



Digital Perinatal Screening and Referral

A pilot across Brimbank and Melton Maternal and Child Health Settings

Funded by the Victorian Government MCH Innovation Grant

March 2016



Perinatal Mental Health

Having a baby places a mother at risk of mental health problems – more so than at any other time in her life. Depression affects one in ten women in pregnancy and after the birth of her baby, postnatal depression affects one in seven new mums. Clinical anxiety is even more common.

The impact of these conditions can be devastating – not only for the mother, but also there are *significant and long lasting impacts upon children*.

The impact on the fetus, infants and children

➤ Maternal mental health in Pregnancy:

Impacts upon the developing fetus

- Maternal mental health problems in pregnancy increases cortisol (stress hormone) levels which cross the placenta and impair the developing brain of the fetus².
- This leads to:
 - Poor birth outcomes¹
 - Distress in the infant and difficulties in infant temperament³
 - Increased stress (cortisol) in the infant⁴
 - The development of childhood behavioural difficulties⁵



➤ The first year of an infant's life

Postnatal depression and anxiety also has long-lasting impacts on the child's life through infancy, childhood, through to adolescence and adulthood.

Impacts upon the infant

Mental health problems following birth are known to:

- Compromise breastfeeding, infant nutrition, health and growth rates and delay physical development.
- Impair bonding and attachment
- Potentially delay the child's cognitive⁶, emotional and behavioural development⁷



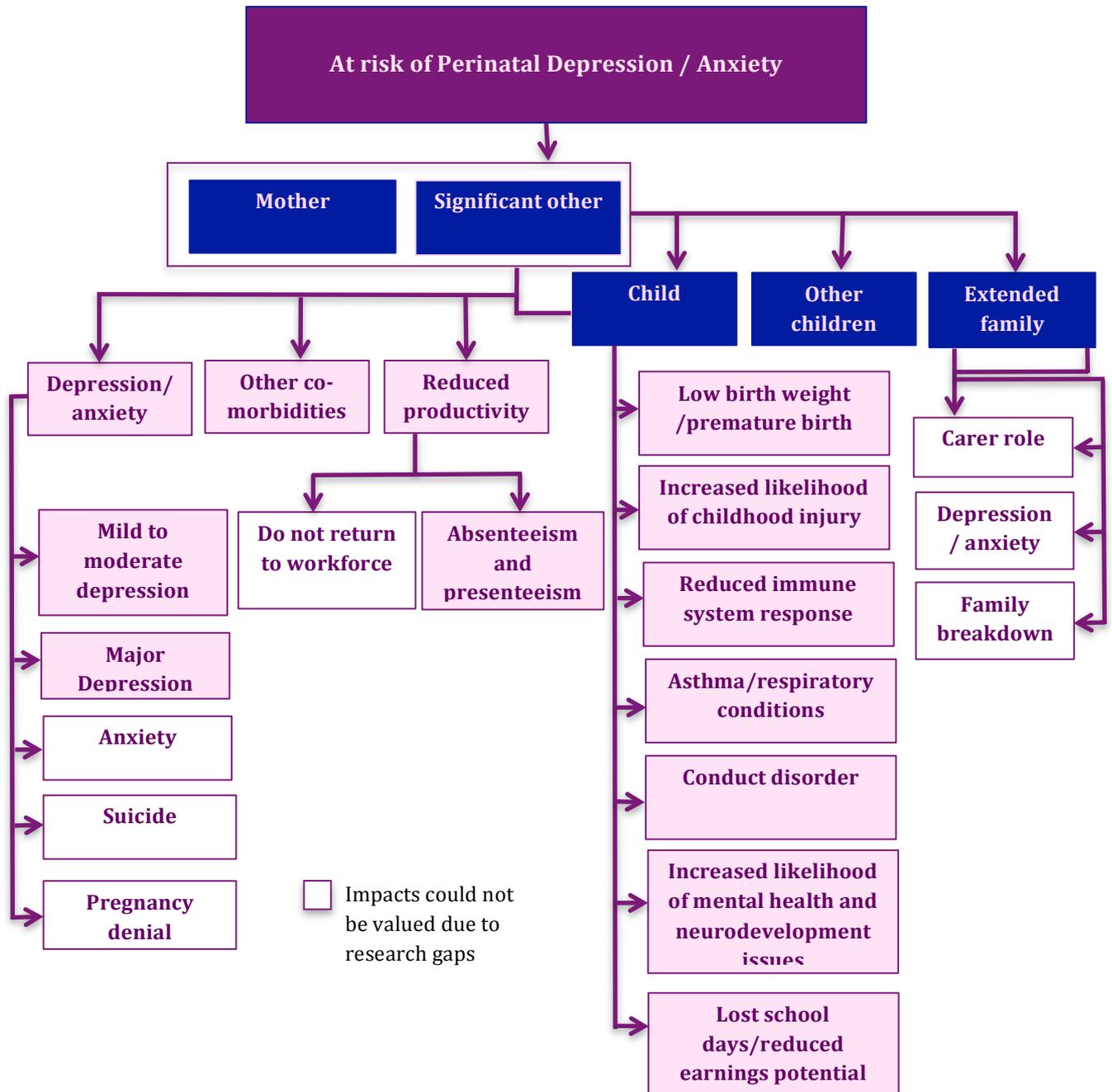
➤ Impacts on the child's life...and future

The impacts are **long lasting** and have been associated with:

- The development of physical, mental and social problems in childhood⁸, adolescence and later life⁹
- Higher rates of conduct disorder in adolescence¹⁰

The relative impact of perinatal mental health conditions on the child and other children is reflected in the PricewaterhouseCoopers¹ economic analysis of the cost of perinatal mental health on individuals and families (see below).

Fig 1: Cost incurred by individuals affected by perinatal depression & anxiety over time



How do we prevent the impact on children?

In order to prevent and/or minimize these significant impacts on children, it is vital that maternal mental health problems are ***promptly identified*** and ***effectively treated***.

This can be achieved through effective screening of women to detect the presence of mental health conditions early, and ensuring she has timely access to high quality information and effective treatments. This needs to be in line with Australia’s Best Practice Clinical Guidelines¹¹.

Current Screening Practice in Australia

The problem

Australia's Clinical Practice Guidelines¹¹ recommend universal, routine screening for all pregnant and new mothers. Despite the recognised importance of screening to identify the presence of antenatal and postnatal depression and anxiety and to identify those women at increased risk, screening remains sporadic. After over six years, the actual *extent of screening is unknown* due to a lack of national consistency in data collection and monitoring or because evaluation and screening practices are *inefficient and not sustainable*¹².

Current screening practices:

- ✗ All use pen and paper approaches to complete questionnaires
- ✗ Are time consuming
- ✗ Are prone to scorer error – up to 13% potentially leading to inaccurate screening and referral for treatment
- ✗ Rely on trained health professionals to provide timely information relevant to the individual's score and risk assessment
- ✗ Do not cater for the needs of non-English speaking patients
- ✗ Do not enable the automated collection and collation of data preventing the evaluation of screening outcomes or ability to inform policy and service provision

There is an urgent need for systems to effectively and efficiently monitor and report on screening in real time.

The solution

In response to this, COPE in partnership with the Parent Infant Research Institute (PIRI) and Prevention Xpress have developed a digital platform (iCOPE) to facilitate effective and efficient screening, data collection and reporting at national, state and local levels. iCOPE is a digital platform, that has been designed to enable the seamless translation of Australia's Clinical Practice Guidelines into primary and maternity care.

The application of recommended screening and risk assessment tools onto the developed digital platform facilitates:

- ✓ The ability to undertake screening efficiently and effectively prior to consultations (thus saving time)
- ✓ The provision of screening and information in multiple languages
- ✓ The automated, accurate scoring and interpretation of clinical information
- ✓ The provision of tailored reports for the client (in relevant language for the consumer)
- ✓ The provision of tailored reports and clinical directives for the health professional for upload into clinical record systems
- ✓ The automated collection of data to inform client and service needs



All information about a client's specific risk factors and/or symptoms of depression and anxiety is underpinned by the cope website. The website cope.org.au links clients directly to more information on a specific topic (relative to their responses), as well as guiding them to support services.

The Brimbank and Melton Pilot Project

Initial funding provided by a philanthropic organisation (Chain Reaction) has enabled an initial feasibility trial to be undertaken by the Centre of Perinatal Excellence (August 2015 – present) in the Sydenham MCH centre.

Following the success of this trial, funding was sought through the **Victorian Government's MCH Innovation Grant** to expand its implementation across the municipalities of Brimbank and Melton. In line with the Grant focus, this population represents *high population growth* and a population that is amongst the *most disadvantaged communities* in Victoria – and where perinatal mental health risks are most prevalent and services are scarce.¹³



As part of the Victorian Government's commitment in increasing access to high quality early years services across Maternal and Child Health Services (M&CH), \$99,900 was granted to Brimbank City Council to pilot this innovative and sustainable solution to identifying and referring parents most at risk, and those experiencing postnatal mental health issues.

This funding will enable the deployment of the iCOPE Screening Platform across 26 MCH settings in the Melton and Brimbank areas. Funding will also enable the translation of the screening tools and information for consumers. In addition, pathways to care will be identified and integrated to enable knowledge and access of service pathways to all women and health professionals at the point of screening.

Project Consortia

There are a number of key Project Partners who will form the Program consortium. Each Partner organisation will play a critical role in the design, implementation and referral processes central to the success of this Program.

Consortium Members are:

- ❖ **Brimbank and Melton City Councils** – who collectively comprise of 26 MCH centres across which the screening will be implemented.
- ❖ **Centre of Perinatal Excellence (COPE)** – will provide the technology, program management and evaluation of the Program.
- ❖ **Melbourne West Primary Healthcare Network** – who will assist in the mapping of services within the primary healthcare network to inform pathways to care.
- ❖ **Health Direct** – the Commonwealth National Health Services Directory will provide the technological infrastructure to enable integration of e-referral pathways relative to an individual's identified risk factors and/or mental health status.
- ❖ **Perinatal Anxiety and Depression Australia (PANDA)** – will provide vital access to telephone counselling for women identified at risk and contribute to the development of e-referral pathways.

Project Objectives

The key objectives of this program are as follows:

- 1) **Adapt and pilot an innovative screening Platform** as informed by feasibility trial to detect psychosocial risk factors and risk of mental health conditions for all parents at Brimbank and Melton Maternal and Child Health services.
- 2) Expand the current screening tool to **facilitate screening in multiple languages** (N=11) as scoped and represented across the two municipalities.
- 3) Provide **individual tailored reports for parents** detailing risk factors, and likelihood of depression and anxiety in their respective languages.
- 4) **Generate tailored clinical reports for maternal and child health nurses** to summarise screening outcomes and guide best practice based on individual screening outcomes.
- 5) **Derive screening data across sites** to inform service needs of individuals and the population of the regions.
- 6) **Scope (map) referral clinical and support services** across the regions to inform referral pathways across the regions and integrate these pathways into the digital platform to provide individualised referral to local appropriate services.
- 7) **Evaluate the overall effectiveness of the program** to inform its expansion across the State of Victoria.

Project Timelines

This program of work will commence in **March 2016, and conclude in May 2017** with a report detailing the key outcomes and recommendations for the Victorian Government.

Critically as part of this Project, valuable partnerships, resources and infrastructure will be developed to build a framework for sustainability for the future of perinatal screening across the State of Victoria.

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