Neonatal NAS Initiative Webinar

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

June 11, 2019

2:00-3:00pm

GaPQC Reminders

- **Please send in your VON LMS Enrollment spreadsheets to Kaitlyn.Kopp@dph.ga.gov if you have not already done so**

- **VON will be emailing your Data Champions about the VON Day Audit**

Neonatal Abstinence Syndrome

Reporting NAS in Georgia

SendSS NAS Module Demonstration

Georgia Perinatal Quality Collaborative / A. Elise Barnes, MPH / June 11, 2019

Outline

- NAS Data Sources

- Reporting NAS

- How to Report: Demonstration of SendSS NAS Reporting Module

- Examples of NAS Reports

- Feedback/Questions on NAS Module

- Supplemental Information
  - Other Scenarios you Might Encounter
  - Tools and Features
  - Best Practices

NAS Data Sources

Hospital Discharge Data

- Administrative dataset using ICD-10-CM codes applied to a medical record by coders at discharge
- Pros:
  - Statewide
  - Codes should be used consistently
  - Capture cases not reported through SendSS
- Cons:
  - In practice, coding might be inconsistent across facilities and individuals
  - No additional information about substance type or signs/symptoms available
  - De-identified data → hard to link to other data sources (e.g., birth certificates)
  - "Unique" identifier assigned during data cleaning might not be unique

SendSS NAS Reporting Module

- Reports submitted in the State Electronic Notifiable Disease Surveillance System (SendSS)
- Pros:
    - Collects information not provided by HDD (e.g., maternal history, signs/symptoms, infant toxicology results)
    - Requires **intent**, so cases not accidentally reported
    - Reportable condition by Georgia law (O.C.G.A. § 31-12-2)
- Cons:
    - Inconsistency in how cases are **identified** and **reported**
    - Information is frequently **missing**
    - Burden on reporters

Reporting NAS

Who? What? When?

Who?

Any neonate with:

- Signs/symptoms consistent with NAS AND/OR
- Positive toxicology (for any substance)

What?

- Maternal and infant demographics
- Maternal substance use/abuse history
- Signs/symptoms
- **All** infant toxicology results

When?

- Reportable within **30 days** of identification

Legislation

House Bill 249 (effective July 1, 2017) modified the Official Code of Georgia Annotated Section 31-12-2 to read:

*The department shall require **notice and reporting of incidents of neonatal abstinence syndrome**. A health care provider, coroner, or medical examiner, or any other person or entity the department determines has knowledge of diagnosis or health outcomes related, directly or indirectly, to neonatal abstinence syndrome **shall report incidents** of neonatal abstinence syndrome to the department. The department shall **provide an annual report** to the President of the Senate, the Speaker of the House of Representatives, the chairperson of the House Committee on Health and Human Services, and the chairperson of the Senate Health and Human Services Committee. Such annual report shall include any department **findings and recommendations** on how to reduce the number of infants born with neonatal abstinence syndrome.*
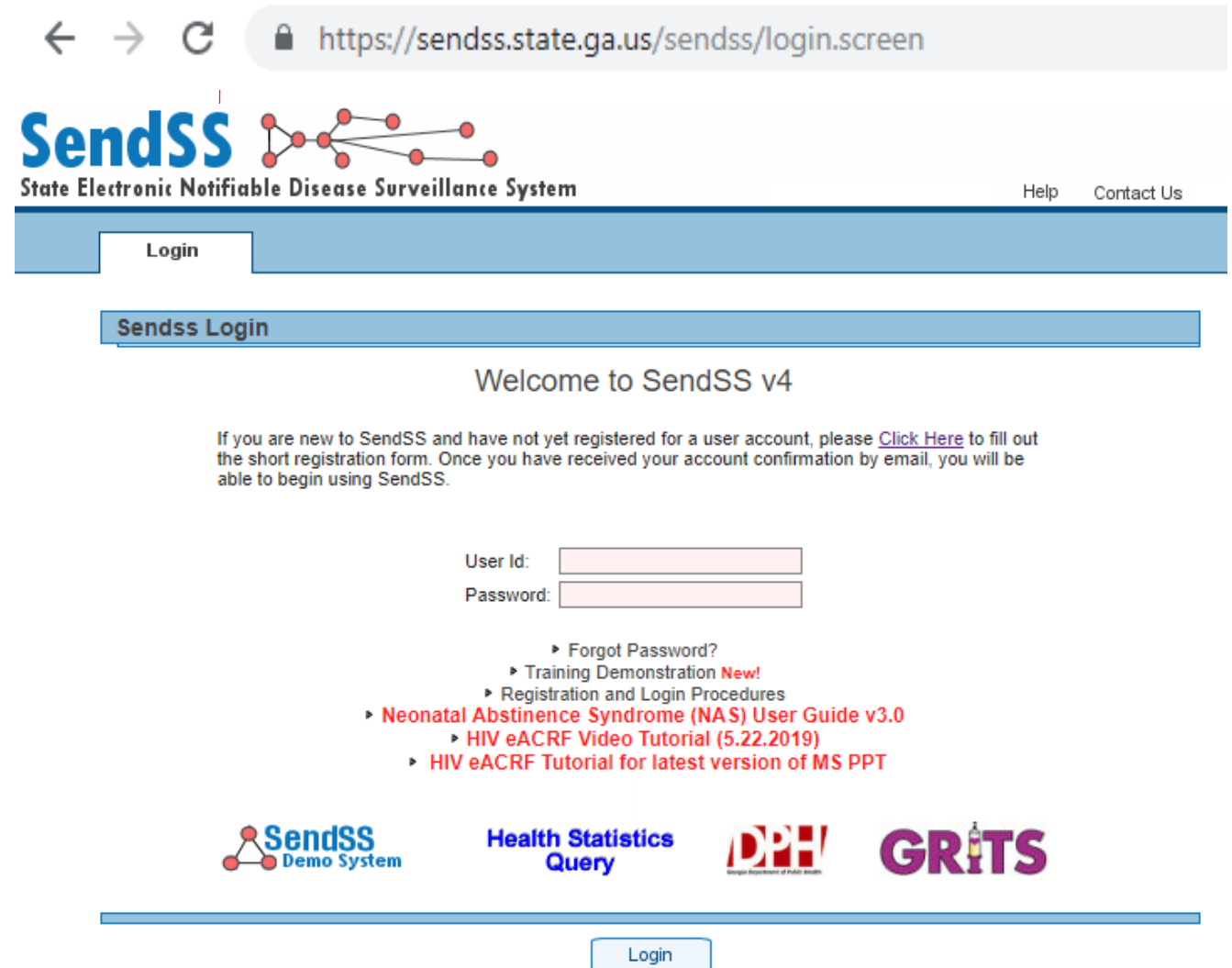
Why Do NAS Surveillance?

- Case identification
- Estimate burden
- Inform programmatic interventions
  - Recommendations for prevention
  - Monitor treatment
  - Allocation of funds (Vermont Oxford Network)
- ***We could not do this without you!***

SendSS Demonstration

State Electronic Notifiable Disease Surveillance System

- Online platform for notifiable disease reporting

- NAS-specific module

- https://sendss.state.ga.us/sendss/login.screen

New SendSS User

New users can register for an account by selecting "Click Here" on login homepage

Enter required information

Tips for SendSS Registration

- Select a username you can remember and write it down

- Choose a password you can remember, but others cannot easily guess
    - Password must be at least 8 characters and include one uppercase, one lowercase, and one number

- Don't forget to list your phone extension if you have one

- For organization type, most NAS reporters will select "Hospital"
    - Then select your facility from the drop-down list under "Organization"
    - After selecting the facility, SendSS will auto-populate the address, which is not editable

New SendSS User (cont.)

- Check "Neonatal Abstinence Syndrome (NAS) Reporting" to register for the module
- Check department(s) where you work

New SendSS User (cont.)

- Fill in whether you will be the sole reporter for your facility. If you are unsure, click "Unknown."

- After you answer the remaining questions, click "Save"

New SendSS User (cont.)

Screen once registration is completed.

Request will be reviewed, and access granted shortly after registration.

Login to SendSS

- Select "I agree with this statement"

Home Screen Login Notes

- "Help" = Link to a document about features in SendSS

- "Contact Us" = Will send an internal message to SendSS Support team

- NAS User Guide v3.0 for case reporting link is on the SendSS login page, which might be helpful if you haven't looked at it already; however, this guide is slightly outdated.
  - Due to this, **please follow the best practices, recommendations, and guidelines provided here** over any contrary directions found in the reporting guide
  - We are currently updating the NAS User Guide and will post it once completed

Login Notes Cont.
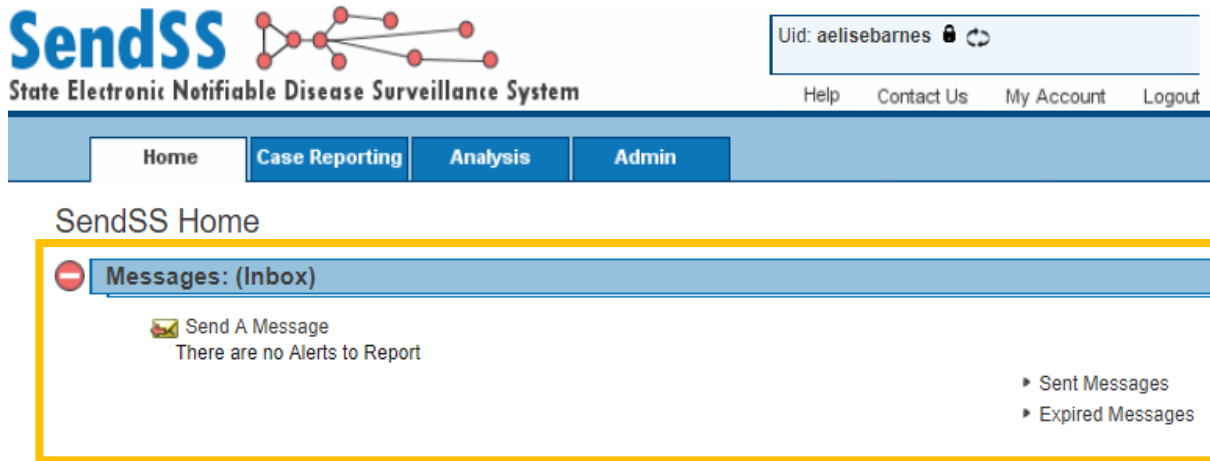
- Passwords expire every three months
  - At next login after the password expiration date, follow prompts to update password
- Click "Forgot Password?" and follow instructions for password reset
  - Account will lock after three failed login attempts, so reset password prior to being locked out
- If account is inactive for three months, it will be temporarily locked
  - **Tip: Set a monthly calendar reminder to login to SendSS** to prevent account from being locked and from missing any messages you may have received
- If your account is locked for any reason, manual intervention by the SendSS Support team is required
  - To contact SendSS Support, send an email to SendSS.Support@dph.ga.gov

Report NAS Cases

- Home screen once logged in
- Messages* will appear here

To report a case
- Hover over "Case Reporting" tab
- Select "Report/Update Case"
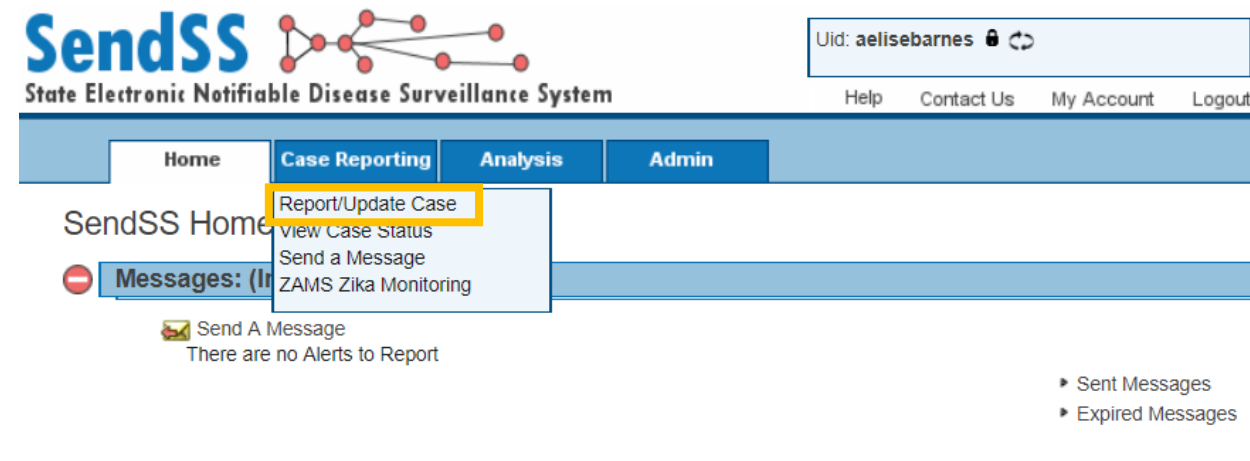
*For more information on messaging, see supplementary slides

Patient Search Screen

- Enter **maternal** demographic information into search screen

- Select NAS as "Disease/Diagnosis"

- Date of onset*:
  - Date infant began showing signs or symptoms (s/s) OR
  - Date of positive infant toxicology§

- Click "Search"

*__Cannot edit the date of onset__ after entering it in this initial search screen, so please make sure it is correct to the best of your knowledge.
§Should use the **date the specimen was collected**, not the date the positive toxicology results were received.

Patient Search Results

- If editing an existing case or reporting a new child for a previously entered mother*, select the mother by clicking on her name
- If the mother you are searching for is not found, select "Create New Patient"

*For information about updating an existing case or reporting a new child for a previously entered mother, see the supplementary slides

Entering a New Case

- Enter all available maternal demographic information
- Select "Add New Child" under NAS Reporting

Fields in Reporting Module

Enter the infant's demographic information as completely as possible

Fields in Reporting Module (cont.)

- Module captures information about maternal health history during **current** pregnancy
  - Maternal history source
  - If mother was receiving MAT or supervised pain therapy
  - Substance use during current pregnancy (rx and non-rx)
- Complete this section to best of ability using information available in mother's record

Maternal History for Current Pregnancy

Maternal History Source (select all that apply): ⬤
- ☐ Direct from Patient/Family
- ☐ Maternal Toxicology
- ☐ Maternal History Unknown
- ☐ Medical Record
- ☐ PDMP
- ☐ Other

	Yes	No	Unknown
Maternal Substance test done?	○ Yes	○ No	○ Unknown
Alcohol Use:	○ Yes	○ No	○ Unknown
Tobacco use:	○ Yes	○ No	○ Unknown
Is mother on supervised Medication Assisted Treatment (RX) ?	○ Yes	○ No	○ Unknown
Is mother on supervised pain therapy (Rx) ?	○ Yes	○ No	○ Unknown
Is mother Tx for psychiatric/neuro condition (Rx) ?	○ Yes	○ No	○ Unknown

Please list the substances (Rx or non-Rx) that mother was using during the current pregnancy

	Yes	No	Unknown
Antidepressants:	○ Yes	○ No	○ Unknown
Cannabinoids:	○ Yes	○ No	○ Unknown
Depressants:	○ Yes	○ No	○ Unknown
Stimulants:	○ Yes	○ No	○ Unknown
Prescription Opioids:	○ Yes	○ No	○ Unknown
Illicit Opioids:	○ Yes	○ No	○ Unknown
Synthetic and New Psychoactive substances:	○ Yes	○ No	○ Unknown
Other Substances:	○ Yes	○ No	○ Unknown

Comments/Notes:

Fields in Reporting Module (cont.)

- All of these fields should be fully completed
- Information in this section includes:
  - Reporting/birth hospital
  - Twin gestation
  - Why infant was assessed for NAS
  - Standard scoring tool
  - Signs/symptoms

NAS Reporting

Type of Setting for this report:● ○ Hospital of Birth   ○ Infant received as a transfer (not the hospital of birth)
○ Outpatient Facility   ○ Readmitted Infant

Infant's Birth Facility: *(Check box if same Reporting Facility)* ☐   Reporting Facility:
Choose One ▼   Choose One ▼

Is this a multiple birth? ● ○ Yes   ○ No

Why was infant assessed for substance exposure? (select all that apply) ●
☐ No Prenatal care
☐ Minimal/late Prenatal care
☐ Maternal Substance use history
☐ Maternal Intoxication
☐ Other

Were infant's clinical symptoms assessed using a standardized NAS scoring tool? ●
○ Yes   ○ No   ○ Unknown   ○ Other

Infant with clinical signs consistent with NAS:● ○ Yes   ○ No

Supporting Information (select all symptoms that apply): ●
☐ Tremors   ☐ Hyperirritability   ☐ Excessive Crying   ☐ Diarrhea
☐ Vomiting   ☐ Blotchy Skin Coloring   ☐ Excessive Sucking   ☐ Sweating
☐ Hyperactive Reflexes ☐ Seizures   ☐ Poor ability or inability to feed
☐ No Symptoms   ☐ Fever/ Temperature Instability ☐ Other

Fields in Reporting Module (cont.)

- To enter substance test results for the infant, select "Add New Sample"
- Select specimen type, date of collection, which substances were tested for, results of the test (both positive and negative)
- If prescribed to mother during pregnancy, check the prescribed box
- If substance is not listed, select "Other" and write substance into free-text box that appears
- Results for each specimen type must be saved separately prior to saving the entire report*

*If more than one substance test was done, please enter information from each test, including both positive and negative results. Save the results of the first specimen/test before adding another sample by selecting "Add New Sample" and following the same process.

Infant Lab Result
None Entered

Add New Sample

Sample Record for Infant

Specimen source :   ○ Urine   ○ Meconium   ○ Umbilical Cord   ○ Hair

Date Sample was Tested (mm/dd/yyyy) : [   ] / [   ] / [   ]

Select all substances included in the lab test and enter result :

Substance Name	Test Status	Prescribed?
☐ Amphetamines (Adderall, Desoxyn, Dexedrine, Dextrostat)		
☐ Barbituates (Luminal, Phenobarbital, Seconal)		
☐ Benzodiazepines (Alprazolam, Ativan, Valium, Xanax)		
☐ Cocaine Metabolites		
☐ Ethyl Alcohol		
☐ Marijuana/Cannabinoid/THC		
☐ MDMA		
☐ Methamphetimines (Meth, Chrystal, Chalk, Ice)		
☐ Opiate - Buprenorphine (Suputex or Suboxone)		
☐ Opiate - Codeine		
☐ Opiates - Fentanyl		
☐ Opiates - Heroin/6-MAM		
☐ Opiates - Morphine		
☐ Opiates - Meperidine		
☐ Opiates - Methadone		
☐ Opiates - Hydrocodone/Hydromorphone		
☐ Opiates - Oxycodone/Oxymorphone		
☐ Opiates - Unspecified		
☐ Opiates - Propoxyphene		
☐ Opiates - Tramadol		
☐ Phencyclidene (PCP)		
☐ Tricyclic Antidepressants		
☐ Other		

Comments/Notes:

Close   Save

Fields in Reporting Module (cont.)

- Medications used to treat the infant
- Case reported to DFCS and/or referred to Children 1st

You **must** select "Save NAS Record #1" first, then select "Save" at the bottom of the report

Fields in Reporting Module (cont.)

If the case was properly saved, this SendSS system message will be generated.
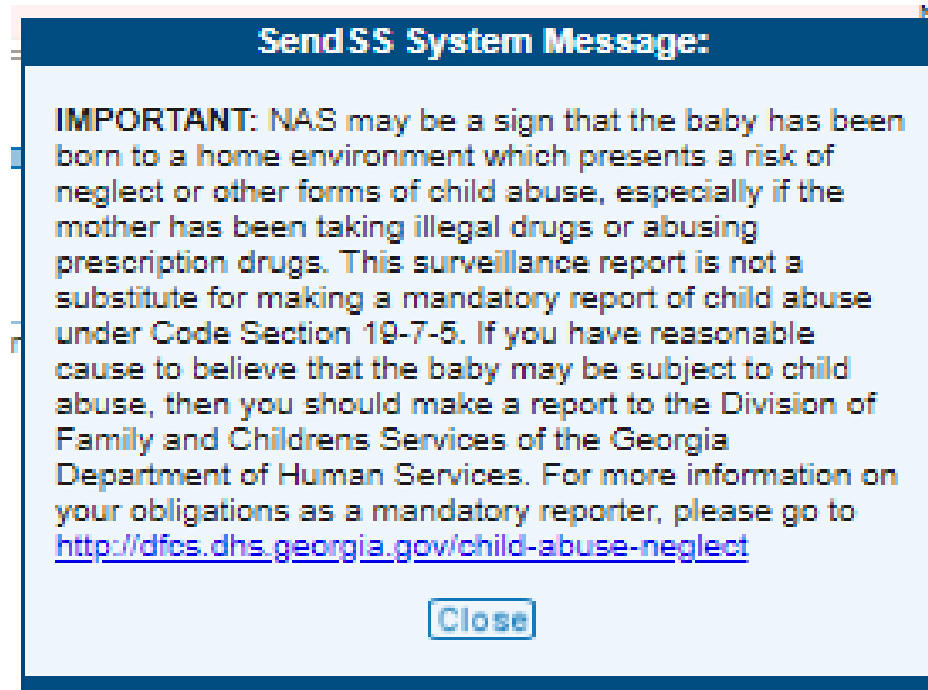
Example Reports

Example 1: Complete

- Maternal and infant demographic information is as complete as possible
- Enter infant's first name and gestational age in days and weeks, if available
- Including medical record numbers and mother's maiden name is helpful

Example 1: Complete (cont.)

- Options were selected for each question and responses correspond

- If unknown, then "Unknown" selected

- If "Yes" checked for the substances used, more detail was provided

- Helpful to include:
  - **Date** of positive screen if known or **time frame** of reported use
  - **Specific substance** tested positive for (e.g., if stimulants checked "Yes", then specify "UDS+ for cocaine on date")
  - If the substance was **prescribed**
  - Any **additional notes** for clarity

Maternal History for Current Pregnancy

Maternal History Source (select all that apply):	☐ Direct from Patient/Family	☑ Medical Record
	☑ Maternal Toxicology	☐ PDMP
	☐ Maternal History Unknown	☐ Other

	Yes	No	Unknown
Maternal Substance test done?	●	○	○
Alcohol Use:	○	●	○
Tobacco use:	○	●	○
Is mother on supervised Medication Assisted Treatment (RX) ?	●	○	○
Is mother on supervised pain therapy (Rx) ?	○	○	●
Is mother Tx for psychiatric/neuro condition (Rx) ?	○	○	●

Please list the substances (Rx or non-Rx) that mother was using during the current pregnancy

	Yes	No	Unknown	If yes, describe:
Antidepressants:	○	●	○	
Cannabinoids:	●	○	○	UDS + 9/1/18
Depressants:	○	○	●	
Stimulants:	○	●	○	
Prescription Opioids:	●	○	○	MAT (methadone)
Illicit Opioids:	○	●	○	
Synthetic and New Psychoactive substances:	○	●	○	
Other Substances:	○	○	●	

Comments/Notes:	Maternal UDS + for THC 9/1/18, stated she has stopped smoking since, subsequent UDS all negative except for methadone (prescribed)

Example 1: Complete (cont.)

- All sections were complete

- Responses corresponded

- If "Other" was selected, corresponding free-text was entered

NAS Reporting

Type of Setting for this report:
- ◉ Hospital of Birth
- ○ Infant received as a transfer (not the hospital of birth)
- ○ Outpatient Facility
- ○ Readmitted Infant

Infant's Birth Facility: *(Check box if same Reporting Facility)* ☐
Archbold Memorial Hospital ▼

Reporting Facility:
Archbold Memorial Hospital ▼

Is this a multiple birth? ○ Yes ◉ No

Why was infant assessed for substance exposure? (select all that apply)
- ☐ No Prenatal care
- ☐ Minimal/late Prenatal care
- ☑ Maternal Substance use history
- ☐ Maternal Intoxication
- ☐ Other

Were infant's clinical symptoms assessed using a standardized NAS scoring tool?
◉ Yes ○ No ○ Unknown ○ Other

Infant with clinical signs consistent with NAS: ◉ Yes ○ No

Supporting Information (select all symptoms that apply):
- ☑ Tremors
- ☐ Hyperirritability
- ☐ Excessive Crying
- ☐ Diarrhea
- ☐ Vomiting
- ☐ Blotchy Skin Coloring
- ☐ Excessive Sucking
- ☐ Sweating
- ☑ Hyperactive Reflexes
- ☐ Seizures
- ☐ Poor ability or inability to feed
- ☐ No Symptoms
- ☐ Fever/ Temperature Instability
- ☑ Other

Sneezing, nasal stuffiness

Example 1: Complete (cont.)

- Both specimen types were entered and saved

- Positive and negative substance test results were reported

- Prescribed checkbox selected* and corresponds to previous information

- Note: summary view of substance results does not properly align with expanded view

Infant Lab Result

Sample Date	Sample Used	Substance	Test Status	Prescribed?
02-JAN-19	Meconium	Amphetamines	Negative	
		Benzodiazepines	Negative	
		Cocaine	Positive	
		Cannabinoid	Negative	
		Opiates - Methadone	Negative	
		Opiates - Unspecified	Negative	
		Phencyclidene (PCP)	Positive	Yes
01-JAN-19	Urine	Amphetamines	Negative	
		Cocaine	Negative	
		MDMA	Positive	
		Opiates - Unspecified	Negative	
		Phencyclidene (PCP)		

Add New Sample

Infant Lab Result

Sample Date	Sample Used	Substance	Test Status	Prescribed?
02-JAN-19	Meconium	Amphetamines	Negative	
		Benzodiazepines	Negative	
		Cocaine	Positive	
		Cannabinoid	Negative	
		Opiates - Methadone	Negative	
		Opiates - Unspecified	Negative	
		Phencyclidene (PCP)	Positive	Yes

Sample Record for Infant

Specimen source : ○ Urine ● Meconium ○ Umbilical Cord ○ Hair

Date Sample was Tested (mm/dd/yyyy) : 01 / 02 / 2019

Select all substances included in the lab test and enter result :

Substance Name	Test Status	Prescribed?
☑ Amphetamines (Adderall, Desoxyn, Dexedrine, Dextrostat)	Negative	☐
☐ Barbituates (Luminal, Phenobarbital, Seconal)		
☑ Benzodiazepines (Alprazolam, Ativan, Valium, Xanax)	Negative	☐
☑ Cocaine Metabolites	Negative	☐
☐ Ethyl Alcohol		
☑ Marijuana/Cannabinoid/THC	Positive	☐
☐ MDMA		
☐ Methamphetimines (Meth, Chrystal, Chalk, Ice)		
☐ Opiate - Buprenorphine (Suputex or Suboxone)		
☐ Opiate - Codeine		
☐ Opiates - Fentanyl		
☐ Opiates - Heroin/6-MAM		
☐ Opiates - Morphine		
☐ Opiates - Meperidine		
☑ Opiates - Methadone	Positive	☑
☐ Opiates - Hydrocodone/Hydromorphone		
☐ Opiates - Oxycodone/Oxymorphone		
☑ Opiates - Unspecified	Negative	☐
☐ Opiates - Propoxyphene		
☐ Opiates - Tramadol		
☑ Phencyclidene (PCP)	Negative	☐
☐ Tricyclic Antidepressants		
☐ Other		

Comments/Notes:

Close   Save

*Reminder that the prescribed checkbox under infant substance test results refers to a medication/drug **prescribed to the mother** during the current pregnancy

Example 1 (cont.)

- A selection was made for medications to treat

- Corresponding start date/time of medication administration was entered

- Responses selected for both the disclaimers

- "Save NAS Record #1" selected prior to saving the entire report

Overall, what made this example "good"?

- Complete answers

- "Unknown" selected appropriately

- No discrepancies in responses

- Additional information was provided for clarity

- Everything was saved

Example 2*: Missingness

- Missing infant first name, gestational age in days, medical record number§

- "Other" is selected, but no free-text is written

- Only one of the six questions in the maternal history section is completed

- Nothing filled in for substances used during the current pregnancy

*Screenshots of maternal demographic information, medications, and disclaimers were not included in Examples 2 and 3 since these sections are typically not as problematic. §I realize this information is not always available, which is fine. However, if you can include it, that would be helpful.

Example 2: Missingness (cont.)

- "Other" is selected, but no free-text is entered

- No reason selected for why infant was assessed for substance exposure

Example 2: Missingness (cont.)

- Only positive substance test results were entered

Were infant's clinical symptoms assessed using a standardized NAS scoring tool?
○ Yes ○ No ● Unknown ○ Other

Infant with clinical signs consistent with NAS: ○ Yes ● No

Supporting Information (select all symptoms that apply):

☐ Tremors ☐ Hyperirritability ☐ Excessive Crying ☐ Diarrhea
☐ Vomiting ☐ Blotchy Skin Coloring ☐ Excessive Sucking ☐ Sweating
☐ Hyperactive Reflexes ☐ Seizures ☐ Poor ability or inability to feed
☑ No Symptoms ☐ Fever/ Temperature Instability ☐ Other

Infant Lab Result

	Sample Date	Sample Used	Substance	Test Status	Prescribed?
⊞	24-APR-19	Urine	Amphetamines Opiates - Methadone	Positive Positive	

📄 Add New Sample

What could be improved?

- Multiple sections left blank

- Solution: If you do not have the information available, select "Unknown" and/or leave a note

Missingness: Why Does It Matter?

- It might seem obvious something left blank is unknown, but unless that is specified, we (DPH) cannot make that assumption ourselves. We aim to analyze the results of the **information reported**, **not our inferences** about what the reporters meant because our interpretation might be incorrect and introduce bias.

- If large portions of a report are left blank, might assume you accidentally missed that section and ask you to re-look at the case.

- Hopefully, some of the issues of missingness shown in this example can be resolved by adding better logic checks to the module, but until that happens, we appreciate whatever reporters can do on their end to provide the most complete and accurate information. (We recognize this can be burdensome, so **thank you all for the time and effort you put into case reporting**!)

Missingness: Why Does It Matter? (cont.)

- We request **positive and negative** substance test results **from each infant substance test** to better understand how many infants tested positive for a specific substance among those tested
  - Without negative results reported, we don't know how many infants were tested (since not all facilities test for the same substances)
  - Which means we do not have an accurate denominator for calculations (positive reporting bias)

- Figure 7 from the 2017 NAS Annual Surveillance Report highlights why we are pushing for positive and negative results to be reported

FIGURE 7. **TOXICOLOGY SCREENING RESULTS BY SUBSTANCE CLASS***
AMONG CONFIRMED CASES, GEORGIA, 2017 (N=762)

LEGEND
- POSITIVE
- NEGATIVE
- NOT TESTED /REPORTED
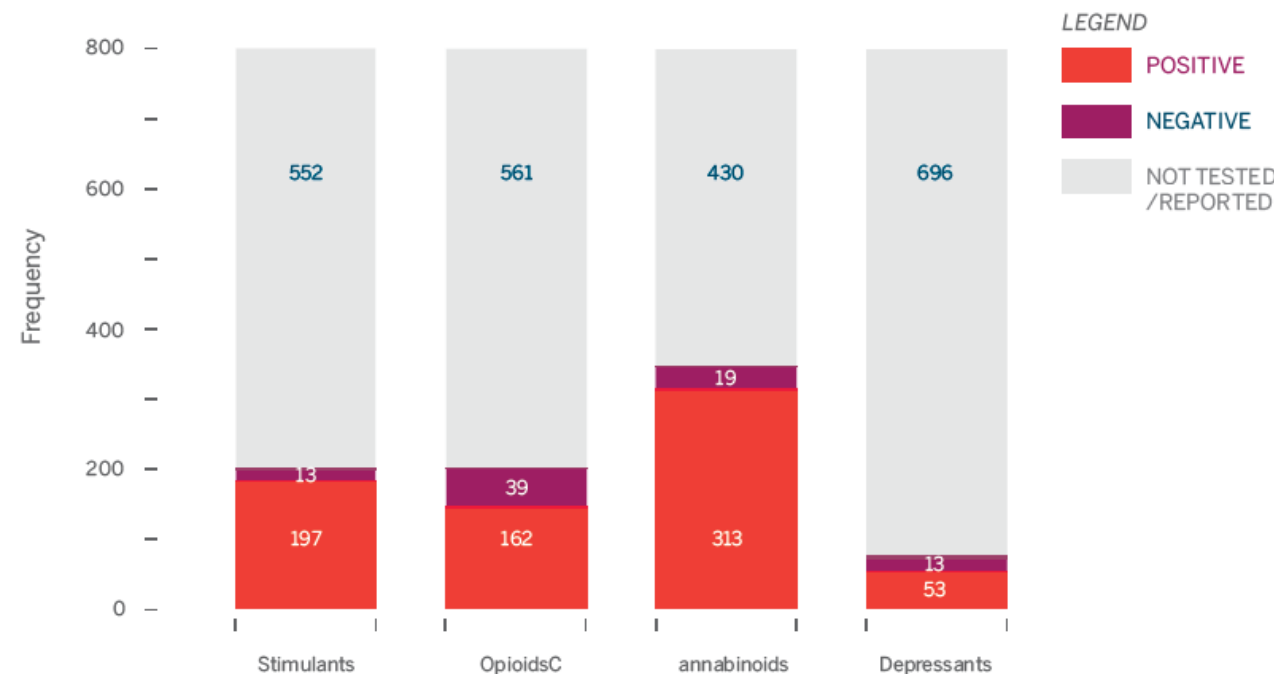
*Classes are not mutually exclusive, as an infant could have a positive toxicology screen for more than one substance/class.
SOURCE: State Electronic Notifiable Disease Surveillance System NAS reporting form (2017). Georgia Department of Public Health. Data pulled September 5, 2018.

Georgia Department of Public Health. (2019). Neonatal Abstinence Syndrome Annual Surveillance Report – 2017. Atlanta, GA. Available from
https://dph.georgia.gov/sites/dph.georgia.gov/files/MCH/NAS/NAS_Brochure_2017_FINAL_Digital.pdf

Example 3: Discrepant Information

NAS Reporting Record - 1

Reported By : aelisebarnes   *Last Updated By : aelisebarnes on 15-MAY-19*

Infant Demographics

Last Name: Test
First Name: Test2
Middle Name:
Gender: Female ▼

Gestational Age at Birth: Weeks: 39   Days:
Date of Birth: 01 / 01 / 2019
Infant Control#:
Medical Rec#:

Maternal History for Current Pregnancy

Maternal History Source (select all that apply):
☐ Direct from Patient/Family   ☐ Medical Record
☐ Maternal Toxicology   ☐ PDMP
☐ Maternal History Unknown   ☑ Other

Maternal Substance test done? ⦿ Yes ☐ No ☐ Unknown
Alcohol Use: ☐ Yes ☐ No ☐ Unknown
Tobacco use: ☐ Yes ☐ No ☐ Unknown
Is mother on supervised Medication Assisted Treatment (RX) ? ☐ Yes ☐ No ⦿ Unknown
Is mother on supervised pain therapy (Rx) ? ☐ Yes ☐ No ☐ Unknown
Is mother Tx for psychiatric/neuro condition (Rx) ? ☐ Yes ☐ No ☐ Unknown

Please list the substances (Rx or non-Rx) that mother was using during the current pregnancy

Antidepressants: ☐ Yes ☐ No ⦿ Unknown
Cannabinoids: ⦿ Yes ☐ No ☐ Unknown   If yes, describe: meconium + for THC
Depressants: ☐ Yes ☐ No ⦿ Unknown
Stimulants: ☐ Yes ☐ No ⦿ Unknown
Prescription Opioids: ☐ Yes ☐ No ⦿ Unknown
Illicit Opioids: ☐ Yes ☐ No ⦿ Unknown
Synthetic and New Psychoactive substances: ☐ Yes ☐ No ⦿ Unknown
Other Substances: ☐ Yes ☐ No ⦿ Unknown

Comments/Notes:

NAS Reporting

Type of Setting for this report: ⦿ Hospital of Birth   ☐ Infant received as a transfer (not the hospital of birth)
☐ Outpatient Facility   ☐ Readmitted Infant

Infant's Birth Facility: *(Check box if same Reporting Facility)* ☐
Other ▼
Reporting Facility: Choose One ▼
Other:

Is this a multiple birth? ⦿ Yes ☐ No

Why was infant assessed for substance exposure? (select all that apply)
☐ No Prenatal care
☐ Minimal/late Prenatal care
☐ Maternal Substance use history
☐ Maternal Intoxication
☑ Other
mom used cocaine

Were infant's clinical symptoms assessed using a standardized NAS scoring tool?
⦿ Yes ☐ No ☐ Unknown ☐ Other

Infant with clinical signs consistent with NAS: ☐ Yes ⦿ No

Supporting Information (select all symptoms that apply):
☑ Tremors   ☑ Hyperirritability   ☐ Excessive Crying   ☐ Diarrhea
☐ Vomiting   ☐ Blotchy Skin Coloring   ☐ Excessive Sucking   ☐ Sweating
☐ Hyperactive Reflexes   ☐ Seizures   ☐ Poor ability or inability to feed
☑ No Symptoms   ☐ Fever/ Temperature Instability   ☐ Other

Infant Lab Result

	Sample Date	Sample Used	Substance	Test Status	Prescribed?
⊞	27-DEC-18	Urine	Amphetamines		
			Opiates - Methadone	Positive	Yes

Add New Sample

Example 3: Discrepant Information Notes

Discrepant information from the screenshots (color-coordinated) and possible questions that might require clarification from reporters

- The date of the infant substance test for the urine sample is prior to the infant's DOB
  - Which of the dates are incorrect? Did the reporter accidentally list the mom's substance test results in the infant section?

- "Yes" selected for maternal substance test done, but "Unknown" is selected for almost all of the substances used during the current pregnancy, with a couple left blank
  - Was a test done, but you do not have the results available? If so, please note that. Why are some marked "Unknown" and some are blank? Was this purposeful or were some responses accidentally missed?

- "Unknown" selected for stimulants under substances used during the current pregnancy, but the reason why the infant was assessed said "mom used cocaine"
  - Was "Unknown" selected because mom had previous history of cocaine use, but reporter was unsure if they used cocaine during the current pregnancy? If so, please note this in the comments to prevent us from asking for clarification.

Example 3: Discrepant Information Notes (cont.)

- Nothing or "Unknown" selected for supervised pain therapy, MAT, prescription opioids, and illicit opioids, yet the "Prescribed" checkbox is selected for methadone under the infant substance test results
  - Was methadone actually prescribed during the current pregnancy? Was the checkbox under infant test results selected by accident? Did the reporter think the checkbox referred to a medication prescribed to the infant, not the mom?

- Reported twice that the infant had no signs/symptoms, but two symptoms were selected
  - Hopefully better logic can be implemented to prevent these types of discrepancies from occurring

Example 3: Discrepant Information Notes (cont.)

- For substances used during current pregnancy, "Yes" is only selected for cannabinoids. The associated note says "meconium + for THC." However, urine is the only specimen type included under infant substance test results, not meconium.
  - Was the specimen type incorrectly entered as urine, but the results are actually from meconium? Were both urine and meconium tests done but the reporter forgot to include the meconium results?
  - Infant substance test results should not be used to infer maternal substance use. All information about maternal use should come from mother's chart, self-report, toxicology results, etc.
    - Why? We can make these same inferences about maternal use ourselves based on the infant substance test results. We rely on reporters to fill in the gaps about information we cannot easily access ourselves (i.e., mom's medical record)

Example 3: Discrepant Information Notes (cont.)

What could be improved?

- Answers illogical/contradictory
- No additional notes or explanation included
- Infant substance tests results used to infer maternal substance use
- Some information still blank
- Only positive substance test results included

Discrepant Information: Why Does It Matter?

- Discrepant information usually takes the most time and effort to resolve

- Requires reporters to re-review charts, locate the correct answer, and update cases they have already submitted

- If there are known inconsistencies in the report, then please leave a note or message for us
  - It might save you some time and hassle in the long run!

Feedback or Questions on Reporting Module

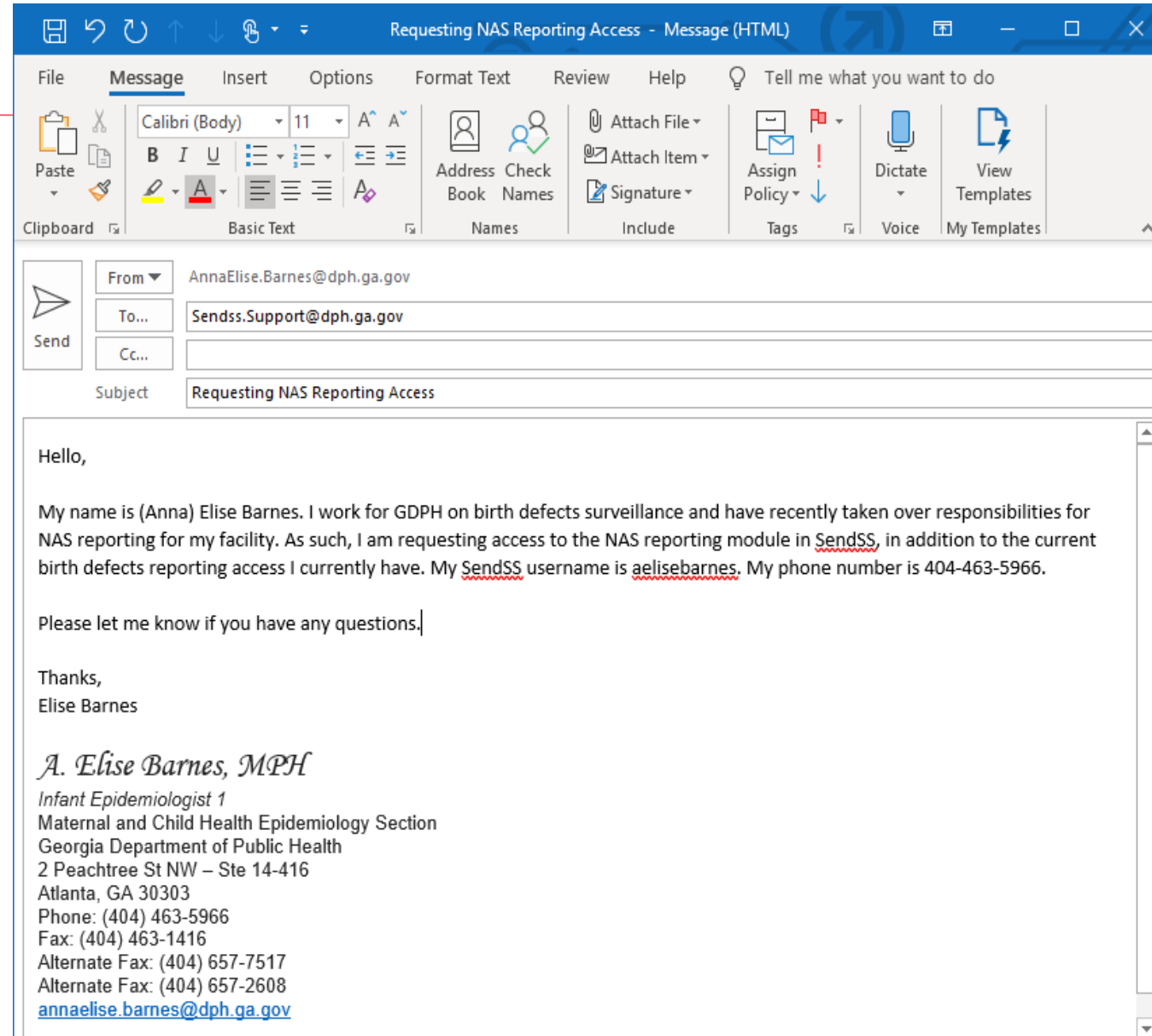# Other Scenarios You May Encounter

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Existing SendSS User

Existing user*, but new to NAS reporting?

- Need to request access to SendSS NAS reporting module

Email SendSS.Support@dph.ga.gov:

- Subject: "Requesting NAS Reporting Access"

- In body, include 1) name, 2) SendSS username, 3) contact information

*Some people might report other diseases/conditions through SendSS, so they already have an account, but do not currently have access to NAS reporting. This requires their account permissions to be updated.

Requesting NAS Reporting Access - Message (HTML)

From: AnnaElise.Barnes@dph.ga.gov
To...: Sendss.Support@dph.ga.gov
Cc...:
Subject: Requesting NAS Reporting Access

Hello,

My name is (Anna) Elise Barnes. I work for GDPH on birth defects surveillance and have recently taken over responsibilities for NAS reporting for my facility. As such, I am requesting access to the NAS reporting module in SendSS, in addition to the current birth defects reporting access I currently have. My SendSS username is aelisebarnes. My phone number is 404-463-5966.

Please let me know if you have any questions.

Thanks,
Elise Barnes

A. Elise Barnes, MPH
Infant Epidemiologist 1
Maternal and Child Health Epidemiology Section
Georgia Department of Public Health
2 Peachtree St NW – Ste 14-416
Atlanta, GA 30303
Phone: (404) 463-5966
Fax: (404) 463-1416
Alternate Fax: (404) 657-7517
Alternate Fax: (404) 657-2608
annaelise.barnes@dph.ga.gov

Updating an Existing Case

If editing an existing case or reporting a new child for a previously entered mother, select the mother from the search results by clicking on her name

Updating an Existing Case (cont.)

Once you have selected the correct mother:

1. Expand the NAS report of interest
2. Make the necessary edits
3. Select "Save NAS Record #_," which is at the bottom of the expanded report (not shown)

4. Once you have saved the NAS Record, it will automatically minimize the report back to the original view
5. Press "Save" to ensure all changes were saved

Note: You should not be able to edit a report originally submitted by another reporter

Adding a New Report to an Existing Case

If you need to add an additional report* to a previously entered mother:

1. Search for the mother
2. Select the correct option by clicking on mother's name (not shown)
3. Select "Add New Child" once inside the record
4. Enter the case as you normally would
5. Select "Save NAS Record #2"
6. Then press "Save"

*This could occur if multiple births (e.g., twins) or if infant from previous pregnancy was reported with NAS and mom had an infant during recent pregnancy with NAS (e.g., NAS reported for infants born in 2017 and 2019)

Multiple Births

- When entering a case, if select "Yes" for multiple births, will receive a pop-up warning

SendSS System Message:

Multiple Births - Please Read

Please finish this form first for the infant entered in Infant Demographics (top of the NAS Reporting form). To add multiple infants, please click on Add New Child link below the NAS Reporting Section.
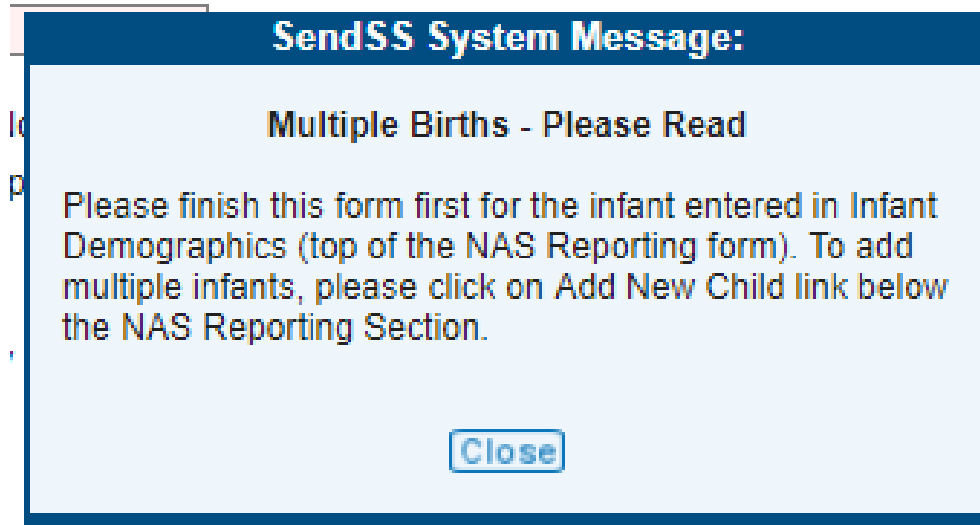
[Close]

- Close the message, finish entering the first report, select "Save NAS Record #1," then select "Add New Child"

- Enter all of the necessary info for the second infant, then select "Save NAS Record #2"

- Then press "Save"

- Maternal demographic information will auto-populate for the second report using information from the first report to save time and prevent discrepancies

No Maternal Information Available

- If no maternal information is available at all (e.g., infant was a Safe Haven drop-off, adoption, etc.), please contact us and we will decide how to proceed with entering the case since reports are submitted under mothers

Tools and Features

Messaging

Once a report is saved, landing screen has messaging and progress note options available

Messaging (cont.)

- To send me a message about a case, click "Send A Message", select me as the recipient, type your note, press "Send"

- "Send Message & Email" was created to also send a message to the recipient's external email account, but this option does not work

- If you send a message while in the specific case you want to discuss, the message will link directly back to that case

Messaging (cont.)

- Can send a message from your home screen

- If you do, it will not be linked to a specific case, which can make it harder to locate

- Messages expire after 30 days, so please login regularly

Messaging (cont.)

This is what your home screen will look like if you have a message
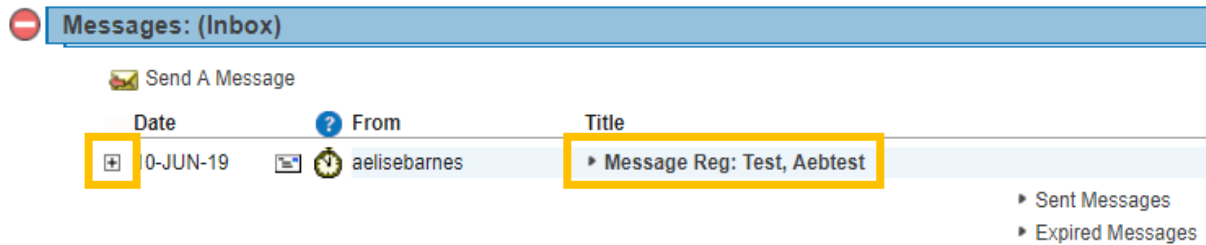
- To read the message, click on the message title or the "+" button
- This will expand the message

- "Link to Case" takes you from home screen to the case the message is linked to
- From there, you can make any necessary edits or address questions on case
- Or you can click "Send Reply" to respond
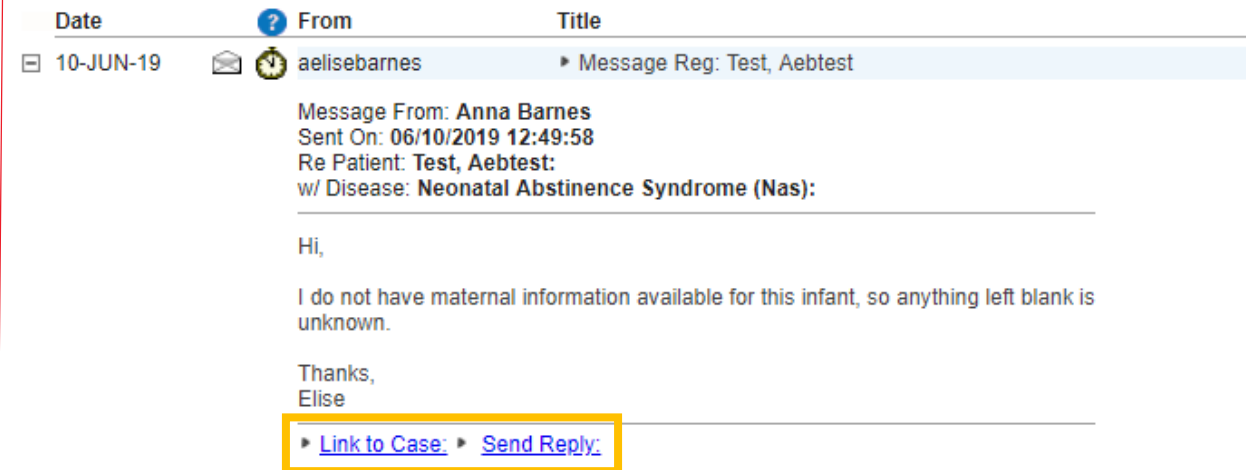
Progress Notes

- You can also write a note in the progress notes

- Anyone viewing a case can see the progress notes (unlike messages which are private)

- Like messaging, you can use this to provide any supplementary information, clarify responses, etc.

- Type the information, press "Save", and it will save the submitting user and timestamp the note

- Progress notes are attached to the specific case (unlike unlinked messages, cannot create a progress note from home screen)

Best Practices

Recommendations for Reporting

- Please complete all sections as much as possible based on the information available

- Check your responses for discrepant information

- If something does not make sense, but that is the information you have available, note that in the comments, progress notes, or send me a message

- If information is missing, select "Unknown"

- If associated free-text box appears, make sure to write in a response

Under substances used during the current pregnancy (in maternal health history section):

- Prescription opioids are those that are usually obtained by a prescription, even if the mother was not prescribed it herself

- Illicit opioids are those not commonly prescribed (i.e., "street drugs," like heroin)

- Do not infer maternal substance use based on positive infant test

Under infant substance test results:

- The "Prescribed" checkbox refers to substances prescribed to the mother during the current pregnancy

Recommendations for Reporting (cont.)

- Report positive and negative infant substance test results for each test

- Email DPH.NAS@dph.ga.gov or call me if you have any questions specifically related to NAS reporting

- Email SendSS Support at SendSS.Support@dph.ga.gov if you have problems with your SendSS account

- Set a monthly calendar reminder to login to SendSS to ensure you do not miss any messages you might have received

- If I have sent you a message about missing information, questions about discrepancies, etc.:
  1. Please make any necessary updates to the case AND
  2. Message me back (can be just "done" or with an actual explanation/response to my question)

THANK YOU FOR YOUR CONTRIBUTIONS TO THIS WORK!

A. Elise Barnes, MPH

Infant Epidemiologist

Newborn Surveillance Team

AnnaElise.Barnes@dph.ga.gov

404-463-5966

The Model For Improvement

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(with generous contributions from Dr. Ravi Patel, Associate Professor, Emory)

The Model for Improvement

- **What are we trying to accomplish?**
  - AIM STATEMENT
- **How will we know that a change is an improvement?**
  - MEASURE
- **What changes will result in an improvement**
  - PROCESS IMPROVEMENT TOOLS
- **Tests of change**
  - Plan-Do-Study-Act (PDSA)

The Model for Improvement is recommended by the Institute for Healthcare Improvement and was originally developed by API (http://www.apiweb.org/)

Steps – Model for Improvement

1. **Form a team**

2. **Make an AIM statement**

3. Establish measures

4. Identify and select changes to test using process improvement tools

5. Test changes using PDSA cycles

6. Implement changes that work

7. Spread changes to other locations

Step 1: Form a team

- **Want diverse representatives with different levels of expertise**
  - Make sure each center has one of the following: 1) a nurse 2) a physician; 3) hospital admin support (which may be a nursing or physician leader)
- **Project sponsor**
  - Person with authority who can help provide resources and overcome barriers (e.g. chief of quality, hospital admin.)

As Aubrey talked about at NGMC - Sponsor from Administration, PT was an active champion on the team

Step 2: Make an AIM statement

Think deeply about the problem:

What are you really trying to impr

Your aim statement should be:

- **S**pecific
- **M**easureable
- **A**ctionable
- **R**ealistic
- **T**imely

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Act | Plan
Study | Do
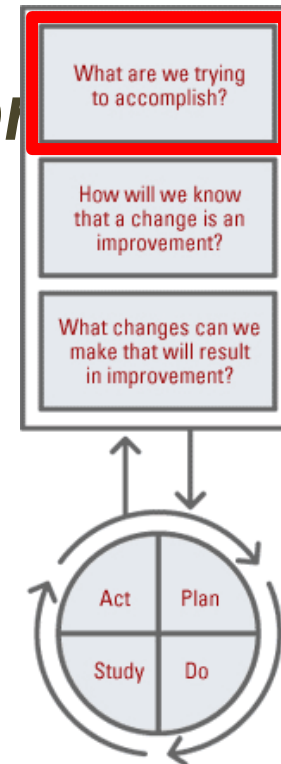
Step 2- SMART AIM

- **Specific:** Who? (target population and persons doing the activity) and What? (action/activity)
- **Measurable:** How much change is expected
- **Achievable:** Can be realistically accomplished given current resources and constraints
- **Relevant/Realistic:** Addresses the scope of the health program and proposes reasonable programmatic steps
- **Time-phased:** Provides a timeline indicating when the objective will be met

SMART AIM - Why?

- Devoting time and resources early on to intentionally writing a SMART aim is an investment in the future of a project/program

- By starting out with SMART aim(s), a program or plan can systematically and meaningfully measure progress, show achievements and identify opportunities for improvement

Specific

- **AIMS should be well-defined, and clear to other team members and to stakeholders who also understand the program or plan.**

- **What:**
  - What exactly will you do?
  - What is the action?
  - What do you intend to impact?

- **Who:**
  - Who is responsible for carrying out the action?

- **What are you intending to impact or who is your target population?**

Measurable

- ## How much and in what direction will the change occur?

- ## What data will be used to prove the target is met?

- ## Where will this data come from?

- Try to pick a measure that is meaningful. The easiest things to measure may not be the most meaningful.

- Is there a stand-in or proxy measure that needs to be used

- **Key Terms**

- **Measure:** Show success or impact over time. It is the number, percent or some standard unit to express how you are doing at achieving the goal or outcome.

- **Target:** The desired level of performance you want to see that represents success.

Achievable

- Aims should be within reach for your team or program, considering available resources, knowledge and time.

- How can this Aim be accomplished?

- Given the current time frame or environment, can this Aim be achieved? Should we scale it up or down?

- What resources will help us achieve this Aim? What limitations or constraints stand in our way?

Relevant/Realistic

- Will this Aim lead to achieving this organization's goals?

- Does it seem worthwhile to measure this Aim? Does it seem reasonable to measure this?

- Aims related to your organization's mission and guiding principles are more likely to be approved by your organizational leadership; Aims supported by other stakeholders will lead to a greater level of buy-in.

Time bound

- Aims should be achievable within a specific time frame that isn't so soon as to prevent success, or so far away as to encourage procrastination.

- When will this Aim be achieved?

- Is this time-frame realistic?

- Should it be closer or further in the future?

SMART AIM - Statement template

We will increase/decrease
_____ (what) among
_____(population) from
_X_(baseline) to _Y_ (goal) by
_____ (date)

Example of a SMART AIM

We aim to decrease the length of stay among newborns diagnosed with NAS among participating GaPQC hospitals from 11.2 days to 10.1 days by 9/30/2021

At XYZ, we will educate 80% of the staff and providers taking care of newborns on NAS scoring by October 2020

Example of a SMART AIM

Neonatal Abstinence Syndrome Kansas State Initiative SMART AIMS	
AIM 1	By October 2020, 85% of all Kansas birth centers enrolled in VON NAS Universal Training Program will have achieved "Center of Excellence" designation
AIM 2	By October 2020, less than 50% of infants at risk for NAS will be directly admitted to the NICU
AIM 3	By October 2020, the number of infants at risk for NAS who require pharmacological treatment will decrease by 25%
AIM 4	By October 2020, the LOS of Kansas infants with NAS treated pharmacologically will decrease by 2 days

Questions???

TO DO
**Each Center Send Out
Your SMART AIM(S)
to Katie before the next
webinar in July**