The Michigan Health Information Technology Commission is an advisory Commission to the Michigan Department of Health and Human Services and is subject to the Michigan open meetings act, 1976 PA 267, MCL 15.261 to 15.275
May 2018 Meeting

• Welcome and Introductions

• Commissioner Updates

• Commission Business
  • Review of February 2018 Minutes

• HIT/HIE Update
  • Overview of the HIT Commission Dashboard
  • Update on 2017 Resolutions
May 2018 HIT Commission Update

Data sharing legal agreements executed to date:

- **132 total** Trusted Data Sharing Organizations
- **493 total** Use Case Agreements/Exhibits

- The Physician Alliance has fully executed the Simple Data Sharing Organization Agreement (SDSOA), Master Use Case Agreement (MUCA)
- Michigan Primary Care Association has fully executed the SDSOA, MUCA, Health Directory (HD) Use Case Exhibit (UCE), Quality Measure Information (QMI) UCE
- North Dakota Information Technology Department (NDITD) has fully executed the Cross Jurisdictional Data Sharing Agreement (CJDSOA)

State Lab Result Senders in full production sending to MiHIN:

- **84** State Lab Result Senders in full production sending to MiHIN:
  - 86,069,790 labs sent to MiHIN total
  - 182,143 labs routed outbound from MiHIN since 3/27/2018 (first pilot go-live)

Organizations in production or scheduled in production for April for the QMI UC:

- **37** organizations in production or scheduled in production for April for the QMI UC
  - **39** organizations sending all payer supplemental files under QMI

Currently have 10 HIEs, 10 Health Systems, 8 Pharmacies participating in Request Immunization History and Forecast

- **128** Admission Discharge Transfer receivers in production
May 2018 HIT Commission Update

QO & VQO Data Sharing

- More than **1.97 billion** messages received since production started May, 2012
  - Averaging **17 MLN** messages/week
  - **13.4 MLN** + ADT messages/week; **3.25 MLN** + public health messages/week
- Total 953 ADT senders, 128 receivers to date
- Sent **506,229,864** ADTs outbound as of 5/11/2018
- Messages received from use cases in production:
  - **86,069,790** Lab results sent to MiHIN as of 2/19/2018
  - **16,407,684** Immunization History/Forecast queries to MCIR
  - **14,422,538** Medication Reconciliations at Discharge received from hospitals
  - **66,107** Care Plan/Integrated Care Bridge Records sent from ACOs to PIHPs
- **28.8 MLN** patient-provider relationships in Active Care Relationship Service (ACRS)
- **10.6 MLN** unique patients in ACRS
- **137,990** unique providers in statewide Health Directory
  - **40,973** total organizations
  - **403,768** unique affiliations between providers and entities in HD

MiHIN Shared Services Utilization

- **Common Key Service** currently has **6 senders and 3 receivers**
- **236** Skilled Nursing Facilities (SNFs) sending ADTs – 52% of SNFs in Michigan
- **64** Home Health Agencies (HHAs) sending ADTs
### Participation Year (PY) Goals
#### May 2018 Dashboard

#### Cumulative Incentives for EHR Incentive Program: 2011 to Present

<table>
<thead>
<tr>
<th>Eligible Professionals (EPs)</th>
<th>Reporting Status</th>
<th>Prior # of Incentives Paid (March)</th>
<th>Current # of Incentives Paid (April)</th>
<th>PY Goal: Number of Incentive Payments</th>
<th>PY Medicaid Incentive Funding Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIU 2015</td>
<td>1021</td>
<td>1021</td>
<td></td>
<td>500</td>
<td>$21,568,756</td>
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<tr>
<td>AIU 2016</td>
<td>1249</td>
<td>1249</td>
<td></td>
<td>300</td>
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<tr>
<td>MU 2015</td>
<td>2202</td>
<td>2202</td>
<td></td>
<td>1702</td>
<td>$20,193,204</td>
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<tr>
<td>MU 2016</td>
<td>2472</td>
<td>2477</td>
<td></td>
<td>2480</td>
<td>$22,661,046</td>
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<tr>
<td>MU 2017</td>
<td>442</td>
<td>675</td>
<td></td>
<td>3500</td>
<td>$5,658,176</td>
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<tr>
<td>Eligible Hospitals (EHs)</td>
<td>AIU 2015</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>$184,905</td>
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<tr>
<td></td>
<td>MU 2015</td>
<td>26</td>
<td>26</td>
<td>28</td>
<td>$5,222,687</td>
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<tr>
<td></td>
<td>MU 2016</td>
<td>11</td>
<td>11</td>
<td>22</td>
<td>$2,038,950</td>
</tr>
</tbody>
</table>

#### Key:
- **AIU**: Adopt, Implement or Upgrade
- **MU**: Meaningful Use

#### Total Number of EPs & EHs Paid

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Number of EPs &amp; EHs Paid</th>
<th>Total Federal Medicaid Incentive Funding Expended</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIU</td>
<td>7347</td>
<td>$232,810,822</td>
</tr>
<tr>
<td>MU</td>
<td>8722</td>
<td>$158,409,238</td>
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</tbody>
</table>
Michigan Medicaid MU Program

Supporting providers in Michigan with high volumes of Medicaid patients in achieving Meaningful Use.

Program Goals

- Assist 600 Specialists in their first year of Meaningful Use
- Assist 2350 Providers in any year of Meaningful Use

Ongoing Program Metrics

- 3785 Sign-ups for MU Support representing 2765 unique providers
- 1914 Total Meaningful Use Attestations to date
- Meaningful use attestations for program year 2017 occurred through May 1, 2018.

Other program highlights:

M-CEITA, MiHIN and the State of MI continue working together to facilitate electronic reporting of Clinical Quality Measures through the Clinical Quality Measure Reporting and Repository Service(CQMRR) for providers beyond their first year of MU. Early adopters have been working with MCEITA to submit electronically. To date, various eCQM file specifications used by EHR Vendors have prevented any successful submissions to the State of MI’s eMIPP attestation system. eMIPP is only accepting efiles generated using 2017 specs but CMS recently authorized the use of specs from years prior to 2017. Updates to eMIPP to relax these specs probably won’t happen until June. Electronic submission of CQM data will be mandated for program year 2018. Sandbox environments are being pursued to enable file testing before the formal 2018 attestation period begins.

Project Contact

Project Lead: Judy Varela judith.varela@altarum.org

Funder: CMS funding administered by the Michigan Department of Health & Human Services (MDHHS)
Updates:

**Future Release**
- Members will be able to view and download immunization records from the Michigan Care Improvement Registry (MCIR)
- MCIR will also provide information on recommended immunization schedule

**Outreach Activities**
- DHHS is promoting myHealthPortal to community partners who are assisting individuals with the miBridges application process.
Connecting Michigan for Health

Register for the Connecting Michigan for Health Conference today!
The annual conference is celebrating its 10th year of bringing together change makers in healthcare to discuss new measures in patient information and health technology.

Engagement Fact

Medicaid consumers who are in HMP are slightly more likely to own a smartphone than those who are not in HMP.

Consumer Engagement Interest Group

The next CEIG call will be on Wednesday, June 13 at 2:00p. If you would like to be added to the listserv for this and future calls, please email Taylor Flynn at tflynn@mphi.org.
Resolved: The Michigan Health Information Technology Commission endorses the proposed updates to the standard consent form that was established under Public Act 129 of 2014. The commission also encourages MDHHS to analyze the tools that the department has at its disposal (including but not limited to CareConnect360) to enhance the sharing of physical health and behavioral health information.
Resolved: The HIT Commission recommends that the department develop a strategy for aligning different quality reporting and improvement efforts across the state. This strategy should be coordinated with the ongoing efforts of the Physician-Payer Quality Collaborative but should also encompass other initiatives across the state. The HIT Commission also encourages the department to include a representative from the commission as part of ongoing discussions about this strategy. Finally, the HIT Commission requests that the department provide an update on the aforementioned strategy at the first meeting in 2018.
Resolved: The HIT Commission expresses its support for the statewide efforts to develop a standard framework for care coordination as summarized in the "Building Michigan’s Care Coordination Infrastructure" report. The HIT Commission also expresses its support for the definition of "care coordination" from the report and encourages the department to review and consider this definition. Finally, the HIT Commission requests that the department provide an update to the HIT Commission at the first meeting in 2018 on whether the definition could be adopted as a statewide standard. The department should address the following issues as part of the update:

- How does the definition from the report align with definitions for care coordination from other sources?
- Which policies and programs would be impacted by the adoption of a standard definition?
- What is the regulatory authority under which the department could adopt a standard definition?
MDHHS Response to the Opioid Crisis

Jared Welehdosky

Putting people first, with the goal of helping all Michiganders lead healthier and more productive lives, no matter their stage in life.
Michigan Data Summary

OPIOID ADDICTION IS A GROWING PROBLEM.

In Michigan alone, an average of five people die from opioid overdose every day. Help us change the numbers and stop this deadly epidemic.

<table>
<thead>
<tr>
<th>All Drug Deaths</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of overdose deaths in Michigan involving any drug.</td>
<td>1,359</td>
<td>2,356</td>
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</table>

<table>
<thead>
<tr>
<th>All Opioid Deaths</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deaths that involved at least one type of opioid (including prescription drugs, heroin, fentanyl or any other opioid), or one or more opioids combined with other drugs.</td>
<td>622</td>
<td>1,699</td>
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</table>

<table>
<thead>
<tr>
<th>Opioid Prescriptions</th>
<th>2011</th>
<th>2016</th>
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<tbody>
<tr>
<td>Total number of opioid prescriptions written by any licensed prescriber in Michigan.*</td>
<td>10,441,714</td>
<td>11,028,495</td>
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</table>

<table>
<thead>
<tr>
<th>NAS Cases</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal abstinence syndrome (NAS) is a group of conditions associated with drug withdrawal in newborns after being exposed in utero.</td>
<td>630</td>
<td>927*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>People in SUD Treatment for Opioids or Heroin</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of people receiving publicly funded drug treatment services in Michigan.</td>
<td>22,234</td>
<td>32,473</td>
</tr>
</tbody>
</table>

*2016 Data.
MDHHS Public Health Approach to the Opioid Crisis

1° PREVENTION:
- Promote awareness
- Reduce supply & demand
- Improve IT analytics & surveillance

2° EARLY INTERVENTION:
- Identify co-occurring conditions
- Identify risk of addiction & overdose
- Monitor & adjust dosing
- Informed consent & treatment contracts
- Care coordination, collaboration, and continuity
- Screening, brief intervention, referral to treatment

3° TREATMENT:
- Increase treatment services
- Increase emergency services
- Rescue with Naloxone
- Medication-assisted treatment
- Coping skills
- Reduce opioid pill counts
- Multimedia campaign
- Take back programs
- Improve health data sharing

Recovery
Medicaid & Healthy Michigan

• Medicaid funded the delivery of $41 million in substance use disorder services for 31,101 beneficiaries in fiscal year 2016

• Healthy Michigan funded the delivery of $53 million in substance use disorder services for 28,850 beneficiaries in fiscal year 2016

• Around half of these expenses are opioid related
Services Funded by Medicaid

Services funded include:

- Medication Assisted Treatment
- Withdrawal Management
- Outpatient Services
- Residential Services
- Case Management
michigan.gov/stopoverdoses

• Statewide public awareness campaign launched in 2017

• This campaign will run through 2019

• Campaign directs to michigan.gov/stopoverdoses

• Over 100,000 page views to this website
Michigan has taken action to prevent prescription drug and opioid abuse deaths and increase access to treatment for people addicted to drugs. Here you’ll find helpful information if you or someone you know may have a substance use disorder and what you can do to help end this deadly epidemic.

**Treatment Resources**

If you or a loved one is in need of opioid addiction treatment, you can find resources available for your county by clicking here.

Additional Treatment Resources.

**Michigan’s Good Samaritan Law**

In order to prioritize saving lives, Michigan passed a Good Samaritan law in 2016.

Michigan’s Good Samaritan law prevents drug possession charges against those that seek medical assistance for an overdose in certain circumstances. This law makes saving lives the priority during a drug overdose, not criminal prosecutions of illegal drug users.

**Michigan's Good Samaritan Law**

**Medication-Assisted Treatment (MAT)**

For those that are addicted to opioids, alcohol, or tobacco, Medication Assisted Treatment (MAT) may be necessary, along with counseling. Find out more information.

**Medication-Assisted Treatment (MAT)**

**Naloxone**

In the event of an opioid overdose, there is a drug that can be used that can reverse the effects of the opioid. Find out what Naloxone is and how it’s used.

**Proper Disposal**

Find out why and how you can dispose of opioids and other prescription medicines here.

**Treatment Services Locator**

Use the Behavioral Health Treatment Services Locator, a confidential and anonymous source of information for persons seeking treatment for substance abuse/addiction and/or mental health problems.
Implementation of Legislation

• Naloxone Standing Order

• School Curriculum

• Opioid Consent Form
Q1 2018 Naloxone Standing Order Report
(January 1, 2018 – March 31, 2018)

Number of pharmacies with controlled substance license in Michigan: 2,840

Number of pharmacies in Michigan registered for standing order: 1,546
(54.4% of pharmacies with controlled substance license in Michigan)

Number of pharmacies in Michigan that did not report q1 Naloxone orders: (261)

Number of pharmacies in Michigan that reported q1 Naloxone orders: 1,285

Total number of naloxone orders filled under Dr. Eden Wells’ standing order: 468
Total number of naloxone orders filled under any other physician: 994
Percentage of total naloxone orders: 32%

Total number of naloxone orders dispensed during Q1 2018 by registered MI pharmacies: 1,462
Pharmacies with Naloxone Standing Order
Issued May 25, 2017

Map: Pharmacies Approved to Dispense Naloxone

Standing Orders under Dr. Eden Wells (RED DOTS)
Standing Orders not under Dr. Eden Wells (BLUE DOTS)
Opioid STR Grant

• The MDHHS was awarded a 2-year State Targeted Response to the Opioid Crisis (STR) Grant from SAMHSA in April 2017 for $16,372,680 per year

• This grant can be used for interventions related to:
  o Prevention
  o Treatment
  o Recovery
Opioid STR Grant Prevention

STR grant will allow Michigan to promote prevention activities as follows:

• Support for improvements to Michigan’s Prescription Drug Monitoring Program (MAPS)

• Statewide awareness campaign

• Enhancing opioid prescribing practices for common surgical procedures
  • MI Open II – Training for the medical and dental practitioners
Opioid STR Grant Treatment

Funding from the STR grant will increase access to treatment services by:

• Expanding the availability and use of Medication Assisted Treatment, including Michigan Opioid Collaborative

• Providing a new model for prisoner re-entry population with co-occurring Opioid Use and Mental Health Disorders

• Increasing tribal interventions

• Naloxone for Michigan State Police
Opioid Health Home

• Health Homes provide better care management and care coordination with multiple chronic conditions

• Eligible for 90/10 federal funding

• Pilot will be in Northern Lower Michigan

• Eligible Medicaid beneficiaries will have a diagnosis of:
  o Opioid Use Disorder
  o Another Chronic Condition
Questions

Jared Welehodsky
welehodskyj@michigan.gov
Opioid Data Analytics: Supporting the Strategy

Presentation to the HIT Commission
May 22, 2018

Dave Schneider, Behavioral Health Specialist
Bureau of Medicaid Care Management & Quality Assurance
Medical Services Administration
Michigan Department of Health and Human Services
The Medicaid Innovation Accelerator Program (IAP) is a collaborative between the Center for Medicaid and CHIP Services (CMCS) and the Center for Medicare and Medicaid Innovation (CMMI) designed to build state capacity and support ongoing innovation in Medicaid. The Medicaid IAP provides targeted support to states’ ongoing delivery system reform efforts across four priority program areas:

1. Reducing substance use disorders,
2. Improving care for Medicaid beneficiaries with complex care needs and high costs,
3. Promoting community integration through long-term services and supports, and
4. Supporting physical/mental health integration.
Opioid Data Analytics Cohort (April-Sept. 2018)

• IAP offered this opportunity for up to 12 states that are in the initial stages of examining their SUD data. There are three inter-related areas of focus for this cohort, which run sequentially. They are:
  – Opioid Use Disorder (OUD),
  – Medication Assisted Treatment (MAT), and/or
  – Neo-natal Abstinence Syndrome (NAS) and OUD care for pregnant women in the Medicaid program.

• States could choose to participate in any or all of these three areas.
The Opioid Data Analytics IAP

• Opioid Use Disorder (April – May)
  Focus on sizing and stratifying the magnitude of the opioid epidemic within the Medicaid population. States receive a data template, diagnosis and procedure codes for identifying OUD in Medicaid claims, and other technical assistance.

• Medication Assisted Treatment (June – July)
  Focus on assessing the availability and distribution of MAT treatment within the state’s Medicaid program. States will receive value sets to identify MAT utilization in Medicaid claims, table shells, a list of buprenorphine-waivered practitioners in the state and other technical assistance.

• NAS and OUD Care For Pregnant Women (August – September)
  Focus on assessing the size and characteristics of NAS and opioid related maternity care in the state’s Medicaid program. States will receive tables shells and value sets to identify NAS care to infants and OUD maternity care to women. The aim is to help states understand where treatment occurs, what type of treatment, and the cost.
Michigan’s Expression of Interest

• The Expression of Interest (application) required State Medicaid Director acknowledgement that state is seeking support and has a team that can/will have sufficient time and resources. Also included a description of the state’s planned goals and activities for this.

• Michigan’s team includes representation from:
  – Medical Services Administration, including Office of Medical Affairs, Analytics and Long Term Care Financing
  – Policy and Strategic Initiatives
  – Population Health Management, including Perinatal and Infant Health, Maternal Child Health Epidemiology
  – Behavioral Health and Developmental Disabilities, OROSC
  – Michigan State University, Institute for Health Policy
Michigan’s Expression of Interest

Description of Michigan’s Planned Goals and Activities

- The Michigan Department of Health and Human Services (MDHHS) has developed a multi-pronged strategy to address the growing opioid crisis. Facets of this strategy are at varying stages of implementation. Michigan is seeking to augment this strategy with increased opioid related data analytics capacity and tools. In a time when demands on state budgets are increasing at a greater pace than financial resources, it is imperative that efforts be directed for the most significant impact. Data analytics is a key component in maximizing the effectiveness of Michigan’s Opioid Strategy.
Michigan’s Expression of Interest

• Michigan’s Opioid Strategy is structured around Prevention, Early Intervention, and Treatment. The specific activities include, among others, strengthening the Michigan Automated Prescription System, developing connections to electronic health records; using data to improve prevention, increase awareness; and reduce supply and demand through partnerships with education, use of legislation and program monitoring. Early Intervention efforts include: increased and improved screening; improving outcomes for pregnant women and their infants; and improved follow-up post ED visits. Within the treatment system, efforts will address: increased availability and data on Naloxone; education for first responders; and increased access to MAT.
Michigan’s Expression of Interest

• Through participation in the Medicaid Innovation Accelerator Program Opioid Data Analytics Cohort, Michigan will enhance its ability to use existing data to focus and refine its efforts. Key objectives include:
  – Using analytics to identify key linkage opportunities that may be missed, thereby improving access to needed prevention, early intervention or treatment;
  – Increasing knowledge and understanding of the size, location, and demography of the populations most in need of the interventions planned;
  – Increase treatment access through data driven decisions on service expansion; and
  – Better evaluate the results of these efforts through solid data analytics.
So What Have We Done?

- Opioid Use Disorder Cohort
- Four Tables:
  - Table 1. Total Medicaid Beneficiaries Ages 12 and Over with Opioid Use Disorders
  - Table 2. Total Health Care Expenditures for Medicaid /CHIP Beneficiaries Ages 12 and Over With and Without OUD
  - Table 3. Health Care Expenditures by Type for Medicaid Beneficiaries Ages 12 and Over with OUD
  - Table 4: Top 100 Medicaid Beneficiaries Ages 12 and Over with OUD by Expenditure
- FY 17 Data
# Table 1

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total Beneficiaries</th>
<th>Beneficiaries without OUD</th>
<th>Beneficiaries with OUD</th>
<th>Rate of OUD per 1000/Beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category</strong></td>
<td><strong>Sub Category</strong></td>
<td><strong>Total number of beneficiaries</strong></td>
<td><strong>Number without OUD</strong></td>
<td><strong>% without OUD</strong></td>
</tr>
<tr>
<td>Total</td>
<td>Total Ages 12 and over</td>
<td>1,814,271</td>
<td>1,762,997</td>
<td>97.17%</td>
</tr>
<tr>
<td>Age Group</td>
<td>Children (12--17)</td>
<td>361,784</td>
<td>361,564</td>
<td>99.94%</td>
</tr>
<tr>
<td>Age Group</td>
<td>Adults (18--45)</td>
<td>1,099,875</td>
<td>1,064,045</td>
<td>96.74%</td>
</tr>
<tr>
<td>Age Group</td>
<td>Older adults (46--64)</td>
<td>411,684</td>
<td>396,157</td>
<td>96.23%</td>
</tr>
<tr>
<td>Age Group</td>
<td>Elderly adults (65+)</td>
<td>12,477</td>
<td>12,472</td>
<td>99.96%</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>819,201</td>
<td>793,775</td>
<td>96.90%</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>995,070</td>
<td>969,222</td>
<td>97.40%</td>
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<tr>
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<td></td>
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<tr>
<td>Medicaid Product</td>
<td>Fee for Service</td>
<td>835,036</td>
<td>823,337</td>
<td>96.60%</td>
</tr>
<tr>
<td>Medicaid Product</td>
<td>Managed Care</td>
<td>1,510,919</td>
<td>1,464,725</td>
<td>96.94%</td>
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<tr>
<td>Medicaid Product</td>
<td>Other</td>
<td>12,477</td>
<td>12,472</td>
<td>99.96%</td>
</tr>
<tr>
<td>Basis of Eligibility</td>
<td>Disabled</td>
<td>201,912</td>
<td>191,424</td>
<td>94.81%</td>
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<tr>
<td>Basis of Eligibility</td>
<td>Non-disabled</td>
<td>930,832</td>
<td>915,657</td>
<td>98.37%</td>
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<tr>
<td>Basis of Eligibility</td>
<td>Newly Eligible</td>
<td>874,621</td>
<td>845,917</td>
<td>96.72%</td>
</tr>
</tbody>
</table>
Table 2

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total Beneficiaries</th>
<th>Beneficiaries without OUD</th>
<th>Beneficiaries with OUD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total expenditures</td>
<td>Per capita expenditures</td>
<td>Total expenditures</td>
</tr>
<tr>
<td>Demographic Category</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total Ages 12 and over</td>
<td>$8,739,638,349</td>
<td>$4,817</td>
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<tr>
<td>Age Group</td>
<td>Children (12--17)</td>
<td>$750,199,740</td>
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<td>Adults (18--45)</td>
<td>$4,272,165,261</td>
<td>$3,884</td>
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<td>Older adults (46--64)</td>
<td>$3,691,414,598</td>
<td>$8,967</td>
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<td>Age Group</td>
<td>Elderly adults (65+)</td>
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<td>Male</td>
<td>$3,899,997,469</td>
<td>$4,761</td>
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<td>Medicaid Product</td>
<td>Fee for Service</td>
<td>$1,183,861,462</td>
<td>$1,418</td>
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<td>Medicaid Product</td>
<td>Managed Care</td>
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<tr>
<td>Medicaid Product</td>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basis of Eligibility</td>
<td>Disabled</td>
<td>$3,036,804,703</td>
<td>$15,040</td>
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<tr>
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<td>Non-disabled</td>
<td>$2,586,795,839</td>
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<td>Newly Eligible</td>
<td>$3,116,037,808</td>
<td>$3,563</td>
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<td>Basis of Eligibility</td>
<td>Other</td>
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</table>
Table 3. Health Care Expenditures by Type for Medicaid Beneficiaries Ages 12 and Over with OUD

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub Category</th>
<th>Total expenditures</th>
<th>Per capita expenditures</th>
<th>Total physical health expenditures</th>
<th>Per capita physical health expenditures</th>
<th>Total mental health expenditures</th>
<th>Per capita mental health expenditures</th>
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</thead>
<tbody>
<tr>
<td>Total</td>
<td>Total Ages 12 and over</td>
<td>$920,460,868</td>
<td>$17,952</td>
<td>$740,636,781</td>
<td>$14,445</td>
<td>$90,992,831</td>
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<td>Age Group</td>
<td>Children (12–17)</td>
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<td>$12,108</td>
<td>$953,992</td>
<td>$4,336</td>
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<td>Adults (18–45)</td>
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<td>$64,464,723</td>
<td>$1,799</td>
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<td>Age Group</td>
<td>Older adults (46–64)</td>
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<td>$25,573,737</td>
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<tr>
<td>Age Group</td>
<td>Elderly adults (65+)</td>
<td>$130,502</td>
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<td>Category</td>
<td>Sub Category</td>
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<td>Total OUD treatment medication expenditures</td>
<td>Per capita OUD treatment medication expenditures</td>
<td>Total OUD non-medication expenditures</td>
<td>Per capita OUD non-medication expenditures</td>
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<tr>
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<td>Adults (18–45)</td>
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<td>$93,776,094</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>$71,478,470</td>
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</tbody>
</table>
Table 4

- Table 4 is the top 100 most expensive beneficiaries with OUD
- Michigan decided to look at top 1000 most expensive beneficiaries
- Total cost for top 1000: $132,584,559
- Total inpatient for top 1000: $75,574,343
- Total Outpatient for top 1000: $19,958,652
- Total ED for top 1000: $43,554,989
- Total Pharmacy for top 1000: $34,051,564
Data Leads To Questions

• These four tables give us some basic information, and raise more questions:
  – Who has an OUD but no opioid prescriptions? And who has opioid prescriptions but no OUD?
  – How many have an MME of greater than 50? Or greater than 90?
  – Looking longitudinally, what is MME, and what else do we see, before someone becomes part of the top 1000?
  – How many beneficiaries, per 1000, are prescribed opioids, by county?
  – Can this data support predictive analysis regarding the development of an OUD?

• So we have started looking at some of this....
Proportion of Medicaid Beneficiaries with at least 1 Opioid Prescription in FY17
## Beneficiaries with MME of 50 or 90 Expanded Age Groups

### Top 1000

<table>
<thead>
<tr>
<th>Gender</th>
<th>None</th>
<th>MME 50</th>
<th>MME 90</th>
<th>None</th>
<th>MME 50</th>
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<th>MME 90</th>
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<tbody>
<tr>
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<td>292</td>
<td>181</td>
<td>122</td>
<td>337</td>
<td>136</td>
<td>90</td>
<td>361</td>
<td>112</td>
<td>80</td>
<td>473</td>
</tr>
<tr>
<td>Male</td>
<td>326</td>
<td>201</td>
<td>127</td>
<td>379</td>
<td>148</td>
<td>97</td>
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### Race

<table>
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<th>Gender</th>
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<th>MME 90</th>
<th>None</th>
<th>MME 50</th>
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<th>MME 50</th>
<th>MME 90</th>
<th>Total</th>
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<td>White</td>
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<td>211</td>
<td>139</td>
<td>368</td>
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<td>396</td>
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<td>266</td>
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<td>85</td>
<td>57</td>
<td>365</td>
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<td>26</td>
<td>14</td>
<td>89</td>
<td>19</td>
<td>10</td>
<td>108</td>
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### Agegroup

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<th>MME 90</th>
<th>None</th>
<th>MME 50</th>
<th>MME 90</th>
<th>None</th>
<th>MME 50</th>
<th>MME 90</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>292</td>
<td>181</td>
<td>122</td>
<td>337</td>
<td>136</td>
<td>90</td>
<td>361</td>
<td>112</td>
<td>80</td>
<td>473</td>
</tr>
<tr>
<td>Male</td>
<td>326</td>
<td>201</td>
<td>127</td>
<td>379</td>
<td>148</td>
<td>97</td>
<td>404</td>
<td>123</td>
<td>79</td>
<td>527</td>
</tr>
</tbody>
</table>

### Note:
- Ranges in the parenthesis for the last five rows are 95% confidence interval of the mean.
And More Data Leads To More Questions.....

- What is learned by looking at socio-demographic breakdowns?
- How does OUD prevalence correlate to provider density? Provider prescribing practices?
- Impact of continuous vs. intermittent prescribing?
- Map out the relationship between MME and number of prescribers.
- What other drugs are commonly prescribed for those with OUD?
- And more.......
What Is Next?

• The wrap up “all state” call for the OUD Cohort is Thursday, May 24\textsuperscript{th}. Michigan has been asked to report out on where this is taking us.

• The initial “all state” call and webinar for the MAT Cohort is scheduled for June 6\textsuperscript{th}. That will start the next phase. The MAT Cohort will run through July.

• The NAS and OUD Care for Pregnant Women Cohort will run through August and September.

• Our team is scheduling meeting every other week through September. More importantly, we are planning to keep meeting beyond the end of the IAP.
What Is Next?

• It is intended that this IAP will result in:
  – Richer understanding of the various characteristics of the Opioid Crisis here in Michigan.
  – The development of a data sets, along with appropriate analytics, to support the application of resources in ways that will improve prevention, early intervention and treatment.
  – The use of such data sets and analytics to objectively determine the outcomes of those efforts.
QUESTIONS???
System for Opioid Overdose Surveillance (S.O.S.)

Mahshid Abir, MD, MSc
May 22, 2018
State of Opioid Overdose Surveillance in the United States

• Surveillance based on:
  – Individual counties and/or Health Departments
  – Outdated and/or manually collected data
  – Naloxone administration
  – Syndromic surveillance
State of Opioid Overdose Surveillance in the United States

• Surveillance based on:

  – Individual counties and/or Health Departments—*Not streamlined, not scalable, not sustainable*

  – Outdated and/or manually collected data—*May not represent on-the-ground reality, may misinform intervention efforts*

  – Naloxone administration—*Naloxone used for any unresponsive patient, can lead to over-counting overdoses*

  – Syndromic surveillance—*Not as valid as ICD-10 codes, may lead to over- or under-counting overdoses*
State of Opioid Overdose Surveillance  
**Michigan**

- Medical examiner (ME) data is not centralized  
  - Current fatal overdose data lags 18 months statewide

- Emergency department (ED) data is not centralized  
  - No system currently tracks ED overdoses statewide

- Emergency medical services (EMS) naloxone deployments can be tracked through the Michigan EMS Information System
System for Opioid Overdose Surveillance (S.O.S.)

- **Scalable**—By using the minimum number of datasets to obtain the most relevant data
- **Maximizes limited resources**—By identifying “hotspots” of fatal and non-fatal overdose
- **Timely and accurate**—By providing overdose data that is not over- or under-counted

Note: Example of geo-coding hot spots. This is NOT real data.
Designing the System for Opioid Overdose Surveillance (S.O.S)

- Federal/State/Local Government
- Law Enforcement
- Academia
- Public Health
System for Opioid Overdose Surveillance (S.O.S.)

S.O.S. will cover 3-5 HIDTA counties by October 2018

- Partnership with MDI Log to obtain real-time ME overdose data
  - Used in 42 of 83 (50%) Michigan counties
- Partnership with Great Lakes Health Connect (GLHC) to obtain real-time ED overdose data from the lower peninsula
- Obtain EMS data through MI-EMSIS database
- Further develop the S.O.S. interface
Washtenaw County Pilot

EMS
Huron Valley Ambulance

Emergency Departments
Michigan Medicine
St. Joseph Mercy Health

Medical Examiner
Washtenaw County

Standardize & Match Data

Update S.O.S.
EMS Data: Naloxone Deployments Transported to Michigan Medicine
January 1, 2017 - December 31, 2017

Green= incident location, blue= residence location

Hot spots found in: 48103, 48104, 48109
44% of naloxone administrations were at residence address

Note: Naloxone is frequently used as a “catch-all” for unresponsive EMS patients. These may not all be true overdoses.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
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<td>48</td>
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### Emergency Department Data: Michigan Medicine Opioid Overdoses

**January 1, 2017 - December 31, 2017**

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*Mapping based on residence address

Hot Spots found in zip codes: 48103, 48104, 48109*
Medical Examiner Data: Washtenaw County Opiate Related Deaths
January 1, 2017 - December 31, 2017

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<th>Percent (%)</th>
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<tr>
<td><strong>Age group</strong></td>
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<td>3</td>
<td>3.85</td>
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<td>6</td>
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<td>25-34</td>
<td>17</td>
<td>21.79</td>
</tr>
<tr>
<td>35-44</td>
<td>12</td>
<td>15.38</td>
</tr>
<tr>
<td>45-54</td>
<td>24</td>
<td>30.77</td>
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<tr>
<td>55-64</td>
<td>14</td>
<td>17.95</td>
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<tr>
<td>65+</td>
<td>2</td>
<td>2.56</td>
</tr>
</tbody>
</table>

Red= Death Location
Blue= Residence Location

Hot spots found in: 48103, 48104, 48108, 48197, 48198
55% of cases had same death and residence location
S.O.S. Capabilities

• Fatal Overdoses (ODs)
  – Update suspected ODs every 24 hours
  – Confirm ODs after toxicology results are obtained ~90 days later

• Non-fatal Overdoses
  – ED: Update every 24 hours
  – EMS: Update 3 times a week

• Linkage of 3 datasets - eliminates over counting of EMS and fatal ED visits

• Presents both rates and raw numbers of events

• Provides both location of home and location of death for fatal overdoses and non-fatal EMS: allows for tracking of movement

• County level data available to the public

• Census tract data password protected for key stakeholder access
S.O.S. Interface

- http://acru.med.umich.edu/SOS/sos.html
In 2015, a record number of Americans died of an opioid-involved overdose, bringing devastation to families and communities in urban and rural communities alike. Now more people in America die from drug overdoses than car accidents. In response to this alarming public health crisis, the Office of National Drug Control Policy (ONDCP) is supporting the development of opioid overdose monitoring systems in High Intensity Drug Trafficking Areas (HIDTA). In collaboration, the University of Michigan Injury Center, the Acute Care Research Unit (ACRU), and the University of Michigan Transportation Research Institute (UMTRI) are developing and piloting a real-time System for Opioid Overdose Surveillance (S.O.S.) in Washtenaw County, a Michigan HIDTA county. Through connecting overdose and mortality data from Emergency Departments (EDs), Medical Examiners, and Emergency Medical Services (EMS) agencies, the S.O.S. project aims to increase the timeliness and quality of overdose reporting so that regional strategies to reduce fatal and non-fatal overdoses may be developed.

The S.O.S project plans to expand to the additional 10 Michigan HIDTA counties in partnerships with the electronic death database Medicolegal Death Investigation Log (MDILog), who will provide medical examiner data and the Health Information Exchange (HIE) company Great Lakes Health Connect (GLHC), who will provide emergency department data.

Partners

- Acute Care Research Unit
- Injury Center
- UMTRI
- MDI Log
- HIDA
- GLHC
S.O.S. Interface
Emergency Department

Opioid Overdose Emergency Department visits by County
Michigan Medicine ED, 1/1/2017-10/25/2017

Disclaimer: Data are subject to change.

Cases are defined using the International Classification of Disease (ICD-10) codes for opioid overdose and include both intentional and unintentional overdoses.

Locations represent the recorded home address of the patient and are only shown for counties with 10 or more recorded cases.
S.O.S. Interface

Detail Map: ED Home Locations

EMS, Emergency Department, and Medical Examiner
1/1/2017-10/25/2017

Medical Examiner: Event Locations
- Overdose Locations
- Home Locations
- Death Heatmap
- Home Heatmap

Base maps
- No Base Map
- Census Tract Base Map, Medical Examiner Overdose Locations
- Census Tract Base Map, Medical Examiner Home Locations
- Census Tract Base Map, EMT Incident Locations
- Census Tract Base Map, EMT Home Locations
- Census Tract Base Map, Emergency Department Home Locations

Location Details:
Tract ID: 7408
S.O.S. Interface
Detail Map: Fatal Heatmap

EMS, Emergency Department, and Medical Examiner
1/1/2017-10/25/2017
Next Steps

- Continue expanding surveillance to the 12 HIDTA counties

- Ultimate goal of **statewide surveillance** in the next 3 years
Implications

- S.O.S. allows both public health and law enforcement to:
  1) Continuously follow the size, spread, and trends of non-fatal and fatal overdoses
  2) Implement interventions in communities where they are most needed
  3) Inform allocation of resources
Future Use
Research

- Modeling to predict likelihood of fatal overdose through preceding non-fatal overdose encounters with the health care system
- Implementing interventions for repeat overdose victims
Michigan: A Leader in Opioid Overdose Surveillance?
Designing the System for Opioid Overdose Surveillance (S.O.S)

- HIDTA
- Law Enforcement
- Community Stakeholders
- State Government
- U-M
- Public Health

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UNIVERSITY OF MICHIGAN

HIDTA
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C.

ACUTE CARE RESEARCH UNIT
UNIVERSITY OF MICHIGAN
Looking for Synergy and Opportunities for Collaboration
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mahshida@med.umich.edu
734-763-9707
Other HIT Commission Business

• HIT Commission Next Steps

• Public Comment

• Adjourn