The Epi-Aid was requested by SWO Tribal Government and Great Plains Tribal Epidemiology Center

- Data is the Tribes’

Why: Conflicting and alarming reports on the number of infants born to mothers using substances during pregnancy. Is it true, increasing, how is it being addressed?
ONSITE RECORD ABSTRACTION
TEAM ABSTRACTED CHARTS FOR
3 WEEKS (AUGUST 2016)
KEY INFORMANT INTERVIEWS
HUGE 3-YEAR UNDERTAKING, MANY PARTNERS, COMPLEX LOGISTICS

- Tribal Leadership and Tribal Health Administrations
- Great Plains Tribal Epidemiology Center/Great Plains Tribal Chairmen’s Health Board
- Centers for Disease Control and Prevention
- Indian Health Service (IHS) (Local Service Units, Area, and Federal)
- South Dakota Department of Health
- North Dakota Department of Health
- Minnesota Department of Health
- Northwest Portland Area Indian Health Board

*And more!*

- South Dakota State University
- Nebraska Department of Health
- Alaska Native Epidemiology Center
- Rocky Mountain Tribal Epidemiology Center
- South Dakota Association of Healthcare Organizations
- Hospitals in South Dakota, North Dakota, and Minnesota
USING STATE BIRTH CERTIFICATE RECORDS, DEPARTMENTS OF HEALTH IDENTIFIED WOMEN WHO:
• Gave birth from 2013-2015
• Resided within Contract Health Service Delivery Area (CHSDA) counties
• Have their race classification as American Indian alone or in combination with another race

MATERNAL, INFANT, AND PRENATAL RECORD ABSTRACTION
• Over 1,000 births (maternal + infant records) in 21 hospitals
• Departments of Health assign a Unique Identifier to each birth record, to link hospital records data to the birth certificate
• Vital Record offices provided maternal-infant pairs directly to hospitals
• No personal identifiers collected on abstraction form

KEY STAKEHOLDER INTERVIEWS WITH IHS PERSONNEL (<10 INTERVIEWS)
• Designated Points of Contact identified by the Tribes
INFORMATION COLLECTED (THROUGH ABSTRACTION FORM)

- **GENERAL INFORMATION**
  - Hospital/Facility name
  - Prenatal records present

- **MATERNAL DELIVERY INFORMATION & PRENATAL RECORD**
  - Toxicology screening and results
  - Prenatal care utilization
  - Maternal anthropometry and prenatal diagnoses
  - Referral to substance use treatment

- **INFANT INFORMATION**
  - Measurements at birth
  - Gestational age / prematurity
  - Meconium toxicology screens
  - Infant birth outcomes and diagnoses, signs/symptoms of Neonatal Abstinence Syndrome
SCOPE OF IHS KEY PERSONNEL INTERVIEWS

- Policies and practices about screening, diagnosis, and treatment
- Policies or practices focused on substance use prevention
- Tribal and public health activities that intend to increase community and provider awareness of substance use
- Key personnel
  - Mental Health
  - Public Health Nursing
  - Prenatal Clinic
- Interviews limited to 9 individuals
- Interview guide and consent form developed
FINDINGS: URINE (UDS) AND MECONIUM TOXICOLOGY SCREENS

- RESULTS FROM SCREENS WERE NOT AVAILABLE FOR ALL MOTHERS AND INFANTS, DUE TO LACK OF SCREENING OR AVAILABLE TEST RESULTS IN RECORDS.
  - 62% (315/511) of mothers had a urine drug screen during pregnancy.

- MECONIUM TESTING OF NEWBORNS WAS INFREQUENT, LIMITING THE SAMPLE SIZE.
  - 13% (67/511) newborn infants had a meconium toxicology screen.
The Epi-Aid did not substantiate or refute whether there is an epidemic of drug use among pregnant women due to lack of consistent screening

* Contradicts anecdotal reports that meth use is of epidemic proportions
* Use of alcohol, meth, and other drugs is concerning!
  * For the 13% of infants whose meconium was tested
    * 6% of the 13% tested were positive for meth (this was 0.78% of all births)
    * 22% of the 13% tested used more than one substance (4.3% of all births)
    * Marijuana was the most common @ 16% for the 13% of 511 infants tested

Reality lies somewhere between the alarming perceptions/anecdotal reports and what got documented in the medical records
FINDINGS: URINE (UDS) AND MECONIUM TOXICOLOGY SCREENS

Where screen results were available:

- Testing conducted by physician discretion;
- UDS not conducted uniformly during pregnancy/Labor & Delivery for mothers;
- UDS confirmatory testing of UDS performed by physician request only (infrequent in the Epi-Aid sample);
- Meconium screens confirmed automatically by third party labs when positive; and,
- Substances vary in how quickly the body metabolizes, thus affect screening results (depending on timing of substance exposure).
REFLECTIONS & LESSONS LEARNED

- Meconium screens considered “gold standard” for Epi-Aid
- NAS discharge diagnoses codes were rarely documented in medical records -- which may have shifted in recent years
- UDS can be a useful tool. However,
  - UDS have been identified as a barrier to prenatal care if mothers fear punitive consequences to a positive UDS
  - Consider caveats of utilizing screens as primary source of data
- Medical record abstraction at multiple birth hospitals with varying EHR systems was challenging
- Although paper abstraction was necessary for the Epi Aid, data entry was also resource intensive
AFTER ALL THIS, FOLLOW-UP IS IMPERATIVE!

Epi-Aid Team identified 11 recommendations, based on the findings and recommendations of the American College of Obstetricians and Gynecologists (ACOG), summarized here into 5 categories:

1. Screening for substance use during pregnancy
2. Intervention & treatment for pregnant women using substances during pregnancy
3. Coordination / continuation of care for women using substances during pregnancy
4. Public Health Surveillance of substance use during pregnancy
5. Diagnosis and Treatment of infants
SCREENING FOR SUBSTANCE USE DURING PREGNANCY

• Should be a routine, universal standard of care

• Biologic samples as a form of screening should be discouraged
  • Recommend questionnaires before and during the entire pregnancy using validated screening tools

• If biologic testing is clinically required, informed consent should be obtained
  • When UDS are positive, they should be confirmed by a reference laboratory before treatment approaches are altered

• First priority should be maintaining and building therapeutic, compassionate, and non-threatening relationships with the patient
• ACOG recommends that obstetrician-gynecologists identify and refer substance abuse patients to addiction treatment professionals.

• ACOG also recommends that substance use disorder in pregnant women is treated and managed medically and behaviorally.

• Treatment options should include medication-assisted treatment (MAT).

Epi-Aid Fact:
Only 3% of women with positive urine drug screens were referred to treatment.

INTERVENTION & TREATMENT FOR PREGNANT WOMEN USING SUBSTANCES DURING PREGNANCY

6. Patients with substance use disorder (SUD) should be referred to evidence-based treatment resources, with care coordinated between prenatal and SUD providers.
EPI AID RECOMMENDATIONS

11. Improve access to evidence-based treatments for addiction among pregnant women who are diagnosed with substance use disorder.

• Improving access to evidence-based and culturally sensitive treatments for addiction that address the needs of pregnant women diagnosed with substance use disorder is recommended.

• Such evidence-based treatments should include Medication Assisted Treatment (MAT).
COORDINATION / CONTINUATION OF CARE FOR WOMEN USING SUBSTANCES DURING PREGNANCY

Care should be coordinated between treatment centers and primary care prenatal care providers

Challenges and Concerns
- Communication/Follow up
- Legal issues
- Release of Information not signed – refusal by moms to be referred
- Doctor hopping/care coordination
- Difficulty in coordination with Child Protection Services
- Not following Policies & Procedures
- Lack of treatment beds - long waiting lists
- Lack of transitional care: sober living
- Lack of recovery support services: transportation, daycare, housing, case management
- Outpatient treatment is not regarded by the Courts as "secure" for drug offenders

Strategies for Improvement:
- Strengthen the referral process to get mothers the help they need to avoid incarceration and separation of families
- Preconception care and birth control
- Education of providers about treatment resources and best practices
- Educate providers about the importance of being trauma informed and about addiction
PUBLIC HEALTH SURVEILLANCE OF SUBSTANCE USE DURING PREGNANCY

9. Establish protocols and practices for ongoing, systematic data surveillance to monitor trends over time and effectiveness of interventions and treatment.

- Protocols for systematically collecting and analyzing substance use during pregnancy data should be developed.

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<tr>
<th>Best Practices and Opportunities</th>
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<tr>
<td>• Data/Tracking (state level)</td>
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<td>• PRAMS - State, GPTCHB (SWO 2016 PRAMS-like survey included fathers)</td>
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<td>• PHQ2’s CAGE, Tobacco Screening</td>
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<td>• Birth Certificates could include info fields for alcohol and drug use</td>
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<td>• Chart Reviews, Quarterly Monitoring</td>
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<td>• Build rapport with pregnant women to get their perspectives; trauma informed care; establish trust</td>
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<td>• State-added questions to birth certificates is possible</td>
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7. Hospitals should establish, implement, and evaluate policies for standardized meconium screening and for assessing and documenting neonatal abstinence syndrome.

- Consistent and evidence-based screening for Neonatal Abstinence Syndrome (NAS) at birth hospitals might also help identify substance-exposed infants in need of NAS treatment.

**Withdrawal symptoms most commonly occur 48–72 hours after birth**
- Tremors, hyperactive reflexes, seizures
- Excessive or high-pitched crying, irritability, yawning, stuffy nose, sneezing, sleep disturbances
- Poor feeding and sucking, vomiting, loose stools, dehydration, poor weight gain
- Increased sweating, temperature instability, fever

POSTPARTUM CONTINUATION OF CARE

- Optimal treatment of NAS includes dyad care, where mother and baby are in the same room and family is educated on what to expect and how to care for their drug-exposed infant
- Breastfeeding, skin-to-skin contact, and decreased stimulation should be encouraged
- Medication Assisted Therapy and ongoing recovery support services should be sustained
- Postpartum period is associated with a high rate of relapse and even overdose
- Access to postpartum contraception requires patient education and shared decision-making prior to birth
- Ongoing monitoring of the drug-exposed infant is needed due to increased risk of developmental and environmental issues
Thank you for your attention. Questions are welcome!

This PowerPoint is available on our SWO First 1,000 Days Initiative website:

http://swofirst1000days.com/home/epi-aid

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