Activating a data infrastructure to address the opioid epidemic in Camden, NJ

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Disclosures

- I have no financial or non financial conflicts of interest to disclose
• Camden Coalition Core Model
• Current data systems
• Identifying and responding to SUD prevalence
• New Jersey law and PMP data
• Improving workflows to address substance use issues
• Anticipated impact/outcomes of program
Clinical observation and data analysis guided the original work of the Camden Coalition of Healthcare Providers, and gave rise to the practice of “healthcare hotspotting.”

• The Coalition determined that the highest need patients had the most frequent emergency room visits and hospital admissions.

• Internal analysis showed that one percent of patients represented 30 percent of hospital costs in Camden.
The Camden Core Model is our primary form of intervention. There are key aspects of this model that facilitate its applicability across specialized patient populations.

- Triage
- Bedside engagement and care planning
- Home visits & medicine reconciliation
- Accompaniment to primary care and specialist visits within 7 days of hospital discharge
- Real-time feedback loops
- Graduation
Our care team utilizes the COACH model and our tenets of care to build authentic healing relationships, work with patients toward sustained behavior change, and track progress on patient goals.

**Our Tenets of Care**

- Motivational interviewing
- Trauma-informed care
- Authentic healing relationships
- Accompaniment
- Harm reduction
- Patient-centered
- Strength-based
We use our sixteen domains of care to help us engage individuals in bedside care planning.
Camden Coalition Core Data Systems for Healthcare Hotspotting

HIE
real-time, vendor-managed.

Internal performance & care tracking
user-customizable, vendor-hosted.

home-grown PostgreSQL database.
Research, evaluation, & quality improvement.

Camden ARISE
Integrated Longitudinal Outcomes Database
Drawing on lessons from the implementation of our 7-Day Pledge initiative we will build out infrastructure to redesign practice workflows to improve screening for addiction risk and address addiction.

• Issue to address: patients leaving the hospital had difficulty getting timely follow-up appointments. Primary care providers’ existing workflows were not structured to provide appointments within just a few days of discharge.

• We launched the clinical redesign program, the 7-Day Pledge, in 2014 to address barriers to timely primary care follow-up. This involved co-designing a new process that would ensure the availability of timely follow-up appointments.

• 13 practices in the city of Camden, NJ, including sole practitioners, federally qualified health centers, and health system-affiliated practices “pledged” to open appointment slots for patients recently discharged from hospital.

• Evaluation showed fewer 30-day and 90-day readmissions for patients connected to primary care within 7 days compared to similar patients (propensity score-matched) with a later primary care appointment or none.¹
According to the Centers for Disease Control (CDC), New Jersey had one of the highest increases in opioid overdose deaths in the country between January 2017 and January 2018. An average of eight New Jersey residents died from overdose each day in 2018, a nearly threefold increase since 2012.\(^2\)

CDC: opioid prescribing rates are substantially higher among Medicaid patients than privately insured patients. 40% of Medicaid enrollees with prescriptions for pain relievers had at least one indicator of potentially inappropriate use or prescribing.\(^3\)

50% Camden Core Model patients have active SUD; 21% using opioids at time of engagement. High frequency of chronic pain and analgesic prescriptions among our patients.\(^4\)

**Opioid epidemic has laid bare the challenges associated with guaranteeing a seamless continuum of care for patients with complex needs.**
Opioid overdose victims intercepted by Camden County police, 2015

- police arrest data
- police overdose data
- all-payer claims data
Patient trajectory across multiple systems

- Diagnosis Categories
  - primary diagnosis: 
    - addiction
    - mental health
    - accidents, fights, & social correlates

- Emergency visits
  - January 2010

- Housing Type
  - residential
  - shelter
  - "homeless"

- Police Encounter Types
  - public nuisance
  - theft-related

- Historial Timeline
  - 2011
    - inpatient stays
    - emergency visits
    - wounds & infection
    - other injuries
  - 2012
    - struck by a car
    - major depression & suicidality
    - diagnosed as homeless by hospital
    - assaulted
  - 2013
    - county jail
    - violence
    - heroin overdose
  - December 2014

Note: This is an abstract representation of a complex patient trajectory across multiple systems, including healthcare, mental health, homelessness, and criminal justice. The timeline shows various events and diagnoses, illustrating the interplay between different systems over time.
Value of PDMP data in facilitating proactive use of data to address substance use issues

- Real-time alerts and information-sharing have been shown to reduce workflow burdens on providers and increase their ability to proactively address substance use issues.\(^6\)
  - But potential to increase provider burnout.\(^7\)

Example of success:

- In 2017 Rhode Island piloted an integration of their PDMP with their CurrentCare system and Care Management Alerts and Dashboard, in which more than half of the state's population is enrolled.\(^8\)
  - Real-time alerts now inform clinicians about patient behavior patterns and have also helped providers to track substance abuse patients who are lost to follow-up.
  - The Rhode Island solution is not currently possible in New Jersey, but it is possible to improve workflows, both on our end during triage and on the provider side during consultations, as a roundabout way of alerting patient-facing staff to review opioid prescription data in the HIE and the NJPMP.
HIE and provider engagement workflows are not currently optimized to collect and share information related to opioid prescriptions, in particular for transitions of care from the hospital or ED, which represents a critical flaw in the system.

Primary care sites use a variety of electronic medical records (EMR) systems that are not integrated with the hospital EMRs or with each other. PCPs and patient navigators therefore use the HIE to access discharge information.

Opioid prescription information is captured in the discharge summary rather than as a new prescription alert, meaning that follow-up providers need to carefully scan the visit record to find it.

This information can also be found in the New Jersey Prescription Management Program (NJPMP) database, but providers do not always consult it, due to the weight of both workload and habit.

Follow-up providers are often inadequately equipped to effectively advise patients with an opioid prescription, lacking knowledge about guidelines and best practices for screening for addiction risks and preventing addiction.
Component #1: Using the HIE, Identify and disseminate targeted information about patients who have received an opioid prescription during an emergency department or inpatient visit

Component #2: Expand existing workflows to alert patient-facing staff to review data related to opioid prescriptions during transitions of care

Component #3: Facilitate training for care providers around guidelines and best practices for screening for addiction risks and preventing addiction
Anticipated impact and outcomes

• Changes in provider behaviors around tracking opioid prescriptions and addressing addiction risks among their patients.

• Patient-facing providers have increased access to prescription information, will consult such information in a regular, proactive manner, and will engage with at-risk patients to address risk factors before addiction can develop.

• Tracking progress:
  • Review transition of care documents and “click” data of relevant patient information sent to the HIE to verify completeness of captured data and which records have been consulted by which providers.
  
  • Integrate the analysis of these data into our standard provider engagement outreach and augment monitoring through provider surveys during and after participation in the project.
  
  • Collect provider experiences of having conversations with patients about addiction experiences and risks to find out what additional resources and supports they identify as necessary to strengthen the continuum of care for patients receiving opioid prescriptions.
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Thank you!

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