# The Life STORRIED Study:

## Life Stories for Opioid Risk Reduction in the Emergency Department

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# Project Overview

*Multi-site, longitudinal study comparing the effectiveness of*

***a) narrative-based intervention***

*and/or*

***b) probabilistic risk communication tools***

*in communicating the risks and benefits of opioid prescriptions for in-patient, acute pain conditions*

# What is a narrative and why is it important?

- **Narrative:** A coherent story with an identifiable beginning, middle, and end that provides information about the scene, characters, and conflict while raising unanswered questions or unresolved conflict and ultimately providing resolution.
- “We like to listen to stories, and it is through stories that we make sense of the world, that identity is shaped, and that we attempt to communicate what matters to us”


Zaharias, George. “What is narrative-based medicine? Narrative-based medicine 1.” *Canadian family physician Medecin de famille canadien* vol. 64,3 (2018): 176-180

# What is narrative-based medicine?

# Significance of narrative-based medicine

- Narrative communication can be an ***inexpensive, sustainable,*** and ***alternative*** method to promote engagement around health information
- Narrative communication can ***enhance*** other forms of risk communication
- Narratives, when combined with probabilistic communication, are recognized as an ***effective tool*** to promote health behavior change

# Background

- Emergency care providers are among the top 5 prescribers of opioid medication for patients under age 40 years[1]
- 42% of ED visits related to pain or pain management[2]

[1]*Volkow ND, McLellan T a, Cotto JH, Karithanom M, Weiss SRB. Characteristics of opioid prescriptions in JAMA. 2011; 305(13): 1299-1301.*

[2]*Cantill S V., Brown MD, Carlisle RJ, et al. Clinical policy: Critical issues in the prescribing of opioids for adult patients in the emergency department. Ann Emerg Med. 2012; 60: 499-525*

# Background (cont.)

- Kidney stone pain (KSP) affects 12% of the population worldwide and causes approximately 2 million outpatient visits per year in the United States[3]
- Back pain (BP) causes approximately 2.6 million outpatient visits per year[4]

[3] *Bensalah K, Tuncel A, Gupta A, Raman JD, Pearle MS, Lotan Y. Determinant of the quality of life for patients with kidney stones. J Urol. 2008; 179(June): 2238-2243*

[4] *Friedman BW, Chilstrom M, Bijur PE, Gallagher EJ. Diagnostic testing and treatment of low back pain in United States emergency departments: a national perspective. Spine (Phila PA 1976) 2010; 35;E1406-E1411*

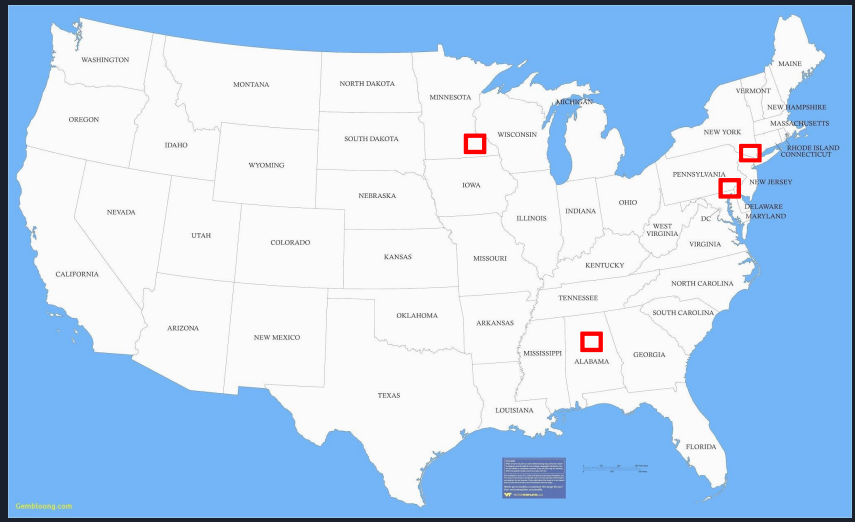
# Specific Aims of Study

Investigate whether patients who receive narrative-based intervention will…

A. Demonstrate greater awareness of the risks of opioid dependency
B. Select a treatment plan with fewer opioids (while achieving similar degrees of pain relief)
C. Enjoy greater concordance with provider
D. Engage in greater shared decision-making

# Study Design

- Multi-Site
  - University of Pennsylvania, Philadelphia, PA
  - Mayo Clinic, Rochester, MN
  - University of Alabama, Birmingham, AB
  - Northwell Health, New York City, NY
- Longitudinal
  - Baseline Interview
    - n=1300 enrolled participants
  - 3mo phone follow-up Interview
    - n=35 phone follow-up interviews




# Procedure

- A member of the research team will have each patient set up a profile on an iPad using Way to Health
- Patients complete series of informational surveys, including opioid risk tool
  - Patients randomized into one of three study arms
- Text-based follow-up at days 1-7, day 14, and 3 months.
  - Incentives provided using a reloadable bank gift card

# Subject Recruitment

- Patient presented to ED with kidney stone pain or musculoskeletal back pain
- Eligible participants admitted to the ED are identified via PENNCHART
    - Consecutive enrollment
- Patients are then approached by a Life STORRIED Research Assistant who then proceed to obtain consent

# Exclusion Criteria

- Basic Exclusion Criteria
  - Unable to grant consent, not between the ages of 18-70, non-English speaking
- Study-Specific Exclusion Criteria
  - Taking opioids for chronic pain or cancer treatments
  - Taking opioids within the past month
  - Current contraindications for NSAIDS or opioid medications
    - E.x allergies or chronic kidney disease (GFR< 60)

# Enrollment:

## ARM 1

### Standard Discharge Instructions

Participants in this ARM received instructions similar to instructions they would receive during usual care.

- Functioned as a control group
- Included standard sheet communicating post-discharge information about treatment options

## ARM 2

### Probabilistic Risk Tool

Participants in this ARM received a visual aid that communicated a patient's risk for opioid misuse

- Participants given an iPad which prompted them to take a short survey and receive a risk score
- Depicted in the form of a colorful thermometer

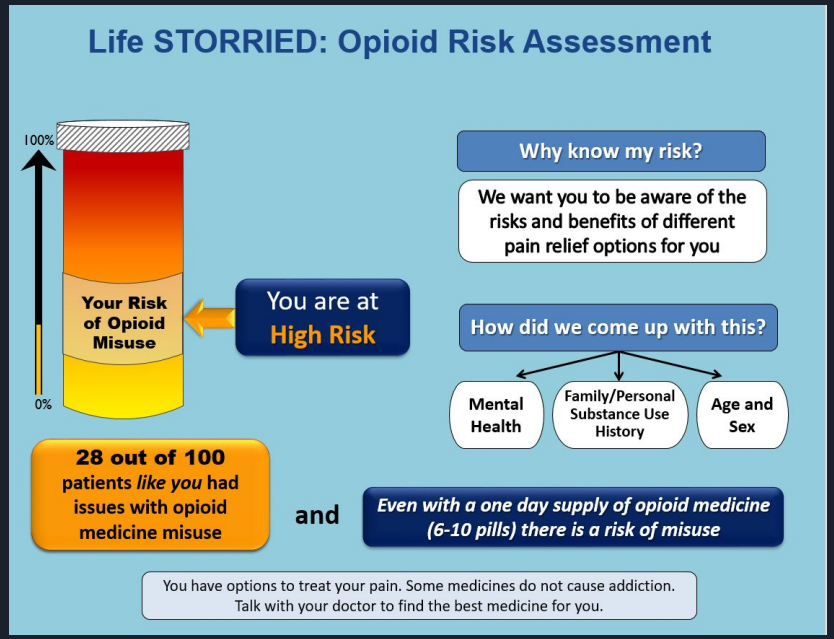
## ARM 3

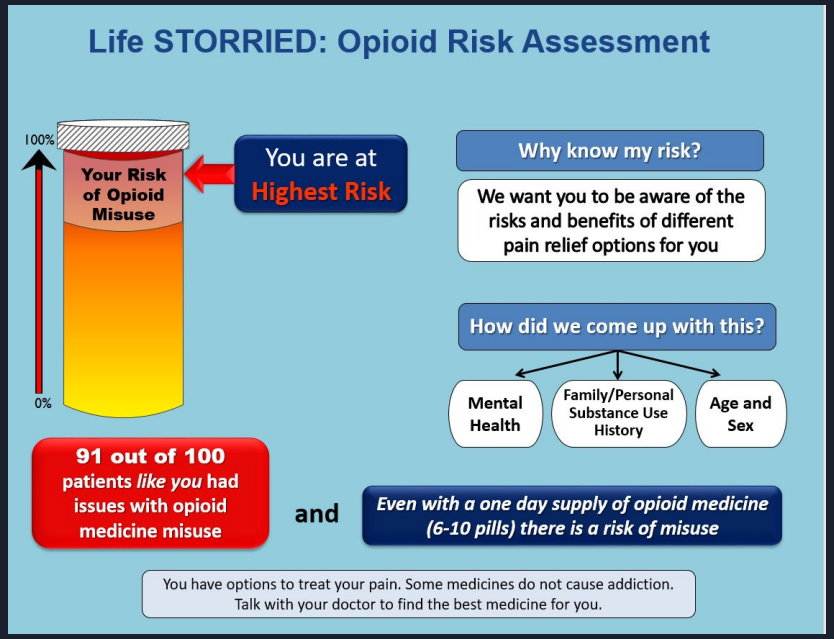
### Probabilistic Risk Tool + Narrative Videos

Participants in this ARM received both a visual aid communicating risk as well as watched narrative videos

- In addition to risk tool, participants are prompted to watch two or more narrative videos
- Participants given the option to choose the video that best appealed to them

# ARM 2: Probabilistic Risk Communication Tool



# ARM 3: Risk Tool + Narrative Videos

# Enhancing Patient-Provider Communication

One of the objectives of our study was to enhance....

a) Shared Decision-Making between Patient and Provider

and

b) Concordance/Patient satisfaction

# Limitations

- Nationwide and regional opioid policy changes very rapidly
- Public perception of opioids
  - “I’m not a pill popper”

# Next Steps

- Paper Writing
- Cost-effective dissemination of narrative-based interventions and probabilistic risk communication tools

# Overview of my Roles

- Developing a Codebook for Qualitative Research
- Conducting preliminary qualitative coding  using Microsoft Word/Nvivo
- Cleaning and formatting audio transcripts from interviews
- Shadowing overnight clinical rotations in the HUP Emergency Department
- Assisting with enrollment and subject recruitment in the Emergency Department

# Lessons Learned

# Acknowledgements

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# Questions?