

# Addiction and Pregnancy

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# Addiction and Pregnancy

Fear

Shame

Commitment

Barriers

Opportunities

# Addiction and Pregnancy

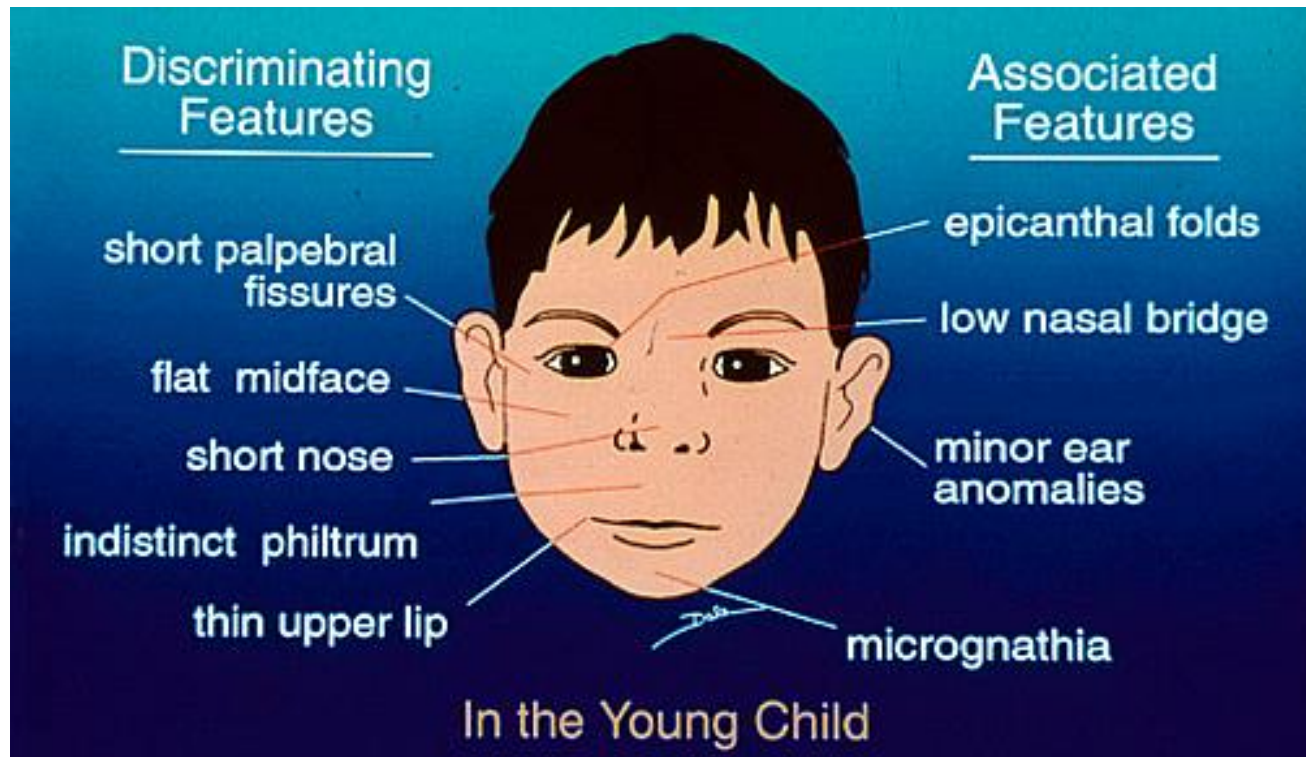
## Fear



Thalidomide induced phocomelia 1957

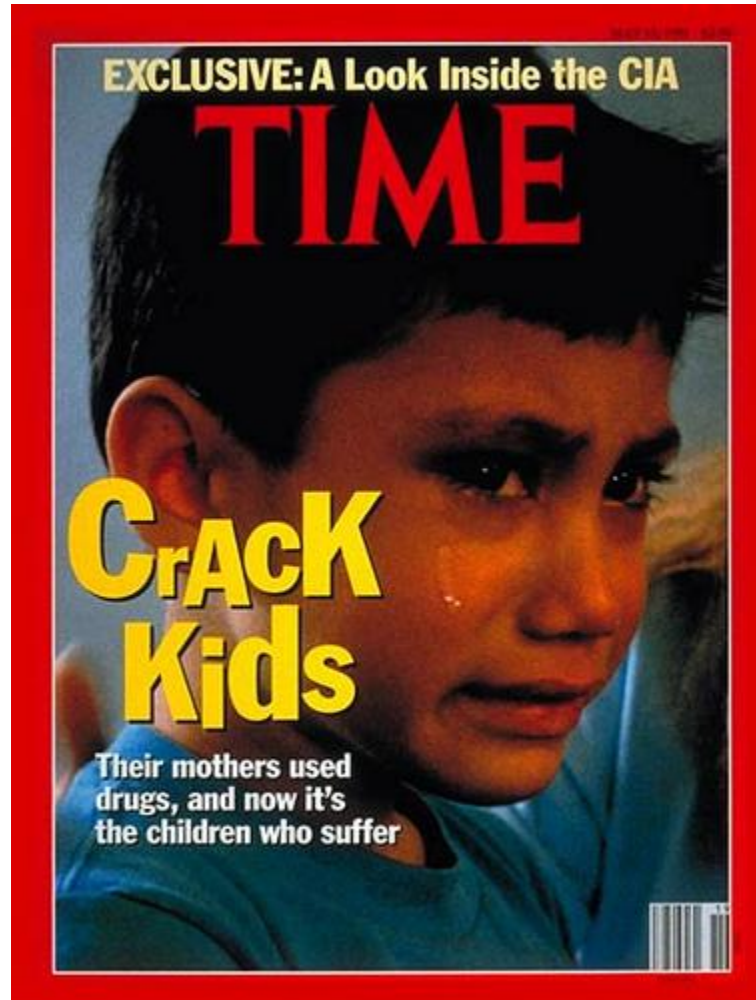
# Addiction and Pregnancy

## Fear



# Addiction and Pregnancy

## Fear



"[t]heirs will be a life of certain suffering, of probable deviance, of permanent inferiority"

Charles Krauthammer  
Washington Post 1989

# Addiction and Pregnancy

Potential harmful effects of substances

teratogen / birth defects

placental insufficiency

neurodevelopmental effects

# Addiction and Pregnancy

## Birth Defects

... probably not  
or  
... at least not much

Comparing women for whom cocaine was the only drug of abuse in pregnancy with drug free controls, the relative risk was 1.70. After exposure during pregnancy to cocaine plus other addictions (heroin, marijuana, methadone, etc) relative risk was 2.1.

When we used women exposed to polydrugs without cocaine as the control, we were not able to identify a significant risk for major malformations.

# Addiction and Pregnancy

## Birth Defects

... probably not  
or  
... at least not much

Therapeutic opioid use was reported by 2.6% of 17,449 case mothers and 2.0% of 6701 control mothers.

Statistically significant associations  
conotruncal septal defects OR 2.7  
atrioventricular septal defects OR 2.0  
hypoplastic left heart syndrome OR 2.4  
spina bifida OR 2.0  
gastroschisis OR 1.8

ACOG: Methodological problems with the study exist. The observed birth defects remain rare with a minute increase in absolute risk.



# Addiction and Pregnancy

Placental insufficiency

preterm labor

low birth weight

placental abruption

fetal demise

stimulants cause  
vasoconstriction  
leading to decreased  
placental perfusion.

# Addiction and Pregnancy

Placental insufficiency

preterm labor

low birth weight

placental abruption

fetal demise

On average, a baby of a mother continuing to use cocaine into the 3<sup>rd</sup> trimester is 1 lb smaller than non users, but still within normal limits.

# Addiction and Pregnancy

Placental insufficiency

4 x preterm labor

5 x low birth weight

10 x placental abruption

5 x fetal demise

# Addiction and Pregnancy

Placental insufficiency

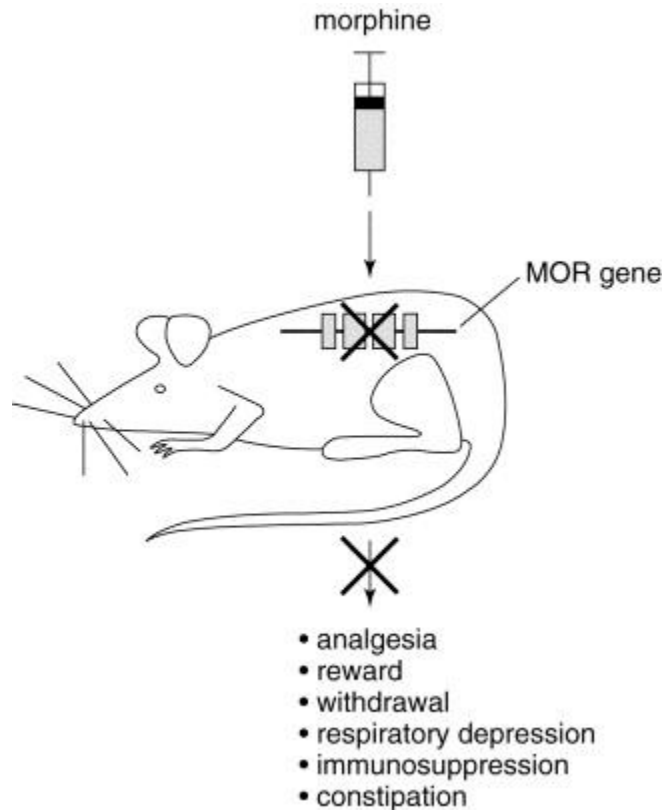
cocaine

methamphetamine

tobacco

# Addiction and Pregnancy

## Neurodevelopmental Effects



# Addiction and Pregnancy

## Neurodevelopmental Effects

It is difficult to find a proper comparator group

Excluding alcohol, deficits in global assessments (IQ, Bayley) have not been clearly attributed to substances

Some subscores in some subsets of children have been statistically significantly below normal

*All studies confirm that growing up in a using household impacts intelligence and emotional well being*

# Addiction and Pregnancy

## Neurodevelopmental Effects

83 children born to heroin-dependent mothers  
76 children born to heroin-dependent fathers  
50 children with environmental deprivation  
50 normal children from moderate or high socioeconomic class  
80 healthy children from kindergartens in Jerusalem

significant neurological damage noted in

5 children (6.0%) among the children born to heroin-dependent mothers  
6 children (7.9%) among those born to heroin-dependent fathers.

The children born to heroin-dependent mothers had a lower birth weight and a lower head circumference at examination when compared to controls.

The developmental outcome of children born to heroin-dependent mothers, raised at home or adopted. *Child Abuse Negl.* 1996 May;20(5):385-96. Ornoy A

# Addiction and Pregnancy

## Neurodevelopmental Effects

Children born to heroin-dependent parents had a high incidence of hyperactivity, inattention, and behavioral problems.

The lowest Bayley or IQ was in the children with environmental deprivation, next was children born to heroin-dependent fathers, then children born to heroin-dependent mothers.

Children adopted at a very young age were found to function similarly to the controls while those not adopted functioned significantly lower.

**Developmental delay and behavioral disorders among children born to drug-dependent parents may primarily result from environmental deprivation and the fact that one or both parents are addicted.**

The developmental outcome of children born to heroin-dependent mothers, raised at home or adopted. Child Abuse Negl. 1996 May;20(5):385-96. Ornoy A



# Addiction and Pregnancy

To promote the well being of a baby whose mother is using illicit substances

shift focus from birth defects and brain defects

# Addiction and Pregnancy

To promote the well being of a baby whose mother is using illicit substances

prevent obstetrical harms

promote a sober environment for child raising

# Addiction and Pregnancy

## Shame

I couldn't possibly be pregnant. I'm sure I'll miscarry anyway.  
I want to quit (on my own) before I see the doctor.  
My inability to quit means I don't care about my baby.

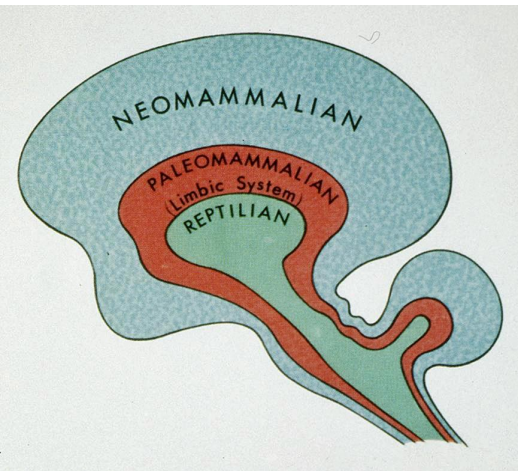
The mother is  
desperate to hear that  
the baby is OK

# Addiction and Pregnancy

## Commitment

Pregnant women are usually very determined to quit using, but...

determination may not help that much



# Addiction and Pregnancy

## Commitment

Pregnant women are usually very determined to quit using, and...

pregnancy will often move the woman  
from contemplation to action

# Addiction and Pregnancy

## Barriers

Physical / emotional challenges of pregnancy & parenting

Need for social supports

Desire for a nuclear family

# Addiction and Pregnancy

## Opportunities

CUPW Hospital based acute stabilization 26 days

PPW 6 month residential mother baby program

OTP methadone / buprenorphine treatment

Buprenorphine Prescriber

Outpatient Treatment Program

Case Management: Parent Child Assistance Program

Maternal Support Services

# Addiction and Pregnancy



## Outreach Prenatal Clinic

Every Tuesday from 12:30 until 4 p.m

Swedish Cherry Hill Family Medicine

550 16th Ave

Suite 100

Seattle, WA 98122

206 320 2484

aboutreach.net

## Outreach Prenatal Clinic

A Supportive Program for  
Pregnant Women and Their Families

*Providing compassionate care for over 30 years*



### Swedish Family Medicine/Cherry Hill offers:

- Comprehensive medical care and patient education for pregnancy, post-partum care, baby care, breastfeeding, family planning, care of older children, dealing with stress, chemical dependency, domestic violence and more
- On-site social workers provide group or individual counseling, group activities, peer support and community referrals for hospital care, local government agencies, service providers and more
- Nurses and outreach workers from Public Health Seattle & King County are also available through a collaborative relationship
- Walk-in appointments every Tuesday from noon until 4 p.m. at the Cherry Hill campus

### The Swedish team includes:

- Family Medicine physicians
- Physicians, nurses and social workers specializing in high-risk pregnancies, addiction medicine and chemical dependency

*If you are pregnant and haven't been able to obtain prenatal care, come to the clinic between noon and 4 p.m. any Tuesday and you will be seen.*

**Call 206-320-2999 for more information.**

SWEDISH FAMILY MEDICINE

Cherry Hill  
550 16th Ave., Suite 100  
Seattle, WA 98122  
www.swedish.org



# Opioids in Pregnancy

Poor fetal growth

Preterm birth

Low birth weight

Preterm premature rupture of membranes

Antepartum hemorrhage

Maternal infections

# Opioids in Pregnancy

Poor fetal growth

Preterm birth

Low birth weight

Preterm premature rupture of membranes

Antepartum hemorrhage

Maternal infections

Use of other illicit drugs

Poor prenatal care

Social adversity

Many of these adverse effects are felt to be secondary to poor health behaviors combined with repeated episodes of in utero opioid withdrawal.

# Addiction and Pregnancy

## Opioid Withdrawal

### Early

Agitation  
Anxiety  
Muscle aches  
Increased  
tearing  
Insomnia  
Runny nose  
Sweating  
Yawning

### Severe

Abdominal  
cramping  
Diarrhea  
Dilated pupils  
Goose bumps  
Nausea  
Vomiting

### Fetal

increased movements  
passage of meconium  
bradycardia  
  
miscarriage  
preterm delivery  
intra-uterine fetal demise

# Addiction and Pregnancy

## Opioid Use Disorder

Methadone and buprenorphine treatment are the standards of care.

Leading to improved obstetrical outcomes, approaching population norms.

# Addiction and Pregnancy

## Methadone Treatment

leads to improved perinatal outcomes  
compared to women who continue active use

***The dilemma of methadone  
in pregnancy is we have to accept  
that opioid addiction is a real problem  
that we can neither wish nor will away.***

# Addiction and Pregnancy

## Methadone Treatment

Daily observed dosing at a treatment program

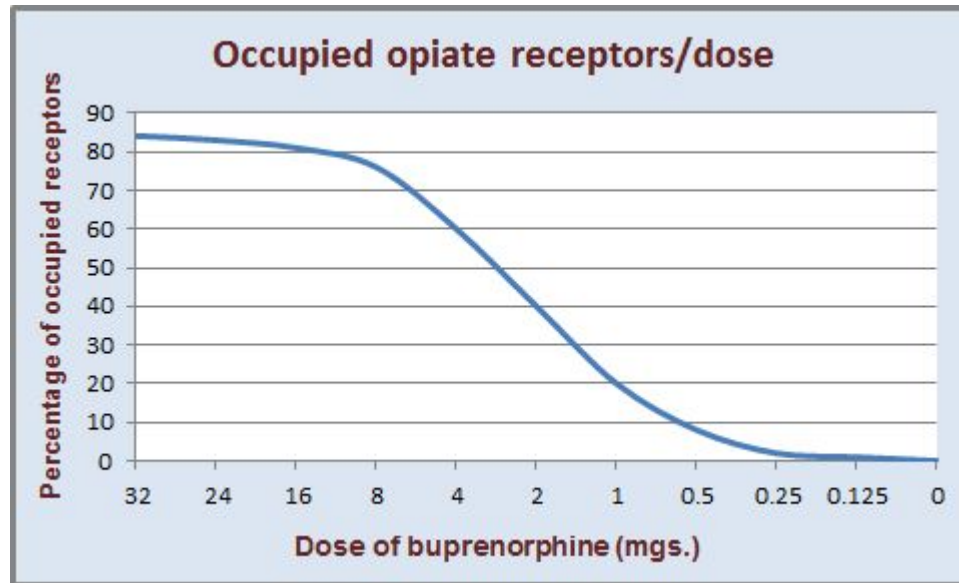
Typical dose of 80 - 120 mg daily has been shown to block heroin induced euphoria

Increased metabolism in pregnancy typically leads to need for dose increase in early pregnancy and again in early 3rd trimester.

Dose may need to be reduced postpartum.

# Addiction and Pregnancy

## Buprenorphine Treatment



Dose typically ranges from 4 to 24 mg daily

# Addiction and Pregnancy

## Buprenorphine Treatment

Suboxone (buprenorphine / naloxone) vs  
Subutex (buprenorphine mono)

Finding a prescriber

Sharing / Diverting

Doesn't work as well as methadone for some patients



# Addiction and Pregnancy

## Neonatal Abstinence Syndrome

Treated with controlled wean in the hospital

No known short term or long term harms

# Addiction and Pregnancy

## Neonatal Abstinence Syndrome

Traditionally lasts

3 weeks for moms on methadone,  
less for moms on buprenorphine

# Addiction and Pregnancy

## Neonatal Abstinence Syndrome

	# Babies	Treated for NAS	Peak Score	Total morphine dose	Length of NAS treatment	Total LOS
Buprenorphine	58	47%	11.0	<b>1.4 mg</b>	4.1 days	10 days
Methadone	73	57%	12.8	<b>10.4 mg</b>	9.9 days	17 days

Neonatal abstinence syndrome after methadone or buprenorphine exposure.  
N Engl J Med. 2010 Dec 9;363(24):2320-31 Jones HE

# Why not detox?

Over the past 20 years approximately 500 patients have been documented to undertake medically assisted withdrawal during all trimesters of pregnancy.

No fetal losses attributed to medically assisted withdrawal were observed, although monitoring protocols were inconsistent across the series.

Fetal safety alone should not be a barrier to offering women medically assisted withdrawal during pregnancy.

# Why not detox?

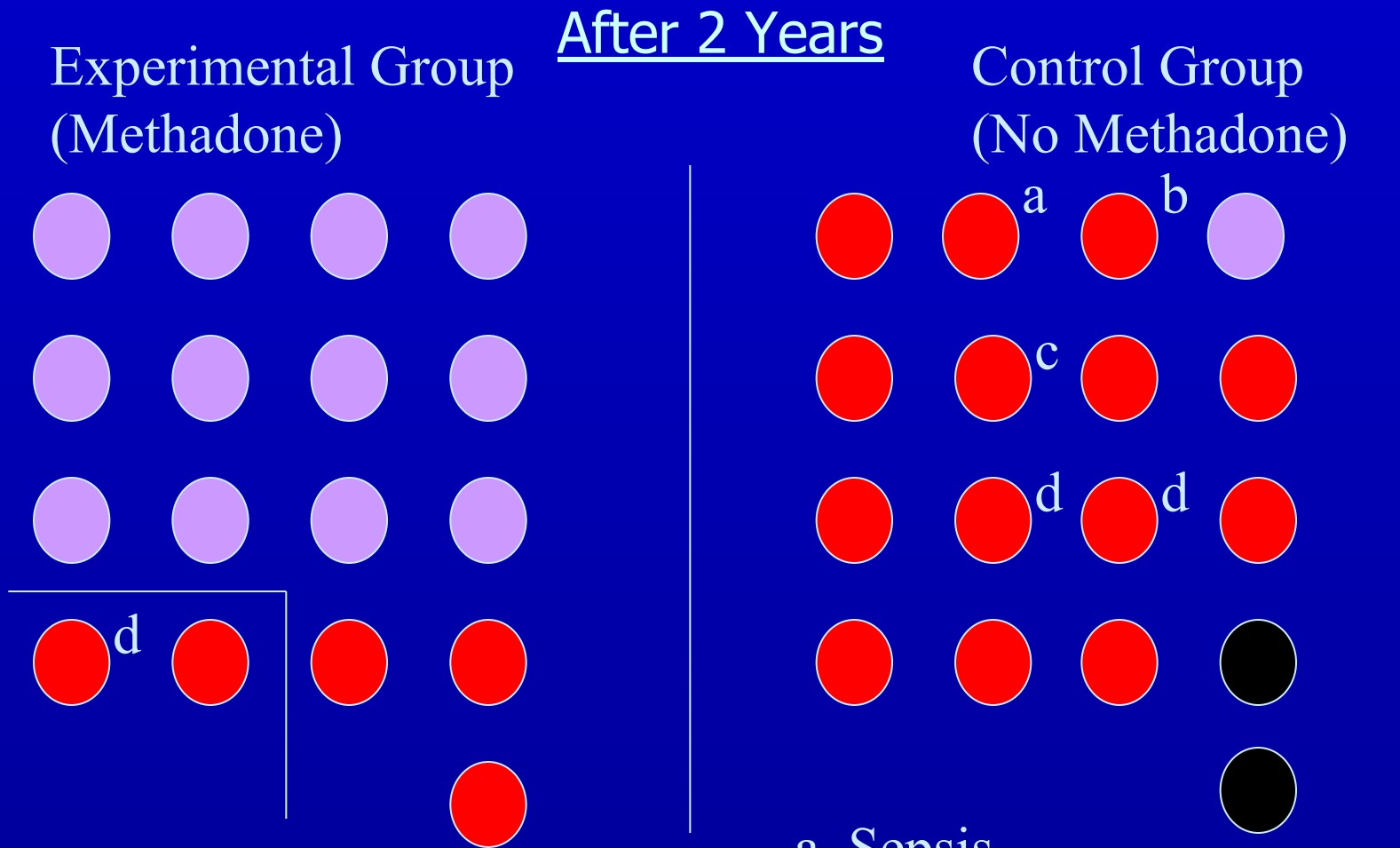
Relapse is the typical outcome.

These were all case series, not randomized data.  
Quality of data reported is concerning.

No study of medically assisted withdrawal has examined maternal outcomes into the postpartum period, a particularly vulnerable time for relapse.

The most important variable  
in the ability to retain custodial care of the newborn is  
relapse.

# Swedish Methadone Study



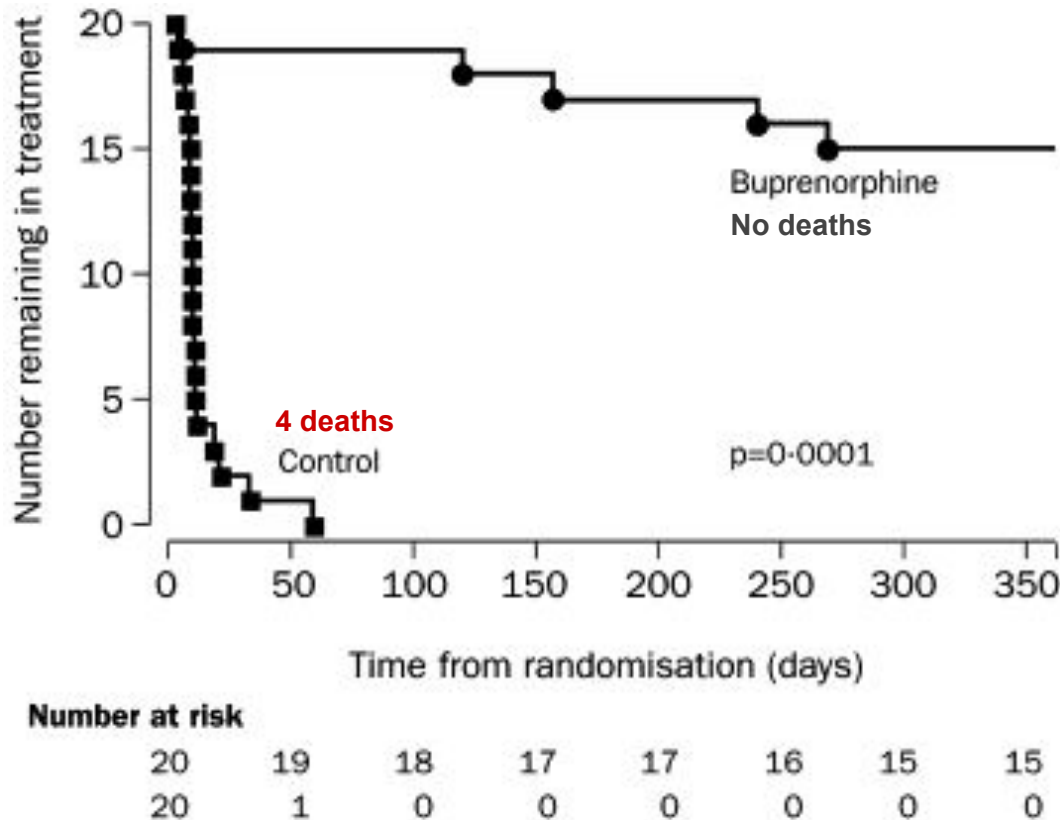
a Sepsis

b Sepsis and Endocarditis

c Leg Amputation

d In Prison

# Buprenorphine



40 patients randomly allocated either to daily 16 mg buprenorphine (supervised daily administration for a least 6 months, possible take-home doses thereafter) or a tapered 6 day regimen of buprenorphine, thereafter followed by placebo.

All patients participated in cognitive-behavioural group therapy to prevent relapse, weekly individual counselling sessions, and submitted thrice weekly supervised urine samples for analysis to detect illicit drug use.

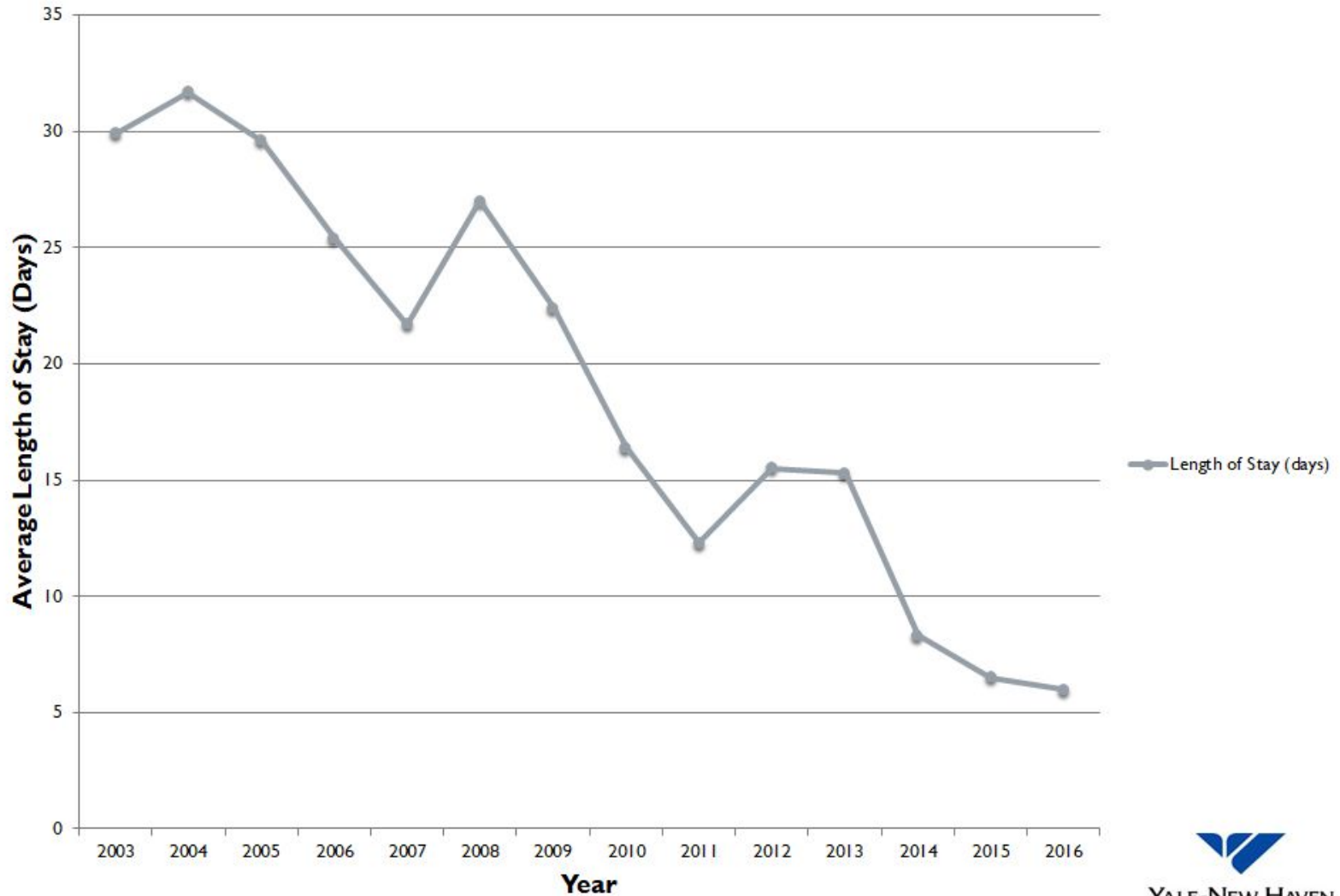
# American College of Obstetricians and Gynecologists

## Committee Opinion 2016

When opioid maintenance treatment is available,  
medically supervised withdrawal  
should be discouraged during pregnancy.



# Transforming NAS Care



# Breastfeeding

Yes!

Breastfeeding is safe for babies whose mothers are on methadone and buprenorphine.

Breastfeeding has been shown to reduce the severity and duration of neonatal abstinence.

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