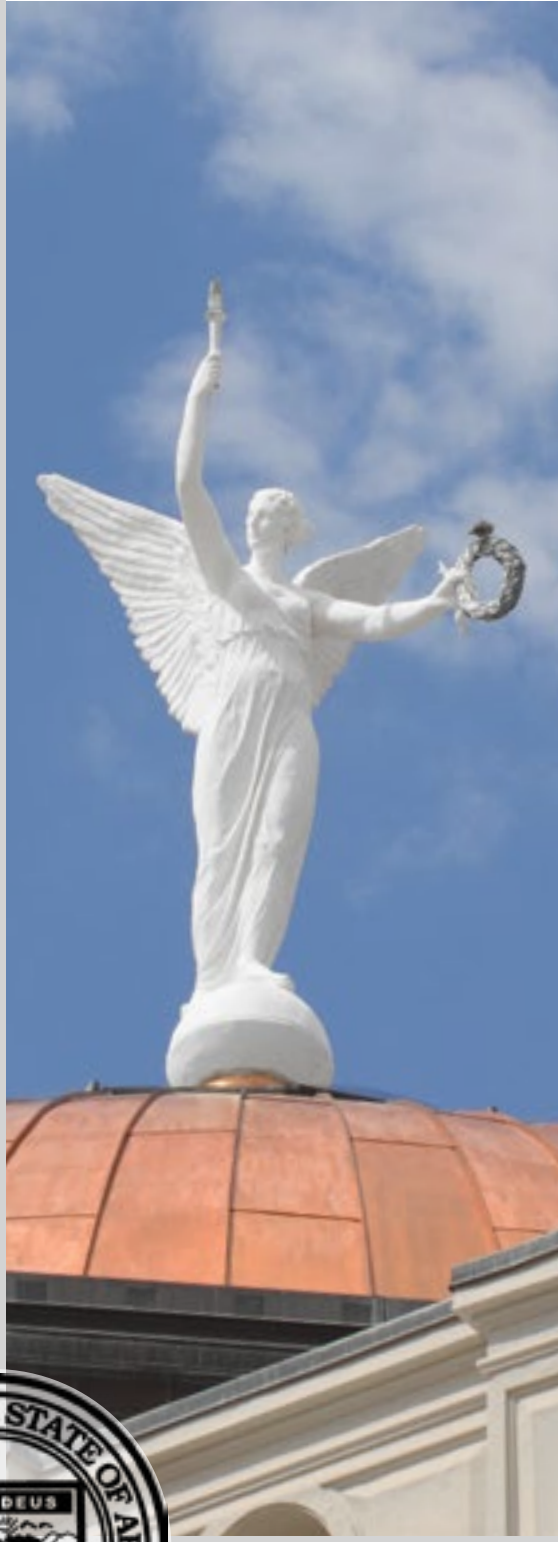
Arizona Substance Abuse Recommendations



Arizona Substance Abuse Task Force

October, 2016

Governor Ducey's Office of Youth, Faith and Family

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Executive Summary

Convened by the Arizona Governor's Office on Youth, Faith and Familiy (GOYFF), the Arizona Substance Abuse Task Force met from March through October 2016. Through facilitated in-depth discussion, consideration of information from topic area experts, and consensus building, the Task Force developed the following positions and recommendations:

- The use of evidence-based and data-driven substance use disorder (SUD) prevention, early intervention, and treatment approaches, as well as the exploration and consideration of promising and emerging practices, encourages the development, refinement, and evaluation of practices to identify and build an evidence base for best practices.
- All SUD approaches, strategies, interventions, and treatments must be culturally sensitive and competent.
- Primary, secondary, and tertiary prevention efforts should be conducted in family, educational, faith-based, community, health care, and medical practice settings before substance use begins, and early intervention should take place at the first sign of substance use.
- SUD is a chronic, relapsing brain disease that is characterized by compulsive drug and/or alcohol seeking and use, despite harmful consequences. Stigma is often grounded in misunderstandings about the nature of addiction. Reducing stigma and working together collaboratively is our best opportunity to assist more people into long-term treatment and recovery.
- Investing in prevention is essential to mitigate the human suffering, social problems, and financial costs of substance abuse. Increased funding is recommended to support prevention and early intervention activities directed at middle and high school students, families, educators, addiction specialists, medical and behavioral health providers, law enforcement, criminal justice, and others in the community.
- Multiple entities should work in partnership to eliminate system silos and develop system-wide, collaborative mechanisms for prevention, intervention, and treatment strategies. Collaborating entities should include schools; medical and behavioral health providers; the Department of Corrections; the Department of Juvenile Corrections; county, juvenile, and adult probation; the Department of Child Safety; the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid program; commercial health plans; charity and faith-based services.
- Additional provider and public education is needed to reduce the number of prescriptions written for dangerous opioids and to increase the use of evidence-based alternative, non-opioid pain management modalities.
- To support SUD data collection, jurisdictions should instruct medical examiners to appropriately and consistently specify the drug(s) identified through a toxicology analysis for inclusion on the death certificates of individuals who die from a drug overdose.
- Because 90 percent of all addiction begins with drug use during the teen years, Arizona schools should be supported with drug education programs and resources. The "Healthy Families – Healthy Youth" substance abuse prevention pilot should be scaled up and made available to all 7th grade students, parents, and faculty in the state.
- Treatment of overdoses in hospital emergency departments (EDs) is inefficient and incomplete without a referral to further treatment. It is essential to provide additional education to ED physicians on addiction and resources for timely referrals to appropriate SUD treatment providers.
- Addiction is a health issue. Arizona communities should expand programs such as the Juvenile Detention Alternatives Initiative (JDAI) and the Arizona Angels Initiative (AAI), which can reduce the need for detention or incarceration for individuals with SUD who have not committed a violent crime.
- Grant funding should be explored in order to pay providers to deliver SUD treatment services in jails and prisons.
- The Arizona Substance Abuse Partnership (ASAP) Committee's Department of Corrections Advisory Work Group should be asked to ensure that the Department of Corrections immediately and fully implements the four re-entry strategies presented to the Task Force.
- The GOYFF should convene a group to develop regional protocols and criteria for sober living homes and to address the problem of illegal referrals. The group should explore the merits of reinstating the sober living home criteria that were in place in Arizona prior to 2013. Treatment facilities and sober living homes should be held accountable to an evidence-based best practice standard of care.
- Providers should be educated about the importance of social supports and encouraged to involve the family, if appropriate, and/or other relational supports in the treatment process. Lack of social supports is a core issue that can lead to substance abuse. A support system should be developed to help families navigate the systems involved with SUD intervention and treatment.
- Access to medication-assisted treatment (MAT) should be expanded. While SUD treatment is not "one size fits all," the full continuum of MAT, including the non-opioid drug naltrexone, should be considered as an effective treatment option and used as part of a comprehensive treatment plan that includes counseling and participation in social support programs. MAT is one of the most effective strategies for preventing relapse for opioid use disorders.
- Scalable strategies should be developed to address the shortage of providers who are willing, qualified, and licensed to administer MAT so that it is available in a timely and appropriate way similar to other chronic conditions, such as congestive heart failure and diabetes.
- All detox and treatment programs should have the resources needed to test for communicable diseases, including Hepatitis C virus (HCV), HIV, AIDS, sexually transmitted diseases (STDs), and the Zika virus. Addressing this significant public health issue requires the availability of patient education materials that can help individuals with SUD understand the importance of screening tests.
- Neonatal Abstinence Syndrome (NAS), the withdrawal from a drug following birth, is a serious and growing problem in Arizona and throughout the U.S. Mothers using substances may avoid prenatal care because of shame, guilt, and/or stigma. It is important to reduce the stigma associated substance use and to provide the mother with resources for treatment, counseling, and support services.
- The earlier a practitioner is able to intervene in the prenatal care of a mother using a drug that endangers the baby and/or alcohol, the better for both the mother and the baby. All prescribers should be educated about the potential danger of prescribing opiates to women of childbearing age, NAS, and mitigation tactics. Pediatricians, family physicians, obstetricians, and other providers should be educated about the ongoing health and developmental problems associated with NAS.
- The Arizona Perinatal Trust should be encouraged to develop, promote, and ensure compliance with standardized best practice protocols for newborn NAS treatment and maternal interventions.
- Health plans, AHCCCS, and the Health Information Exchange should be encouraged to enhance data tracking of NAS babies, using consistent data collection tools, to monitor progress and outcomes.
- Because hospitals are required to report NAS and at-risk children to the Arizona Department of Child Safety (DCS), training should be made available to hospital nurses, social workers, and providers on how to effectively interact with DCS. DCS should provide hospitals statewide with DCS hospital liaisons who are specifically trained to assess newborn safety and to connect families to resources for

- The efforts of the Industrial Commission of Arizona to prevent future opioid addiction among Worker's Compensation beneficiaries and to obtain treatment for individuals who already have SUD should be supported.
- Arizona agencies should continue to seek federal grant monies to support substance abuse prevention, early intervention, and treatment efforts in Arizona.

Task Force Goals

The goals of the Arizona Substance Abuse Task Force were to:

- Address and seek to reverse the growing epidemic of substance abuse and addiction in Arizona communities by finding the best treatments and reducing barriers to care.
- Provide recommendations on a variety of substance abuse related issues, including:
- Prevention and early intervention
- Access to treatment
- Neonatal Abstinence Syndrome (NAS)
- Medication-Assisted Treatment (MAT)
- Across all areas, consider evidence-based, promising, and emerging prevention, intervention, and treatment practices.

Methodology

The Governor's Office on Youth, Faith and Familiy (GOYFF) convened the Arizona Substance Abuse Task Force in Spring 2016. Debbie Moak, GOYFF Director, and Dr. Sara Salek, Arizona Health Care Cost Containment System (AHCCCS) Chief Medical Officer, co-chaired the Task Force. A professional facilitator, Sharon Flanagan-Hyde, Flanagan-Hyde Associates, LLC, facilitated the Task Force and Work Group meetings.

Twenty-nine individuals were appointed to serve as Task Force members, and several additional people with special expertise were invited to participate in Work Groups. The Task Force and Work Group rosters are included in Appendix A.

The full Task Force conducted its work during six two-hour meetings in March, April, May, June, August, and October 2016. Four Work Groups also met for six two-hour sessions: Early Intervention and Prevention, Access to Treatment, Medication-Assisted Treatment (MAT), and Neonatal Abstinence Syndrome (NAS). All Task Force members were asked to participate in at least one Work Group.
The Task Force and Work Groups abided by the following group norms:

- *Help create an environment that allows all to speak candidly:*
- *Listen with an open mind and a collaborative mindset.*
- *Speak concisely and respectfully.*
- *One person speaks at a time, as called upon by the facilitator.*
- *The full Task Force focuses on the overall goals—details and tactics will be handled by Work Groups.*
- *Stay focused on the topic at hand and self-monitor to avoid tangents.*
- *Work toward consensus on recommendations.*

In response to Task Force requests for additional information, experts offered presentations at Task Force and Work Group meetings. A list of presenters and topics is included in Appendix B.
Task Force members developed the recommendations in this report through in-depth discussion and consensus.

A Table of Acronyms is provided as Appendix C.

Evidence-Based, Emerging, and Promising Practices

For the purpose of developing recommendations, the Task Force used the Substance Abuse and Mental Health Services Administration (SAMHSA) National Registry of Evidence-based Programs and Practices (NREPP) definition as a foundation and added emerging and promising practices. Task Force members said that many tactics that are known to be effective have not been formally studied. In addition, since data collection and sharing on tribal lands has been difficult, the needs of tribal members may not be fully represented in evaluation studies. Consequently, the Task Force took the stance that evidence-based practices (EBPs) are not limited to data-driven or data-supported initiatives; rather, they are the intersection of research, clinical expertise, and the needs and desires of the individual. The decision about using an evidence-based, emerging, or promising practice for a given individual should be left to the discretion of the prescribing provider.

The Task Force's position is aligned with that of the Centers for Disease Control and Prevention (CDC):
How can we encourage ongoing development, refinement, and evaluation of practices to identify and build an evidence base for best practices? . . . At the intersection of public health impact and quality of evidence, a continuum of evidence-based practice emerges, representing the ongoing development of knowledge across 4 states: emerging, promising, leading, and best.[1]

The purpose of NREPP is to help people learn more about available evidence-based programs and practices and determine which of these may best meet their needs. NREPP does not endorse or approve interventions, but instead assesses the research evaluating an intervention's impact on outcomes and provides information on available resources to facilitate the effective dissemination and implementation of the program. NREPP ratings take into account the methodological rigor of evaluation studies, the size of a program's impact on an outcome, the degree to which a program was implemented as designed, and the strength of a program's conceptual framework. Task Force members noted that in practice, staff and cost limitations sometimes make it challenging to implement models with fidelity.

The Task Force agreed that substance abuse prevention and treatment cannot be addressed with a "one size fits all" approach.

1 Spencer LM, Schooley MW, Anderson LA, Kochtitzky CS, DeGroff AS, Devlin HM, et al. Seeking Best Practices: A Conceptual Framework for Planning and Improving Evidence-Based Practices. Prev Chronic Dis 2013;10:130186.

Cultural Competency

The Task Force and Work Groups agreed that all approaches, strategies, interventions, and treatments must be culturally sensitive and competent. SAMHSA defines cultural competence as "the ability to interact effectively with people of different cultures to help ensure that the needs of all community members are met. In practice, both individuals and organizations can be culturally competent. Culture must be considered at every step of the Strategic Prevention Framework (SPF).

'Culture' is a term that goes beyond just race or ethnicity. It can also refer to such characteristics as age, gender, sexual orientation, disability, religion, income level, education, geographical location, or profession. Cultural competence means to be respectful and responsive to the health beliefs and practices—and cultural and linguistic needs—of diverse population groups. Developing cultural competence is also an evolving, dynamic process that takes time and occurs along a continuum."[2]

Prevention and Early Intervention

Working Definition of Prevention

The Prevention and Early Intervention Task Force developed the following working definition of prevention:

> Prevention is a set of actions that are designed to avert the onset of substance use or limit the development of problems associated with using psychoactive substances. Prevention efforts should focus on the individual, the family, and their surroundings, including schools and workplaces, and should be culturally sensitive and appropriate. Prevention programs often include monitoring and evaluation to improve their effectiveness.

Task Force members noted that primary, secondary, and tertiary prevention must be addressed. Prevention should take place in family, educational, faith-based, community, health care, and medical practice settings before substance use begins, and early intervention should be initiated at the first sign of substance use.

Reducing Stigma

Addiction is a chronic medical disease with the potential for life-threatening emergent crises. The National Center on Addiction and Substance Abuse (CASA) report found that of nearly $500 billion in current federal and state spending only 2 percent goes to prevention and treatment.[3] The National Institute on Drug Abuse defines addiction as a chronic, relapsing brain disease that is characterized by compulsive drug and/or alcohol seeking and use, despite harmful consequences. It is considered a brain disease because drugs and/or excessive alcohol change the brain's structure and how it works. These brain changes can be long lasting and can lead to many harmful, often self-destructive, behaviors.[4] Stigma is often grounded in misunderstandings about the nature of addiction.

2 http://www.samhsa.gov/capt/applying-strategic-prevention/cultural-competence

3 https://www centeronaddiction.org

4 Adapted from https://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics

Recommendation

1. The Task Force urges collaborative efforts among state officials and agencies, nonprofit organizations, professionals, and the public to decrease the stigma associated with SUD and eliminate moral judgments and shaming of individuals living with an addiction. This requires shifting from a culture of shaming to one of support for recovery. Reducing stigma and working together collaboratively is our best opportunity to assist more people into long-term treatment and recovery.

Prevention

Substance abuse is a critical public health issue in Arizona and throughout the United States. Investing in prevention is essential to mitigate the human suffering, social problems, and financial costs of substance abuse. This point was driven home by the powerful personal stories that community members shared about the impact of substance abuse on their children and families. Focused efforts to decrease the illicit use of opioids and stimulants are critical. It is also essential to address problems with alcohol: underage use, excessive use by adults, and use by women during pregnancy. Additional physician education is needed to discourage inappropriate prescriptions for opioids to treat pain.

Ninety percent of all addiction begins with drug use during the teen years. We must educate youth before and during these years in order to better prevent first drug use. Supporting Arizona schools with drug education and resources can go a long way toward addressing early substance use and school culture. Schools need our collective support to prevent first drug use.

Recommendations

2. Increase funding to support prevention and early intervention activities. Investing in evidence-based prevention and early intervention improves public safety and decreases dollars spent on incarceration and long-term treatment.
3. Fund, develop, and implement an intensive, effective, and evidence-based media campaign that uses clear, engaging, easy-to-remember, non-stigmatizing, culturally appropriate messages for Arizona's diverse populations, e.g., specific ethnicities, youth of various ages, the LGBT community, veterans, etc. Essential messages include:
    a. Prescription pain medications can be addictive and should only be used as prescribed.
    b. Addiction is a brain disease, not a personal failure.
    c. Here is where to go and what to do when substance abuse occurs (with specific, up-to-date information listed.)
    d. Substance use/abuse during pregnancy can lead to neonatal abstinence syndrome (NAS) and other developmental and health issues for babies.

4. Educate the community—families, educators, addiction specialists, medical and behavioral health providers, law enforcement, criminal justice, and others—on how to identify early symptoms of substance abuse and how to respond (e.g., referrals to counseling and support groups, frequent drug testing, etc.). Emphasize the importance of responding in a supportive and not punitive manner.

5. Use the powerful personal stories shared by community members with the Task Force as part of educational messages.
6. Engage children and adolescents in building social skills, character, and coping skills, so they have the tools needed to decline when offered substances.
7. Engage youth to take the lead in educating their peers about the consequences of drug us by connecting them with education and supportive resources such as “Safe Talk for Teens.”
8. Thoroughly train teens to deliver peer-to-peer prevention and early intervention messages through evidence-based programs. Address vaping (inhaling substances through e-cigarettes and other devices) as part of these programs.
9. Encourage use of the websites *substanceabuse.az.gov*, *overcomeawkward.org*, and *ivegotsomethingbetter.org* and *ReThinkRxAbuse.org*
10. Scale prevention programs throughout Arizona in schools to develop drug-free school cultures.
11. Investigate if the Adolescent ASAM (American Society of Addictive Medicine) Screening & Assessment Tool is the most efficacious tool for use in adolescents as well as the most cost effective option for the State.
12. Support the GOYFF’s plan to build a Youth Treatment Locator.
13. Disseminate drug abuse prevention/resource toolkits to schools, primary care providers, faith-based groups, parent groups, and others who interact with young people.
14. Develop a flyer on substance abuse treatment services and disseminate to pharmacists and providers.
15. Address core substance abuse/mental health issues that exacerbate the challenges faced by someone who is living with SUD: homelessness, the inability to get or keep a job, and inadequate social supports.
16. Support efforts to improve the screening and treatment of mental illness, and to screen and treat mental illness at earlier ages.
17. Develop a centralized “depot” of resources on substance abuse and prevention and disseminate information statewide.
18. Educate providers, health plans, and the general public about effective alternative pain management modalities for acute and chronic pain in order to decrease the use of opioids and unintended addiction.
19. Address the specific needs of the elderly population in terms of pain management modalities.
20. Eliminate system silos and develop system-wide collaboration mechanisms for schools; medical and behavioral health providers; the Department of Corrections; the Department of Juvenile Corrections; county, juvenile, and adult probation; the Department of Child Safety, AHCCCS, commercial health plans, and charity and faith-based services in prevention, intervention, and treatment strategies.
21. Leverage the positions of Governor Doug Ducey and GOYFF on substance abuse prevention to garner engaged support from other champions who are willing to publicly adress substance abuse.
22. Partner with corporations, private foundations, the faith-based community, and other partners in order to effectively scale statewide prevention programming.

Prescriber Education and Guidelines

The National Safety Council (NSC) recommends that states require continuing medical education (CME) on pain management for prescribers of controlled substances.[5] Further, NSC states that:

> Sound, evidence-based prescribing guidelines encourage physicians to incorporate alternative, non-opioid treatments for pain and provide the lowest effective doses and the fewest number of pills when prescribing dangerous opioid medications. The recently released CDC [Centers for Disease Control and Prevention] guideline on opioid treatment for chronic pain should be adopted as the state prescribing guideline, but states should also consider the risks for acute pain patients.[6]

Prescribers in Arizona are required to access and update the Controlled Substance Prescription Monitoring Program (CSPMP) database before prescribing a controlled substance to a patient. This new legislation—SB 1283, signed by Governor Ducey on May 12, 2016—targets “doctor shopping” by individuals seeking controlled substances.

The concept of pain assessment as the “fifth vital sign” came into use in the late 1990s. The Joint Commission put in place pain management standards. The Centers for Medicare and Medicaid Services (CMS) uses patient satisfaction questions about pain as part of its reimbursement procedures. A number of groups, including the Physicians for Responsible Opioid Prescribing (PROP), believe that the standards have contributed to opioid overprescribing and subsequent addictions.[7]

Recommendations

23. Expand the number of prescribers receiving “report cards” from the Board of Pharmacy comparing their prescribing habits to similar clinicians.
24. Require and expand prescriber education regarding opioid use for pain management. Standardized resources for Arizona providers should include information on the dangers of prescribing opioids, SB 1283 and the CSPMP database, and recent federal legislation. These resources should be available online.
25. The CSPMP should continue to be enhanced to be robust and user-friendly, with multi-state capabilities. Clear information should be provided on how to use the CSPMP.
26. Promote prescriber guidelines to reduce the number of opioid prescriptions written by providers.
27. Promote and educate providers on the use of alternative methods of treating acute and chronic pain.
    a. Educate patients and the general public on non - narcotic options, including Complementary and Alternative Medicine (CAM) to manage pain.
    b. Encourage providers to seek information from pain management centers of excellence to learn about non-opioid pain management modalities, including CAM.
    c. Educate insurers about the long-term cost-savings of reimbursements for evidence-based non-narcotic pain management options
    d. Educate providers on how to appropriately document recommended non-narcotic pain management approaches when submitting reimbursement claims to insurers.

5 National Safety Council. (2016) Prescription Nation 2016: Addressing America’s Drug Epidemic, 16.
6 National Safety Council. (2016) Prescription Nation 2016: Addressing America’s Drug Epidemic, 4.
7 http://www.medpagetoday.com/publichealthpolicy/publichealth/57336

28. Engage medical schools, dental schools, veterinarian schools, and higher education programs for nurse practitioners and physician assistants to increase required curricula on substance abuse prevention and treatment.
29. Educate and re-culture the profession for ICD-10. (The International Statistical Classification of Diseases and Related Health Problems 10th Revision [ICD-10] is a coding of diseases, signs and symptoms, abnormal findings, complaints, social circumstances and external causes of injury or diseases, as classified by the World Health Organization [WHO]). Unless doctors begin coding appropriately, specific missed in data collection and treatment. For example, F1117 is an opiate
dependent person. When an opiate dependent person comes to an emergency department, practitioners need to be trained to diagnose, code, and refer appropriately.
30. Support CMS efforts to eliminate pain management from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) payment score.
31. Support efforts to request that the Joint Commission, which accredits and certifies health care organizations, re-examine its pain management standards.

Data Collection on Overdose Deaths

The scope of overdose deaths from various drugs is difficult to ascertain because death certificates often do not indicate the drug(s) used by the decedent. A 2013 study found that in 21 states, more than 25 percent of overdose death certificates did not specify the drugs involved in the death.[8] Collecting and tracking data through death certificates can guide public policy, prevention, and intervention efforts.

Recomendation

32. Encourage juisdictions to specify the drug(s) identified through a toxicology analysis for inclusion on the death certificated of individuals who die from a drug overdose. Have medical examiners (MEs) appropriately and consistently identify drug use overdose as the cause of death. (Frequently) MEs are reluctant to do so, and identify UNK (unknown), as cause of death.)

School-based Prevention Programs

Evidence-based, age-appropriate prevention programs have been developed for students in elementary, middle, and high school. The National Council of State Legislatures reported that the School Health Policies and Practices Study (SHPPS), conducted by the Centers for Disease Control and Prevention in 2014, found that 66.7 percent of middle schools and 86.9 percent of high schools require that students receive instruction on alcohol or other drug use prevention. The National Association of State Boards of Education (NASBE) provides a State School Health Policy Database with information on state policy for Alcohol, Tobacco and Drug Use Education.[9]

Knowing that 90 percent of all addiction begins with drug use during the teen years and that the average age of first alcohol experience in Arizona is 12 years 9 months, we must educate Arizona's youth and parents earlier. A key to reducing the state's substance abuse lies in funding and scaling early prevention programs.

The "Healthy Families – Healthy Youth" substance abuse prevention pilot for seventh grade youth and their families in Arizona was launched in September 2016 by the GOYFF. It was funded through a SAMHSA Substance Abuse Prevention Block Grant.

Educators are increasingly aware that suspension for substance use is not an effective disciplinary measure and does not reduce future drug use. For example, a 2015 study showed that the likelihood of student marijuana use was higher in schools in which administrators reported using out-of-school suspension and students reported low policy enforcement. Student marijuana use was less likely where students reported receiving abstinence messages at school and students violating school policies were counseled about the dangers of marijuana use. Researchers concluded that schools might reduce student marijuana use by delivering abstinence messages, enforcing nonuse policies, and adopting a remedial approach to policy violations rather than use of suspensions.[10]

Because parents play the number one role in preventing teen drug use, we must educate both parents and their children. School faculties play a major role in both preventing and especially intervening in a student's early drug use. Therefore, we must require substance use education and identification along with resources.

Recommendations

33. Scale the "Healthy Families – Healthy Youth" substance abuse prevention pilot and ensure its availability to all 7th grade students, parents, and faculty in the state.
34. Engage the Arizona Board of Education to consider a mandate that substance abuse be a part of the required health curriculum.
    a. Utilize specialists and peers to assist in the delivery of evidence-based curricula.
    b. Develop school-based drug prevention programming that builds drug-free culture.
    c. As a part of the required health curriculum, prescreen for potential substance use precursors using the Adverse Childhood Experiences (ACEs) questionnaire and screen for substance abuse using the adolescent Screening, Brief Intervention, and Referral to Treatment (SBIRT) process.

8 Warner, M., Paulozzi, L. J., Nolte, K. B., Davis, G. G., & Nelson, L. S. (2013). State Variation in Certifying Manner of Death and Drugs Involved in Drug Intoxication Deaths. American Forensic Pathology, 231-236.

9 Memorandum from Emily Heller, National Council of State Legislatures, to Claire Scheuren, Task Force Member, June 13, 2016.

10 Tracy J. Evans-Whipp, Stephanie M. Plenty, Richard F. Catalano, Todd I. Herrenkohl, and John W. Toumbourou. Longitudinal Effects of School Drug Policies on Student Marijuana Use in Washington State and Victoria, Australia. American Journal of Public Health: May 2015, Vol. 105, No. 5, pp. 994-1000.

35. Discourage schools from suspending children and youth for using substances. Instead, encourage schools to implement programs such as SBIRT and “Teen Intervene” and student assistance programs.

Access to Treatment

Arizonans in need of substance abuse treatment face substantial challenges. Barriers to treatment include lack of available treatment beds, delays in receiving appointments, lack of insurance or insurance restrictions, gaps in treatment services, lack of childcare, lack of transportation, and lack of culturally and linguistically appropriate treatment, among others.

Overdose Treatment

Treatment of overdoses in hospital emergency departments (EDs) is inefficient and incomplete without a referral to further treatment. It is essential to provide additional education to ED physicians on addiction and resources for timely referrals to appropriate SUD treatment providers.

In Arizona, HB 2355, signed by Governor Doug Ducey on May 12, 2016, allows a pharmacist to dispense naloxone without a prescription to a person at risk of experiencing an opioid-related overdose, a family member, or community member in a position to assist that person. It also protects prescribers from certain liabilities to encourage widespread prescriptions for the medication.

Pregnant women can be safely given naloxone in limited doses under the supervision of a doctor.

A doctor or pharmacist can show patients, their family members, or caregivers how to administer naloxone. Administration of the medication, whether intranasal or intramuscular, every two to three minutes is recommended during a suspected opioid overdose. Patients who have naloxone should keep the item available at all times in case of emergency. Medication should be replaced when the expiration date passes.

Naloxone is not effective in treating overdoses of benzodiazepines, alcohol, or stimulant overdoses involving cocaine or amphetamines.

Recommendations

36. One of the National Safety Council’s six key indicators of state progress in addressing the drug epidemic is mandatory provider education.[11] All medical providers should participate in continuing education (CE) on addiction and the range of available treatments.
37. Increase access to the overdose antidote naloxone (Narcan™).
    a. Conduct a needs assessment regarding the distribution of naloxone kits in Arizona and create strategies to support harm reduction.
    b. Conduct community overdose education and prevention programs and distribute naloxone overdose prevention kits. Distribution must be accompanied with appropriate training on how to recognize the signs of an overdose, when and how to administer naloxone, the importance of calling 911, and how to administer rescue breathing until 911 first responders arrive.

38. Promote greater use of naloxone, especially in populations that are prone to fatal overdose such as people getting out of jail or prison, veterans, and individuals leaving the emergency department or a treatment program.
39. Determine medical best practices in treating overdoses of benzodiazepines, alcohol, and stimulants and include those in medical provider continuing education (CE) and with family members or caregivers.

40. Engage hospitals to ensure that adequate information on referral options are available for patients being treated for drug overdoses.

Addiction Treatment

Individuals who experience a drug- or alcohol-related crisis and intervention are often willing, within a short window of time, to engage in a conversation about entering treatment. However, for many individuals with SUD, Arizona lacks the capacity to provide immediate treatment. There is a shortage of available beds and providers.

Delays in connecting an individual with services due to lack of capacity result in lost opportunities to get the person into treatment. One Task Force member talked about times when 50 percent of emergency room patients have a substance abuse and/or mental health issue; one patient was in the hospital for 14 days without treatment while waiting for a bed in a treatment facility. This highlights the need for additional collaboration between hospitals and treatment providers. We must make treatment readily available when individuals have their “moment of clarity.”

SAMHSA supports a trauma-informed approach to the treatment of SUD, saying:
A program, organization, or system that is trauma-informed:

- Realizes the widespread impact of trauma and understands potential paths for recovery;
- Recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system;
- Responds by fully integrating knowledge about trauma into policies, procedures, and practices; and
- Seeks to actively resist re-traumatization.

A trauma-informed approach can be implemented in any type of service setting or organization and is distinct from trauma-specific interventions or treatments that are designed specifically to address the consequences of trauma and to facilitate healing.[12]

Vista Thompson, Associate General Counsel, Blue Cross Blue Shield of Arizona, offered a presentation to the Task Force on mental health parity and commercial insurance. She noted that parity legislation does not force a health plan to cover mental health or substance abuse treatment. Instead, the law mandates that if a plan elects to cover such treatments, they must cover it as equally as they cover medical and surgical

11 National Safety Council. (2016). Prescription Nation 2016: Addressing America’s Drug Epidemic, 4-5.

12 http://www.samhsa.gov/nctic/trauma-interventions

benefits. Insurers may implement a number of restrictions on services.[13]

Recommendations

41. Develop resources and communication mechanisms after the initial assessment to support a "no wrong door" and "warm hand-off" approach when an individual seeks treatment. A care coordinator, case manager, or navigator from the entity that conducts the assessment should stay with the person until the next phase of the treatment process begins, using an online treatment locator if necessary.
42. Provide assistance in navigating the system to individuals seeking treatment.
43. Assess the 24/7 availability of appropriate treatment levels and increase treatment capacity throughout Arizona as needed to ensure that appropriate services are available immediately when an individual seeks treatment. This includes early intervention, inpatient and outpatient detox, inpatient treatment beds, intensive outpatient (IOP) treatment, and outpatient treatment.
44. Expand the number of one-stop, comprehensive programs. The integration of physical and behavioral health care provides multiple benefits for patients as well as cost savings.
45. Design and implement, with consistent funding and appropriate staffing, an effective information disbursement system so that information about substance abuse treatment gets to communities throughout the state, including rural, frontier areas and tribal lands. This might be incorporated into one provider by combining multiple resources such as Arizona 2-1-1 Community Information and Referral Services, Crisis Response Network, and others. The Arizona Substance Abuse Locator (http://substanceabuse.az.gov) lists prevention, treatment, and recovery providers and is searchable by ZIP code.
46. Encourage providers to use a Trauma-Informed approach when assessing and interacting with individuals with SUD and their families.
47. Encourage the use of motivational interviewing by treatment providers.
48. Provide training and education for law enforcement professionals on SUD and treatment options
49. Encourage providers to offer after-school IOP programs for school-age youth.
50. AHCCCS should consider contractual requirements that facilitate additional options for treatment availability.
51. Encourage the Regional Behavioral Health Authorities (RBHAs) to share best and promising practices with the other RBHAs, the AHCCCS managed care organizations (MCOs), and commercial health plans.
52. AHCCCS should consider opening up Screening, Brief Intervention and Referral to Treatment (SBIRT) codes. This may require an additional appropriation to AHCCCS to cover the associated costs
53. Put in place programs for early screening of youth for both substance abuse and mental health in order to connect youth to help.
54. Design and implement a statewide messaging campaign that incorporates the SBIRT program into all appropriate settings.
55. Increase affordable and readily available services for children, adolescents, and adults in need of treatment through expanding public education, implementing public policies that support access, and addressing workforce shortages.

13 Vista Thompson, Associate General Counsel, Blue Cross Blue Shield of Arizona, presentation to Task Force, April 27, 2016.

56. Increase both awareness of and the capacity of crisis stabilization recovery centers in Arizona.
57. Develop and disseminate scripts for professionals, families, and friends to talk with individuals who are not ready for treatment, but may be in the future.

Criminal Justice System

Criminal justice issues were discussed in several of the Work Groups and in response to requests for information, presentations were offered on a number of topics and programs. A recurring theme was the importance of understanding addiction as a health issue, not a criminal issue.

Youth Detention

Both the Yuma County Juvenile Court and the Pima County Juvenile Court Center have engaged with the Juvenile Detention Alternatives Initiative (JDAI), a project of the Annie E. Casey Foundation designed to reduce the negative impacts of youth detention. The likelihood of future success for youths who experience detention is bleak, according to the Justice Policy Institute:

> A recent literature review of youth corrections shows that detention has a profoundly negative impact on young people's mental and physical well-being, their education, and their employment. One psychologist found that for one-third of incarcerated youth diagnosed with depression, the onset of the depression occurred after they began their incarceration, and another suggests that poor mental health, and the conditions of confinement together conspire to make it more likely that incarcerated teens will engage in suicide and self-harm. Economists have shown that the process of incarcerating youth will reduce their future earnings and their ability to remain in the workforce, and could change formerly detained youth into less stable employees. Educational researchers have found that upwards of 40 percent of incarcerated youth have a learning disability, and they will face significant challenges returning to school after they leave detention. Most importantly, for a variety of reasons to be explored, there is credible and significant research that suggests that the experience of detention may make it more likely that youth will continue to engage in delinquent behavior, and that the detention experience may increase the odds that they will recidivate, further compromising public safety.[14]

Since 1992, JDAI has demonstrated that jurisdictions can safely reduce reliance on secure confinement and generally strengthen their juvenile justice systems through a series of interrelated reform strategies. JDAI is now being applied in almost 200 jurisdictions in 39 states and the District of Columbia, including highly successful implementation in a few places in Arizona. Outcomes demonstrate that the use of detention can be reduced through eight interrelated, core reform strategies: Community Collaboration, Data Driven Decisions, Objective Admission Criteria, Alternatives to Detention, Expedited Case Processing, Special Detention Cases, Reducing Racial Disparity, and Conditions of Confinement.[15]

For example, the Hope Assessment Center in Yuma, which uses the JDAI model, offers a welcoming atmosphere and is available 24/7. Minors can be referred by police, parents/guardians, teachers, or can walk into the center on their own. The goal is to front-load services in the community before problems

14 Holman, Barry & Jason Ziedenberg, Justice Policy Institute, The Dangers of Detention: The Impact of Incarcerating Youth in Detention and Other Secure Facilities, 2006, 2-3.
15 http://www.jdaihelpdesk.org/default.aspx.

escalate to the need for detention. Of 194 youth who went into the Center, only 16 came back on another referral. [16]

Police Department Support for People Living with SUD

The Gloucester, MA Police Department developed a policing program designed to help people living with substance addiction to receive help. The model uses volunteer "Angels," who guide individuals through the process, and created a partnership of treatment providers to ensure that people receive immediate care and treatment. Police do not arrest people who come to the police station and ask for help. The police also dispose of drugs and drug paraphernalia.[17]

The Arizona Angel Initiative (AAI) is now being piloted in the Maryvale precinct of the Phoenix Police Department. Citizens are able to walk into the police precinct, turn in their drugs, and request treatment without fear of arrest. Police check applicants to make sure they do not have pending charges for crimes that involve violence, arson, sex, children, or the elderly. Peer-support "Angels" have been trained and the network of volunteer providers is growing. Other sites in Arizona, for example, Chandler, are getting ready to launch the program.

Recommendations

58. Encourage police departments throughout Arizona to implement an Angel Initiative program.
59. Scale the AAI to interested counties to better assist individuals into treatment during their "moment of clarity" while reducing costs to law enforcement.
60. Expand the AAI to include street outreach in identified high drug distribution areas to expedite connection to treatment and reduction of criminal activities.

Prison Transition and Recidivism Prevention

A barrier to SUD treatment for incarcerated individuals is that Medicaid dollars cannot be used to provide services in jails and prisons.

The Arizona Department of Corrections presented four re-entry strategies to the Task Force: utilizing risk/need assessments to ensure the right people are receiving the most appropriate programs to maximize resources, capitalizing on alignment of inmate programs to proactively support successful re-entry and transition, focusing on strategies for strengthening community re-entry and transition efforts, and relying on community partner collaboration. [18]

Individuals face multiple barriers to success after incarceration, including getting a job and finding an apartment. Examples of re-entry services include assessment, case management, mentoring, and counseling. Agencies may provide assistance with employment, educational/vocational training, obtaining food boxes, mental health/medical services, medication needs, public assistance programs, faith-based services, twelve-step groups, housing needs, literacy tutoring, and transportation support.[19]

Steve Grams presented on SAGE Counseling's transition program, which allows an offender to be released 90 days earlier than their court-ordered sentence. The offender is provided with both counseling and case management services, and 75 to 80 percent of participants successfully finish the program. Recidivism is low—approximately 16 percent. Some Work Group members expressed concern that jails and prisons have financial motivations to block early release.

Best outcomes are achieved when the transitional process starts prior to release.
The Bridging the Gap Offender Re-entry (BTG-OR) Program pilot is designed to provide clients with the tools they need to avoid recidivism. The pilot targets men designated by the Maricopa County Adult Probation Department (MCAPD) as medium- to high-risk of reoffending and with a co-occurring substance abuse or mental health diagnosis. The program is able to provide wrap-around services and supports such as housing, employment, food, residential substance abuse treatment, primary health care, and HIV education, counseling, and testing.

BTG-OR is a collaboration of Terros Health, MCAPD, the Arizona Department of Corrections, Crossroads, and St. Joseph the Worker, with funding from SAMHSA. Because the pilot is still underway final analysis is not yet available. However, about 138 individuals have completed the program and fewer than 10 percent were incarcerated for new offenses within the first six months after release. Programs like BTG-OR can provide substantial financial savings to the state: BTG-OR costs $415,000 per year for services for 50 people, compared to the cost of $1.75 million annually to keep 50 inmates in prison. Reduced recidivism also improves public safety and reduces crime.[20]

Access to Treatment Work Group member Doray Elkins shared information about numerous models and programs that are experiencing positive results in treating addiction and reducing recidivism though the use of the injectable form of naltrexone, Vivitrol®. She provided statistics from the Sacramento (CA) County Sheriff's Department, Barnstable County (MA) Sheriff's Office, Nassau County (NY) Opiate Treatment Program, and Partners for Progress (AK), among others.

Recommendations

61. Recognize substance abuse disorder as a disease. Shift substance abuse from a criminal issue to a health issue through public health campaigns and policy changes. Destigmatize substance abuse and focus on treatment.
62. Change the culture of over-institutionalization of individuals with SUD. Offer mandatory treatment as an option in lieu of incarceration for an individual who is not a fugitive from justice and does not have prior or pending charges for crimes involving violence, arson, sexual offenses, children, or the elderly. Scale JDAI and the Arizona Angel Initiative throughout the state.
63. With 77 percent of incarcerated males and 89 percent of incarcerated females reporting an SUD, ensure treatment for all who will at some future date be released. Explore grant funding in order to pay providers to deliver treatment services in jails and prisons.

16 Presentation to Prevention and Early Intervention Work Group by Jennifer Ortiz & Steve Tyrrell, Arizona Supreme Court, Administrative Office of the Courts, May 11, 2016.
17 http://gloucesterpd.com/addicts/
18 Presentation to Task Force by Karen Hellman, Arizona Department of Corrections, May 25, 2016.
19 Presentation to Task Force by Steve Grams, SAGE Counseling, May 25, 2016.
20 Presentation to Prevention and Early Intervention Work Group by Andrea Smiley & John Greenawalt, Terros, June 29, 2016.

64. Ensure access to intervention and treatment, and create a safe environment for recovery in jails and prisons. A full range of MAT and counseling should be available.
65. Allow diversion and transitional program providers to have access to clients in jails and prisons. Most county jails allow access (although access is very limited for some); the Department of Corrections historically has not allowed providers into prisons.
66. Ask the Arizona Substance Abuse Partnership (ASAP) Committee's Department of Corrections Advisory Work Group to ensure that the Department of Corrections immediately and fully implements the four re-entry strategies presented to the Task Force.
67. Ask the GOYFF to convene a group to further discuss and define what Arizona's version of "Ban the Box" might be.
68. Support and expand programs that connect offenders who have a bond release with high-quality case quality transition, step-down, or comprehensive treatment that includes case management, counseling, and support, as appropriate for the individual.
69. Include families in transition programs to the extent possible.
70. Provide assistance with applications for AHCCCS coverage.
71. Encourage counties and the state to work more closely inorder to leverage resources.

Sober Living Homes

Some Access to Treatment Work Group members expressed concern about sober living homes, which are not regulated or licensed in Arizona. Homes are able to avoid licensure requirements because they send patients to other licensed providers for treatment, and the home essentially functions only in the capacity of sleeping quarters. Staff often has little experience in working with substance abuse and some residents bring illegal substances into the home, which challenges residents' ability to maintain sobriety. Homes are often poorly maintained and located in areas where drugs are readily available.

This may change somewhat as a result of HB 2107, signed by Governor Doug Ducey on May 17, 2016. This legislation permits a city, town, or county to adopt ordinances regulating health and safety standards and enforcement mechanisms for a structured sober living home.

Access to Treatment Work Group members also expressed concern about treatment programs that illegally seek referrals by contracting with individuals who search for people living with SUD on the facility's behalf. Programs enroll patients in insurance upon admission and drop the insurance policy when patients leave the program.

Recommendations

72. Encourage cities, towns, and counties to make use of the provisions of HB 2107 to improve the safety and effectiveness of sober living homes.
73. Convene a group to develop regional protocols and criteria for sober living homes and to address the problem of illegal referrals. The group shouldexplore the merits of reinstating the sober living home criteria that were in place in Arizona prior to 2013.
74. Treatment facilities and sober living homes should be held accountable to an evidence-based best practice standard of care.

Supporting Families/Caregivers

Providers know the importance of involving families and caregivers in treatment programs. However, the Health Information Portability and Accountability Act (HIPAA) prevents medical providers from sharing information with family members without the permission of the patient/client. Nonetheless, programs that provide support for families and caregivers during the treatment process are often welcomed and effective.

Recommendations

75. Educate providers about the importance of social supports and involve the family, if appropriate, and/or other relational supports in the treatment process. Lack of social supports is a core issue that can lead to substance abuse.
76. Develop a support system to help families navigate the systems involved with substance abuse intervention and treatment.

Medication-Assisted Treatment

MAT Modalities

Medication-assisted treatment (MAT), including opioid treatment programs (OTPs), combines behavioral health therapy and medications to treat substance abuse disorders. Comprehensive treatment plans include counseling and social support programs. SAMHSA describes MAT as follows:[21]

Buprenorphine

Buprenorphine is an opioid partial agonist. This means that, like opioids, it produces effects such as euphoria or respiratory depression. With buprenorphine, however, these effects are weaker than those of full drugs such as heroin and methadone and it effectively blocks the effects of those drugs. Buprenorphine has unique pharmacological properties that help:

- Lower the potential for misuse
- Diminish the effects of physical dependency to opioids, such as withdrawal symptoms and cravings
- Increase safety in cases of overdose
- The U.S. Food and Drug Administration (FDA) has approved:
- Bunavail® (buprenorphine and naloxone) buccal film
- Suboxone® (buprenorphine and naloxone) film
- Zubsolv® (buprenorphine and naloxone) sublingual tablets
- Buprenorphine-containing transmucosal products for opioid dependency

Buprenorphine's opioid effects increase with each dose until at moderate doses they level off, even with further dose increases. This "ceiling effect" lowers the risk of misuse, dependency, and side effects. Also, because of buprenorphine's long-acting agent, many patients may not have to take it every day.

21 Adapted by Task Force from http://www.samhsa.gov/medication-assisted-treatment

Limited information exists on the use of buprenorphine in women who are pregnant and have an opioid dependency. There have been studies that have shown the safety of buprenorphine use during pregnancy. The FDA, however, classifies buprenorphine products as Pregnancy Category C medications, indicating that the risk of adverse effects has not been ruled out. If used during pregnancy, it should be used by itself rather than in combination with naloxone.

To prescribe, physicians must qualify and apply for a waiver under the Drug Addiction Treatment Act of 2000 (DATA 2000). Qualified physicians may provide treatment in a variety of settings, including in an office, community hospital, health department, and correctional facility. SAMHSA-certified OTPs may dispense buprenorphine.

Methadone

Methadone works by changing how the brain and nervous system respond to pain. It lessens the painful symptoms of opiate withdrawal and blocks the euphoric effects of opiate drugs such as heroin, morphine, and codeine, as well as semi-synthetic opioids like oxycodone and hydrocodone. It can be addictive so it must be used exactly as prescribed. Taking more can cause unintentional overdose.

Methadone is offered in pill, liquid, and wafer forms and is taken once a day. Pain relief from a dose of methadone lasts about four to eight hours. Methadone treatment should ideally last a minimum of 12 months. Some patients may require treatment for years. Treatment must be stopped gradually to prevent withdrawal.

Methadone as an opioid use disorder treatment is carefully regulated. It can only be dispensed through an OTP certified by SAMHSA. MAT services professionals are required to acquire and maintain certifications to legally dispense and prescribe opioid dependency treatments. After a period of stability (based on progress and proven, consistent compliance with the medication dosage), patients may be allowed to take methadone at home between program visits.

SAMHSA says that women who are pregnant or breastfeeding can safely take methadone. When withdrawal from an abused drug happens to a pregnant woman, it causes the uterus to contract and may bring on miscarriage or premature birth. Methadone's ability to prevent withdrawal symptoms helps pregnant women better manage their addiction while avoiding health risks to both mother and baby.
Undergoing methadone maintenance treatment while pregnant will not cause birth defects, but some babies may go through withdrawal after birth. This does not mean that the baby is passively dependent. Infant withdrawal usually begins a few days after birth but may begin two to four weeks after birth.

Mothers taking methadone can still breastfeed. Research has shown that the benefits of breastfeeding outweigh the effects of the small amount of methadone that enters the breast milk. A woman who is thinking of stopping methadone treatment due to breastfeeding or pregnancy concerns should speak with her doctor first.

Naltrexone

Naltrexone blocks the euphoric and sedative effects of drugs such as heroin, morphine, codeine, and alcohol. It is non-narcotic and non-addictive. It works differently in the body than buprenorphine and methadone, which activate opioid receptors in the body that suppress cravings. Naltrexone binds to and blocks opioid receptors, and is reported to reduce opioid cravings. There is no abuse and diversion potential with naltrexone. If a person relapses and uses the problem drug, naltrexone prevents the feeling of getting high.

The pill form of naltrexone (ReVia®, Depade®) can be taken at 50 mg once per day. The injectable extended-release form of the drug (Vivitrol®) is administered at 380 mg intramuscular once a month. Any health care provider who is licensed to prescribe medications can prescribe naltrexone and special training is not required.

Medically managed detoxification is required before initiating or resuming treatment with naltrexone. Patients must abstain from illegal opioids and opioid medication for a minimum of 7-10 days before starting naltrexone. If switching from methadone to naltrexone, the patient has to be completely withdrawn from the opioids.

Patients on naltrexone may have reduced tolerance to opioids and may be unaware of their potential sensitivity to the same, or lower, doses of opioids that they used to take. If patients who are treated with naltrexone relapse after a period of abstinence, it is possible that the dosage of opioid that was previously used may have life-threatening consequences, including respiratory arrest and circulatory collapse.

Naloxone

Naloxone (sold under the brand name **Narcan®**) is a medication approved by the FDA to prevent overdose by opioids such as heroin, morphine, and oxycodone. It blocks opioid receptor sites, reversing the toxic effects of the overdose. Naloxone is administered when a patient is showing signs of opioid overdose. The medication can be given by intranasal spray, intramuscular (into the muscle), subcutaneous (under the skin), or intravenous injection. Naloxone is also added to buprenorphine to decrease the likelihood of diversion and misuse of the combination drug product. (See "Overdose Treatment" on pages 14-15 for details and recommendations.)

MAT Issues

The Task Force recognizes that there is a divide in the treatment community concerning MAT. It can be difficult for some providers to accept new and innovative practices. Additionally, stigmas within and outside the treatment arena may make it difficult to accept MAT. Some treatment programs and sober living homes require individuals to be off MAT to be admitted, which may not be in the best interest of the individual. The Task Force is clear that there is not a "one size fits all" treatment and that each person seeking treatment for SUD must be treated as an individual. As one Work Group member said, "MAT Work Group is not a magic bullet."

However, MAT should be seriously considered as an effective treatment option and should always be

used as part of a comprehensive treatment plan that includes counseling and participation in social support programs. Consistent communication and coordination of care among providers greatly enhances treatment. MAT may be a lifelong need to prevent relapse because some people never recover the endorphin physiology they had before the addiction.

Adolescents and Young Adults

An August 2016 American Academy of Pediatrics policy statement said: "Opioid use disorder is a leading cause of morbidity and mortality among U.S. youth. Effective treatments, both medications and substance use disorder counseling, are available but underused, and access to developmentally appropriate treatment is severely restricted for adolescents and young adults. Resources to disseminate available therapies and to develop new treatments specifically for this age group are needed to save and improve lives of youth with opioid addiction."[22] There are numerous opportunities for youth to develop leadership skills through peer prevention, early intervention, and treatment programs.

Medicaid Coverage

The AHCCCS Pharmacy and Therapeutics Committee (P&T) reviewed the substance use disorder class at the May 2016 P&T meeting and will be re-reviewing annually moving forward. Decisions from the May 2016 P&T for this class include removal of prior authorization for long-acting injectable naltrexone (Vivitrol®) and adding naloxone (Narcan®) without prior authorization. Additionally, the P&T will be reviewing the long-acting narcotic analgesics class at the October 2016 P&T and will consider abuse-deterrent options to be added to the AHCCCS Drug List at that time. (Note that the AHCCCS P&T only applies to medication coverage through Medicaid, i.e., does not apply to private/commercial medication coverage.)

Increasing the Availability of MAT Providers

The number of physicians who provide MAT is not adequate to address the level of need in Arizona. Some MAT Work Group members reported that the mechanics of licensure are very onerous and the current situation scares off providers who might be interested in providing substance abuse treatment.
The National Safety Council (NSC) recommends that "physician patient caseload limits be raised for buprenorphine-waivered physicians and that advanced practice nurses are allowed to obtain DATA-2000 waivers to prescribe buprenorphine. NSC also recommends that federal and state-funded substance abuse services offer MAT, the most effective methods of opioid dependence treatment. Care should be coordinated and MAT provided in conjunction with counseling and recovery support services." [23]

On July 6, 2016, the Department of Health and Human Services (HHS) released a final rule (effective August 8, 2016) to increase access to MAT with buprenorphine products in the office setting by allowing eligible practitioners to request approval to treat up to 275 patients. The final rule also includes requirements to ensure that patients treated by these practitioners receive high-quality care.

To be eligible for a patient limit increase to 275, a physician must possess a current waiver to treat up to

22 http://pediatrics.aappublications.org/content/early/2016/08/18/peds.2016-1893
23 National Safety Council. (2016). Prescription Nation 2016: Addressing America's Drug Epidemic, 26.

100 patients, must have maintained that waiver without interruption for at least one year, and meet one of the following requirements:

- Hold "additional credentialing," meaning board certification in addiction medicine or addiction psychiatry by the American Board of Addiction Medicine (ABAM) or the American Board of Medical Specialties (ABMS) or certification by the American Osteopathic Academy of Addiction Medicine, ABAM or ASAM; or
- Practice in a "qualified practice setting," meaning a practice that:
    - Provides professional coverage for patient medical emergencies during hours when the practitioner's practice is closed.
    - Provides access to case-management services for patients including referral and fol low - upservices for programs that provide, or financially support, the provision of services such as medical, behavioral, social, housing, employment, educational, or other related services.
    - Uses health information technology (health IT) systems such as electronic health records, if otherwise required to use these systems in the practice setting. Health IT means the electronic systems that health care professionals and patients use to store, share, and analyze health information.
- Is registered for their State prescription drug monitoring program (PDMP) where operational and in accordance with Federal and State law
- Accepts third-party payment for costs in providing health services, including written billing, credit, and collection policies and procedures, or federal health benefits.

Additionally, practitioners may not have had Medicare enrollment and billing privileges revoked under 42 CFR 424.535 nor have been found to have violated the Controlled Substances Act pursuant to 21 U.S.C. 824(a) to be eligible for the higher limit.

The rule does not extend prescribing authority to clinicians other than physicians as the original DATA 2000 statute limits the practitioners eligible for the waiver to physicians. As such, HHS does not have the authority to extend prescribing privileges to other clinicians.[24]

In response to public comments, the rule notes: "Questions related to expanding eligible prescribers are outside the scope of this rulemaking; the statute limits who is eligible to prescribe buprenorphine for MAT. 21 U.S.C. 823(g)(2) limits the practitioners eligible for waiver in this context to physicians, and, therefore, HHS is not authorized to include other types of providers in this rule. However, HHS recognizes the issues raised by commenters and the President's FY 2017 Budget proposes a buprenorphine demonstration program to allow advanced practice providers to prescribe buprenorphine. This would allow HHS to begin testing other ways to improve access to buprenorphine throughout the country." [25]

A Task Force member talked about the success of Project Extension for Community Care Outcomes, known as Project ECHO, which helps rural doctors and nurses in New Mexico address substance abuse and other issues. It links primary care clinics in rural areas with the University of New Mexico's School of Medicine in Albuquerque over an Internet-based, audio-visual network. Unlike most telehealth initiatives,

24 http://www.asam.org/magazine/read/article/2016/07/06/summary-of-the-major-components-of-the-hhs-final-rule-which-will-be-effective-on-august-5-2016
25 https://s3.amazonaws.com/public-inspection.federalregister.gov/2016-16120.pdf

which mainly connect patients with doctors, Project ECHO focuses on training rural doctors, nurses, physician's assistants, and other clinicians, and helping them stay current with advances in treating chronic disease and addressing other specialized health conditions. It is funded by the Agency for Health-care Research and Quality (AHRQ).[26]

Katherine Cates-Wessel, Executive Director, American Academy of Addiction Psychiatry, presented to the MAT Work Group on the Providers Clinical Support System for Medication-Assisted Treatment (PCSS-MAT) and the Providers Clinical Support System for Opioid Therapies (PCSS-O). Both evidence-based programs are internet-based and free of charge. Mentors are provided without charge. The PCSS-MAT coalition is based on integrated health and interdisciplinary collaboration. Partner groups receive dollars to support trainings directed toward various constituencies.

The American Osteopathic Academy of Addiction is a partner organization and provides waiver training in rural communities that have a hard time finding resources and experts. The American Psychiatric Association offers "hot topic" webinars each month on topics such as preparing for Drug Enforcement Administration (DEA) inspection and working with pregnant women using Suboxone®. The American Society of Addiction Medicine (ASAM) provides training in collaboration with the American Congress of Obstetricians and Gynecologists (ACOG) that focuses on pregnant women.

Comprehensive Addiction and Recovery Act (CARA)

The Comprehensive Addiction and Recovery Act (CARA) (P.L. 114-198) was signed into law by President Barack Obama on July 22, 2016. It authorizes over $181 million each year in new funding to fight the opioid epidemic; however, monies must be appropriated every year through the regular appropriations process in order for it to be distributed in accordance with the law. Components include the following:

- Expand prevention and educational efforts—particularly aimed at teens, parents and other caretakers, and aging populations—to prevent the abuse of methamphetamines, opioids, heroin and to promote treatment and recovery.
- Expand the availability of naloxone to law enforcement agencies and other first responders to help in the reversal of overdoses to save lives.
- Expand resources to identify and treat incarcerated individuals suffering from addiction disorders promptly by collaborating with criminal justice stakeholders and by providing evidence-based treatment.
- Expand disposal sites for unwanted prescription medications to keep them out of the hands of our children and adolescents.
- Launch an evidence-based opioid and heroin treatment and intervention program to expand best practices throughout the country.
- Launch a medication assisted treatment and intervention demonstration program.
- Strengthen prescription drug monitoring programs to help states monitor and track prescription drug diversion and to help at-risk individuals access services. [27]

26 https://healthit.ahrq.gov/ahrq-funded-projects/transforming-healthcare-quality-through-health-it/project-echo-bringing
27 http://www.cadca.org/comprehensive-addiction-and-recovery-act-cara

CARA also includes a provision that permits nurse practitioners and physician assistants to prescribe buprenorphine for the first time.[28]

Worker's Compensation and Prescriptions

Jacqueline Kurth of the Industrial Commission of Arizona presented to the MAT Work Group on Workers' Compensation and Prescriptions. Over the last few years, the Commission has seen an increase in narcotic use for back pain and other chronic pain. People may see multiple physicians and receive prescriptions for multiple medications. She provided a copy of ARS 23-10062, which regulates off-label and prescription use of controlled substances. She talked about the committee of physicians, attorneys, payors, and staff who met for more than two years, starting in 2012, to reach agreement on the use of the Official Disability Guidelines (ODG). A pilot implementation of ODG failed. New medical treatment guidelines, Arizona Rules R20-5-1301 through R20-5-1312, were recently approved, with an effective date of 10/1/2016 to implement changes. This will include a closed drug formulary with preauthorization needed for all drugs classified as opioids and all drugs prescribed for claims that relate to chronic pain management. There will also be changes to medical treatment guidelines.

The Commission has an electronic portal so that physicians, workers, or payers can submit a request for a peer review, with physicians reviewing other physicians' recommendations for treatment. The hope is to have quality decisions that resolve problems faster than litigation. Going forward, with newly injured workers, the Commission hopes the rules will prevent future problems with opioid addiction. There is a statute in place (231062.02f) that prevents payers from not authorizing opioids. The Commission is working on a report with steps for transitions such as weaning off drugs and detox.

Example of an Outpatient MAT Protocol

MAT Work Group member Dr. Rick Sloan provided a summary of the treatment protocol he uses at his Glendale, Arizona, outpatient clinic. His approach, developed by Dr. Peter Coleman of The Coleman Institute, starts with a full physical exam followed by detoxification using multiple medications (olanzapine, tramadol, clonidine, diazepam, and baclofen) to block withdrawal symptoms. A reliable support person, usually a family member or friend, administers the medications at home. The detox process takes 3-9 days plus a 5-7 day taper-off period. He does an IV Narcan® challenge to check for the presence of opioids before starting naltrexone. His preferred form of naltrexone is an implant. Patients receive counseling three times per week for at least one year. He reported a high success rate. The clinic's patient population ranges from ages 18-79. This approach has not yet been published in peer-reviewed journals and it not considered evidence-based at this time. It is considered to be an emerging practice.

Recommendations

77. Increase the number of providers who are trained and licensed to provide MAT in Arizona. The Task Force recognizes that people with SUD are a high-risk population with a high rate of

28 http://www.drugpolicy.org/news/2016/07/congress-passes-landmark-opioid-bill-comprehensive-addiction-and-recovery-act-cara

comorbidities and many physicians are risk averse. Nonetheless, we must develop scalable strategies to address the shortage of providers who are willing, qualified, and licensed to administer MAT so that it is available in a timely and appropriate way similar to other chronic conditions, such as congestive heart failure and diabetes. Tactics include the following:

a. Recognize the importance of MAT as one of the most effective strategies for preventing relapse for opioid use disorders.
b. Streamline the licensure process and DEA oversight procedures.
c. Increase awareness and trainings for doctors not currently utilizing MAT in order to fill the void in available services.
d. Educate medical providers on how and why to use the full continuum of MAT, including, but not limited to, methadone, buprenorphine/naloxone (Suboxone®), and naltrexone (Vivitrol®).
e. Encourage physicians to obtain a waiver to prescribe or dispense buprenorphine with approval to treat the highest number of patients allowed by federal regulations.
f. Encourage the federal government to lift the cap on the number of patients that a provider can treat on specific MAT drugs such as buprenorphine.
g. Support the ability of nurse practitioners and physician assistants to prescribe buprenorphine as allowed under the Comprehensive Addiction and Recovery Act.
h. Explore the feasibility of Arizona being one of the PCSS-MAT waiver training sites.
i. Identify ways to magnify the impact of existing providers, for example, using telemedicine, or adopting ambulatory detox protocols.
j. Develop an extensive system of educational resources aimed at increasing the knowledge base and training of prescribers from diverse, multidisciplinary health care backgrounds.
k. Encourage a broad range of providers to complete the Relias Medication-Assisted Treatment in Opioid Addiction module.
l. Educate primary care physicians about the recent American Academy of Pediatrics policy statement "Medication-Assisted Treatment for Adolescents with Opioid Use Disorders." The policy statement calls on pediatricians to consider offering medication-assisted treatments to their adolescent and young adult patients with opioid use disorders or refer them to other providers who can. [29]
m. Develop an educational loan repayment program for MAT-qualified providers working with low-income, rural, and/or underserved populations.
n. Create an addiction medicine fellowship in Arizona.

78. Implement the recommendations related to naloxone as described on pages 14-15.
79. Create a system of needs assessments for detoxification services, identify gaps, and increase capacity as needed so that appropriate levels of residential detox, inpatient detox, and outpatient detox services are readily available throughout Arizona.
80. Encourage the use of evidence-based tools to help determine whether residential, inpatient, or outpatient detoxification is the best choice for a given individual, followed by appropriate assessment and treatment.
81. Create and maintain a real-time statewide locator for available detox service providers that incorporate appropriate assessment modalities and the provision of or referrals for treatment.
82. Educate providers on the appropriate use of non-opioid MAT and expand non-opioid treatment programs to meet the level of need.

29 http://pediatrics.aappublications.org/content/early/2016/08/18/peds.2016-1893

83. Create targeted strategies for MAT for special populations, for example, individuals involved with the Department of Corrections, pregnant women, Native American communities, and rural communities.
84. Ensure that all detox and treatment programs have the resources needed to test for communicable diseases, including Hepatitis C virus (HCV), HIV, AIDS, sexually transmitted diseases (STDs), and the Zika virus. Addressing this significant public health issue requires the availability of patient education materials that can help individuals with SUD understand the importance of screening tests. One example of a potential grant funded resource is the Gilead Sciences, Inc. FOCUS (Frontlines of Communities in the United States) program, which provides funding for HIV and HCV testing as a standard testing protocol in the integrated care setting.
85. Support the efforts of the Industrial Commission of Arizona to prevent future opioid addiction among Worker's Compensation beneficiaries and to obtain treatment for individuals who already have SUD.
86. Continue to seek federal grant monies to support prevention, early intervention, and treatment efforts in Arizona.

Neonatal Abstinence Syndrome

Neonatal Abstinence Syndrome (NAS) is a serious and growing problem in Arizona and throughout the U.S. The rate of NAS increased by 235 percent in Arizona from 2008 to 2014 and 27 percent since 2013. AHCCCS was the payer in 79 percent of NAS cases overall from 2008 to 2014. The number of newborns with Fetal Alcohol Syndrome (FAS) increased 67 percent from 2013 to 2014. There were 1,374 Arizona newborns identified during 2015 with presence of a substance exposure at birth. The median cost for a NAS hospital stay is approximately $31,000 versus $2,500 for non-NAS related births.[30] Average hospital stay is 13 days compared to two days for non-NAS related births.[31]

There is a difference between NAS and SEN (substance-exposed newborns). NAS is withdrawal from a drug following birth. It is primarily caused by maternal opiate use (e.g., heroin, methadone, hydrocodone, oxycodone, Suboxone®, fentanyl) and also can be caused by use of amphetamines, barbiturates, benzodiazepines, marijuana, alcohol, and cocaine. Substance exposure leads to an infant being at risk for NAS, but not all exposed babies develop NAS. Mothers who test positive for opioids represent a wide spectrum in terms of the impact on babies: some babies never display effects of exposure, while others show symptoms immediately or soon after birth and may face ongoing health and/or developmental challenges.

Mothers using substances may avoid prenatal care because of shame, guilt, and/or stigma. It is important to reduce the stigma associated substance use and to provide the mother with resources for treatment, counseling, and support services. The earlier a practitioner is able to intervene in the mother's prenatal care, the better for both the mother and the baby. A complicating factor is that due to the loss of the menstrual cycle when using heroin, the mother may not know that she is pregnant until twenty-four weeks. The American Congress of Obstetricians and Gynecologists (ACOG) reaffirmed the following Committee opinion in 2016:

30 Median cost estimated from data collected from ADHS Hospital Discharge Database and reflect hospital charges and not actual reimbursement.
31 All data in this paragraph are from Arizona Department of Health Services, Office of Injury Prevention, July 2015 statis tics. Presentation by Jennifer Dudek, MPH, ADHS to NAS Work Group, May 12, 2016.

> Opioid use in pregnancy is not uncommon, and the use of illicit opioids during pregnancy is associated with an increased risk of adverse outcomes. The current standard of care for pregnant women with opioid dependence is referral for opioid-assisted therapy with methadone, but emerging evidence suggests that buprenorphine also should be considered. Medically supervised tapered doses of opioids during pregnancy often result in relapse to former use. Abrupt discontinuation of opioids in an opioid-dependent pregnant woman can result in preterm labor, fetal distress, or fetal demise. During the intrapartum and postpartum period, special considerations are needed for women who are opioid dependent to ensure appropriate pain management, to prevent postpartum relapse and a risk of overdose, and to ensure adequate contraception to prevent unintended pregnancies. Patient stabilization with opioid-assisted therapy is compatible with breastfeeding. Neonatal abstinence syndrome is an expected and treatable condition that follows prenatal exposure to opioid agonists.[32]

NAS Work Group members said that identifying drug use and drug abuse early in pregnancy is as important as identifying venereal diseases, for which screens are part of the standard of care. Work Group members also said that prenatal and postnatal approaches to NAS are fragmented in Arizona; some protocols are good, but there is not consistency among providers or facilities. Not all obstetricians or hospitals have the capacity and capability to treat pregnant women who are using/abusing substances. There is a statewide need for a clear standard of care for providers and health plans, and for a robust network of resources. Work Group members said that the largest hurdle to the advancement of standardized practice will be the private/commercial medical providers; AHCCCS is already standardizing best practices of care for NAS babies.

The Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs is revising its identification of best practices among AHCCCS providers and is developing a protocol for use with all mothers. This will include a tool kit to screen, identify, and treat women using substances (The Arizona Health Plans Best Practice and Guidelines for Identifying Substance Exposed Newborns is included in Appendix D).

The Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs goals for 2015-2020 include:

- Work with providers and stakeholders to appropriately identify substance-exposed newborns in an effort to obtain a more accurate baseline of the incidence of SEN.
- Raise awareness and understanding of the risks and effects of prenatal exposure to alcohol and other drugs for families and communities.
- Create optimal opportunity for engagement in effective interventions and services for all women of reproductive age in Arizona.
- Promote successful outcomes for those individuals affected by SEN in Arizona.
- Strengthen the Task Force and elevate its standing so it can better carry out its mission and achieve its goals.[33]

32 The American Congress of Obstetricians and Gynecologists, Committee on Health Care for Underserved Women and the American Society of Addiction Medicine, Committee Opinion, Opioid Use, Dependence, and Addiction in Pregnancy, 524, May 2012, reaffirmed 2016, http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Opioid-Abuse-Dependence-and-Addiction-in-Pregnancy

33 Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs, Guidelines for Identifying Substance-Exposed Newborns, 2016.

Critical factors hindering statewide efforts include:

- Raise awareness and understanding of the risks and effects of prenatal exposure to alcohol and other drugs for families and communities.
- Create optimal opportunity for engagement in effective interventions and services for all women of reproductive age in Arizona.
- Promote successful outcomes for those individuals affected by SEN in Arizona.
- Strengthen the Task Force and elevate its standing so it can better carry out its mission and achieve its goals.

Critical factors hindering statewide efforts include:

- There is evidence that the incidence of substance exposed newborns and NAS is rising.
- Lack of awareness and understanding of the impact of prenatal exposure.
- Lack of coordinated care for youth with prenatal exposure to alcohol and other drugs across the life span.[34]

The hospital where a mother delivers is part of and often times the starting place for the continuum of care for NAS cases. Women tend to be more open to treatment in the hours following childbirth, which presents an opportunity to get the mother substance abuse care. However, there is no standardized policy or best practice for approaching the mother during this time period, and typically mothers spend a relatively short amount of time in the hospital.

Health care professionals are required to report substance exposure in infants to DCS. In SFY 2016, the Child Abuse Hotline received 4,059 reports with a substance-exposed newborn tracking characteristic. When DCS determines that a family needs intervention, options include out-of-home dependency, voluntary placement (out of home 90 days), or home with parents (with or without a safety monitor). Home options include in-home intervention, in-home dependency, or the Substance-Exposed Newborns Safe Environment (S.E.N.S.E.) program. S.E.N.S.E. includes a coordinated system of care for substance-exposed newborns and their families. This comprehensive program allows all agencies to share information, develop one comprehensive service plan, coordinate treatment schedules, and regularly share the family's ongoing progress. The greatest program emphasis is on the vulnerable infant, but the program also helps to preserve the family and treat the mother's drug or alcohol addiction. S.E.N.S.E. is available only in Maricopa, Mohave, Yuma, and Pima counties. Programs like S.E.N.S.E. in Arizona can provide resources and support to the mother, newborn, and the family after the neonate is discharged from NAS treatment.

Calm, gentle care in a quiet environment supports NAS babies during the withdrawal period. In contrast, the typical site of care for babies experiencing withdrawal is a Neonatal Intensive Care Unit (NICU), which is busy and noisy. Many NAS Work Group members expressed strong interest in a proposal presented by NICU nurse practitioners Kelly Woody, RN, NNP-BS, and Tara Sundem, MSN, RN, NNP-BS. They hope to replicate a model of care for babies suffering from NAS developed by Lily's Place in Huntington, WV. Caring for NAS babies in a residential treatment facility instead of the NICU provides a quieter, more therapeutic environment, cuts costs by as much as 75 percent, and better meets the needs of families.

34 A Report of the Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs, Prenatal and Other Drug Exposure in Arizona, prepared April 2015, updated February 2016, 12.

Tucson Medical Center (TMC) initiated a new treatment approach for NAS babies in Spring 2016: "Thanks to a TMC nursing task force, TMC in April opened an annex just outside the intensive care unit to provide [NAS] babies with a calming, quiet room featuring cycled lighting and fewer visitors to reduce overstimulation. Importantly, it also assigns specialized staff members who care just for these infants, who can be hard to console and who need significant time being swaddled and rocked to feel more secure. To expand care for these babies, volunteer coverage has doubled on shifts. [35]

Work Group members were supportive of an alternative model of care for NAS babies, in a calm, secure and quiet environment, that would allow the mother to stay onsite with her baby 24/7. Accommodations could be made for foster parents as necessary. Such a model could be implemented in a hospital or a freestanding facility with the mother (and father, if feasible) and baby rooming in together. The Children's Hospital at Dartmouth-Hitchcock in New Hampshire found that costs dropped from $19,700 to $8,700 per baby for NAS babies treated with medicine and using the rooming in model.[36]

Recommendations

87. Educate all prescribers about the potential danger of prescribing opiates to women of childbearing age, NAS, and mitigation tactics, including:
    a. Using the CSPMP every time they prescribe an opiate.
    b. Practitioners prescribing any medication to women of childbearing years, including opioids, should utilize evidence-based guidelines, which may include screening for pregnancy.
    c. Conducting SBIRT when prescribing opiates to women of childbearing age. SBIRT is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with SUD, as well as those who are at risk of developing these disorders.[37]
88. Work with the Arizona Perinatal Trust to develop, promote, and ensure compliance with standardized best practice protocols for newborn NAS treatment and maternal interventions.
89. Utilize existing codes and, if needed, ask CMS to establish a new reimbursement code and rate for alternative treatment facilities that provide a level of care for NAS babies that is less intensive and therefore less costly than the NICU, but more than the cost of care allowed for a well-child without a NAS diagnosis.
90. Collaborate with the Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs to update the Perinatal Substance Use and Abuse Among Women: A Task Force Report prepared in April 2015 and updated in February 2016.
91. Educate pediatricians, family physicians, obstetricians, and other providers about the ongoing health and developmental problems associated with NAS. Provide resources to support early intervention and appropriate treatment.
92. Increase awareness of NAS among people and agencies that interact with pregnant women. It is important to understand what the mother is going through and offer positive, long-term interventions to support the mother and child.
93. Train a broad range of health providers and provide tool kits to help them identify at-risk women before pregnancy.
94. Provide first responders with resources they can offer to pregnant women who are abusing substances.
95. Educate women of childbearing age about the consequences of substance use/abuse during pregnancy and about NAS.
96. Allow health plans to provide case management for mothers and NAS babies during the first year of the baby's life when feasible through reimbursement. This would include engagement, education, and support; coordination of care; and referral to community programs, state agencies, wrap-around services such as Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Arizona Early Intervention Program (AzEIP), home visiting programs, the Birth to 5 Hotline, developmental/behavioral health services for the child, and continued behavioral health/ addiction services for the mother.
97. Encourage the health plans, AHCCCS, and the Health Information Exchange to enhance data tracking of NAS babies, using consistent data collection tools, to monitor progress and outcomes.
98. Because hospitals are required to report NAS and at-risk children to the Arizona Department of Child Safety (DCS), train hospital nurses, social workers, and providers need training on how to effectively interact with DCS. Require DCS to provide hospitals statewide with DCS hospital liaisons who are specifically trained to assess newborn safety and to connect families to resources for treatment and support. Liaisons are focused on prevention and provide triage and referral services.
99. Require DCS, in its supportive prevention and early intervention role, to function as a partner with providers in obtaining treatment and support for the mother and child. DCS can help to evaluate family-support tools and to ensure that every family has access to the necessary tools and resources to succeed.
100. Prohibit providers from using DCS as a threat against women. Educate providers about the resources that DCS offers and encourage them to talk about DCS as a source of suppor rather than a "stick" or punitive entity. DCS could play an interventionist role and connect the family to services, if eligible.
101. Establish a case code for DCS so that cases may remain open longer to ensure compliance and provide needed support for families that are reunified or kinship placements.
102. Secure funding to expand the S.E.N.S.E. program statewide.
103. Engage First Things First as a partner in SEN and NAS prevention.
104. Scale and fund the following evidence-based prevention and early intervention programs and incentivize involvement while a woman is pregnant:
    a. Arizona Families F.I.R.S.T. (Families in Recovery Succeeding Together), also known as AFF, is a partnership of DCS, ADHS, and DES. The AFF program helps parents address substance abuse issues that are affecting their ability to care appropriately for their children or to get and keep a job. It provides the opportunity for families to overcome the barrier of substance abuse in order to reach the outcomes of permanency for children, family reunification, and self-sufficiency. The goal of the program is to reduce or eliminate abuse of and dependence on alcohol and other drugs and to address other adverse conditions related to substance abuse.
    b. Healthy Families Arizona (HFAz) is a voluntary home visitation program that serves pregnant women and families of newborns. It is designed to help expectant and new parents get their children off to a healthy start. Families are screened according to specific

35 https://tmcaznews.com/2016/06/15/babies-experiencing-withdrawal-receive-specialized-care/
36 Children's Hospital Association, Strategies to Care for Babies Born Drug Dependent, April 25, 2016, https://www.childrenshospitals.org/Newsroom/Childrens-Hospitals-Today/Spring-2016/Articles/Caring-for-Babies-Born-Drug-Dependent
37Substance Abuse and Mental Health Services Administration, http://www.samhsa.gov/sbirt/about

criteria and participate voluntarily in the program. Families that choose to participate receive home visits and referrals from trained staff. Program services are designed to strengthen families during the critical first years of a child's life – the time when early brain development occurs, laying the foundation for a lifetime of memories, behaviors and outcomes. Through its efforts to support and educate families, the program has shown to reduce incidences of child abuse and neglect, provide stability for at-risk families, and has grown a new generation of healthy families in the state. Intensity of services is based on each family's needs, beginning weekly and moving gradually to quarterly home visits as families become more self-sufficient. Healthy Families services may continue if needed until the child turns five years old.

Appendix A: Substance Abuse Task Force Roster

Debbie Moak, Director, Governor's Office of Youth, Faith and Family, Task Force Co-Chair
Dr. Sara Salek, MD, Chief Medical Officer, Arizona Health Care Cost Containment System (AHCCCS), Task Force Co-Chair
Cindy Beckett, PhD, RNC-OB, LCCE, CHRS, Director, Office of Research & Research Compliance, Northern Arizona Healthcare; Co-Chair Task Force of the Prevention of Prenatal Exposure to Alcohol and Other Drugs
Eddy Broadway, CEO, Mercy Maricopa Integrated Care
Kate Brophy McGee, Arizona State Representative, LD 28
Sherry Candelaria, Community Member, REACH Family Services, Inc. (Alcanza Servicios de Familia)
Michael Carr, Statewide Behavioral Health and Appeals Coordinator, Arizona Department of Child Safety
Jennifer Carusetta, Executive Director, Health System Alliance of Arizona
Reuben Howard, Health Director, Pascua Yaqui Tribe
Peggy Chase, President and CEO, Terros Health
Haley Coles, Community Member
Denise Dain, Director of Case Management, St. Luke's Behavioral Health Center
Doray Elkins, Community Member
Elaine Ellis, **MD**, Phoenix Children's Hospital
Deb Gullett, Executive Director, Arizona Association of Health Plans
Mary Hunt, Manager of Care Management, Maricopa Integrated Health System
Robert Johnson, **MD**, Director of Maternal Fetal Medicine, Arizona Perinatal Care Center
Susan Junck, Healthcare Advocacy Coordinator, Office of Individual and Family Affairs (OIFA), Arizona Health Care Cost Containment System (AHCCCS)
Jonathan Maitem, **DO**, Pre-hospital Medical Director, HonorHealth Deer Valley
Lee Pioske, Executive Director, Crossroads
Dennis Regnier, President and CEO, CODAC Health Recovery & Wellness
Thelma Ross, CEO, National Council on Alcoholism and Drug Dependency
Dawn Scanlon, Community Member
Frank Scarpati, President and CEO, Community Bridges
Claire Scheuren, Executive Director, Pima Prevention Partnership
Gagandeep Singh, MD, Chief Medical Officer, Behavioral Health, Banner Health
Jeff Taylor, The Salvation Army Phoenix Advisory Board Member
Glenn Waterkotte, MD, Retired Medical Director, Neonatal Intensive Care Unit, Cardon Children's Medical Center
Michael White, Director of Community Programs, Community Medical Services

Work Group Rosters

Prevention and Early Intervention

Debbie Moak, Task Force Co-Chair
Cindy Beckett
Rep. Kate Brophy-McGee
Sherry Candelaria
Michael Carr
Deb Gullett
Mary Hunt
Dr. Jonathan Maitem
Dawn Scanlon
Claire Scheuren
Jeff Taylor

Access to Treatment

Debbie Moak, Task Force Co-Chair
Eddy Broadway
Sherry Candelaria
Michael Carr
Jennifer Carusetta
Peggy Chase
Haley Coles
Denise Dain
Doray Elkins
Reuben Howard
Mary Hunt
Dr. Robert Johnson
Susan Junck
Dr. Jonathan Maitem
Lee Pioske
Dawn Scanlon
Frank Scarpati
Jeff Taylor
Dennis Regnier
Michael White

Medication-Assisted Treatment

Debbie Moak, Task Force Co-Chair
Dr. Sara Salek, Task Force Co-Chair
Peggy Chase
Haley Coles
* Christina Corieri, Health and Human Services Senior Policy Advisor to Governor Doug Ducey
* Lenn Ditmanson, MD, Medical Director of Medically Assisted Treatment, Cope Community Services, Inc.
Doray Elkins
Reuben Howard
Dr. Gagandeep Singh
* Rick Sloan, MD, Compassionate Care Centers
* Michel Sucher, MD, Chief Medical Officer, Community Bridges, Inc.
Michael White

* Member of Work Group only (not a Task Force member)

Neonatal Abstinence Syndrome

Debbie Moak, Task Force Co-Chair
Cindy Beckett
Rep. Kate Brophy McGee
Jennifer Carusetta
Elaine Ellis
Deb Gullett
Thelma Ross
* Dr. Rick Sloan
Dr. Glenn Waterkotte
Michael White

Appendix B: Task Force and Work Group Presenters

Date and Group	Medication-Assisted Treatment	Topic
5/11/16 Prevention & Early Intervention Work Group	Jennifer Ortiz, Detention Specialist/ JDAI Coordinator & Steve Tyrell, AZ Supreme Court, Administrative Office of the Courts	Juvenile Detention Alternatives Initiative (JDAI)
5/11/16 Access to Treatment Work Group	Doray Elkins & Dawn Scanlon, Work Group members	Our Stories: Lives Impacted by Substance Abuse
5/12/16 Neonatal Abstinence Syndrome Work Group	Jennifer Dudek, MPH, AZ Dept. of Health Services	Arizona Neonatal Abstinence Syndrome (NAS) Data
5/12/16 Medication-Assisted Treatment Work Group	Dr. Rick Sloan & Dr. Len Ditmanson, Work Group members	Medication-Assisted Treatment (MAT) Modalities
5/25/16 Task Force	Steve Grams, Sage Consulting	Prison Transition
5/25/16 Task Force	Karen Hellman, AZ Dept. of Corrections	Prison Transition
5/25/16 Task Force	Vista Thompson, Associate General Counsel, Blue Cross Blue Shield of AZ	Parity and Commercial Insurance
6/8/16 Prevention & Early Intervention Work Group	Colby Bower & Shannon Whittaker, AZ Dept. of Health Services	Licensing Substance Abuse Providers
6/9/16 Neonatal Abstinence Syndrome Work Group	Tara Sundem, MSN, RN, NNP-BS & Kelly Woody, RN, NNP-BS	Neonatal Abstinence Syndrome (NAS) Facility for Newborns
6/9/16 Medication-Assisted Treatment Work Group	Jacqueline Kurth, Industrial Commission of AZ	Workers' Compensation and Prescriptions
6/22/16 Task Force	Kristin Crowley, Lori Hennesy & Michelle Hamby, Community Members	Our Stories: Lives Impacted by Substance Abuse
6/22/16 Task Force	Tory McJunkin, MD & Paul Lynch, MD, Arizona Pain Specialists	Pain Management
6/28/16 Access to Treatment Work Group	Todd Nichols & Mike Zipprich, Program Developers	Treatment Provider Brainstorm

Date and Group	Medication-Assisted Treatment	Topic
6/30/17 Neonatal Abstinence Syndrome Work Group	Rene Bartos, MD, Medical Director, Mercy Care Plan and Cindy Beckett, Work Group member	NAS Initiative and Long-Term Outcomes of Substance Abuse
6/30/16 Medication-Assisted Treatment Work Group	Katherine Cates-Wessel, Executive Director, American Academy of Addiction Psychiatry Providers Clinical Support System (PCSS) for Medication-Assisted Treatment	
8/24/16 Task Force	Sara Salek, MD, Chief Medical Officer, Arizona Health Care Cost Containment System (AHCCCS), Task Force Co-Chair	Overview of the Medicaid Service Delivery System for Substance Use Disorders in Arizona
8/24/16 Task Force	Michelle Skurka, MSW, System of Care and Grants Administrator, AHCCCS	Substance Abuse Block Grant Overview
8/24/16 Task Force	Gabriella Guerra, MSW, Head of Crisis, Cultural and Clinical Services Mercy Maricopa Integrated Care; Ryan Kivela, Adult and Crisis Administrator, Health Care Integrated Care; & Terry Stevens, MA, LPC, Centpatico Integrated Care	Regional Behavioral Health Authorities

Appendix C: Table of Acronyms

Acronym	Name
AAI	Arizona Angel Initiative
ABAM	American Board of Addiction Medicine
ABMS	American Board of Medical Specialties
ACOG	American Congress of Obstetricians and Gynecologists
ADHS	Arizona Department of Health Services
AFF	Arizona Families F.I.R.S.T.
AHCCCS	Arizona Health Care Cost Containment System
AHRQ	Agency for Healthcare Research and Quality
AIDS	Acquired Immune Deficiency Syndrome
ASAM	American Society of Addictive Medicine
ASAP	Arizona Substance Abuse Prevention
AzEIP	Arizona Early Intervention Program
BTG-OR	Bridging the Gap Offender Re-entry
CARA	Comprehensive Addiction and Recovery Act
CDC	Centers for Disease Control and Prevention
CE	Continuing Education
CME	Continuing Medical Education
CMS	Centers for Medicare and Medicaid Services
CSPMP	Controlled Substance Prescription Monitoring Program
DATA 2000	Drug Addiction Treatment Act of 2000
DCS	Department of Child Safety
DEA	Drug Enforcement Administration p 23 I 33
EBP	Evidence-Based Practice
ED	Emergency Department
F.I.R.S.T.	Families in Recovery Succeeding Together
FAS	Fetal Alcohol Syndrome
FDA	U.S. Food and Drug Administration
GOYFF	Governor's Office on Youth, Faith and Families
HB	House Bill
Health IT	Health Information Technology
HFAz	Healthy Families Arizona
HHS	Department of Health and Human Services
HIPAA	Health Information Portability and Accountability Act
HIV	Human Immunodeficiency Virus
ICD-10	The International Statistical Classification of Diseases and Related Health Problems 10th Revision
IOP	Intensive Outpatient
JDAI	Juvenile Detention Alternatives Initiative
LGBT	Lesbian, Gay, Bisexual and Transgender
MAT	Medication-Assisted Treatment
MCAPD	Maricopa County Adult Probation Department
MCOs	Managed Care Organizations
NAS	Neonatal Abstinence Syndrome
NASBE	National Association of State Boards of Education
NICU	Neonatal Intensive Care Unit

Acronym	Name
NREPP	National Registry of Evidence-based Programs and Practices
NSC	National Safety Council
ODG	Official Disability Guidelines
OTP	Opioid Treatment Program
P&T	Pharmacy and Therapeutics
PCSS-MAT	Providers Clinical Support System for Medication-Assisted Treatment
PCSS-O	Providers Clinical Support System for Opioid Therapies
PDMP	Prescription Drug Monitoring Program
Project ECHO	Project Extension for Community Care Outcomes
PROP	Physicians for Responsible Opioid Prescribing
RBHA	Regional Behavioral Health Authority
S.E.N.S.E.	Substance-Exposed Newborns Safe Environment
SAMHSA	Substance Abuse and Mental Health Services Administration
SBIRT	Screening, Brief Intervention, and Referral to Treatment
SEN	Substance-Exposed Newborns
SHPPS	School Health Policies and Practices Study
SPF	Strategic Prevention Framework
STDs	Sexually Transmitted Diseases
SUD	Substance Use Disorder
TMC	Tucson Medical Center
WHO	World Health Organization
WIC	Women, Infants, and Children

Appendix D: Guidelines for Identifying Substance-Exposed Newborns

ARIZONA STATEWIDE TASK FORCE
UNDERSTAND PREVENT EDUCATE SUPPORT
on Preventing Prenatal Exposure to Alcohol and Other Drugs

http://azprenatal.wixsite.com/taskforce

Guidelines for Identifying Substance-Exposed Newborns

A Publication Of:
The Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs

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Letter from the Chair

September 12, 2016

To: Chairman, Obstetrics Department Chairman, Pediatric Department Chairman, Neonatology Department

RE: Statewide Initiative to Identify Substance – Exposed Newborns

There is a growing concern for the care and safety of substance-exposed newborns in Arizona and nationwide. The care and safety of this vulnerable population has a profound effect on the medical community and the child welfare system.

The Arizona Task Force for the Prevention of Prenatal Exposure to Alcohol and Other Drugs, in collaboration with Governor Douglas Ducey's 2016 Task Force on Substance Abuse has reviewed and revised the 2008 Guidelines for Identifying Substance- Exposed Newborns (SEN).

An extensive review of the medical, nursing, substance abuse and mental health literature provided the evidence for revision of this document. The SEN work group (Appendix B) has worked closely with professional organizations and agencies to revise and update the guidelines.

These Guidelines support the state law requirement that a health care professional, who reasonably believes that a newborn infant may be affected by the presence of alcohol or a drug, to immediately report this information, or cause a report to be made, to the Arizona Department of Child Safety (DCS). For reporting purposes, "newborn infant" means a newborn infant who is under thirty days of age (A.R.S. §13- 3620).

These Guidelines have been posted for Public Comments, and reviews have been requested from the following organizations: American Academy of Pediatrics-Arizona Chapter, (AzAAP), Arizona Medical Association (ArMA)-Maternal Child Health Committee, Arizona Perinatal Trust, and the American College of Obstetrics and Gynecologists-Arizona Chapter prior to the implementation in early 2017. The Guidelines will be disseminated to providers across Arizona with the collaboration of the Arizona Perinatal Trust.

Including these Guidelines in your policies and procedures for nursing staff, social services, and medical staff will provide a consistent approach and avoid potential bias in the identification of these newborns.

The attached documents will be maintained and updated on the Arizona Department of Health Services website: www.azdhs.gov.

Any questions related to these *Guidelines* may be directed to Cindy Beckett, PhD, RNC-OB, Chair of the Arizona Task Force for the Prevention of Prenatal Exposure to Alcohol and Other Drugs, via the email address: Cynthia.Beckett@nahealth.com

Sincerely,

Cindy Beckett, PhD, RNC-OB, LCCE, CHRC
Chair-AZ Task Force for the Prevention of Prenatal Exposure to Alcohol & Other Drugs
Substance Abuse Task Force member
Neonatal Abstinence Syndrome sub-committee member
Prevention and Intervention sub-committee member

Introduction

Substance use during pregnancy is a complex public health problem often resulting in multiple consequences for a woman and her newborn. Alcohol, cocaine, hallucinogens including marijuana, prescription or nonprescription narcotics/opioids, and certain non- narcotic medications during pregnancy may result in adverse effects on the health and well-being of the newborn, in addition to the woman's health. Accurate and consistent diagnoses of exposed births allow for early intervention services for the newborn and mother. These services are critical in minimizing the acute and long-term effects of prenatal substance exposure. It is also important to provide appropriate preconception health education and screening, counseling, and referrals for women planning pregnancies, and all women of childbearing age, in order to prevent exposed births from ever occurring.

Stakeholders in Arizona came together in 2002 to develop guidelines to assist health care providers in understanding their role in the identification of substance-exposed newborns (SEN), and again in 2008 to revise the guidelines to reflect advances in understanding. The Arizona Department of Health Services (ADHS) conducted a Neonatal Abstinence Syndrome Conference in July 2015 which brought together physicians, hospital systems, health plans and other stakeholders from around the state to discuss the problem of substance exposed newborns as well as next steps for Arizona. One of the key recommendations was to update the Guidelines for Identifying Substance Exposed Newborns and to work with the Arizona Perinatal Trust (APT) to encourage hospitals to have protocols and policies in place. Since the 2008 revision the number of exposed newborns has continued to increase as the state, as well as the rest of the nation, continues to face an opioid epidemic.

When a woman uses substances regularly during pregnancy, the baby may go through withdrawal after birth leading to a condition called neonatal abstinence syndrome (NAS). Research has shown that NAS is primarily associated with the maternal use of opiates (heroin, methadone, hydrocodone or oxycodone). Other non-opiate drugs such as benzodiazepines, SSRI's, barbiturates, alcohol, hallucinogens, cocaine, methamphetamine, marijuana, and ecstasy, can also cause NAS symptoms (See Table 1 for a list of non-narcotic drugs that cause neonatal psychomotor behavior consistent with withdraw). Newborns diagnosed with the presence of substance such as narcotics, cocaine and/or alcohol in certain biological specimens such as urine and meconium, may or may not exhibit withdrawal symptoms. The type and severity of a newborn's withdrawal symptoms depend on the drug(s) used, how long and how often the mother used, and how the mother's body breaks down the drug.

Between 2008 and 2014 the rate of Neonatal Abstinence Syndrome (NAS) has increased by 235%. Additionally, the rate of newborns exposed to narcotics has increased more than 219%. Between 2013 and 2014 the number of newborns diagnosed with Fetal Alcohol Syndrome (FAS) has increased 67% (Arizona Hospital Discharge Data, 2014). A recent study authored by researcher Dr. Phil May and published in Pediatrics in 2014 concluded that the rate of FAS was found to be 6-9 cases per 1,000 children, and the total cases of any form of FASD ranged from 24 to 48 cases per 1,000 or 4% (May, et.al., 2014). Many studies have highlighted a prevalence of substance exposed newborns (SEN) far higher than that captured through diagnostic records. Missed diagnoses remain a serious issue that confounds accurate data collection, hindering trend analysis and evaluation of interventions, and ultimately endangers the health

Table 1: Non-narcotic drugs that cause neonatal psychomotor behavior consistent with withdraw. Source: Hudak et al. Neonatal Drug Withdraw. Pediatrics 2012, 129(2):e542

Drug	Signs	Onset of Signs	Duration of Signs*	Ref. No.
Alcohol	Hyperactivity, crying, irritability, poor suck, tremors, seizures; onset of signs at birth, poor sleeping pattern, hyperphagia, diaphoresis	3–12 h	18 mo	14,15
Barbiturates	Irritability, severe tremors, hyperacusis, excessive crying, vasomotor instability, diarrhea, restlessness, increased tone, hyperphagia, vomiting, disturbed sleep; onset first 24 h of life or as late as 10–14 d of age	1–14 d	4-6 mo with prescription	12,13
Caffeine	Jitteriness, vomiting, bradycardia, tachypnea	At birth	1-7 d	161
Chlordiazepoxide	Irritability, tremors; signs may start at 21 d	Days–weeks	9 mo; 11/2 mo with prescription	11
Clomipramine	Hypothermia, cyanosis, tremors; onset 12 h of age		4 d with prescription	162
Diazepam	Hypotonia, poor suck, hypothermia, apnea, hypertonia, hyperreflexia, tremors, vomiting, hyperactivity, tachypnea (mother receiving multiple drug therapy)	Hours–weeks	8 mo; 10–66 d with prescription	10
Ethchlorvynol	Lethargy, jitteriness, hyperphagia, irritability, poor suck, hypotonia (mother receiving multiple drug therapy)		Possibly 10 d with prescription	163
Glutethimide	Increased tone, tremors, opisthotonos, high-pitched cry, hyperactivity, irritability, colic		6 mo	164
Hydroxyzine	Tremors, irritability, hyperactivity, jitteriness, shrill cry, myoclonic jerks, hypotonia, increased respiratory and heart rates, feeding problems, clonic movements (mother receiving multiple drug therapy)		5 wk with prescription	58
Meprobamate	Irritability, tremors, poor sleep patterns, abdominal pain		9 mo; 3 mo with prescription	165
SSRIs	Crying, irritability, tremors, poor suck, feeding difficulty, hypertonia, tachypnea, sleep disturbance, hypoglycemia, seizures	Hours–days	1–4 wk	31–33,35

* Prescription indicates the infant was treated with pharmacologic agents, and the natural course of the signs may have been shortened.

newborns diagnosed with Fetal Alcohol Syndrome (FAS) has increased 67% (Arizona Hospital Discharge Data, 2014). A recent study authored by researcher Dr. Phil May and published in *Pediatrics* in 2014 concluded that the rate of FAS was found to be 6-9 cases per 1,000 children, and the total cases of any form of FASD ranged from 24 to 48 cases per 1,000 or 4% (May, et.al., 2014). Many studies have highlighted a prevalence of substance exposed newborns (SEN) far higher than that captured through diagnostic records. Missed diagnoses remain a serious issue that confounds accurate data collection, hindering trend analysis and evaluation of interventions, and ultimately endangers the health and wellbeing of exposed newborns. Many lacking an initial diagnosis may receive inappropriate care and experience difficulty later accessing services in childhood and adolescence when developmental delays may be evident.

To address this growing epidemic of prenatal exposure to alcohol and other drugs, the Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs, with input from key stakeholders, has revised Arizona's Guidelines for Identifying Substance-Exposed Newborns.
The updated 2016 guidelines:

- Provide best practices resources for combatting a complex and worsening public health issue;
- Improve the ability of health care providers to effectively identify at-risk pregnancies and substance-exposed newborns;

- Standardize recommendations and guidelines for maternal and neonatal medical screening, treatment and management in Arizona; and
- Reaffirm the state's commitment to improving the health and well-being of women and their at-risk newborns.

State and National Data Overview

In addition to the direct toxic effects of the drugs to the newborn, continued substance abuse by the mother increases the risk for child abuse and neglect. Indeed, reports of child abuse and neglect have increased dramatically over the past decade and are correlated with an increase in drug use among primary caregivers. In 2014, 85 infant deaths were categorized as Sudden Unexplained Infant Deaths (SUID) and 75 were categorized as child fatalities due to maltreatment. Tobacco exposure or substance use/misuse has been associated with many of these preventable deaths (Arizona Child Fatality Report, 2015).

Prenatal substance abuse is a condition that crosses all social, racial and ethnic groups. The National Institute on Drug Abuse estimated that 15.8 million women (12.9%) ages 18 or older have used illicit* drugs in the last year (SAMHSA, 2014). According to the Arizona Department of Health Services, in 2014, there were 86,648 births in Arizona. In this same year, the SAMHSA National Survey on Drug Use and Health reported that 5.4% of pregnant women were current illicit drug users and 18% of women reported using alcohol in the first trimester. The Centers for Disease Control (CDC) report that 1 in 10 pregnant women used alcohol and that up to 1 in 20 United States school children may have FASDs (CDC BRFSS, 2011-2013). Smoking during pregnancy was also reported by 3.9% of women giving birth in 2014. The most widely utilized illicit substances were marijuana and non-medical use of prescription drugs. There were a total of 2,373 cases of newborns diagnosed with NAS during 2008-2015; 3,771 cases of newborns diagnosed with narcotics; 592 cases of newborns diagnosed with cocaine; 459 cases of newborns diagnosed with hallucinogens and 205 cases of newborns diagnosed with effects of prenatal exposure to alcohol also referred to as Fetal Alcohol Spectrum Disorder (FASD) during 2008-2015. In total, there were 1,374 Arizona newborns identified during 2015 with presence of a substance exposure (See Table 2 for a complete table of newborns with a diagnostic code at discharge of NAS and other drug exposures in Arizona). Other information about maternal drug use during pregnancy is not reported on the Arizona birth certificates; however it can be obtained from the hospital discharge database by searching for several diagnostic codes which identify exposure of the fetus or newborn to narcotics, hallucinogens, alcohol and cocaine.

Table 2: Number of Newborns with a Diagnostic Code at Discharge of Neonatal Abstinence Syndrome (NAS) and Other Drugs Exposures in Arizona, 2008-2015.

Number of Newborns with NAS and Drug Exposures in Arizona, 2008-2015*

Year	NAS	Narcotics	Cocaine	Hallucinogens	Alcohol	Other Drugs of Addiction	# of Hospital Births
2008	145	234	161	35	22		95,420
2009	154	410	99	51	25		89,115
2010	223	414	79	46	15		84,069
2011	300	424	68	46	30		81,988
2012	304	531	59	47	27		82,905
2013	339	646	55	68	20		82,338
2014	438	650	34	93	33		83,427
2015	470	462	37	73	33	299	85,514**
Total	2,373	3,771	592	459	205	299	684,776

Source: Arizona Department of Health Services, Public Health Vital Statistics, Hospital Discharge Data Base, 2008-2015.
(*2015 NAS Counts include a change in reporting using the ICD10-cm codes)
**Preliminary counts

Key Data to Inform Practice

- U.S. - NAS increased to 3.39 per 1,000 hospital births from 1.20 per 1,000 hospital births in 2000 (*JAMA,* 2012)
- U.S. - Drug overdose death rates increased over five-fold between 1980 and 2008 making drug overdose the leading cause of injury deaths over car crashes (NCHS Data Brief, no 81. National Center for Health Statistics; 2011)
- Arizona - NAS has increased by 235% from 2008 to 2014 and 27% from 2013-2014; The rate of Arizona NAS was 5.25 per 1,000 hospital births in 2014 (ADHS, Hospital Discharge Database 2014)
- Arizona - The number of newborns diagnosed with Fetal Alcohol Spectrum Disorders (FASD) increased 67% from 2013-2014 (ADHS, Hospital Discharge Database 2014)
- Arizona - The rate of newborns exposed to narcotics has increased more than 218% since 2008 (ADHS, Hospital Discharge Database 2014)
- Arizona - White non-Hispanics made up 68% of the total number of NAS cases (2008-2014) (ADHS, Hospital Discharge Database 2014)
- AHCCCS was the payer in 76% of the newborns exposed to narcotics (2008-2014) (ADHS, Hospital Discharge Database 2014)
- U.S. - Medicaid covers the majority of mothers with opiate exposure during pregnancy (60%) and infants diagnosed with NAS (78%) (*JAMA*, 2013)

Substance use by pregnant mothers can lead to long-term and even fatal effects for the child including: low birth weight, birth defects, small head size, premature birth, Sudden Unexpected Infant Death (SUID), developmental delays, and problems with learning, memory, and emotional control. In addition to individual negative outcomes, societal impact related to prenatal substance abuse profoundly affects many facets of our communities. Successful identification and intervention may result in substantial cost savings in health care, foster care, special education and incarceration.

Health care professionals have an important role in identifying substance-exposed newborns. These guidelines have been developed to assist in:

- Improving effective identification of substance-exposed newborns;
- Implementation of educational programs to assure consistent assessment and scoring using the NAS scoring tool;
- Standardizing guidelines for maternal and neonatal screening in Arizona;
- Improving the health and well-being for women and their at-risk newborns; and
- Creating standardized evidence-based protocols for treating infants with NAS scores requiring pharmacological interventions.

In addition, health professionals are bound by **Arizona Revised Statutes § 13-3620 which requires a health care professional, who reasonably believes that a newborn infant may be affected by the presence of alcohol or a drug, to immediately report this information, or cause a report to be made, to Child Protective Services**. For reporting purposes, "newborn infant" means a newborn infant who is under thirty days of age.

Overview of the Arizona State Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs

The ***Arizona Statewide Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs*** is an entity comprised of professionals representing various sectors of the community, focused on ensuring the health and wellness of women and children. Its purpose is to focus statewide attention and resources on the issue of prenatal exposure to alcohol and other drugs in an effort to improve health outcomes for Arizona's children.

Task Force Vision

To live in a time when all Arizonans will know and understand the emotional, physical and social costs of prenatal exposure to Alcohol and Other Drugs; where all babies have the chance to be born free of any substance abuse; where women, children and families live safely and have ready access to necessary resources; and where there is ample assistance for children already born exposed, and their caregivers, to ensure the best possible outcomes.

Task Force Mission

To improve the health and wellness of Arizona families by creating and implementing data driven, evidence-informed solutions to reduce prenatal exposure to alcohol and others drugs through a coordinated, effective and viable public-private state wide partnership that is both accountable and transparent.

2015-2020 Goals

***Goal 1**: Work with providers and stakeholders to appropriately identify substance exposed newborns in an effort to obtain a more accurate baseline of the incidence of Substance Exposed Newborns (SEN)*
***Goal 2**: Raise awareness and understanding of the risks and effects of prenatal exposure to alcohol and other drugs for families and communities*
***Goal 3**: Create optimal opportunity for engagement in effective interventions and services for all women of reproductive age in Arizona*
***Goal 4**: Promote successful outcomes for those individuals affected by SEN in Arizona*
***Goal 5**: Strengthen the Task Force and elevate its standing so it can better carry out its mission and achieve its goals*

http://azprenatal.wixsite.com/taskforce

Rising Opioid Abuse Trends

The Substance Abuse and Mental Health Services Administration (SAMHSA) reports that prescription drug abuse is the fastest growing drug problem in the United States. Prescription drugs are essential to relieving acute or chronic pain for many individuals. However, the misuse, abuse, addiction and overdoses of prescription drugs have increased to become a serious and devastating public health problem.

The rising opioid abuse trends can be partially attributed to the increasing number of prescriptions written in recent years. According to data from Arizona's Controlled Substances Prescription Monitoring Program (CSPMP), there were 9.6 million Class II-IV prescriptions written and 575 million pills dispensed in Arizona in 2013. This equates to 87.4 Schedule II-IV controlled substance pills for every person, adults and children, living in Arizona. Prescription pain relievers accounted for 51.2% of these prescriptions, with Hydrocodone and Oxycodone accounting for the majority (~80.9%) of all pain relievers. According to experts, recent prescribing practices in Arizona places our state as the 5th highest opioid prescribing state in the country.

Rates of adult prescription drug misuse in Arizona are alarmingly high, with 50% of adults reporting misuse in the past 12 months and 13% of adults reporting misuse in the past 30 days. Although rates of adult prescription drug misuse traverse all age categories and regions in Arizona, significantly higher rates were reported among individuals living in the Southeastern region of the state and for individuals 45 years and older. The majority of the misuse involved pain relievers (47%) (ADHS Injury Prevention, 2016).

In 2011, the Arizona Criminal Justice Commission and the Governor's Office for Children, Youth and Families, along with many state and local partners including the Arizona Department of Health Services, launched a multi-systemic effort to reduce prescription drug misuse and abuse in Arizona. The Arizona Prescription Drug Misuse and Abuse Initiative team formulated a set of data-and-research-driven strategies to be used in a multi-systemic, multi-agency **collaborative approach to reduce prescription drug misuse in Arizona**. Resources developed include:

- The Arizona Opioid Prescribing Guidelines http://azdhs.gov/documents/audiences/clinicians/clinical-guidelines-recommendations/prescribing-guidelines/az-opiod-prescribing-guidelines.pdf
- The Controlled Substance Prescription Monitoring Program (CSPMP)-Healthcare Prescribers Registration and Use: www.pharmacypmp.az.gov
- The Arizona RX Drug Misuse and Abuse Initiative Toolkit http://azcjc.gov/ACJC.Web/Rx/toolkit.asp
- Online Prescribing Course for Arizona DEA prescribers: www.VLH.com/AZPrescribing

Women of Childbearing Age Who Have Addiction Issues
According to the National Institute on Drug Abuse, when it comes to substance use women face special issues that are influenced by biological differences, pregnancy, breastfeeding and culturally defined roles.

The Centers for Disease Control (CDC) estimates that 3.3 million women between ages 15-44 are at risk of exposing a developing fetus to alcohol because they drink, are sexually active and are not using birth control. Even when women are actively trying to get pregnant, three out of four women continue to drink after they have stopped using birth control.

The CDC recommends that young women should avoid alcohol unless using birth control since about half of all pregnancies in the United States are unplanned, and even if planned, many women don't know they are pregnant until after 4-6 weeks and they may still have been drinking during those weeks.
The American College of Obstetricians and Gynecologists (ACOG) recommends women abstain completely from alcohol, tobacco and other drugs while pregnant.

A woman who is prescribed opioids and becomes pregnant will need to be managed by her healthcare provider. Opioid abuse during pregnancy includes the use of heroin and the misuse of prescription opioid medications. The current standard of care for pregnant women with opioid dependence is a referral for opioid-assisted therapy with methadone.

Early detection and treatment of an alcohol or drug problems by a health care professional is more effective and less costly than addressing a chronic substance use disorder. Primary prevention during the preconception period is the ideal point to intervene and prevent a substance-exposed pregnancy. ACOG has recommended universal screening of all women of reproductive age by a healthcare provider using an evidenced based screening tool at every healthcare visit as a step towards primary prevention.

Guidelines

Prevention
Neonatal Abstinence Syndrome (NAS) is a growing problem in the United States. Fortunately, NAS is preventable if an expectant mother receives proper care and treatment. Prevention begins with preconception health care and continues as this education geared towards both patients and providers is reinforced throughout a woman's entire pregnancy. The following are ways to enforce prevention:

- Education about drug/alcohol use in pregnancy
- Pregnancy testing prior to prescribing
- Recommend providers to check CSPMP (Controlled Prescription Monitoring Program) prior to distributing and/or prescribing medications
- Any providers taking care of, dispensing, or prescribing medication to women of childbearing age need to council/educate women prior to prescribing
- Engage member's health plan case management program as appropriate

Identification & Screening – Maternal
Prenatal screening begins initially with the maternal interview. The following screening criteria may identify substance use/abuse, which can impact the health of the mother and the newborn. Two basic methods are used to identify drug users: self-report or laboratory testing of biological specimens. Screening is recommended to include self-reporting by the mother, followed by laboratory testing if any of the following occur:

- History of previous or current substance use by mother and/or significant others living in the home, or history of a previous delivery of a substance-exposed newborn.
- Current CPS involvement; suspected or reported domestic violence
- Non-compliance with prenatal care (late entry to care, multiple missed appointments, or no prenatal care).
- Evidence of unexplained poor weight gain during the pregnancy.
- Medical non-compliance.
- Medical symptoms of withdrawal in the mother.
- Physical or behavioral signs of substance use/abuse.
- Maternal medical history of Hepatitis B or C, HIV infection, or two or more sexually transmitted diseases.
- Previous or current history of placental abruption or unexplained vaginal bleeding.
- Cardiovascular accident of the mother.
- Unexplained intrauterine growth restriction
- Pre-term labor may be seen in association with substance use or abuse as reported in the literature. It may be considered prudent to screen, if any of the above factors exist in association with pre-term labor.

If positive for one or more of the above screening criteria, recommend:

- **Testing of the mother*; and**
- **A referral for further assessment, including possible treatment services.**

***Toxicology Consideration**
Maternal urine toxicology will generally identify only common drugs of abuse (e.g. cocaine, marijuana, opiates, barbiturates, benzodiazepines, amphetamines, and PCP) that have been used within the last 24 to 48 hours and will be negative if drugs were used earlier in the pregnancy. Alcohol use is best identified by blood or saliva testing and some drugs such as volatile inhalants can only be identified by special testing. You may wish to consult with a toxicologist to determine the best way to screen for drugs that are not included in routine urine drug screening.

To reduce the incidence of substance exposed newborns, screen women at risk of addiction. This document provides samples of interview screening tools for drugs and alcohol (See Appendix C).

Information About Other Screening Tools Can Be Found:

- http://www.integration.samhsa.gov/clinical-practice/screening-tools#drugs

- DAST- a 28 item self-report scale that will take at least eight minutes to complete *www.uspreventiveservicestaskforce.org*
- DAST 10- a revised, 10 item self-report tool that (Skinner, H. A. (1982). The Drug Abuse Screening Test. Addictive Behavior, 7 (4),363–371.) *https://www.drugabuse.gov/sites/.../**DAST**-10.pdf*
- SBIRT (Screening, Brief Intervention, and Referral to Treatment)- "a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services for persons with substance use disorders, as well as those who are at risk of developing these disorders for use in community settings". AZ SBIRT is sponsored by the AZ Governor's Office and AZ Department of Health Services under contract with NARBHA and funded by SAMHSA.

Identification & Screening – Neonates

Although no single approach can accurately determine the presence or amount of drug used by the mother during pregnancy, it is more likely that fetal exposure will be identified if a biological specimen is collected along with a structured maternal interview.

Medical care providers may choose to use a standardized and validated scoring tool that is accurate in assessing infants for signs of NAS. The most widely recommended tool to examine infants for signs of NAS in the hospital setting is the Finnegan Scoring Tool (See Appendix D). Other NAS scoring tools include the Lipsit, Neonatal Withdrawal Inventory and the Neonatal Narcotic Withdrawal Index. The nursing staff provide the scoring assessment. It is important that the scoring frequency be consistent and occurs initially after transition which is 2-4 hours after birth, then score again after 3-4 hours. Treatment begins when score is 8 or greater on the tool. If no treatment is required by 72 hours scoring can be discontinued and baby discharged after 24 hours.

Identification of substance-exposed newborns is determined primarily by clinical indicators in the prenatal period including maternal and newborn presentation, history of substance use/abuse, medical history, and/or toxicology results. Newborn toxicology screening should be performed if the results will influence management of medical care for the mother and newborn, including treatment options, and/or to confirm the maternal pattern of drug use.

The three most commonly used specimens to establish drug exposure during the prenatal and perinatal period are urine, meconium, and hair. However, none is accepted as a “gold standard.”

Newborn toxicology screening may:

- Confirm presence of substance of use and abuse.
- Determine use of multiple substances, which were not identified during the maternal interview.
- Identify the newborn that is at risk for withdrawal.
- Identify substances or drugs that may be contraindicated in breastfeeding.
- Identify newborns that may need protective services, and/or developmental follow-up.
- Identify the mother who may need treatment services.

The recommended screening criteria for the newborn includes:

- Signs of neonatal abstinence syndrome which may include marked irritability, high-pitched cry, feeding disorders, excessive sucking, vomiting, diarrhea, rhinorrhea, or diaphoresis.
- Unexplained apnea in newborn.
- Microcephaly (when accompanied by additional symptoms).
- Birth weight <5th percentile for gestational age (unexplained intrauterine growth restriction, or newborns who are small for gestational age).
- Cerebral vascular accident in the newborn (not otherwise considered at-risk).
- Other vascular accident in the newborn.
- Necrotizing enterocolitis (NEC) in the full-term newborn (or newborn not otherwise considered at-risk for NEC).

If positive for one of more of the above screening criteria, recommend:

- **Testing of the newborn* and a social service referral to identify potential accompanying diagnosis; and**
- **Consider testing of the mother.**

***Toxicology Consideration**

Urine Testing: The first urine contains the highest concentration of drug or metabolites. If this urine sample is missed, a confirmatory test is less likely, even in the presence of intrauterine drug exposure. A negative urine toxicology result is common even in the presence of substance use or abuse.

Limitations of newborn urine testing include:

- The first urine sample may be easy to miss.
- Bag urine collections for newborns are difficult to collect.
- Positive drug threshold values have not been scientifically determined.
- The threshold values for the newborn have been arbitrary set at the adult reference range.
- False negative urine toxicology may be the result of using a higher adult reference range in the newborn population.
- Threshold levels of drug metabolites generally can be detected in urine only for several days.

Meconium Testing: Meconium testing is the most reliable and comprehensive toxicology screen in the newborn. Meconium formation starts between 16 to 20 weeks gestation, and continues until birth, and thus it is hypothesized that meconium will reflect exposure during the second and third trimester of pregnancy. Newborn meconium testing is noninvasive and will identify most substance used by the mother after 20 weeks, such as: cocaine, marijuana, opiates, barbiturates, benzodiazepines,

amphetamines, and PCP. Best results are obtained by collecting multiple meconium specimens. In addition, meconium is easier to collect.

Fatty acid ethyl esters (FAEEs) have been identified as an important biomarker of alcohol consumption. They are formed by esterification of ethanol with free fatty acids. High levels of FAEEs in meconium are a "direct biomarker reflective of true fetal exposure to ethanol in-utero". Supplemental meconium testing can identify FAEEs, by gas chromatography/mass spectrometry (GC/MS) analysis and provides a 99% level of sensitivity in identifying FAEEs. If the level is in the 3rd or 4th quartile, this is indicative of heavy alcohol exposure, which would identify the infant at higher risk for effects from alcohol exposure.

However, use of meconium to determine the timing or extent of exposure during pregnancy is controversial because of a lack of studies regarding the effects of the timing and quantity of the postpartum specimen collection as well as the effects of urine or transitional stool contamination of the meconium samples for several days.

Other Forms of Testing: Hair is easy to collect, although some people decline this sampling method because of cosmetic concerns and societal taboos. Drugs become trapped within the hair and, thus, can reflect drug use over a long period of time. Unfortunately, using hair to determine timing and quantity of exposure also is controversial. In addition, environmental contamination, natural hair colors and textures, cosmetic hair processing, and volume of the hair sample available all affect the rational interpretation of the results. Other biological specimens have been studied for use in the detection of in utero drug exposure but are not commonly used in the clinical setting. These include such specimens as cord blood, human milk, amniotic fluid, and umbilical cord tissue.

Further recommendations if the above screening criteria are positive:

- Consider maternal and newborn testing for identification of related infections (Syphilis, Hepatitis B or C, HIV).
- If maternal or newborn toxicology is positive for opiates, watch for onset of abstinence syndrome in the newborn.
- Counsel mother that breastfeeding is contraindicated in the presence of a positive history of cocaine, heroin, methamphetamine, PCP, or marijuana use.
- If the medical provider reasonably believes that a newborn infant may be affected by the presence of alcohol or a drug, (per A.R.S. § 13-3620) immediately report this information, or cause a report to be made, to Arizona Department of Child Safety (DCS) at 1-888-767-2445 (1-888-SOS-CHILD).
- Consider consultation with DCS prior to the newborn's discharge.
- Consider Home Health nursing visit(s).
- The Primary Care Provider should notify DCS if there is poor follow-up with recommended medical care, or if the newborn's medical needs are being neglected.

Treatment & Management – Maternal

Drugs of abuse alter the brains structure and function causing changes that last long after drug use has ceased. This can explain why drug users are at risk of relapse even after long periods of abstinence.

All treatment and management of pregnant women should follow evidence based practice. Treatment needs to be readily available, but does not need to be voluntary to be successful - (individuals who enter treatment under legal pressure have outcomes as favorable as those who enter treatment voluntarily). Effective treatment addresses the entire individual and not just her drug use, and incorporates not only medical management but other services as appropriate.

- Refer women to appropriate gender-specific obstetric, addiction, and behavioral health treatment services.
- Appropriate counseling services may include: psychotherapy, family therapy, parenting instruction, vocational rehabilitation, social services, and legal services.
- Provide women with access to psychiatry consultation for assessment and treatment options for co-occurring disorders.
- Coordination of care among providers, treatment services, and health plans.
- Medically assisted opioid withdrawal ("detoxification") **IS NOT** recommended in pregnancy and is associated with high maternal relapse rates.
- Opioid agonist treatment (OAT) remains the standard of care for treating opioid use disorder in pregnancy.
    - OAT has been shown to reduce illicit drug use, increase adherence to prenatal care, improve maternal nutrition, improve neonate birth weight, and reduce the chance of infection exposure secondary to Intravenous Drug Use (IVDU), (Saia, et. Al, 2016). Methadone is the gold standard, but there is supporting evidence of buprenorphine being an effective therapeutic option as well.
- Develop enhanced postpartum care with close follow up (within 2 weeks of delivery) and option for multiple postpartum visits.
- Ongoing monitoring of drug use. Once detoxification (management of acute with drawl symptoms) is achieved, continued drug treatment and support following detoxification to support long term functioning and prevention of future relapse, must be available.
- Breastfeeding with OAT is safe and beneficial for the mother and infant.

Treatment & Management – Neonate

Both medical and nonmedical treatment options exist for infants with NAS.

Neonatal abstinence syndrome (NAS) includes a combination of physiologic and neurobehavioral signs that include such things as sweating, irritability, increased muscle tone and activity, feeding problems, diarrhea, and seizures. Although nonpharmacological care is the initial treatment options, infants with NAS can often require prolonged hospitalization and treatment with medication.

Nonpharmacological care for the infant with NAS includes minimizing light and noise, swaddling, breastfeeding, and providing skin-to-skin contact with the mother. Breastfeeding is not contraindicated unless the mother is infected with HIV or involved in polydrug abuse or street drugs. Mothers may need extra guidance, and can benefit from programs that improve the bond between mother and child. Pharmacological treatment is recommended if the infant does not show signs of improvement after nonpharmacological care. Morphine is the most commonly used drug for the treatment of NAS secondary to opioids. For neonates, therapy is aimed at rapid clinical stabilization of opioid-exposed infants followed by gradual reduction of the medication under careful medical supervision. The average newborn will recover from NAS in 5 to 30 days with these treatments. The best practice is to have a consistent protocol in place.

Best practice protocols from the research evidence provide clinical highlights in managing NAS newborns.

- Each nursery caring for NAS newborns should develop a protocol that defines indications and procedures for screening for maternal substance abuse.
- Maternal screening for substance abuse should incorporate multiple methods, including maternal history, maternal urine testing, and testing of newborn urine and/or meconium specimens.
- Drug withdrawal should be considered in differential diagnosis in newborns who develop compatible signs.
- Nonpharmacological support measures should be part of the initial approach to therapy and should include: measures to minimize environmental stimuli, adequate rest and sleep, and sufficient caloric intake to promote weight gain.
- Use of a published NAS scoring tool to assess signs of withdrawal. Infants with confirmed exposure, but who are unaffected or demonstrating minimal signs of withdrawal DO NOT require pharmacologic therapy. Use caution prior to instituting pharmacologic therapies. These will increase length of stay and interfere with maternal-infant bonding.
- Even using published NAS scoring tools, there are unknown optimal thresholds for pharmacologic therapies.
- If not contraindicated, encourage breastfeeding and the provision for expressed human milk.
- Pharmacologic therapy for withdrawal-associated seizures is indicated, but also evaluate for other causes of neonatal seizures.
- Relative indicators for NAS treatment are vomiting, diarrhea, or both in association with dehydration and poor weight gain in the absence of other diagnoses.
- Limited evidence from controlled trials of NAS support the use of oral morphine and methadone with pharmacologic treatment is indicated.
- Severity of withdrawal signs including seizures had not been proven to be associated with differences in long-term outcomes of SEN newborns.
- Neonates with a known antenatal exposure to opioids and benzodiazepines should be observed for 4 to 7 days. Early follow-up after discharge is indicated for further assessment for the risks of late withdrawal.

- Neonates who have been treated in NICUs for extended durations can be converted to equivalent regimens of oral methadone and lorazepam. The medications can be reduced by 10% to 20% of the initial dose every 1 to 2 days on the basis of clinical response and serial assessments using an NAS scoring tool (Hudak & Tan, 2016).

In order for the neonate to receive appropriate services it is recommended that there be

- Appropriate documentation of prenatal exposure.
- Positive drug screen documentation.
- Life-long follow up for congenital, behavioral, and developmental abnormalities.

Long-term Follow-up – Maternal

Women who enter into treatment or are in treatment programs for opioid addiction will in all likelihood need to continue in their treatment programs in order to successfully strive for, achieve, and maintain productive functioning in the family workplace and society.

Treatment programs have to be available for long term follow up and support, and need to specific to the needs of the childbearing woman and her children. Programs like the Substance Exposed Newborn Safe Environment Program (SENSE) in Arizona can provide resources and support to the mother, newborn and family after the neonate is discharge from NAS treatment.

For women to be successful in managing their own drug or alcohol problems, they need to have integrated services that will address their physical needs, emotional/mental health needs, and personal/family needs for safety, shelter, food, clothing, and transportation. By providing case management and social supports she will be able to focus on treatment and recovery.

Long-term Follow-up – Babies and Children

Little is known about the long-term effects of in-utero exposure on the newborns, however, it is known that substance use during pregnancy has long-term effects that manifest long after the newborn period. Early in pregnancy, fetal malformations may occur while, later in pregnancy, it is the developing fetal brain that is more vulnerable to injury. The effects of fetal substance exposure may include stunted growth or more subtle findings like alterations in neurobehavioral functions. Alcohol is the most-often studied drug of abuse and can cause several fetal problems including restricted fetal growth, congenital anomalies, behavior problems, poor memory and intellectual disabilities. Prenatal nicotine exposure has been associated with brain development issues, cognition, language, achievement, and long-term behavior.

Infants with NAS are more likely to be admitted to the NICU and to be hospitalized longer than infants without NAS. Additionally, when there are exposures to other substances in supplement to opioids, there is evidence that the risk of antenatal complications is higher. In mothers and infants enrolled in the Tennessee Medicaid program, antenatal cumulative prescription opioid exposure, opioid type, tobacco use,

and selective serotonin reuptake inhibitor (SSRI) use increased the risk of NAS (Patrick, et.al., 2015).

The consequences for children who were prenatally exposed to drugs go beyond the immediate neonatal period. A study by Uebel et. al. (2015) in PEDIATRICS found that children with NAS were more than twice as likely to require hospitalization, to die in hospital, and be admitted for maltreatment, visual, mental, and behavioral problems. According to the study, this increase continues to adolescence, and emphasizes the critical need for continued support for children after resolution of NAS.

Physicians should maintain documentation of substance use during pregnancy and be vigilant in following the child for potential long term physical and cognitive consequences. Even after accounting for prematurity, it is likely that children with NAS will be hospitalized again throughout childhood for maltreatment, trauma, and mental and behavioral disorders. This pattern can continue into adolescence and highlights the critical need for continued support of this vulnerable group after resolution of NAS.

For a summary of effects of prenatal drug exposure of the fetal growth, abnormalities, withdraw, neurobehavioral, and growth refer to Table 3.

TABLE 3
Summary of Effects of Prenatal Drug Exposure

Short-term effects/ birth outcomes	Nicotine	Alcohol	Marijuana	Opiates	Cocaine	Methamphetamine
Fetal growth	Effect	Strong effect	No effect	Effect	Effect	Effect
Anomalies	No consensus on effect	Strong effect	No effect	No effect	No effect	No effect
Withdrawal	No effect	No effect	No effect	Strong effect	No effect	
Neurobehavioral	Effect	Effect	Effect	Effect	Effect	Effect
Long-term effects						
Growth	No consensus on effect	Strong effect	No effect	No effect	No consensus on effect	
Behavior	Effect	Strong effect	Effect	Effect	Effect	
Cognition	Effect	Strong effect	Effect	No consensus on effect	Effect	

Behnke, Marylou & Smith, Vincent C., (Committee on Substance Abuse, Committee of Fetus and Newborn), March 2013, Prenatal Substance Abuse: Short- and Long-term Effects on the Exposed Fetus, from the American Academy of Pediatrics Technical Report, *Pediatrics*, vol. 131:3.

Ethical considerations

The subject of testing for drugs of abuse, particularly testing for those that are illegal, presents ethical dilemmas for health professionals. On the one hand, the screening for the detection of substances of abuse holds the promise of benefit to the mother with addiction problems that may be remedied by treatment. On the other, the detection of illegal substances may lead to the discovery of information that may require reporting to authorities. Reporting of detected illegal substances in the mother may lead to criminal prosecution and incarceration as a form of punishment. Similarly, detection in the infant may lead to mandated reporting to child protection service agencies and lead to custodial litigation, prosecution, or other disruptions to the mother and infant relationship.

Punitive approaches and incarceration have not been demonstrated to be beneficial in improving health for mothers and infants. Foster placement of children and mandated entry to complex child welfare systems with limited resources and capabilities may also lead to sub-optimal outcomes for both mother and infant. This may be especially true in our own State of Arizona, where many of our child protective organizations and agencies are undergoing dynamic change and development to improve the delivery of services for children. Hence, as is the case with all decisions in medicine, practitioners are often faced with dichotomous choices, each carrying broad implications that must be carefully weighed before potentially causing harm to mothers and infants under their care.

Although there may be punitive consequences of reporting the detection of illegal substances, there may be benefits as well. Testing may be beneficial in providing clinical information and identifying the need for services. Various programs across the state can help the mother receive treatment and maintain their sobriety while keeping their children in the home. The SENSE (Substance Exposed Newborn Environment) program provides services for families referred by the Department of Child Safety (DCS) after the birth of a substance exposed infant. The program develops and implements a coordinated Family Service Plan with the family and with staff from Intensive In-Home services, Arizona Families FIRST, Healthy Families, and DCS case management. This program aims to keep the infant in the home while the parent works with service providers to learn new skills and works to maintain their sobriety. The SENSE program is currently only offered in Maricopa, Mohave, Yuma, and Pima counties. With the increasing number of NAS babies in Arizona it has been recommended that this program be expanded to meet this growing need. Other programs that offer home visiting services, such as Arizona Health Start Program, are also beneficial to these families. Strong Families AZ is a network of free home visiting programs that helps families raise healthy children ready to succeed in school and in life. Many of these services offer treatment that incorporate evidence based programs that have shown effective implementation of services for children and families involved with the child welfare system.

Health professionals, when entering into a relationship with a patient, are bound by duty to act in their best interest. Hence, the decision to obtain information through the use of

body fluids or tissues should be carefully weighed with an anticipated expectation of benefit for infant and mother. As with any other medical intervention, drug, or treatment, the provider should weigh the anticipated benefits carefully against the potential risks. For a health professional to do otherwise is unethical.

Another dilemma involves the patient's right to privacy. Recent Supreme Court actions suggest that collection of health information without the express consent of the patient, such as that obtained during urine drug screening for other than directly medical indications represents unreasonable search and seizure. Thus, health professions organizations, including the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the Department of Health and Human Services generally recommend that drug screening for substances of abuse be obtained on mother and infant only with the consent of the mother, unless the medical situation demands otherwise.

These considerations demand care and thoughtfulness in the decision by health professionals or institutions to implement procedures that involve the use of drug screening.

In an effort to maintain the interests of the pregnant woman and the newborn foremost in the delivery of their care, the following guiding principles are suggested:

- Health professionals should be knowledgeable about state and local laws regarding mandatory reporting of illegal drug detection in pregnant women and infants.
- Health professionals should be knowledgeable regarding the resources and facilities available for treatment and management of substance abuse in their communities.
- Health providers should remain cognizant of the duty they assume when engaged in the delivery of care to their patients. This duty requires their actions to be performed in the best interest of the patient.
- Medical decision-making requires an assessment of risk and benefit to mother and newborn. The potential risk and adverse consequences of screening and identification of substance–exposed newborns should be weighed against the potential benefits in a manner no different than as applied to other medical interventions.
- Health providers should be aware of the legal implications of their actions in the context of recent court decisions that uphold the rights of mothers against unlawful search and seizure.
- In keeping with recommendations by health professions organizations, health providers should obtain informed consent from patients (or the mother of an infant) before chemical drug screening procedures except where this is not possible for medical reasons.

Disclaimer These guidelines are not an exclusive course of management. Variations that incorporate individual circumstances or institutional preferences may be appropriate.

Referral list

Regional Behavioral Health Authorities

Maricopa County
Mercy Maricopa Integrated Care
500 West Thomas Road
Phoenix, AZ 85013
Customer Service Number: **1-800-564-5462, 602-586-1841**

Apache, Coconino, Gila, Mohave, Navajo & Yavapai Counties
Health Choice Integrated Care
1300 South Yale Street
Flagstaff, AZ 86001

410 North 44th Street, Suite 900
Phoenix, AZ 85008
Customer Service Number: **1-800-640-2123**

Cochise, Graham, Greenlee, La Paz, Pinal, Santa Cruz and Yuma Counties
Cenpatico Integrated Care
333 E Wetmore Road Suite 500
Tucson, AZ 85705
Customer Service Line: **1-866-495-6738**

Statewide for children in the CRS program
Children's Rehabilitative Services (CRS) Program
United Health Care Customer Service
PO Box 29675
Hot Springs, AR 71903-9802
Customer Service Line: **1-800-348-4508**

Community Information and Referral
Yuma, La Paz, Cochise, Maricopa, Mohave, Coconino, Apache, Navajo, Yavapai, Pinal and Gila counties
1-800-352-3792 or (602) 263-8856

Information and Referral
Pima, Graham, Greenlee, Cochise & Santa Cruz counties
1-800-362-3474 or (520)-881-1794

AHCCCS Substance Abuse Treatment Providers in the Northern 5 Counties:

West Yavapai Behavioral Health Locations:
643 Dameron Drive
Prescott, AZ 86302
928-445-5211 or 1-800-293-7730

3345 N Windsong Drive
Prescott Valley, AZ 86314
928-445-5211 or 1-800-293-7730

555 W Road 3 North
Chino Valley, AZ 86323
928-445-5211 or 1-800-293-7730

Spectrum Healthcare Locations:
8 E Cottonwood Street
Cottonwood, AZ 86326
928-634-2236

452 Finnie Flat Road
Camp Verde, AZ 86323
928-567-4026

2880 Hopi Drive
Sedona, AZ 86336
928-282-4357

Little Colorado Behavioral Health Center Locations:

50 N Hopi Drive, PO Box 699
Springerville, AZ 85938
928-333-2683

470 W Cleveland, PO Box 579
St Johns, AZ 85936
928-337-4301

Specialty Programs for Mothers and Infants

Casa de Amigas (no children)
1648 W Colter #8
Phoenix AZ
(602) 265-9987

Center for Hope (owned and operated by Community Bridges)
554 S. Bellview
Mesa, AZ 85204
(480) 461-6984

Elba House (owned and operated by Ebony House)
6222 S. 13th Street Phoenix AZ
(602) 276-4288

Hacienda Healthcare-Hacienda Children's Hospital
Drug Dependent Newborn Program
610 W. Jerome Ave
Mesa, AZ 85210
(480) 579-2400

Maricopa County Value Options
Native American Connections
609 N 2nd Avenue, #120 Phoenix AZ
(602) 424-2060

New Arizona Family, Inc.
3301 E. Pinchot
Phoenix AZ (602) 553-7300

Pima, Graham, Greenlee, Santa Cruz & Cochise counties
Community Partnership of Southern Arizona (CPSA)

CODAC Behavioral Health Services
333 W Ft. Lowell #219
Tucson, AZ 85705
(520) 327-4505
Fax: (520) 792-0033

Las Amigas
502 Silverbell Road
Tucson, AZ 85745
(520) 882-5898

The Haven
1107 E. Adelaide
Tucson, AZ 85719
(520) 623-4590)

Amity Foundation
Robin Rettmer
Director of Family Services
(520) 749-5980
Fax: (520) 749-5569

Family Supports/Resources

Arizona Department of Health, Office of Women's and Children's Health
150 North 18th Ave.
Suite 320
Phoenix, AZ 85008
Phone: (602) 364-1400 Fax: (602) 364-1495 Toll Free: (602) 542-1200
www.azdhs.gov/phs/owch/

Children's Health Center of St. Joseph's Hospital
350 West Thomas Rd
Phoenix, AZ 85013
Phone: (602) 406-3000 Fax: (602) 406-6135
www.stjosephs-phx.org/index.htm

Emily Anderson Family Learning Center
1919 East Thomas Road
Phoenix, AZ 85016
Phone: (602) 546-1400 Fax: (602) 546-1409
www.phoenixchildrens.com/health-information/the-emily-center/

FAS Arizona
Tucson, AZ
www.fasarizona.com/

March of Dimes
3550 North Central Avenue, Suite 610
Phoenix, AZ 85012
Phone: (602) 266-9933 Fax: (602) 266-9793
www.marchofdimes.com/arizona/arizona.asp

NAFACES- Northern Arizona Fetal Alcohol Spectrum Disorders Center for Education and Support
77 West Forest Ave, Suite 110
Flagstaff, AZ 86001
For more information, contact:
Jean Richmond-Bowman (928)214-3747
Cindy Beckett (928)773-2307

Native American Community Health Center
4520 North Central Avenue

Suite 620
Phoenix, AZ 85012
Phone: (602) 279-5262
www.nativehealthphoenix.org/

Native American Connections Inc., Guiding Star Lodge
3424 E Van Buren
Phoenix, AZ 85008
Phone: (602) 254-5805
www.nativeconnections.org/about/locations/guiding-star

Parker Indian Health Service Hospital
12033 Agency Road
Parker, AZ 85344
Phone: (520) 669-2137

Pilot Parents
2600 North Wyatt Drive
Tucson, AZ 85712
Phone: 520-324-3150
www.pilotparents.org/

Raising Special Kids
5025 East Washington Street
Suite #200
Phoenix, AZ 85034
Phone: (602) 242-4366 Fax: (602) 242-4306 Toll Free: (800) 237-3007
www.raisingspecialkids.org/

Spectrum Disorders (FASD).
FAS Community Resource Center
4710 E. 29th St.
Tucson, AZ 85710
Fax: 520-296-9172
Contact: Teresa Kellerman
www.come-over.to/FASCRC

The Arc of Arizona
PO Box 90714
Phoenix, AZ 85066
Phone: (602) 234-2721
www.arcarizona.org/

Websites

American Academy of Pediatrics
www.aap.org

American College of Nurse-Midwives (ACNM)
www.midwife.org

American Congress of Obstetricians and Gynecologists (ACOG)
www.acog.org

American Society of Addiction Medicine
www.asam.org

Arizona Department of Economic Security
https://des.az.gov

Arizona Department of Health Services
www.azdhs.gov

Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)
www.awhonn.org

Centers for Disease Control and Prevention (CDC)
www.cdc.gov/fasd

Family Empowerment Network (FEN)
www.pregnancyandalcohol.org

National Institute for Alcohol Abuse and Alcoholism (NIAAA)
www.hiaaa.nih.gov

National Institute on Drug Abuse
www.drugabuse.gov

National Organization on Fetal Alcohol Syndrome (NOFAS)
www.nofas.org

Northern Arizona Fetal Alcohol Spectrum Disorders Center for Education and Support
www.NAFACES.org

Pacific Southwest Technology Transfer Center
www.psattc.org

Physicians and Lawyers for National Drug Policy: A Public Health Partnership
www.plndp.org

Southwest Human Development Birth to Five Helpline
https://www.swhd.org/programs/health-and-development/birth-to-five-helpline/

Substance Abuse and Mental Health Services Administration (SAMHSA)
Substance Abuse Treatment Facility Locator
www.samhsa.gov
www.findtreatment.samhsa.gov

The American College of Obstetrics and Gynecologists Women and Alcohol
www.womenandalcohol.org

The Arc
www.thearc.org

The Governor's Office of Youth, Faith, and Family (treatment locator website)
http://substanceabuse.az.gov/substance-aabuse/arizona-substance-abuse-partnership

The Governor's Office (Program Inventory July 2015)
http://www.azcjc.gov/cdc_site/Resource.aspx

Reference Articles
(Historical and Current)

American Academy of Pediatrics, Committee on Drugs. (2001) The transfer of drugs and other chemicals in human milk. *Pediatrics;* 108(3):776-789.

American Academy of Pediatrics, Committee on Drugs. (1998) Neonatal drug withdrawal. *Pediatrics,* June; 101(6):1079-1088.

American Academy of Pediatrics, Committee on Fetus and Newborn. (1995) Hospital stay for healthy term newborns. *Pediatrics*, Oct; 96(4):788-790.

American Academy of Pediatrics, Committee on Fetus and Newborn. (1998).Hospital discharge for the high-risk neonate--proposed guidelines. *Pediatrics*, Aug; 102(2):411-417.

American Academy of Pediatrics, Committee on Substance Abuse. (1993) Drug-exposed infants. *Pediatrics;* 96:364.

American College of Obstetricians and Gynecologists. (1995) Substance abuse in pregnancy. *Technical Bulletin #195*: July.

Anonymous. (2000). Prenatal Exposure to Alcohol. *Alcohol Research and Health* 24: 32-41.

Anonymous (2004). Fetal Alcohol Syndrome Is Still a Threat, Says Publication. *Science Letter* September 28, 2004: 448.

Artigas, V. (2014). Management of Neonatal Abstinence Syndrome in the Newborn Nursery. *AWHONN.* Vol.18, Issue 6, December 2014/January 2015. 509-514.

Arizona Child Fatality Review Program, 22nd Annual Report, Nov 15, 2015. * The term "illicit" refers to the use of illegal drugs, including marijuana according to federal law and misuse of prescription medications

Arizona Department of Health Services. (2011) Arizona Health Status and Vital Statistics. Incidence of Prenatal Alcohol Exposure. Retrieved from http://www.azdhs.gov/plan/report/ahs/ahs2011/toc11.htm

Arizona Department of Health Services. (2015). Women's Directory: A Guide to Substance Abuse and Mental Health Services for Women. LeCroy & Milligan Associates, Inc.

Arizona Hospital Discharge Data 2014. Hospital cases of exposure were identified by one of the following ICD9 codes: 779.5,760.75,760.73,760.72,760.71.

Bada, HS. (2015) Neurodevelopmental Outcomes of Children with Prenatal Opiate Exposure. NAS Conference. July 2015.

Bauer CR, Shankaran S, Bada HS, et al. (1996) Maternal Lifestyles Study (MLS): Effects of substance abuse exposure during pregnancy on acute maternal outcomes. *Pediatric Res*; 39:257A.

Behavioral Risk Factor Surveillance System. . (2013)Behavioral Surveillance Branch, Centers for Disease Control and Prevention. Alcohol Use and Smoking in Arizona. Retrieved from http://www.marchofdimes.com/peristats

Burgos, A. & Burke, B.L., (2009). Neonatal Abstinence Syndrome. *NeoReviews,* vol.10, no. 5, May, e222-e229.

Callahan CM, Grant TM, Phipps P, Clark G, Novack AH, Streissguth AP, Raisys VA, et.al. (1992). Measurement of gestational cocaine exposure: Sensitivity of infants' hair, meconium, and urine. *J Pediatr*ics;120:763-768.

Catlin, A. (2012). Call for Improved Care for the Substance –Positive Mother. *Advances in Neonatal Care,* Vol. 12, No. 5, 286-287.

CDC Behavioral Risk Factor Surveillance System (BRFSS), United States, 2011-2013 http://azdhs.gov/prevention/womens-childrens-health/injury-prevention/

Centers for Disease Control. (September 10, 2013). Facts about FASD. Retrieved from http://www.cdc.gov/NCBDDD/fasd/facts.html

Centers for Disease Control and Prevention (CDC). (2011). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.

Chasnoff, IJ, et.al. (2003). Prenatal substance exposure: Maternal screening and neonatal identification and management. *NeoReviews*; 4(9) 228-234.

Clinical Report American Academy of Pediatrics (2012). Neonatal Drug Withdrawal. *Pediatrics.* Online www.pediatrics.org/cgi/doi/10.1542/peds.2011-3212. e540-e558.

Committee on Health Care for Underserved Women and the American Society of Addiction Medicine (Reaffirmed 2014). Opioid Abuse, Dependence, and Addiction in Pregnancy: Committee Opinion. *The American College of Obstetrics and Gynecologists.* Number 524. May 2012.

Committee of Substance Abuse and Committee on Children with Disabilities. (2000).Fetal Alcohol Syndrome and Alcohol-Related Neurodevelopmental Disorders. *Pediatrics* 106 (August): 358-361.

Controlled Substance Prescription Monitoring Program (CSPMP) https://pharmacypmp.az.gov/

Coonrod, D. (2012). Preconception Health – A Life Course Perspective. Conference Presentation, November 29, 2012.

Cramer, C. & Davidhizar, F. (1999). FAS/FAE: Impact on Children. *Journal of Child Health Care,* 3 (Autumn): 31-34.

D'Apolito, K. (2013). Breastfeeding and Substance Abuse. *Clinical Obstetrics and Gynecology.* Vol. 56. No. 1, 202-211.

D'Apolito, K.C. (2014). Assessing Neonates for Neonatal Abstinence: Are You Reliable? *Journal of Perinatal & Neonatal Nursing.* Vol. 28, No. 3, 220-231.

Drinking and your pregnancy. (1996). National Institute on Alcohol Abuse and Alcoholism; 96:4101.

Drugs and pregnancy. (1999). American Council for Drug Education's Facts for Parents.

Dudeck, J. (2015). Neonatal Abstinence Syndrome and Newborn Drug Exposures, Arizona Births, 2008-2014. Office of Injury Prevention. Arizona Department of Health Services.

Gillogley KM, Evans AT, Hansen RL, Samuels SJ, Batra KK, et.al. (1990) The perinatal impact of cocaine, amphetamine, and opiate use detected by universal intrapartum screening. *Am J Obstetrics Gynecology*; 163:1535-1542.

Graham K, Koren G, Klein J, Scheiderman J, Greenwald M. et.al. (1989). Determination of gestational cocaine exposure by hair analysis. *JAMA*; 262:3328-3330.

Gregory, K. (2014). Caring for the Infant with Neonatal Abstinence Syndrome in a Community-Based Setting. Expert Opinion, Neonatal. *The Journal of Perinatal & Neonatal Nursing.* July/September. 161-163.

Hale's Medications and Mother's Milk (2004). 119, 198-199, 405.

Hannigan, J. H., and D. R. Armant. (2000). Alcohol in Pregnancy and Neonatal Outcome. *Seminars in Neonatology* 5 (August): 243-54.

Hansen RL, Evans AT, Gillogley KM, Hughes CS, Krener PG, et.al. (1992). Perinatal Toxicology Screening. *Journal of Perinatology*; XII:220-224.

Hayes, M.J. & Brown, M.S. (2012). Epidemic of Prescription Opiate Abuse and Neonatal Abstinence. *Journal of the American Medical Association.* Published online April 30, 2012, E1-E2.

Holmes, A.V. (2016). Dartmouth study offers hope for babies exposed to drugs in womb. Downloaded 6/21/16, http://www.unionleader.com/apps/pbcs/dll/article?AID=/20160524/NEWS12/160529711&...

Howard CR, Lawrence RA. (1998) Breast-feeding and drug exposure. *Obstetrics and Gynecology Clinics of North America*; 25(1), 195-217.

Hudak, M.L. & Tan, R.C. (2012). Neonatal Drug Withdrawal. *Pediatrics.* The Committee on Drugs and the Committee on Fetus and Newborn. 129, e540; originally published online January 30, 2012.

Intermountain Healthcare (2013). Fact Sheet for Patients and Families: Newborn Withdrawal. www.Intermountainhealthcare.org

Jansson, L.M. & Velez, M. (2012). Neonatal Abstinence Syndrome. *Current Opinions in Pediatrics.* Vol. 24, No. 2, 252-258.

Kellerman, T. (2013). Presentation Fetal Alcohol Spectrum Disorders Screening and Intervention Strategies.

Kocherlokata, P. (2014). Neonatal Abstinence Syndrome. *Pediatrics.* 134, e547; originally published July 28, 2014 online, -DOI: 10.1542/peds.2013-3524.

Kraft, W.K., Stover, M.W., & Davis, J.M. (2016). Neonatal Abstinence Syndrome: Pharmacologic Strategies for the Mother and Infant. *Seminars in Perinatology.* Online http://dx.doi.org/10.1053/j.semperi.2015.12.007

Kandall, SR (1999). Treatment strategies for drug-exposed neonates. *Clinics in Perinatology*; 231-243.

Kocherlakota P. (2014). Neonatal Abstinence Syndrome. *Pediatrics*; 134:e547-e561.

Kwong TC, Ryan RM. (1997). Detection of intrauterine illicit drug exposure by newborn drug testing. *Clinical Chemistry*; 43:235-242.

Lucas, K. & Knobel, R.B. (2012). Implementing Practice Guidelines and Education to Improve Care of Infants with Neonatal Abstinence Syndrome. *Advances in Neonatal Care.* Vol. 12, No. 1, 40-45.

Madden JD, Payne TF, Miller S. (1986). Maternal and fetal effect on the newborn. *Pediatrics*, 77:209-211.

Maguire, D. (2014). Care of the Infant with Neonatal Abstinence Syndrome: Strength of the Evidence. *The Journal of Perinatal & Neonatal Nursing.* Vol. 28. No.3, 204-211.

March of Dimes NAS information
http://www.marchofdimes.org/baby/neonatal-abstinence-syndrome-(nas).aspx

May, Philip PhD, Baete, Amy, MBA, et al. Prevalence and Characteristics of Fetal Alcohol Spectrum Disorders, Pediatrics. 2014; 2013-3319.

Maynard EC, Amoruso LP, Oh W, et.al. (1991). Meconium for drug testing. *AJDC.* June; 145:650- 652.

McCarthy, J.J., Leamon, M.H., Parr, M.S., & Anaia, B. (2005). High-dose Methadone Maintenance in Pregnancy: Maternal and Neonatal Outcomes. DOI: 10.1016/j.ajog.2005.03.072.

Millard D: Toxicology testing in neonates: Is it ethical, and what does it mean? Clinics in Perinatology 1996; 23:491.

Mitchell JL: Pregnant, substance-using women, treatment improvement protocol. U.S. Department of Health and Human Services 1993; DHHS Publication No. (SMA) 95-3056.

Mittal, L. (2014). Buprenorphine for the Treatment of Opioid Dependence in Pregnancy. *The Journal of Perinatal & Neonatal Nursing.* Vol. 28, No. 3,178-184.

MMIC Guidance on drug and alcohol treatment programs
http://www.mercymaricopa.org/members/resources/substance provides members with information on the dangers of drug and alcohol abuse, crisis hotline information, and the government health links *Drugabuse.gov* and the *U.S. Department of Health Services*

National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control. (September 10, 2013) Guidelines for FAS Diagnosis and Referral. Retrieved from
http://www.cdc.gov/ncbddd/fas

Neonatal Abstinence Syndrome State of the Art Review Article
http://pediatrics.aappublications.org/content/pediatrics/134/2/e547.full.pdf

Neonatal Abstinence Syndrome: How States Can Help Advance the Knowledge Base for Primary Prevention and Best Practices of Care
http://www.astho.org/Prevention/NAS-Neonatal-Abstinence-Report

NIH. (2012). Principles of Drug Addiction Treatment: Principles of effective Treatment. A research- based Guide (Third Edition). December.

Opioid Abuse, Dependence, and Addiction in Pregnancy - American College of Obstetricians and Gynecologists. (2016) http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Opioid-Abuse-Dependence-and-Addiction-in-Pregnancy

Organization of Teratology Information Specialists. (August 20, 2013) Fact Sheets. Retrieved from
http://www.mothertobaby.org/fact-sheets-s13037

Orlando, S. (2014). An Overview of Clinical Tools Used to Assess Neonatal Abstinence Syndrome. *The Journal of Perinatal & Neonatal Nursing.* Vol. 28, No. 3, 212-219.

Oro AS, Dixon SD. (1987).Perinatal cocaine and methamphetamine exposure: Maternal and neonatal correlates. *J Pediatrics*; 111:571-578.

Osterloh JD, Lee L, et.al. (1989). Urine drug screening in mothers and newborns. *AJDC.* July;143:791-793.

Ostrea EM, Welch RA, et.al. (1991) Detection of prenatal drug exposure in the pregnant woman and her newborn infant. *Clinics in Perinatology*. September;18: 629-645.

Prescription Opioids Epidemic and Infant Outcomes
http://pediatrics.aappublications.org/content/pediatrics/early/2015/04/08/peds.2014-3299.full.pdf

Pritham, U.A, Paul, J.A., & Hayes, M.J. (2012). Opioid Dependency in Pregnancy and Length of Stay for Neonatal Abstinence Syndrome. *JOGNN.* 41, 180-190, DOI: 10.1111/j.1552-6909.2011.01330.x.

Puckett, David. American Association of Neurological Surgeons. (November 13, 2010). Retrieved from
http://www.aans.org/

Reasons for Re-hospitalization in Children Who Had Neonatal Abstinence Syndrome
http://pediatrics.aappublications.org/content/136/4/e811

Robakis, T. & Williams, K.E. (2013). Atypical Antipsychotics during Pregnancy. *Current Psychiatry.* Vol. 12, No. 7, 13-20.

Rowe, H., Baker, T., & Hale, T.W. (2013). Maternal Medication, Drug Use, and Breastfeeding. *Pediatrics Clinics of North America.* Vol. 60, 275-294. http://dx.doi.org/10.1016/j.pcl.2012.10.009.

Russell, M. (1994). New assessment tools for drinking in pregnancy: T-ACE, TWEAK, and others. Alcohol Health and Research World, 18(1), 55-61. retrieved from -
http://pubs.niaaa.nih.gov/publications/assessingalcohol/InstrumentPDFs/74_TWEAK.pdf

Saia, K.A., Schiff, D., Wachman, E.M. et al. (2016) *Current Trends in Obstetrics & Gynecology Rep*, 5: 257. DOI:10.1007/s13669-016-0168-9

Saunders, C., King, T., Smith, S., Buchheit, J., Cook. K., Edds, J., & Mefford, L. (2014). Neonatal Abstinence Syndrome. *The Journal of Perinatal & Neonatal Nursing.* Vol. 28, No. 3, 232-240.

SAMHSA (2016). Pocket Guide: Medication-Assisted Treatment of Opioid Use Disorder. Online:
http://www.drugabuse.gov/sites/default/files/files/ClinicalOpiateWithdrawalScale.pdf.

Schiller, J.H. & Stojan, J. (2013). Index of Suspicion in the Nursery. *NeoReviews.* Vol. 14. No. 1. E32-e34.

State of Kentucky Prevention Enhancement Site. (July, 2013). Baby Love Power Point. Retrieved from
http://www.come-over.to/FASCRC/

Substance Abuse Mental Health Services Administration, Office of Applied Studies, National Survey on Drug Use & Health. (September 23, 2013) Illicit Drug Use in Arizona. Retrieved from
http://www.marchofdimes.com/peristats

Sutter, M.B., Leeman, L., & Hsi, A. (2014). Neonatal Opioid Withdrawal Syndrome. *Obstetrics & Gynecology the Clinics of North America, 41: 317-334.*

Uebel H, Wright IM, et. Al. (2015) Reasons for Rehospitalization in Children Who Had Neonatal Abstinence Syndrome. *Pediatrics*, October; 4:136: e811-e820.

United States Government Accountability Office (2015). Prenatal Drug Use and Newborn Health: Federal Efforts Need Better Planning and Coordination. GAO-15-203.GAO Highlights.

Virginia Department of Health Services, Division of Women and Infant's Health. (2003) Perinatal substance use: A guide for hospitals and health care providers.

Wesson, D.R. & Ling, W. (2003). The Clinical Opiate Withdrawal Scale (COWS). *Journal Psychoactive Drugs, 35 (2), 253-259.*

Woolf AD, Shannon MW, et.al. (1995) Clinical toxicology for the pediatrician. *Pediatric Clinics of North America,* April;42:317-333.

Worley, J. (2014). Identification and Management of Prescription Drug Abuse in Pregnancy. *The Journal of Perinatal & Neonatal Nursing.* Vol. 28, No. 3, 196-203.

Young, M.E, Hager, S.J., & Spurlock, D. (2015). Retrospective Chart Review Comparing Morphine and Methadone in Neonates Treated for Neonatal Abstinence Syndrome. *American Journal of Health-Systems Pharmacy.* Vol. 72, Dec. 2015-Supplement 3. S162-S167.

Appendix A
2008 Committee Members

The Task Force on Preventing Prenatal Exposure to Alcohol and Other Drugs would like to recognize the following original committee members:

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Appendix B
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Bahney Dedolph - *AZ Council of Human Service Providers, Policy Analyst*

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Joanna Kowalik - ***CMO****, DDD of Arizona*

Erin Phillips – *AmeriCorps VISTA, Easter Seals Blake Foundation*

Appendix C
Screening Tools

To reduce the incidence of substance exposed newborns, screen women at risk of addiction. Samples of interview screening tools for drugs and alcohol include:

CAGE

C Have you ever felt you ought to **cut down** on your drinking or drug use?
A Have people **annoyed** you by criticizing your drinking or drug use?
G Have you ever felt bad or **guilty** about your drinking or drug use?
E **Eye opener**: Have you ever had a drink or drug first thing in the morning to steady your nerves or get rid of a hangover?

The CAGE can identify alcohol or drug problems over the lifetime. Two positive responses are considered a positive test and indicate further assessment is warranted. *National Institute on Alcohol Abuse and Alcoholism*

4 P's

This screening device is often used as a way to begin discussion about drug or alcohol use. Any woman who answers yes to one or more questions should be referred for further assessment.

1. Have you ever used drugs or alcohol during this **pregnancy**?
2. Have you had a problem with drugs or alcohol in the **past**?
3. Does your partner have a **problem** with drugs or alcohol?
4. Do you consider one of your **parents** to be an addict or alcoholic?

Ewin H, Born Free Project, Martinez California

T-ACE

A score of 2 or more is considered positive. Affirmative answers to questions A, C, or E = 1 point each. Reporting tolerance to more than two drinks (the T question) = 2 points.

T **Tolerance**: how many drinks does it take to make you feel high?
A Have people **annoyed** you by criticizing your drinking or drug use?
C Have you ever felt you ought to **cut down** on your drinking or drug use?
E **Eye opener**: Have you ever had a drink or drug first thing in the morning to steady your nerves or get rid of a hangover?

Sockol RJ, et al. (1989) The T-ACE questions: Practical prenatal detection of risk drinking. AM Journal of Obstetrics and Gynecology, 160(4).

Chang G. (2001) Alcohol-Screening Instruments for Pregnant Women, Alcohol Research and Health, 25 (3), 204-209.

TWEAK is a five-item scale developed originally to screen for risk drinking during pregnancy. It is an acronym for the questions below (Russell, 1994):

T	**Tolerance***	"How many drinks can you hold?"
W	**Worried**	"Have close friends or relatives worried or complained about your drinking in the past year?"
E	**Eye-opener**	"Do you sometimes take a drink in the morning when you first get up?"
A	**Amnesia (stands for blackouts)**	"Has a friend or family member ever told you about things you said or did while you were drinking that you could not remember?"
K	**K/Cut Down**	"Do you sometimes feel the need to cut down on your drinking?"

Russell, M. (1994). New assessment tools for drinking in pregnancy: T-ACE, TWEAK, and others. Alcohol Health and Research World, 18(1), 55-61.

Appendix D
Finnegan NAS Scoring Tool

Finnegan Neonatal Abstinence Scoring Tool (FNAST)

Patient ID: Name: Today's Weight: DOB: Date:

Signs & Symptoms	Time	Score	Comments
Central Nervous System Disturbances			
Crying: Excessive High Pitched		2	
Crying: Cont. High Pitched		3	
Sleeps < 1 Hr After Feeding		3	
Sleeps < 2 Hr After Feeding		2	
Sleeps < 3 Hr After Feeding		1	
Hyperactive Moro Reflex		2	
Markedly Hyperactive Moro Reflex		3	
Mild Tremors: Disturbed		1	
Mod-Severe Tremors: Disturbed		2	
Mild Tremors: Undisturbed		3	
Mod-Severe Tremors Undisturbed		4	
Increased Muscle Tone		2	
Excoriation (Specific Area)		1	
Myoclonic Jerk		3	
Generalized Convulsions		5	
Metabolic, Vasomotor And Respiratory Disturbance			
Sweating		1	
Fever < 101 (37.2-38.3c)		1	
Fever > 101 (38.4c)		2	
Frequent Yawning (> 3)		1	
Mottling		1	
Nasal Stuffiness		1	
Sneezing (>3)		1	
Nasal Flaring		2	
Respiratory Rate (> 60/Min)		1	
Respiratory Rate (>60/Min With Retractions		2	
Gastrointestinal Disturbances			
Excessive Sucking		1	
Poor Feeding		2	
Regurgitation		2	
Projectile Vomiting		3	
Loose Stools		2	
Watery Stools		3	
Score			
Total Score			
Average Daily Score			
Inter-Observer Reliability %			
Initials Of Scorer 1			
Initials Of Scorer 2			

Adapted from Finnegan, L.P., Kaltenbach, K. The assessment and management of Neonatal Abstinence Syndrome. Primary Care, 3rd editions, Hoekelman + Nelson (eds.), C.V. Mosby Company, St. Louis, MO., pp. 1367-1379, 1992. The FINNEGAN NEONATAL ABSTINENCE SCORE is for the assessment of infants exposed in utero to psychoactive drugs, particularly opioids/opiates. Evaluator should check signs or symptoms observed at various time intervals and add the scores to obtain a total score. Observation of the scores over the time interval provides the progression/diminution of symptoms. Copyright, 2007

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