GEORGIA PERINATAL QUALITY COLLABORATIVE

Neonatal NAS Initiative Webinar

Your line has been placed on mute. The webinar will begin shortly.

July 9, 2019

2:00-3:00pm

The Ohio Perinatal Quality Collaborative:

Standardization of NAS Protocols

Susan Ford, MSN, CPNP

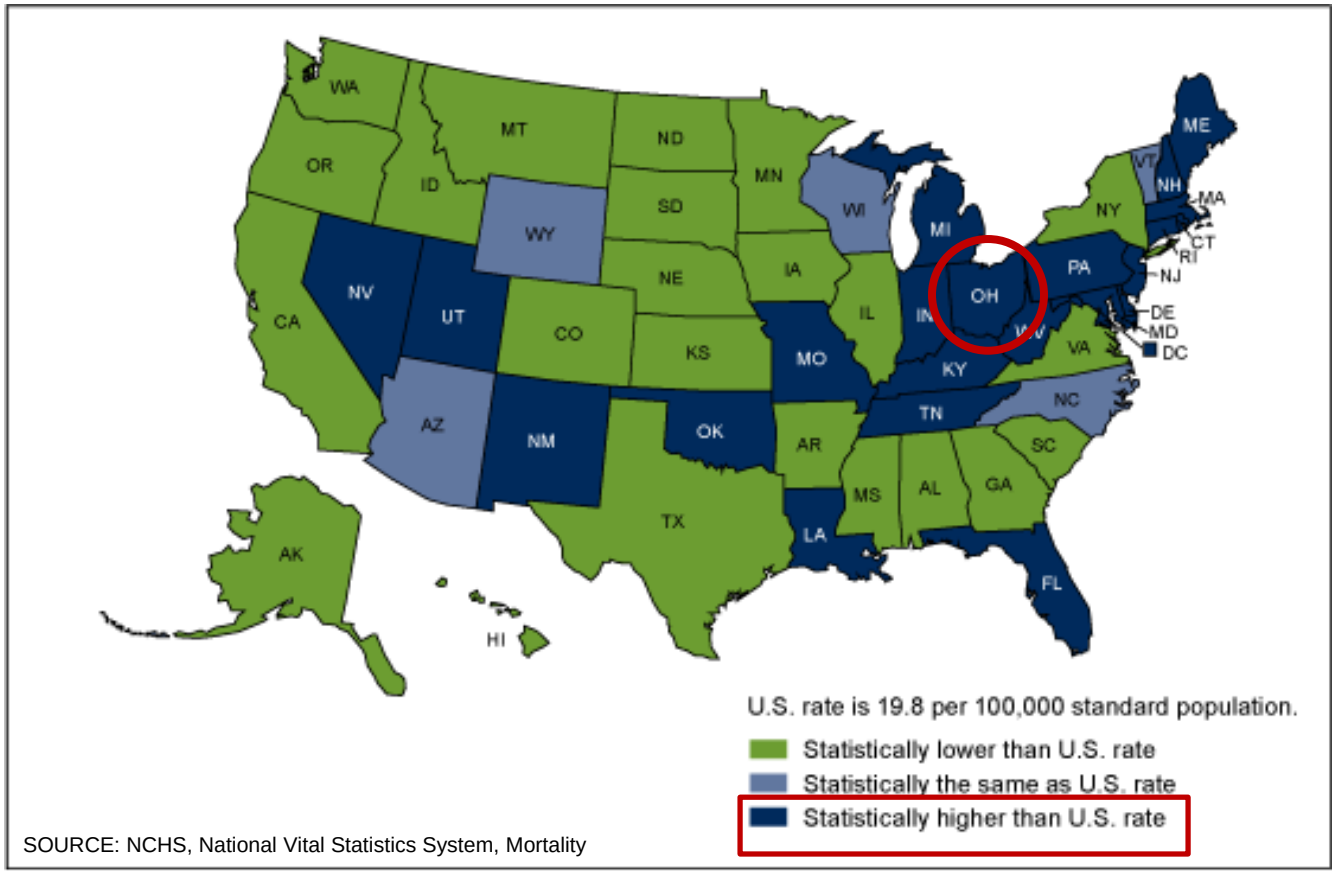
July 9, 2019

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

Objectives

- Identify potentially better practices, including pharmacological and non-pharmacological treatment for infants with NAS
- Describe the statewide Ohio Perinatal Quality Collaborative methodology to improve treatment of infants with NAS
- Discuss the practice of standardized care and the impact on decreasing duration of opioid treatment and length of stay for NAS

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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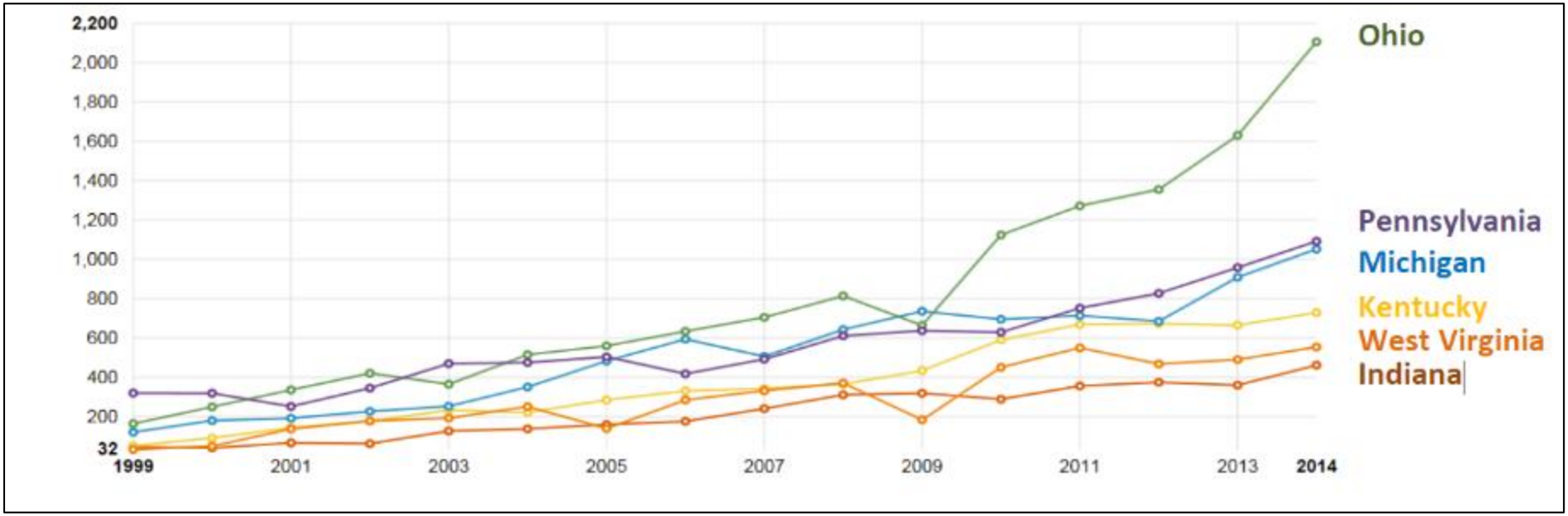
Total Opioid Overdose Deaths



- Ohio's opioid overdose death rate increased 325 percent in five years (2009 to 2014).
- Unintentional opioid overdoses caused 2,590 Ohio deaths in 2015 and accounted for 85% of all drug overdose deaths in the state.
- This is equivalent to six Ohioans dying every day or one Ohioan dying every four hours from an opiate overdose.

Source: statistics are from the Kaiser Family Foundation State Health Facts Website, including Opioid Overdose Death Rates and Opioid Overdose Deaths by Type of Opioid, and from the 2015 Ohio Department of Health Unintentional Overdose Death Report.

Incidence of Maternal Opiate Use and NAS Since 2004

- From 2004 to 2014, the rate of U.S. infants diagnosed with opioid withdrawal symptoms, known as neonatal abstinence syndrome (NAS), **increased 433%**, from 1.5 to 8.0 per 1,000 hospital births.

- However, the increase was even more stark in state Medicaid programs -- rising from 2.8 to 14.4 per 1,000 hospital births. Medicaid, a public health insurance program, covered more than 80% of NAS births nationwide in 2014.

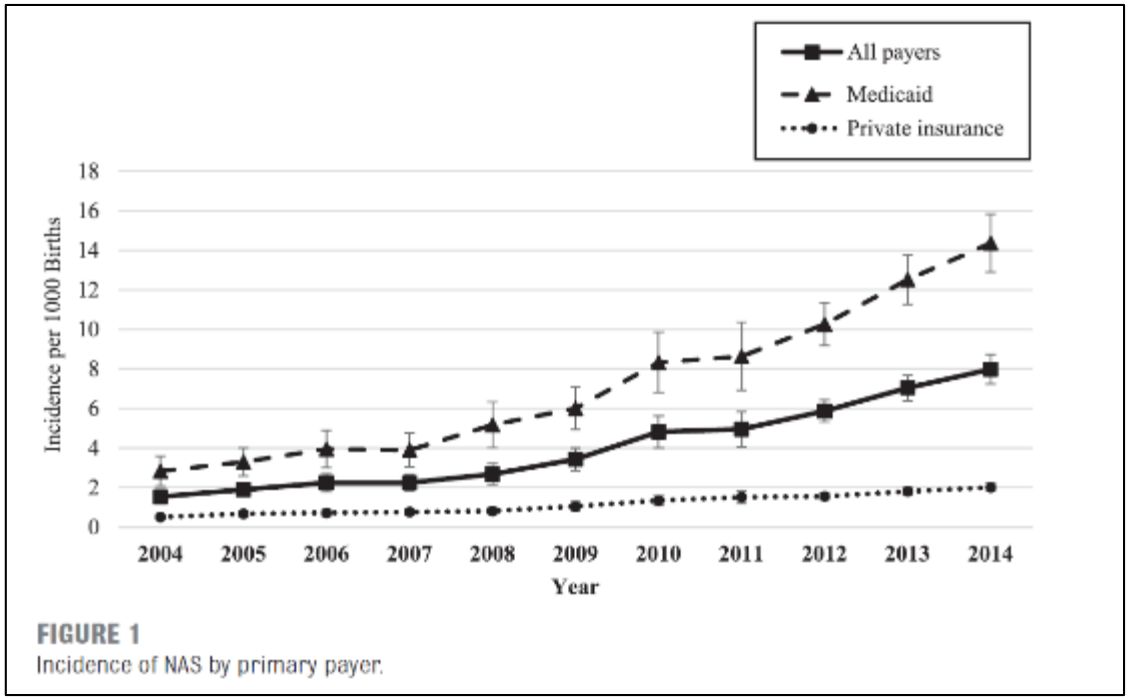
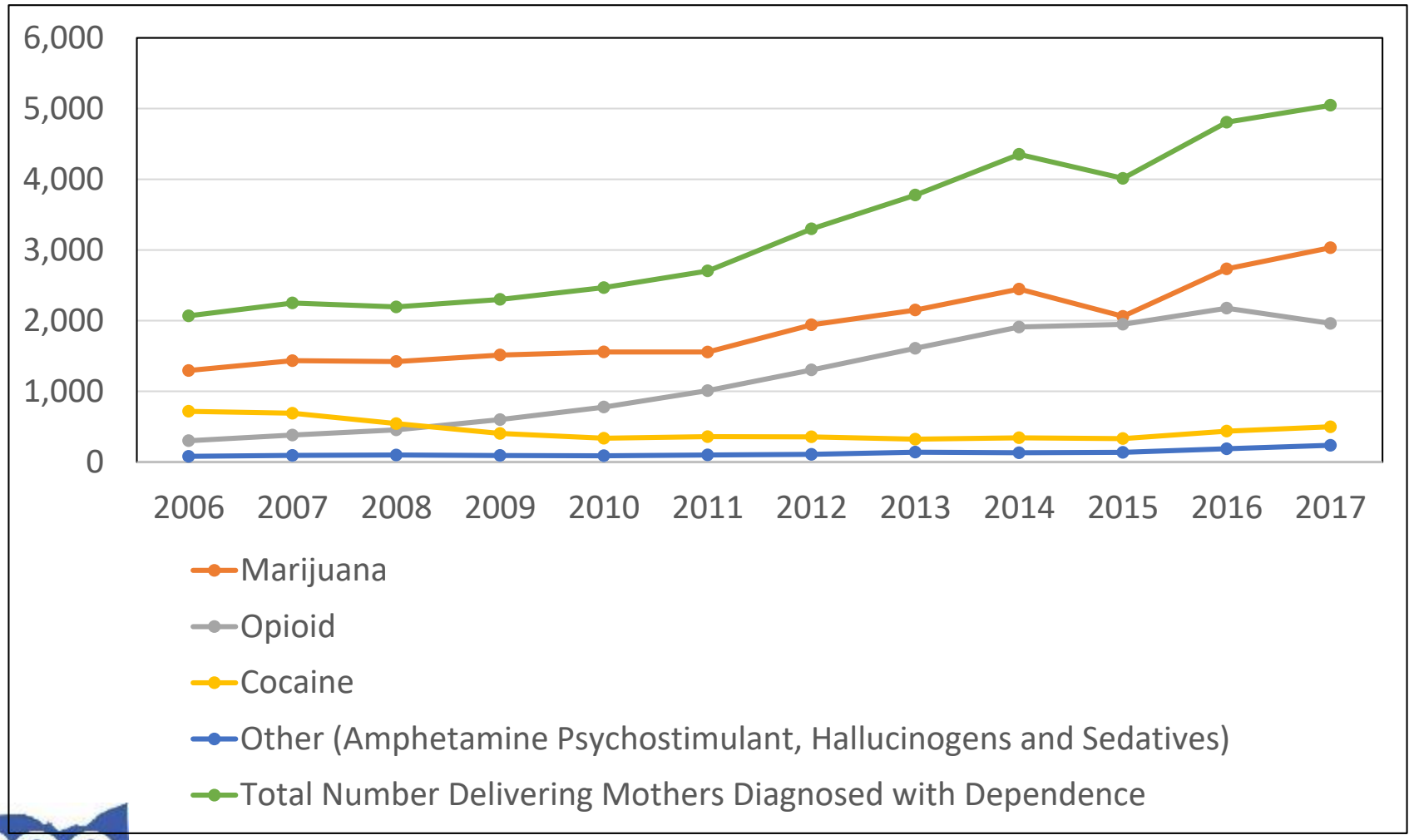


FIGURE 1
Incidence of NAS by primary payer.

Winkelman, Tyler NA, et al. "Incidence and Costs of Neonatal Abstinence Syndrome Among Infants With Medicaid: 2004–2014." *Pediatrics* 141.4 (2018): e20173520.

Drug Use or Dependence at Time of Delivery



Source: Ohio Hospital Association

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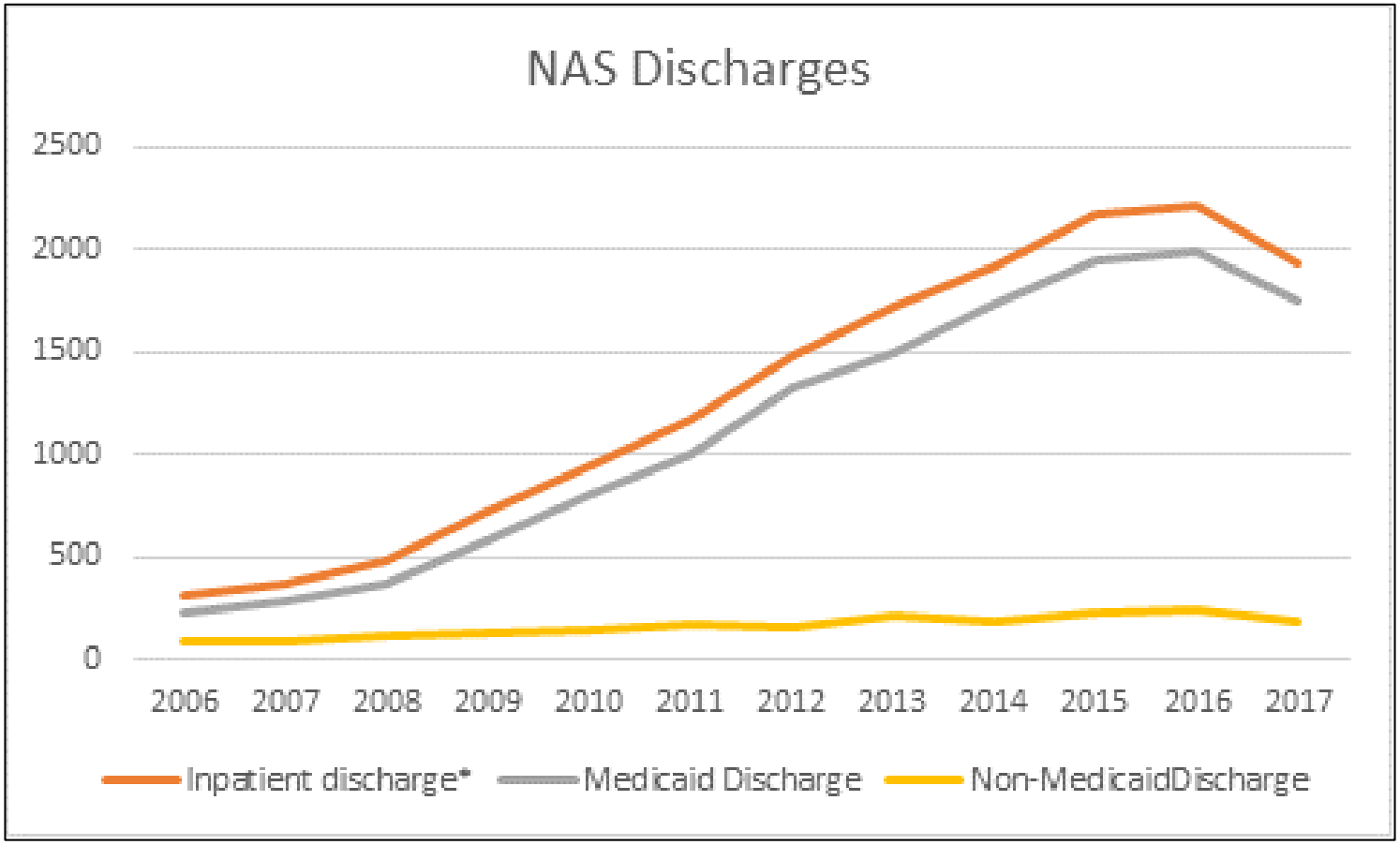
Increases in Incidence of NAS



- From 2006 to 2017, there were approximately 15,441 hospital discharges due to NAS among Ohio residents in Ohio hospitals; 1,935 were in 2017.
- The hospital discharge rate for NAS in 2017 (140 per 10,000 live hospital births) was approximately 6.3 times the rate in 2006 (20 per 10,000).

NAS Treatment and Cost

- Cost of Inpatient Hospitalizations
  - In 2015, **Medicaid** was the **payer** for appr **89.7%** of NAS inpatient hospitalizations.

Ohio
Department of Medicaid

- Cost of Treating NAS
  - In 2015, **treating** newborns with **NAS** was associated with over **$133 million** in charges and over 30,000 days in Ohio's hospitals.

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NEONATAL ABSTINENCE SYNDROME:

Standardizing care in Ohio for the NAS infant

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Why standardize?

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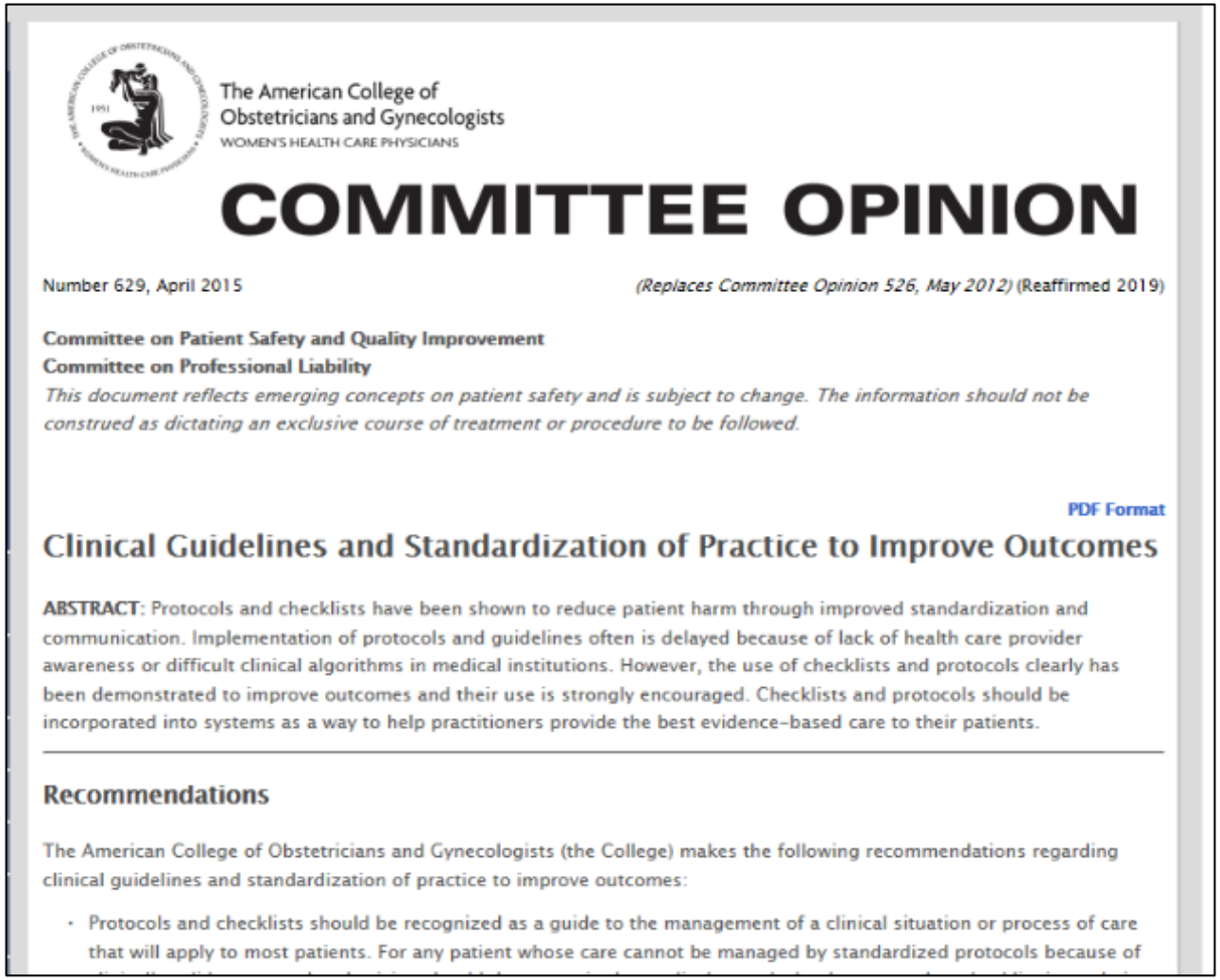
Why standardize?



The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

COMMITTEE OPINION

Number 629, April 2015 *(Replaces Committee Opinion 526, May 2012)* (Reaffirmed 2019)

Committee on Patient Safety and Quality Improvement
Committee on Professional Liability

This document reflects emerging concepts on patient safety and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

PDF Format

Clinical Guidelines and Standardization of Practice to Improve Outcomes

ABSTRACT: Protocols and checklists have been shown to reduce patient harm through improved standardization and communication. Implementation of protocols and guidelines often is delayed because of lack of health care provider awareness or difficult clinical algorithms in medical institutions. However, the use of checklists and protocols clearly has been demonstrated to improve outcomes and their use is strongly encouraged. Checklists and protocols should be incorporated into systems as a way to help practitioners provide the best evidence-based care to their patients.

Recommendations

The American College of Obstetricians and Gynecologists (the College) makes the following recommendations regarding clinical guidelines and standardization of practice to improve outcomes:

- Protocols and checklists should be recognized as a guide to the management of a clinical situation or process of care that will apply to most patients. For any patient whose care cannot be managed by standardized protocols because of

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Why standardize?

ARTICLE

A Multicenter Cohort Study of Treatments and Hospital Outcomes in Neonatal Abstinence Syndrome

CONCLUSIONS: Use of a stringent protocol to treat NAS, regardless of the initial opioid chosen, reduces the duration of opioid exposure and length of hospital stay. Because the major driver of cost is length of hospitalization, the implications for a reduction in cost of care for NAS management could be substantial. *Pediatrics* 2014;134:e527–e534

Children's Hospital, Dayton, Ohio; [e]The Research Institute, and [f]Department of Neonatology, Nationwide Children's Hospital, Columbus, Ohio; [g]Department of Biostatistics and Epidemiology, Cincinnati Children's Hospital, Cincinnati, Ohio; and [h]Department of Neonatology, ProMedica Toledo Children's Hospital, Toledo, Ohio

for infants with NAS.

ABSTRACT

Ohio Children's Hospital Association NAS Consortium

- September 2012 –September 2014
- Six children’s hospitals and their affiliates (20 total hospitals)
- Funded by Office of Governor John Kasich
- Goals:
  - Understand epidemiology of mothers and infants with NAS by following longitudinal cohort
  - Determine the “potentially better practice” for NAS treatment
  - Identify variation and areas for future research

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Descriptors: 553 neonates (2012 - 2013)

- Young, white and single
- 80% mothers public insurance
- 85% had pregnancy complications
- 26% Hepatitis C positive
- 82% used tobacco products

Hall et. al. *Pediatrics.* 2014;134(2):e527

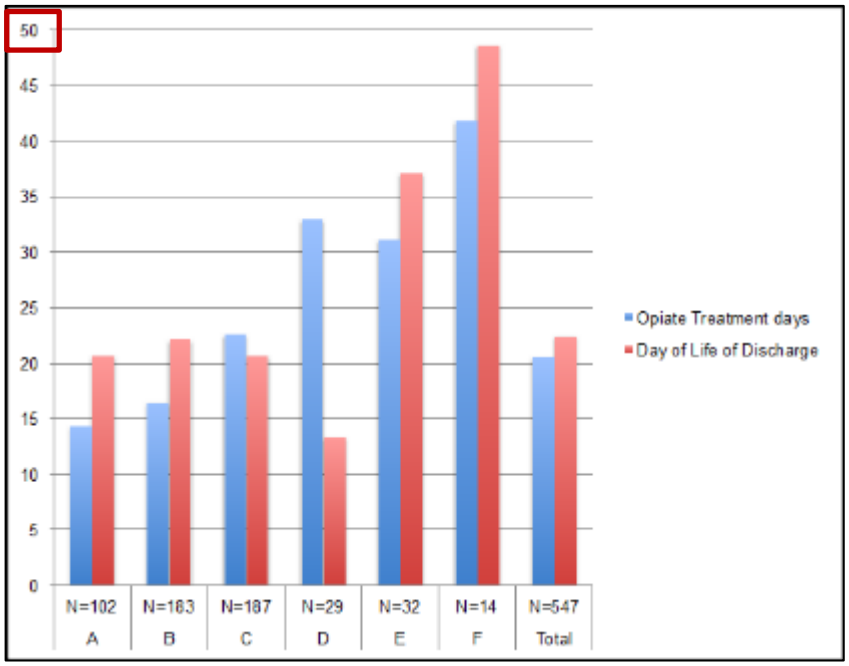
Infant Treatment Characteristics

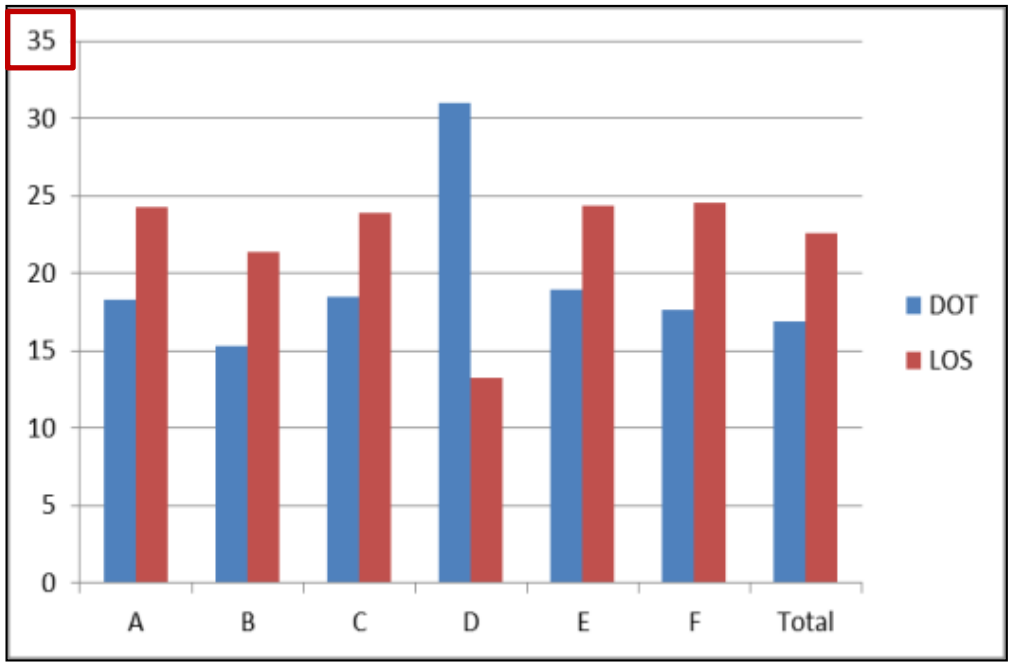
Symptoms Started (mean)	46.1 hours
Opioid Treatment Days (mean)	20.5 days
DOL at discharge (mean)	22.4 days
Number of Drugs Used (mean)	1.5
Drugs used Morphine only Methadone only	 50.8% 41%

Hall et. al. *Pediatrics.* 2014;134(2):e527

Impact of Ohio OCHA Weaning Protocol

- In July 2013 a standard “Potentially Better” weaning protocol was adopted by all six groups.
- We documented management of 462 infants prior to statewide adoption of the weaning protocol, and 392 infants after adoption.
  - We removed infants who completed therapy as an outpatient, as this center did not adopt the protocol.





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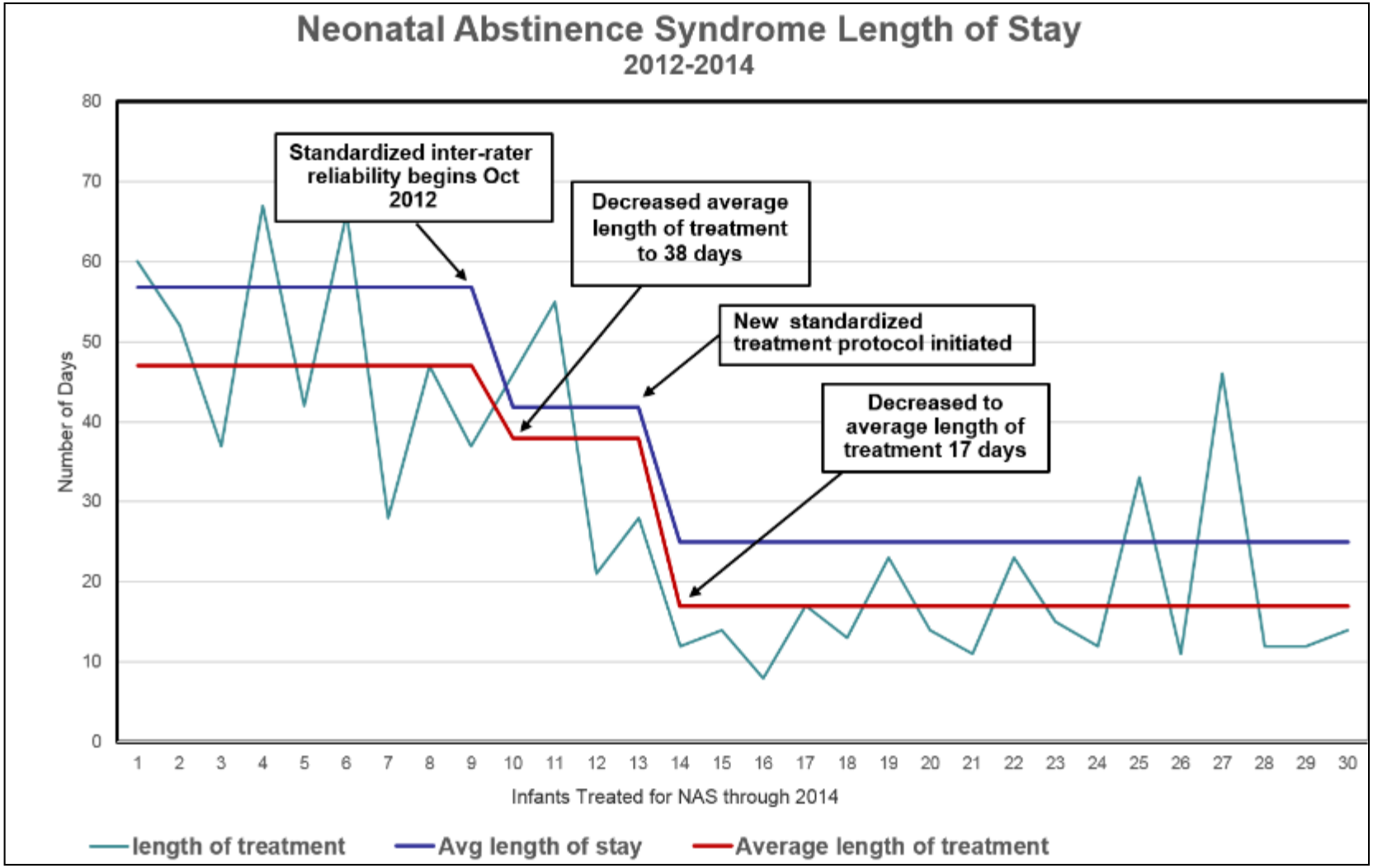
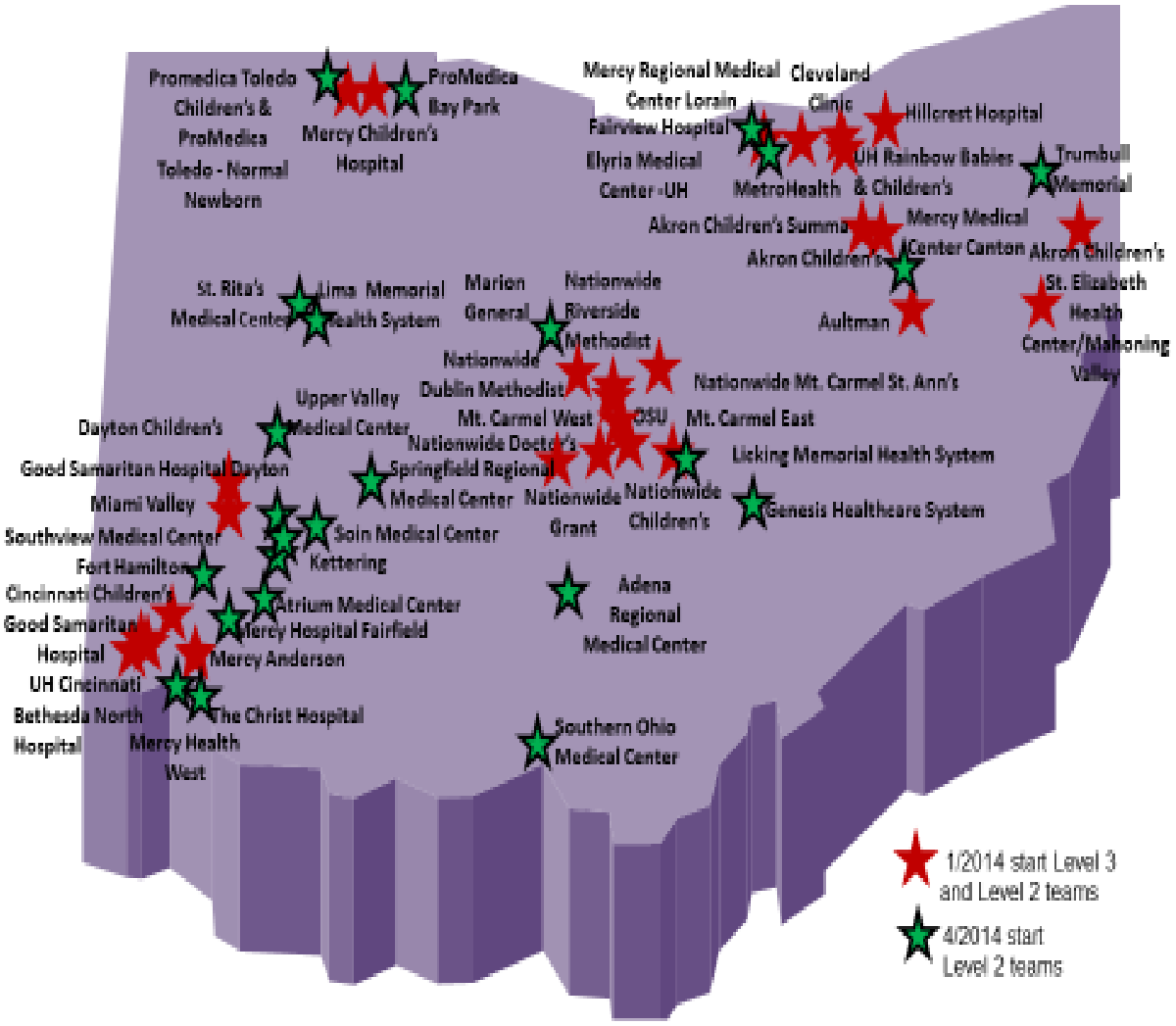
Ohio Children's Hospital Association

Impact of Standardization at a participating OCHA Site



Spreading OCHA learnings through Ohio

- 54 sites:
  - 26 Level III NICU's
  - 26 Level II Special Care Nurseries
  - 2 Normal Newborn Nurseries
- Funded by Ohio Department of Medicaid to start January 2014



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Key Driver Diagram

Project Name: OPQC Neonatal NAS

GLOBAL AIM

To reduce the number of moms and babies with narcotic exposure, and reduce the need for treatment of NAS.

SMART AIM

By increasing identification of and compassionate withdrawal treatment for full-term infants born with Neonatal Abstinence Syndrome (NAS), we will reduce length of stay by 20% across participating sites by June 30, 2015.

KEY DRIVERS

- Prenatal Identification of Mom Implement Optimal Med Rx Program
- Improve recognition and non-judgmental support for Narcotic addicted women and infants
- Attain high reliability in NAS scoring by nursing staff
- Optimize Non-Pharmacologic Rx Bundle
- **STANDARDIZE NAS Treatment Protocol**
- Connect with outpatient support and treatment program prior to discharge
- Partner with Families to Establish Safety Plan for Infant
- Partner with other stakeholders to influence policy and primary prevention.

INTERVENTIONS

- All MD and RN staff to view "Nurture the Mother- Nurture the Child" Vermont Oxford Network's DVD
- Monthly education on addiction care.
- Fulltime RN staff at Level 2 and 3 to complete D'Apolito NAS scoring training video and achieve 90% reliability.
- Swaddling, low stimulation.
- Encourage kangaroo care
- Feed on demand- MBM if appropriate or lactose free, 22 cal formula
- Initiate Rx If NAS score > 8 twice.
- Stabilization/ Escalation Phase
- Wean when stable for 48 hrs by 10% daily.
- Establish agreement with outpatient program and/or Mental Health
- Utilize Early Intervention Services
- Collaborate with DHS/ CPS to ensure infant safety.
- Engage families in Safety Planning.
- Provide primary prevention materials to sites.

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Key Strategies to Accomplish our AIM

- Develop and implement *standardized processes* for the identification, evaluation, treatment and discharge management of an infant with neonatal abstinence syndrome.
  - **Standardization** of Finnegan Scoring—improve consistency in use of Modified Finnegan Tool with D'Apolito video
  - **Standardization** of pharmacologic and non-pharmacologic care

- Create a culture of compassion, understanding, and healing for the mother infant dyad affected by the problem of neonatal abstinence syndrome.
  - Addiction as a chronic illness
  - Nurture the Mother-Nurture the Child video
  - Attitudes Survey

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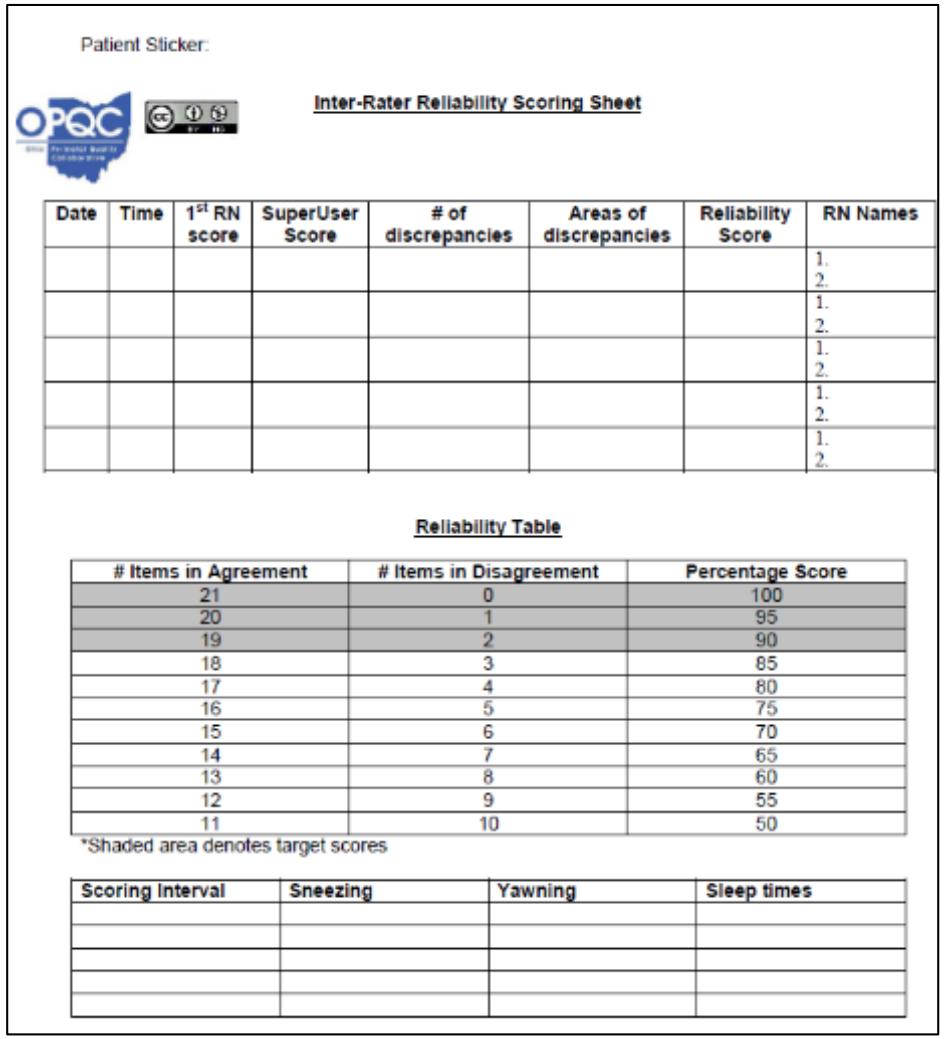
Attain high reliability in NAS scoring

- All sites use same tool
- Train RN staff to 90% reliability in scoring using D'Apolito Training System
- In Pilot work, we were able to see drop in max score when training completed
- OPQC has sent out DVD/workbook's to each site



Patient Sticker:

Inter-Rater Reliability Scoring Sheet

Date	Time	1st RN score	SuperUser Score	# of discrepancies	Areas of discrepancies	Reliability Score	RN Names
							1. 2.
							1. 2.
							1. 2.
							1. 2.
							1. 2.

Reliability Table

# Items in Agreement	# Items in Disagreement	Percentage Score
21	0	100
20	1	95
19	2	90
18	3	85
17	4	80
16	5	75
15	6	70
14	7	65
13	8	60
12	9	55
11	10	50

*Shaded area denotes target scores

Scoring Interval	Sneezing	Yawning	Sleep times

Assessment: why use a tool?

- 2005 study: 81% centers surveyed use assessment tool, 52% have guidelines
- Allows for “common language”, decrease variability, improve parent communication/involvement
- Based on opiate withdrawal
  - One tool for all substance withdrawal?
- Confounding factors
  - Term vs preterm vs beyond neonatal period
  - Staff training and competency maintenance
  - Subjectivity

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About the Finnegan

- Originally developed in 1975; “Modified” in 1986
- 200 term, opiate exposed newborns
- Assessed from the beginning of one feeding until the beginning of the next feeding, Q 3-4 hrs
  - Challenging with breastfed neonates
- Recommended: start scoring at 2 hours of age; if score= 8, continue to score Q2 hrs until less than 7
- OPQC treatment protocol: begin treatment for 2 consecutive scores of >8 or one score ≥12
  (recommended treatment protocol in 2014)

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Maintaining Inter-Rater Reliability

2013 Site Staff Survey on Finnegan Scoring:

- 67% of RN staff responded
- 15.2 % felt somewhat or not comfortable
  - concerns: scoring of sleep for older babies, excoriation
- 37% wanted more education/training
- 26% of staff were not conducting inter-rater reliability scoring properly

Maintaining Inter-Rater Reliability

- 2013 all RNs watched: “Assessing signs and symptoms of Neonatal Abstinence using the Finnegan Scoring Tool” video from NeoAdvances
- Unit-based NAS Super Users re-educated all staff
- Lunch n’ Learns with 2013 VON iNICQ NAS Webinars
- Dual score minimally once every 12 hours with an NAS Super User or an NNP
- 2013 reliability scores= 98%

NeoAdvances Training Program

NEO ADVANCES
Enhancing the Care of Drug-Exposed Infants

Home | Program | Workshops | Resources | Authors | Store | Contacts

Articles
Web Sites

Inter-Observer Reliability Program

Objectives of the program:

Health care professionals will be able to:

1. Accurately assess opioid-exposed infants for the presence of withdrawal signs and symptoms.
2. Implement appropriate examination techniques required to evaluate opoid-exposed infants for clinical signs and symptoms of withdrawal.
3. Document clinical signs and symptoms of withdrawal using the Finnegan Neonatal Abstinence Scoring Tool (FNAST).
4. Achieve 90% reliability in using the FNAST.

The program can be used individually or in groups to increase the reliability in assessing infants for signs and symptoms of opioid withdrawal.

Components of the Program:

1. A manual which includes program instructions, definitions of the signs and

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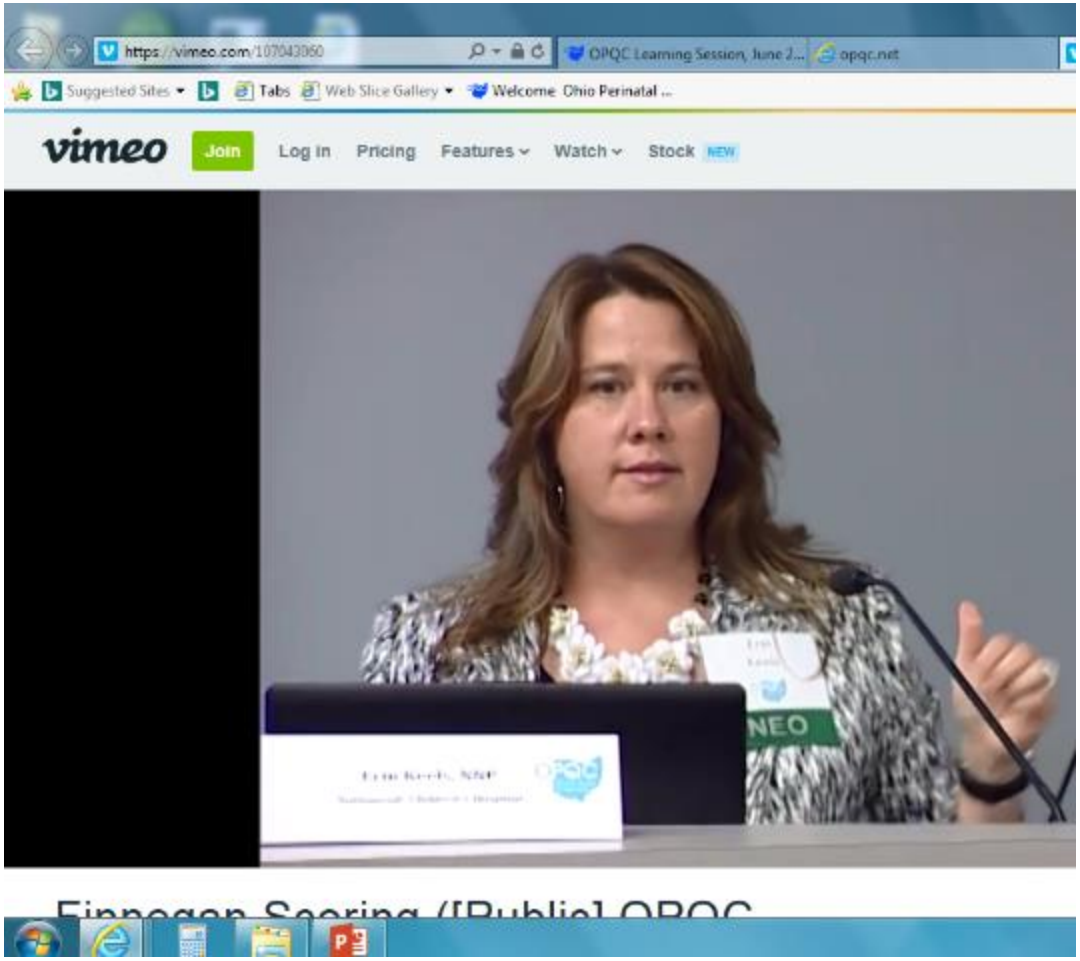
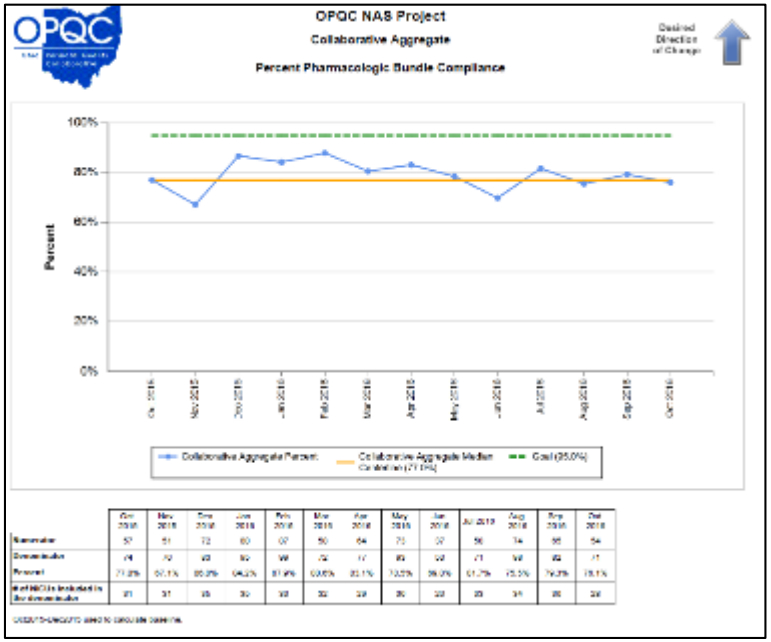
Video presentation on OPQC website

- https://vimeo.com/107043060



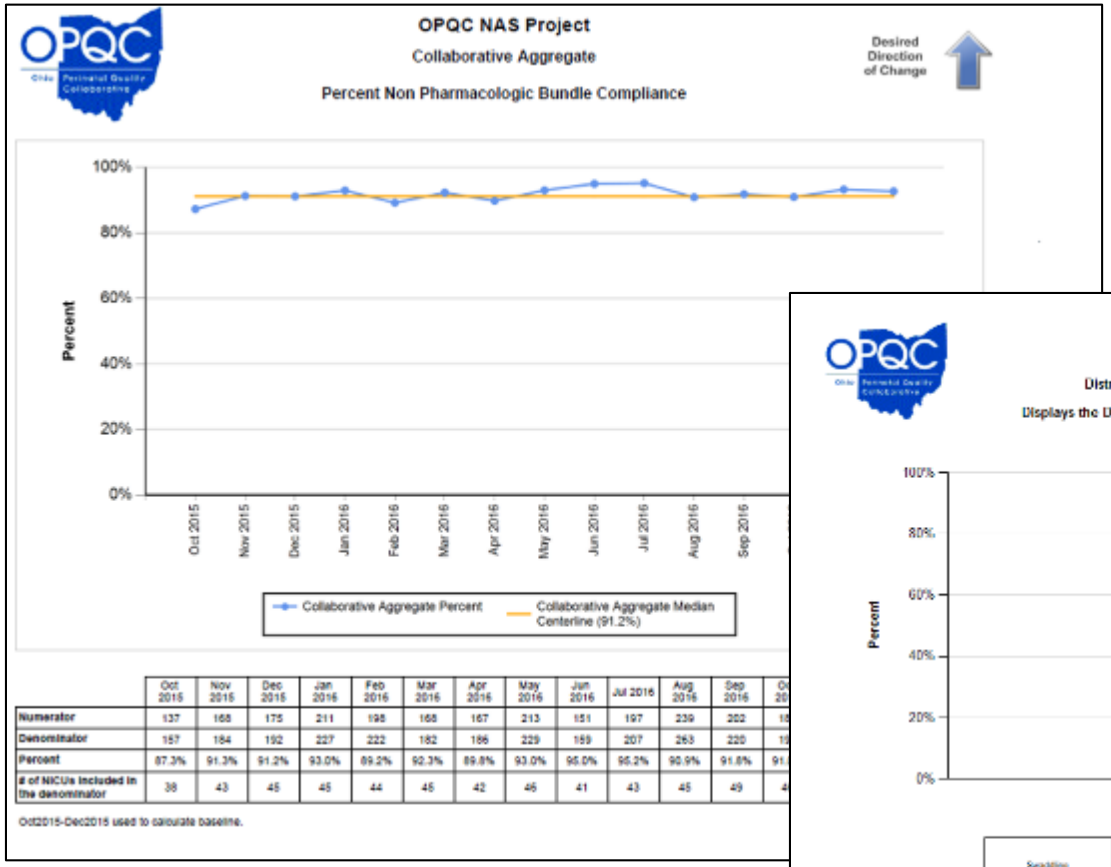
Standardize Pharmacological Treatment Bundle



Ohio Potentially Better Protocol

Initiate	Treatment should be initiated if infant has: • 2 consecutive scores > 8 *or* • 1 score > 12
	Drug: Morphine/ Methadone 0.05 mg/kg PO
Escalate	If ≥ 12, increase dose
Stabilize	No increase for 48 hrs
Wean	10% of max dose daily Discharge • 48 hours off Morphine • 72 hours off Methadone

Standardize Non-Pharmacological Treatment Bundle



OPQC NAS Project

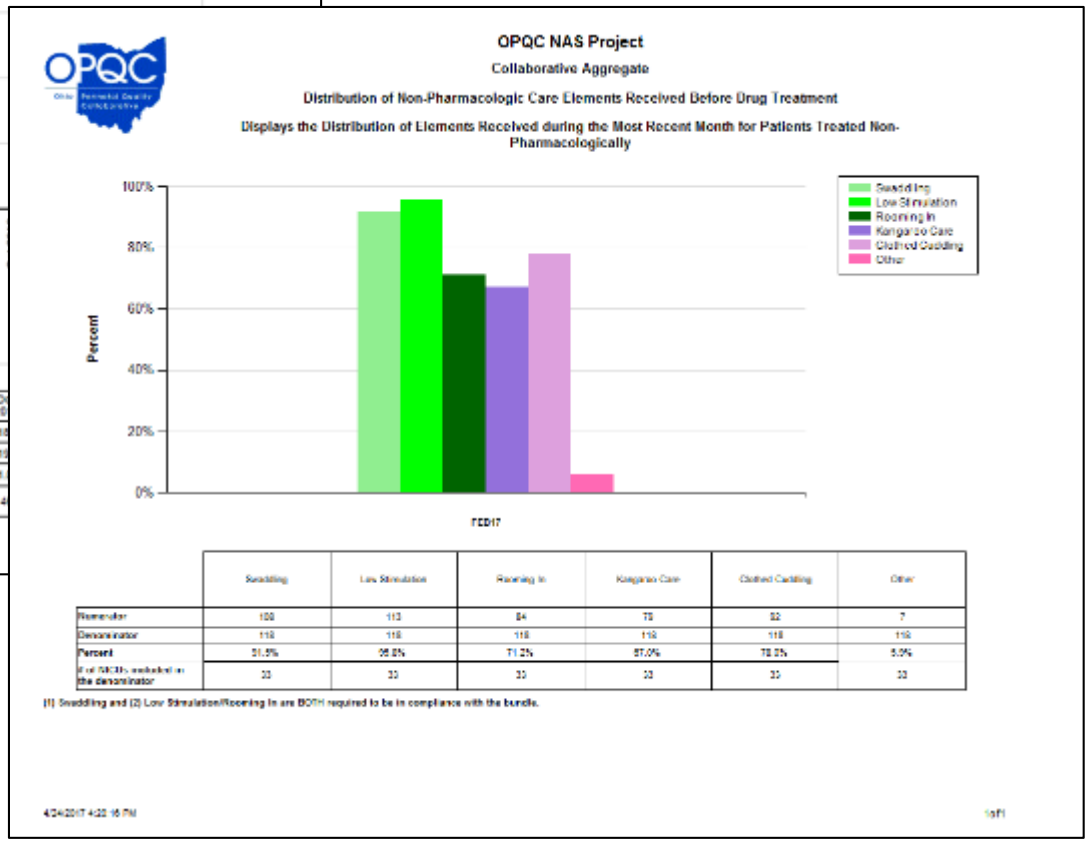
Collaborative Aggregate

Percent Non Pharmacologic Bundle Compliance

Desired Direction of Change

	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016
Numerator	137	168	175	211	198	168	167	213	151	197	239	202
Denominator	157	184	192	227	222	182	186	229	159	207	263	220
Percent	87.3%	91.3%	91.2%	93.0%	89.2%	92.3%	89.8%	93.0%	95.0%	95.2%	90.9%	91.8%
# of NICUs included in the denominator	38	43	45	45	44	45	42	46	41	43	45	49

Oct2015-Dec2015 used to calculate baseline.



OPQC NAS Project

Collaborative Aggregate

Distribution of Non-Pharmacologic Care Elements Received Before Drug Treatment

Displays the Distribution of Elements Received during the Most Recent Month for Patients Treated Non-Pharmacologically

	Swaddling	Low Stimulation	Rooming In	Kangaroo Care	Clothed Cuddling	Other
Numerator	100	113	84	78	92	7
Denominator	110	110	110	110	110	110
Percent	91.5%	96.8%	71.2%	87.0%	78.0%	5.0%
# of NICUs included in the denominator	33	33	33	33	33	33

(1) Swaddling and (2) Low Stimulation/Rooming In are BOTH required to be in compliance with the bundle.

4/24/2017 4:22:16 PM

1 of 1

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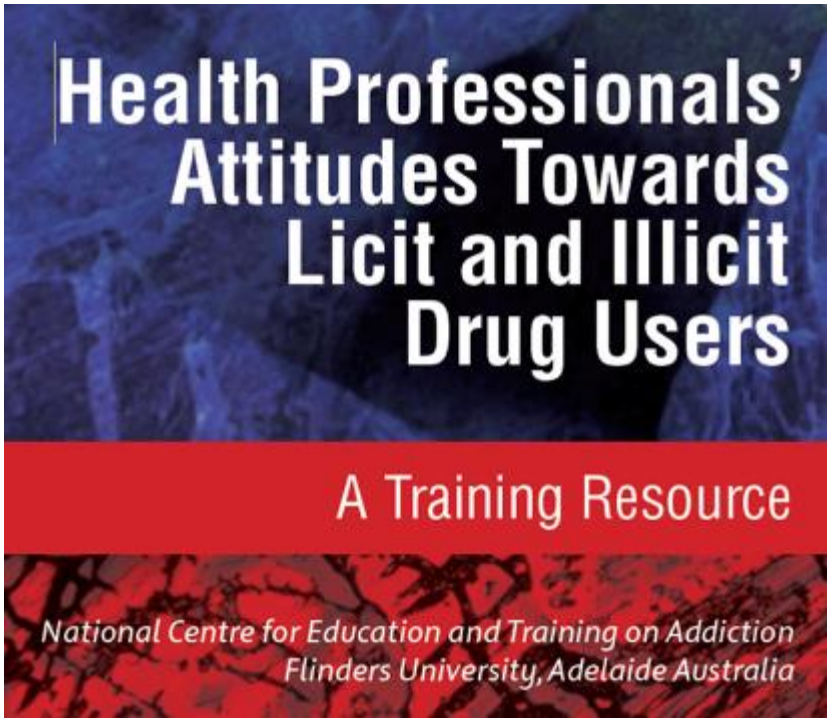
Non-Pharmacological Treatment

- Decreased stimulation
- Rooming in for mom and baby
- Swaddling
- Skin to skin or Kangaroo care
- Breastfeeding is safe and effective!
  - Promotes bonding
  - Very little MAT medications in breastmilk
  - Can potentially reduce length of hospital stay for NAS infants
- Low lactose formula when infant not breastfeeding

Improve recognition and non-judgmental support for Narcotic addicted women and infants

Attitude Measures Survey



This resource is focused on people's attitudes towards alcohol and other drug use and is designed to encourage health professionals to explore and evaluate their attitudes towards drug users - particularly perceptions about a client's or patient's deservingness of medical care.

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OPQC Interventions Focused on Attitude Change

- Unit wide training for all NICU staff about living with OUD—”Nurture the Mother-Nurture the Child” video
- Sharing stories of pregnant women with SUD—session with panel of mother of infants with NAS
- Education about addiction as a chronic disease—lectures by addiction specialist
- Community resources outreach—NICU teams identified community resources available to support mother-infant dyad and examined barriers to accessing resources

Survey Question	Desired Direction of Change	Adjusted Mean Time point 1	Adjusted Mean Time point 2	Adjusted Mean Time point 3
To what extent do you feel angry towards people using drugs?	Down	2.41	2.27*	2.29*
To what extent is an individual personally responsible for their problematic drug use?	Down	4.21	4.02*	3.98*
To what extent do you feel disappointed towards people using drugs?	Down	3.11	2.92*	2.95*
To what extent are adverse life circumstances likely to be responsible for a person's problematic drug use?	Up	3.65	3.71	3.72
To what extent do you feel sympathetic towards people using drugs?	Up	2.95	3.13*	3.14*
To what extent do people who use drugs deserve the same level of medical care as people who don't use drugs?	Up	4.49	4.56	4.57*
To what extent do you feel concerned towards people using drugs?	Up	4.15	4.13	4.19

*Denotes a significant difference from the mean of timepoint 1 after adjusting for site and multiple comparisons

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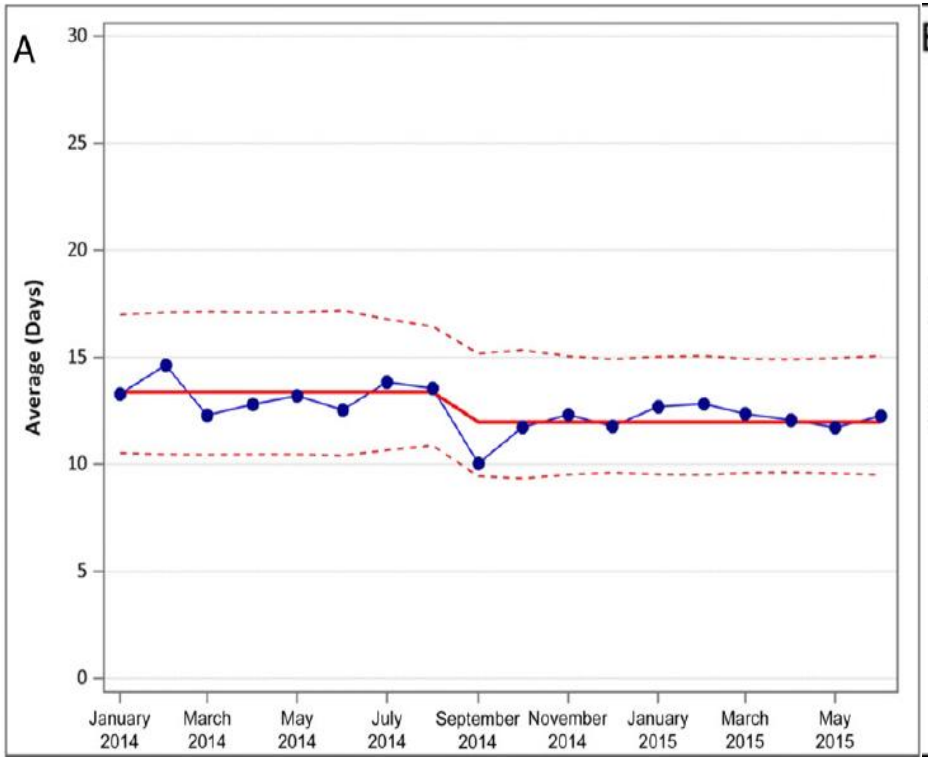
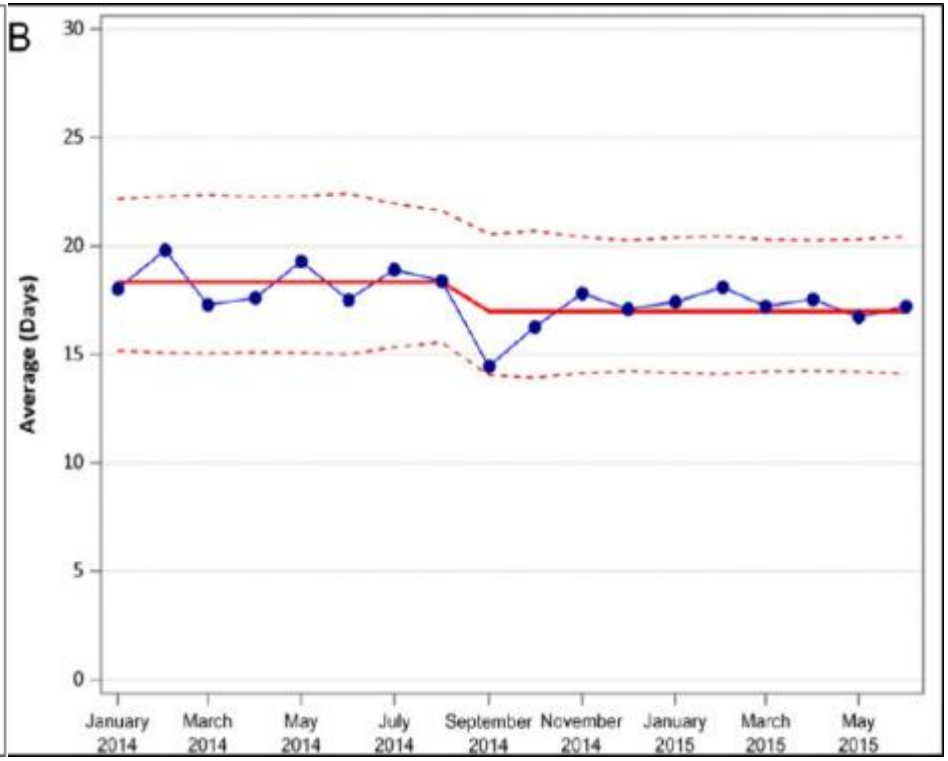
Phase I Results

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





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OPQC NAS
Phase 1 Publication

PEDIATRICS

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Ohio Perinatal Quality Collab

CONCLUSIONS: **Standardized approaches to the identification and non-pharmacologic and pharmacologic care were associated with a reduced length of opioid exposure and hospital stay in a large statewide collaborative. Other states and institutions treating opioid-exposed infants may benefit from the adoption of these practices.**

AAP News & Journals Gateway

OBJECTIVES: Neonatal abstinence syndrome (NAS) after an infant's in-utero exposure to opioids has increased dramatically in incidence. No treatment standards exist, leading to substantial variations in practice, degree of opioid exposure, and hospital length of stay.

METHODS: The Ohio Perinatal Quality Collaborative conducted an extensive multi-modal quality improvement initiative with the goal to (1) standardize identification, nonpharmacologic and pharmacologic treatment in level-2 and 3 NICUs in Ohio, (2) reduce the use of and length of treatment with opioids, and (3) reduce hospital length of stay in pharmacologically treated newborns with NAS.

RESULTS: Fifty-two of 54 (96%) Ohio NICUs participated in the collaborative. Compliance with the nonpharmacologic bundle improved from 37% to 99%, and the pharmacologic bundle improved from 59% to 68%. Forty-eight percent of the 3266 opioid-exposed infants received pharmacologic treatment of symptoms of NAS, and this rate did not change significantly across the time period. Regardless of the opioid used to pharmacologically treat infants with NAS, the length of treatment decreased from 13.4 to 12.0 days, and length of stay decreased from 18.3 to 17 days.

CONCLUSIONS: Standardized approaches to the identification and nonpharmacologic and pharmacologic care were associated with a reduced length of opioid exposure and hospital stay in a large statewide collaborative. Other states and institutions treating opioid-exposed infants may benefit from the adoption of these practices.

Accepted December 4, 2017.

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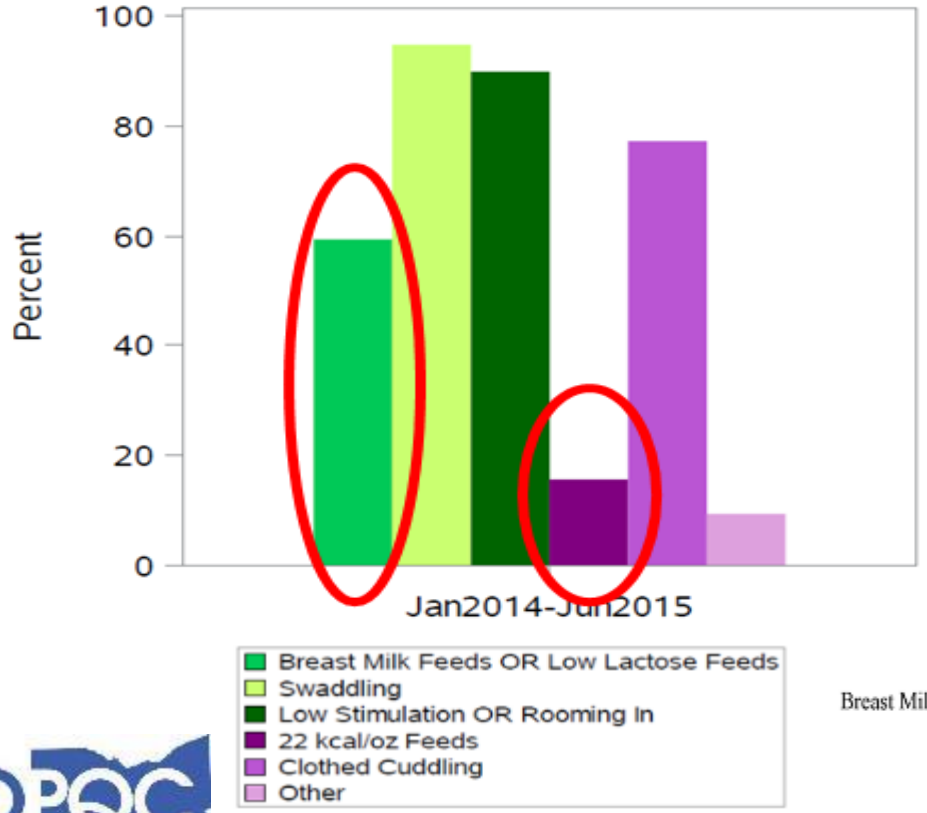
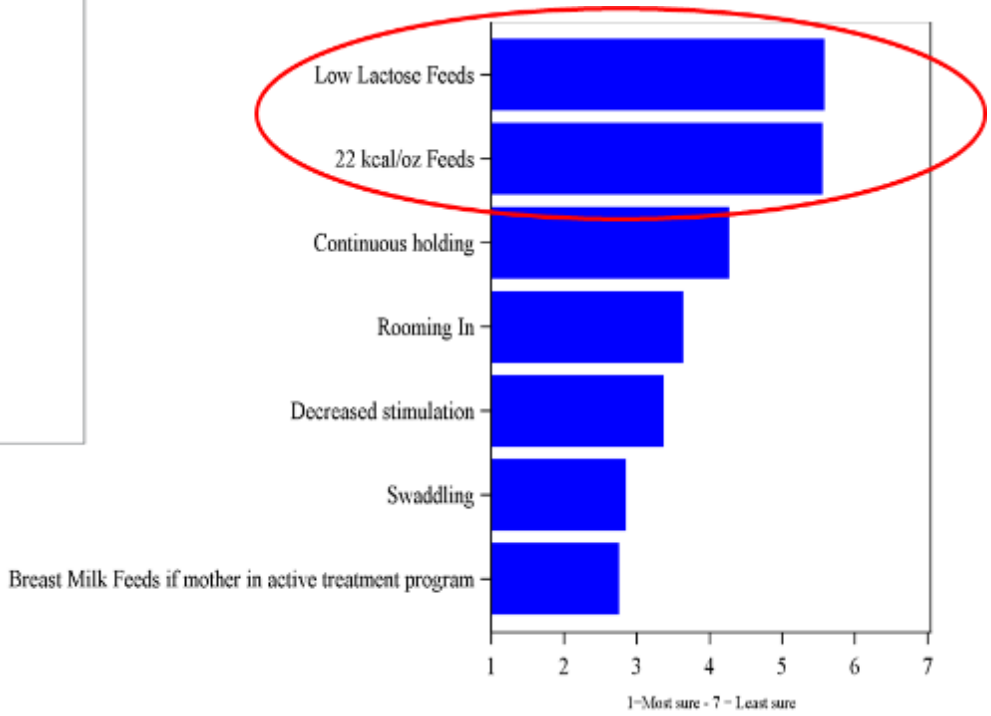
Variation and Uncertainty in Non-Pharmacologic Care

Distribution of Compliance with Non-Pharmacologic Bundle Components



Survey Responses Regarding Certainty in Non-Pharmacologic Bundle Components (7= Least Sure)



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Orchestrated Testing (OT)

- OT involves planned testing across multiple sites (within or across institutions)
- Can use factorial design to…
  - Be more systematic about simultaneous testing of different change ideas
  - Look at the independent and combined effects of different changes
- Standardization of practices and reliable implementation is necessary
- Can result in faster and more efficient learning

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OPQC OT Phase II

October 2015-June 2016

- Wide scale test of change examining the role of formula in non-pharmacologic care across 54 NICU/SCN sites
- Two change ideas (factors):
  - Type of formula
  - Calorie content of formula
- Two “levels” of each factor
  - Standard Lactose vs. Low-Lactose
  - Standard Calorie vs. Higher Calorie

Factorial Design

OPQC Factorial Design (2^2)

Group	Low Lactose Standard	22 kcal/oz Standard
1	Yes	Yes
2	No	Yes
3	Yes	No
4	No	No

Sites self-selected into 1 of 4 formula groups based on their practice culture

Measures

- LOS (pharmacologically treated infants)
- Treatment failure—percent infants requiring dose escalation, failed wean, and/or secondary medication
- Weight Loss >10%

Formula Choice based on Orchestrated Testing Results

Overall, the Orchestrated Testing data suggest that **use of 22 kcal/oz could be a beneficial practice** for NAS non-pharmacologic support

- Consistent benefit of 22 kcal/oz feeds on weight loss, treatment failure, and length of stay
  - **22 kcal/oz formula is associated with less treatment failure and shorter length of stay**, though only explains a very small amount of the variation

- Benefit of LLF is not consistent across outcome measures--possible synergistic effect with 22 kcal/oz on weight loss and length of stay, but not on treatment failure

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OPQC NAS Recommendations

Non-Pharmacologic Treatment

- All infants are treated with decreased stimulation, swaddling, continuous holding, and frequent feedings.
- Encourage breastfeeding if mother is in treatment program.
- If breast milk not used, give 22 kcal/oz formula. Low-lactose formula may be used at the discretion of the unit.

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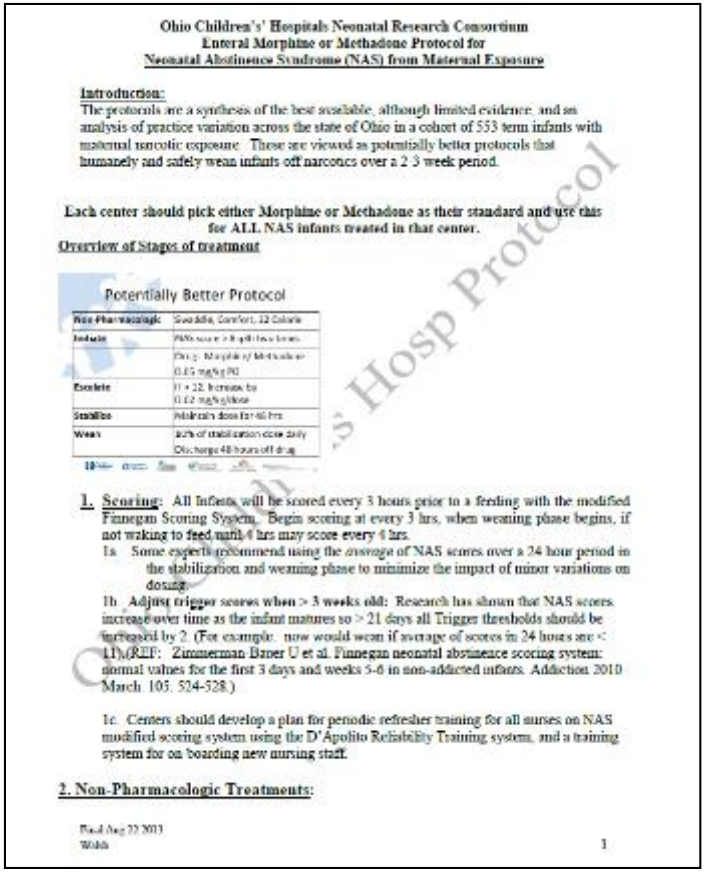
Updates to Recommended Standardized NAS Protocol



Ohio Children's' Hospitals Neonatal Research Consortium
Enteral Morphine or Methadone Protocol for
Neonatal Abstinence Syndrome (NAS) from Maternal Exposure

Introduction:
The protocols are a synthesis of the best available, although limited evidence, and an analysis of practice variation across the state of Ohio in a cohort of 553 term infants with maternal narcotic exposure. These are viewed as potentially better protocols that humanely and safely wean infants off narcotics over a 2-3 week period.

Each center should pick either Morphine or Methadone as their standard and use this for ALL NAS infants treated in that center.

Overview of Stages of treatment

Potentially Better Protocol

Non-Pharmacologic	Swaddle, Comfort, 22 Calorie
Initiate	PRN score > 8 q3h (two times
	Drug: Morphine or Methadone
	0.05 mg/kg PO
Escalate	If > 22, increase to
	0.07 mg/kg dose
Stabilize	Maintain dose for 48 hrs
Wean	10% of stabilization dose daily
	Discharge 48 hours off drug

1. Scoring: All Infants will be scored every 3 hours prior to a feeding with the modified Finnegan Scoring System. Begin scoring at every 3 hrs, when weaning phase begins, if not waking to feed until 4 hrs may score every 4 hrs.

1a. Some experts recommend using the *average* of NAS scores over a 24 hour period in the stabilization and weaning phase to minimize the impact of minor variations on dosing.

1b. Adjust trigger scores when > 3 weeks old: Research has shown that NAS scores increase over time as the infant matures so > 21 days all Trigger thresholds should be increased by 2. (For example: now would wean if average of scores in 24 hours are < 11).(REF: Zimmerman Bauer U et al. Finnegan neonatal abstinence scoring system: normal values for the first 3 days and weeks 5-6 in non-addicted infants. Addiction 2010 March 105: 524-528.)

1c. Centers should develop a plan for periodic refresher training for all nurses on NAS modified scoring system using the D'Apolito Reliability Training system, and a training system for on boarding new nursing staff.

2. Non-Pharmacologic Treatments:

Final Aug 22 2013
Words 1

- "Potentially Better Practices Protocol" came from the pilot work of the OCHA NAS Project based on cohort of 553 infants in 20 participating sites
- Updating recommendations based on OPQC NAS Project cohort of 6819 infants in 54 participating sites
  - Including feeding recommendations based on Orchestrated Testing results
  - Updates to the Methadone protocol are based upon testing of the pharmacokinetic-driven protocol that resulted in both a shorter length of treatment and hospitalization
  - Changes to initiation of treatment:
    - >8 x3 or >12 x2
  - Morphine escalation doses to be score dependent.

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OPQC NAS Recommendations

Pharmacologic Treatment

Overview of Stages of treatment:

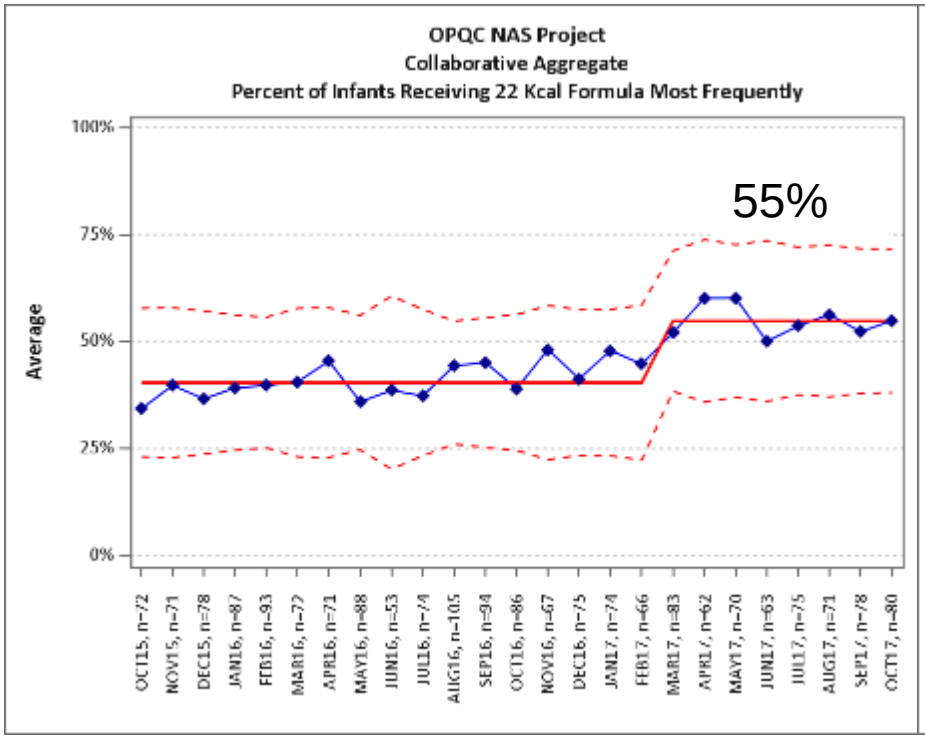
Non-pharmacologic bundle:	**Swaddle, skin to skin, decreased stimulation breast feed or 22kcal formula**
Pharmacologic bundle:	
• **Initiate**	• **Select Methadone or Morphine PO** • **Finnegan scores >8 q3hrs THREE times or scores ≥ 12 TWO times in a row**
• **Escalate**	• **If Finnegan scores remain elevated, increase dosage based on infant's score**
• **Stabilize**	• **Maintain dose for 24 hrs (Methadone)** • **Maintain dose for 48 hrs (Morphine)**

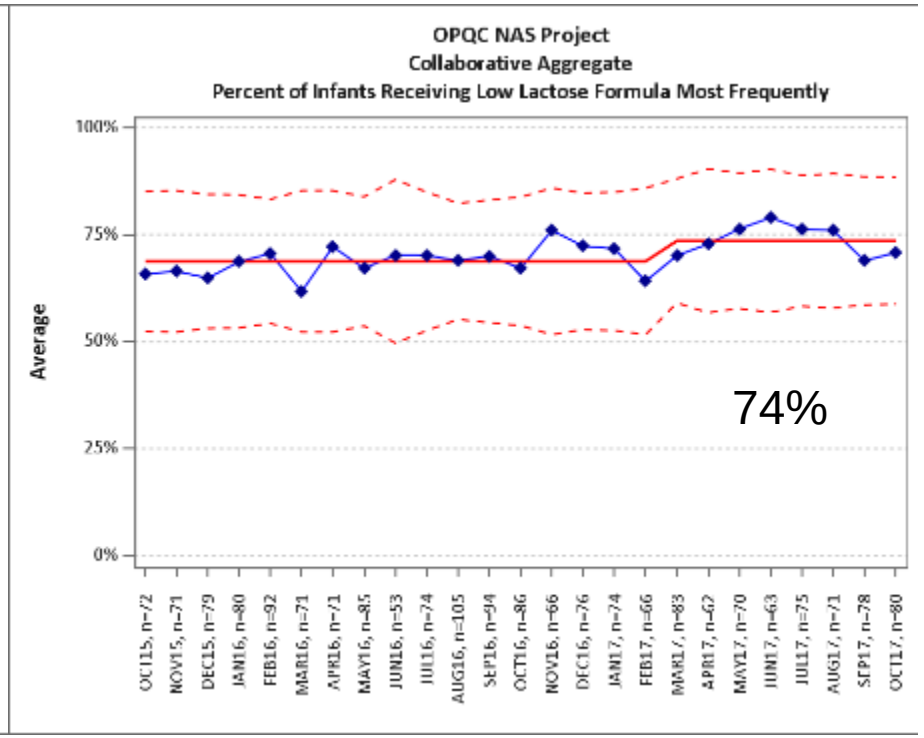
• **Wean**	• **Wean every 24 hrs based on Finnegan scores**
	  • **Wean by step daily (Methadone)**
	  • **Wean by 10% stabilizing dose daily (Morphine)**

• **Discharge**	• **Discharge 48 hrs off of Methadone or Morphine**

Phase II Improvement

We saw increases in the use of 22 kcal/oz and low lactose feeding





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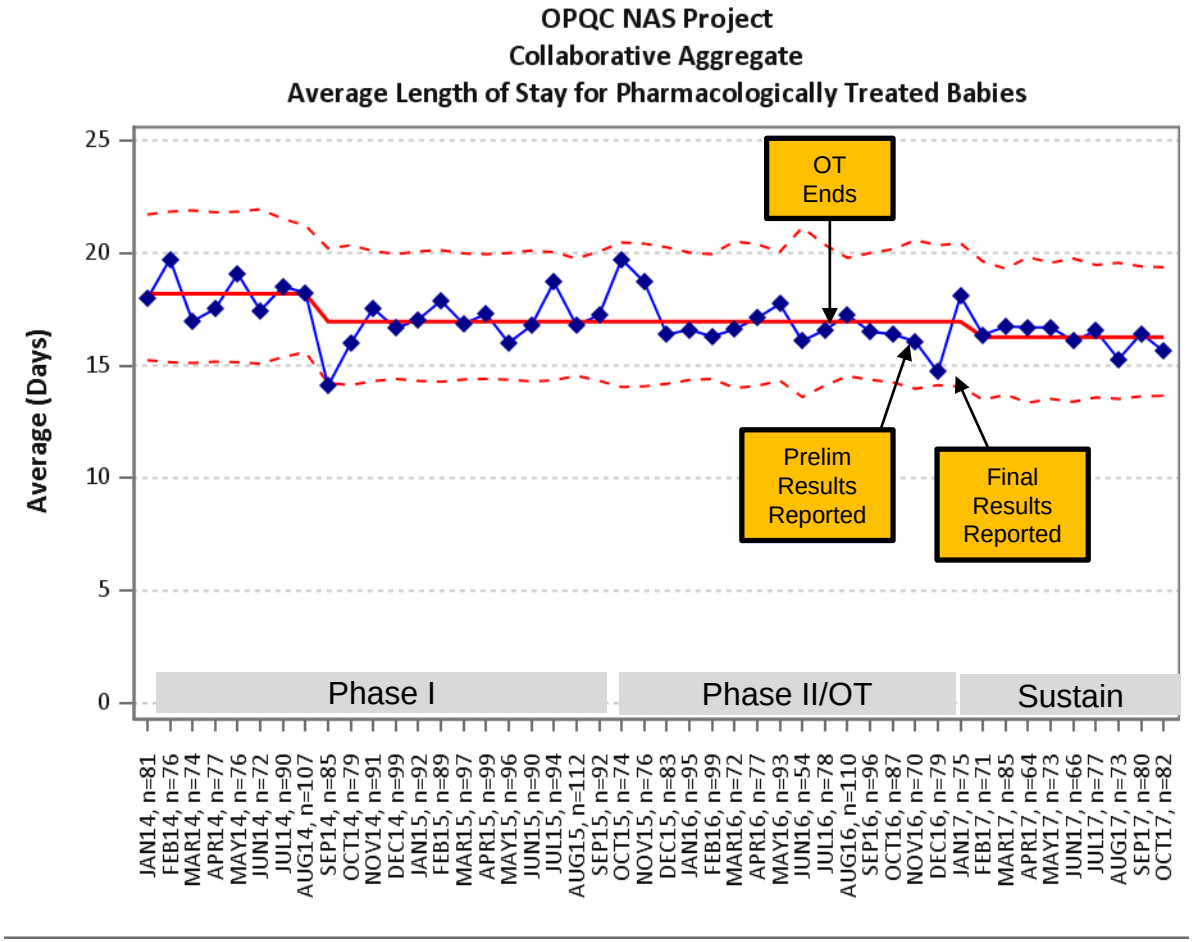
Phase II Improvement (cont'd)

Further reductions in LOS were seen with implementation of findings from OT



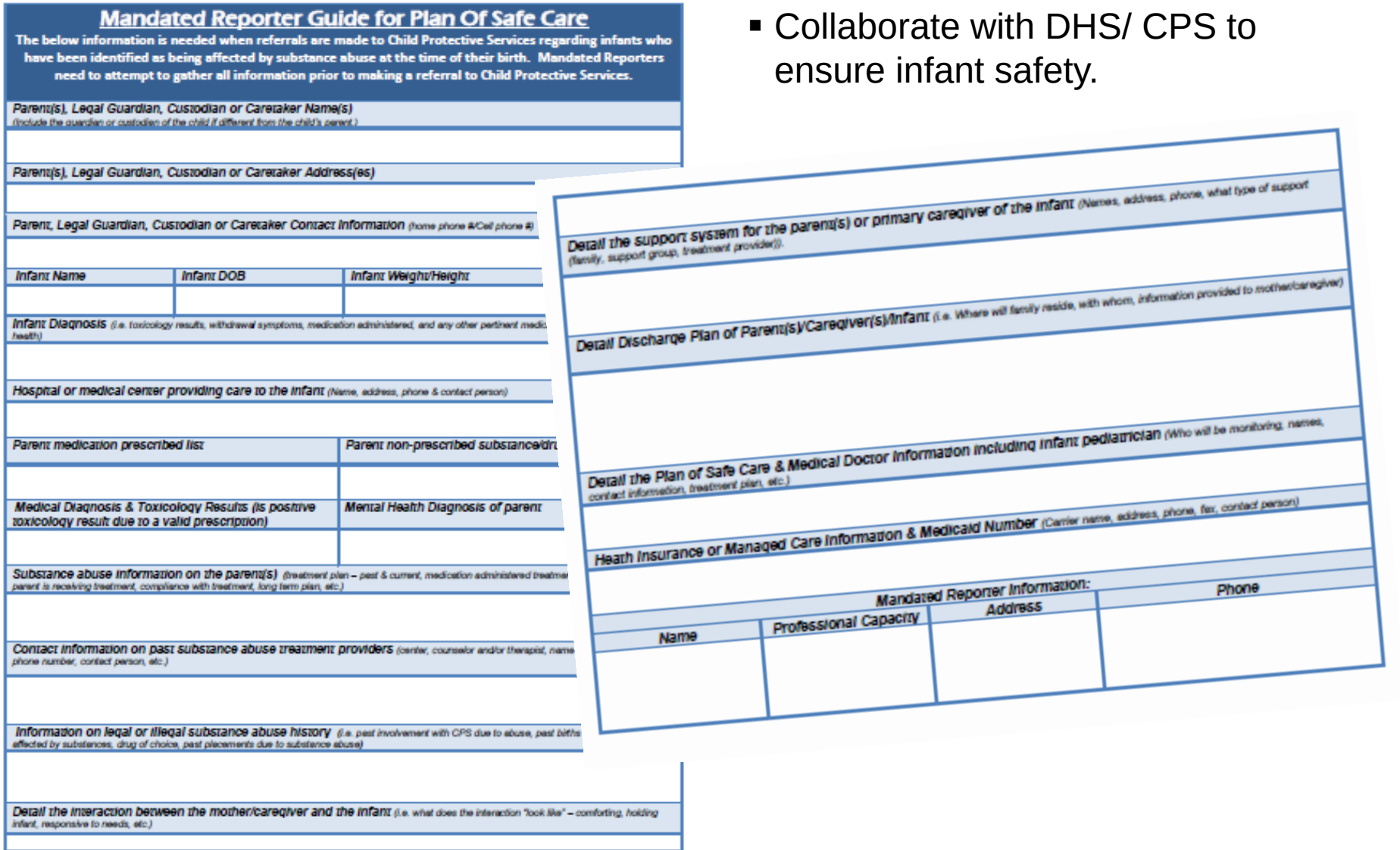
Reductions in LOS

18.3→17 days (Phase I)

17→16.3 days (Phase II)

Total reduction of 2 days!

Partner with Families to Establish Plan of Safe Care for Infant



Mandated Reporter Guide for Plan Of Safe Care

The below information is needed when referrals are made to Child Protective Services regarding infants who have been identified as being affected by substance abuse at the time of their birth. Mandated Reporters need to attempt to gather all information prior to making a referral to Child Protective Services.

Parent(s), Legal Guardian, Custodian or Caretaker Name(s) (Include the guardian or custodian of the child if different from the child's parent.)

Parent(s), Legal Guardian, Custodian or Caretaker Address(es)

Parent, Legal Guardian, Custodian or Caretaker Contact Information (home phone #/Cell phone #)

Infant Name	*Infant DOB*	*Infant Weight/Height*

Infant Diagnosis (i.e. toxicology results, withdrawal symptoms, medication administered, and any other pertinent medic health)

Hospital or medical center providing care to the infant (Name, address, phone & contact person)

Parent medication prescribed list	*Parent non-prescribed substance/dr*

Medical Diagnosis & Toxicology Results (Is positive toxicology result due to a valid prescription)	*Mental Health Diagnosis of parent*

Substance abuse information on the parent(s) (treatment plan – past & current, medication administered treatme parent is receiving treatment, compliance with treatment, long term plan, etc.)

Contact information on past substance abuse treatment providers (center, counselor and/or therapist, name phone number, contact person, etc.)

Information on legal or illegal substance abuse history (i.e. past involvement with CPS due to abuse, past births affected by substances, drug of choice, past placements due to substance abuse)

Detail the interaction between the mother/caregiver and the infant (i.e. what does the interaction "look like" – comforting, holding infant, responsive to needs, etc.)

Detail the support system for the parent(s) or primary caregiver of the infant (Names, address, phone, what type of support (family, support group, treatment provider)).

Detail Discharge Plan of Parent(s)/Caregiver(s)/Infant (i.e. Where will family reside, with whom, information provided to mother/caregiver)

Detail the Plan of Safe Care & Medical Doctor Information including infant pediatrician (Who will be monitoring, names, contact information, treatment plan, etc.)

Heath Insurance or Managed Care Information & Medicaid Number (Carrier name, address, phone, fax, contact person)

Mandated Reporter Information:

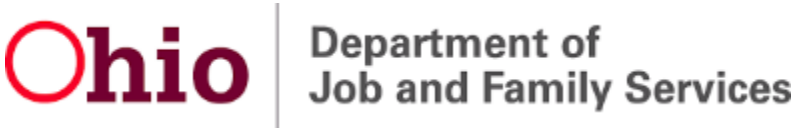
Name	Professional Capacity	Address	Phone

- Collaborate with DHS/ CPS to ensure infant safety.

Thank you! Any questions?

OPQC
Ohio Perinatal Quality Collaborative

It takes a village…



The NAS Project was funded by the Medicaid Technical Assistance and Policy Program (MEDTAPP) and administered by the Ohio Colleges of Medicine Government Resource Center. The views expressed in this meeting are solely those of the authors and do not represent the views of state or federal Medicaid programs.

Reminders

- Remember that your VON Day Audit period has begun
  - 11% of hospitals have submitted data
  - Email Kaitlyn.Kopp@dph.ga.gov or BGray@VTOXFORD.org for assistance
- LMS Access
  - Most hospitals have received access
- Please submit your SMART Aims by the next webinar
- The next webinar is August 13th from 2-3pm
  - Topic: NAS and the effects of In-utero exposure (Deepa Ranganathan)