

## A Healthcare Facility responds to Opioids and Substance Use Disorder



- **Diversion Prevention, Detection and Response**
- **Quality Improvement**
- **Changing the Culture**

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## This presentation will cover

- The “Wake-up call”
- How we incorporated data analytics into our diversion detection and prevention program
- The constantly evolving process of diversion detection, prevention and response in healthcare
- Speaking up

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## A necessary part for all healthcare facilities

Controlled substance medications are used for legitimate medical purposes thousands of times daily at hospitals and healthcare facilities all across the country.

The options of not using controlled substances are "limited".

GIBBLETOONS

By Dan Gibson



Once we administer the anesthesia, you won't feel a thing....

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## A Wake-up Call to Action

### Drug thefts at U-M hospital: A nurse's death, a doctor's overdose and 16,000 missing pills

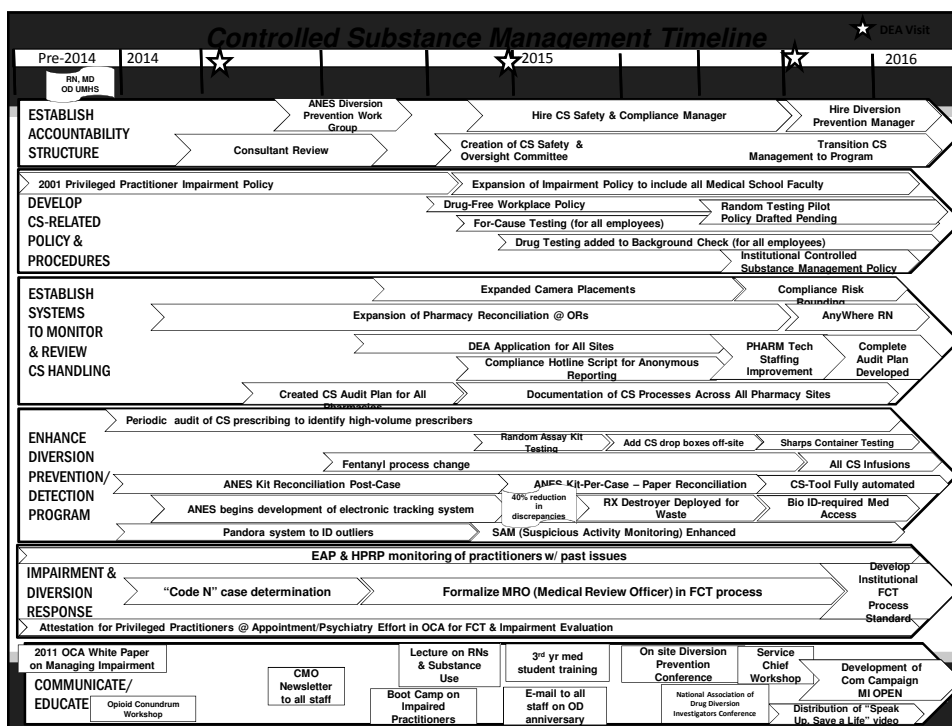
"On a single day in 2013 a nurse and doctor both overdosed on stolen pain medication in different areas of the sprawling University of Michigan Health System."



By John Counts | [johncounts@mlive.com](mailto:johncounts@mlive.com) The Ann Arbor News  
October 26, 2014

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## Suspicious Activity Monitoring

### Data Analytics

- A method of continuous real time review
- Does not exist in an easily obtainable form
- Can be performed hourly, daily, weekly, monthly, etc...
- May lead to identifying suspicious activities
- May be used to verify suspicious behavior by adding historical data that is linked to medication dispensing and administration
- Helps to identify quality improvement opportunities

DATA			
Index	Value	Value	Value
1	10	10	10
2	10	10	10
3	10	10	10
4	10	10	10
5	10	10	10
Total number		100	100
Number per index		20	20



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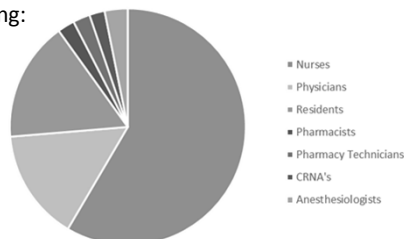
**M** MICHIGAN MEDICINE  
UNIVERSITY OF MICHIGAN

## Michigan Medicine Statistics

- Michigan Medicine experiences approximately 3 million patient visits per year
- Licensed as ~ 1,000 bed hospital
- Averaging 75,000 transactions / month from ADC (Automated Dispensing Cabinets)
- About 1,000 dispensing transactions per day from our 4 retail pharmacies
- Averaging 150 surgery cases per day
- Over 280 emergency department visits per day

Approximately 26,000 employees including:

- 5,500 Nurses
- 1,300 House officers (physicians)
- 1,400 Resident physicians
- 200 Pharmacists
- 200 Pharmacy technicians
- 180 CRNA's
- 270 Anesthesiologists
- 200+ Researchers



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## Data to Review

Direct access employees =~ 6,300

Indirect (physicians, Rad Techs, MA's, EVS...) =~ 5,000

Monthly Totals (approximates)

- 75,000 ADC transactions
- 100,000 eMAR Transactions
- 6,000 prescriptions  
(~ 30% of all scripts are CS)



The risk!!!

CDC indicates that ~ 12- 16% of healthcare workers may have a substances abuse issue sometime in their career.

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## The Data



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## Following up with Data findings

On the occasion that data findings indicate an unexplainable outlier or activity

Actions that follow include:

- A deeper dive into supporting data
- Meeting with impacted management
- Meeting and evaluation with cross function team
- Meeting and interview with the responsible employee, HR, representation

Outcomes range from

Acceptable Explanation Obtained – Assistance with a recovery program



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## Following up with Data findings

### Identifying improvement opportunities

- *I wasted 50 of fentanyl in the Omnicell along with a co-worker RN My co-worker forgot to push the "waste med now" button, he said afterward he didn't know that was his responsibility to do so. After I got the notice of this issue, my co-worker clearly stated that he did in fact witness me waste the medication.*
- *I helped the assigned RN to repositioning the pt. Afterward, we found a pill in pt's bed. RN looked up pill online, determined it was an Oxycodone, We notified charge RN, who then notified security and the Unit manager. Security picked up the pill*
- *The housekeeper was sweeping under the patients bed and found two pills. RN was at bedside and the housekeeper gave the meds to the RN. The meds were brought to pharmacy and identified as 50 mg tramadol and 0.5 mg Ativan. The patient has an order for both of these medications PRN. Security was notified and came to 8C to take the meds.*
- *I took out one ampule of fentanyl and one vial of versed, from the Omnicell, for first case of the day. There was a delay in getting the Pt to the procedure room. I put the drugs in the top drawer of our nurse cart -out of sight, during the procedure. We did not use these meds. I failed to return the drugs to the Omnicell. They were found later, that day.*

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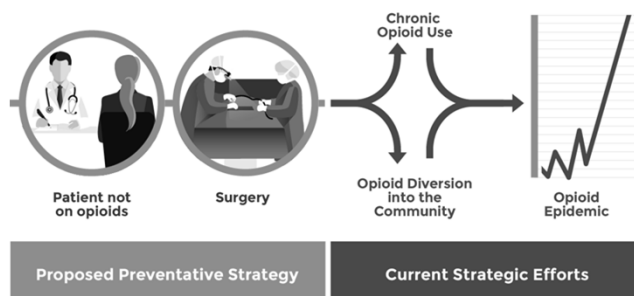


## How We Used Prescribing Data

University of Michigan OPEN (Opioid Prescribing Engagement Network)

[https://youtu.be/\\_mszv9CFBaM](https://youtu.be/_mszv9CFBaM)

### Preventing Chronic Opioid Use and Abuse Before it Starts



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## Opioid Related Projects and Research



**M OPIOID SOLUTIONS**  
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ABOUT US PROJECTS & RESEARCH CENTERS & INSTITUTES RESEARCHERS PUBLICATIONS NEWS & EVENTS RESOURCES

Opioid Solutions

The University of Michigan is a leader in addressing the opioid epidemic, which is the single deadliest drug epidemic in United States history, affecting people of all races and socioeconomic sectors across the nation.

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## Suspicious Activity Monitoring

There are 2 types of activity monitoring taking place

1. **Data Analytics** includes transactions from the ADC (automated dispensing machines), the patient medical records and anesthesia tracking system.
  - This monitoring is 'desk top' and looks at transactional data from the dispensing units along with administration data from medical records.
  - It helps to detect outlier transactions, high frequency transactions, wasting transactions and other transaction types.
2. **Behavioral monitoring** includes observations made by coworkers, supervisors, managers, patients and visitors.
  - These are observations made pertaining to the activities of people inside of the facility (patients, employees and visitors).
  - Also noted during Risk Rounds and Audits
  - Data analytics are used to support each investigation

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## Speaking up

### SPEAK UP - Save a life



Think a colleague may be **diverting medication** or struggling with a substance use disorder?

#### **SPEAK UP!**

If comfortable, address concerns with your colleague directly **and talk to your supervisor**. Confidentiality and privacy will be maintained.

#### **COMPLIANCE HOTLINE**

Confidential and anonymous option to report non-urgent concerns.  
1-866-990-0111  
<http://www.compliancehotline.umich.edu>

**SECURITY** (734) 936-7890 for urgent, immediate concerns

Patient Safety may be impacted and your intervention could help to save a life and a career

**OFFICE OF COUNSELING AND  
WORKPLACE RESILIENCE** (aka EAP)  
734-763-5409 Confidential counseling and consultation  
services for all employees.

**HEALTH PROFESSIONALS RECOVERY  
PROGRAM** 1-800-543-7384  
Confidential program designed to encourage health professionals to seek treatment before impairment harms a patient or damages a career.



Michigan medicine is proud to be a drug-free workplace and is committed to providing a safe and healthy environment for its employees, patients and visitors.

Michigan Medicine Corporate Compliance Officer  
734-435-4600 [Compliance@umich.edu](mailto:Compliance@umich.edu)  
<http://med.umich.edu/uc/compliance/index.htm>

Michigan Medicine has produced this video to promote open communications and understanding of healthcare providers that encountered this issue.

[Speak-up - Save a Life](#)

<https://vimeo.com/135620252>

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## Conclusions

### **Collaborative Investigations**

- Multiple types of investigations and observations are needed to detect controlled substance diversion and abuse in healthcare. Data analytics and behavioral observations lead the list and are codependent and co-supportive.
- A team of cross functional departments including Pharmacy, Nursing, Security, Safety and Compliance all contribute to the data analysis and outcome recommendations of the investigations
- Discoveries from these investigations may lead to opportunities that improve our systems and upgrade our skill sets while also helping to detecting diversion

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## Questions



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