# A comprehensive primary care / systems engineering partnership model aimed at mitigating the prescription opioid epidemic

Randall Brown, M.D., Ph.D.
Department of Family Medicine

Andrew Quanbeck, Ph.D.
Center for Health Enhancement Systems Studies / Department of Industrial & Systems Engineering

University of Wisconsin-Madison

Funding: National Institute on Drug Abuse R34 DA036720-01ª1

The Center for Health Enhancement Systems Studies
UNIVERSITY OF WISCONSIN-MADISON

# Thank You!

- National Institute on Drug Abuse
- UW Health Primary Care Clinics
- Advisory panel

  Jane Ballantyne, MD
  Paul Batalden, MD
  Roger Chou, MD
  Perry Fine, MD
  David Gustafson, PhD
  Jonas Lee, MD
  Dennis McCarty, PhD
  Beth Potter, MD
  John Frey, MD

- Project team: Bri Deyo, Aleksandra Zgierska, Bobbie Johnson, Esra Alagoz, Nora Jacobson Jim Robinson, Wen-Jan Tuan, Lynn Madden

UW Health
The Center for Health Enhancement Systems Studies
UNIVERSITY OF WISCONSIN–MADISON

# Disclosures

- No significant financial relationships

UW Health
The Center for Health Enhancement Systems Studies
UNIVERSITY OF WISCONSIN–MADISON

# Overview

- Background/motivation for study
- Aims
- Methods
- Anticipated outcomes & future work

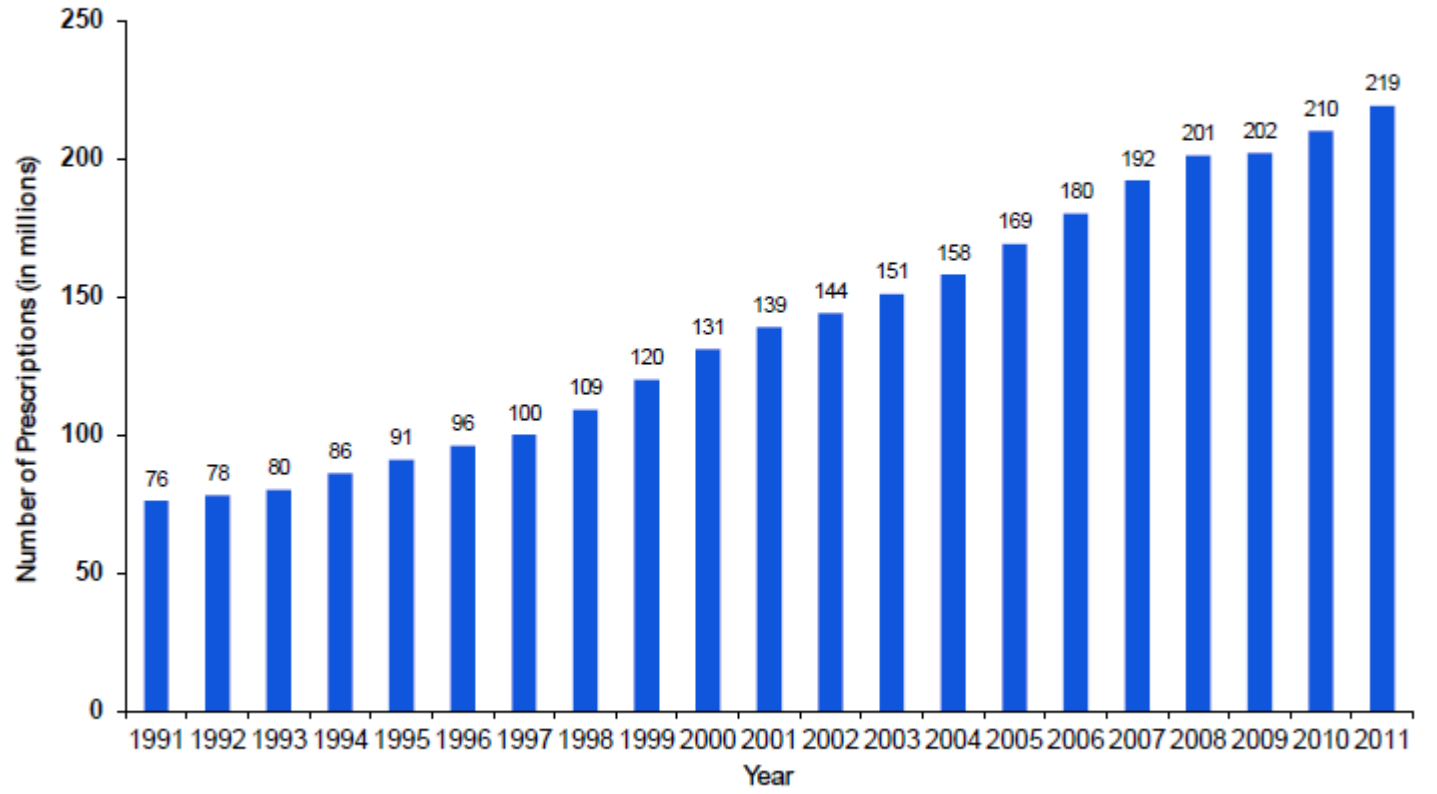
UW Health
The Center for Health Enhancement Systems Studies
UNIVERSITY OF WISCONSIN–MADISON

# President Obama Is Taking More Steps to Address the Prescription Drug Abuse and Heroin Epidemic

MARCH 29, 2016 AT 12:09 PM ET BY MELANIE GARUNAY

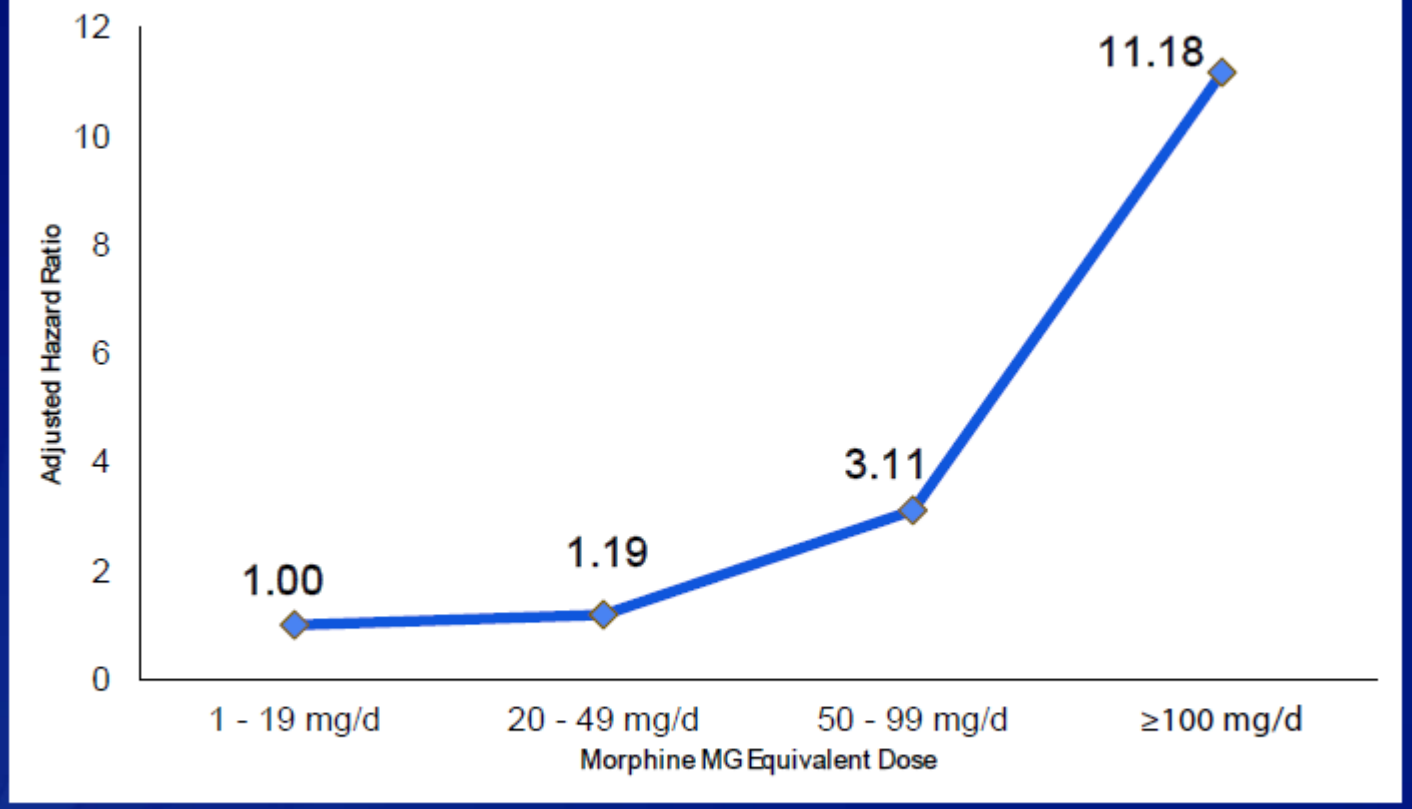
Summary: Today in Atlanta, President Obama will join individuals in recovery, family members, medical professionals, and law enforcement officials at the National Rx Summit.

# Opioid Prescriptions Dispensed by Retail Pharmacies—United States, 1991–2011




IMS Vector One. From "Prescription Drug Abuse: It's Not what the doctor ordered." Nora Volkow National Prescription Drug Abuse Summit, April 2012. Available at http://www.slideshare.net/OPUNITE/nora-volkow-final-edits.

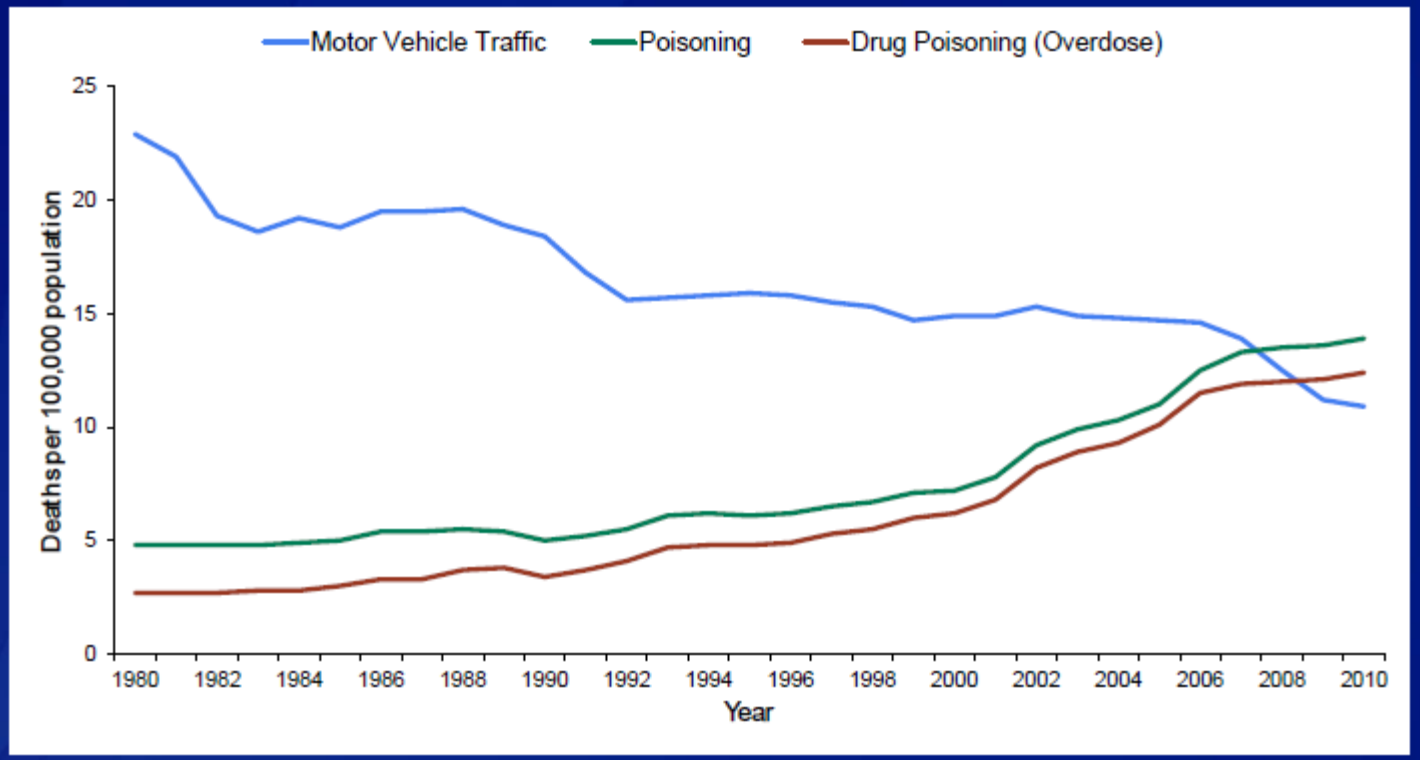
# High Opioid Dose and Overdose Risk




* Overdose defined as death, hospitalization, unconsciousness, or respiratory failure.

Dunn et al. Opioid prescriptions for chronic pain and overdose. *Ann Int Med* 2010;152:85-92.

# Motor Vehicle Traffic, Poisoning, and Drug Poisoning (Overdose) Death Rates
## United States, 1980–2010




NCHS Data Brief, December, 2011. Updated with 2009 and 2010 mortality data.

# Aims of the Project

- Goal is to improve patient safety by instituting a set of universal precautions for opioid prescribing in primary care
- R34 grant mechanism is specifically for testing the feasibility, acceptability, and preliminary effectiveness of novel implementation strategies in preparation for larger trials

# Implementation Strategy: Systems Consultation

- Proven in a large randomized trial of addiction treatment organizations (Gustafson et al., 2013) and used by ~ 4000 organizations nationwide
- Systems engineering tools:
  - Walkthrough exercises
  - Group decision making (nominal group technique)
  - Plan-Do-Study-Act change cycles
- What adaptations are needed to translate the NIATx approach to primary care?

Peer coaching: The key to cost-effective dissemination (Gustafson et al., 2013)

Source: “Personal Best” Atul Gawande, writing in the *New Yorker* October 3, 2011

# Coaching model

The usual approach to organizational change in healthcare: surveillance, scolding, etc.

Our approach: self determination theory

- Competence
- Relatedness
- **Autonomous motivation**

Perspective, empathy, and homophily

# First things first….


The Journal of Pain, Vol 10, No 2 (February), 2009: pp 113-13(
*Available online at www.sciencedirect.con*

## Opioid Treatment Guidelines

### Clinical Guidelines for the Use of Chronic Opioid Therapy in Chronic Noncancer Pain

Roger Chou,[1] Gilbert J. Fanciullo,[2] Perry G. Fine,[3] Jeremy A. Adler,[4] Jane C. Ballantyne,[5] Pamela Davies,[6] Marilee I. Donovan,[7] David A. Fishbain,[8] Kathy M. Foley,[9] Jeffrey Fudin,[10] Aaron M. Gilson,[11] Alexander Kelter,[12] Alexander Mauskop,[13] Patrick G. O'Connor,[14] Steven D. Passik,[15] Gavril W. Pasternak,[16] Russell K. Portenoy,[17] Ben A. Rich,[18] Richard G. Roberts,[19] Knox H. Todd,[20] and Christine Miaskowski,[21] FOR THE AMERICAN PAIN SOCIETY–AMERICAN ACADEMY OF PAIN MEDICINE OPIOIDS GUIDELINES PANEL

# Workgroup

Pain management specialists (3)
Primary care physicians (3)
Systems engineers (2)
Addiction and drug policy (1)

# Integrated Group Process (Gustafson et al., 1993)

1. Choose participants
2. Develop a straw model through telephone interviews
3. Convene the group and revise the straw model
4. Design case scenarios
5. Enumerate the model
6. Identify sources of conflict
7. Average the smaller differences
8. Report the group's judgment

# Patient archetypes

1. An existing patient of the clinic, not currently using opioids, with a new chronic pain complaint, who might be a candidate for opioid therapy

2. An existing patient of the clinic already on long-term opioid therapy

3. An “inherited” patient (i.e., a patient that is new to the clinic but is already on long-term opioid therapy)

# Mapping the recommendations onto an actionable, checklist-based implementation guide

- ☐ Review and discuss the Treatment Agreement and have the patient sign it.
- ☐ If checking the PDMP produced warnings, document details in the patient's chart and discuss with the patient.
- ☐ Screen the patient for opioid misuse risk using the DIRE assessment tool, if this has not been done. Positive results warrant further assessment.
- ☐ Screen the patient for the risk for substance use disorders, if this has not been done. Positive results warrant further assessment.
- ☐ Screen the patient for depression using a validated tool such as PHQ2 or PHQ9, if this has not been done. Positive results warrant further assessment.
- ☐ Check the patient's medication list for opioid/benzodiazepine co-prescribing. If present, discuss strategies for tapering benzodiazepine and/or opioid dose.
- ☐ Order a urine drug test and discuss a plan for future monitoring of opioid therapy using urine drug testing.
- ☐ Assess pain using the Brief Pain Inventory tool. If it is above 8 with doses near 100 MEDD, consider other therapeutic options (physical therapy, behavioral health consultation, acupuncture, etc.) or referral to a pain specialist.

# General approach

- Create a detailed flowchart of Rx refill process and monitor incoming requests
- Compare patient's chart to checklist and set up appointments with patients to take steps towards risk minimization
- Set a clinic-wide expectation to limit dose to 100 MEDD for current/future patients.
- Use skill, judgment, and advice in dealing with inherited and/or high-dose patients.

# Where we are now…

4 implementation clinics recruited (7 approached)

Initial site visits to be completed on May 24, 2016

6-month intervention period extends through end of 2016 (staggered)

Mixed-methods evaluation

# Coming next…

- Parsing the systems consultation implementation strategy into a set of discrete components
- National study using SMART design to promote systems-level improvement in the most efficient manner possible

# For more information, see:

Quanbeck, A., Brown, R. T., Zgierska, A., Johnson, R., Robinson, J. M., & Jacobson, N. (2016). Systems consultation: protocol for a novel implementation strategy designed to promote evidence-based practice in primary care. *Health Research Policy and Systems*, *14*(1), 1.

# Thanks!

Randall Brown, MD, PhD
rtbrown@wisc.edu

Andrew Quanbeck, PhD
andrew.quanbeck@chess.wisc.edu