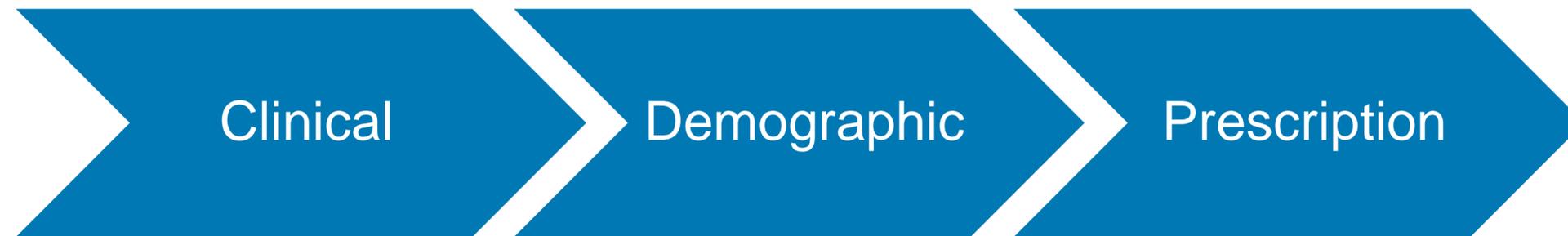


# Patient-Reported Pathways to Opioid Use Disorder

Bobbi Jo Yarborough, PsyD  
Investigator, Kaiser Permanente Center for Health Research

# How do opioid use disorders (OUD) develop?

- Epidemiological research is concerned with *who* is at risk for developing an opioid use disorder



- Less is known about *how* individuals develop problems with opioid use

## Methods & Eligibility

Mixed methods study of patients with opioid use disorders at Kaiser Permanente Northwest (KPNW) and Kaiser Permanente Northern California (KPNC)

Data derived from health system members' electronic health records (EHR), questionnaires, and semi-structured interviews

### Eligibility

≥ 18 years old

At least 2 opioid dependence diagnoses in EHR in previous 12 months

## Methods: Interview



Face-to-face interviews (~1 hour)



Open-ended questions about treatment experiences, knowledge, attitudes, preferences, costs and barriers to treatment



Participants were not explicitly asked to describe how they perceived the development of their opioid addiction or to provide a detailed history of their opioid use



Pathway descriptions arose in the context of discussing opioid treatment histories



No dose information was collected

## Methods: Analyses

Transcripts were coded using inductive, open coding techniques

Instances of the descriptive code “opioid problems – development and identity” were evaluated using modified grounded theory to identify emergent patterns

121 participants (43% of 283 interviewed) described  $\geq 1$  pathways

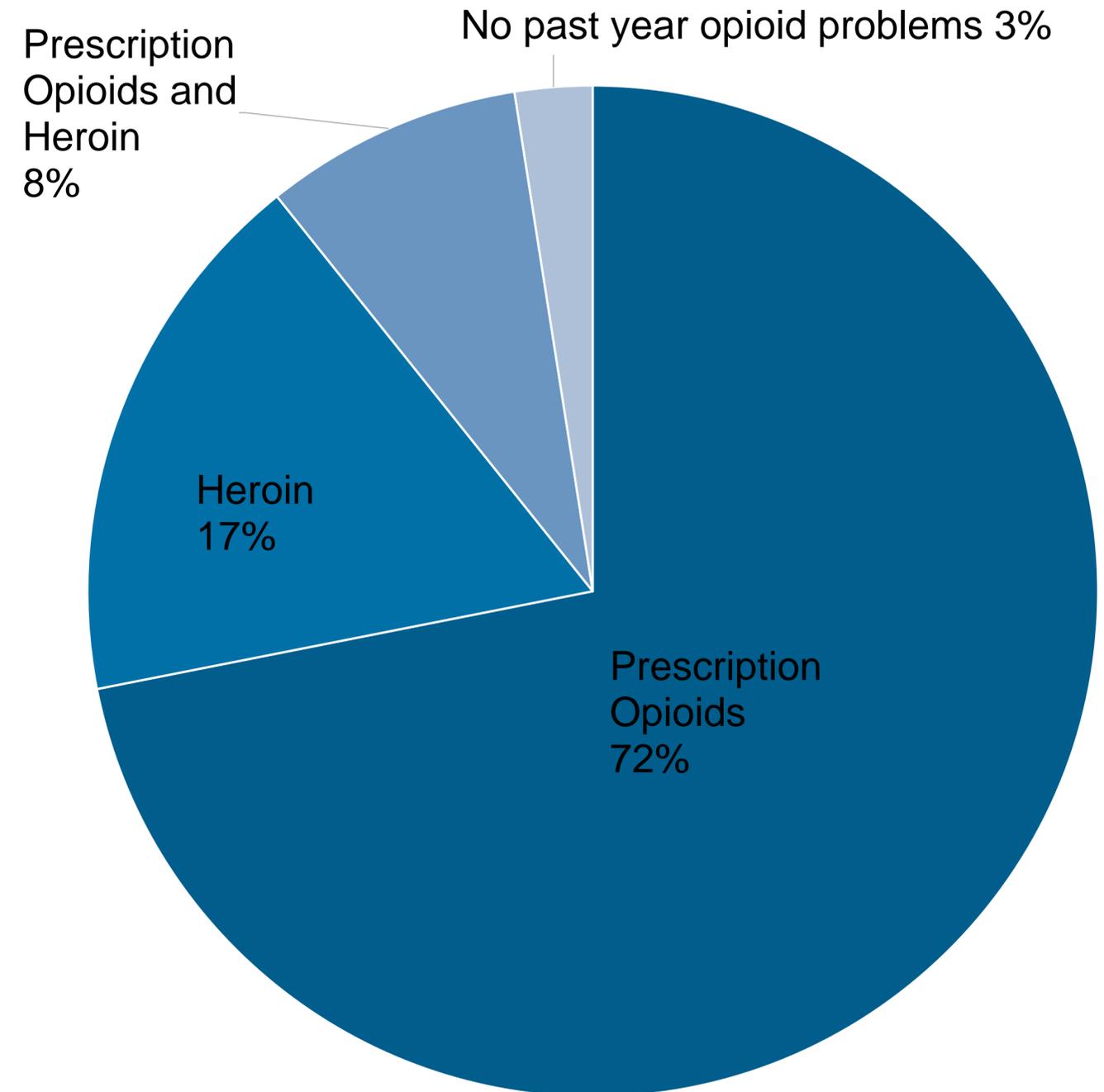
5 distinct pathways were identified

# Results

## Sample

- 55% female
- 8% Hispanic ethnicity
- 15% Non-white race
- Mean age: 39
- 75% currently undergoing SUD treatment
- 56% reported daily or constant pain
- 23% reported that pain interfered with work in past 4 weeks

### Reported Drug Problems in Past 12 Months





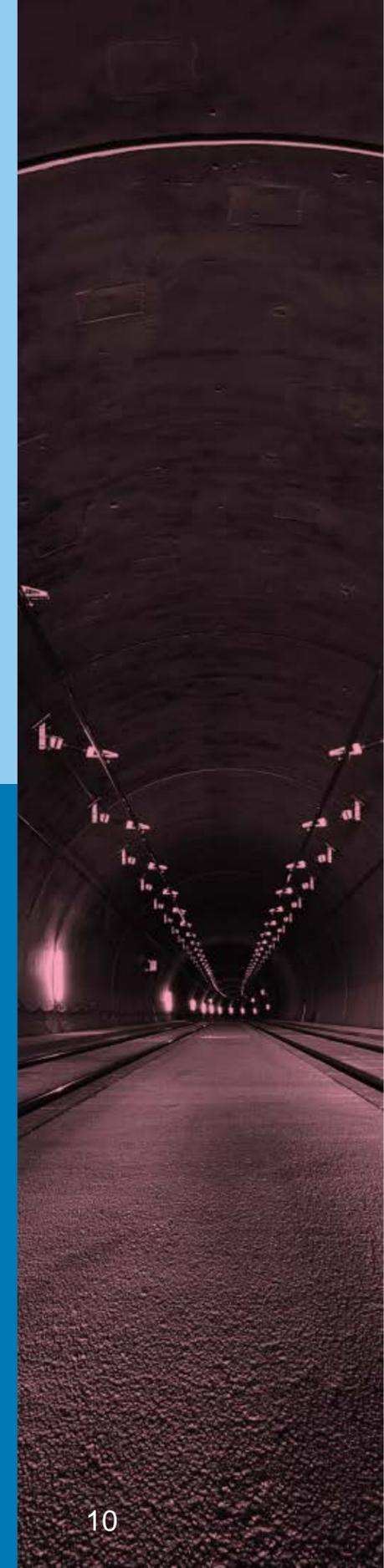
**Pathway 1:** Inadequately controlled chronic physical pain leads to misuse (n = 21, 17%)

*“After being on [oxycodone/acetaminophen] a year and a half, I felt like it wasn’t working anymore. [Doctor] said ‘No, no, don’t lose hope - OK, you take eight’...I was still taking that amount, but I couldn’t make that pain go away, so I began to take more, thinking I could cure myself, instead I land up here [treatment]...I would never wish that on anybody.”*



**Pathway 2:** Some individuals are vulnerable to opioid addiction even after brief opioid exposure (n = 14, 12%)

*“I was 18, I got my wisdom teeth pulled then I got a script for hydrocodone/acetaminophen and then just pretty much fell in love with it...my first reaction was to take more than...two, I’d take six, you know, that’s just my mentality at the time. So, I did and it felt great for a minute; from that point...something clicked inside of me and that’s how I wanted to feel all the time.”*



### **Pathway 3:** Prior substance use problems and introduction of prescribed opioids (n = 18, 15%)

*“I’ve gotten bad headaches... I had a doctor who would give me a shot of meperidine hydrochloride. Then... she switched me to a different doctor. That doctor said, “I don’t do injections in the office so here’s a prescription for 20 meperidine hydrochloride to take home and here’s a prescription for 100 hydrocodone/acetaminophen. **I wasn’t very honest about I’m an addict...I think I told her I did have a history, but I don’t know if she just didn’t understand addiction and I just didn’t bother hammering home, ‘No, you really shouldn’t give me those.’...I went ahead and took them. And, yeah, I was able to refill those WAY too often.**”*



**Pathway 4: Relief from emotional distress reinforces misuse or abuse (n = 26, 21%)**

*“I was taking care of my dad during the day, and my mom, and working the night shift as a nurse. And I hurt my back, and it seemed like at that point...my body just went through this chronic pain thing...**I found that the pain medication made me feel better; not just relieved the pain, made me feel better, like it treated the depression, or whatever. And so then I would take them and, of course, you have to take more and more and more, you know.**”*



**Pathway 5:** Recreational initiation or non-medically supervised use of opioids (n = 49, 40%)

*“My arm hurt really, really bad... I didn’t have any medical benefits at the time. A friend of mine said, try one of these. It might help you. It was an extended release oxycodone. It was a forty-milligram and about half an hour later, that’s really amazing. Then the next day, do you want another one? Sure. Then the next day there was two of them and the next day there were two of them and sometimes three...She had a prescription of them. She wasn’t trying to get me addicted. She was just trying to help me.”*

# Conclusions



**Multiple pathways to addiction**



**Inadequately controlled pain facilitates misuse**



**Some individuals are vulnerable after brief exposures**



**More attention/caution when prescribing opioids to patients with SUD histories**



**Relief from “emotional distress” is a powerful reinforcer**



**Recreational and non-medical use was most common pathway**