

***Neonatal Abstinence Syndrome (NAS) Driver Diagram***

PA PQC Healthcare Teams previously engaged in the SEN initiative are welcome to continue collecting and reporting measures related to SEN for their own internal QI; however, the 2024 PA PQC NAS initiative is focused specifically on key interventions related to neonatal abstinence syndrome.

**Aims**

1. Increase identification of SENs and diagnosed NAS and FASD

* Use standardized definitions, diagnoses, ICD-10 codes, and documentation for SENs (for guidance, see CSTE NAS Case Definitions used by PA DOH)
* Train nurses caring for newborns on validated NAS assessments (e.g., Finnegan, Eat Sleep Console Care Tool) and practice inter-rater reliability
* Develop screening criteria for prenatal identification of infants at risk for substance exposure and NAS (see PA PQC SUD Driver Diagram)
* Screen for prenatal substance exposure (especially if not done during pregnancy) in the newborn nursey setting in the context of discussing health issues possibly affecting infant
* Educate staff re: SENs (including NAS), trauma-informed care, and state and countyguidelines (e.g., Family Care Plans / Plans of Safe)
* Educate staff on appropriate communication strategies for engaging parents/caregivers who are individuals with an FASD
* Create standardized prenatal consult templates and family education materials about SENs (including NAS) and what to expect from beginning to end (e.g., see https://www.ddap.pa.gov/Documents/Agency%20Publications/NAS%20Toolkit%20Book.pdf)
* Use trauma-informed principles for compassionate care for SENs and parents

Standardize compassionate, non-judgmental maternal/infant **screening**, prenatal **education**, and **support**

**Aims**

1. Decrease hospital LOS for NAS
2. Increase percentage of NAS who receive non-pharmacologic treatment
3. Increase breastmilk feeding among parents with SUD if not contraindicated and caregivers

**Balancing Measures**

1. Percent NAS infants with ED visits in first 30 days after newborn discharge
2. Percent NAS infants with hospital readmissions in first 30 days after newborn discharge

Use standardized **non-pharmacological treatment** bundles as the first line of treatment for all SENs

* Create and use non-pharmacotherapy order sets for SENs, including NAS
* Establish and adhere to a standardized non-pharmacological treatment protocol as the first line of treatment (e.g., rooming in with safety measures, skin-to-skin contact, swaddling, rocking, dimmed lighting, limited visitors, quiet environment)
* Establish breastmilk feeding guidelines based on national recommendations; educate staff on the guidelines and how to empower patients to make informed decisions about breastmilk feeding that support the health of their newborn; refer to lactation support
* Use empowering messaging to engage the parent/caregiver

Standardize **pharmacological management** of NAS

* Create and use pharmacotherapy EHR order sets for NAS
* Create standardized protocols for pharmacologic treatment of NAS

**Aims**

1. Increase referrals to and engagement in outpatient family care services, including physical, behavioral, and social services

**Establish Family Care Plans** Prior to Discharge

* Partner with families and social/child services to establish family care plans (Plans of Safe Care) according to federal, state, and county guidelines
* Use Cuddler Program to free up parent for treatment
* Refer SENs to appropriate follow-up services prior to discharge, including but not limited to Early Intervention (EI) Services, lactation support, and home visits, and close the loop on those referrals
* Follow-up with outpatient providers to ensure that the family care plans are adopted and engagement in outpatient care
* Follow the dyad for up to 15 months

Support **Engagement in Family Care Plans**



***Neonatal Abstinence Syndrome (NAS) Survey   
(Structure Measures)***

1. At the end of the quarter, what cumulative percentage of nurses caring for newborns in the nursey and/or NICU have been trained on validated assessments for NAS in the past year? (Report estimate in 10% increments; round up)
   1. Please select the validated assessment your team is using: (please check all that apply)
      1. Finnegan
      2. Modified Finnegan
      3. Eat Sleep Console Care Tool
      4. Other (please specify)
2. Does your PA PQC hospital have quality improvement efforts in place to increase and maintain inter-rater reliability for NAS assessments?
   * Yes, in place
   * No, working on it
   * No, have not started
3. Is your hospital using standardized definitions for Substance Exposed Newborns (SENs)?

*\*Note: The PA PQC defines SEN as in-utero exposure to any alcohol or other drug (AOD) substance.*

* + Yes, in place
    - If yes, please provide the definition
  + No, working on it
  + No, have not started

1. Is your hospital using standardized definitions for Neonatal Abstinence Syndrome (NAS)?

*\*Note: The PA PQC defines NAS as clinical signs of withdrawal from in-utero exposure due to any of the following prescription or illicit drugs:   
(a) opioids (which includes Medication for OUD (e.g., buprenorphine and methadone), natural opioids (e.g., morphine, codeine), semisynthetic opioids (e.g., heroin), and synthetic opioids (e.g., fentanyl, or fentanyl analogs), or opioid metabolites (e.g., 6-monoacetylmorphine);   
(b) benzodiazepines (e.g., diazepam, alprazolam); or   
(c) barbiturates(e.g., phenobarbital).*

*(Please note that the sub-set of NAS related to opioids is often referred to as Neonatal Opioid Withdrawal Syndrome or NOWS. The above definition for NAS includes but is not limited to NOWS.)*

* + - Yes, and we use the “confirmed” and “probable” case definitions for NAS defined in the Council of State and Territorial Epidemiologists’ (CSTE) NAS Standardize Case Definition and used by PA DOH (please see the Tier 1 Confirmed and Probable NAS case definitions on pages 7 and 8 at <https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf>, and please see PA DOH’s NAS FAQ at <https://www.whamglobal.org/list-documents/157-nas-pa-icms-implementation-faq-1/file>)
    - Yes, but we use a different standardized case definition for NAS
      * Please specify
    - No, working on it
    - No, have not started

1. Does your hospital have a standardized process in place for assigning a standardized list of ICD-10 diagnosis codes for an infant diagnosed with NAS?  
   * Yes, in place (please select the ICD-10 codes that are on your hospital’s standardized list for NAS.)

*\*For guidance on when to use these codes in the context of “confirmed” vs. “suspected” NAS, please see “Tier 2” guidance on pages 10 and 11 and Appendix 5 in the CSTE NAS Standardized Case Definition used by PA DOH at* [*https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01\_final\_7.31.19.pdf*](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf)*)*

* + - * P96.1 Neonatal withdrawal symptoms from maternal use of drugs of addiction (recommended for neonates with clinical signs of withdrawal and confirmed neonatal or maternal laboratory results or maternal history)
      * P04.14 Newborn affected by maternal use of opiates (recommend only for suspected cases)
      * P04.17 Newborn affected by maternal use of sedative-hypnotics (recommended only for suspected cases)
      * P04.1A Newborn affected by maternal use of anxiolytics (recommended only for suspected cases)
      * Other (please list each ICD-10 code)
  + Yes, in place, but our hospital’s standardized list for NAS includes other or additional ICD-10 codes (please list each ICD-10 code)
  + No, working on it
  + No, have not started

1. Does your hospital have a standardized process in place for assigning a standardized list of ICD-10 diagnosis codes for all SENs that are not diagnosed with NAS?
   * Yes, in place (please select the ICD-10 codes that are on your hospital’s standardized list for all SENs that are not diagnosed with NAS)
     + P04.11 Newborn affected by maternal antineoplastic chemotherapy
     + P04.12 Newborn affected by maternal cytotoxic drugs
     + P04.13 Newborn affected by maternal use of anticonvulsants
     + P04.15 Newborn affected by maternal use of antidepressants
     + P04.16 Newborn affected by maternal use of amphetamines
     + P04.18 Newborn affected by other maternal medication
     + P04.41 Newborn affected by maternal use of cocaine
     + P04.42 Newborn affected by maternal use of hallucinogens
     + P04.49 Newborn affected by maternal use of other drugs of addiction
     + P04.2 Newborn affected by maternal use of tobacco
     + P04.3 Newborn affected by maternal use of alcohol
     + P04.5 Newborn affected by maternal use of nutritional chemical substances
     + P04.6 Newborn affected by maternal exposure to environmental chemical substances
     + P04.81 Newborn affected by maternal use of cannabis
     + P04.89 Newborn affected by other maternal noxious substances
   * Yes, in place but our hospital’s standardized list for all SENs that are not diagnosed with NAS includes other or additional ICD-10 codes (please list each ICD-10 code)
   * No, working on it
   * No, have not started

*(Please note that the term “affected by” in the above list of ICD-10 codes comes from the international ICD-10 code description. As recommended by the CSTE NAS Standardized Case Definitions, the codes in the list above may be used for infants exposed prenatally to drugs/substances that can cause withdrawal signs (known via maternal history/laboratory testing or neonatal laboratory testing) but does not show signs of withdrawal. For additional guidance, please see Appendix 5 in the CSTE NAS Standardized Case Definition at* [*https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01\_final\_7.31.19.pdf*](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf)*).*

1. At the end of this reporting period, what cumulative proportion of neonatal providers and nursing staff have received within the last two years an education program on respectful and equitable care?   
   (Report estimate in 10% increments; round up)
2. Has your hospital established breastmilk feeding guidelines and parameters based on national guidelines for parents with SUD (including OUD) and caregivers, AND does your hospital’s guideline support breastfeeding among mothers who are taking prescribed medications for OUD without contraindications for breastfeeding?

*(An example of a national guideline can be obtained here* [*https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4378642/*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4378642/)*, and an example of a visual “Traffic Light” guideline can be obtained here* [*https://gallery.mailchimp.com/244750cf0d942e5d1b1ca3201/files/e93d6b02-6dfc-471b-bac3-3b01a2dfa17f/Breastfeeding\_Traffic\_Light\_Revised.pdf*](https://gallery.mailchimp.com/244750cf0d942e5d1b1ca3201/files/e93d6b02-6dfc-471b-bac3-3b01a2dfa17f/Breastfeeding_Traffic_Light_Revised.pdf)*)*

* Yes, in place
  + If yes, has your hospital educated staff on these guidelines and how to empower patients to make informed decisions about breastmilk feeding that support the health of their newborn?
    - Yes, in place
    - No, working on it
    - No, have not started
  + No, working on it
  + No, have not started

1. Does your hospital have standardized pharmacologic treatment protocols for NAS?
   * Yes, in place
   * No, working on it
   * No, have not started
2. Does your hospital have standardized non-pharmacologic treatment protocols for NAS?
   * Yes, in place
     + If yes, please indicate the non-pharmacological interventions that are in place and part of the protocol: (check all that apply)
       - Rooming in
       - Parent/caregiver presence
       - Skin-to-skin contact
       - Holding by parent/caregiver/cuddler to help calm infant and aid in sleep
       - Safe and effective swaddling
       - Optimal feeding
       - Non-nutritive sucking
       - Quity, low light environment
       - Rhythmic movement
       - Additional help/support in room
       - Limiting number of visitors and duration of visits to minimize disruptions in infant’s care environment and sleep
       - Clustering care and assessments with infant’s awake times
       - Safe sleep/fall prevention
       - Parent/caregiver self-care and rest
       - Other (please specify)
   * No, working on it
   * No, have not started
3. Has your newborn care team (providers, nurses, and social workers) been educated on the criteria for Plans of Safe Care, their role in establishing and initiating the Plans of Safe Care, and how to explain it to families in accordance with your hospital’s, county’s, and state’s guidelines and policies?
   * Yes, policies and education completed
   * No, working on it
   * No, have not started
4. Has your newborn care team been educated on the criteria, protocols, and best practices for referring substance-exposed newborns and families to post-discharge services and supports?
   * Yes, policies and education completed for: (Check all that apply)
     + early intervention
     + home visiting services
     + physicians experienced with NAS
     + high-risk infant follow-up clinic / developmental assessment clinic
   * No, working on it
   * No, have not started
5. Has your neonatal care team (providers, nurses, and social workers) created a protocol for closing the loop on the referral status with the post-discharge services and supports?
   * Yes, policies and education completed for: (Check all that apply)
     + early intervention
     + home visiting services
     + physicians experienced in working with NAS
     + high-risk infant follow-up clinic / developmental assessment clinic

If yes, does this process also include notifying the family’s outpatient primary provider?

* + No, working on it
  + No, have not started



***Neonatal Abstinence Syndrome (NAS) Process and Outcome Measures and Specifications***

| **Measure** | **Numerator**  **(Out of the Denominator)** | **Denominator** | **Data Source** | | **Guidance and FAQs** | |
| --- | --- | --- | --- | --- | --- | --- |
| **1. Median hospital length of stay for newborns with NAS** | Median number of hospital days from birth of newborns with NAS through discharge to home among newborns greater than 34 gestational weeks with NAS | | | Birth Hospital Data Form or State Data with NAS ICD- 10 code and total hospital LOS | | **Report quarterly**  **Report annually by race/ethnicity (Non-Hispanic White, Non-Hispanic Black, Hispanic, and Non-Hispanic Other).** When reporting by race/ethnicity, limit denominator (and thus the numerator) to that race/ethnicity category.  In LifeQI, please enter the quarterly data in the last month of the quarter. For example, if you are entering data for the first quarter of 2019 (January through March), enter the quarterly data by selecting March 2019 in the drop down menu that is labeled as “date.” Please do not enter data for each month; just the last month of the quarter for quarterly reporting.  This measure is among those who have been discharged.  The data should be pulled based on discharge date (for example, for January 1 to March 31, data should be pulled for all patients who were *discharged* in that quarter)  The PA PQC is using the same definition of the NAS cases reported to PA DOH’s Division of Newborn Screening and Genetics via the Internet Case Management System (iCMS). These cases include “confirmed” and “probable” cases identified using clinical and laboratory criteria as defined in the [Council of State and Territorial Epidemiologists’ (CSTE) NAS Standardized Case Definition](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf). This does not include “suspect cases.” Please note that maternal clinical evidence is defined as use in the four weeks prior to delivery, and maternal laboratory evidence is defined as detection from a screening or laboratory test performed in the four weeks prior to delivery. Please see [DOH’s FAQs about the PA iCMS implementation](https://www.whamglobal.org/list-documents/154-nas-pa-icms-implementation-faq/file).  Newborns are those admitted at 0 days old, transferred up to 1 week old, or readmitted from home/ER/clinic up to 1 week old (i.e., admitted at less than 7 days old)  Median calculations assume some sites will have outliers that will skew the normal distribution of data. The median is the value separating the higher half from the lower half of a data sample this ordered from low to high numbers. (In response to outliers, conduct a root cause analysis to understand the causes of the outliers.)  Include all days hospitalized. **If a transfer occurs to another institution, the receiving hospital is responsible for including all days hospitalized, including the days hospitalized at the birth/transferring hospital**. The receiving hospital should get information on the perinatal and birth history from the birth/transferring hospital. | |
| **2. Median hospital length of stay for newborns with NAS who only received non-pharm treatment** | Median number of hospital days from birth of newborns with NAS who received only non-pharmacological treatment through discharge to home among newborns greater than 34 gestational weeks with NAS | | | Birth Hospital Data Form or State Data with NAS ICD- 10 code and total hospital LOS | | **Report annually**  In LifeQI, please enter the annual data in the last month of the year.  Please refer to the “Guidance and FAQs” for the “Median hospital length of stay for newborns with NAS” measure as well.  The non-pharmacologic interventions include environmental control, feeding methods, social integration, soothing techniques, and therapeutic modalities. Examples of non-pharmacologic measures include:   * Rooming in * Parent/caregiver presence * Skin-to-skin contact * Holding by parent/caregiver/cuddler to help calm infant and aid in sleep * Safe and effective swaddling * Optimal feeding * Non-nutritive sucking * Quity, low light environment * Rhythmic movement * Additional help/support in room * Limiting number of visitors and duration of visits to minimize disruptions in infant’s care environment and sleep * Clustering care and assessments with infant’s awake times * Safe sleep/fall prevention * Parent/caregiver self-care and rest | |
| **3. Median hospital length of stay for newborns with NAS who received pharmacological treatment** | Median number of hospital days from birth of newborns with NAS who received any pharmacologic treatment through discharge to home among newborns greater than 34 gestational weeks with NAS | | | Birth Hospital Data Form or State Data with NAS ICD- 10 code and total hospital LOS | | **Report annually**  In LifeQI, please enter the annual data in the last month of the year.  Please refer to the “Guidance and FAQs” for the “Median hospital length of stay for newborns with NAS” measure as well. | |
| **4. Percent of newborns with NAS who are treated with a non-pharmacologic bundle** | Number who are treated with a non-pharmacologic bundle | Number of NAS cases during the measurement quarter | EHR Data, Hospital data form | | **Report quarterly**  **Report annually by race/ethnicity (Non-Hispanic White, Non-Hispanic Black, Hispanic, and Non-Hispanic Other).** When reporting by race/ethnicity, limit denominator (and thus the numerator) to that race/ethnicity category.  This measure is among those who have been discharged during the reporting quarter. The data should be pulled based on discharge date (for example, for January through March, data should be pulled for all patients who were *discharged* in in January, February, or March).  The PA PQC is using the same definition of the NAS cases reported to PA DOH’s Division of Newborn Screening and Genetics via the Internet Case Management System (iCMS). These cases include “confirmed” and “probable” cases identified using clinical and laboratory criteria as defined in the [Council of State and Territorial Epidemiologists’ (CSTE) NAS Standardized Case Definition](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf). This does not include “suspect cases.” Please note that maternal clinical evidence is defined as use in the four weeks prior to delivery, and maternal laboratory evidence is defined as detection from a screening or laboratory test performed in the four weeks prior to delivery. Please see [DOH’s FAQs about the PA iCMS implementation](https://www.whamglobal.org/list-documents/154-nas-pa-icms-implementation-faq/file).  The non-pharmacologic interventions include environmental control, feeding methods, social integration, soothing techniques, and therapeutic modalities. Examples of non-pharmacologic measures include:   * Rooming in * Parent/caregiver presence * Skin-to-skin contact * Holding by parent/caregiver/cuddler to help calm infant and aid in sleep * Safe and effective swaddling * Optimal feeding * Non-nutritive sucking * Quity, low light environment * Rhythmic movement * Additional help/support in room * Limiting number of visitors and duration of visits to minimize disruptions in infant’s care environment and sleep * Clustering care and assessments with infant’s awake times * Safe sleep/fall prevention * Parent/caregiver self-care and rest   The goal is to achieve 100% on this measure, since non-pharmacotherapy treatment is recommended as the first line of treatment for newborns with NAS. A patient can receive both non-pharm and pharm treatment, and in this case, they would be included in the numerators for both measures. In other words, the % pharm and % non-pharm measures are not mutually exclusive. | |
| **5. Percent of newborns with NAS who receive pharmacologic treatment** | Number receiving pharmacologic therapy | Number of NAS cases during the measurement quarter | EHR Data, Hospital data form, and/or PADOH NAS Notification Form | | **Report quarterly**  **Report annually by race/ethnicity (Non-Hispanic White, Non-Hispanic Black, Hispanic, and Non-Hispanic Other).** When reporting by race/ethnicity, limit denominator (and thus the numerator) to that race/ethnicity category.  This measure is among those who have been discharged during the reporting quarter. The data should be pulled based on discharge date (for example, for January through March, data should be pulled for all patients who were *discharged* in in January, February, or March).  The PA PQC is using the same definition of the NAS cases reported to PA DOH’s Division of Newborn Screening and Genetics via the Internet Case Management System (iCMS). These cases include “confirmed” and “probable” cases identified using clinical and laboratory criteria as defined in the [Council of State and Territorial Epidemiologists’ (CSTE) NAS Standardized Case Definition](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf). This does not include “suspect cases.” Please note that maternal clinical evidence is defined as use in the four weeks prior to delivery, and maternal laboratory evidence is defined as detection from a screening or laboratory test performed in the four weeks prior to delivery. Please see [DOH’s FAQs about the PA iCMS implementation](https://www.whamglobal.org/list-documents/154-nas-pa-icms-implementation-faq/file).  A patient can receive both non-pharm and pharm treatment, and in this case, they would be included in the numerators for both measures. In other words, the % pharm and % non-pharm measures are not mutually exclusive. As the affiliated measure, “percent of newborns with NAS who are treated with a non-pharmacologic treatment bundle” increases, the pharmacologic treatment measure tends to decrease. | |
| **6. Percent of newborns with NAS who were referred to appropriate follow-up at discharge** | Number referred to follow-up services at discharge | Number of NAS cases during the measurement quarter | EHR Data, Hospital data form, and/or PADOH NAS Notification Form | | **Report quarterly**  **Report annually by race/ethnicity (Non-Hispanic White, Non-Hispanic Black, Hispanic, and Non-Hispanic Other).** When reporting by race/ethnicity, limit denominator (and thus the numerator) to that race/ethnicity category.  This measure is among those who have been discharged during the reporting quarter. The data should be pulled based on discharge date (for example, for January through March, data should be pulled for all patients who were *discharged* in in January, February, or March).  The PA PQC is using the same definition of the NAS cases reported to PA DOH’s Division of Newborn Screening and Genetics via the Internet Case Management System (iCMS). These cases include “confirmed” and “probable” cases identified using clinical and laboratory criteria as defined in the [Council of State and Territorial Epidemiologists’ (CSTE) NAS Standardized Case Definition](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf). This does not include “suspect cases.” Please note that maternal clinical evidence is defined as use in the four weeks prior to delivery, and maternal laboratory evidence is defined as detection from a screening or laboratory test performed in the four weeks prior to delivery. Please see [DOH’s FAQs about the PA iCMS implementation](https://www.whamglobal.org/list-documents/154-nas-pa-icms-implementation-faq/file).  One of the data fields in the DOH NAS Notification Form under “Infant’s Discharge Plan” is “Who was the baby referred to post-discharge?” The numerator can include those with the following referrals selected: early intervention, home visiting services, pediatrician experienced in working with NAS, high-risk infant follow-up clinic, or developmental assessment clinic. | |
| **7. Percent of NAS who were readmitted to the hospital within 30 days of discharge**  (New balancing measure) | Number of newborns with an NAS diagnosis code who were readmitted to the hospital within 30 days of discharge | Single term newborns with NAS discharged alive from the hospital | EHR | | **Report quarterly**  **Report annually by race/ethnicity (Non-Hispanic White, Non-Hispanic Black, Hispanic, and Non-Hispanic Other).** When reporting by race/ethnicity, limit denominator (and thus the numerator) to that race/ethnicity category.  The data for the numerator can be limited to just the hospital that that is reporting this data. For additional feedback, PA PQC healthcare teams could ask their PA PQC health plans teams to run claims-based analyses for this measure as well. PA PQC healthcare teams could also explore the use of the admission, discharge, or transfer (ADT) notification functionality via the P3N-certified Health Information Organizations (HIOs) that the hospital is connected to.  The PA PQC is using the same definition of the NAS cases reported to PA DOH’s Division of Newborn Screening and Genetics via the Internet Case Management System (iCMS). These cases include “confirmed” and “probable” cases identified using clinical and laboratory criteria as defined in the [Council of State and Territorial Epidemiologists’ (CSTE) NAS Standardized Case Definition](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf). This does not include “suspect cases.” Please note that maternal clinical evidence is defined as use in the four weeks prior to delivery, and maternal laboratory evidence is defined as detection from a screening or laboratory test performed in the four weeks prior to delivery. Please see [DOH’s FAQs about the PA iCMS implementation](https://www.whamglobal.org/list-documents/154-nas-pa-icms-implementation-faq/file). | |
| **8. Percent of NAS with an emergency department visit within 30 days of discharge**  (New balancing measure) | Number of newborns with NAS who utilized the emergency department within 30 days of discharge | Single term newborns with NAS discharged alive from the hospital | EHR | | **Report quarterly**  **Report annually by race/ethnicity (Non-Hispanic White, Non-Hispanic Black, Hispanic, and Non-Hispanic Other).** When reporting by race/ethnicity, limit denominator (and thus the numerator) to that race/ethnicity category.  The data for the numerator can be limited to just the ED that is part of the birth hospital. For additional feedback, PA PQC healthcare teams could ask their PA PQC health plans teams to run claims-based analyses for this measure as well. PA PQC healthcare teams could also explore the use of the admission, discharge, or transfer (ADT) notification functionality via the P3N-certified Health Information Organizations (HIOs) that the hospital is connected to.  The PA PQC is using the same definition of the NAS cases reported to PA DOH’s Division of Newborn Screening and Genetics via the Internet Case Management System (iCMS). These cases include “confirmed” and “probable” cases identified using clinical and laboratory criteria as defined in the [Council of State and Territorial Epidemiologists’ (CSTE) NAS Standardized Case Definition](https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-MCH-01_final_7.31.19.pdf). This does not include “suspect cases.” Please note that maternal clinical evidence is defined as use in the four weeks prior to delivery, and maternal laboratory evidence is defined as detection from a screening or laboratory test performed in the four weeks prior to delivery. Please see [DOH’s FAQs about the PA iCMS implementation](https://www.whamglobal.org/list-documents/154-nas-pa-icms-implementation-faq/file). | |