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Workshop C

What does the evidence tell us?

Perinatal Mental Health, Attachment and the Development of the Child

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Professor Vivette Glover, Professor in Perinatal Psychobiology,
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Perinatal Mental Health, Attachment and the Development of the Child

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Independent Public
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#EIFEarlyYears

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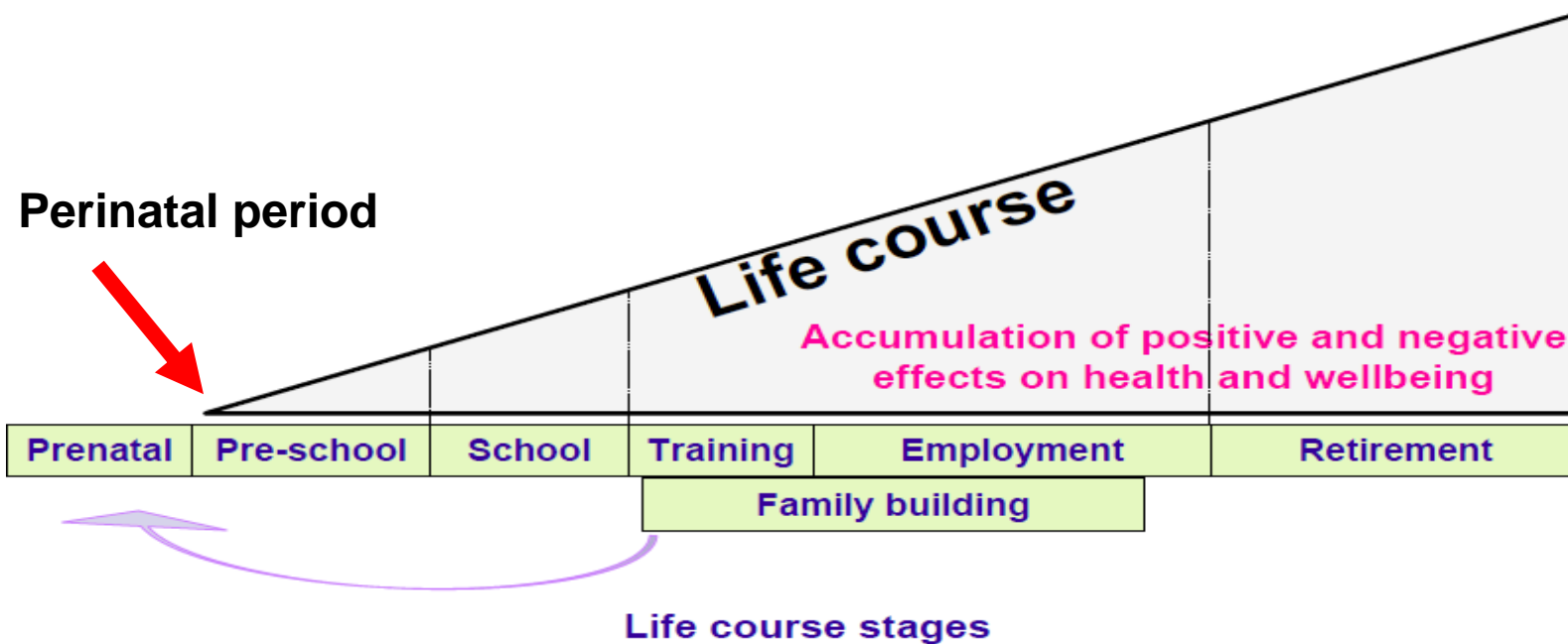
Giving Every Child the Best Start in Life is crucial to Reducing Health Inequalities

- Ensure high quality maternity services, parenting programmes, childcare and early years education to meet need across the social gradient
- Ensuring that parents have access to support during pregnancy is particularly important
- An integrated policy framework is needed for early child development to include policies relating to the prenatal period and infancy, leading to the **planning and commissioning of maternity, infant and early years family support services as part of a wider multi-agency approach to commissioning children and family services**





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Fair Society, Healthy Lives, 2010



Key factors for poor development outcomes

- **Parental depression***
- Parental illness or disability
- **Smoking in pregnancy***
- Parent at risk of alcoholism
- Domestic violence
- **Financial stress***
- Parental worklessness
- Teenage mother
- Parental lack of basic skills, which limits daily activities
- Household overcrowding

Teenage mother, smoking in pregnancy and parental depression frequently occur together

Associated with worst outcomes – cognitive emotional, conduct, hyperactivity, peer & pro-social

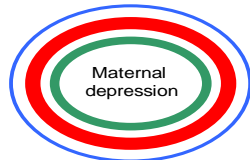
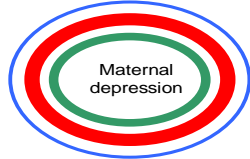
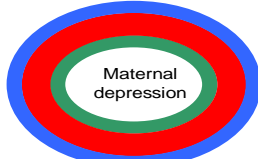
Analysis of MCS, Sabates & Dex, 2013



Predictive modelling: PREview

Analysis of Millennium Cohort Study Outcomes aged 5
(health, learning & development and behaviour)

Maternal depression – persistent or episodic

Health	Behaviour	Learning & Development
Child Age 9 months	Child Age 3 years	Outcome Age 5 years
✓	X	
X	✓	
✓	✓	



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EIF review for perinatal period (evidence 3 and above)

Attachment

Universal : Family Foundations

Targeted-selected: Family Nurse Partnership

Targeted-indicated: Infant Parent Psychotherapy

**However report did not focus on treating mothers
mental health problems – anxiety and depression
in antenatal and postnatal period**

Professor Vivette Glover, Professor in Perinatal Psychobiology, Imperial College London



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The importance of perinatal mental health and attachment for child development



Vivette Glover
Imperial College London

EIF July 2016

EIF Interventions focussed on improving attachment

- *Level 4*
 - Nurse Family Partnership-individual home visiting
 - Family Foundations-group
- Focus on couple relationship from antenatal period.
-
- *Level 3*
 - Parent infant Psychotherapy (PIP), and Infant Parent Psychotherapy.

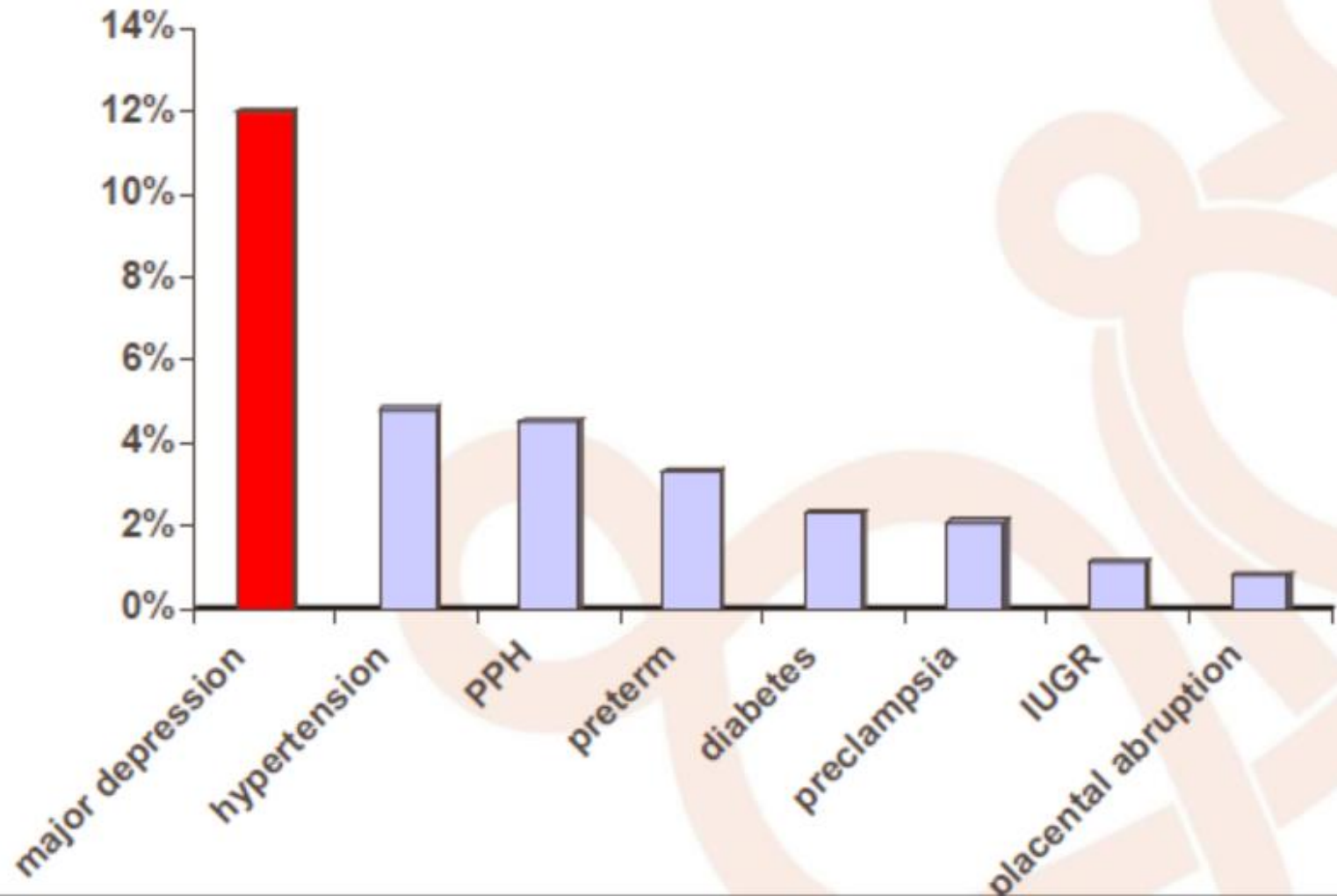


The mother's emotional state in pregnancy and in the early postnatal period can have a long lasting effect on her child



- Women have as many symptoms of depression and anxiety during pregnancy as postnatally
- Pregnancy can also be a time of increased domestic abuse and couple relationship strain

Depression: the most common major complication of maternity



From fetus



To child



Fetal programming

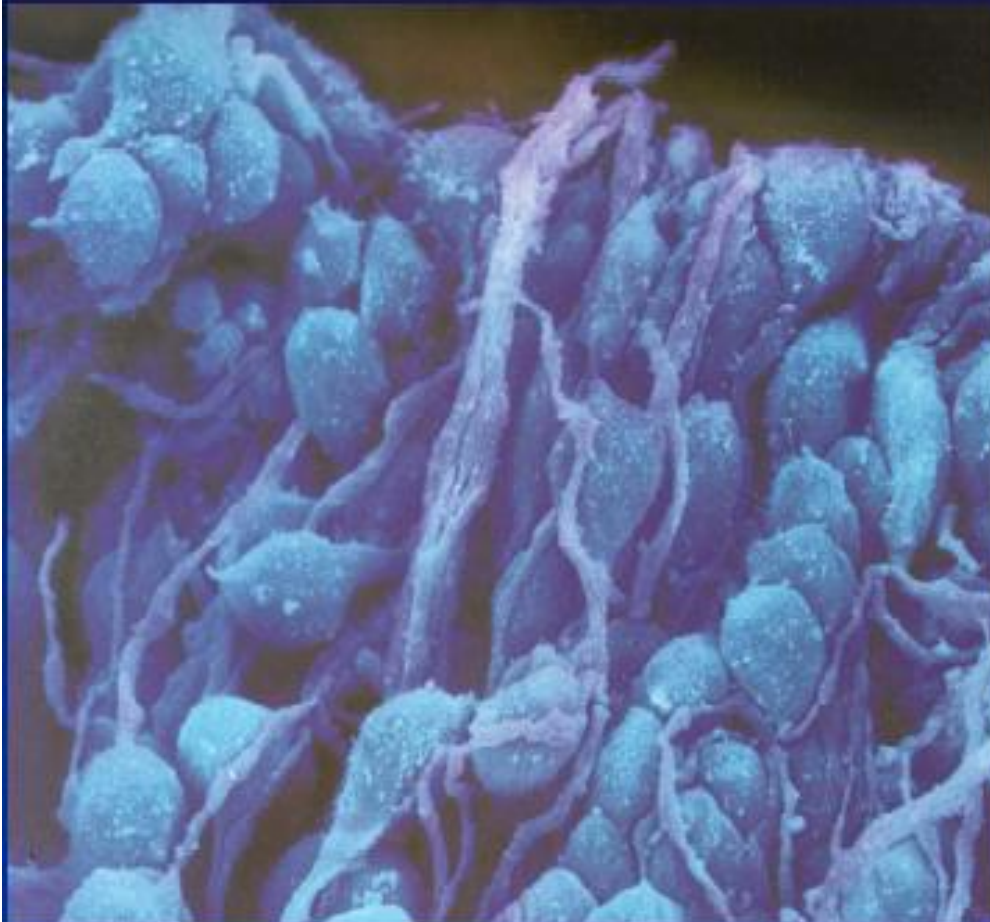
Environment in the womb,
during different sensitive periods
for specific outcomes,
can alter the development
of the fetus,
with lasting effects on the infant and
on the child.



Sensitive early mothering helps attachment,
and can counteract some of what happens in
the womb



The Fetal and Newborn Brain is “Under Construction”



- 3 mm long neural tube – whole brain with 100 billion neurons and 100 trillion connections
- 250,000 neurons/minute – all through gestation
- **Proliferation:** 5 wks gestation through 18 months after birth
- **Migration**
- **Differentiation**
- **Synaptogenesis**
- **Neural pruning:** continues till puberty...

Examples of antenatal stress reported to be associated with changes in development and behavior

- Maternal anxiety and depression
- Maternal daily hassles
- Pregnancy specific anxiety
- ***Partner or family discord***
- Distress caused by 6 day war in Israel, 1967
- Experience of acute disasters, e.g. freezing ice storm, hurricane or 9/11
- It's not just extreme or toxic stress or diagnosed mental illness

- Many of the women who are depressed while pregnant *have suffered early abuse themselves*, and are showing symptoms of PTSD.

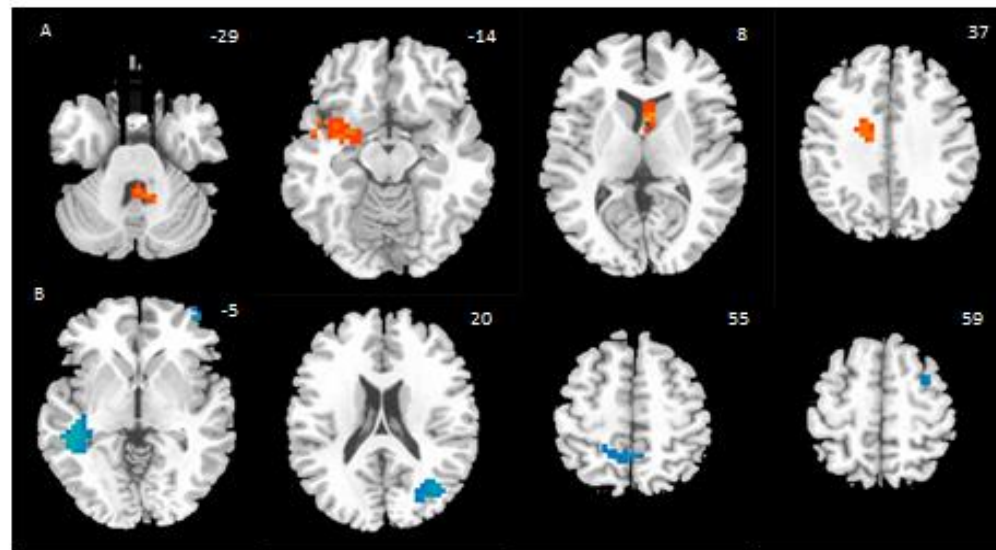
Antenatal stress associated with increased risk for :

- Anxiety and Depression
- Behavioural problems-ADHD, conduct disorder
- Impaired cognitive development
- Sleep problems in infants
- More difficult infant temperament
- Victimisation in childhood
- Schizophrenia, Autism

Mental disorder in the child at 13 years old

- For the children of the top 15% most anxious/depressed women in pregnancy, the rate of a **mental disorder** at age 13 years is doubled from about 6 to 12% (after statistical analysis allowing for a wide range of other possible factors).
- Effects similar with postnatal depression and additive.
- If mother is depressed/anxious antenatally and postnatally, risk of child having a mental disorder at 13 years is about 20%.

Antenatal in utero cortisol and fMRI
sustained attention response in children
age 6-9 years n=32 (areas with a
significant correlation $p < 0.01$)



Regions where *in utero* cortisol correlated with non-rewarded attention (positively – A): brainstem, superior temporal gyrus/insula/amygdala, caudate, and cingulate gyrus; and (negatively – B): middle temporal gyrus/hippocampus, middle occipital gyrus, precuneus, and middle frontal gyrus. Z coordinates are provided above each figure.

Attachment is a deep and enduring emotional bond that connects one person to another across time and space (Ainsworth, 1973; Bowlby, 1969).



Mothers who are depressed or anxious may find it hard to bond or to form attachments with their baby



Ainsworth's 'Strange Situation' Assessment

1. Parent and child are alone in a room.



2. Child explores the room without parental participation.



3. Stranger enters the room, talks to the parent, and approaches the child.



4. Parent quietly leaves the room.



5. Parent then returns and comforts the child.

Attachment Disorder

About 50% of children are securely attached

Insecure

20% Avoidant

15% Resistant

15% Disorganised

Of the insecurely attached *disorganised attachment* is the most serious-children often appear frightened

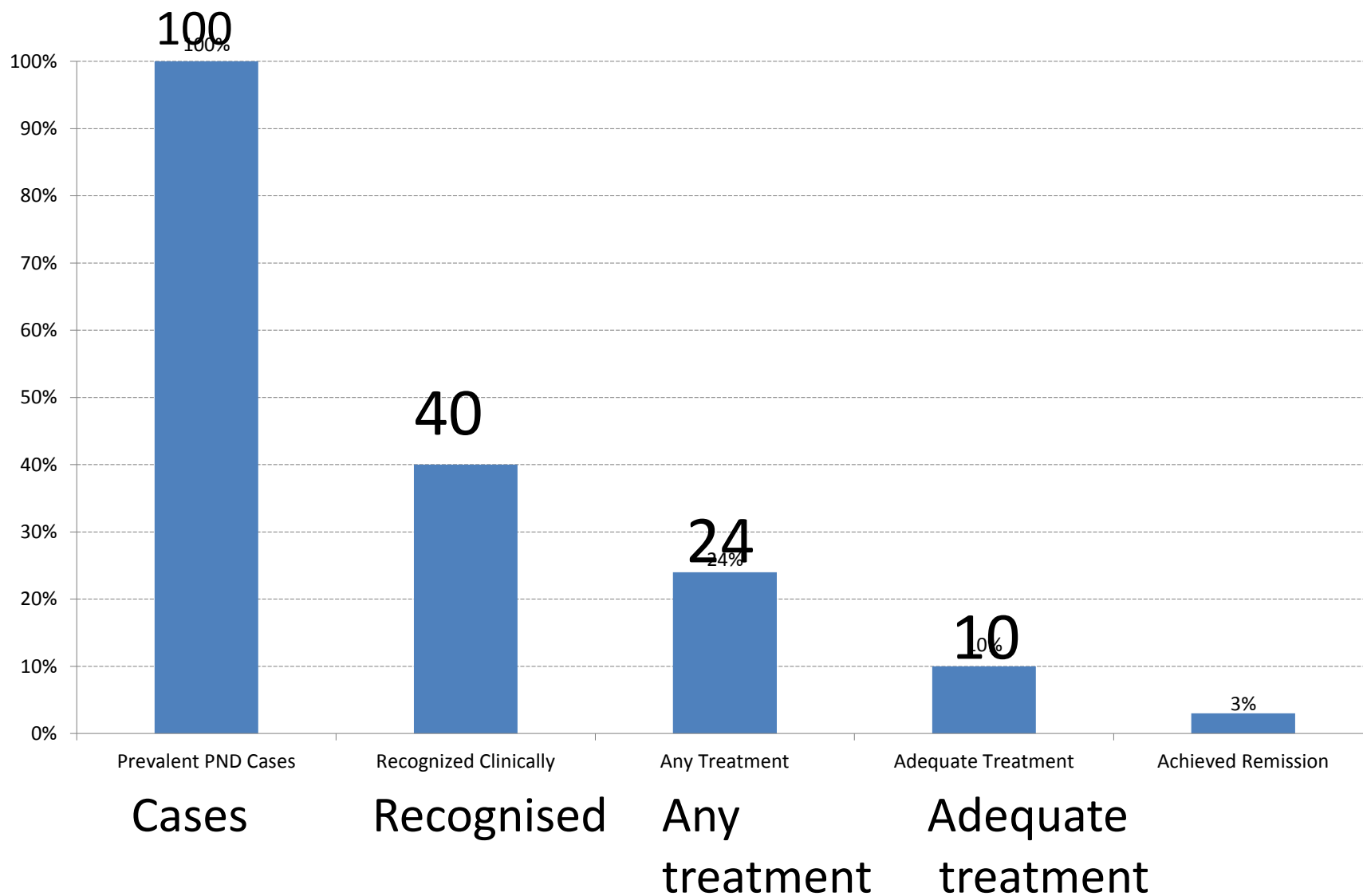
Children with problems with attachment, especially *disorganised attachment*, may have many more emotional and behavioural problems later-be more aggressive

But many factors can also contribute to infant mental health including the couple relationship and other aspects of parent child interaction

What should be done?

Perinatal depression care

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



Lena

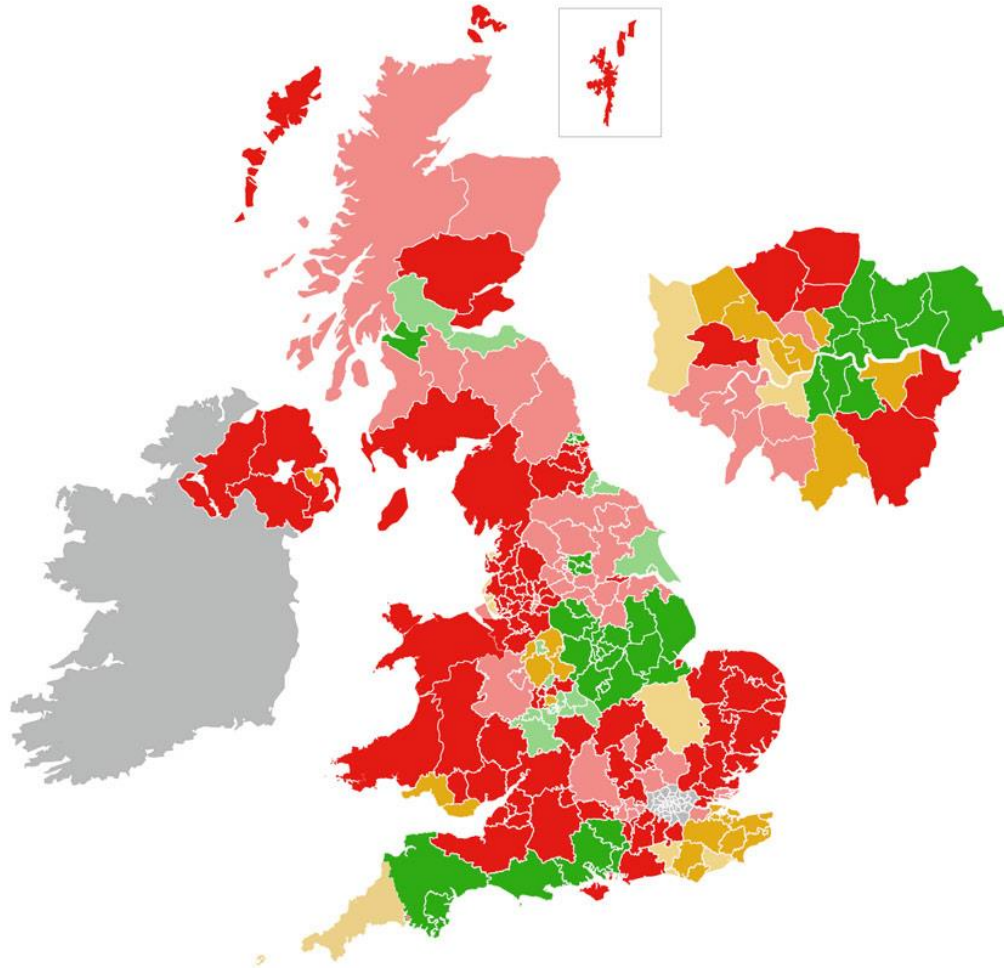
- “Emphasis of maternity service was 98% medical physical thing and 2% emotional”

Anne

“They’re more interested in you medically-have you got any lumps and bumps and pain?....They’re not asking how are you feeling at the moment?-are you coping?”

in Zoe Darwin PhD

UK Specialist community perinatal mental health teams (current provision)



Maternal Mental Health Alliance

Role of Professionals



- **Detect and treat anxiety and depression both in pregnancy and postnatally**
 - Psychological interventions (eg CBT)
 - Pharmacological intervention if needed
- Help with couple relationship problems or domestic abuse
- Help to create more social support
- Practical help with housing etc

EIF Interventions focussed on improving attachment

- *Level 4*
- Nurse Family Partnership-individual home visiting
- Family Foundations-group
- *Level 3*
- Parent infant Psychotherapy (PIP), and Infant Parent Psychotherapy.

Unborn babies targeted in crackdown on criminality

Blair launches policy imported from US to intervene during pregnancy to head off antisocial behaviour

Lucy Ward
Social affairs correspondent

Unborn babies judged to be at most risk of social exclusion and turning to criminality are to be targeted in a controversial new scheme to be promoted by Downing Street today.

In an effort to intervene as early as possible in troubled families, first-time mothers identified just 16 weeks after conception will be given intensive weekly support from midwives and health visitors until the unborn child reaches two years old.

Unveiling the findings of a Downing Street review, Tony Blair will make clear the government is prepared to single out babies still in the womb to break cycles of deprivation and behaviour.

He will also acknowledge that the state must do more to help a minority of families and will stress that the support they need cannot come through the promotion of marriage.

In an attempt to draw a clear division between Labour and the Conservatives Mr Blair will say that making marriage the primary focus of family policy will be ineffective and could lead to discrimina-

The support includes help with giving up smoking or drug use in pregnancy, followed by a focus on bonding with the new baby, understanding behaviour such as crying, and encouraging a mother to develop her skills and resources to be a good parent. The programme is voluntary and the intention is to capitalise on the so-called "magic moment" when parents are receptive to support for themselves and their baby.

In the US, three large trials have seen consistently positive results, including higher IQ levels and language development in children, lower levels of abuse, neglect and child injuries in families, and improvements in the antenatal health and job prospects of mothers.

Proponents of the scheme, pioneered by the American paediatrician Professor David Olds, also point to the long-term cost savings, estimated at almost \$25,000 (£12,500) by the time a child is 30.

The decision to target unborn babies is, in effect, an acknowledgement by Mr Blair that the government's focus on tackling social exclusion has left a hardcore – 2-3% – of the most excluded families behind.

The prime minister's introduction to today's family review says the state must help such children out of fairness, and



Madeleine: police lack evidence to hold suspect

Giles Tremlett Praia da Luz

A British expatriate yesterday became the first formal suspect in the disappearance of four-year-old Madeleine McCann, with police admitting he was the main focus of their investigation.

But detectives said they did not have enough evidence to charge Robert Murat under Portuguese law. The 33-year-old estate agent was released after questioning but he will not be allowed to leave the country and will have to report to police on a regular basis.

Family and friends of Mr Murat immediately protested his innocence and his mother, Jenny, whose home is 150 metres from where Madeleine went missing, said her son was worried police had picked on him because they were desperate to find a British suspect.

Mr Murat last night told Sky News he was being made a scapegoat and the investigation "had ruined his life".

In an unusual move, the Association of Chief Police Officers and the Crown Prosecution Service also expressed concern about some reporting of the case.

At a press conference yesterday, the lead investigating officer, Chief Inspector Olegario Sousa, gave few details about the inquiry but confirmed that the main line of investigation related to five properties searched on Monday, the most significant being Casa Liliana, the house Mr Murat shares with his mother.

Mr Sousa seemed more hopeful that his team had promising leads, but admitted he still had no idea where Madeleine

Nurse Family Partnership:

Home visits for teenage mothers focus on:

- Teaching improved health related behaviour e.g mother give up smoking
- Teaching competent care of children-better parenting
- Help with maternal personal development (e.g. family planning, more education, help with gaining employment)
- Also gave much social support –*should help to reduce perinatal stress and anxiety/depression*

Outcomes

from Nurse Family Partnership in USA(David Olds)

- Teenage mothers had heavier babies
- Less smoking
- Less child maltreatment during the first 2 years
- By 15 years the children had fewer behavioural problems and lower smoking
- *and less than half the rate of criminal convictions and breaches of probation*
- But the benefits for crime and violence were mainly for girls.
- Boys may need a top up intervention in adolescence

Family Nurse Partnership in the UK

- Outcomes assessed at 2 years
- No benefit in maternal smoking rates, birthweight or visits to A and E.
- But there was an improvement in cognitive development, and we need more evidence about emotional /behavioural outcomes at an older age.

Family Foundations

Group

Focus on *couple* relationship from antenatal period.

For all couples.

Low cost.

RCT showed a reduction in violence towards each other and the child, improved child behaviour, and self soothing

Parent Infant Psychotherapy (PIP)

- Lieberman model
- Based on Selma Frieberg's ideas of
- *"The ghost in the nursery"*
- Intergenerational transmission of trauma
- Weekly individual sessions for a year

- We spend 50% less on early childhood interventions than some of the Nordic countries
- But 200% more on the Juvenile Criminal Justice system.

We spend less than 10% on adult mental health than on physical health



“Half the good guys in the Conservative party end up grumpy and disappointed”

Douglas Carswell interview → g2

£1.60

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and Manchester

theguardian.com

th

Newspaper of the year

Winner of the

Pulitzer prize

£8bn cost of mental illness in maternity

Report shows huge annual toll of inadequate care for new mothers

Peter Walker

Substandard mental health care for pregnant women and new mothers is creating long-term costs of more than £8bn every

of these serious and long-term human and economic costs could be avoided.”

The report finds significant gaps in the detection of mental health problems in the period before and after birth, saying



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.

Public health implications of reducing stress/anxiety/depression in the perinatal period

- More than one million children in UK suffer from emotional, behavioural, and cognitive developmental problems
- Attributable load of such problems due to perinatal stress ~15 %
- Potential to reduce number of affected children in the UK by 150,000



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Group discussion

- How much influence does and should research evidence have on practice in this transformation area?
- What are the implications of the new evidence for service commissioning and delivery?
- What can evidence be designed to better inform local practice?

Questions and comments from the floor with

Dr Ann Hoskins, Independent Public Health Consultant (Chair)

Professor Vivette Glover, Professor in Perinatal Psychobiology,
Imperial College London

