
Screening Pregnant Women for Substance Use

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BRIGHAM AND WOMEN'S HOSPITAL



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Purpose of Presentation

- Review current patterns of prenatal substance use
- Review substances with the greatest consequences during pregnancy
 - Opiates
 - Cigarette Smoking
 - Alcohol
- Identification options

Rationale

- All illicit drugs are associated with some degree of adverse effects
 - None should be taken by pregnant women
- Non-illicit drugs have adverse effects on pregnancy, too
- Pregnant women are typically highly motivated to have “best practices”
- Identification of any prenatal substance use is challenging

Special Challenges

- Denial is a significant barrier
- Guilt about use
- Fear of legal consequences
- Behavior change after pregnancy confirmation
 - Potential use after conception, but before confirmation
 - Past use is the best predictor of future use
 - Half of all U. S. pregnancies are unplanned

Ideal Situation

- Avoid triggering denial
 - Avoid screening just “some” women
 - All races, ages, socioeconomic strata
 - Acknowledge the strengths and limitations of various approaches
 - Questionnaires
 - Biochemical markers
 - Blood and Urine samples
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Prevalence of Prenatal Substance Use

Data from the National Survey on Drug
Use and Health, 2005-2008

Prenatal Substance Use: Past Month

	<i>Pregnant</i>		<i>Not Pregnant</i>	
	2005-2006	2007-2008	2005-2006	2007-2008
<u>DRUGS</u>				
Illicit Drugs (all)	4.0	5.1	10.0	9.8
Marijuana & Hashish	3.0	3.8	7.0	7.1
Cocaine	0.2	0.4	1.2	0.8
Crack	0.1	0.3	0.3	0.1
Heroin	0.1	*	0.1	0.1
Hallucinogens	0.3	0.4	0.6	0.5
Nonmedical Use				
Psychotherapeutics	1.3	1.0	4.0	3.7
Pain Relievers	1.0	0.7	2.8	2.7
Oxycontin	0.0	0.1	0.2	0.2

Past Month Use

	<i>Pregnant</i>		<i>Not Pregnant</i>	
	2005-2006	2007-2008	2005-2006	2007-2008
Demographic/Pregnancy Characteristic				
Total	4.0	5.1	10.0	9.8
Age				
15-17	15.5	21.6	13.9	12.9
18-25	6.5	7.1	16.3	16.2
26-44	1.8	3.0	6.9	6.7
Hispanic Origin and Race				
Hispanic/Latino	1.4	2.6	7.9	6.3
Not Hispanic/Latino	4.8	5.7	10.4	10.5
White	4.7	5.3	11.2	11.1
Black	6.1	9.0	9.4	10.1
Trimester				
First	5.4	7.2	n/a	n/a
Second	3.6	5.0	n/a	n/a
Third	2.7	2.8	n/a	n/a

Tobacco and Alcohol Use: Past Month

Substance	<i>Pregnant</i>		<i>Not Pregnant</i>	
	2005-2006	2007-2008	2005-2006	2007-2008
Tobacco Products	16.8	16.7	30.7	28.6
Cigarettes	16.5	16.4	29.5	27.3
Smokeless	0.1	0.1	0.3	0.4
Cigars	1.3	1.1	3.4	3.1
Pipe	0.1	0.1	0.3	0.4
Alcohol	11.8	10.6	23.6	24.2
Binge	2.9	4.5	23.6	24.2
Heavy	0.7	0.8	5.4	5.5

Consequences of Prenatal Substance Use Exposure

Overview

Prenatal Substance Use: Consequences

- Cigarette smoking (16.7%)
 - Greatest risk of impaired fetal growth (LBW)
- Alcohol (10.6%)
 - Well-established teratogen
 - Lifelong fetal alcohol syndrome/effects
- Opiates (1 to 2%)
 - Neonatal withdrawal syndrome
 - Maternal medical complications

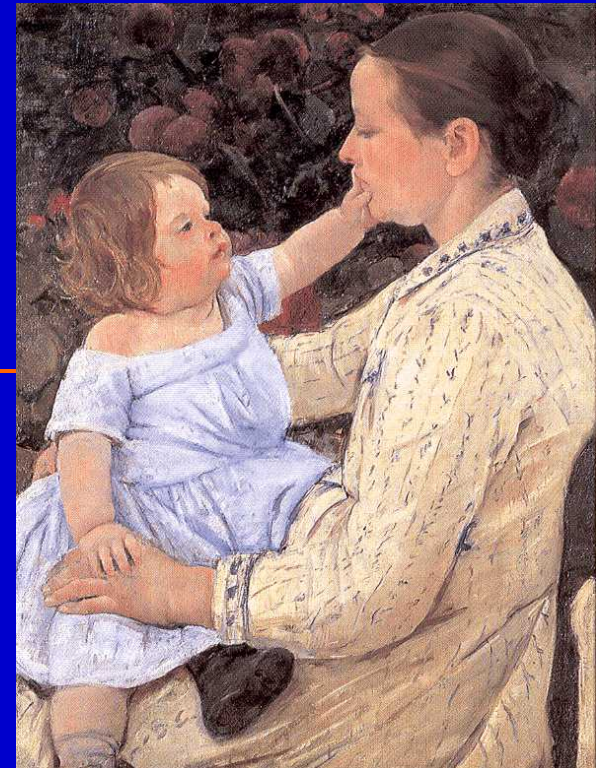
Consequences

- Cocaine (0.4%)
 - No detrimental effect on cognition
 - Other effects appear to be self-limited
 - Abnormalities in arousal, attention, neurologic and neuropsychological function
- Marijuana (3.8%)
 - No consistent effect on outcome
 - Unproven teratogenicity

The Three Most Problematic Prenatal Substances

Summary of Consequences and Treatment Options

Prenatal Opiate Use



Prenatal Opiate Use

- Exact prevalence unknown, 1% to 2%
- Menstrual irregularities related to opiate use may mean that users don't know that they're pregnant
- Opiate dependent pregnant women
 - Six fold increase in maternal obstetric problems
 - Have low birth weight babies
 - Heroin readily crosses the placenta

Problems for the Newborn

- May experience narcotic withdrawal
- Have development problems
- Increased risk of neonatal mortality
- 74 fold increased risk of sudden infant death syndrome

Evidence-based treatment options

- Pregnant opiate dependent women need careful, multidisciplinary treatment as early as possible
- Opioid maintenance therapy for the mother is recommended
 - Methadone or buprenorphine
 - Detoxification is not the standard approach

Maternal Cigarette Smoking



Past Month Cigarette Use

	<i>Pregnant</i>		<i>Not Pregnant</i>	
	2005-2006	2007-2008	2005-2006	2007-2008
Demographic/Pregnancy Characteristic				
Total	16.5	16.4	29.5	27.3
Age				
15-17	23.1	20.6	17.1	14.7
18-25	25.6	22.1	35.6	32.3
26-44	10.3	12.6	29.1	27.4
Hispanic/Latino				
Hispanic/Latino	7.0	5.5	19.7	16.9
Not Hispanic/Latino				
White	20.4	21.4	34.7	32.7
Black	14.6	17.2	23.3	21.1
Trimester				
First	23.8	21.2	--	--
Second	14.3	15.2	--	--
Third	11.2	12.5	--	--

Prenatal Tobacco Use

- Effects on fertility and development
 - Increased risk of infertility
 - Increased risk of ectopic pregnancy
 - Preterm birth
 - Low birth weight
 - Increased risk of stillbirth
 - Dose response relationship with SIDS
 - Longer-term effects in children
 - Behavioral problems, hyperactivity, elevated BMI

Smoking Cessation during Pregnancy: Pharmacotherapy

- Medications are the first-line treatment for the non-pregnant adult
 - Five nicotine replacement therapies
 - Two non-nicotine medication
- Efficacy and Effectiveness Studies for pregnant women
 - May increase quit rates
 - Usual quit rate is inversely proportional to level or extent of smoking
 - Other predictors of pregnancy smoking
 - Smoking partner
 - Many children
 - Deficiencies in prenatal care

Smoking Cessation during Pregnancy: Counseling

- US Preventive Services Task Force (2009)
 - Grade A recommendation for counseling
 - Inadequate evidence to evaluate the safety/efficacy of prenatal pharmacotherapy
 - Counseling
 - Ask about tobacco use
 - Provide augmented, pregnancy-tailored counseling for women who smoke
-

Prenatal Alcohol Use



Past Month Alcohol Use

		<i>Pregnant</i>		<i>Not Pregnant</i>	
		2005-2006	2007-2008	2005-2006	2007-2008
Demographic/Pregnancy Characteristic					
Total		11.8	10.6	53.0	54.0
Age	15-17	16.4	16.0	26.6	23.9
	18-25	8.5	10.9	59.7	60.4
	26-44	13.7	10.1	54.6	56.4
Hispanic/Latino		3.4	6.4	39.8	41.0
Not Hispanic/Latino		14.2	11.7	55.4	56.6
	White	15.2	11.0	60.6	60.9
	Black	11.6	19.1	42.5	46.0
Trimester					
	First	15.7	20.7	--	--
	Second	9.0	7.8	--	--
	Third	10.4	3.5	--	--

Prenatal Alcohol Use

- No universally safe level of consumption has been identified
- Associated defects may range from subtle developmental problems to fetal alcohol syndrome to perinatal death
 - No exact dose-response relationship between amount of alcohol consumed prenatally and the extent of damage

Fetal Alcohol Spectrum Disorders

- Some FASD facts
 - Descriptive term, not a diagnosis
 - Caused by prenatal alcohol exposure
 - We don't know how much alcohol is necessary
 - Manifested in a variety of ways in children
 - Physical problems
 - Behavioral problems
 - Learning problems
 - Important to diagnose and treat
 - Secondary problems possible (e.g., school, work, legal)
 - Costly health problem
 - Emotional and financial (\$6 billion a year to care for FASD)
- 100% preventable

Why do Pregnant Women Drink Alcohol?

- Unaware that they are pregnant
- Social expectations – special events, holidays
- Know other women who drank during pregnancy and who have children who appear outwardly to be healthy
- May not know how much harm alcohol can cause
- Use alcohol to cope with difficult life situations such as poverty, violence, isolation, despair, or depression
- Struggling with addiction

Addressing Prenatal Alcohol Use

- Psychosocial treatment is the first treatment option
 - Small number of clinic trials
 - Poor treatment compliance
 - Short duration of treatment
 - Pharmacotherapy may simply not work
-

Screening and Brief Intervention

- Well studied form of treatment to reduce problematic alcohol consumption
 - US Preventive Services Task Force Grade B recommendation (2004)
 - SBI to reduce alcohol misuse in adults, including pregnant women, in primary care settings
 - Small to moderate reductions that are sustained for 6-12 months
-

Pharmacologic Interventions for Pregnant Women in Alcohol Treatment

- Cochrane Systematic Review, 25 March 2009
 - Pharmacologic Treatments
 - Withdrawal and detoxification (benzodiazepines)
 - Help maintain abstinence (naltrexone, disulfiram)
 - Results
 - 31 of 793 citations reviewed
 - Not one RCT – no evidence based recommendations
 - Question is unanswered
-

Management of the Alcohol Dependent Pregnant Woman

- Detoxification protocols have been established (e.g., Vanderbilt)
- Evidence of dependence required
 - Sudden cessation of heavy consumption problematic
- Inpatient setting under medical supervision and in collaboration with an obstetrician
 - Close observation
- Meticulous history: prior detoxification, seizure activity, DTs, psychiatric and medical issues

Screening Tools for Prenatal Substance Use

Screening Tools

- Biomarkers

- Urine
- Serum
- Hair
- Breath
- Saliva

- Questionnaires

Considerations

- Cost
 - Convenience
 - Accuracy
 - Privacy
 - Efficiency
-

Drug Use

- Urine toxicology screening
 - Single question screen:
 - How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?
-

Cigarette Smoking

- Salivary cotinine levels using test strips
- Asking about cigarette use
 - Improve disclosure rates by asking more than “do you smoke?”
 - Examples
 - Fagerstrom Test for Nicotine Dependence
 - Multiple choice question (Crawford et al., 2008)

Multiple Choice Question

- A: I have never smoked or I have smoked <100 cigarettes in my lifetime
- B: I stopped smoking before I found out I was pregnant, and I am not smoking now.
- C: I stopped smoking after I found out I was pregnant, and I am not smoking now
- D: I smoke some now, but I cut down on the number of cigarettes I smoke since I found out I was pregnant
- E: I smoke regularly now, about the same as before I was pregnant

Alcohol Use

- **Breathalyzer**
 - Pattern of consumption, rapid metabolism
- **Serum biomarkers**
 - Probably not applicable for harmful, but lesser amounts of consumption
- **Questionnaires**
 - T-ACE
 - T-WEAK
 - AUDIT-C

T-ACE

- **T** How many drinks does it take to make you feel high (effects)?
- **A** Have people ever annoyed you by criticizing your drinking?
- **C** Have you ever felt you ought to cut down on your drinking?
- **E** Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hang-over?

Scoring the T-ACE

- T is given two points if the woman reports more than 2 drinks
- A, C, E get one point each for each “yes” reply
- T-ACE is positive with a score of 2 or more

T-WEAK

- How many drinks can you hold? (Tolerance) *or*
How many drinks does it take before you begin to feel the first effects of alcohol (“high” version) ?
- Have close friends or relatives worried or complained about your drinking in the past year?
- Do you sometimes take a drink in the morning when you first get up? (Eye-opener)
- Has a friend or family member ever told you things you said or did while you were drinking that you could not remember? (Amnnesia)
- Do you sometimes feel the need to cut down on your drinking? (Cut-down)

Scoring the T-WEAK

- Score of 2 or more is positive
 - Tolerance, > 5 drinks, 2 points
 - High version, > 2 drinks, 2 points
 - Worry, yes, 2 points
 - Yes to the last 3 questions, 1 point

AUDIT-C 1

- How often have had a drink containing alcohol in the past year?
 - Never 0 point
 - Monthly or less 1 point
 - 2-4 times a month 2 point
 - Weekly 3 point
 - Daily or almost daily 4 point

AUDIT-C 2

- How many drinks did you have on a typical day when you were drinking in the past year?
 - 1 or 2 0 point
 - 3 or 4 1 point
 - 5 or 6 2 points
 - 7-9 3 points
 - ≥ 10 4 points

AUDIT-C 3

- How often did you have six or more drinks on one occasion during the past year?
 - Never 0 point
 - < Monthly 1 point
 - Monthly 2 points
 - Weekly 3 points
 - Daily or almost daily 4 points

- Positive if ≥ 3

What to Do with a Positive Screen?

- Opportunity for clarification
 - Not an indictment!
 - Not a diagnosis!
 - Clinical Discussion
 - Refer to Assessment
 - Offer or refer to a Brief Intervention
-

The Nine Months of Living Anxiously

Dare I dye my hair? Drink coffee? Get a tan?



Prevention & Treatment

Resources to help you!

By: Margo B. Singer, MPA

FASD State Coordinator

New York State Office of Alcoholism & Substance Abuse Services

Drinking and Reproductive Health: A FASD Prevention Tool Kit

Available from the American College of Obstetricians & Gynecologists (ACOG)
http://www.acog.org/from_home/misc/dept_pubs.cfm Contains:

- Clinician's Guide Drinking and Reproductive Health
- **Patient Handouts - Drinking and Reproductive Health**
 - Before You Get Pregnant
 - Contracts
 - If You're Pregnant
 - If You Are Not Planning to Get Pregnant
 - Is Someone Special Having a Baby
 - My Plan for Alcohol
 - My Plan for Birth Control
- **Clinician Tools - Drinking and Reproductive Health**
 - Additional Screening and Intervention Tools
 - Assess Readiness to Change
 - Standard-Sized Drink Equivalents Card
 - Strategies for Change

NIAAA resources

Information on screening tools for women (NIAAA):

http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm

<http://pubs.niaaa.nih.gov/publications/arh25-3/204-209.htm>

Helping Patients Who Drink Too Much: (see next slide)

http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm

Drinking and Your Pregnancy (2006): This NIAAA brochure for pregnant women explains the dangers of drinking alcohol while pregnant.

http://pubs.niaaa.nih.gov/publications/DrinkingPregnancy_HTML/pregnancy.htm

More resources

The National Center for Education in Maternal and Child Health has produced a set of guidelines called "[Screening for Substance Abuse During Pregnancy: Improving Care, Improving Health](#)" (*PDF link on the OASAS website*)

FASD Center for Excellence. "Task 6: Identifying Promising FASD Practices: Review and Assessment Report"
<http://fascenter.samhsa.gov/index.cfm>

The National Abandoned Infants Assistance Resource Center has a monograph on "Prenatal Alcohol Exposure"
http://aia.berkeley.edu/publications/fact_sheets.php

TIPS- Treatment Improvement Protocols

- Treatment Improvement Protocols (TIP #2) "Pregnant, Substance-Using Women". This report defines guidelines that reflect state-of-the-art scientific and clinical knowledge on effective treatment practices and care for pregnant addicts. The information in this TIP is intended to guide and instruct a broad spectrum of service providers who care for pregnant, substance-using women and their families.
- Treatment Improvement Protocol (TIP #5) "Improving Treatment for Drug-Exposed Infants". Guidelines and standards of care in monitoring and evaluating programs treating drug-exposed infants are examined in this report. Although the substantial crisis of *in utero* exposure to alcohol is discussed, it is not the focal concern of this TIP. In addition, this TIP highlights medical and psychosocial services for drug-exposed infants up to 18 months of age and their families.
- A Training Manual: TIPs on Assisting Service Providers to Appropriately Respond to the Needs of the Pregnant and Substance-using Woman and Her Alcohol/Drug-exposed Infant. This training, based on SAMHSA TIPS Manuals 2 and 5, is designed for all individuals addressing the special needs of the pregnant and substance-using woman as well as her alcohol or alcohol/drug exposed infant. The training consists of seven modules.

More TIPS

- **TIP 51: Substance Abuse Treatment: Addressing the Specific Needs of Women.** Published 12/2009
- Assists treatment providers in offering treatment to adult women with substance use disorders. Reviews gender-specific research and best practices, such as common patterns of initiation of substance use among women and specific treatment issues and strategies.

<http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=hssamhsatip&part=tip51>

- The process for a new TIP on FASD has just been started. It may not be available for another 1-2 years.

“Recovering Hope” DVD

- For use by women in treatment and/or recovery programs
- Is shown in two ½ parts (one hour total)
- Comes with Facilitator’s Discussion Guide and client brochures
- Can be ordered on-line (while supplies last) from: <http://www.ncadi.samhsa.gov>

Web Links

- **NYS Office of Alcoholism & Substance Abuse Services (NYS OASAS):** www.oasas.state.ny.us/fasd
- **SAMHSA FASD Center for Excellence:** www.fascenter.samhsa.gov
- **Centers for Disease Control and Prevention FAS Prevention Team:** www.cdc.gov/ncbddd/fas
- **National Institute on Alcohol Abuse and Alcoholism (NIAAA):** www.niaaa.nih.gov/
- **HRSA Maternal and Child Health Bureau:** <http://www.mchb.hrsa.gov/>

You Can Make A Difference!

- Refer women to call the OASAS Helpline at **1-877-8 HOPE NY**. This toll-free service provides crisis and motivational counseling for callers in need, as well as follow-up calls 48 hours later for those who wish to be contacted.
- **Addiction treatment programs licensed and funded by the NYS OASAS are required under law to accept pregnant women, or refer them to a treatment program that will be able to admit them.**
- Many OASAS-certified programs offer gender-specific services tailored to the needs of women. Information can be obtained from OASAS Field Office staff serving your community.

OASAS provider resources

TREATMENT PROGRAMS:

- Inpatient
- Outpatient
- Residential

We also have:

- Addiction Treatment Centers (ATCs)
- Prevention- school and community based
- Recovery Centers

OASAS Field Offices

- **Bronx Field Office**
- Phone: (646) 728-4544

- **Brooklyn Field Office**
- Phone: (646) 728-4549

- **Upper Manhattan Field Office**
- Phone: (646) 728-4566

- **Lower Manhattan Field Office**
- Phone: (646) 728-4561

- **Queens/Staten Island Field Office**
- Phone: (646) 728-4592

- **Long Island Field Office**
- Phone: (631) 434-7263

OASAS Field Offices (continued)

- **Central Field Office**
- Phone: (315) 428-4113

- **Finger Lakes Field Office**
- Phone: (585) 454-4320

- **Mid-Hudson Field Office**
- Phone: (518) 485-1484

- **Northeastern Field Office**
- Phone: (518) 485-1660

- **Western New York Field Office**
- Phone: (716) 847-3037

**Margo B. Singer, MPA
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Next Steps for CHWs

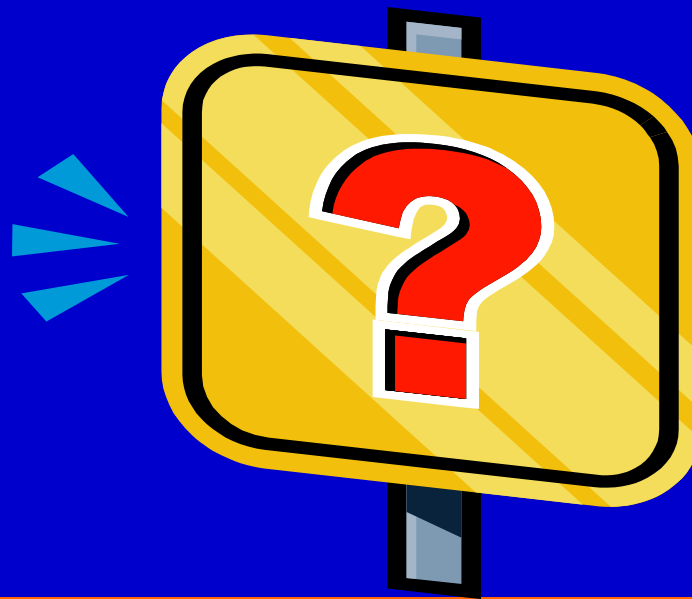
Presented by: Michelle Gerka
Vice President, Cicatelli Associates Inc.

Next Steps:

- The need to assess our pregnant clients for Substance Use and Tobacco is a priority area for the Community Health Worker Program.
- We know that this skills is important and challenging.
- Our presenters today have given us a great deal of important information to consider.

- Over the next month, New York State Department of Health in consultation with Cicatelli Associates, Dr. Chang and Margo Singer, will be selecting a Substance Use Screening tool that all Community Health Worker Programs will begin utilizing.
- Cicatelli will be offering three to four full day trainings throughout the state to assist Community Health Workers with the implementation of this Screening Tool.
- The trainings will be offered in the spring of 2011.

- A section of the upcoming Supervisory Training on November 4th and 5th will discuss this initiative.
- More information will be forthcoming.



Thank you!

<http://www.cicatelli.org/chw/>
