

# **Social Complexities, Perinatal Mental Health Effect on Infant Mental Health**

Dr Maddalena Miele  
Imperial College Hospital, NHS

# Perinatal Mental Illness and Infant Mental Health



# Conflict of interests



Trustee of the Association of Infant Mental Health UK <https://aimh.uk/about/>



Trustee of the Brazelton Centre UK <https://www.brazelton.co.uk/team/trustees/>



Advisor for the PAM foundation and the Mental The Maternal & Infant Mental Health Network <https://www.pamfoundation.org/> Thailand



Accredited trainer Parent Infant Interaction Observation Scale (PIIOS) <https://warwick.ac.uk/fac/sci/med/about/centres/wifwu/team>



Co-founder of Perinatal Psychiatry Masterclasses Ltd <https://www.perinatalpsychiatrymasterclasses.co.uk/>

[LIFE + CULTURE](#) > [CULTURE](#)

# 16 Celebrities Who've Opened Up About Postpartum Depression

Postpartum depression is 'so real'

BY [SAKAYNAH HUNTER](#) UPDATED: 14 OCTOBER 2022



# How common is mental illness in the perinatal period?

	<b>Maternity Blues (50%)</b>	<b>Postnatal depression (&gt;10%)</b>	<b>Post-partum Psychosis (0.2%)</b>
Onset	2-5 days	Few days – six months	First two weeks
Duration	A few days	From weeks to years	Weeks-months
Symptoms	Mood lability (blues and highs)	Typical symptoms of depression	Severe affective psychosis, mixed presentations
Treatment	Self-limiting	Psychotherapy, antidepressants	Medication; in-patient treatment

- **Anxiety Disorders** (generalised anxiety, obsessive-compulsive, panic and social anxiety disorders): of 13% ([Vesga-Lopes 2008](#))
- **Maternal OCD:** 2.9-9% life ([Russell et al.2013](#))
- **Depressive Disorders:** 19.2% ([Gavin, Gaynes et al. 2005](#))
- **Psychotic Disorders** 2.8% ([Vesga-Lopes 2008](#))
- **Puerperal Psychosis (PP):** 0.2%
- **Eating Disorders** 5% A retrospective questionnaire study reported a 11.5% prevalence of some type of eating disorders ([Larsson et al.2003](#))

## Estimated numbers of women affected by perinatal mental illnesses in England each year



1,380



### Postpartum psychosis

Postpartum psychosis is a severe mental illness that typically affects women in the weeks after giving birth, and causes symptoms such as confusion, delusions, paranoia and hallucinations.

Rate: 2/1000 maternities

1,380



### Chronic serious mental illness

Chronic serious mental illnesses are longstanding mental illnesses, such as schizophrenia or bipolar disorder, which may be most likely to develop, recur or deteriorate in the perinatal period.

Rate: 2/1000 maternities

20,640



### Severe depressive illness

Severe depressive illness is the most serious form of depression, where symptoms are severe and persistent, and significantly impair a woman's ability to function normally.

Rate: 30/1000 maternities

20,640



### Post traumatic stress disorder (PTSD)

PTSD is an anxiety disorder caused by very stressful, frightening or distressing events, which may be relived through intrusive, recurrent recollections, flashbacks and nightmares.

Rate: 30/1000 maternities

86,020



### Mild to moderate depressive illness and anxiety states

Mild-moderate depressive illness includes symptoms such as persistent sadness, fatigue and a loss of interest and enjoyment in activities. It often co-occurs with anxiety, which may be experienced as distress, uncontrollable worries, panic or obsessive thoughts.

Rate: 100-150/1000 maternities

154,830



### Adjustment disorders and distress

Adjustment disorders and distress occur when a woman is unable to adjust or cope with an event such as pregnancy, birth or becoming a parent. A woman with these conditions will exhibit a distress reaction that lasts longer, or is more excessive than would normally be expected, but does not significantly impair normal function.

Rate: 150-300/1000 maternities

\* There may be some women who experience more than one of these conditions.

Source: Estimated using prevalence figures in guidance produced by the Joint Commissioning Panel for Mental Health in 2012 and ONS data on live births in England in 2011.

## Gestational hypertension, preeclampsia, and eclampsia

**Prevalence:** ~5–10% of pregnancies worldwide

**Preeclampsia specifically:** ~2–8%

Major cause of maternal and perinatal morbidity/mortality

## Gestational Diabetes Mellitus (GDM)

**Prevalence:** ~5–15% globally

Higher rates (up to 20%+) in high-risk populations (obesity, advanced maternal age, certain ethnic groups)

## Postpartum Hemorrhage (PPH)

**Prevalence:** ~5–10% of deliveries

Severe PPH (~1–3%)

Most common cause of maternal death globally

*Mental illness is the most common complication in pregnancy*

## Why does it matter?

- Parental outcomes

Parent



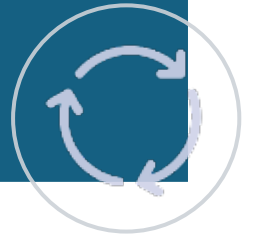
- Infant & child outcomes

Infant



- Wider society

Relationship



# Untreated parental mental illness

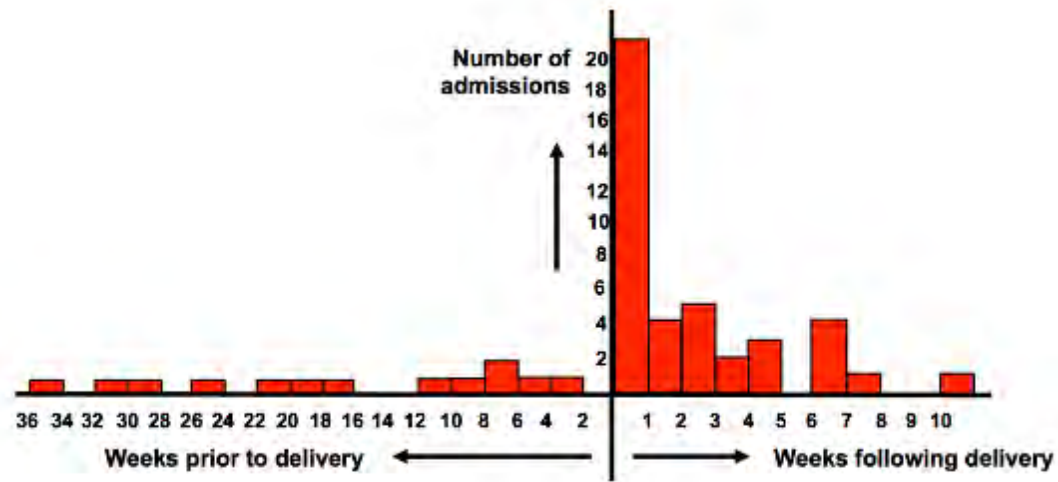
- Parental outcomes

- Increased risk of hospitalisation
- Increased risk of relapse
- Worsening of the long-term prognosis
- Increased risk of suicide

Parent

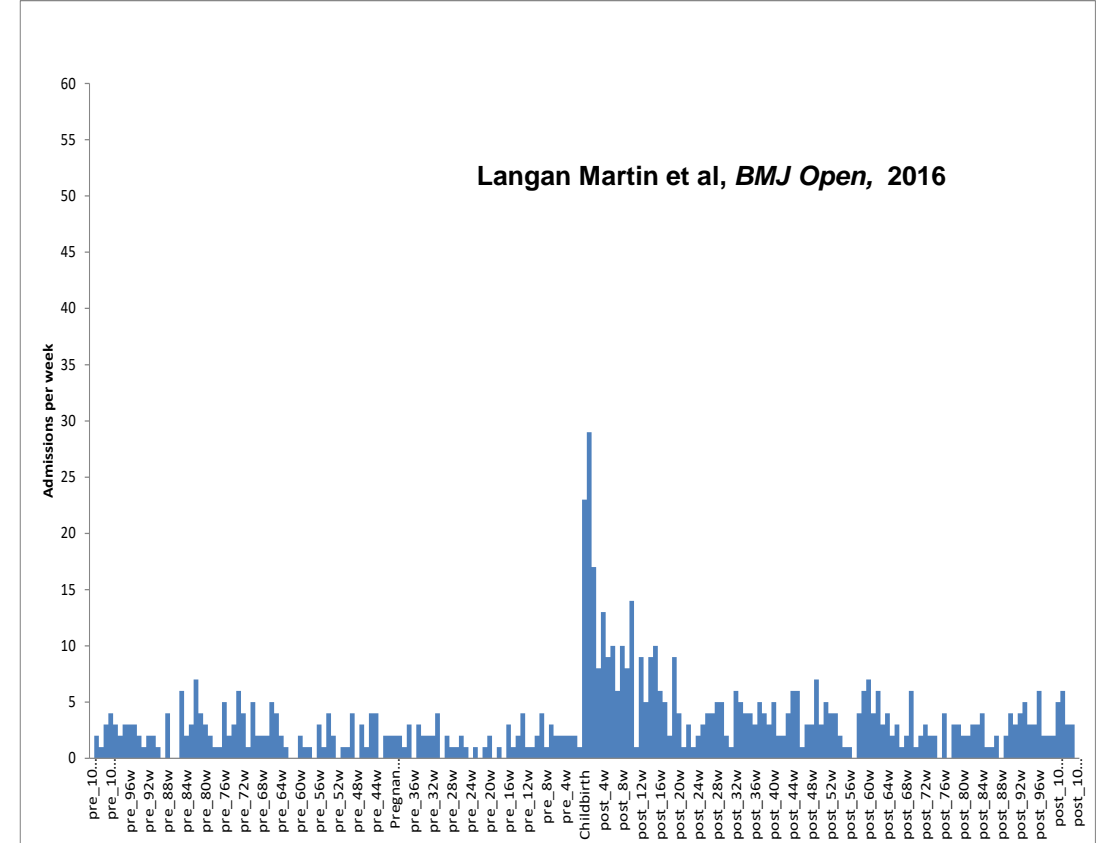


# Risk of hospitalisation



Kendell et al 1987

*“The relative risk of admission to a psychiatric hospital with a psychotic illness was extremely high in the first 30 days after childbirth, particularly in primiparae, suggesting that metabolic factors are involved in the genesis of puerperal psychoses”*



Langan Martin et al, *BMJ Open*, 2016

(see also Munk-Olsen et al., 2006)

# Risk of relapse

Risk of relapse (Viguera et al., 2007; Cohen et al. 2006; Wesseloo et al., 2016)

- schizophrenia 30-50%
- bipolar affective disorder (50% in pregnancy, 70% postpartum )
- depression 30%.

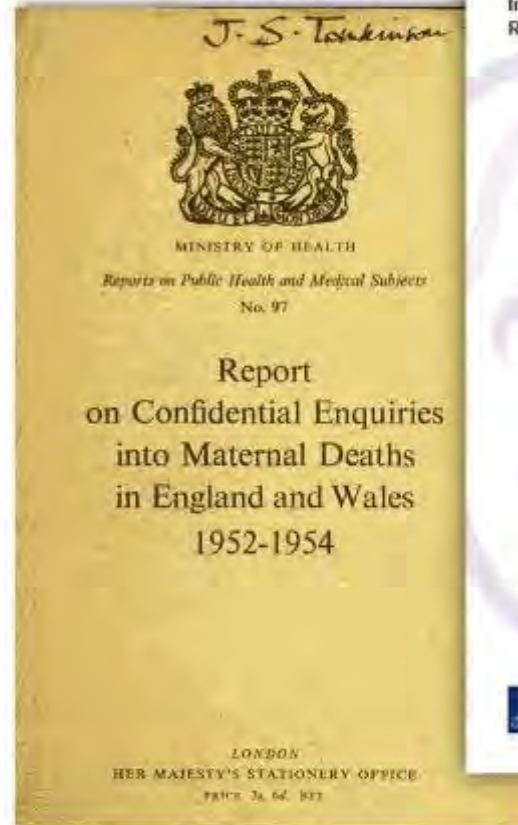
# Risk of suicide

# Maternal Mortality in the UK



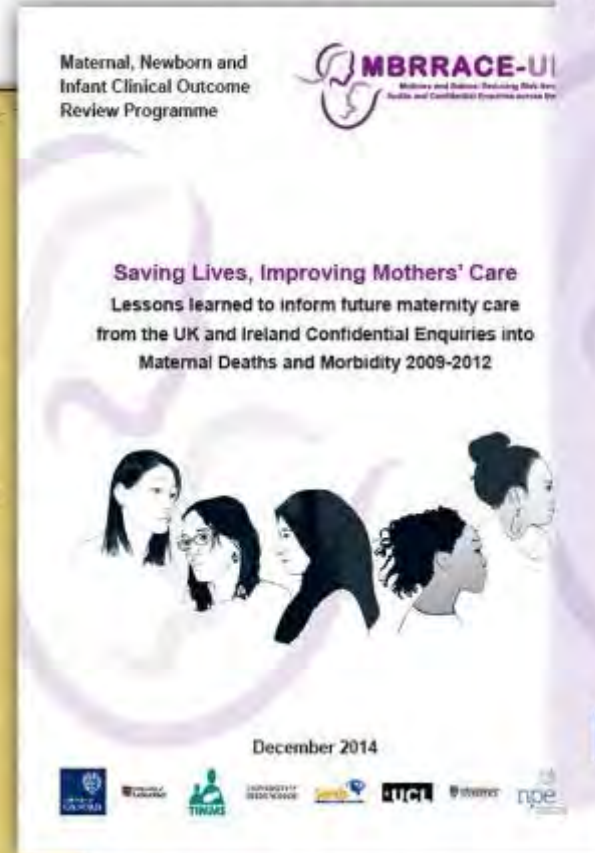
<https://www.npeu.ox.ac.uk/mbrrace-uk/reports/maternal-reports/maternal-report-2021-2023>

1952-54



90 per 100,000 maternities

2010-12



10 per 100,000 maternities

2011-13



9 per 100,000 maternities



# Suicide

- 10 women died by suicide during or up to six weeks after pregnancy out of 2,173,810 maternities in 2017-19
  - 0.46 per 100,000
- compared with 10 out of 674,377 in 2020
  - 1.48 per 100,000
  - RR **3.22**, 95% CI 1.20-8.63, p=0.012

In 2020, women were **3x** more likely to die by **suicide** during or up to six weeks after the end of pregnancy compared to 2017-19

**1.5 women** per 100,000 giving birth

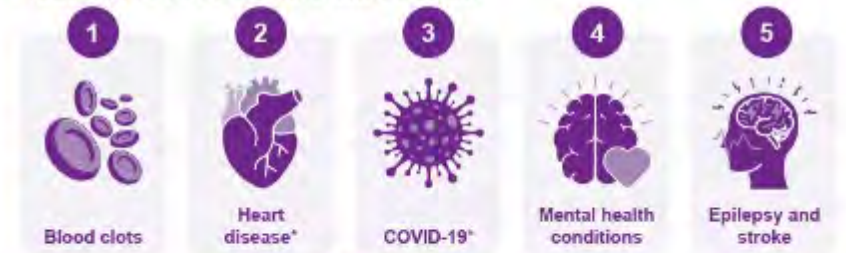
## Key messages

from the surveillance report 2025

In 2021-23, **257 women died** during or up to six weeks after pregnancy among 2,004,184 women giving birth in the UK

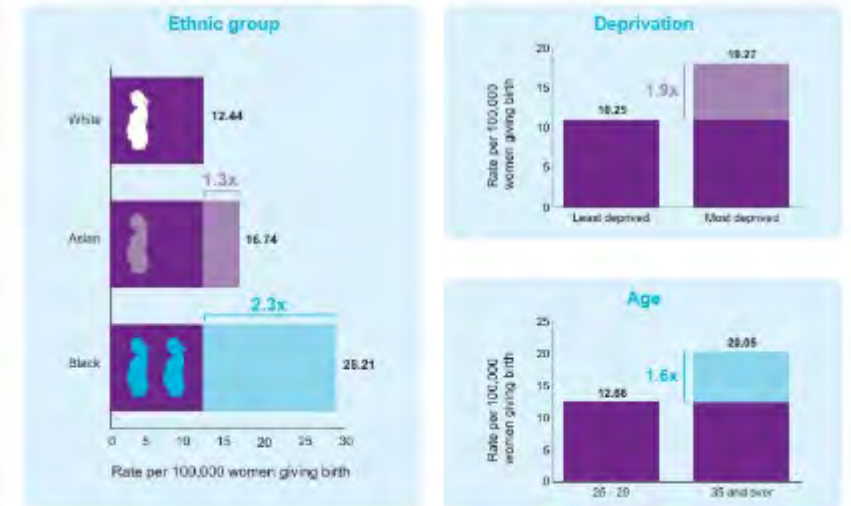
This represents a maternal death rate of **12.82 women** per 100,000 women giving birth

### Leading causes of maternal deaths



\*Responsible for the same number of maternal deaths in 2021-23

### Inequalities in maternal mortality



# Untreated parental mental illness

- Infant & child outcomes

Infant



# Parent-infant interaction: disturbed care giving system

## Sensitive parenting

- ❑ Mentalisation/Reflective functioning (Fonagy et al. 1997-)
- ❑ Mindedness (Mains et al. 1997, 2001 -)
- ❑ Contingency theory (Beebe et al. 1997 -)

## Parent's own experience

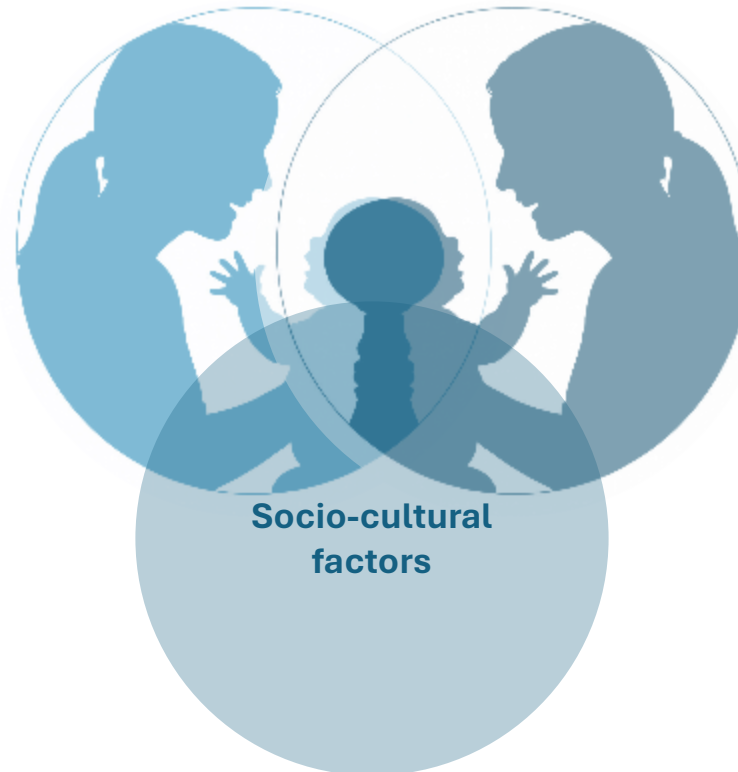
- ❑ ***Ghosts in the Nursery***: A Psychoanalytic Approach to the Problems of Impaired Infant-Mother Relationships (Fraiberg, Adelson, Shapiro, 1975)
- ❑ Parenting profiles express **internal working model**, rooted in the parent's own early trauma (Ruth-Lyon et al 2024)

## Disordered care giving

- ❑ Disordered care giving and predictive validity of disordered attachment. (K. Lyons-Ruth et al. 1996, Van Ijzendoorn et.al. 1999)
- ❑ Predictive validity of infant regulatory difficulties (DeGangi, et al. 1991)

## Mental illness

- ❑ Depression (Murray et al. 1997)
- ❑ Severe Mental Illness (SMI)
- ❑ Role of medication



# Maternal Severe Mental Illness (SMI) negatively affects mother–infant interaction

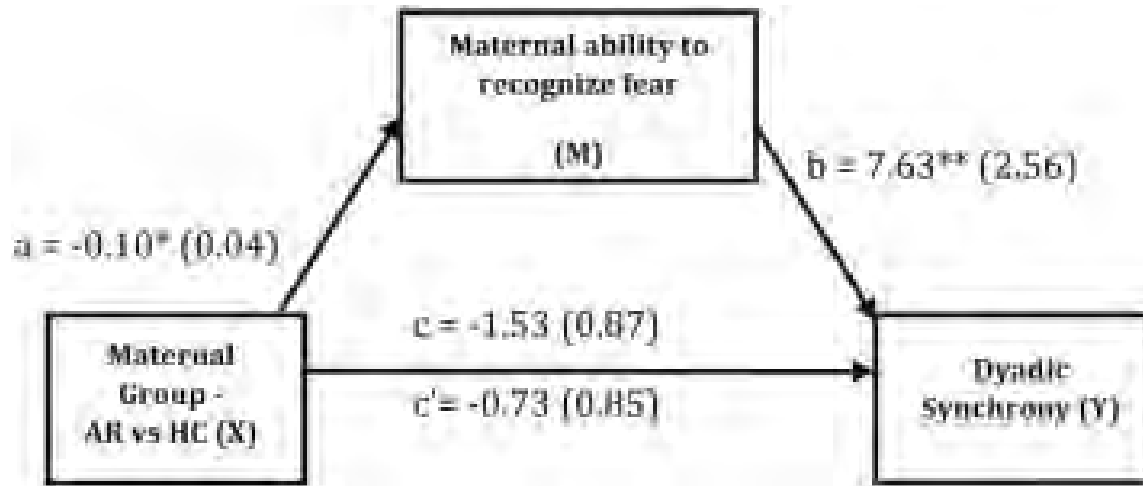


Fig. 1. Mediation model – Dyadic Synchrony at 12 months.

Figure of the hypothesized mediation model with maternal Group (AR vs HC) as the predictor variable (X), Dyadic Synchrony at 12 months (Dyadic Synchrony - CARE-Index) as the outcome variable (Y) and maternal ability to recognize fear at 8 weeks as the mediating variable (VERT-K) (M). A, b, c and c': path coefficients representing unstandardized regression weights and standard errors. \* $p < .05$ , \*\* $p < .01$ .

Biaggi et al 2024

Maternal SMI negatively affects mother–infant interaction, especially maternal sensitivity; cognitive impairment—particularly **slowed memory processing**—may partly explain this effect (Steadman et. al 2007)

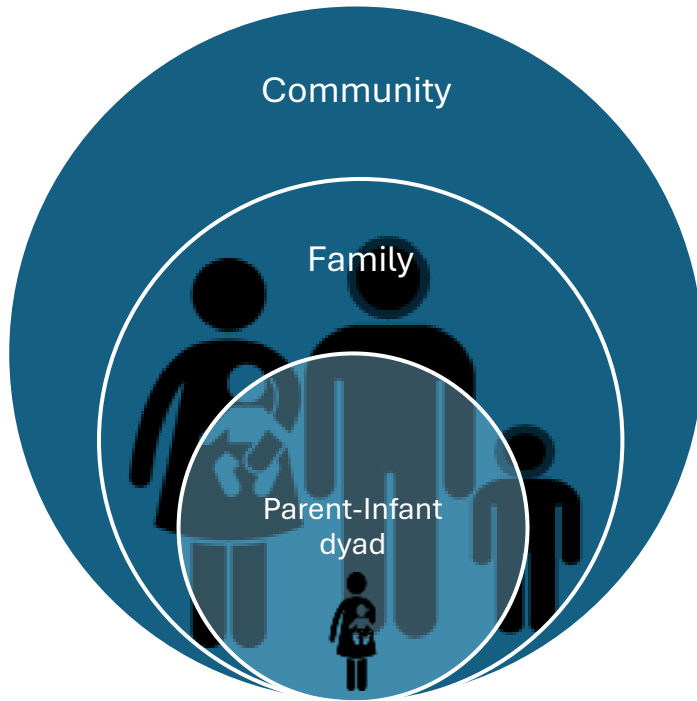
Mothers with schizophrenia showed **lower sensitivity**, ToM deficits did not fully explain this. Some mothers had intact ToM but struggle to apply it in real interactions. (Rigby et. Al 2016)

**Parenting Stress:** Higher parenting stress was associated with less optimal interactions but did not independently predict dyadic synchrony (Biaggi 2021)

**Stress processing and brain connectivity** differ in women at risk of postpartum psychosis (PP) (Hazelgrove K, et al. 2021)

**Maternal Emotion Recognition:** Women at risk of PP showed difficulty recognizing fear, which significantly predicted lower dyadic synchrony and less optimal mother-infant interactions at 8 weeks and 12 months postpartum (Biaggi 2024)

# Untreated parental mental illness



## Partner

Partner as carer; perinatal depression in partners; impact on relationship *Ruffell 2019, Wang 2021*

## Children

Research in 2018 estimated there were around 800,000 **young carers** aged 11 to 16 in England alone. Accounting for those aged 17 or under 11 and the number in Scotland, Wales and Northern Ireland, Carers Trust estimates the number across the UK to be more than **one million**.

<https://www.nottingham.ac.uk/news/pressreleases/2018/september/children-england-care-sick-family.aspx>

## Society

Cambridge Study in Delinquent Development (Farrington & West) – parental mental illness is a **risk factor** (not a cause)

# Adverse Childhood Experiences

Traumatic events that can have negative, lasting effects on health and wellbeing



People with 6+ ACEs can die

**20 yrs**

earlier than those who have none



1/8 of the population have more than 4 ACEs



www.70-30.org.uk  
@7030Campaign

## 4 or more ACEs

3x the levels of lung disease and adult smoking

11x the level of intravenous drug abuse

14x the number of suicide attempts

4x as likely to have begun intercourse by age 15

4.5x more likely to develop depression

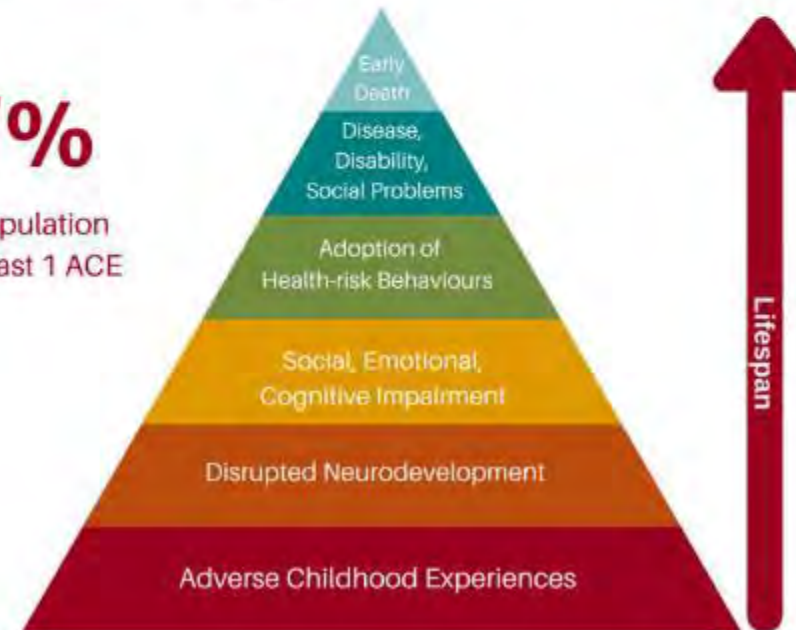
2x the level of liver disease

“ Adverse childhood experiences are the single greatest unaddressed public health threat facing our nation today ”

Dr. Robert Block, the former President of the American Academy of Pediatrics

**67%**

of the population have at least 1 ACE



# Economic costs (LSE & Centre for Mental Health, 2014)

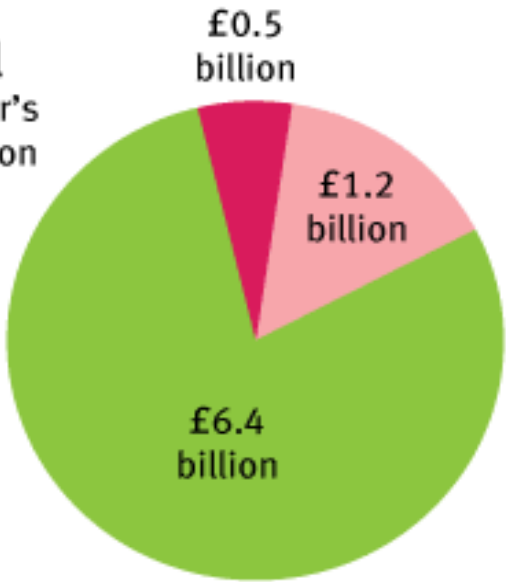


THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE



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

- health and social care
- other public sector
- wider society



Of these costs  
**28%** relate to the mother  
**72%** relate to the child

from *The Costs of Perinatal Mental Health Problems*, available at: <http://www.centreformentalhealth.org.uk/perinatal>  
© 2014 London School of Economics and Centre for Mental Health

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# The 1001 Critical Days

The Importance of the Conception to Age Two Period



## Support for the 1001 Critical Days



Life chances edition

A CROSS-PARTY MANIFESTO:

Mark Durkan MP • Frank Field MP • Norman Lamb MP • Tim Loughton MP



Maternal Mental  
Health Alliance

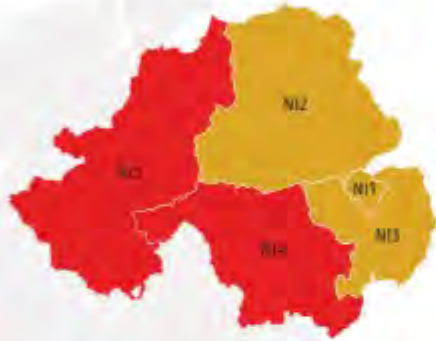
### Admitted care

- Mother & Baby Units (21)

### Non-admitted care

- Specialist Community Services

# Northern Ireland



LEVEL	TRUSTS
NI1	Belfast
NI2	Northern
NI3	South Eastern
NI4	Southern
NI5	Western

LEVEL	CRITERIA
3	Specialist perinatal community team that meets Perinatal Quality Network Standards Type 1 - <a href="https://bit.ly/3Cob4Rm">https://bit.ly/3Cob4Rm</a> .
2	Perinatal community service operating throughout working hours with at least a specialist perinatal psychiatrist with dedicated time AND specialist perinatal mental health nurse with dedicated time, with access to a perinatal psychiatrist throughout working hours.
1	No multidisciplinary team provision.

None of Health and Social Care Boards met PQN Standards Type 1.

## NORTHERN IRELAND: National commitments and plans



# Wales



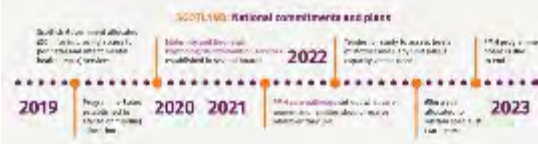
LEVEL	TRUSTS
3	Cardiff and Vale, Gwent, Gwynedd, Powys, South Wales, Swansea Bay, Ynys Môn
2	North Wales, Carmarthen Bay, Ceredigion, Deeside, Dyfed, Glamorgan, Grampian, Hereford, Shropshire, Tamar Valley, Torfaen, West Wales
1	None



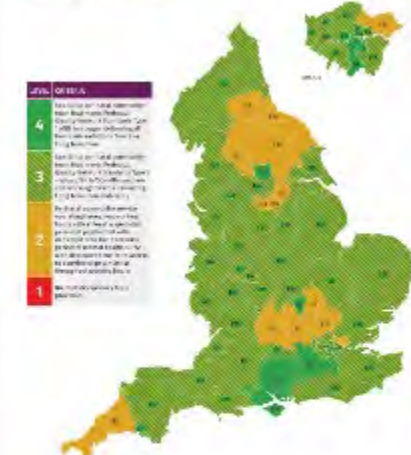
# Scotland



LEVEL	TRUSTS
3	Highland, Lothian, NHS Forth Valley, NHS Greater Glasgow and Clyde, NHS Highland, NHS Shetland, NHS Tayside, NHS Western Isles
2	Argyll and Highland, Dumfries and Galloway, Fife, NHS Argyll and Highland, NHS Dumfries and Galloway, NHS Fife, NHS Forth Valley, NHS Highland, NHS Shetland, NHS Tayside, NHS Western Isles
1	None



# England



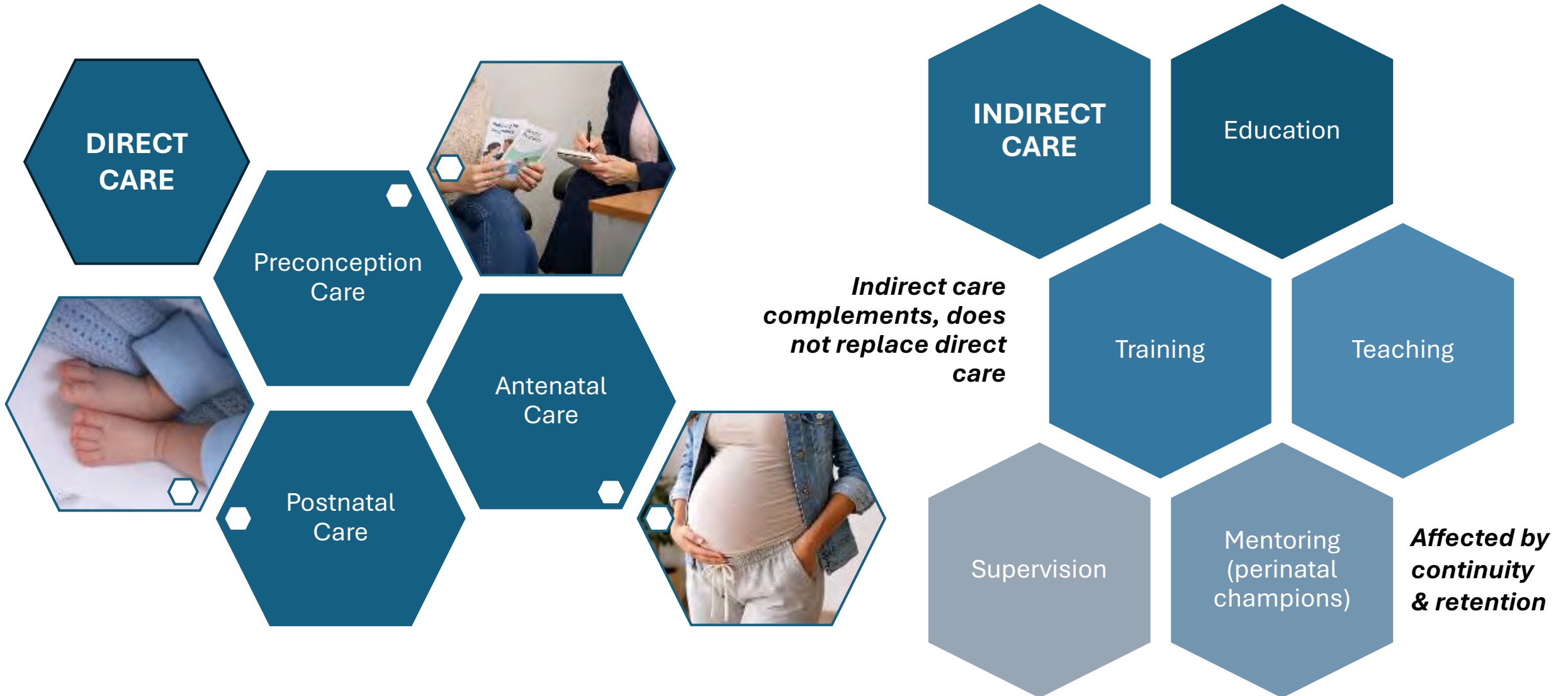
LEVEL	TRUSTS
4	London
3	East of England, East Midlands, East of Scotland, Greater Manchester, London, Midlands, North East, North West, Yorkshire and the Humber
2	East of England, East Midlands, East of Scotland, Greater Manchester, London, Midlands, North East, North West, Yorkshire and the Humber
1	None

10 (10%) trusts in England met PQN Standards Type 1 and have begun delivering on all four main ambitions of NHS England's Long Term Plan.

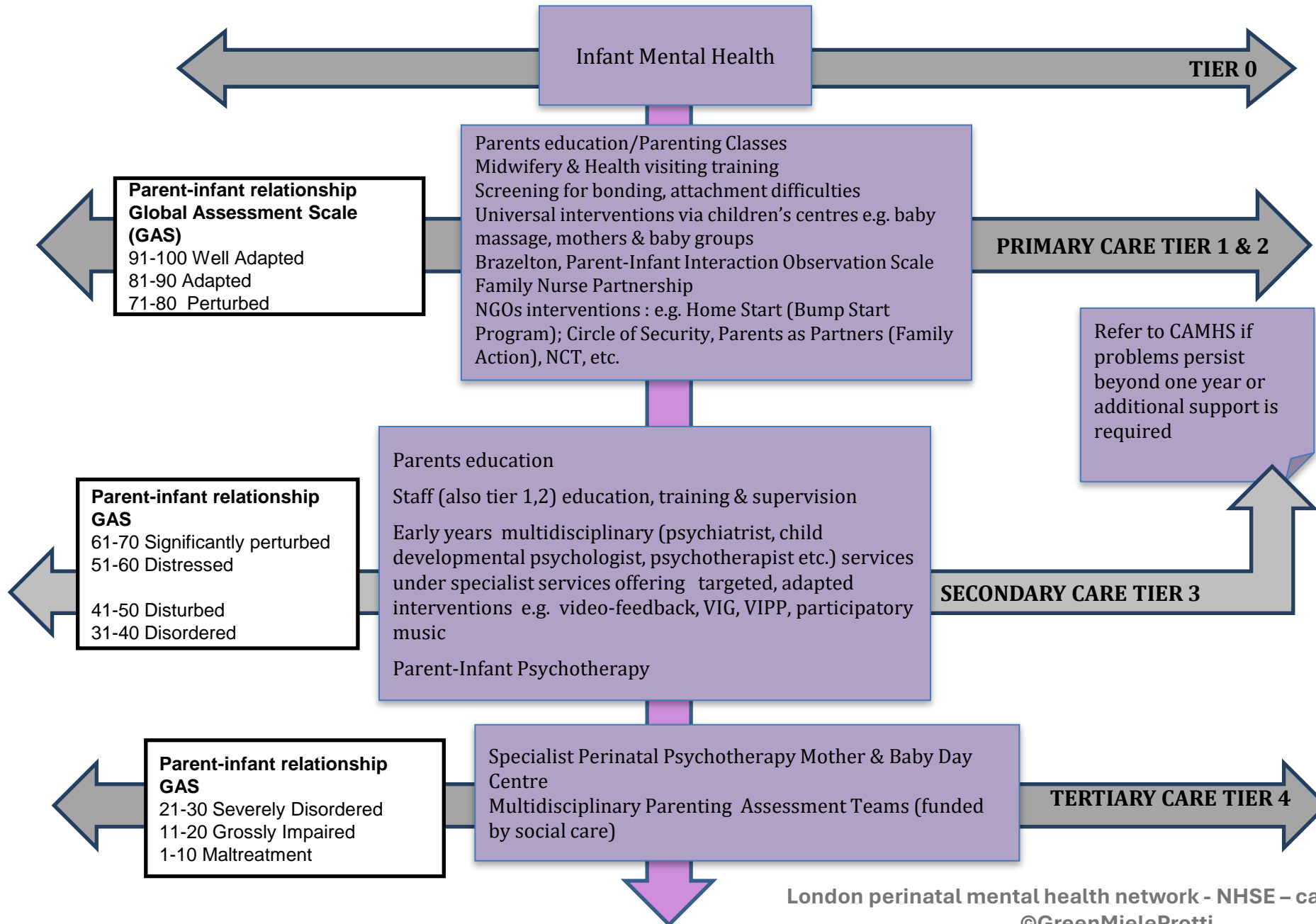
## ENGLAND: National commitments and plans



# Perinatal Mental Health Model of Care



**PERINATAL MENTAL HEALTH CARE PATHWAYS** **INFANT MENTAL HEALTH SERVICES**



# “What works?”

Systematic reviews & meta-analysis of PIP (Barlow et al. 2015), group interventions (Barlow et al. 2016) and early dyadic interventions (Barlow et al. 2020)

Intervention	How Commonly Used in UK Practice	Evidence Base (per NIHR review)	Evidence Type	Key Notes
<b>Video Feedback to Promote Positive Parenting</b>	Rarely used despite strong evidence	Strongest evidence: 17 studies, 15 RCTs	Very strong	Most effective intervention identified; improves sensitivity and attachment security.
<b>Attachment and Biobehavioral Catch-Up (ABC)</b>	Rarely used	Second-strongest: 11 RCTs [	Strong	Effective at reducing disorganised attachment and enhancing caregiver sensitivity.
<b>Dyadic Developmental Psychotherapy (DDP)</b>	Commonly used	Little to no published evidence	Very weak	Popular in services despite lack of supporting trials.
<b>Theraplay</b>	Commonly used	Little to no published evidence	Very weak	No RCT evidence; widely implemented.
<b>Individual Child Psychotherapy</b>	Highly used	No evidence for attachment outcomes	Very weak	Frequently offered but unsupported for attachment change.
<b>Watch, Wait and Wonder (WWW)</b>	Moderately used	Some evidence (not highlighted as strong)	Mixed	Not among top evidence-supported interventions.
<b>Mellow Parenting</b>	Used across services	Limited evidence	Weak	Few high-quality evaluations.
<b>Circle of Security (COS)</b>	Commonly used	Some evidence but limited RCTs	Moderate/weak	Conceptually strong but under-evaluated within UK practice.
<b>Parent–Infant Psychotherapy (PIP)</b>	Widely used in perinatal pathways	Limited evidence compared with video-feedback approaches	Moderate	Less effective than sensitivity-focused interventions.
<b>Incredible Years (Baby / Toddler)</b> <i>Wright et al. 2023</i>	Some UK use	Evidence available but not specifically strong for attachment outcomes	Moderate	Evidence exists, but not as strong as ABC or video-feedback models.



# What can we learn from others? The Teenage Pregnancy Strategy

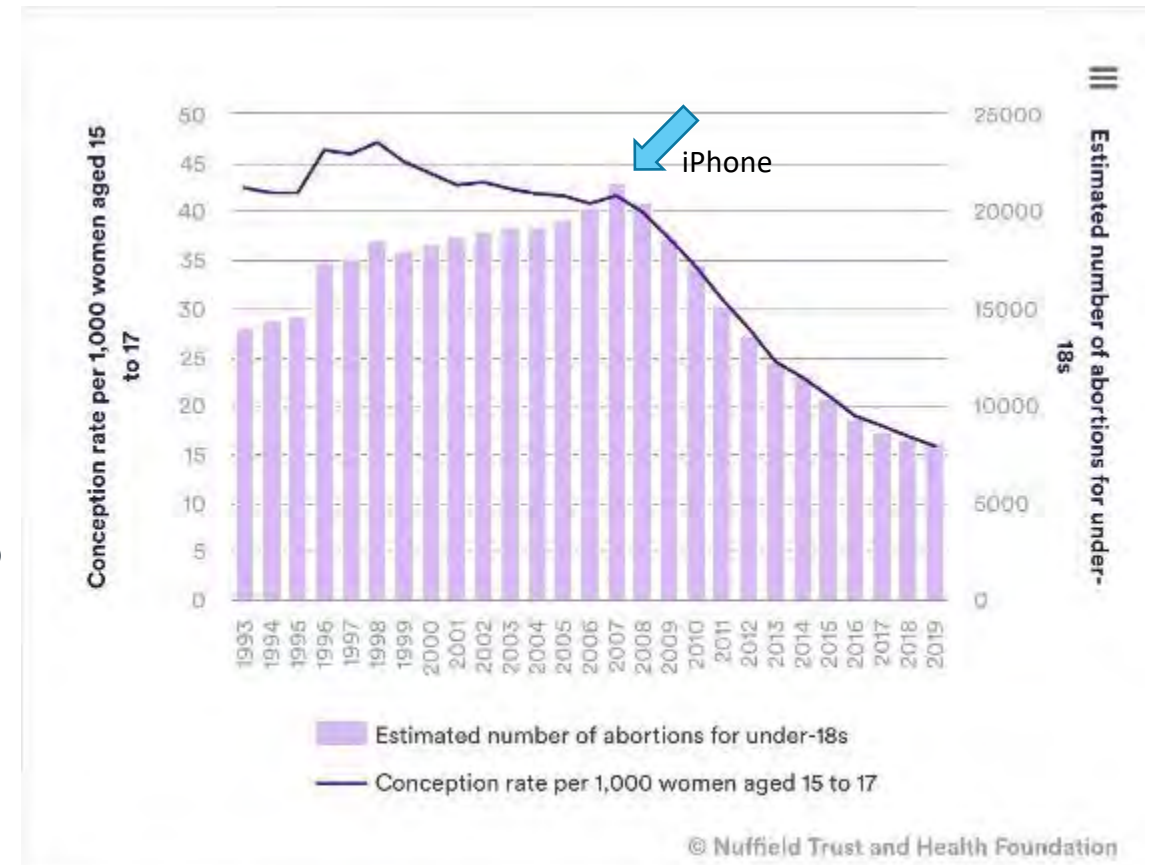
The Teenage Pregnancy Strategy for England was launched in 1999, with the aim of halving the under-18 conception rate by 2010, from a baseline of 46.6 per 1,000 women.

The evidence-based whole-system approach, alongside investment in contraceptive services, helped to achieve success in many local areas.

## Three main components

1. Whole government approach (health, education, employment)
2. Prevention: sex & relationship education in school; access to contraception; targeting high risk groups; media & broadcast campaign.
3. Better support for teenager mothers (including access to education [2014-15 HEIPR \(publishing.service.gov.uk\)](https://publishing.service.gov.uk))

(Wellings et al 2016)



Source: Office for National Statistics, Conceptions in England and Wales

*Thank you*  
*Any questions?*

# Discussion

# Voluntary and Community Sector Role in Supporting Infant Mental Health

Grainne McHugh  
Vice-Chair Stronger from the Start Alliance



# STRONGER FROM THE START



Working together to  
**promote** and **improve**  
**infant mental health**  
in **Northern Ireland**



# The NI Policy Landscape



# Embedding IMH into Early Learning & Childcare Strategy

1

Investing in early childhood would generate £4.5 billion in value added to the UK economy.

2

£12.2 billion of that is from equipping people with improved social/emotional skills, starting EARLY is optimal for ROI.

3

£16.1 billion would be saved by reducing public spends needed for remedial work for ACEs.

4

£17.26 billion is added value from supporting parents and caregivers of 5s who work.

5

Research by the RCPsych indicate that of the 5% of children aged between two and four years old with anxiety, behavioural disorders or neurodevelopmental conditions, the majority do not receive the level of support needed to reach their full potential. Childcare and early years settings are vital for improving this.

## OUR ASKS

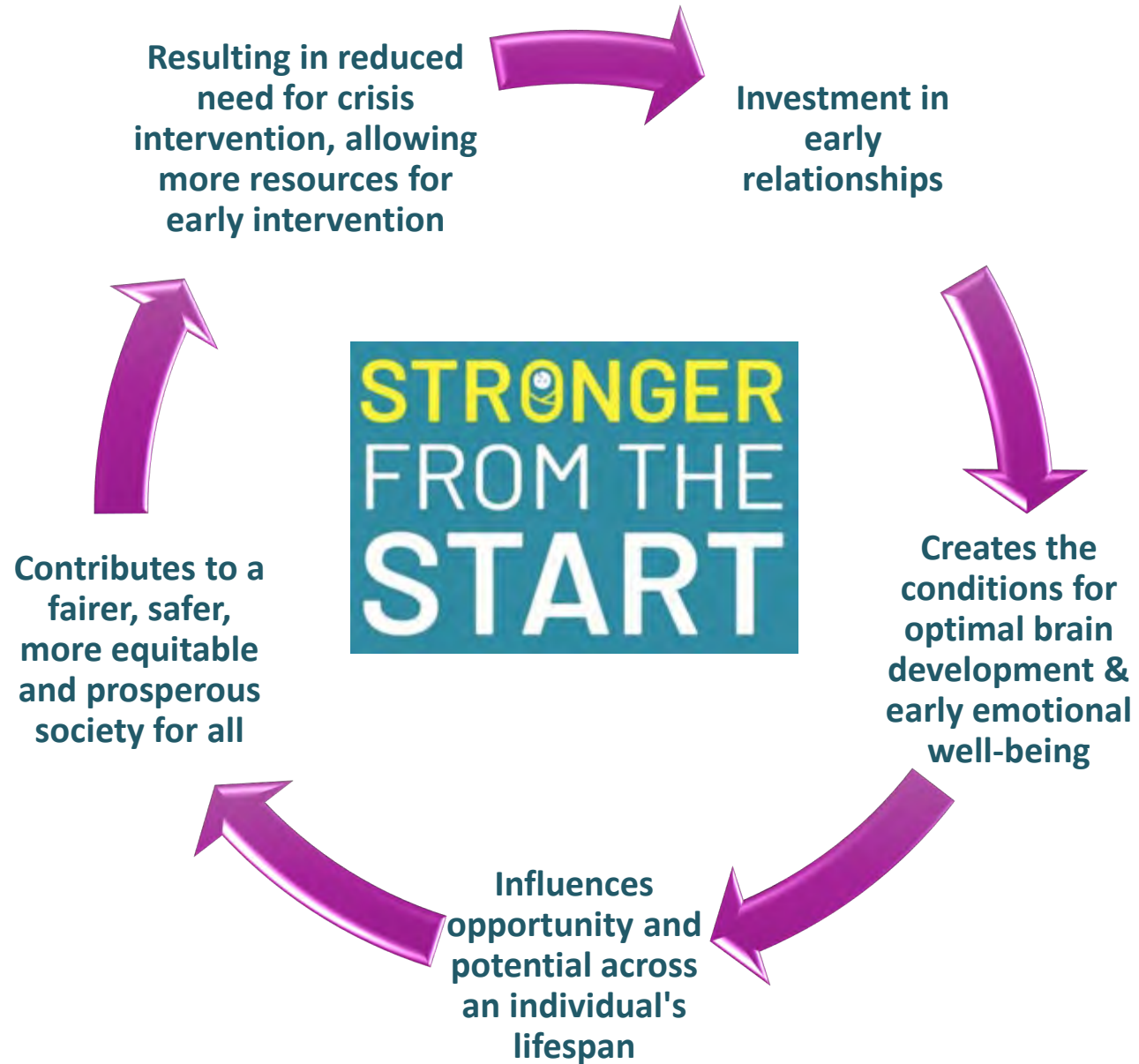
**Service Development**

**Workforce Development**

**Improving Policy and Evidence**

**Leadership and Collaboration**





# Call to Action

Facilitated by Emily Roberts, Interim Director  
of Nursing and Allied Health Professionals

# Official Conference End

While eating lunch, we would be grateful if you could please fill out our feedback form via the QR code:

