

Integrated perinatal care

A standing multidisciplinary team (MDT) around the pregnant woman

Without timely intervention the risk of longer term damage to mother and child is increased, leaving more severe problems for other agencies to pick up months or years later. To minimise some falling through the net, midwifery and obstetric teams require regular coordinated support from a range of agencies and specialists.

- The perinatal period is the best opportunity for preventive intervention, but early identification of problems is complex.
- Hard-pressed midwives are too often stranded with worried or worrying patients and have little guidance on where to send them for extra help. Mothers may be referred to another agency and not engage, or not be referred at all.
- A weekly perinatal MDT covering all aspects – medical/obstetric, dietary/lifestyle, social/domestic, mental health – could engage a greater proportion of those in need.
- Women and their families can then receive levels of intervention from advice, through support of various kinds to specific treatments or therapies.
- As an integrated care organisation Whittington Health already has some of the ingredients of a wrap-around perinatal service, but these are not fully coordinated and do not cover all boroughs, creating a two-tier/postcode service.
- The perinatal MDT would include representatives from midwifery, obstetrics, specialist midwives and counsellors, dietetics, neonatal paediatrics (including paediatric mental health), family nurse partnership, Islington and Haringey social workers, parent infant psychology, adult mental health, GPs and health visitors.
- All-round perinatal care ties in with
 - RCOG's 'each baby counts' initiative www.rcog.org.uk/eachbabycounts
 - the growing commitment in health service policy to mental and physical 'parity of esteem' www.england.nhs.uk/ourwork/qual-clin-lead/pe
 - NHS England CEO Simon Stevens' recently proposed greater integration of primary and secondary care www.england.nhs.uk/2014/06/04/simon-stevens-speech-confed/

notes and references on perinatal risk and its management

- From conception onwards the health and resilience of children is compromised by stress,¹ diet,^{2,3} drugs,⁴ genes⁵ and insecurity in their parents.⁶
- Besides the impact on the mother herself,^{7, 8, 9} anxiety and depression during pregnancy¹⁰ and after it have significant long term effects on the child's physical¹¹ and mental health¹² – particularly on boys^{13,14,15} – generating massive social costs.¹⁶
- Pregnancy is a dangerous time for some women.^{17,18,19} The most socially deprived mothers are more likely to have very premature births²⁰ or perinatal death.²¹ Low birthweight leads to poor outcomes;²² early intervention can reduce that.²³
- Multiagency^{24, 25} collaboration between women's health, social services,²⁶ primary care, dietetics²⁷, neonatal paediatrics, infant, child and adult mental health, parent-infant psychology, family nurse partnership, and other local services is required to intervene effectively at this singular moment in the lifecycle, when attendance at the hospital is usual, and where it is also possible to engage fathers.²⁸

¹ Davis EP, Glynn LM, Waffarn F, Sandman CA (2011), Prenatal maternal stress programs infant stress regulation. *Journal of Child Psychology and Psychiatry*, 52: 119–129 doi: 10.1111/j.1469-7610.2010.02314.

² Barker DJ (2003) The developmental origins of adult disease. *European Journal of Epidemiology* 18(8):733-6.

³ Lanigan J, Singhal A. (2009) Early nutrition and long-term health: a practical approach. *Proc Nutr Soc*.68:422-9

⁴ Behnke M, Smith VC; Committee on Substance Abuse; Committee on Fetus and Newborn.(2013) Prenatal substance abuse: short- and long-term effects on the exposed fetus. *Pediatrics*.131(3):e1009-24 doi: 10.1542/peds.2012-3931

⁵ Zohsel K, Buchmann AF, Blomeyer D, Hohm E, Schmidt MH, Esser G, Brandeis D, Banaschewski T, Laucht M (2014), Mothers' prenatal stress and their children's antisocial outcomes – a moderating role for the Dopamine D4 Receptor (DRD4) gene. *Journal of Child Psychology and Psychiatry*, 55: 69–76 doi: 10.1111/jcpp.12138

⁶ Field T, Hernandez-Reif M, Diego M, Figueiredo B, Schanberg S, Kuhn C (2006) Prenatal cortisol, prematurity and low birthweight, *Infant Behavior and Development*. 29, 268-275

⁷ Henderson J, Redshaw M (2013) Anxiety in the perinatal period: antenatal and postnatal influences and women's experience of care. *Journal of Reproductive and Infant Psychology* 31; 465-78 DOI:10.1080/02646838.2013.835037

⁸ Oates, M (2003) Perinatal psychiatric disorder: A leading cause of maternal morbidity and mortality, *British Medical Bulletin*, 67: 219–229.

⁹ Soet JE, Brack GA, Dilorio C.(2003) Prevalence and predictors of women's experience of psychological trauma during childbirth. *Birth*.30(1):36-46.

¹⁰ O'Donnell KJ, Glover V, Barker ED, O'Connor TG (2014) The persisting effect of maternal mood in pregnancy on childhood psychopathology. *Dev Psychopathol*. 26(2):393-403 doi: 10.1017/S0954579414000029.

¹¹ Beijers R, Jansen J, Riksen-Walraven M, de Weerth C. (2010) Maternal prenatal anxiety and stress predict infant illnesses and health complaints. *Pediatrics* 126:e401-e409 doi: 10.1542/peds.2009-3226

¹² Murray L, Arteche A, Fearon P, Halligan S, Goodyer I, Cooper P (2011) Maternal Postnatal Depression and the Development of Depression in Offspring Up to 16 Years of Age. *Journal of the American Academy of Child & Adolescent Psychiatry* 50 (5): 460 doi: 10.1016/j.jaac.2011.02.001

¹³ Morrell, J. and Murray, L (2003) Parenting and the development of conduct disorder and hyperactive symptoms in childhood: a prospective longitudinal study from 2 months to 8 years. *Journal of Child Psychology and Psychiatry* 44: 489–508. doi: 10.1111/1469-7610.t011-00139

¹⁴ Hay DF, Pawlby S, Sharp D, Asten P, Mills A, Kumar R (2001), Intellectual Problems Shown by 11-year-old Children Whose Mothers Had Postnatal Depression. *Journal of Child Psychology and Psychiatry*, 42: 871–889 doi: 10.1111/1469-7610.00784

¹⁵ Murray, L., Arteche, A., Fearon, P., Halligan, S., Croutledge, T. and Cooper, P (2010) The effects of maternal postnatal depression and child sex on academic performance at age 16 years: a developmental approach. *Journal of Child Psychology and Psychiatry* 51: 1150–1159 doi: 10.1111/j.1469-7610.2010.02259.x

¹⁶ Bauer A. et al (2014) The costs of perinatal mental health problems. LSE www.centreformentalhealth.org.uk/pdfs/Costs_of_perinatal_mh.pdf

¹⁷ Howard L, Piot P, Stein A (2014) No health without perinatal mental health. *Lancet* 384:1723-4

¹⁸ Ludermir AB, Lewis G, Valongueiro SA, de Araújo TV, Araya R. (2010) Violence against women by their intimate partner during pregnancy and postnatal depression: a prospective cohort study. *Lancet* 11;376:903-10.

¹⁹ Olds DL, Kitzman H, Knudtson MD, Anson E, Smith JA, Cole R. (2014) Effect of home visiting by nurses on maternal and child mortality: results of a 2-decade follow-up of a randomized clinical trial. *JAMA Pediatr*. 168(9):800-6 doi: 10.1001/jamapediatrics.2014.472.

²⁰ Smith LK, Draper ES, Manktelow BN, Dorling JS, Field DJ (2007) Socioeconomic inequalities in very preterm birth rates. *Archives of Disease in Childhood – Fetal and Neonatal Edition*, 92, F11–F14.

²¹ Freemantle N, Wood J, Griffin C, Gill P, Calvert MJ, Shankar A, Chambers J, MacArthur C (2009) What factors predict differences in infant and perinatal mortality in primary care trusts in England? A prognostic model *BMJ* 339:b2892 doi:10.1136/bmj.b2892

²² Class QA, Rickert ME, Larsson H, Lichtenstein P, D'Onofrio BM (2014) Fetal growth and psychiatric and socioeconomic problems: population-based sibling comparison. *Br J Psychiatry* 205:355-361 doi:10.1192/bjp.bp.113.143693

²³ Gardosi J, Giddings S, Buller S, Southam M, Williams M (2014) Preventing stillbirths through improved antenatal recognition of pregnancies at risk due to fetal growth restriction. *Public Health*. 128(8):698-702 doi: 10.1016/j.puhe.2014.06.022.

²⁴ Byatt N, Simas TA, Lundquist RS, Johnson JV, Ziedonis DM (2012) Strategies for improving perinatal depression treatment in North American outpatient obstetric settings. *J Psychosom Obstet Gynaecol*. 33(4):143-61 doi: 10.3109/0167482X.2012.728649.

²⁵ Myers KA, Schmied V, Johnson M, Cleary M (2013). Collaboration and integrated services for perinatal mental health: an integrative review. *Child and Adolescent Mental Health*, 18: 1–10 doi: 10.1111/j.1475-3588.2011.00639.x

²⁶ Woodcock Ross J, Hooper L, Stenhouse E, Sheaff R (2009) What Are Child-Care Social Workers Doing in Relation to Infant Mental Health? An Exploration of Professional Ideologies and Practice Preferences within an Inter-Agency Context. *British Journal of Social Work* 39(6):1008-25 doi:10.1093/bjsw/bcn029

²⁷ Okens K, Taveras EM, Kleinman KP, Rich-Edwards JW, Gillman MW (2005) Maternal weight gain during pregnancy and child adiposity at age 3 years. *Pediatr Res* 58:1127.

²⁸ Ramchandani PG, Domoney J, Sethna V, Psychogiou L, Vlachos H, Murray L (2013) Do early father-infant interactions predict the onset of externalising behaviours in young children? Findings from a longitudinal cohort study. *J Child Psychol Psychiatry*. 54(1):56-64 doi: 10.1111/j.1469-7610.2012.02583.x.