

Infant mortality: Factsheet

Tower Hamlets Joint Strategic Needs Assessment 2010-2011

Executive Summary

This fact sheet summarises the factors influencing health and well being and mortality in babies under 1 year of age with a focus on the potentially modifiable risk factors for infant mortality.

Pregnancy and childbirth are normal physiological processes however the antenatal and post natal periods are critical both for the short and long term health of the unborn child and for the mother. The factors known to be associated with a higher risk for infant mortality include:¹

- Low socio-economic status
- Maternal age (under 20yrs and 35yrs +)
- Birth outside marriage / sole registration
- Late booking for antenatal care
- Smoking during and after pregnancy
- Alcohol and substance misuse during and after pregnancy
- Maternal obesity
- Maternal morbidity, e.g. diabetes, hypertension and mental illness
- Domestic violence
- Low birth weight (<2500g)
- Not breast feeding
- Inappropriate infant sleeping position and environment

Despite amongst the highest levels of deprivation in the country and a higher prevalence of low birth weight in Tower Hamlets (9.0%) compared to London (7.5%) and England (7.2%) (2007-2009 pooled)², the infant mortality rate in Tower Hamlets (4.4 deaths per 1,000 live births, 2007-09 pooled) is not significantly different compared to London (4.4) and England (4.7)³. In fact, since 2001-03, the infant mortality rate (pooled 3 year data) in Tower Hamlets has tended to be lower⁴ than that in England and London⁵ although, due to the small numbers, the differences are not statistically significant. Possible protective factors in Tower Hamlets include a relatively low prevalence of smoking in pregnancy, relatively high prevalence of breastfeeding and improvements in the access to and quality of antenatal care.

Key national reports making recommendations on how to improve the health outcomes for the mother and unborn child and reduce infant mortality, which have informed the local recommendations, include:

- Tackling health inequalities in infant and maternal health outcomes: report of the infant mortality national support team. December 2010.
- Inequalities in Infant Mortality Work Programme, 2011. National perinatal epidemiology unit
- NICE Ante-natal Clinical Guideline 62 / Pregnancy and complex social factors Clinical Guideline 110
- Maternity Matters, DH 2007

¹Tackling health inequalities in infant and maternal health outcomes – Report of the infant mortality national support team Dec 2010

²ONS, 2007-2009 pooled data

³LHO HNA Toolkit and VS data on ELVIS

Recommendations

High level recommendations for Tower Hamlets:

- Ensure that multi-agency interventions to reduce child poverty, poor housing and overcrowding explicitly include measures to promote infant health and mitigate the negative impacts of poverty and poor housing on infant health
- Ensure access to high quality sex and relationships education, contraceptive advice and services to support informed decisions about fertility, particularly for communities who are most vulnerable to poorer outcomes, including young women
- Promote and support healthy behaviours, pre-conceptually, during and after pregnancy, including advice and support on breastfeeding, smoking cessation and reducing exposure of infants to environmental tobacco smoke, healthy balanced diets, alcohol and drug use and parenting skill targeting support at demographic groups at highest risk
- Improve access to high quality ante-natal care through a range of settings to improve access to early screening and the early identification of mothers at higher risk of poor outcomes
- Provide women centered care to enable informed decision making throughout the ante-natal and post natal periods.
- Provide information and advice on the safe sleeping position for infants including the risks associated with co-sleeping and how to reduce these risks
- Secure recurrent funding for the Family Nurse Partnership service for vulnerable young mothers and their babies

⁴In 2001-03 same as England; 2007-09 same as London

⁵NHS Information Centre, 2006-08 pooled, December 2009, 2007-2009 pooled March 2011; Trends in Infant Mortality 1990-2003 (Deaths under 1 year per 1000 live births) ONS Vital Statistics processed by LHO and ELCIS

1. Infant mortality: What are the issues?

Infant mortality is death during the first year of life. The following indicators are used to describe and compare mortality and still birth in different periods of infancy:

Infant mortality rate: number of deaths per 1,000 live births < 1 year

Neonatal mortality rate: number of deaths per 1,000 live births < 28 days

Perinatal mortality rate: number of deaths (including still births) per 1,000 births < 7 days

Still birth rate: number of still births per 1,000 births

The three major medical causes of infant mortality are:

- preterm birth
- major congenital anomalies
- sudden infant death syndrome/sudden unexpected deaths in infancy (SIDS/SUDI)

Major potentially modifiable risk factors for infant mortality and poor infant health include:

- Deprivation including poor housing and overcrowding
- Maternal age (under 20yrs and 35yrs +)
- Marriage status: birth outside marriage / sole registration
- Smoking during pregnancy and the postnatal period *
- Alcohol and substance use*
- Risk factors for sudden infant death syndrome/sudden unexpected deaths in infancy (SIDS/SUDI):
 - exposure to environmental tobacco smoke
 - non-supine sleeping position
 - adverse sleeping environment, e.g. bed-sharing (particularly if parents smoke, have been drinking alcohol or have taken drugs), 'rooming alone'
- Not breastfeeding*
- Poor maternal nutrition*
- Late booking for antenatal care*
- Lack of access to early screening services*
- Low birth weight (below 2500g)
- Gestational diabetes*
- Maternal obesity
- Pre-existing maternal morbidity including diabetes, high blood pressure and mental illness
- Domestic violence*
- Mental health disorders during pregnancy and the post natal period
- Low coverage of child immunization programme*

**See separate fact sheets on smoking and pregnancy; infant and early years nutrition; antenatal care; gestational diabetes; alcohol and substances misuse; safeguarding children and immunizations for more detail.*

Women who are vulnerable (e.g. socio-economically disadvantaged; teenage mothers; single mothers; victims of domestic violence and women with mental health problems) are 20 times more likely to die from a pregnancy related complication than other women and infant mortality rates are higher in the more deprived areas of the country and amongst more vulnerable or disadvantaged groups⁶.

⁶ Maternity Matters 2007

Pregnant women with complex social factors have been found to be deterred from using antenatal services⁷ for a range of reasons, including :

- Feeling overwhelmed by the involvement of multiple agencies
- Not being familiar with ante-natal care services
- Having practical problems which prevent them attending antenatal appointments
- Finding it hard to communicate with healthcare staff
- Feeling anxious about the attitudes of health care staff.

Late access to antenatal care can further compound the risks already faced by this group of women.

2. What is the local picture?

Tower Hamlets has very high levels of deprivation with the fourth highest Index of multiple deprivation score and the highest level of child poverty in the country; 80% of the population live in 20% of the most deprived areas in the country; 67% of the under 15 population live in low income households. The high level of deprivation is particularly reflected in the housing with 59% living in council housing, 15% housing association and 33% private rented accommodation classified as 'non decent'.

Infant mortality is an indicator of the overall health of the population but, although the infant mortality rate in Tower Hamlets is not significantly different to the national rate, there are a number of risk factors within the local community including the high levels of child poverty, overcrowded housing, low birth weight, maternal obesity, gestational diabetes and teenage pregnancy.

As pregnancy and the first year of life is a critical period that lays the foundation for the whole of the child's life this is a critical period for health promotion and health improvement. The physical and mental health of the pregnant woman, lifestyle factors and timely access to screening and other preventive services can have an impact on the outcome of pregnancy and also the child's longer term health and well-being.

Infant mortality rates:

Due to the small number of infant deaths each year, in PCT sized areas the convention is to look at 3 year averages.

Table 1. Infant mortality rates (deaths per 1000 live births)^{8,9, 10, 11}

	Tower Hamlets			London			England		
	2005-07	2006-08	2007-09	2005-07	2006-08	2007-09	2005-07	2006-08	2007-09
Still births	5.8	5.2	N/A*	6.2	6.0	5.8	5.3	5.2	5.1
Perinatal (<7d)	6.4	1.9	2.4	8.3	2.3	2.3	7.9	2.6	2.5
Neonatal (<28d)	4.1	2.7	3.1	3.5	3.1	3.0	3.4	3.3	3.2
< 1 year	4.5	4.1	4.4	4.8	4.6	4.4	4.9	4.8	4.7

*Information may potentially identify individual

During the period 2004-10, the largest cause of death for infants over 28 days has been congenital malformations, deformations and chromosomal. Further investigation is required to determine if there are

⁷ Nice clinical guidance 110, 2010

⁸ NHS Information Centre, period 2009, released March 2011.

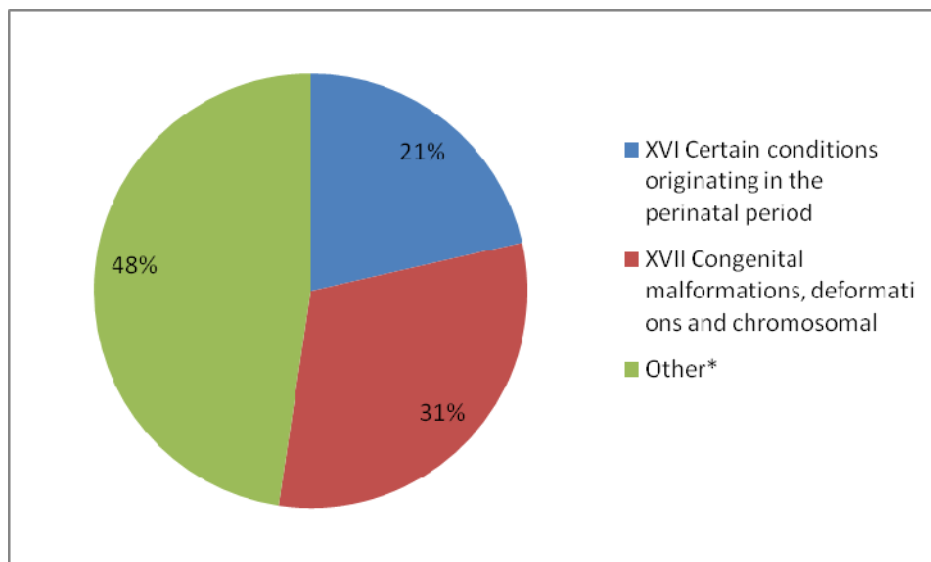
⁹ LHO HNA toolkit and VS data on ELVIS

¹⁰ NHS Information Centre, Compendium of clinical and health indicators, December 2009

¹¹ ONS, Live births, stillbirths and infant deaths, 1978–2009

factors within this group which may be modifiable e.g. consanguinity.

Graph 1. Causes¹² of Death to Infants over 28 days < 1 year-Tower Hamlets, 2004-2010¹³



The causes in 'other' category have been amalgamated due to the small numbers which would otherwise potentially identify individuals. This category consists of the following causes: I Certain infectious and parasitic diseases; X Diseases of the respiratory system; XI Diseases of the digestive system; XIII Diseases of the musculoskeletal system and connective; XIV Diseases of the genitourinary system; XV Pregnancy, childbirth and the puerperium; XVIII Symptoms, signs and abnormal clinical and laboratory; XX External causes of morbidity and mortality; IV Endocrine, nutritional and metabolic diseases and VI Diseases of the nervous system.

Over the period 2004 to 2010 in Tower Hamlets there have been 42 deaths over 28 days < 1 year, of which 55.8% of infant deaths were male and 44.2% female.

The majority of the infant deaths are Bangladeshi which is a reflection of the population demographics and the high proportion of the births being to Bangladeshi women in Tower Hamlets.

In 2008/09 birth rates for each ethnic group are as follows:

¹²World Health Organisation ICD10 classifications

¹³ONS Public Health Mortality File

¹⁴ONS

¹⁵ Mayhew L & Harper G. Health and deprivation: Putting Marmot into practice in Tower Hamlets. 11-2-2011

¹⁶ As an original commitment in the Teenage Pregnancy Strategy (1999), reduction in the under-18 conception rate by 50% by 2010 has been a Public Service Agreement target since 2005.

¹⁷ NHS Tower Hamlets (2007) Sexual Health Strategy, 2008-2013.

¹⁸ONS, 28th February 2011

¹⁹ BLT maternity data

²⁰Health of the Population Indicator, NHS Feedback as at Q3 2009/10. Smoking at time of delivery

²¹DH, NHS IC Omnibus, 2010

²²BLT maternity data

²³ The effectiveness of public health interventions to promote the initiation of breastfeeding. Health Development Agency, June 2003

²⁴Tower Hamlets data – not on Unify2

3. Bangladeshi mothers: 44.8%
4. White British mothers: 14.4%
5. White Other mothers: 5.7%
6. African mothers: 6.7%
7. Other minority ethnic groups: 13.5%
8. Ethnically mixed backgrounds: 14.9%

Table 2. Ethnicity of infant deaths over 28 days (< 1 year) – Tower Hamlets

Ethnicity	2008-2010	Grand total
Bangladeshi	19	36.5%
White British	5	9.6%
Other minority ethnic groups	15	28.9%
Ethnically mixed backgrounds /Not known / not stated / blank	13	25%
Grand total	52	100%

Those with ethnicity recorded as unknown is a reflection of incomplete recording.

Low birth weight:

Low birth weight (below 2500g) is an important risk factor for infant mortality and morbidity, particularly in the neonatal period, and may also be associated with increased risk for cardiovascular disease in later life.

The prevalence of low birth weight has remained stable, locally, regionally and nationally during 2008 and 2009.

Table 3. Prevalence low birth weight (<2500g)¹⁴

	Tower Hamlets	London	England
2006 - 2008	9.6%	7.6%	7.3%
2007-2009	9.0%	7.5%	7.2%

Local analysis shows that birth rates are significantly higher in the most deprived segments of the community however there is no clear pattern between level of deprivation, teenage mother birth rates or low birth weight. Fertility in the Bangladeshi community is significantly higher than in the non-Bangladeshi community and appears to be independent of deprivation¹⁵.

Teenage conceptions and births:

In 2009, there were 132 conceptions out of 3207 female aged 15-17 (ONS population estimate), a rate of 40.7/1000, which is a 29.6% decrease from 1998 baseline compared with a national decrease of 18.1% and London decrease of 20.3%. This still falls short of the national target of 50% (from the 1998 baseline)¹⁶ and the local target¹⁷ of 55% to be achieved by 2010.

In 2009, 66% (87) of conceptions under the age of 18 led to an abortion. This is higher than the average for England (49%) and for London (61%). Although the number and rate of 15-17 year olds conceiving decreased from the 2003-05 period to the 2006-08 period, the percentage of U18 conceptions leading to abortion has

increased slightly.

The birth rate arising from under-18 conceptions fell by 29.6%% (1998-2009). Indicating that early childbearing has become less appealing.

Table 4. Under 18 conception: birth rate per 1000¹⁸

	Tower Hamlets	London	England
2005	44.6	46	41.3
2006	44	45.6	40.6
2007	45.9	45.6	41.8
2008	33.4	44.6	40.5
2009	40.7	40.7	38.2
2005-2009 % change in rate	-29.6	-20.3	-18.1

See the separate factsheet on teenage pregnancy for further information.

Booking for antenatal care:

Increasing the proportion of pregnant women who book for antenatal care before 12 weeks gestation is important to ensure early informed access to antenatal screening, and enables the midwife to identify women at higher risk of poor outcomes, ensure care is right for the women and that high quality information is provided to inform choices about health related behaviours (e.g. parenting skills, breastfeeding, smoking, nutrition and alcohol), where to have the baby and pain relief.

In Tower Hamlets, the prevalence of women booking before 12 weeks has been improving year on year.

Table 5. Maternity bookings in Tower Hamlets by 12 weeks and 6 days¹⁹

Year	Prevalence
2008/09	68.3%
2009/10	76.0%
2010/11	89.7%

See the maternal health fact sheet for further information.

Smoking in pregnancy:

Reducing the number of women who smoke prior to conception, during pregnancy and postnatally is a very important public health measure which can prevent serious pregnancy-related health problems. These include:

- Complications during labour and increased risk of miscarriage
- Premature birth
- Still birth
- Low birth weight
- Sudden unexpected death of the infant
- Impact on long-term physical growth and intellectual development

There is a relatively low and improving prevalence of smoking during pregnancy in Tower Hamlets compared to London and England.

Table 6: Prevalence smoking at time of delivery: Tower Hamlets, London, England

	Tower Hamlets	London	England
Q3 2009/10 ²⁰	5.7%	7.4%	13.9%
Q3 2010/11 ²¹	3.3%	6.8%	13.5%

Table 7: Prevalencesmoking at time of delivery by quartile 2010/11: Tower Hamlets

	Q1	Q2	Q3	Q4
2010/11 ²²	5.6%	5.4%	3.3%	3.1%

The prevalence of smoking is particularly low in pregnant women from the Bangladeshi community, 1%, but rates in pregnant women from the white community, 16.2%, in 2007/08. For white women this is higher than the England average.

See the smoking and pregnancy factsheet for further information.

Breastfeeding:

As well as providing complete nutrition for the development of healthy infants, human breast milk has an important role to play in reducing the risk of gastroenteritis, respiratory infection, otitis media, urinary tract infection, atopic disease, juvenile onset insulin-dependent diabetes and obesity in the child and epithelial ovarian cancer, breast cancer and obesity in the mother²³.

There has been a gradual increase in the prevalence of breastfeeding initiation and breastfeeding at 6-8 weeks. Initiation has risen from 81.1% to 88.8% between 2007-08 to 2010-11, whilst breastfeeding at 6-8 weeks has risen from 68.8%²⁴ to 73.1% between 2008-09 to 2010-11.

See the infant and early year's nutrition factsheet for further information.

Childhood immunisation:

Immunisation is a very effective public health intervention to protect children from a range of infectious diseases which could seriously compromise their health.

Uptake and coverage of the childhood immunisation programme, in Tower Hamlets has improved significantly since the beginning of April 2010 with all the vaccinations in the childhood schedule reaching over 93% coverage by quarter 3 (September 1st until 31st December 2010). The 1st year vaccinations in Tower Hamlets have reached over 95% for the past 2 quarters 2010/11.

Uptake of BCG vaccination was 95.6% for quarter 3 (September – December 2010)

See the immunisation factsheet for further information.

9. What are the effective interventions?

Based on the evidence from the following NICE guidance www.nice.org.uk Ante-natal care Clinical Guideline 62, Pregnancy and complex social factors Clinical Guideline 110, Tackling health inequalities in infant and maternal health outcomes report (DH 2010), the DH publication Maternity Matters (DH 2007) and the National Perinatal Epidemiology Unit Inequalities in infant mortality work programme²⁵, a number of recommendations have been made which will impact on the health of a women during pregnancy and on infant mortality which require addressing by the services offered locally.

Key interventions to reduce infant mortality

- Reducing child poverty
- Improving maternal educational attainment
- Improving housing and reducing overcrowding and promoting closer working between health and housing agencies
- Routine enquiry and support re: domestic violence and mental illness
- Reducing the number of unplanned births to teenage parents
- Providing more intensive parenting support for pregnant women with complex needs including teenage parents (e.g. Family Nurse Partnership). This will require a more coordinated approach between statutory bodies.
- Ensuring early access to antenatal care (early booking) to enable a full health and social care assessment by 12 weeks gestation
- Providing information and education on the antenatal and newborn screening programme
- Providing information and education on risks associated with consanguinity
- Promoting healthy maternal nutritional status including raising the awareness of the Healthy Start scheme. The scheme operates on eligibility criteria to enable families on low income to have access to healthy nutrition and targets pregnant women including under 18 year olds and breast feeding mothers with infants up to one year old, and children aged under 4 years old of eligible parents.
- Provision of specialist services for obese pregnant women.
- Reducing smoking before during and after pregnancy
- Reducing exposure of infants to environmental tobacco smoke
- Promoting safe sleeping position and awareness of risks associated with bed sharing, parental smoking, alcohol and substance use
- Promoting and supporting breast feeding during both the antenatal and post natal period, The Baby Friendly Initiative (BFI) standards provide an evidence based framework (see below for more information)
- Ensuring high coverage of the child immunization programme

Other areas specifically recommended to Tower Hamlets by the Infant Mortality Support Team (IMST):

- Promotion of the factors which are associated with preventing sudden infant death to all antenatal mothers
- Ensure that timely multi-agency care reviews are held to discuss and agree plans for vulnerable antenatal women where safe guarding issues area raised as concerns which are covered by the All London Child Protection Procedures.
- Provide emotional support for Gateway midwives.
- To regularly review data sharing protocols and processes to ensure they are effectively being followed.

²⁵<https://www.npeu.ox.ac.uk/infant-mortality>

10. What is being done locally to address this issue?

Health improvement strategy for maternity services

- The recommendations in this strategy are based on national guidance and a review of the available evidence for effective interventions to promote the health of the pregnant woman and developing child and focuses on the following areas:
 - Nutrition, Physical Activity and Healthy Weight
 - Breastfeeding
 - Smoking
 - Alcohol and Drug Misuse
 - Mental Health
 - Domestic Violence
 - Teenage Pregnancy
 - Parenting
 - Control of Existing and Pregnancy Associated Clinical Conditions
 - Antenatal and Newborn Screening

Local services

Barts and the London Maternity Service provides a full range of maternity services from community care by midwives to multi-specialty, consultant-led hospital care.

- *Early access to maternity services:* there has been improving performance in maternity access through a combination of changes by the maternity services, in the community and, data and performance management. *See the maternal health factsheet for further information.*
- *Maternity access outreach project* was undertaken from September 2009 to March 2010 in order to increase access to early antenatal care amongst women of childbearing age and their families in Tower Hamlets. Where possible recommendations have are being incorporated into mainstream services to help ensure continued improvements to achieving early access to maternity service for all women in Tower Hamlets.
- *Antenatal and Newborn Screening:* All women booking for antenatal care at Barts and the London are offered the nationally recommended antenatal and newborn screening programmes
- *Antenatal Parenting Education Classes* . The Tower Hamlets Maternity Review highlighted the need for increased and enhanced antenatal parenting education for women and their partners. In response, a new service was developed, bringing together a multi-agency team of midwives, health visitors, bi-lingual support workers, breastfeeding support workers with administrative support to provide an extended programme ensuring all pregnant women.

The programme includes:

- Courses for teenage parents,
- Short 'refresher' courses for multigravida women and couples,
- Epidural information sessions,
- Aqua natal sessions and
- Hospital/birth centre tours.
- Courses with advocates for Bangladeshi and Somali women

- *Information* provided during pregnancy is evidence-based and enable women to make decisions for themselves and their baby. Information includes the Pregnancy Book for all first time mothers²⁶ as well as locally developed and produced material.

- *Baby Friendly Initiative (BFI)*. The BFI is a worldwide programme of the World Health Organisation and UNICEF. It encourages maternity hospitals to implement the 10 steps to successful breastfeeding and to practice in accordance with the International Code of Marketing of Breast milk supplements. There are three stages to achieving full accreditation with the programme and the Royal London Hospital and the Community Health Service have now successfully reached stage 2. Both setting are working towards achieving stage 3 and full accreditation during 2011/12.²⁷ See the infant and early year's nutrition factsheet for further information.

- There is a dedicated *smoking cessation in pregnancy advisor* responsible for supporting pregnant women to stop smoking and the implementation of a wider strategy on smoking in pregnancy and early years.

- A *specialist perinatal mental health service* provided by East London Foundation Trust works in conjunction with existing maternity services.

- *The Gateway Midwifery Team* provides intensive, specialist care for high-risk women during pregnancy, specifically:
 - Pregnant women with severe, enduring mental health problems
 - Pregnant teenagers
 - Pregnant women exposed to domestic violence
 - Pregnant women with complicated child protection issues
 - Asylum seekers
 - Women with learning or physical disabilities

- *The Seacole Clinic* offers a multi-agency service for pregnant women with problematic substance abuse

- *Domestic violence* in relation to maternity services is addressed by a number of departments, including the Safeguarding Children team

- *Maternity Services Liaison Committee*: a multi-disciplinary maternity services forum, where commissioners, public health, providers and users of maternity services bring together their different perspectives in partnership to plan, monitor and improve local maternity services.

- *Doula project (Maternity Mates)*: recruits and trains women from local communities to provide emotional and practical support to women during pregnancy, childbirth and the early weeks of family life. Particular

²⁶ The Pregnancy Book DH 2007

²⁷<http://www.babyfriendly.org.uk/page.asp?page=11>

attention being paid to those members of the local population who are isolated and vulnerable. This pilot was originally funded until October 2011 but has now been extended for a further year.

- *Dietetic services.* The acute dietetic service at the Royal London Hospital provides input to the antenatal wards and delivers twice-weekly antenatal clinics, which provides group education sessions on nutrition during pregnancy and a specialist service to pregnant women who are high-risk.

The Activ8 team is working with maternity services to provide early identification, support and treatment for pregnant women who are obese

- *Teenage Pregnancy/:* Tower Hamlets PCT Public Health Department and the London Borough of Tower Hamlets have developed a multi-agency strategy to meet the Department of Health targets relating to reducing under 18 conception rates, preventing sexually transmitted infections and providing support for teenage parents.

- *Family Nurse Partnership (FNP).* THPCT in partnership with the LBTH was one of the first 10 sites in England to embrace the opportunity of trialing a new way of working with vulnerable first time mums under 20. This is a preventive, intensive, structured home visiting programme from early pregnancy until the child reaches 2 years.²⁸

- *Children's centers'* promote maternal health pre-conceptually, during the antenatal and post natal periods such as providing advice on healthy eating, smoking cessation and exercise. Children's Centers' have clinical examination rooms which enable community midwives to review women during the antenatal and postnatal period, when it is a preferable venue for the family. This facility is used most effectively with "hard to reach" families. Children's Centers' are key venues for delivering antenatal parenting education classes, including those specifically for teenagers.

Children's Centre family support workers deliver outreach services to some of the most vulnerable women and children in the community.

- NHS Tower Hamlets evaluation of the *Common Assessment Framework* processes and procedures to ensure it is fully embedded across all organisations in the borough to improve the care for vulnerable families.
- *Weaning project.* This was a pilot for a universal home- based nutritional support in two general practices to establish healthy feeding practices in children by the age of 12 months. Recommendations are have been made for both universal and targeted services and are being incorporated into practice via changes to the competency based training programme. Further details in the Infant and Early Years Nutrition fact sheet and the full report available on request).
- *A vitamin D health needs assessment is* being undertaken which includes a review of the Tower Hamlets Healthy Start Vitamins (HSV) scheme. This has included a survey of GPs, health visitors and midwives and a review of current practices and procedures. Mapping and audit of current distribution centers has been completed. New procedures have been developed and are being implemented for the monitoring and distribution of the Healthy Start Vitamins. For further information see the Maternity and Early Years

²⁸http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_118530

Vitamin D fact sheet.

- *A pre-existing diabetes in pregnancy / gestational diabetes health needs assessment* is being undertaken. See the fact sheet for further information.

11. What evidence is there that we are making a difference?

- Lower rates of infant mortality than would be expected given the high levels of deprivation, high levels of low birth weight and high numbers of women with complex needs.
- Increased breastfeeding rates both at initiation and 6-8 weeks. Increasing exclusive breastfeeding rates. See the Infant and Early Years Nutrition fact sheet
- Improved early maternity access. See the maternal health fact sheet.

Table 10. Summary of achievements related to improving infant mortality rates

Indicator	Baseline	Latest data
Teenage conceptions	1998 -rate 57.8 per 1,000 for females aged 15-17	2009 - rate 40.7 per 1,000 for females aged 15-17
Maternity Access by 6-8 weeks gestation	2008/09 68.3%	2010/11 89.7%
Breastfeeding	2008/09	2010/11
<i>Initiation</i>	80.5%	88.8%
<i>At 6-8 weeks</i>	68.8%	73.1%
Child immunisation	2007/08 (Q3)	2010/11 (Q3)
<i>1st Yr 3rd DTaP/IPV/Hib</i>	85.5%	96.7%

- Family Nurse Partnership

There is evidence of improved outcomes amongst the young vulnerable mothers and their babies who have participated in the Family Nurse Partnership. Key messages from the Tower Hamlets data report April 2010²⁹:

- There was a 4% reduction in the number of women smoking between intake and 36 weeks pregnancy
- Clients are 15% less likely to smoke at 36 weeks pregnancy compared to intake
- 34% of clients reduced the number cigarettes smoked from intake to 36 weeks.
- 81% of Tower Hamlets' clients report some use of birth control at 6 months after their infant's birth
- 61% of Tower Hamlets' clients were not in education; training or employment at intake and this trend continued at 6 months after their infants were born
- 7 babies had any A&E attendance for ingestion or injury in their first six months of life
- 58% of Tower Hamlets' babies had up to date immunizations at 6 months
- 74% of Tower Hamlets' clients initiated breastfeeding, 47% were still breastfeeding at 6 weeks and 23% were still breastfeeding at 6 months

²⁹Family nurse partnership, Wave 1 6-Monthly Data Report – April 2010, Tower Hamlets. Data extracted on 19.02.10 or 20.01.10 Preliminary data and analysis

- Retention in the programme in all stages (pregnancy, infancy and toddlerhood) so far is good and exceeds the US stretch goals
 - 31% of clients received 80% or more of expected visits in pregnancy
 - 23% of clients received 65% or more of expected visits in infancy
 - 34% of clients received 65% or more of expected visits
- Improvements to the Healthy Start scheme. *For further information see the Maternity and Early Years Vitamin D fact sheet.*
 - Tower Hamlets under 18 conception rate, according to recent figures for 2009 we have reduced our rate by 29.6% from the 1998 baseline

12. What is the perspective of the public on support available to them?

Maternity services:

- There is a standing item on the MSLC agenda for a report from the Mothers Support group (MSG). This report identifies a number of key areas of interest and concern raised by service users through the community meetings and the MSG.
- The 2010 Care Quality Commission survey on service users' experience of maternity services covering mothers who gave birth at BLT during February 2010; completed with a response rate of 34%. CQC published a report based on 19 quality questions. BLT performed badly on scores for "staff during labour and birth" and for postnatal care. Comparing the results from the 2010 CQC survey with the similar 2007 Healthcare Commission survey shows that BLT has made improvements on nearly every measure. On 8 questions this improvement passes a test of statistical significance, indicating that it is highly unlikely to have been produced by chance. The results as a whole provide strong assurance that the service has made broad improvements. The CQC report has been discussed by MSLC and linked with the local Maternity User Experience Action Plan.
- A commissioner led PCT survey, supported by maternity services, was undertaken January-February 2011, following up from the first piece of work completed in January 2010.
- Real-Time Feedback: Two "real-time" touch screen units have been located in the Postnatal Ward (Royal London Hospital) and in the reception of the Barkantine Birth Centre since 26 January 2010. These give patients and visitors the option to fill in a short survey on their experience of the service.

The PCT survey, the real-time feedback and the CQC survey³⁰ all indicate that there have been improvements in the experience of maternity care at BLT. Whilst there are shortcomings to all these forms of evidence the combined picture provides good assurance that the quality of the maternity service is improving. This conclusion is supported by the comments and informal feedback received from the MSLC and from THINK.

- Regular *BFI* audits undertaken with service users. See the infant and early year's factsheet for details.
- *Family Nurse Partnership*: see appendix 1 for case study.

³⁰ Maternity Services – Patient Experience Report. Enrico Panizzo, Patient Experience Co-ordinating Manager. March 2011

- The *antenatal parenting education programme* undertakes an evaluation of each couple at the end of their four week course in order to assess the success of the course. Each audit has shown improvements in the service. The last report covers the period June 2010-March 2011 and incorporates 778 Evaluations across 12 sites over 4 localities. Key findings:
 - content is rated at 78-82% excellent and 18-22% as good. There were no negative responses.
 - 80-89% rated the format as excellent and 11-20% was rated as good.

Other themes identified through clients comments were:

- There is a need to provide further information regarding post natal information for new parents.
- There is a need to evaluate whether it is feasible to teach a longer course to cover all areas in more detail.
- There is a need to provide more teaching aids such as video/ PowerPoint/ audio/ dolls in the venues used.
- The numbers of couples attending evening classes are above the recommended amount for good effective teaching and learning therefore more evening classes may need to be offered?

A number of projects have included perspectives from the public including the maternity outreach access project and the weaning project. See *infant and early year's nutrition factsheet for details of the weaning project.*

- The *maternity outreach access project* received positive feedback from the participants and all participants found the information useful and practical. Example response:
 - 35% of women were not fully aware of the importance of Antenatal Services before the education workshops. After the workshops 62% of women said they were aware of the importance of using the services.
 - A full report is available on request with details of responses from the service users including case studies.
- The first evaluation of the *Doula project* will be undertaken during 2011 which will include gaining the perspective of the women from the community who have been trained and those who have been supported.

13. What more do we need to know?

Following a recent visit by the Infant Mortality Support National Team the following were identified as gaps or areas for further development:

Information about the age and ethnicity of women who are booking late for antenatal care. Prior to 2006 this information was available but currently this information is no longer available from BLT maternity services; planned upgrades to CRS may assist.

A need to strengthen the links between housing and community nursing (Health Visitors/Midwives)

- Analysis of the gaps in the transitional care arrangements in BLT.
- Evaluation of the role of the advocacy role is working within maternity services.

Further areas where more information is required:

- A more accurate picture of the numbers and demography of the local women who are smoking during pregnancy and who are either partially breastfeeding or not breastfeeding at all.
- How the success of the FNP compares to the general population e.g. with respect to smoking during pregnancy, early antenatal booking, breastfeeding, second pregnancies for teenage mothers.
- Greater understanding of why women do not take-up the National Healthy Start Scheme.

- More accurate picture of those women continuing to present late for antenatal care
- Potentially modifiable factors related to the dominant cause of infant death
- Analysis of the impact of consanguinity on infant mortality and morbidity

14. What are the priorities for improvement over the next 5 years?

Key findings from this report:

- In Tower Hamlets many women experience the modifiable factors which can impact on the health of during pregnancy and on infant mortality rates.
- Women who are vulnerable and disadvantaged are 20 times more likely to die from a pregnancy related complication than other women and infant mortality rates are higher in the more deprived areas of the country and within more vulnerable or disadvantaged groups.
- Whilst infant mortality rates in Tower Hamlets remain below the London and national average there have been fluctuations in the actual number of deaths in Tower Hamlets each year which warrants further investigation.

Recommendations:

Data (as recommended in the IMSNT)

- Improving the data by ensuring providers deliver information specified in contracts
- Ways of improving the incompatible IT systems operating across the statutory sector
- Improving IT access for community based staff

Other

- Improving the dedicated care transitional arrangements at the Royal London Hospital.
- Developing formal communication links between LA Housing and community nurses to build a borough-wide picture of local housing issues in relation to infant health
- Building on housing plans to develop affordable warm strategy and to address standards in the private rental sector
- To build a communication strategy to inform women and their families how to access antenatal care.
- Develop a range of settings from which to offer antenatal care and facilitate early antenatal booking
- Ensure commissioning arrangements are strengthened and resources are effectively targeted to improve maternal and child health.
- Extend the emotional support being offered to the Gateway midwives in the Royal London Hospital to neonatal nurses and families on the neonatal unit.
- Analysis of the impact of consanguinity on infant mortality and morbidity

15. Key Contacts

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Date updated:	6 th October 2011	Updated by:	Lisa Vaughan	Next Update Due:	June 2012
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Date signed off by Senior JSNA Leads:	<i>Date factsheet signed off by senior JSNA leads from Public Health and LBTH</i>	Signed off by (Public Health Lead): Esther Trenchard-Mabere	<i>e.g. Director or Associate Director 20th August 2011</i>	Date signed off by Strategic Group:	<i>Date factsheet signed off by Strategic Group</i>	Sign off by Strategic Group:	<i>Name the relevant Strategic Group</i>
		Signed off by (LBTH Lead):	<i>e.g. Director of Adults/CFS</i>				

Appendix 1 FNP case study - Jane

Jane is 16 years old. She was placed in hostel accommodation outside the borough by homeless persons unit. She spends some nights there but also stays with her boyfriend's family or with her Dad. Both live in council properties. Her parents are divorced and relations with her mother are strained. She enrolled onto the programme in her 27th week of pregnancy. There are some uncertainties who the father of the baby is.

Jane is active by virtue of her nomadic lifestyle. Her BMI is normal and her weight gain in pregnancy is satisfactory. She frequently goes to MacDonalld's and has a craving for sweets. She has no dental caries. Although she does eat fruit occasionally there is little variety and she doesn't like vegetables. When she received the Healthy Start vouchers she took great pride in announcing that she goes to the market and buys fruit for her breakfast. She also completed a 5-A-Day record and was open to suggestions on ways to improve her intake.

She smokes approx. 20 a day and on the 2nd visit announced that she had not had a cigarette since the previous week and admitted how hard this was to sustain and re started again. She denied using drugs and alcohol, information from other sources contradicted this. Although inconsistent in attending for treatment for sexual infections following discussion on the effects on the pregnancy she completed a course of treatment and attended for follow up.

Jane does not like staying in the Hostel accommodation as she feels it is unsafe and reports that it is dirty. She regularly goes to sign in.

She sees the Family Nurse at her fathers flat. She has a small room there, untidy and filled with her belongings. Her father has a disability and is waiting to be re-housed. There is a strong smell of smoke in the flat as he also smokes. Her dog whom she is very attached to also stays with her Dad. She said she slept with her dog in the park on one occasion as dogs aren't allowed in the hostel. Sometimes she stays with her boyfriend who lives in another borough. His room is in the garage of the family home, it has no windows.

Jane dropped out of school when she was 13. Attempts to reintegrate her back into the education system failed. She started a hairdresser's course and was expelled due to her behaviour. She would like to be doing something that would give structure to her day. When asked about her dreams for the future she says she wants "to be an educational welfare officer".

Jane did not plan to get pregnant and was intending to terminate the pregnancy. When she went for a scan and saw the baby she felt unable to go ahead with it. She says she doesn't want any more children till she is in her mid twenties. Jane receives income support and her dad receives child benefit for her.

Jane talks excitedly about her baby. She knows she is having a girl and says "I cant wait to hold her". She acknowledges that it will be hard work and that she will need support. Her older sister also had a teenage pregnancy and struggled due to being estranged from her mother. Jane's relationship with her mother is also volatile and they are not getting on at the moment. She said she knows what babies need and has spent time looking after her younger sister, niece and other cousins. She has started to make a list of what she needs to buy for the baby and has chosen a name.

Jane says her family is always there for her "we stick together". Her parents split up when she was 10yrs old. She would like to stay with her mother when the baby is born but her mother is clear that she does not want this to happen due to the way she has behaved in the past. She says "I am begging her to allow me to stay". The relationship between her sister and her mother has broken down and she hints that she is caught in the middle as her mother gets angry with her when she talks with her sister. She says staying with her Dad is not an option as he may have to return to the West Indies to see his mother who is ill at short notice.

She spends a lot of time with 2 friends who live in a neighbouring borough but also very close to where her boyfriend lives. She describes the relationship with her boyfriend as “on-off” and stressful.

Jane booked late at 25weeks. She has a history of not attending for her antenatal checkups. She applied for healthy start and the maternity grant and was persistent when the first application was refused due to lack of information.

She has an allocated social worker whom she does not engage very well with. A multidisciplinary meeting has been arranged to discuss the need to put the baby on the child protection register.

The teenage pregnancy worker has been supporting her with pregnancy and sexual health matters. She also has a street matters worker whom she gets on well with.

She is a court witness for a serious crime and has also been accused of assault.

Jane has multiple workers and mostly engages on her terms. She went to a lot of effort to make her appointments with her Family Nurse often coming a long distance.