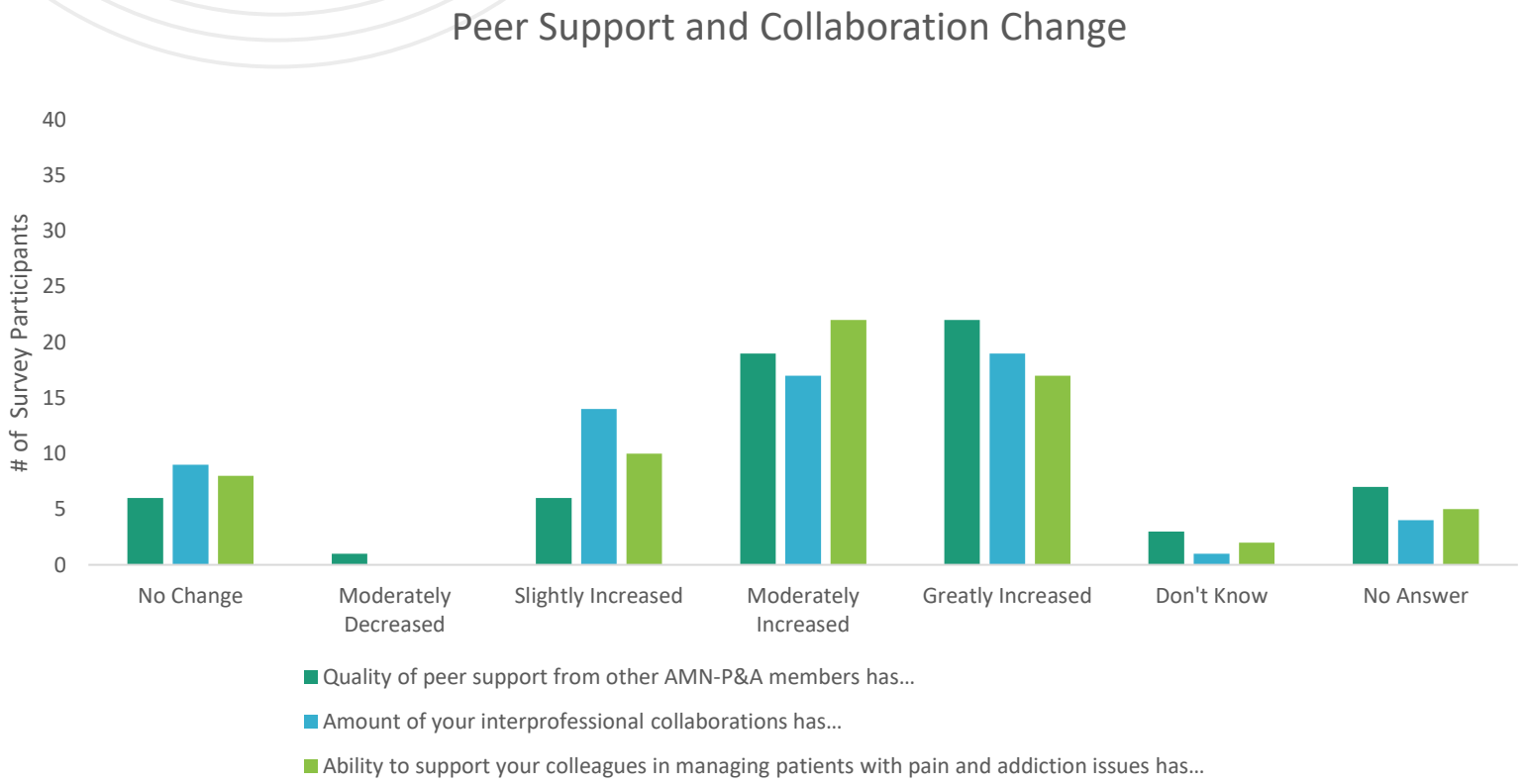

% of participants who reported a Moderate/Great Increase:

67% in awareness of biases
69% in compassion & empathy those experiencing chronic pain
67% in compassion & empathy those experiencing addiction

# Key Findings



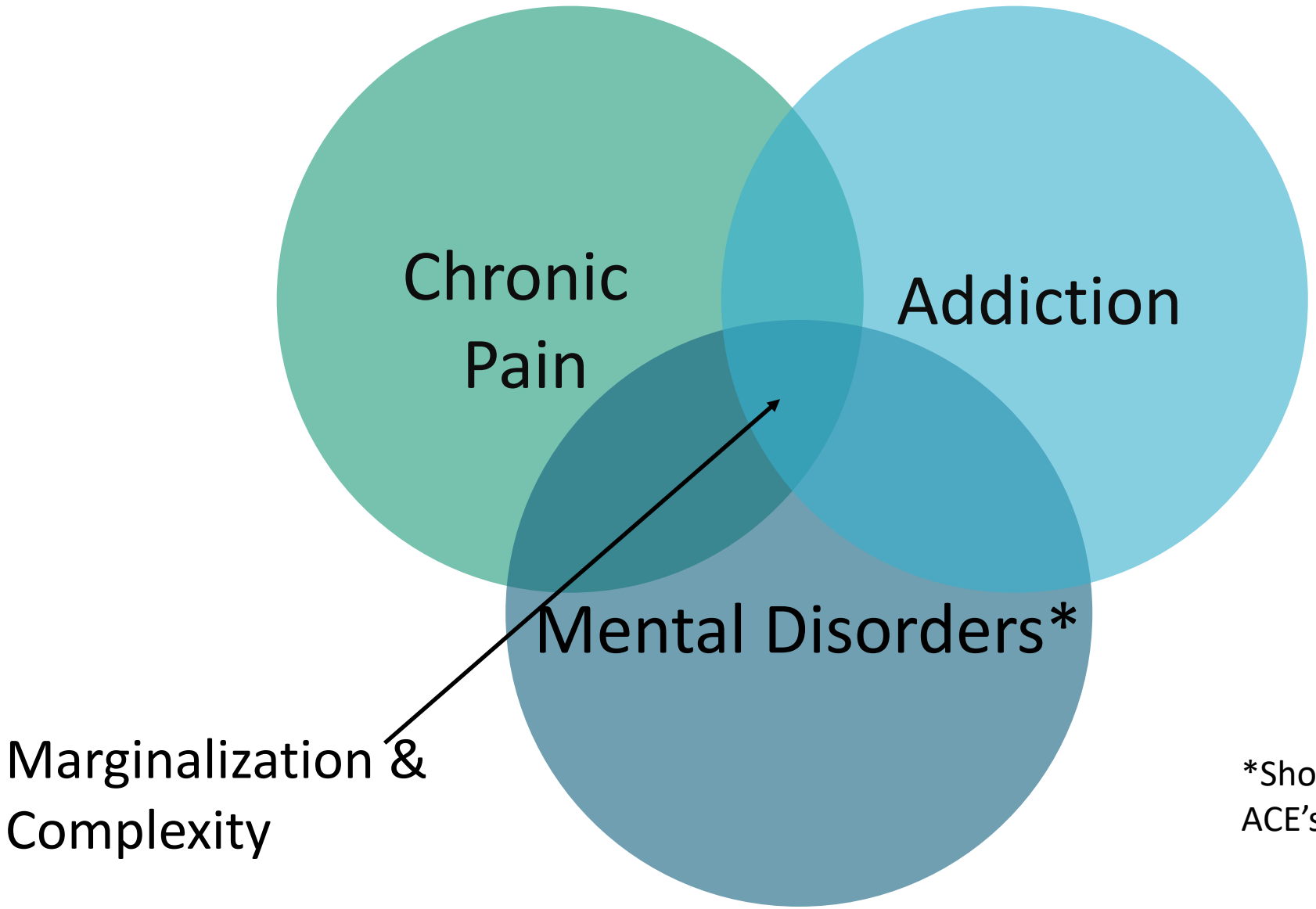
# Key Findings




% of participants who reported a Moderate/Great Increase:

64% in quality of peer support
57% in interprofessional collaboration
61% in ability to support colleagues in pain &/or addiction management

# Health Canada's Substance Use and Addictions Program (SUAP) Grant




*Should also include trauma hx, ACE's, low resilience etc.

# Project Overview

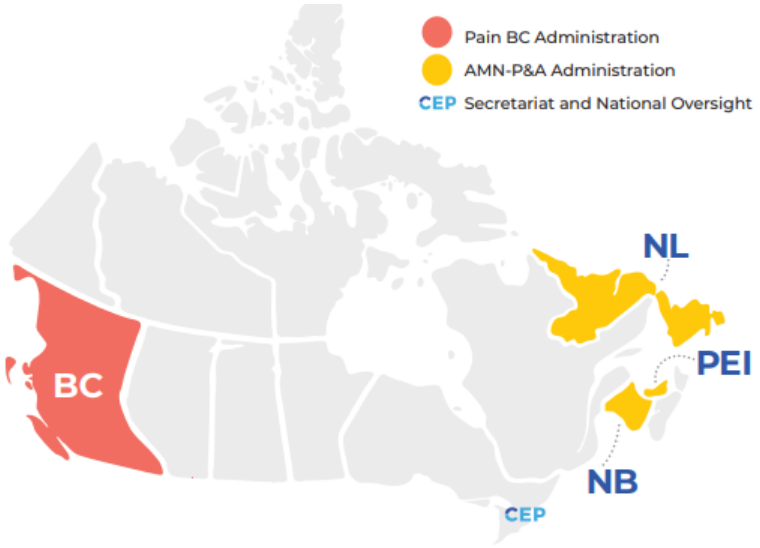
## A National Initiative to build Adaptive Mentoring Networks

- Used successfully in Canada for the last 18 years to build primary care capacity.

## The initiative is a collaboration between:

- Atlantic Mentorship Network – Pain and Addiction (AMN-P&A)
- Pain BC
- Center for Effective Practice

…to build Adaptive Mentoring Networks in NL, PEI, NB & BC




## Each Provincial network will include:

- Own governance structure if desired
- Funding
- Directors & Mentors

# Funding

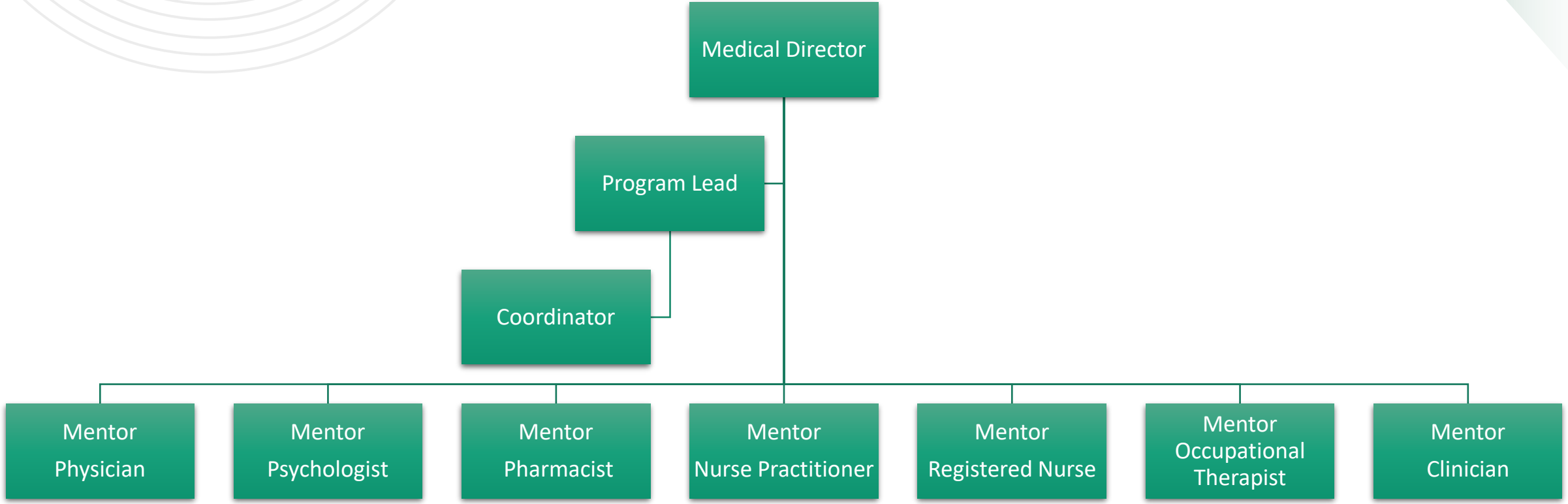
Health Canada's Substance Use and Addictions Program (SUAP) Grant


## National Budget

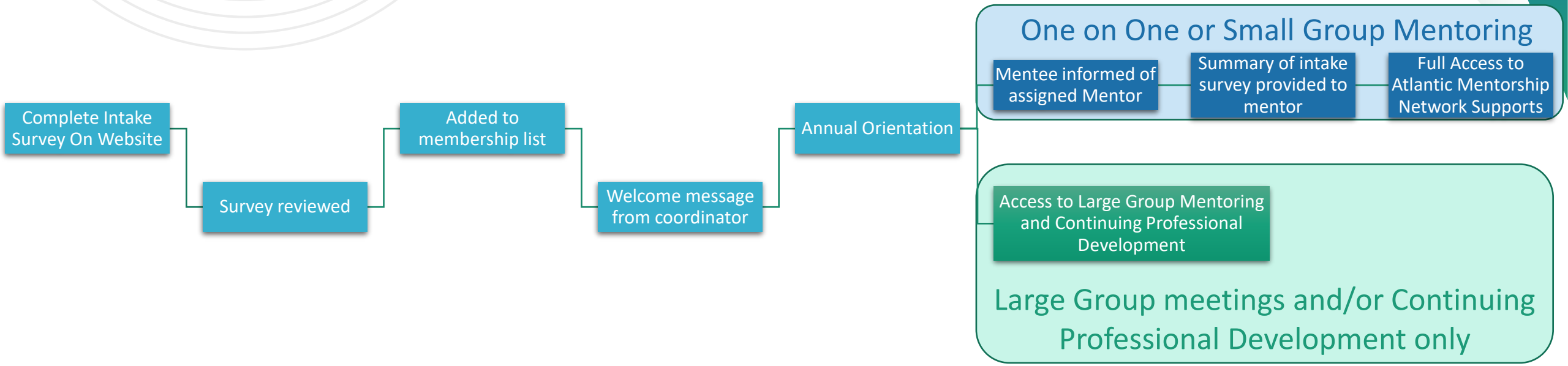
## $2.8 million over 4 years

## Provincial Budgets

# Typical Mentorship Network Organizational Structure



# Membership Process



# How has the AMN contributed to changes in health care in NS?

We will use one clinical area as an example…

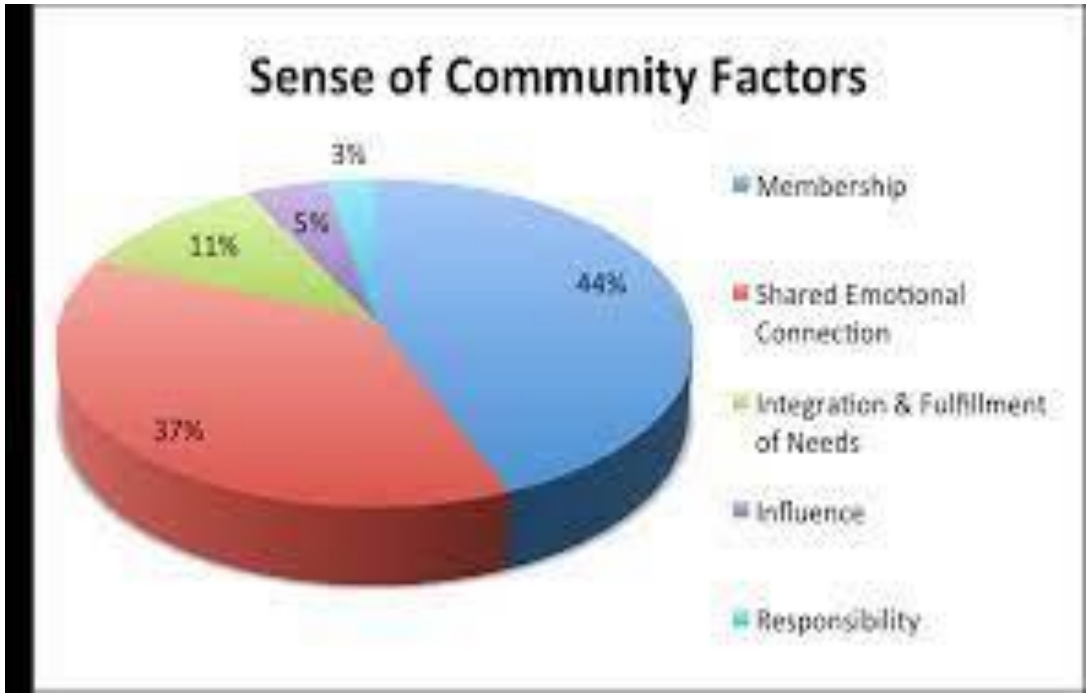
- Addiction Care in Nova Scotia

# How has the AMN contributed to changes in addiction care in NS?

1) **Increasing clinicians' capacity, interest and passion in providing care**

# How has the AMN contributed to changes in addiction care in NS?

## 2) Connecting individuals together to build a community of practice



# How has the AMN contributed to changes in addiction care in NS?

**3) People in these communities start working together in all sorts of ways beyond the core activities of the Network itself.**

# Examples of innovation in Addiction Care in NS (part I)

## Unlike 10 years ago, now there is…

- An addiction medicine telephone consultation service
- A nascent inpatient addiction medicine consultation service
- A clinic for patients with co-occurring Pain and Addictions
- A provincial withdrawal management model of care
- Elimination of rapid withdrawal as a treatment for opioid addiction

# Examples of innovation in Addiction Care in NS in the past 5 years (part II)

## Unlike 10 years ago, now there is…

- Elimination of the waitlist to access opioid agonist therapy due to expanded clinical capacity
- OAT/MH care/primary care/traditional healing delivered through a health centre in a Mi'kmaq community
- An online forum for OAT prescribers
- A mandatory core addiction rotation in every year of Dalhousie's psychiatry residency training program
- Consistent demand from medical students and residents to train with addiction medicine providers

# Examples of innovation in Addiction Care in NS (part III)

## Unlike 10 years ago, now there is…

- A managed alcohol program
- Widely available take-home naloxone
- A small group of clinicians who provided a safe supply of substances for unhoused people in isolation due to COVID-19, and in another in Sydney who sheltered together during hurricane Fiona
- Sustainable funding for CBO's that provide needle-exchange, safe using equipment and harm reduction peer support and education
- An overdose prevention site with another on the way

# Examples of innovation in Addiction Care in NS (part IV)

## Unlike 10 years ago, now there is…

- A gradual change in medical culture – questioning the wisdom of managing distress and suffering with prescribed psychoactive chemicals
- A consistent downward trend in the per capita rate of prescribed opioids
- A lower rate of opioid overdoses in 2020-2021 vs the previous 10 years

How are things in your professional world?

How are you doing?….really….how are you?

# How are things in your world?

The Discouraging Stuff (this list could go on forever)

Stigma, seemingly unsolvable problems which are powerful determinants of health

The way health systems seem at times to set marginalized people up for failure

Barriers to innovation – risk aversion, competing priorities of institutions, health authorities, governments, silos, too many new initiatives at once

Fragmentation, lack of standardization, lack of education amongst colleagues, lack of access to training, lack of communication across professional boundaries

Fatigue, burn out, PPSD (post-pandemic stress disorder), the crushing weight of administrative tasks – charting, forms, reports, mandatory courses, online resilience modules I am being forced to take by my "visionary" leaders

*The future is uncertain – "Who knows what might happen next?"*

# How are things in your world?

The Encouraging Stuff

The gratitude a patient expresses when they receive the message that their pain is real, or that their mental illness is not their fault, or that we see them as a person, not as “a junkie”.

That there is great healing power in merely listening to a patient

That patients and clinicians tend to flourish in environments where they feel heard, respected, understood and cared for (sometimes referred to as “loved”), especially when they frequently feel isolated, scared, uncertain, unsupported

*The future is uncertain – “Who knows what we might be capable of?”*

# The Final Question

# The Final Question

What are you capable of?

# Contact Us

To find out more information about what supports are available to you


- AMN Coordinator: Rose.Walls@nshealth.ca
- AMN Pain & Addiction Medical Director: Samuel.Hickcox@nshealth.ca
- AMN Pain & Addiction Clinical Advisor: jimandmoe@eastlink.ca

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