

Antenatal mental health: an obstetric perspective

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Interests

- ◆ None to declare

outline

- ◆ Antenatal mental health & intergenerational effects
 - ◆ Resources
 - ◆ Change of practice?
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Intergenerational effects of deprivation and poverty



**THE 1001 CRITICAL DAYS
MANIFESTO** IS CALLING
FOR A REFOCUSING OF
SUPPORT FOR A BABY'S
FIRST 1001 DAYS.

IDENTIFYING NEED EARLY
IS CRITICAL TO PREVENTING
THE ABUSE AND NEGLECT OF
BABIES AND IMPROVING
THEIR EMOTIONAL
WELLBEING.

A BABY'S DEVELOPMENT
CAN BE DRAMATICALLY
IMPROVED WITH **EARLY
AND EFFECTIVE SUPPORT**
FOR PARENTS.

**PREGNANCY AND
THE SECOND YEAR**
ARE A CRITICAL
STAGE IN A CHILD'S
DEVELOPMENT.

**DAMAGE EARLY
ON CAN CAUSE
STRESS-RELATED
CONDITIONS IN
ADULT LIFE, SUCH AS
HEART DISEASE OR
SUBSTANCE ABUSE.**

**INFANTS AS YOUNG
AS ONE CAN EXPERIENCE
TRAUMA FROM WITNESSING
DOMESTIC ABUSE.**

**HIGH LEVELS OF STRESS
IN EARLY CHILDHOOD
CAN BE 'TOXIC' TO THE
DEVELOPING BRAIN.**

36%

**OF SERIOUS CASE
REVIEWS - INTO
DEATHS OR SERIOUS
ABUSE - INVOLVE A
CHILD UNDER ONE.**

26%

**OF BABIES IN THE UK HAVE
A PARENT AFFECTED BY
DOMESTIC VIOLENCE,
MENTAL HEALTH OR DRUG/
ALCOHOL PROBLEMS.**

DOMESTIC VIOLENCE AFFECTS

39,000 BABIES

**MENTAL HEALTH
PROBLEMS AFFECT
144,000
BABIES**


**DRUG OR ALCOHOL
PROBLEMS AFFECT
109,000
BABIES**

**AT LEAST ONE OF THESE
ISSUES APPEARS IN OVER
70% OF CASES WHERE A
BABY HAS BEEN KILLED
OR SERIOUSLY INJURED.**


**ADAPTED FROM THE
NSPCC'S 2011 ALL
BABIES COUNT CAMPAIGN**

NSPCC
Cruelty to children must stop. **FULL STOP.**

Prenatal stress associated in child with increased

- ◆ Anxiety & depression
 - ◆ Behavioural problems: ADHD, conduct disorder
 - ◆ Impaired cognitive development, esp. language
 - ◆ Sleep problems in infants
 - ◆ Neonatal behaviour
 - ◆ More difficult infant temperament
 - ◆ Victimisation in school
 - ◆ Schizophrenia
 - ◆ ? Autism
- 
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... associated with

- ◆ Reduced birth weight & GA
 - ◆ Mixed handedness
 - ◆ Altered finger print pattern
 - ◆ Decreased telomere length
 - ◆ Altered microbiome
 - ◆ Asthma
 - ◆ Altered immune function
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- A stylized, dark teal silhouette of a mountain range is positioned in the bottom right corner of the slide, extending from the right edge towards the center.


ALSPAC

Avon Longitudinal Study of Parents and Children

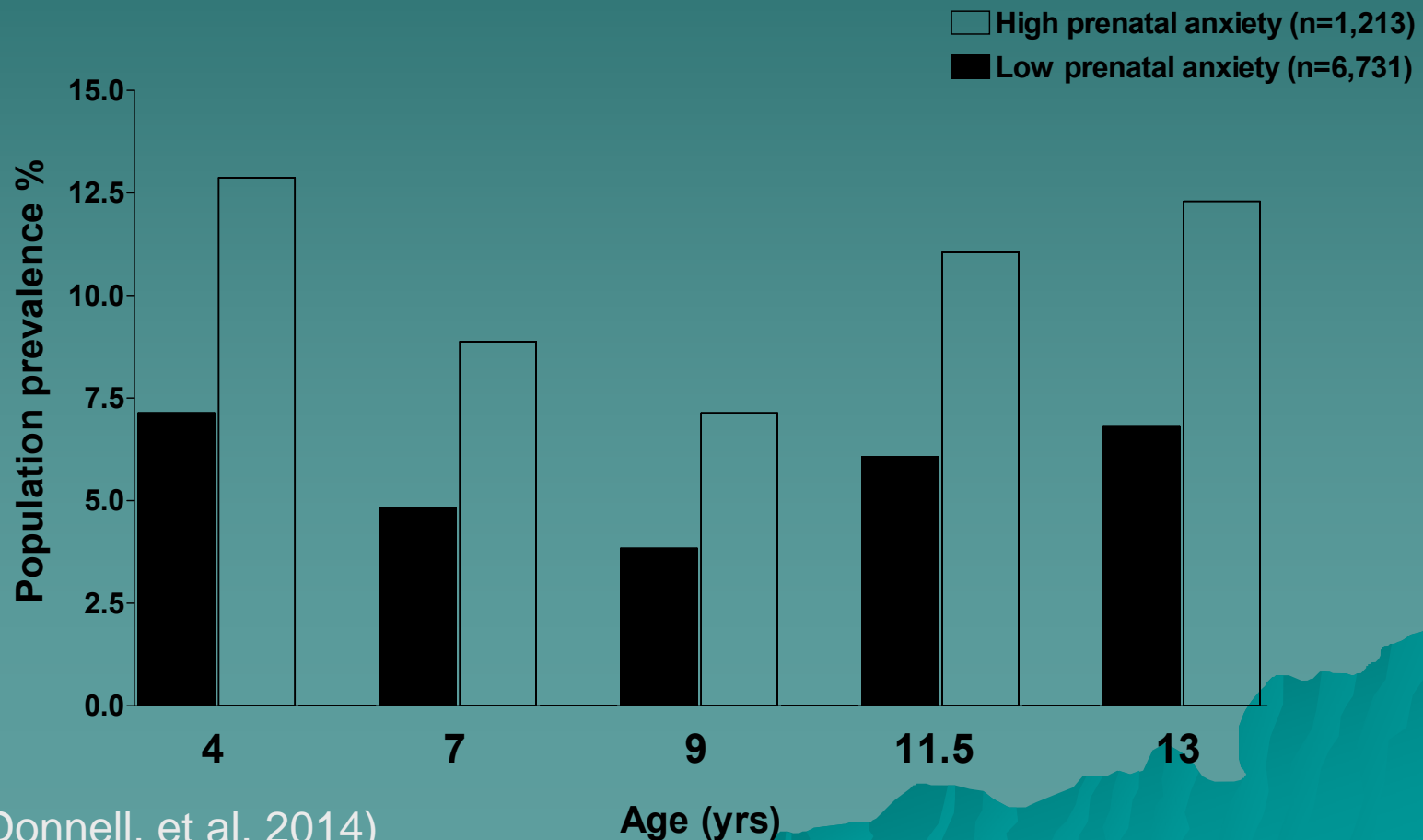
- ◆ Large prospective birth cohort
 - c. 14,000 pregnant woman
 - Recruited Bristol in 1990 - 1991
- ◆ Detailed information on children at 4, 7, 11 & 13 years old

Cohort with complete data

n = 7,363

- ◆ Maternal postnatal anxiety & depression
 - ◆ Paternal pre- and postnatal anxiety
 - ◆ Parenting
 - ◆ Maternal age & education
 - ◆ Birth weight
 - ◆ Smoking & alcohol
 - ◆ Psychosocial factors: crowding (SES)
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- A stylized, dark teal mountain range graphic is located in the bottom right corner of the slide, partially overlapping the last list item.

ALSPAC Predicted population prevalence of a probable mental health disorder in children born to high (top 15%: open bars) and low prenatal anxiety (full bars) mothers. Based on SDQ scores. Results similar with prenatal depression



(O'Donnell, et al. 2014)



DON'T LISTEN TO "OLD WIVES' TALES"

No shock can mark an unborn baby.
No horrible sight can deform him.

BUT

WORRY, FEAR and ANGER
may affect his mother's blood,
which supplies his food.

THEREFORE

she should be CALM, HAPPY
and SWEET-TEMPERED.

Educational poster for
expectant mothers

National Child Welfare
Association

1919

the age old question

Nature

OR

Nurture



the new question

Nature

AND

Nurture

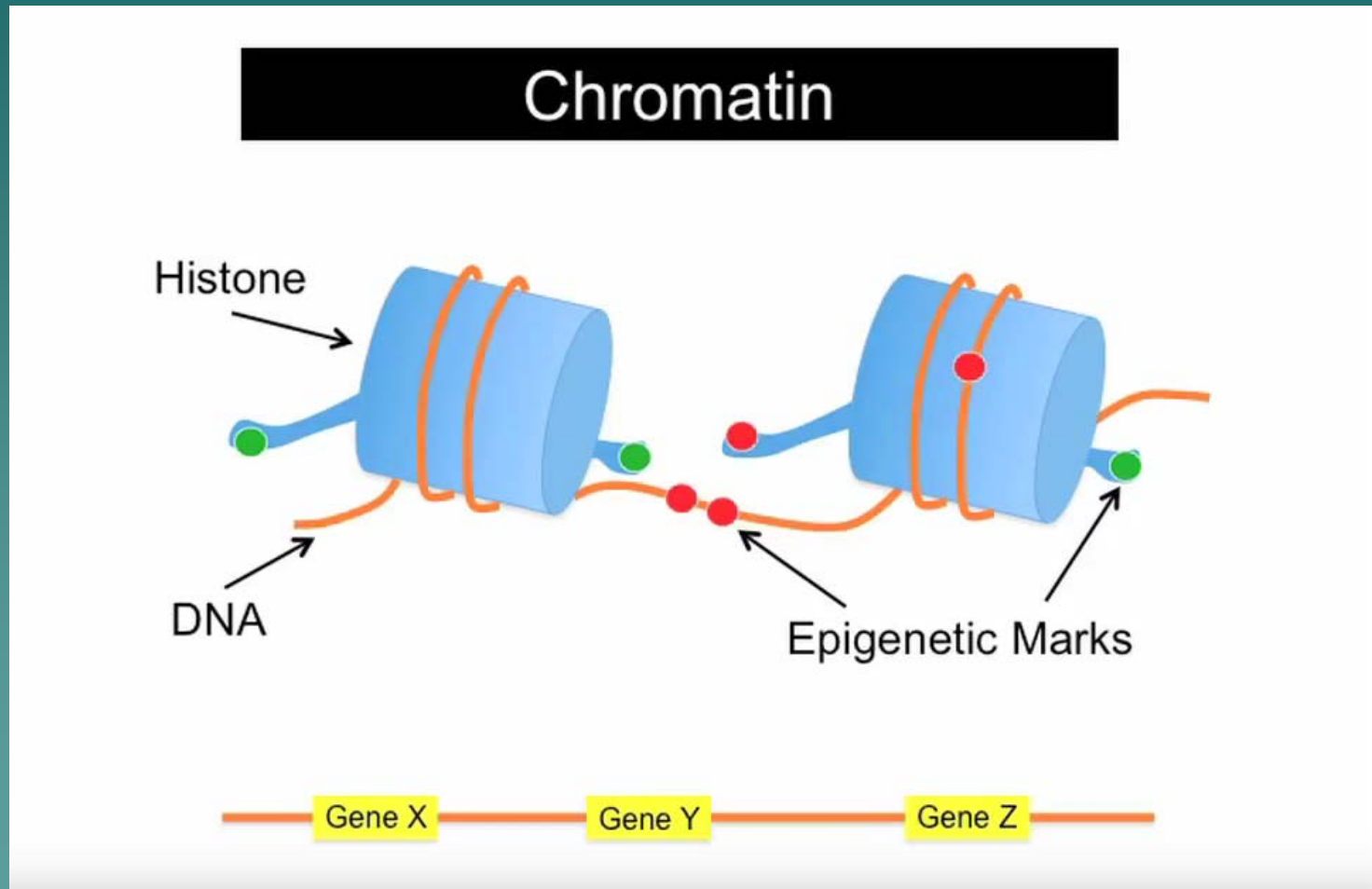


Epigenetics

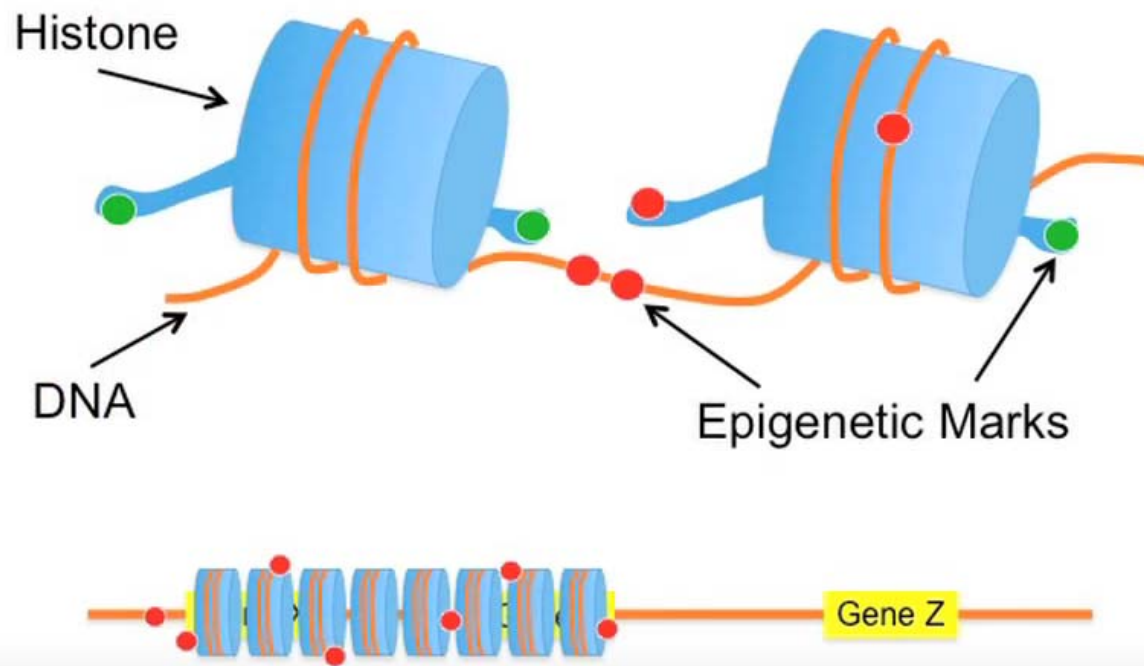
- ◆ Courtney Griffiths
– 2014

<https://www.youtube.com/watch?v=JTBg6hqeUTg>

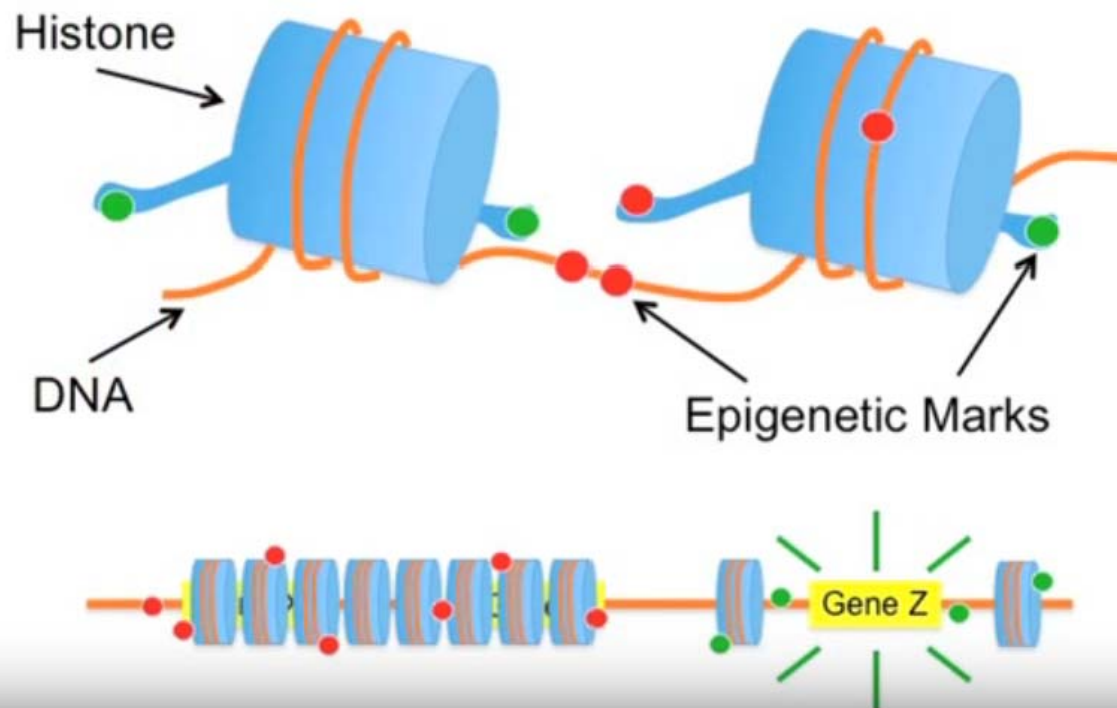
Histone modification



Chromatin



Chromatin



Modifiable by

- ◆ Meals
- ◆ Mind
- ◆ Muscle

The intra-uterine environment



Foetal programming

- ◆ Environment in the womb can alter the development of the fetus with a long lasting effect on the child
- ◆ *But it is not irreversible*

cortisol

◆ O'Donnell

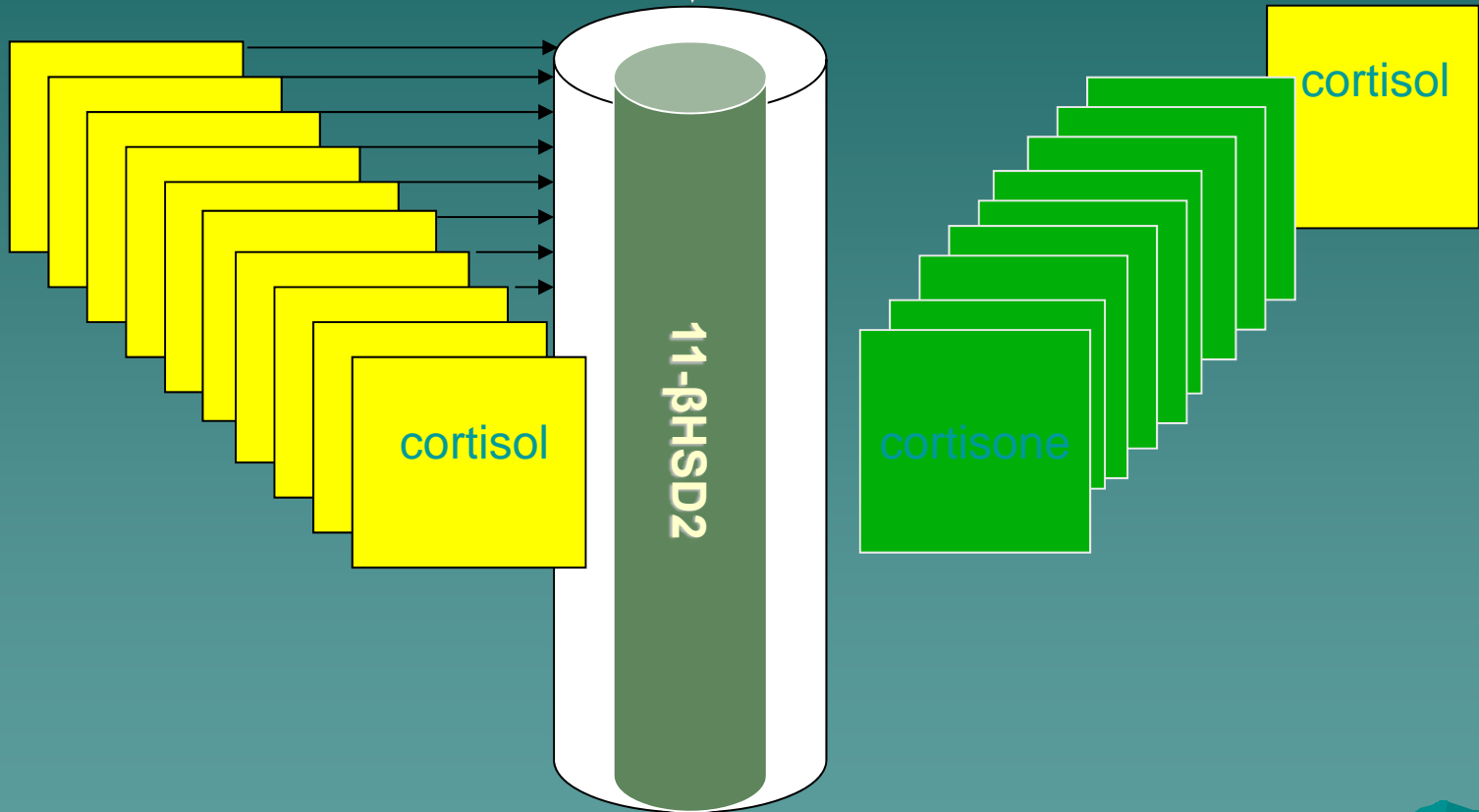
- 2011

- Animation

- <http://www.beginbeforebirth.org/thescience/placenta>

11- β HSD2

stress



Maternal

Placenta

Fetal

- ◆ Higher in utero exposure to cortisol is associated with lower cognitive function
- ◆ Sensitive early mothering can reverse the effects



Transgenerational inheritance

- ◆ When epigenetic 'marks' laid down on sperm / eggs
- ◆ Animal lab studies
- ◆ Dutch famine study
 - You are what your grandmother ate
- ◆ Male smoking <11 y.o. ALSPAC
 - 1st & 2nd generation

**Known costs of perinatal
mental health problems per year's
births in the UK, total: £8.1 billion**

LSE, 2014
The cost of perinatal mental
health problems



Of these costs

28%

relate to the mother

72%

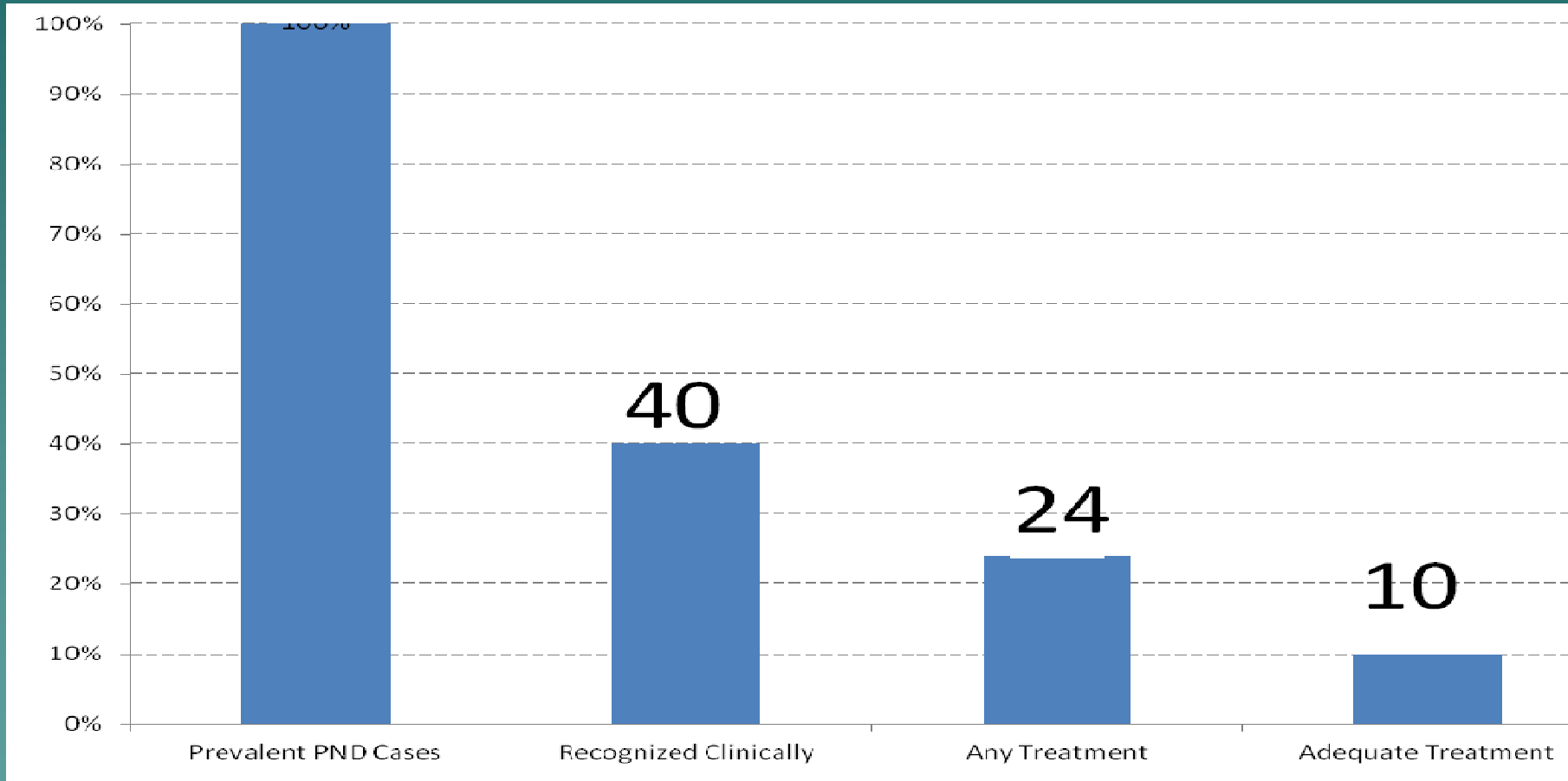
relate to the child



Costs v improvement

The cost to the public sector of perinatal mental health problems is **5 times** the cost of improving services.

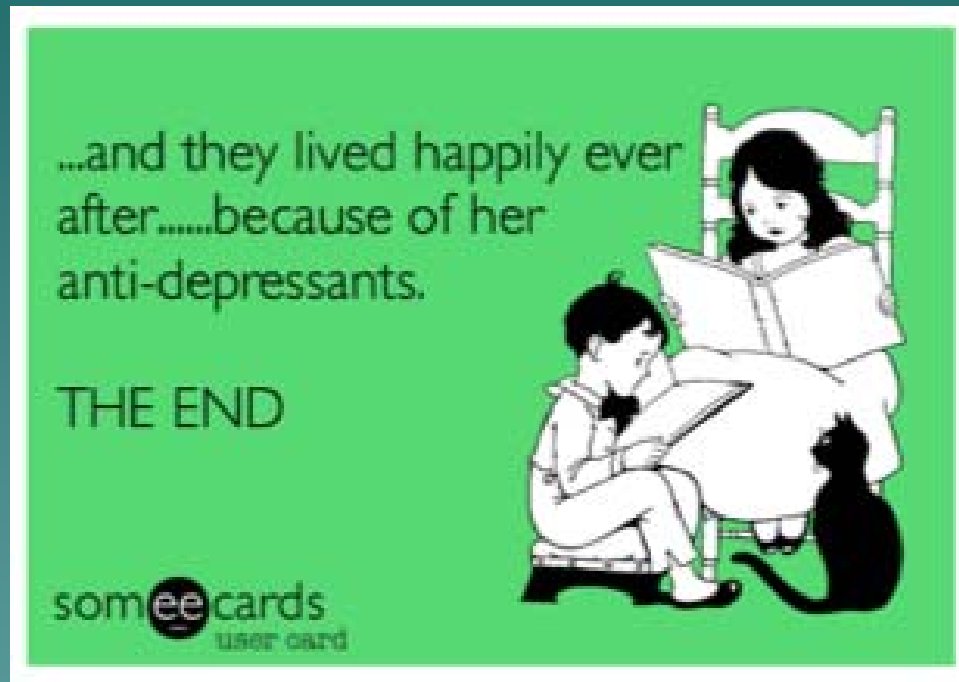
Perinatal depression care (from Gavin, Meltzer-Brody, Glover, and Gaynes 2015)



Prescribing in the perinatal period



(un)safe in pregnancy / lactation



Studies focus on risk & not benefit

resources

- ◆ <http://www.choiceandmedication.org/ncmh/>
- ◆ <http://www.uktis.org/>


What works with modern mums

- ◆ Facebook
 - ◆ App store
 - ◆ Netmums
 - ◆ Twitter
 - ◆ Online resources:
<http://www.twoinmind.org/what-we-do>
 - ◆ Dads
- 
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How women can help themselves

- ◆ Take time for themselves each day to relax
 - ◆ Yoga
 - ◆ Massage
 - ◆ Sitting down and listening to music
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in your ANC?

- ◆ Different for each mum
 - ◆ Discuss relationships & remember dads
 - ◆ Pregnancy: not just the medical / physical
 - ◆ Consider emotional transition
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in your wider practice?

- ◆ Pregnancy prevention?
 - Postnatal wards?
- ◆ Pre-conceptual counselling?
 - EPAU?

thank you

◆ Questions?

