Moving Upstream: Improving the Care of Pregnant Women with Opiate Use Disorder

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Through collaborative use of improvement science methods, reduce preterm births & improve perinatal and preterm newborn outcomes in Ohio as quickly as possible.

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“Personal Narratives Have the Power To Change Policy”

Michael Botticelli

Director of the Office of National Drug Control Policy 2014-2018

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My Personal Narrative

It started with this advice: "Just do Something, Even if it is Wrong!"

– Clara Lacy 1915-2000

When you think of OHIO…

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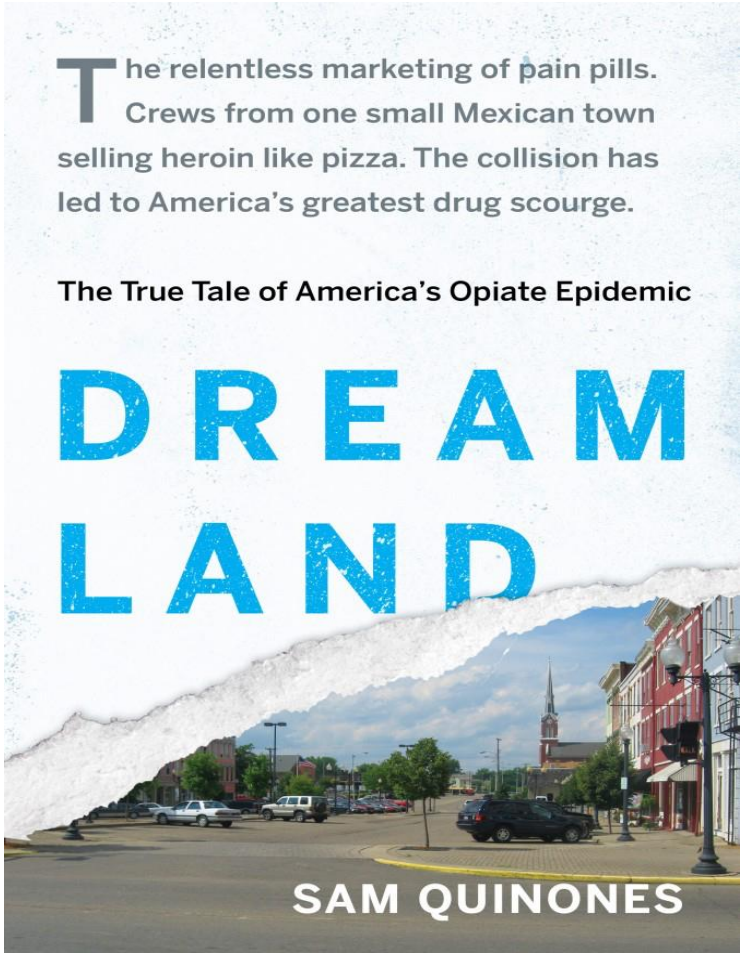
When I think of Ohio:



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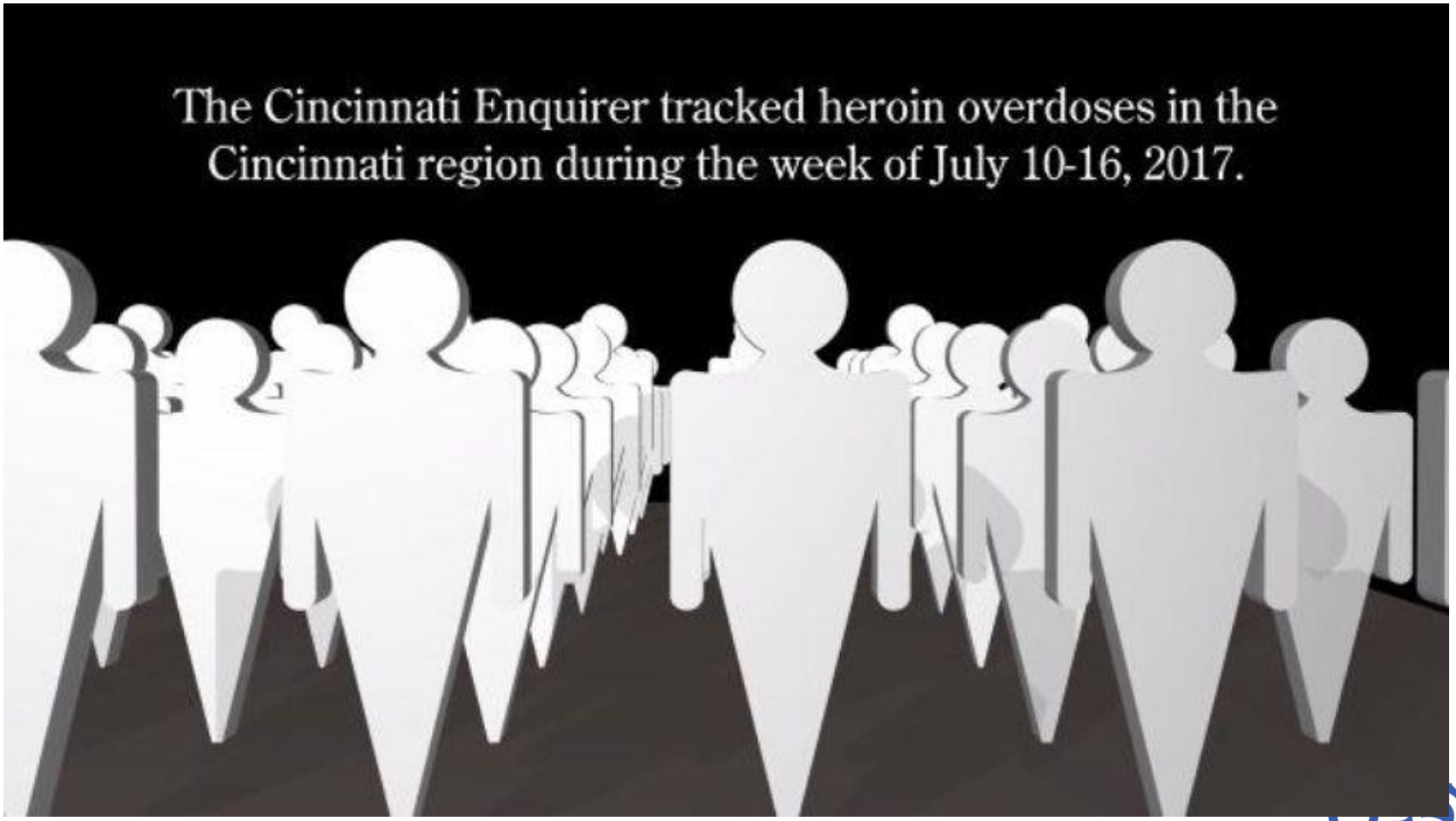

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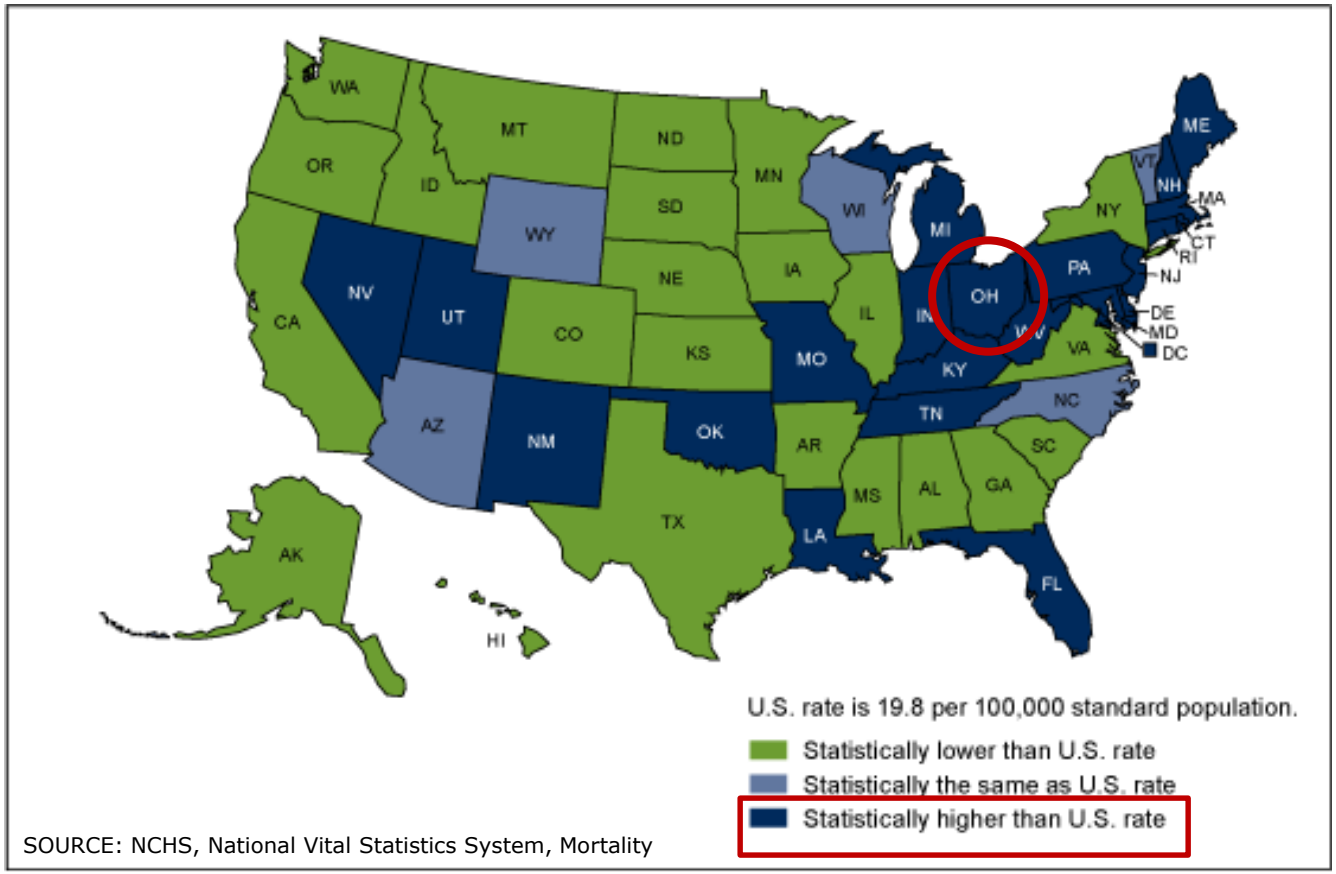
Age-adjusted drug overdose death rates, by state: United States, 2016



SOURCE: NCHS, National Vital Statistics System, Mortality

NOTES: Deaths are classified using the International Classification of Diseases, Tenth Revision. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14.

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Fatal drug overdoses in Ohio increase to record number, Sept 24, 2018

- Fatal drug overdoses increased to a record 4,854 last year in Ohio
- A 20 percent increased compared to the previous year
- 2017 was the eighth year in a row that drug deaths increased
- Fentanyl continued to fuel the drug epidemic, accounting for nearly three-fourths of last year's overdose deaths and killing 3,431 people, 46 percent higher than in the previous year.
- *Cocaine-related deaths increased 39 percent from 1,109 in 2016 to 1,540 last year.*

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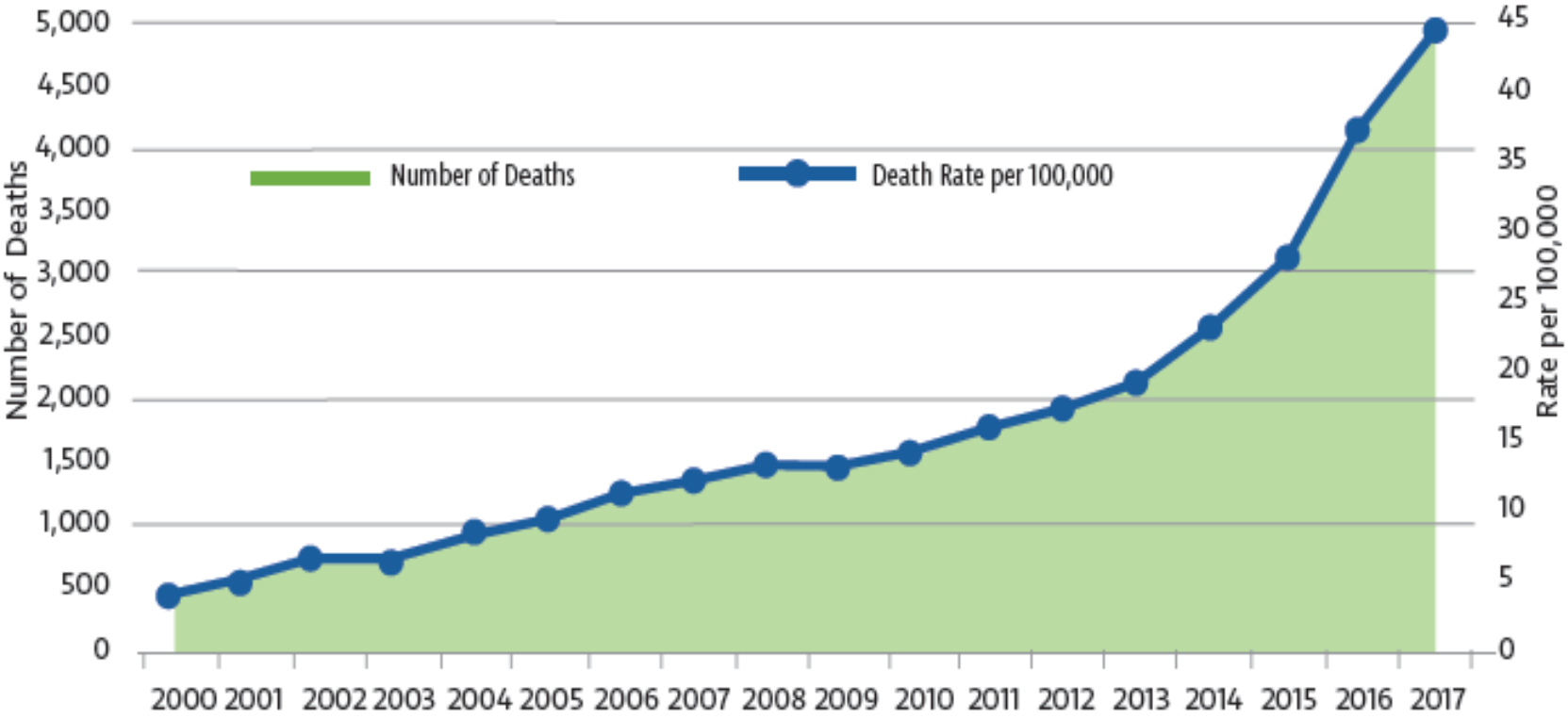
Unintentional Drug Overdose Deaths of Ohio Residents, 2001-17 – Annual Age-Adjusted Rate



Source: Ohio Department of Health, Bureau of Vital Statistics; analysis conducted by ODH Violence and Injury Prevention Program.
Includes Ohio residents who died due to unintentional drug poisoning (underlying cause of death ICD-10 codes X40-X44).
*The death rate is presented as age-adjusted which allows a comparison of death rates between populations (e.g. counties and states).
The rates are adjusted to the U.S. 2000 standard population to allow a comparison of the overall risk of dying between different populations.

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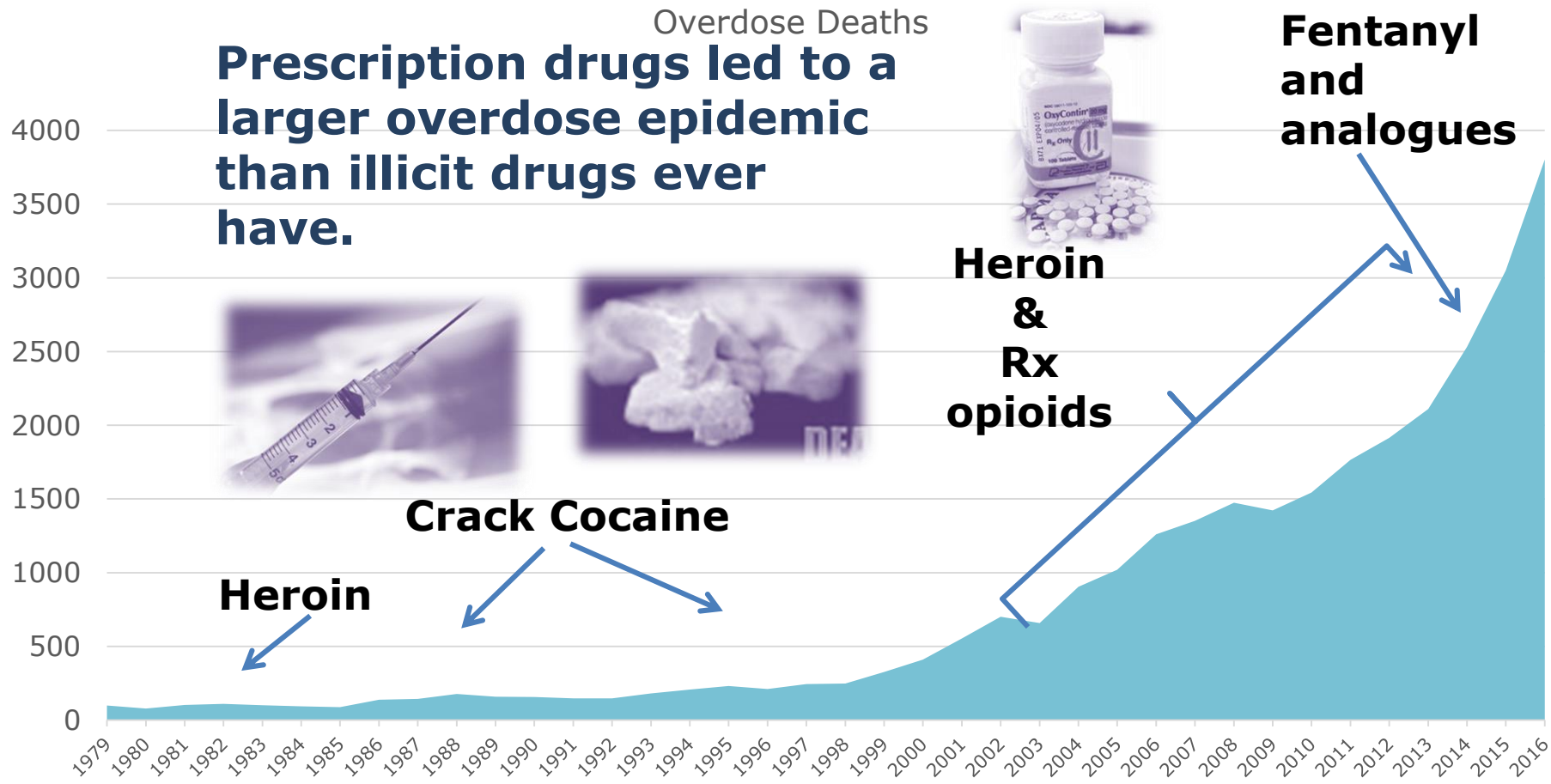
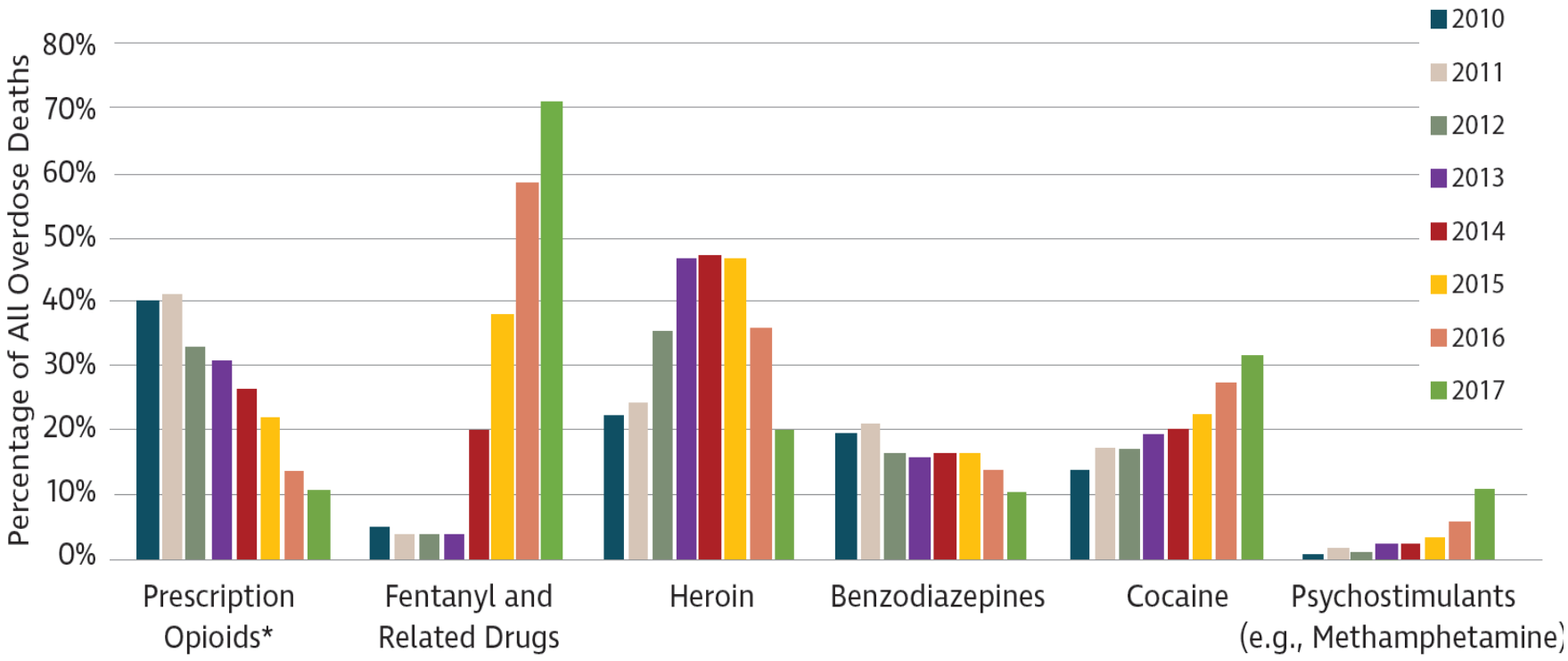
Drug Overdose Epidemics in Ohio, 1979 - 2016



2010-17 Unintentional Drug Overdose Deaths Involving Selected Drugs (Ohio)



*Prescription opioids reflect ICD-10 codes T40.2-T40.4, T40.6. Deaths are captured in this category only if there is no mention of fentanyl and related drugs (reflected in T40.4 and T40.6) on the death certificate, even if the death involved natural & semi-synthetic opioids (T40.2) or methadone (T40.3).

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Unintentional Drug Overdose Deaths Involving Specific Drug Combinations - Ohio 2017

Drug Category Combinations	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Percent of 2017 Unintentional Drug Overdose Deaths
Fentanyl* and Heroin	1	2	1	2	0	1	15	170	490	750	720	14.8%
Fentanyl* and Cocaine	11	8	5	7	10	9	8	101	239	619	1,072	22.1%
Fentanyl* and Psychostimulants (e.g., Methamphetamine)	1	0	0	0	1	1	0	12	34	117	368	7.6%
Fentanyl* and natural and semi-synthetic opioids (e. g., ocycodone, hydrocodone)	12	12	15	22	17	24	14	79	170	367	477	9.8%
Fentanyl and related drugs	75	65	72	77	73	75	84	503	1,155	2,357	3,431	70.7%
Unintentional overdose deaths	1,351	1,473	1,423	1,544	1,772	1,914	2,110	2,531	3,050	4,050	4,854	

Source: Ohio Department of Health, Bureau of Vital Statistics; analysis conducted by ODH Violence and Injury Prevention Program.
Includes Ohio residents who died due to unintentional drug poisoning (underlying cause of death ICD-10 codes X40-X44).
*Includes fentanyl and related drugs.

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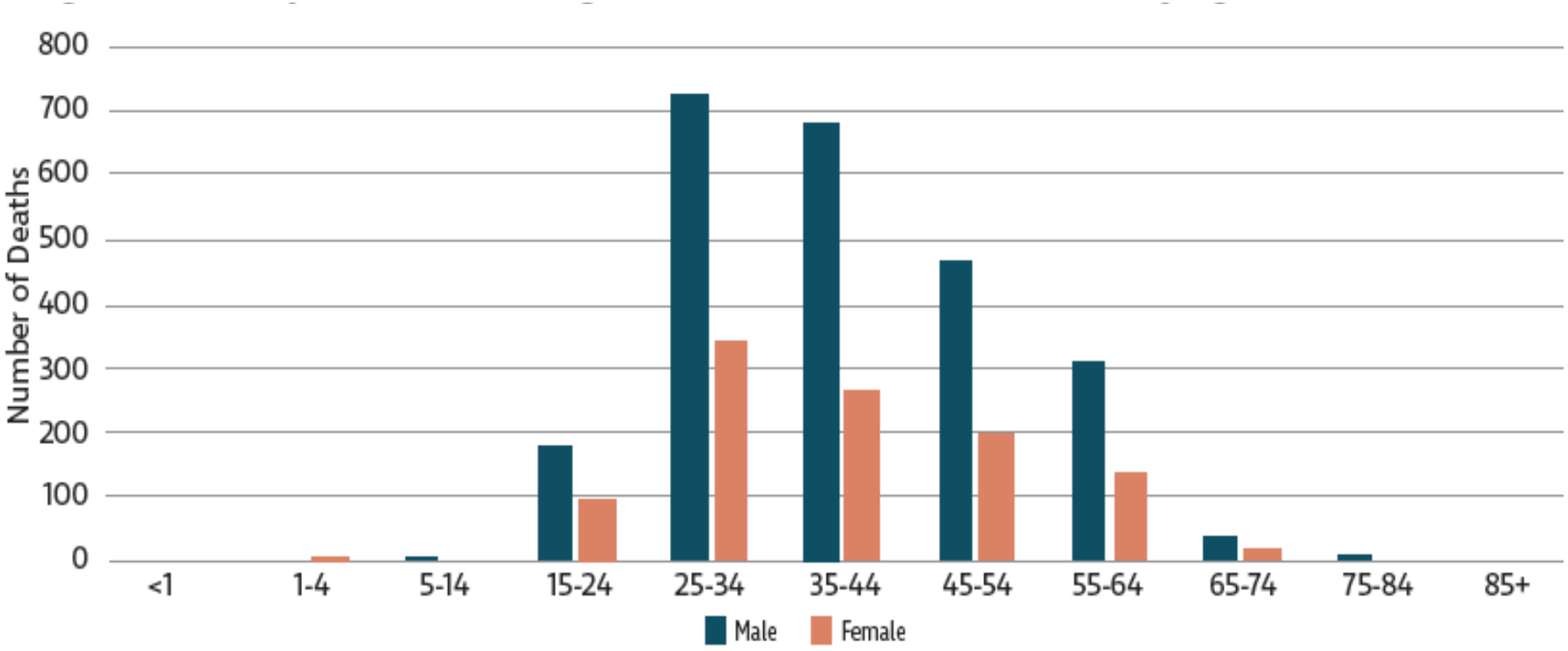
Fentanyl and Related Unintentional Overdose Deaths by Age and Sex - Ohio 2017



Source: Ohio Department of Health, Bureau of Vital Statistics; analysis conducted by ODH Violence and Injury Prevention Program.
Includes Ohio residents who died due to unintentional drug poisoning (underlying cause of death ICD-10 codes X40-X44).

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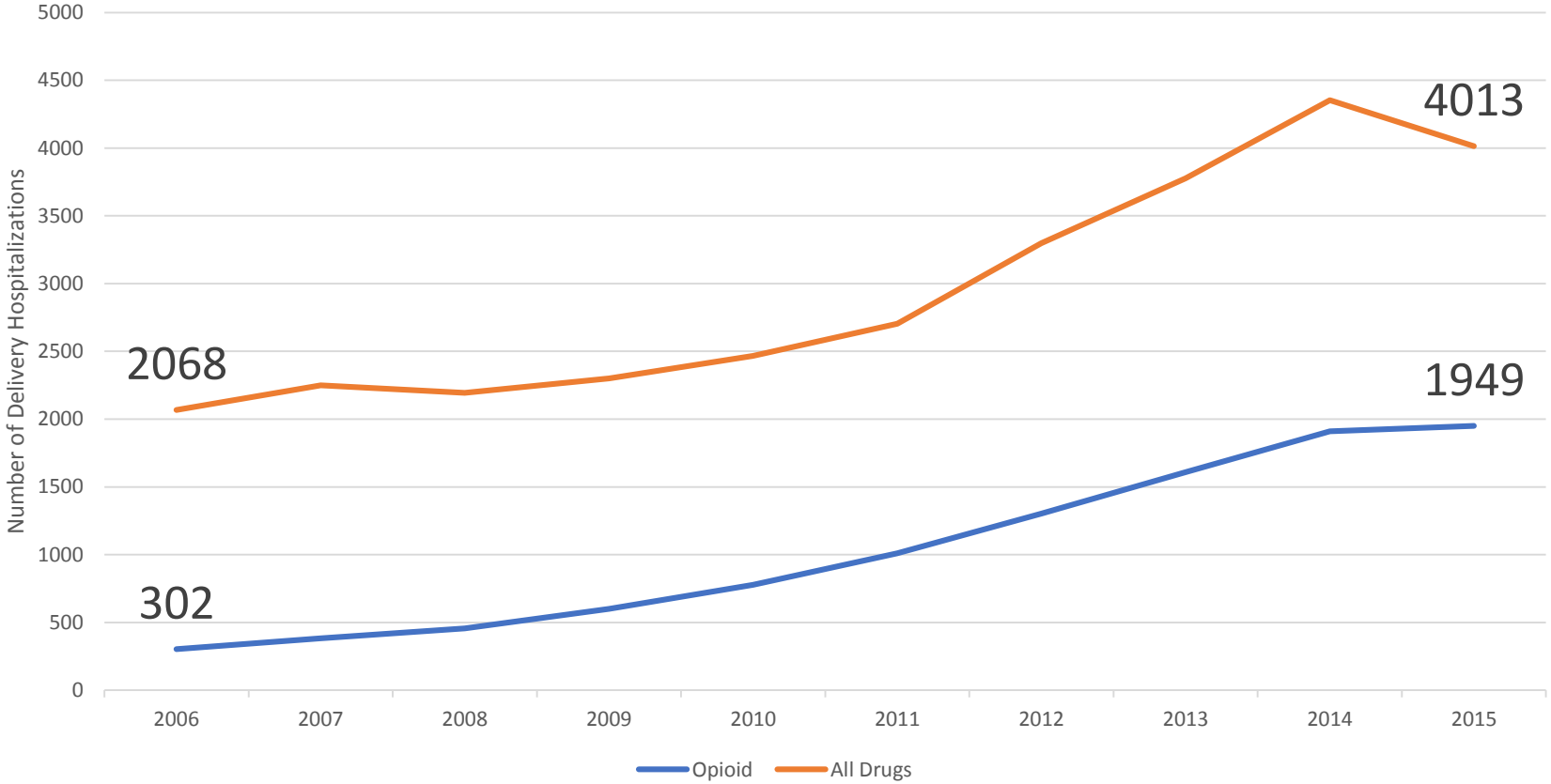
Drug Abuse or Dependence Diagnosis at Time of Delivery in Ohio: 2006-2015



- Source: Ohio Hospital Association and Neonatal Abstinence Syndrome (NAS) in Ohio, Ohio
- Department of Health, Violence and Injury Prevention Program

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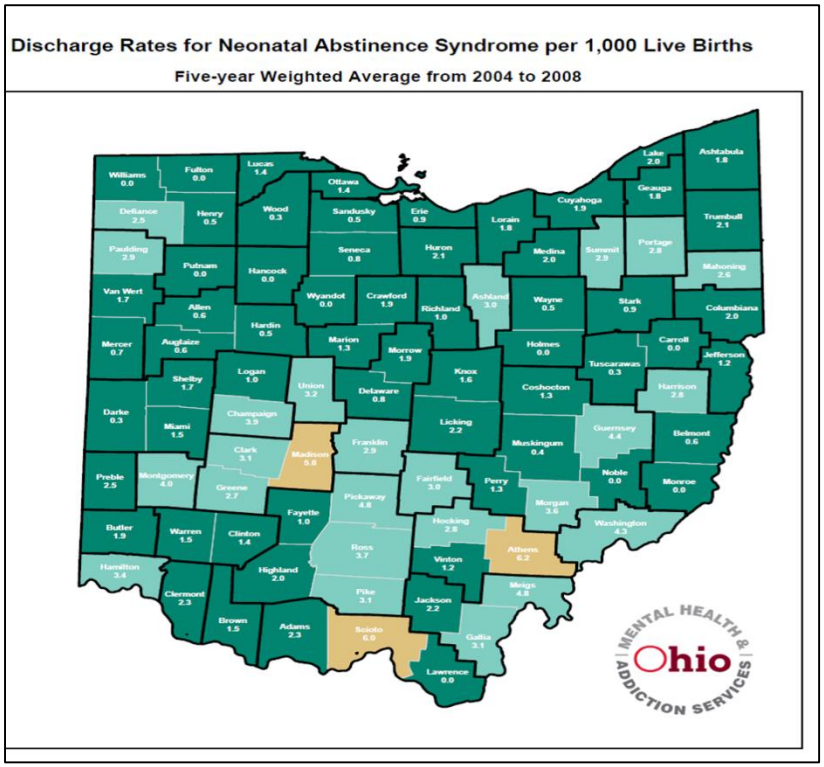
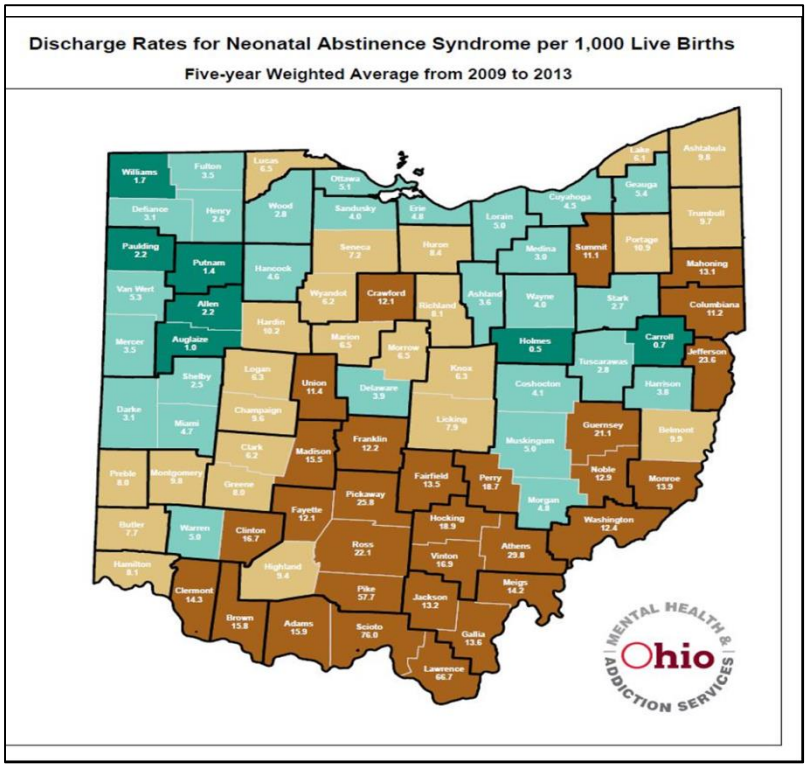
What a difference 5 years makes…NAS Data

2004-2008



2009-2013



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Physician Perception of Addiction

- " Physician Beliefs About Substance Misuse and Its Treatment: Findings from a U.S Survey of Primary Care Practitioners" Johnson et al. 2005.

- 648 Primary Care Doctors (IM, GP, FP, OB/GYN, Peds)

- Survey on views towards various diseases including addiction

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Physician Perception of Addiction

- " Physician Beliefs About Substance Misuse and Its Treatment: Findings from a U.S Survey of Primary Care Practitioners" Johnson et al. 2005.

- Results
  - Following percentages represent physicians who felt very prepared to identify each disease:
  - Hypertension: 82.8%
  - Diabetes: 82.3%
  - Depression: 44.2%
  - Substance abuse disorders: less than 33%

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Physician Perception of Addiction

- " Physician Beliefs About Substance Misuse and Its Treatment: Findings from a U.S Survey of Primary Care Practitioners" Johnson et al. 2005.

- Results
  - Perceived treatment effectiveness of each disease
    - "Very Effective"
      - Hypertension 85.7%
      - Diabetes 69%
    - "Not very effective/not effective at all"
      - Illegal Drug 62.7%
      - Alcohol Abuse 48.7%

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Physician Perception of Addiction

- " Physician Beliefs About Substance Misuse and Its Treatment: Findings from a U.S Survey of Primary Care Practitioners" Johnson et al. 2005.

- Perceived difficulty in discussing substance abuse
  - >1/3 felt uncomfortable talking about alcohol and prescription drug abuse
    - 40% " Very Difficult"
    - 46% "Somewhat Difficult"
  - Only 17% felt uncomfortable discussing depression

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Leave Stigma at the Door

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- *"There is no easy solution to the problem of stigma associated with drug addiction and its treatment…"*
  —Institute of Medicine
- It is because of stigma that:
  - Some people don't get treatment.
  - Some doctors won't treat patients with addiction.
  - Some pharmaceutical companies won't work toward developing new treatments for addiction.
- *"…The sense of stigma is most likely to diminish as a result of public education and broader acceptance of addiction as a treatable disease."*
  —Institute of Medicine

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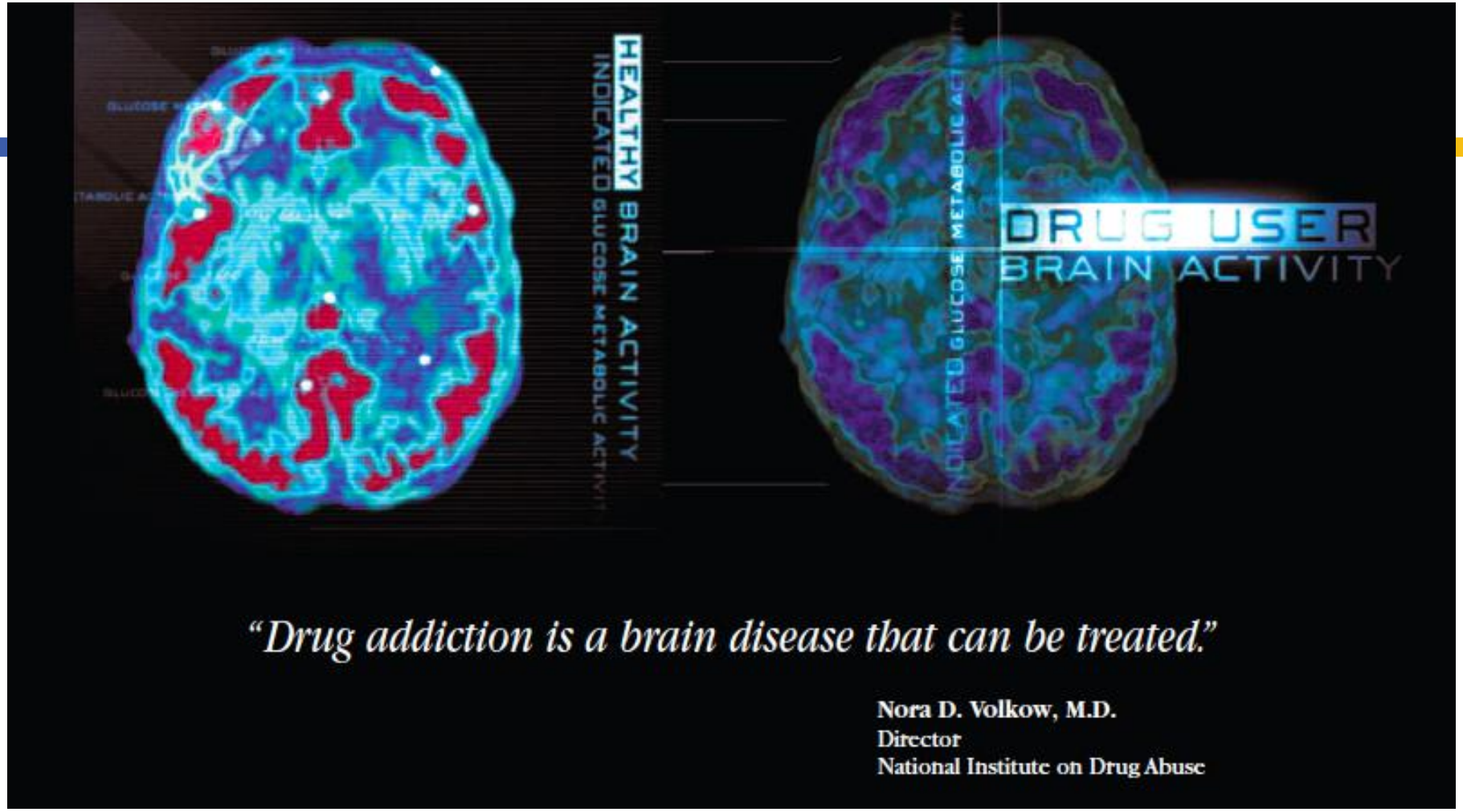
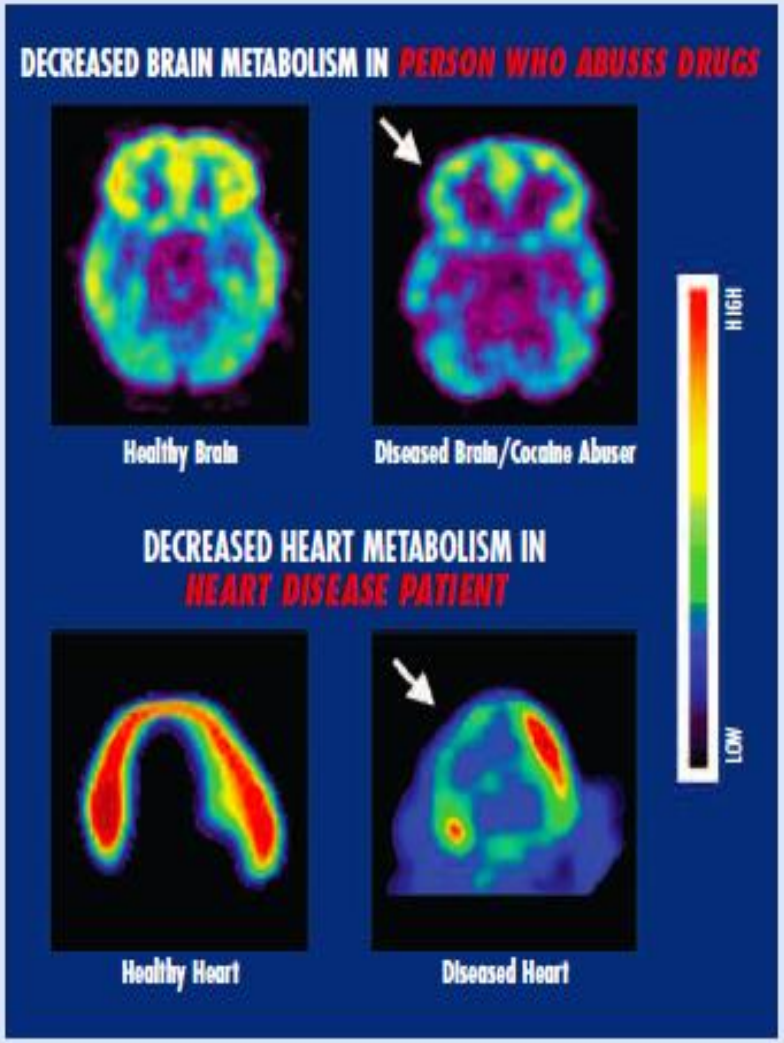

HEALTHY BRAIN ACTIVITY
INDICATED GLUCOSE METABOLIC ACTIVITY
DRUG USER
BRAIN ACTIVITY
"Drug addiction is a brain disease that can be treated."
Nora D. Volkow, M.D.
Director
National Institute on Drug Abuse

What is drug addiction?

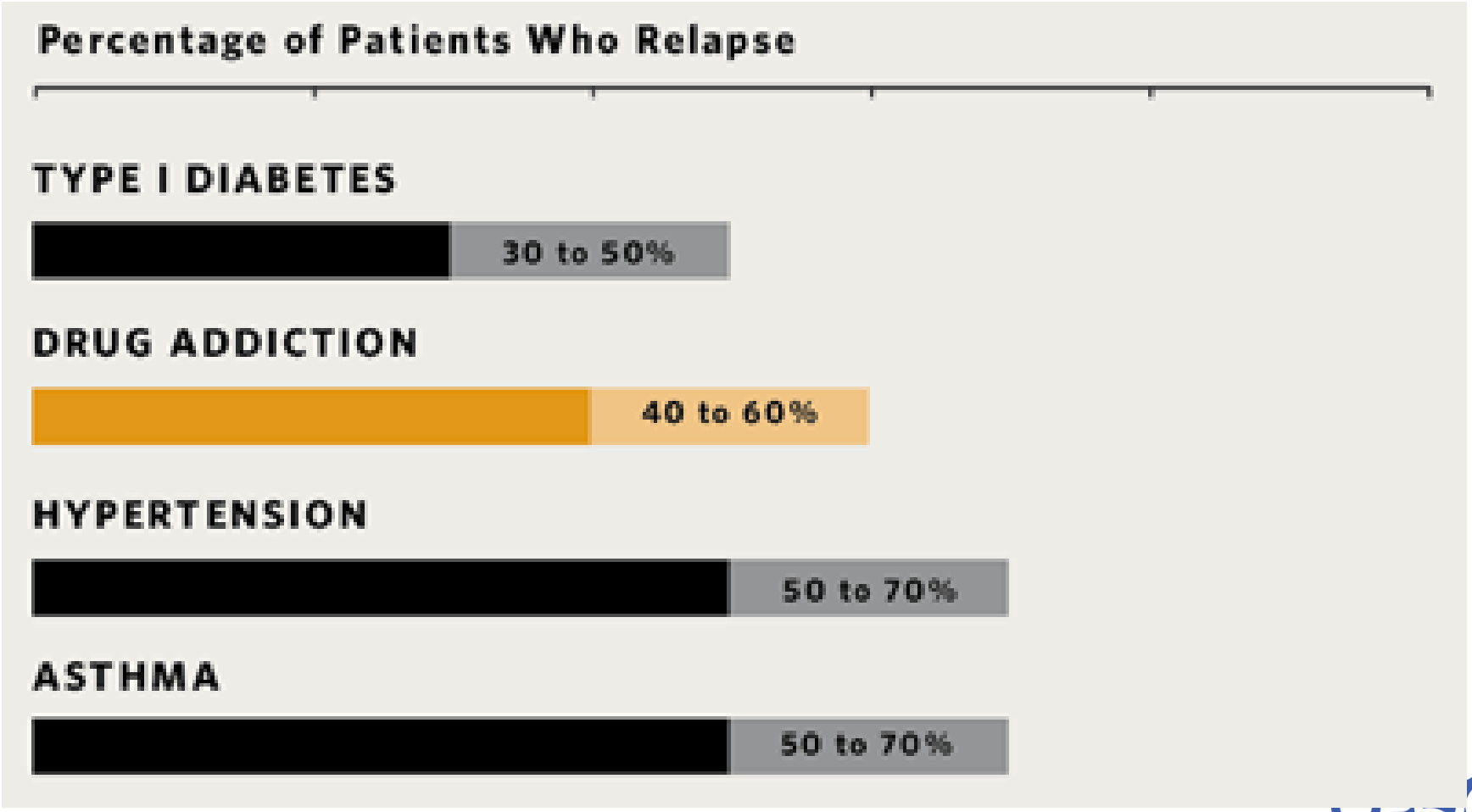
Addiction is defined as a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences.† It is considered a brain disease because drugs change the brain—they change its structure and how it works. These brain changes can be long-lasting, and can lead to the harmful behaviors seen in people who abuse drugs.

Addiction is a lot like other diseases, such as heart disease. Both disrupt the normal, healthy functioning of the underlying organ, have serious harmful consequences, and are preventable and treatable, but if left untreated, can last a lifetime.



Source: From the laboratories of Drs. N. Volkow and H. Schelbert

†The term *addiction* as used in this booklet may be regarded as equivalent to a severe *substance use disorder* as defined by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5, 2013).



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Treatment for Opiate Use Disorder

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Treatment for Opiate Use Disorder

Published in final edited form as:
J Addict Dis. 2012 July ; 31(3): 207–225. doi:10.1080/10550887.2012.694598.

Maintenance Medication for Opiate Addiction: The Foundation of Recovery

Gavin Bart, MD FACP FASAM [Director]
Division of Addiction Medicine, Hennepin County Medical Center, Associate Professor of Medicine, University of Minnesota

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Treatment for Opiate Use Disorder

Conclusion: Medication and recovery

Extensive research shows that each of the three available medications used to treat opiate addiction have superior treatment outcomes to non medication based therapies. Increased retention reduces mortality, improves social function, and is associated with decreased drug use and improved quality of life. Thus, these medications help patients achieve "recovery" as it is currently defined.[147] While methadone and buprenorphine appear to have superior outcomes to both oral and intramuscular naltrexone, more direct comparisons are needed. Further work is needed to identify and predict treatment response to help individualize medication choice. Until such data are available, it is prudent, and within a patient's right to informed choice, for treatment professionals to provide information regarding these standard treatment options, their expected outcomes and potential adverse effects, and allow the patient to choose the medication that best suits his or her need.

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OPQC MOMS+

using a mentor/partner model to improve care for pregnant women with opioid use disorder and their infants

Ohio Department of Medicaid

MedTAPP

Ohio Colleges of Medicine Government Resource Center

Through collaborative use of improvement science methods, reduce preterm births & improve perinatal and preterm newborn outcomes in Ohio as quickly as possible.

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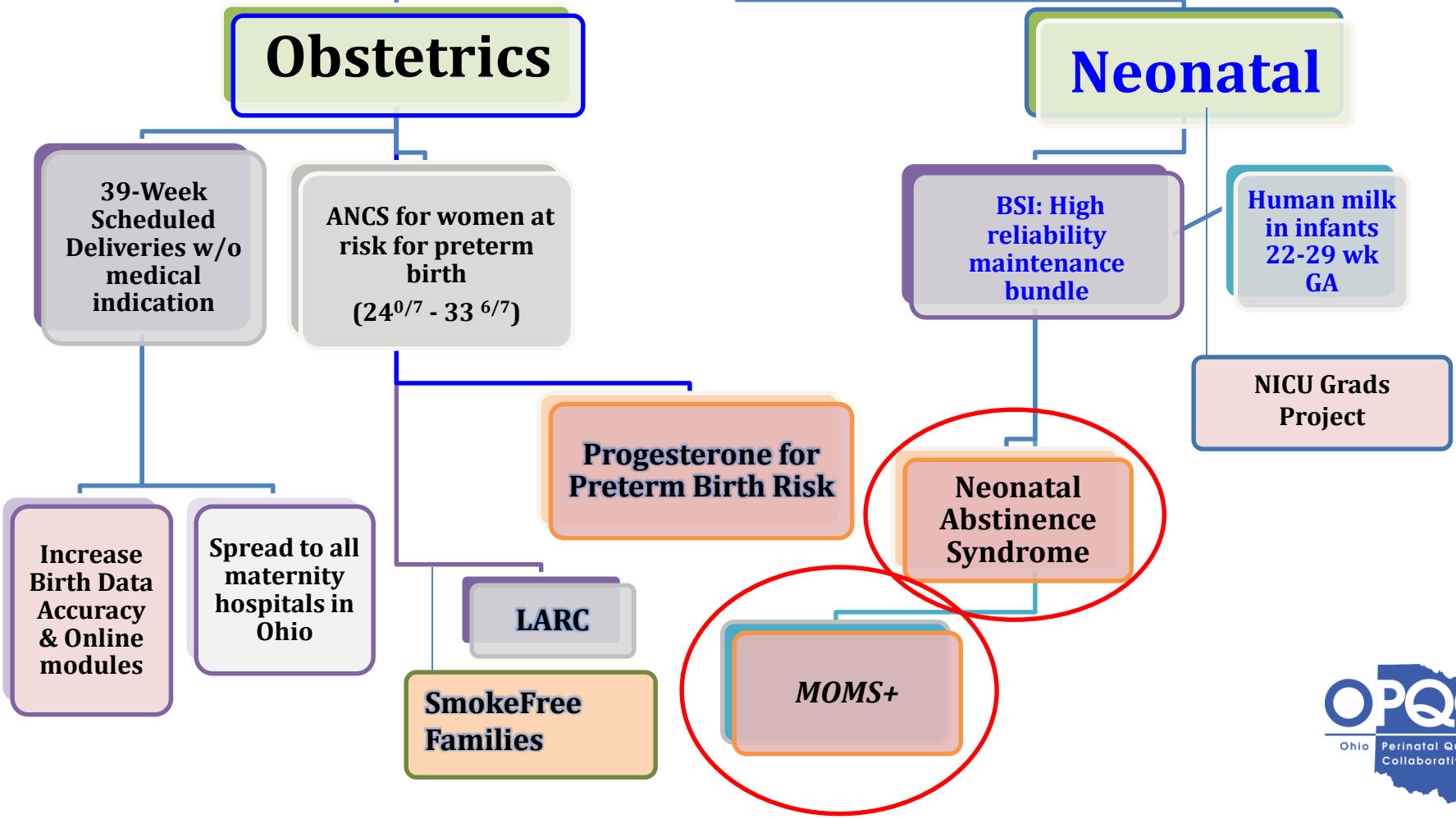
- OPQC and ODM work closely with
  - Ohio Department of Mental Health and Addiction Services
  - ACOG AIM resources will be employed in the process

The Ohio Perinatal Quality Collaborative



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Projects: OCHA & OPQC

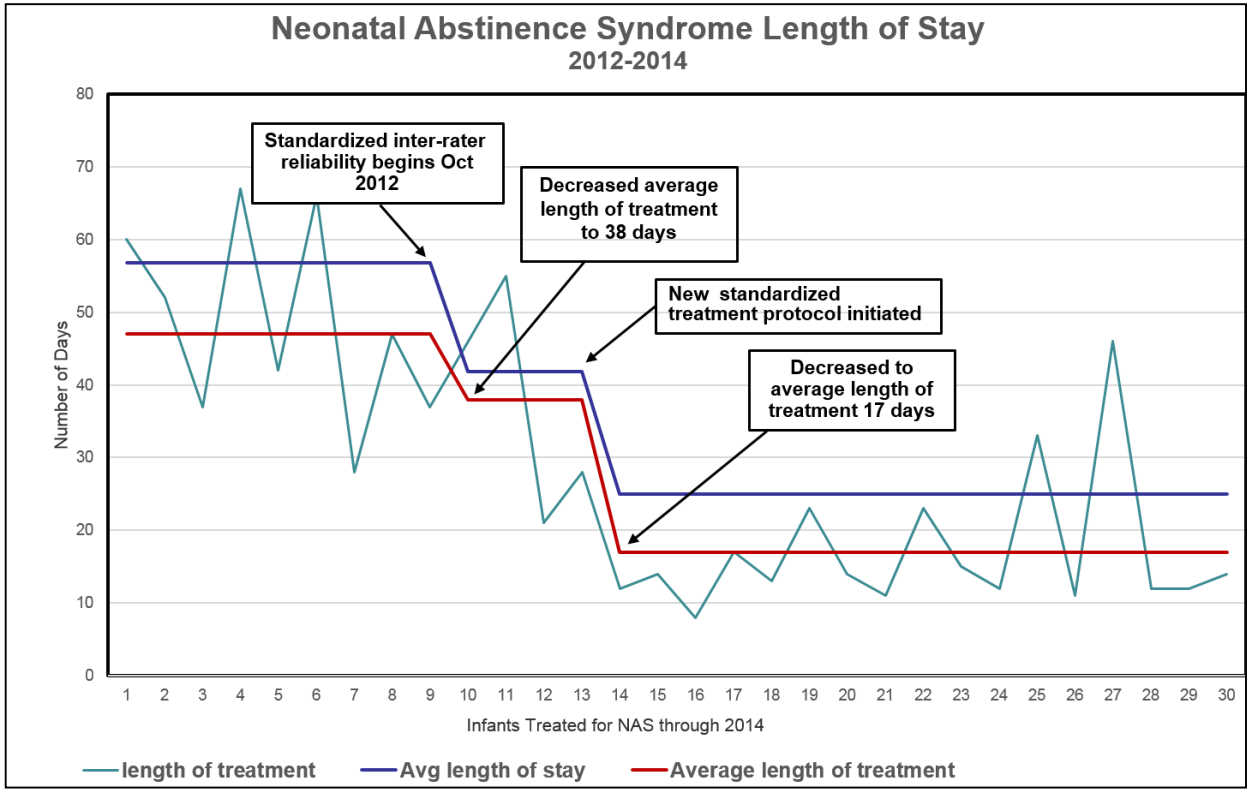
OCHA:
Ohio Children's Hospital Association

- Sept 2012 – Sept 2014
- 6 children's hospitals
- 994 infants
- Included *only* infants that required pharmacological treatment for NAS

OPQC:
Ohio Perinatal Quality Collaborative

- January 2014-June 2018
- 54 sites
- Over 9000+ infants
- Includes infants that receive *both* non-pharmacological AND pharmacological treatment

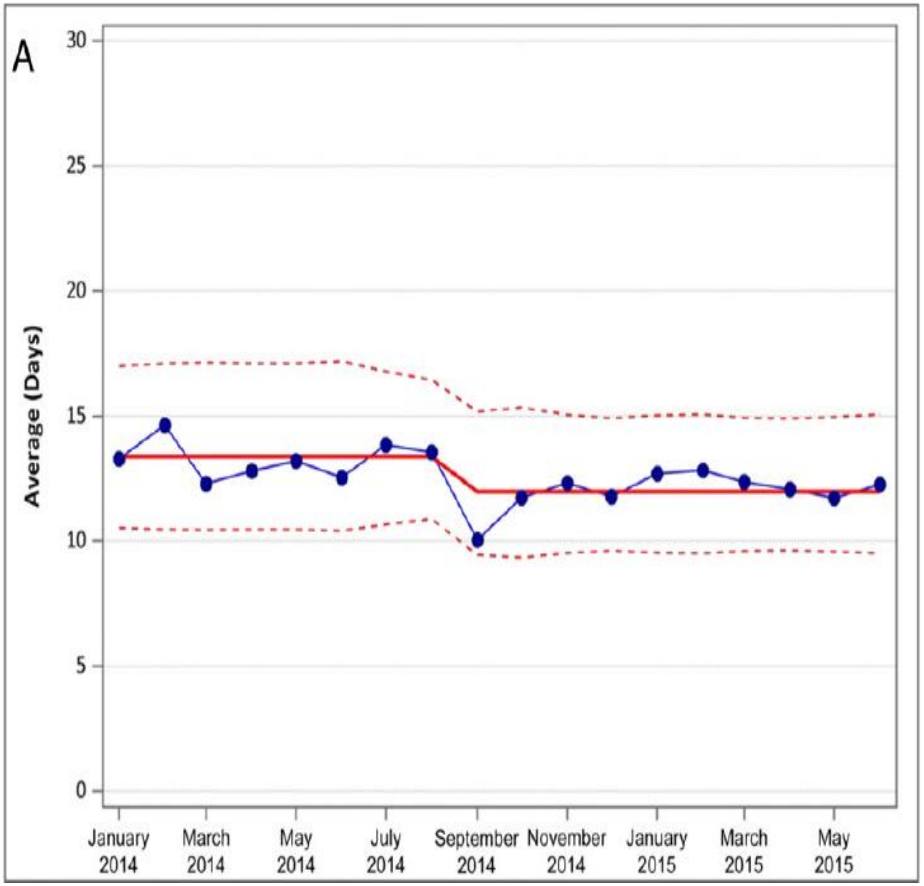
Impact of Standardization at a participating OCHA Site

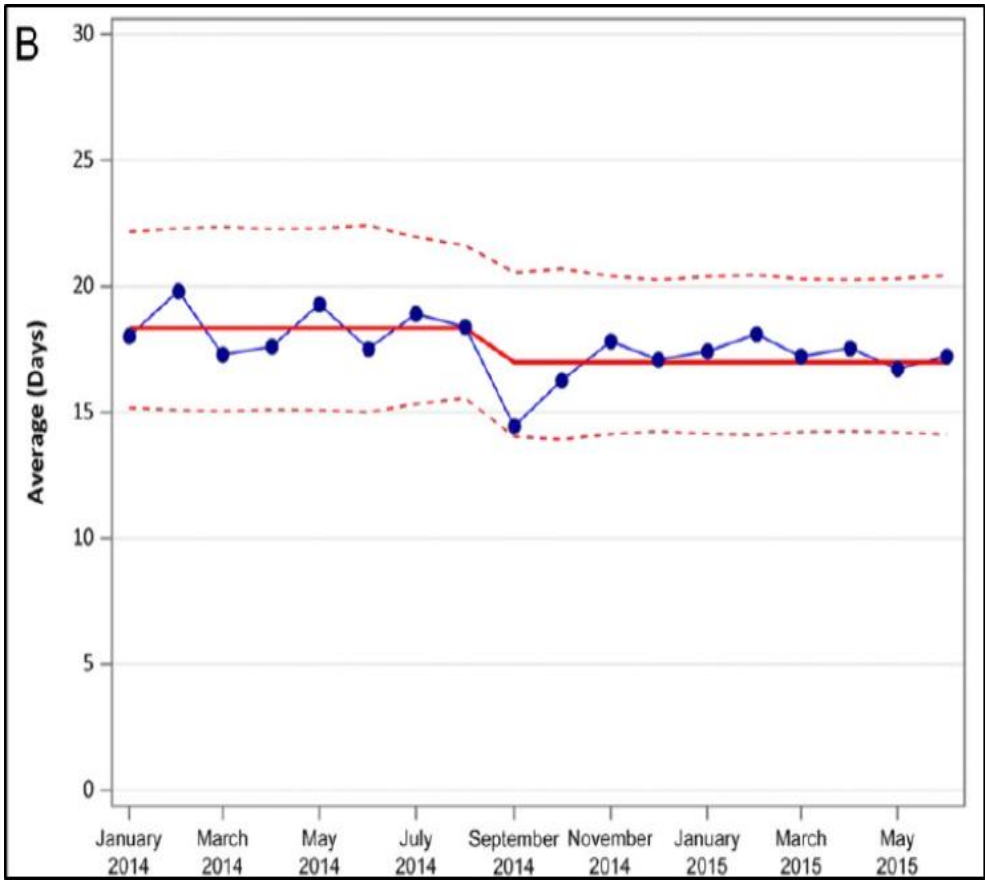


Phase I Results

After 9 months of improvement work, length of treatment decreased by 9% from 13.4 to 12 days

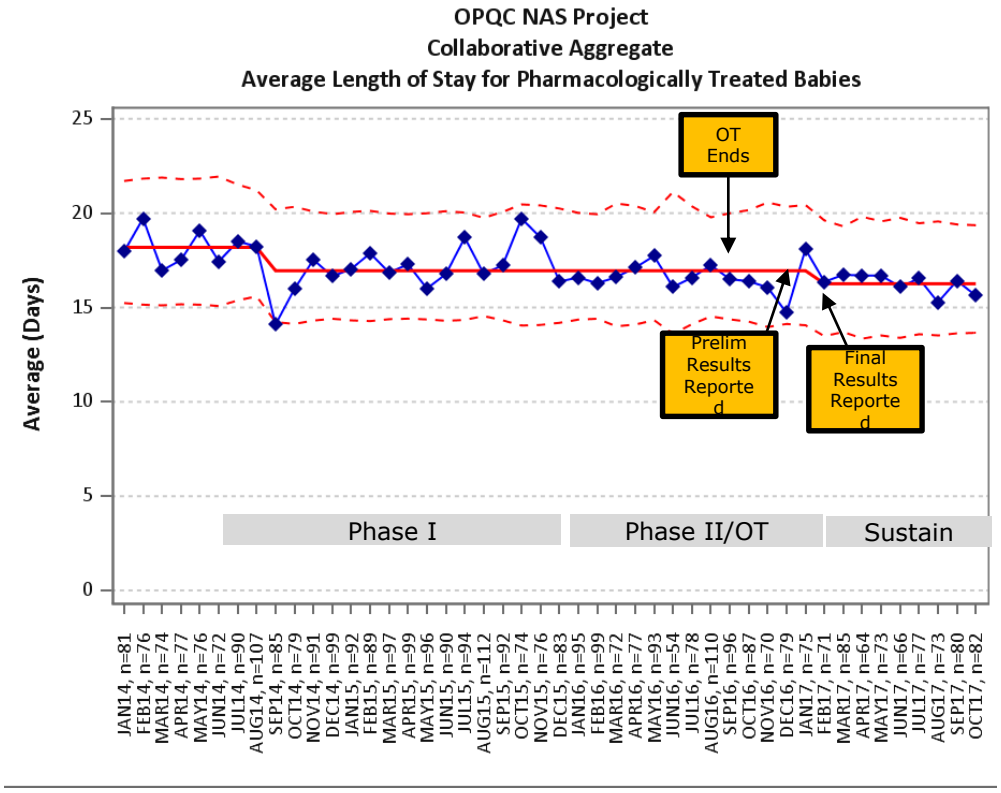
…and LOS decreased by 9% from 18.3 to 17 days in September 2014





Phase II Improvement

Further reductions in LOS were seen with implementation of findings (22-cal formula) from Orchestrated Testing



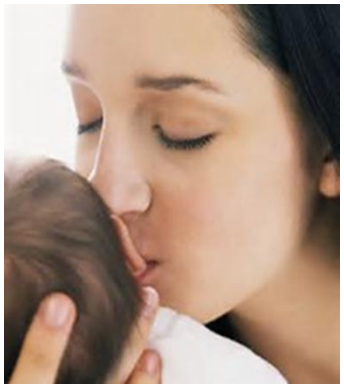
Reductions in LOS

18.3→17 days (Phase I)

17→16.3 days (Phase II)

Total reduction of 2 days!

MATERNAL OPIATE MEDICAL SUPPORTS 2014-2016: "MOMS PROJECT"



MOMS

Ohio MHAS
Promoting wellness and recovery

MOMS

- 4 settings
  - Urban, BH-driven, co-located OB/BH
  - Urban, BH-driven, residential
  - Rural, BH-driven
  - Urban, OB-driven

Core Elements

Formalized Partnerships

Formalizing existing partnerships with service providers is important to cover all areas of care.

Lead Care Coordinator

Establish one, centralized care coordinator.

Integration

Full integration of prenatal, MAT, and behavioral health care coordination.

MAT Options

Expanded MAT options.

NAS Protocols

Neonatal protocols for Neonatal Abstinence Syndrome (NAS).

Social Services

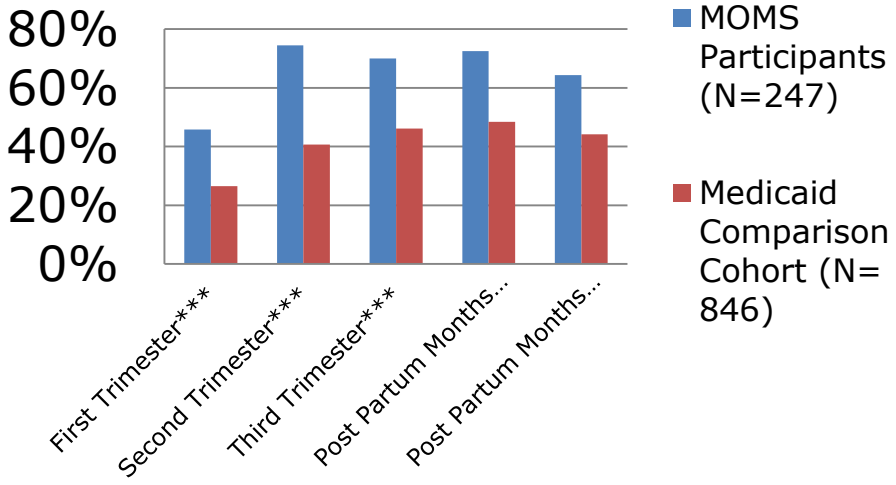
Social services and recovery supports from prenatal through post-partum.

MOMS Retention in Care: Medication Assisted Treatment & Behavioral Health

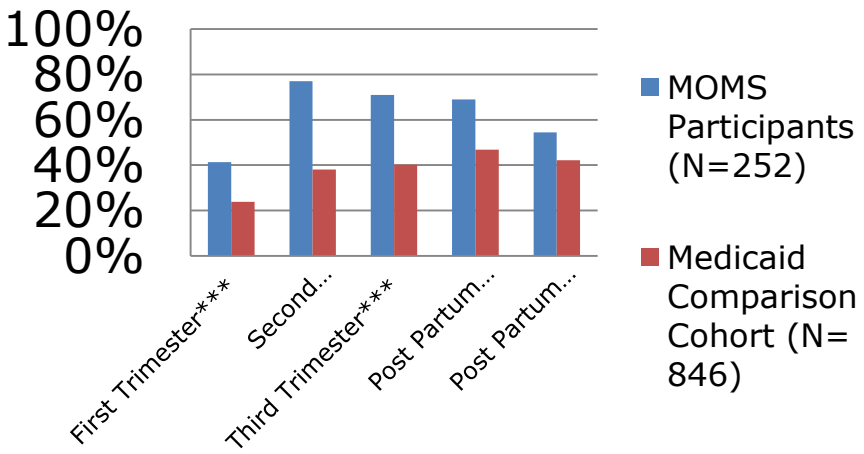
- MOMS Participants were significantly more likely to receive Medication Assisted Treatment during all trimesters of pregnancy and post partum than the Comparison Cohort.

MOMS Participants were more likely to receive Behavioral Health Care during all trimesters of pregnancy and post partum

Received Medication Assisted Treatment



Received Behavioral Health Services



Notes:
*Chi-square analyses conducted , ***p<.001*
Medication Assisted Treatment (MAT) determined using claims of buprenorphine, methadone, Naltrexone or Suboxone Rx or administration.
Source: Medicaid Claims

MOMS Project:Algorithms

MOMS

Home | Healthcare Providers | Moms and Moms-To-Be | Child Welfare and Community Workers | About Us | Recognition | Contact Us

Decision Trees for Care of Opiate-Dependent Women

Training Tool: Building Partnerships with Child Welfare

Quick Video Podcasts

Shared Decision-Making Module

Building teams for healthy moms and babies

Key Lessons from MOMS Project

- A window of treatment opportunity opens when a woman with opioid use disorder becomes pregnant:
  - *her goals are sobriety and parenting her newborn*
- Importance of stable housing
- Need for post-partum support for mother-infant dyad

We Have to Move Upstream!

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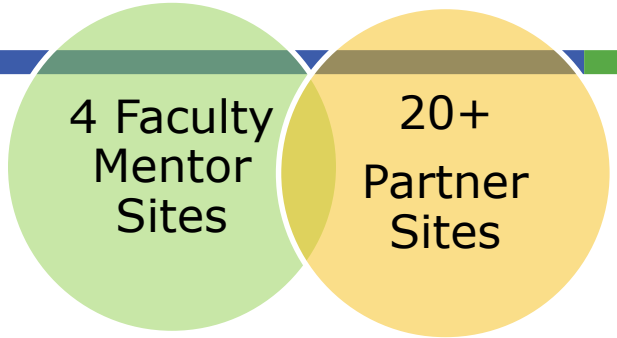
MATERNAL OPIATE MEDICAL SUPPORTS: "MOMS+ PROJECT"

OPQC plans work upstream using a "Mentor and Partner" framework made of Obstetric (OB), Medication Assisted Treatment (MAT)/Opioid Treatment Program (OTP),Behavioral Health (BH) and Neonatal/Pediatric providers to improve care for pregnant women with opioid use disorder and their infants focusing on:

- Compassionate and coordinated clinical and community based services
- Supported mother/infant dyad post delivery



MOMS

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DRAFT MOMS+ Project
Key Driver Diagram (KDD)

Project Leader: Carole Lannon (PI)

Revision Date: *01/18/2018*

Global Aim

Optimize the health and well—being of pregnant women with opioid use disorder and their infants

SMART Aim

Optimize maternity medical home to improve outcomes for pregnant women with opioid use disorder as measured by:

- Increased identification of pregnant women with opioid use disorder (PRAF 2.0)
- Increased % of women during pregnancy who receive PNC, MAT, Behavioral counseling each month (OB will collect).
- Decreased % of full-term infants with NAS requiring pharm treatment (OB will collect) (OPQC NAS)
- Increased % of babies who go home with mother (OB practice will collect)(OPQC NAS)

Population

Pregnant women with opioid use disorder who intend to carry to term

Key Drivers

- Timely identification and tracking of pregnant women with opioid use disorders
- Compassionate and coordinated clinical and community based services
- Empowerment of women
- Supported mother/infant dyad post delivery

Interventions

- Track pregnant women with OUD history
- Connect with MAT providers and drug courts
- Accurate diagnosis (screening)

- Coordination between OB, BH, MAT, NICU
- Screen/brief intervention/refer for treatment
- Promote healthy behaviors during pregnancy (e.g. sobriety, smoking cessation, birth spacing (LARC)
- Centering Pregnancy©
- Non-judgmental support for pregnant women with OUD

- Transition to vocation
- Faith-based involvement
- Healthy behaviors
- Shared decision making; motivational interviewing

- Ensure mom and baby have a PCMH (post-delivery)
- Continuation of services during pregnancy
- Retention post-delivery
- Coordination with job and family services

Legend

- Potential intervention
- Active intervention
- Adopted/Abandoned intervention

Draft Maternal Opiate Medical Supports Plus (MOMS+) Project
Key Driver Diagram (KDD)

Project Leader: Carole Lannon (PI)

Revision Date: *01/18/2018*

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We will utilize MOMS algorithms to address 2nd driver: **Compassionate and coordinated clinical and community based services**

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We will align with the MOMS and NAS Projects for 4th driver: **Supported mother/infant dyad post delivery**

MOMS
MATERNAL OPIATE MEDICAL SUPPORT

Child Welfare and MOMS:
Building Partnerships to Improve Care

Ohio | Department of Medicaid
John R. Kasich, Governor
John B. McCarthy, Director

Ohio Mental Health & Addiction Services

- Encouragement of breast feeding when appropriate
- Recommendation for usage of 22kcal formula as a result of OPQC NAS Orchestrated Testing
- Partnering with neo/peds for consult at PNC visit
- Partnering with CPS

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Measures

- % of pregnant women identified with Opioid Use Disorder (OUD)
- % of women identified with tobacco use
- % of women who receive Prenatal Care (PNC), Medication Assisted Treatment (MAT) and Behavioral Health Counseling(BH)
- % of women receiving a toxicology screen during pregnancy
- % of women with stable housing
- % of women maintaining sobriety
- % of women receiving a toxicology screen at delivery
- % of infants with Neonatal Abstinence (NAS) Syndrome diagnosis
- % of full-term infants with NAS requiring pharmacological treatment
- % of babies who go home with mother without needing CPS Safety Plan

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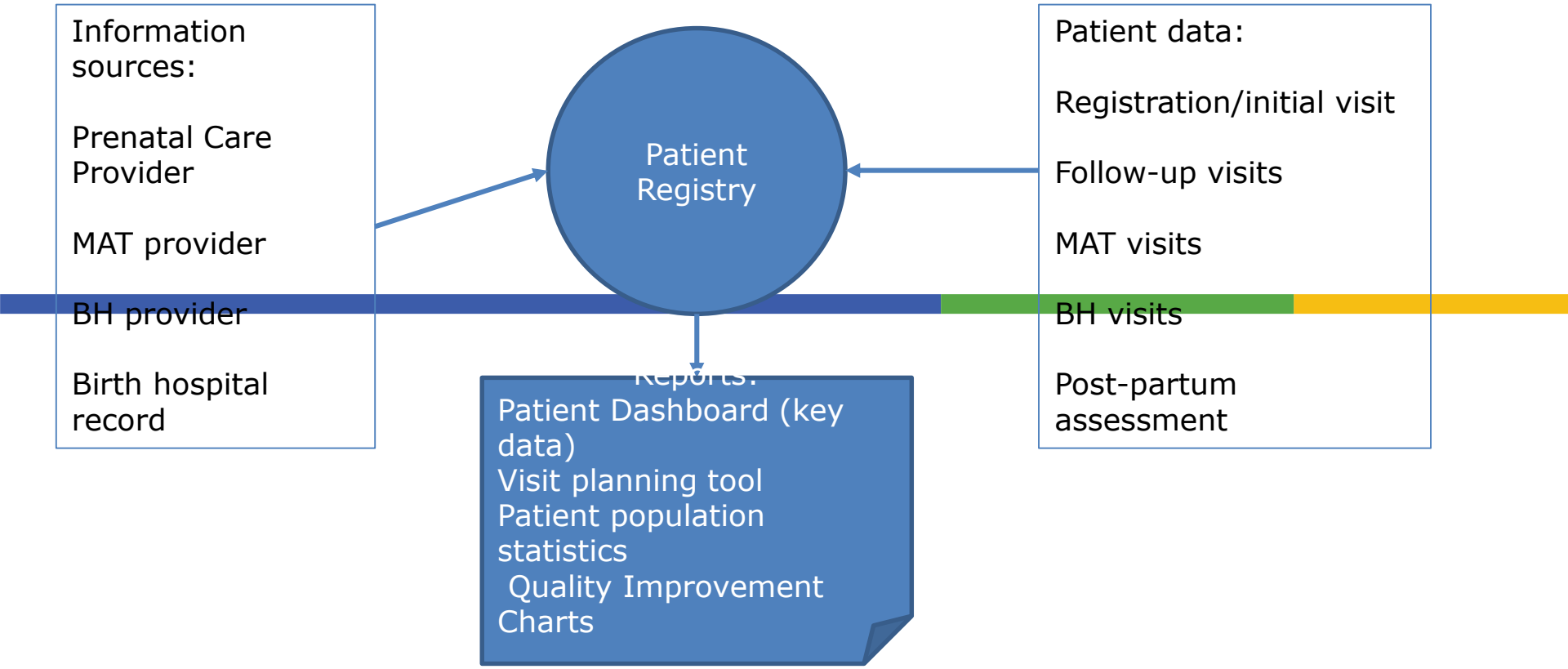
Data Collection

use a registry modelled on chronic care

- Draft forms created with feedback from MFM Faculty and select MAT & BH providers. Being tested by 6 sites.

Form	Completed by	Frequency
Registration	PNC Provider	Once – at first PNC visit
Prenatal Visit	PNC Provider	At each PNC visit
MAT Initial Visit	MAT Provider	Once – at first MAT visit
MAT Follow-up Visit	MAT Provider	At each MAT visit
BH Visit	BH Provider	Once – at first BH visit
BH Follow-up Visit	BH Provider	At each BH visit
Delivery & Discharge (mother & infant)	PNC Provider	At discharge
Post-Partum Visit	PNC Provider	At 6 week post-partum visit

MOMs + Data System



Through collaborative use of improvement science methods, reduce preterm births & improve perinatal and preterm newborn outcomes in Ohio as quickly as possible.

OPQC Ohio Perinatal Quality Collaborative

Next steps

- Systems inventories completed
- Complete Legal Agreements/DUAs
- Regional 'Kick-Off' Meetings: April - June
  - How to identify and develop an extended team:
    - collaboration & engagement among providers is crucial
    - identify MAT provider, BH provider, Social Worker and/or Nurse Navigator Coordinator, and Neonatologist or Pediatrician.
  - Adapt and use Attitude Survey piloted in OPQC NAS project
  - Introduction to Data Collection
- Data Collection begins after first of the year.
- Statewide Learning Session in Fall 2018

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It takes a village…