

Infant Mortality and Health Inequalities National Support Teams

**Systematic management of programmes to address
high infant mortality rates**

Includes Proposed Key Actions (see Appendix 1)

***Identifying strengths and effective practice and making tailored
recommendations on how to address gaps in service delivery***



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Contents

Executive Summary	3
Introduction	6
How to Use this Workbook – a guide for facilitators.....	7
Background to Population Level Interventions	9
Commissioning for Population Level Outcomes	11
Equality	15
Why this topic has been chosen	16
The Workbook	19
1 Known intervention efficacy	20
2 Local service effectiveness	22
3 Cost effectiveness.....	25
4 Accessibility	27
5 Engaging the public	29
6 Known population health needs	31
7 Expressed demand	33
8 Equitable resourcing	35
9 Responsive services	36
10 Supported self management	37
11 Adequate service volumes	38
12 Balanced service portfolio	39
13 Networks, leadership and coordination	40
Optimal Population Outcome	42
Appendix 1: Health Inequalities National Support Team - Tackling Inequalities in Infant Mortality: Priority Actions: High Impact Changes	43
Appendix 2: Acronyms and abbreviations.....	44

Foreword

National Support Teams (NSTs) were established by the Department of Health from 2006 to support local areas – including Local Authorities, Primary Care Trusts (PCTs) and their partners – to tackle complex public health issues more effectively, using the best available evidence. By undertaking intensive, ‘diagnostic’ visits to local areas, spending time with key leaders (commissioners and providers) including clinicians and front-line staff, the ten NSTs provided intelligence, support and challenge to local areas to assist in their achieving better public health outcomes. The programme finished in March 2011.

The ten subject specific teams (Sexual Health, Tobacco Control, Health Inequalities, Teenage Pregnancy, Childhood Obesity, Alcohol Harm Reduction, Infant Mortality, Response to Sexual Violence, Vaccination and Immunisation and Children and Young People’s Emotional Wellbeing and Mental Health) were commissioned and established with a focus on improving health and reducing health inequalities.

The ten teams undertook more than 450 visits to local partnerships during the course of the programme and their findings and successes have been documented in Knowledge Management and Evaluation reports. Each team also produced reports setting out and consolidating the learning from their work. A further report that captures best practice identified by each team is planned to enable local areas to continue using the expertise and lessons learnt from the NST model.

The NST process involved a desk review of key documentation and data-based intelligence, and interviews with key informants, often in combination with a series of workshops or focus groups. Collation and analysis of findings was immediate, and the findings, including strengths and recommendations, were fed back straight away and on site to the key local players and leadership. Recommendations were accompanied by offers of support, either at the time of reporting, or as part of follow-up activity.

The Department is publishing a number of reports which distil the learning from the programme, and exemplify the methodology employed.

Executive Summary

This workbook developed in partnership with the Infant Mortality National Support Team (IMNST), is one of a series developed by the Health Inequalities National Support Team (HINST), in its work with the 70 local authorities covering populations in England with the highest levels of deprivation and poorest health. These workbooks are a summary of local views on good practice. The suggested approaches are not mandatory, and reflect learning from a snapshot in time. Where there is clear established evidence to support interventions, this has been signposted in the footnote. This is offered as useful resource for commissioners: use is NOT mandatory.

The topic of this workbook – ‘*Systematic management of programmes to address high infant mortality rates*’ - was selected for its potential impact on health and wellbeing, and on mortality and life expectancy in the short, medium or long-term.

Reducing health inequalities in infant mortality and improving infant and maternal health outcomes requires a combination of health interventions and actions on the wider social determinants of health by the NHS, local authorities and voluntary organisations, charities and social enterprises. These interventions must start before birth. Giving every child the best start in life, through interventions to reduce health inequalities in infant mortality, is central to reducing health inequalities across the life course

“The health of a baby is crucially affected by the health of their mother and what a child experiences during the early years lays down a foundation for the whole of their life. Giving every child the best start in life is essential to reducing health inequalities across the life course.” (Fair Society, Healthy Lives: The Marmot Review, 2010)

The following high impact changes are identified as having the potential to impact on infant mortality, maternal and child health in disadvantaged areas based on local needs.

Action likely to have highest impact

1. Develop a multi-agency strategy (NHS, local authority, and voluntary, community and faith sector) to tackle health inequalities in infant mortality.
2. Undertake a comprehensive needs assessment to assess the causes of infant mortality, including analysis by risk factor and understanding the needs of women and families.
3. Aim for each component of the strategy to reduce infant mortality and be explicit in all relevant commissioning plans.
4. Joint commissioning between the NHS and local authority is important to establish a whole systems approach to tackling infant mortality.
5. Develop a database of relevant indicators for local monitoring of infant and maternal health, which can guide and inform commissioning, planning and service delivery.
6. Develop services to reduce the number of women who smoke before, during or after pregnancy. This should also provide support for fathers.
7. Develop a strategy to increase breastfeeding initiation and continuation rates.
8. Develop a strategy to tackle overcrowding.
9. Undertake a campaign about risk factors for Sudden Unexpected Deaths in Infancy (SUDI) and develop a Care of the Next Infant (CONI) service to support families who had a SUDI.
10. Aim for high quality of neonatal services.
11. Develop a strategy to aim for all women to receive a health and social care needs assessment by 12 completed weeks of pregnancy.
12. Develop a safeguarding joint performance framework across the NHS and local authority
13. Develop specialist services for obese pregnant women.
14. Develop a strategy to tackle child poverty
15. Develop a strategy to reduce teenage pregnancies and support pregnant teenagers
16. Develop genetic screening services for families at risk of inherited disorders

This workbook – which is recommended for use in a facilitated workshop – provides advice on achieving best outcomes at **population level**, and for identifying and recommending

changes that could be introduced locally. Recommended workshop invitees are provided. Central to the HINST approach is a diagnostic framework – *Commissioning for Best Population Level Outcomes* (see p12), which focuses on evidence-based interventions that produce the best possible outcomes at population level. The framework points to the following areas of intervention:

A CHALLENGE TO PROVIDERS

1. Known intervention efficacy
2. Local service effectiveness
3. Cost effectiveness
4. Accessibility
5. Engaging the public

11. Adequate service volumes
12. Balanced service portfolio
13. Networks, leadership and coordination

B POPULATION FOCUS

6. Known population needs
7. Expressed demand
8. Equitable resourcing
9. Responsive services
10. Supported self management

The workbook is made up of sets of detailed questions in the above categories. They provide local groups of commissioners and providers with **a systematic approach to deciding what needs to be done in relation to reducing the gaps life expectancy due to infant mortality** to further improve population health and wellbeing, capitalising on evidence-based interventions. How these improvements will best be achieved in a given locality will be for local participants to decide. This workbook signposts readers to good practice and guidance where this may be helpful. Appendix 1 outlines proposed key actions for successful interventions this area. (all of which may contribute to reducing infant mortality and overall life expectancy)

Introduction

This is one of a series of diagnostic workbooks developed by the Health Inequalities National Support Team (HINST), while working with the 70 local authorities covering populations in England with the highest levels of deprivation and poorest health. The programme finished work in March 2011, but the Department of Health is publishing its key outputs for local commissioners and providers to use if they so wish. Each workbook topic was selected for the importance of its potential impact on health and wellbeing, and also on mortality and life expectancy in the short, medium or long term.

At the core of each workbook is a diagnostic framework – Commissioning Services to Achieve Best Population Level Outcomes’ (see p10). The diagnostic focuses on factors that contribute to a process in which a group of evidence-based interventions produce the best possible outcomes at population level. Part of the structure addresses delivery of **service** outcomes in the most effective and cost effective manner. However this is balanced by considerations of how the population uses services, and is supported to do so, to aim for **optimal population level** outcomes that are fairly distributed.

The framework is made up of a set of detailed, topic-based questions. These provide local groups of commissioners and providers with a **systematic approach to deciding what needs to be done** to further improve population health and wellbeing, capitalising on evidence-based interventions. **How** these improvements will best be achieved in a given locality will be for local participants to decide. The workbooks signpost good practice and guidance where this may be helpful.

These workbooks could make a significant contribution during a period of transition for the NHS, as responsibility for commissioning of health and health related services transfers to the NHS Commissioning Board, new Commissioning Groups and local government and helping that delivery passes to the Health and Wellbeing Boards. Changes are also in progress within local government, social care and the voluntary sector. Current policy in relation to public services highlights the centrality of engaging people – as individual service users and patients, and as whole communities, in their own health and wellbeing and that of the wider community.¹ The workbooks will support the newly emerging organisations and networks as an aid to understanding commissioning processes and their relationship to achieving population level health outcomes.

Key processes that should significantly influence local commissioning priorities such as the development of Joint Strategic Needs Assessment (JSNA) and Health and Wellbeing Strategies, will be highlighted through the use of the workbooks. The skills and knowledge embedded within the realigned local Public Health teams will be critical in development and coordination of these key processes.

The workbooks are designed and tested to help areas identify which factors are important in the systematic and equitable delivery of health improvement. They should, therefore, provide a good framework for early identification of local solutions to the new perspectives being brought to bear.

¹ See for example NHS Constitution:

<http://www.nhs.uk/choiceintheNHS/Rightsandpledges/NHSConstitution/Pages/Overview.aspx> and

Localism Bill: <http://services.parliament.uk/bills/2010-11/localism.html>

And NHS and Social Care Bill: <http://services.parliament.uk/bills/2010-11/healthandsocialcare.html>

The NHS also faces a challenging financial environment during the transition. Through the Spending Review, the government protected the NHS, with cash funding growth of £10.6bn (over 10%) by 2014/15. Nevertheless, by historical standards this remains extremely challenging and the NHS has been developing proposals to meet the Quality, Innovation, Productivity and Prevention (QIPP) challenge of efficiency savings of up to £20bn by 2014/15 for re-investment. This means that considerations of the affordability, and evidence on the cost-effectiveness and cost-benefit of the interventions presented should be of central consideration. Where possible priority should be given to interventions which are likely to lead to cash-releasing savings that can be re-invested in other services, based on a sound evidence base. Some of the relevant evidence has been referenced through the workbooks.

Local facilitators and participants will be aware of changes that may be outside the scope of this workbook and of any detail in the workbook that may have been superseded. These should be taken into account. To facilitate this, a generic workbook - *A Generic Diagnostic Framework for Addressing Inequalities in Outcome from Evidence-based Interventions* - has been produced that could be used to guide the diagnostic questions and discussion during the workshop, with this detailed workbook being used alongside the generic one for reference

How to Use this Workbook – a guide for facilitators

The objective of the workbook, used in a workshop setting, is to gain a picture of the local strengths and gaps in services in relation to the objective of achieving best outcomes at **population level**, and to identify and recommend changes that could be introduced.

The workbook is best used in a **facilitated** workshop setting for a **minimum of 8 and a maximum of 28 participants**, allowing **4 hours for the workshop**. The participants in the workshop should include key individuals who are involved in planning, commissioning and delivering services and interventions in relation to the workbook topic through a partnership approach. The make-up of the group will vary according to local situations but the suggested minimal attendee list for this workbook is set out below:

1. Director of public health / Consultant in public health²
2. Lead (or Children's) commissioner - PCT contractor for Children's and Maternity services and PCT performance manager for Children's and Maternity
3. Children and maternity lead
4. Infant mortality lead
5. GP Commissioning lead or LMC Chair or lead GP
6. Health visitor lead

Acute or foundation trust

7. Manager for women and children
8. Consultant obstetrician or clinical lead for women and children's services
9. Consultant neonatologist or clinical lead for women and children's services
10. Consultant paediatrician (if no management of the febrile infant small group discussion)

² If responsible for infant mortality or maternal and child health

11. Head of midwifery
12. Neonatal sister
13. Antenatal screening midwife (if no immunisation or screening small group discussions)
14. Immunisation coordinator (if no immunisation small group discussion)
15. Radiographer (if no screening small group discussion)

Health protection unit

16. Consultant in Communicable Disease Control (if no immunisation small group discussion)

Local authority

17. Director of children's services
18. Chair of Safeguarding Children's Board
19. Chair of children's trust
20. Children's centre or Early Years lead
21. Teenage pregnancy coordinator
22. Child poverty lead

Local data analysts

23. Public Health or Public Health Observatory data analyst

Voluntary, community and faith sector

24. Maternity Service Liaison Committee Chair

Where there is more than one organisation (for example, hospital trust) providing local services, it is advisable to invite senior representatives from each.

Provide a copy of this workbook to each participant at the workshop. It is suggested that the participants do not see the workbook in advance, but are informed that the workshop will be an opportunity to explore their knowledge of approaches to the issue with others who will bring differing perspectives. This will mitigate against any participants over-preparing, becoming defensive or being resistant to discussing – and finding solutions for – local issues.

The facilitator should be familiar with the workbook questions and the model described below, which helps consider how to take a population level perspective. It is suggested that facilitators introduce the participants to this model and approach. Facilitators may adapt this workbook according to local need. The HINST suggest that following the introduction, it is useful to consider section 13 first, as this gives an overview of the situation in the area for this topic and ensures all participants have an opportunity to contribute at the beginning. Then continue by working through each sections 1-12 of the model.

Group discussions about all of the questions in each section allow strengths, best practice and gaps to be identified, and the group to consider where improvements could be made. In light of these discussions. A separate publication contains a facilitator's recording book, which can be used during the workshop to record this discussion. This need not be copied for workshop participants.

Key actions and lead stakeholders to take these actions forward can be identified during the workshop. The greatest impact is likely to result if summaries of these key actions and of the recognised strengths and recommendations from the workshop are produced and

circulated to attendees and key accountable stakeholders within the partnership, following the workshop.

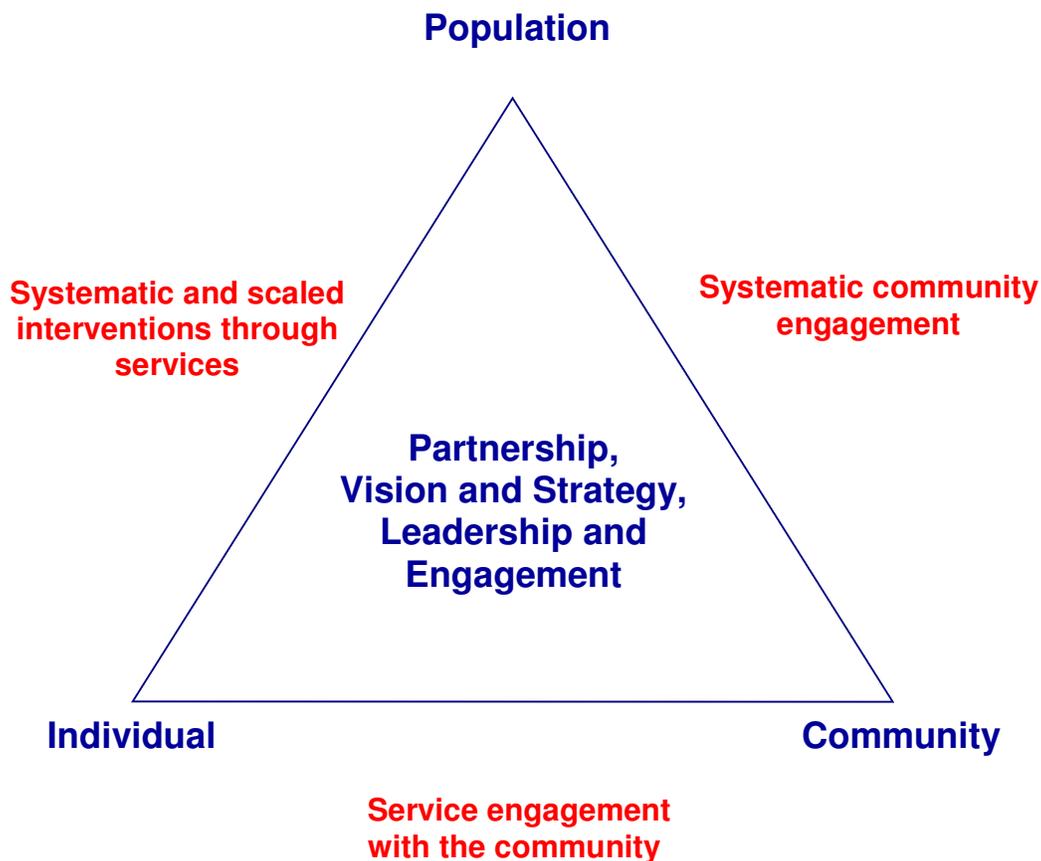
Background to Population Level Interventions

Challenging public health outcomes, such as achieving significant percentage change within a given population by a given date, will require systematic programmes of action to implement interventions that are known to be effective and reaching as many people as possible who could benefit.

Programme characteristics will include being:

- **Evidence based** – concentrating on interventions where research findings and professional consensus are strongest
- **Outcomes orientated** – with measurements locally relevant and locally owned
- **Systematically applied** – not depending on exceptional circumstances and exceptional champions
- **Scaled up appropriately** – ‘industrial scale’ processes require different thinking to small scale projects or pilots (‘bench experiments’)
- **Appropriately resourced** – refocusing on core budgets and services rather than short bursts of project funding
- **Persistent** – continuing for the long haul, capitalising on, but not dependant on fads, fashion and changing policy priorities

Interventions can be delivered through three different approaches to drive change at population level, illustrated by the following diagram:



Producing Percentage Change at Population

C. Bentley 2007

Population Approaches

Direct population level interventions will include developing healthy public policy, legislation, regulation, taxation and public funding strategies. These elements should support making 'healthy choices easy choices' for individuals and communities.

The impacts of such population level interventions, however, will not automatically 'trickle down' to all, often in particular missing those who are socially excluded for various reasons. Strategies for targeted communication and education, service support and even enforcement will be required to achieve full impact.

Individual Approaches through Services

Some interventions taken up at individual level, such as support for environment and behaviour change, therapies, treatments and rehabilitation, can change individual risk significantly, in some cases by 30-40%. The challenge is to achieve so many of those individual successes that it adds up to percentage change at population level. This will be achieved only if services take into account issues of system and scale to enable this to happen, and work to address population level outcomes as well as those for individual service users.

Improvements in health and wellbeing will require some reorientation of health and other services to take a more holistic view of individual circumstances, with regard to any personal characteristics/sub-population group status or socio-economic status and to

focus on development of personal skills of staff and service users, so promoting healthy choices and actions.

Community Approaches

Individuals will only choose to use and benefit from certain behaviours and actions if those behaviours fit with the cultural and belief system of their own community. Communities can be based on place (neighbourhood, school, workplace), culture (ethnicity, faith) and others (disability, sexual orientation). Community development is one way of facilitating communities' awareness of the factors and forces that affect their wellbeing, health and quality of life.

Community engagement is often patchy, favouring those communities that already have leadership, organisation and some resources. Instead, it needs to be systematic in bringing top-down and bottom-up priorities together into plans. This will strengthen community action to create more supportive environments and develop the knowledge and skills of community members.

Service links into communities can be superficial, of poor quality, unsystematic, and based on low levels of understanding. Connectivity between services can be disorganised and confusing. Use of the voluntary, community and faith sector as a bridge between services and community based structures needs to be more systematic and based on need rather than supply. Commissioning is key to this.

Commissioning for Population Level Outcomes

Substantial progress can be achieved in making an impact in the short, medium and long term in relation to inequalities in mortality and life expectancy through a focus on existing services. Because of this, extra attention is given here to extracting maximum benefit from delivery of interventions for which there is strong evidence of effectiveness. In addition there is a deliberate emphasis wherever possible, on improving access to services of a scale that will impact on bringing about a population level improvement in mortality and life expectancy within a two to three year period.

The detail is illustrated in the attached diagram on page 13 with the title 'Commissioning for Best Population Level Outcomes', otherwise known as the 'Christmas Tree' diagnostic, with an accompanying description of its component principles. The framework balances two sets of factors that determine whether optimal outcome can be achieved at population level from a given set of personal health interventions.

The right hand side of the diagram (1 to 5) - a challenge to providers: links the factors that will influence health *service* outcomes, that is, how can we construct the most effective service.

However, optimal outcomes *at population level* will not be obtained without the following:

The left hand side of the diagram (6 to 10) - a population focus: identifies those factors that determine whether a community makes best use of the service provided – for example, whether the benefits of personalised improvements to services are having a systematic impact on reducing health inequalities at the population level.

The balance between the two sides of the diagram - the commissioning challenge:

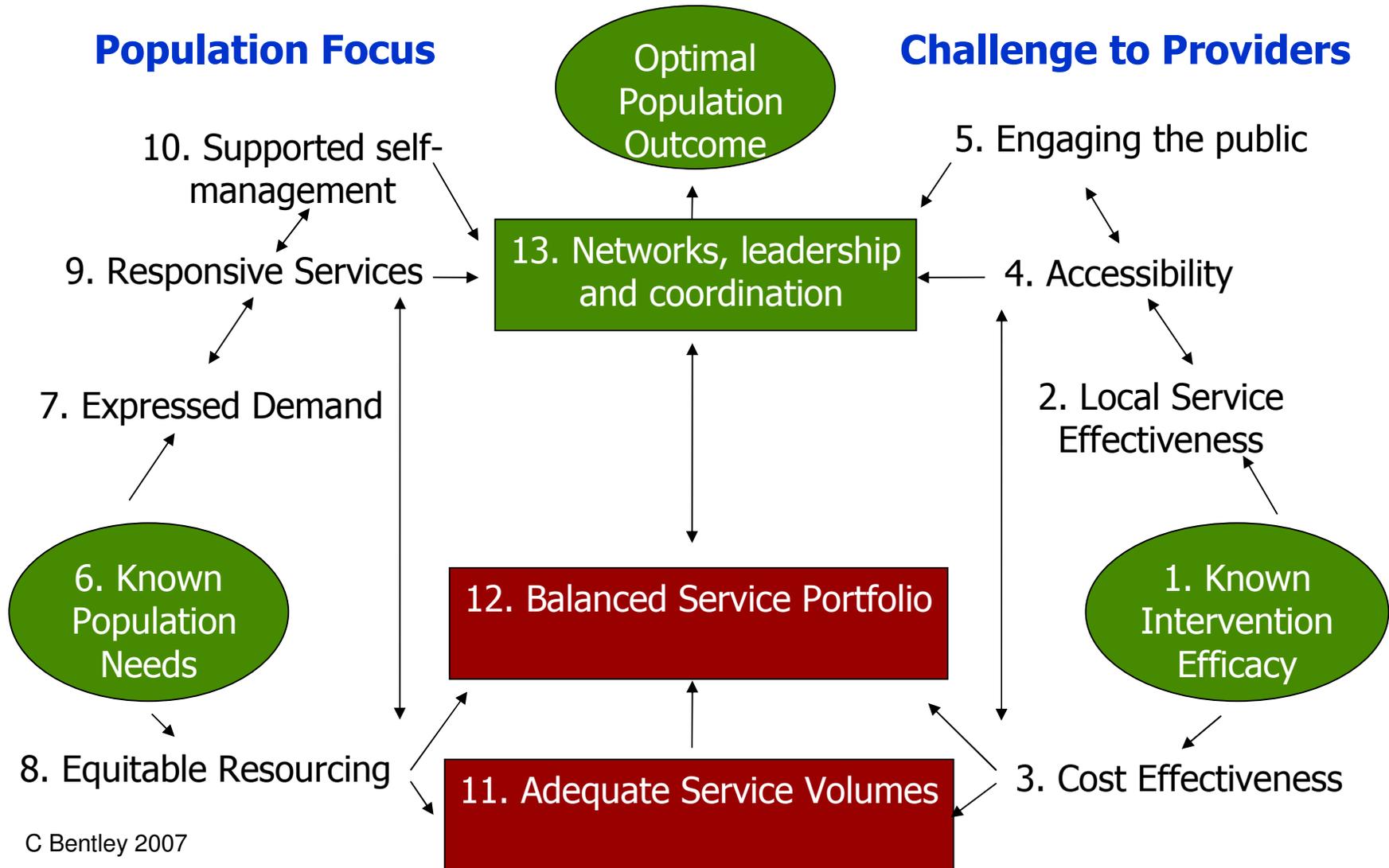
Working to achieve equality of outcome, not just equality of access to service provision and support, is a significant and crucial challenge for commissioners. The 'Christmas Tree' diagnostic, is a tool to help achieve this. The right side of the diagram enables commissioners to identify the best services available for their population. The left side allows commissioners to consider if services that are commissioned and delivered best meets the needs of all people in the local population. Attention to both sides of the diagram will help work towards all services being effective **and** engaged with, and used by, all of the diverse communities in the area they serve.

The central elements of the diagram are concerned with making sure that when the most effective services/interventions are identified that are fully acceptable, accessible and effective in terms of take-up and compliance, there is adequate capacity to meet the need. Effective leadership and networks are needed to work towards all these elements being kept under review to help continuous improvement and equality of morbidity and mortality outcomes.

Commissioning for Best Population Level Outcomes

Population Focus

Challenge to Providers



Commissioning for Best Population Level Outcomes

A CHALLENGE TO PROVIDERS

1. **Known Intervention Efficacy:** Aim for life saving interventions, for which there is strong evidence, are implemented equitably and made available to as many people who could benefit as possible.
2. **Local Service Effectiveness:** Aim for service providers maintaining high standards of local effectiveness through education and training, driven by systems of professional and organisational governance and audit
3. **Cost Effectiveness:** Aim for programme elements that are as affordable as possible at population level
4. **Accessibility:** Aim for services to be designed with the minimum barriers to access, balancing a drive to bring services closer to the patient with the need for efficiency and effectiveness of that service.
5. **Engaging the Public:** Working with service users and communities to aim for needs and requirements being placed at the centre of service provision and for quality assurance systems in place that makes the services acceptable to service users
11. **Adequate Service Volumes:** Commission adequate service volumes to aim for acceptable access times.
12. **Balanced Service Portfolio:** Aim for balance of services within pathways to avoid bottlenecks and delays.
13. **Networks, Leadership and Co-ordination:** Designate leadership and co-ordination to aim for services that are commissioned and networked to meet population need and the population is supported to use services and interventions appropriately

B POPULATION FOCUS

6. **Known Population Health Needs:** Aim for a realistic assessment of the size of the problem locally, and its distribution geographically and demographically and the level and type of service being based upon this assessment.
7. **Expressed Demand:** Aim for as many people as possible suffering from the problem or its precursors, to present to services in a timely and appropriate fashion, through informing, educating and supporting the population.
8. **Equitable Resourcing:** Aim for the distribution of finance and other resources to support equitable outcomes according to need.
9. **Responsive Services:** When people present to services, aim to make sure they are afforded equal access to timely beneficial interventions according to need.
10. **Supported Self Management:** Where appropriate, help service users to be empowered to make choices about their circumstances and service offer on the basis of good information, and to be supported to utilise the service offer to best effect

Whilst the service design elements are an immediate concern to providers, all sections of the 'Christmas Tree' diagnostic are of direct relevance to commissioners

Equality

Equalities perspectives need to be built into all whole population approaches. The Equality Act 2010 set out the public sector equality duty:

(1) A public authority must, in the exercise of its functions, have due regard to the need to:

(a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;

(b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;

(c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The Act identifies a number of “protected” population groups/characteristics where specific elements of the legislation apply. These groups/characteristics are:

- *age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; sexual orientation.*

Although socioeconomic inequalities are not specifically included in the Equality Act, there are a range of duties in relation to tackling inequalities included at different levels in new health and social care legislation, and for all key structures and partners involved in the commissioning and delivery of this legislation.

The Health and Social Care Bill 2010 proposes new legal duties on health inequalities for the Secretary of State and the NHS. Subject to Parliamentary approval:

- The Secretary of State for Health must have regard to the need to reduce health inequalities relating to the NHS and the Public Health Service.
- The NHS Commissioning Board and GP consortia must have regard to reducing inequalities in access to, and outcomes of, healthcare.

In order to carry out these duties effectively an emphasis on socioeconomic disadvantage will be essential as it is recognised as a major driver in relation to inequalities of access to, and outcomes of, health and wellbeing services.³

Useful materials⁴

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The Marmot Review (2010) *Fair Society, Healthy Lives - Strategic Review of Health Inequalities in England post 2010*

<http://www.marmotreview.org/AssetLibrary/pdfs/Reports/FairSocietyHealthyLives.pdf>

⁴ Department of Health (2008) *Making the difference – The Pacesetters beginner’s guide to service improvement for equality and diversity in the NHS*

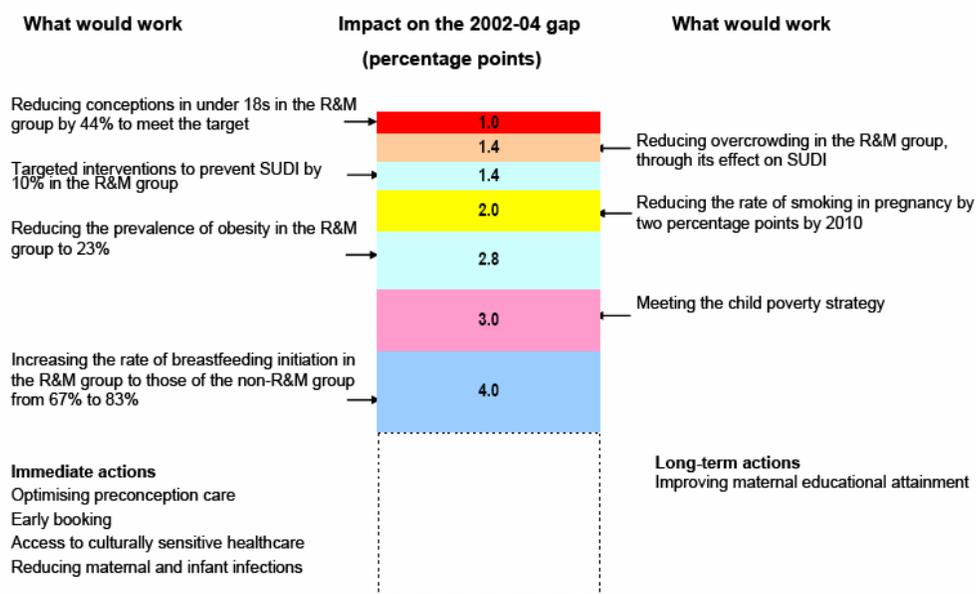
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_086039

Why this topic has been chosen

Reducing health inequalities in infant mortality and improving infant and maternal health outcomes requires a range of health interventions and actions that impact on the wider social determinants of health and on services and interventions that have impact in the shorter term. The NHS, local authorities and voluntary organisations, charities and social enterprises will need to work individually and in partnership to maximise their impact. These interventions must start before birth. Giving every child the best start in life through interventions to reduce health inequalities in infant mortality is central to reducing health inequalities across the life course

Following a review of infant mortality rates in England in 2007, modeling (updated 2009) showed that focused interventions (fig 1) would contribute approximately 16% points to narrowing the gap of infant mortality between the Routine and Group and the population.

Identifiable actions to reduce the infant mortality gap⁵



Useful materials

Data

⁵ Department of Health (2007) Implementation Plan for Reducing Health Inequalities in Infant Mortality: A Good Practice Guide

- The Child and Maternal Health Observatory (ChiMat) has a number of online tools that can help local areas collate data and inform needs assessment and capacity planning (www.chimat.org.uk). These include:
 - Local infant mortality profiles
 - Self assessment matrix for infant mortality
 - Local child health profiles, which provide a summary of key health indicators designed to help local councils and NHS decide where to target resources to tackle health inequalities in their local area
 - Commissioning self-assessment benchmarking tools for maternity and child health services
- The London Health Observatory (LHO) has a number of online tools designed to assist evidence-based local service planning and commissioning (www.lho.org.uk). These include:
 - Spearhead tool : Life expectancy gaps
 - Spearhead tool: commissioning interventions
 - Infant mortality tool
 - Health inequalities intervention tool

Evidence

- The National Perinatal Epidemiology Unit (NPEU) has recently completed a programme of work for the Department of Health to help strengthen the evidence base for interventions to reduce infant mortality and narrow the health inequalities gap.
- Outputs from this programme are now available for download from the NPEU website
<http://www.npeu.ox.ac.uk/infant-mortality>

Breastfeeding

- Best Beginnings have produced a DVD encouraging mothers to breastfeed. This free DVD is available to all healthcare professionals to give to pregnant women and has the following additional languages Polish, Bengali, Urdu, Somali. The DVD can be ordered at www.orderline.dh.gov.uk and quote the following code: 286873 Tel: 0300 123 1002

Management of the Febrile/Unwell Infant

- The “Spotting the Sick Child” website is a new interactive tool commissioned by the Department of Health to support health professionals in the assessment of the acutely sick child (www.spottingthesickchild.com)

Sudden Unexpected Deaths in Infancy

- The Foundation for the Study of Infant Deaths has produced a DVD and microsite for teenagers around SUDI risk factors. The DVD is available to download at <http://www.fsid.org.uk/dvd09.html>

Teenage Pregnancy

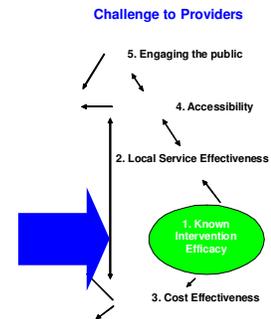
- The new teenage parents social networking site has just been launched by the Foundation for the Study of Infant Deaths for young mums and dads. It is highly interactive with blogs, forums, question and answer options covering the antenatal period through to infancy, on any subject they choose. Peer support is central to the website philosophy. The website is www.bubbalicious.co.uk

Other

- The new Birth to Five Book has been published and is now available to all expectant mothers and parents in England. The book has been updated to reflect latest advice and evidence. A full downloadable PDF is available from the DH website:
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107303
- The NHS Pregnancy Planner has been updated to reflect the same advice and information contained in the Birth to Five Book:
www.nhs.uk/planners/birthtofive/Pages/Birthtofivehome.aspx

The Workbook

**Systematic management of programmes to address
high infant mortality rates**



1. Known intervention efficacy

Aim for life saving interventions, for which there is strong evidence, are implemented equitably and made available to as many people who could benefit as possible.

The following interventions have been identified as potentially having a measurable impact on infant mortality⁶:

- Improve breastfeeding rates
- Interventions to reduce child poverty
- Reduce the prevalence of obesity in the Routine and Manual (R&M) group
- Reduce conceptions in the under 18s R&M group
- Reduce rates of smoking in pregnancy in the R&M group through the following:
 - promoting smoking cessation in women of childbearing age
 - reaching pregnant smokers as early as possible and throughout pregnancy
 - increasing effectiveness of current cessation intervention
 - harm reduction strategies for continuing smokers
 - reaching partners and significant others
 - promoting postpartum cessation
 - promoting smokefree families
- Reduce sudden unexplained deaths in infancy (SUDI) - targeted interventions:
 - 'Back to Sleep' programme
 - separate cot
 - sleep in parents' room
 - reduce parents smoking
 - reducing overcrowding
- Optimise maternal care during pregnancy and post-natally through the following:
 - optimising pre-conceptual care
 - early booking
 - reducing maternal and child infections
 - access to culturally sensitive services
 - improved maternal nutrition, before, during and after pregnancy
 - antenatal screening
 - high quality obstetric and midwifery services
 - neonatal screening

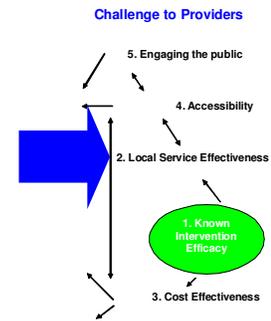
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http://www.lho.org.uk/NHII/InfantMortality/ModifyGapFactors_SHA.aspx?sha=Q36&PCF_TeenagePregnancy=40&PCF_SUDI=50&PCF_SmokingInPregnancy=10&PCF_Obesity=20&PCF_Poverty=50&PCF_Breastfeeding=10#ToolStart

- Improve immunisation uptake.⁷

Are there programmes in place to systematically address each intervention?

⁷ NICE. *Promotion of breastfeeding initiation and duration: Evidence into practice briefing*. 2006. Guidelines. http://www.nice.org.uk/aboutnice/whoweare/aboutthehda/hdapublications/promotion_of_breastfeeding_initiation_and_duration_evidence_into_practice_briefing.jsp



2. Local Service Effectiveness

Aim for service providers maintaining high standards of local effectiveness through education and training, driven by systems of professional and organisational governance and audit

1. Data collection and use

- What routine information is collected to measure the quality of the impact and outcome of each intervention? As delivered locally by:
 - the delivering organisation
 - particular delivery unit or division
 - multi-disciplinary team
 - individual practitioner
- Is the data systematically collated, analysed and interpreted? To whom is it reported?
- Is there a balanced scorecard in place for infant mortality?
- Who is responsible for responding and making sure necessary action is taken?
- Is the information reported routinely, or on an exceptions basis, to i) senior management team and/or ii) the board and/or the children's trust?

2. Service evaluation

- Is the effectiveness of interventions that are known to have an impact on the infant mortality monitored, including work to address each of the following interventions?
 - pre conception care
 - access to antenatal care
 - improved maternal nutrition, before, during and after pregnancy
 - reducing teenage conceptions
 - improved care in pregnancy for teenagers
 - smoking cessation around pregnancy
 - antenatal screening
 - high quality obstetric and midwifery services
 - neonatal screening
 - targeted interventions to prevent SUDI
 - Improving immunisation uptake.
- How are reports from statutory Child Death Overview Panel (CDOP) which records and reviews the deaths of all children, being taken forward to inform learning?
 - Has the CDOP core dataset been supplemented with data to help understanding of the associated risk factors and wider determinants of health for infant mortality?

- Are babies classified according to CDOP guidelines i.e. < 22 weeks classified a) stillbirth b) neonatal death?

3. Joint delivery

- Where outcomes depend on a group of related interventions, do mechanisms for performance monitoring or audit take place across a delivery pathway, crossing organisational boundaries?
- How are data flows managed so that individual contributions, and the composite picture can be systematically appraised?
- How is subsequent action coordinated?

4. Breastfeeding

- Are there interventions to increase the uptake of breastfeeding in the R&M group?
- Are these monitored for effectiveness?

5. Child poverty

- Is there a child poverty strategy in place?
- Does it involve all partners whose input would make a difference?
- What more could be done to improve the impact of this strategy?

6. Obesity

- Are there pathways in place to reduce obesity in the R&M group, which meet NICE guidelines?
 - maternal⁸
 - childhood⁹

7. Teenage pregnancy

- What are the trends against trajectory for teenage pregnancy targets:
 - under 18 years yrs
 - under 16 years yrs
- What were the main results of the most recent self assessment in the teenage pregnancy programme?
- What new actions are being taken as a consequence?

8. Smoking in pregnancy¹⁰

- Is there a dedicated 'smoking in pregnancy' service (or advisors trained in maternity issues)?

⁸

<http://www.nice.org.uk/search/guidancesearchresults.jsp?keywords=weight+management+during+pregnancy&newSearch=true&searchType=Guidance>

⁹ <http://guidance.nice.org.uk/CG43/QuickRefGuide/LocalAuthorities/pdf/English>

¹⁰ NICE Commissioning Guidance, *Commissioning services for quitting smoking in pregnancy and following childbirth, (2010)*

<http://www.nice.org.uk/usingguidance/commissioningguides/quittingsmokinginpregnancy/CommissioningQSI.P.jsp>

- What are the trends against trajectory for smoking in pregnancy:
 - still smoking at time of booking
 - smoking status unknown
 - smoking status at delivery
- Is brief advice and referral for cessation systematically provided by all relevant staff?
- Is there a robust administrative system in operation to aim for all pregnant smokers to be tracked and regularly followed up from booking through to birth and three months postnatal?

9. Screening

- What proportion of eligible women accepts screening for:
 - infectious diseases¹¹
 - structural abnormalities¹²
 - (who are high risk) - for Down's syndrome¹³

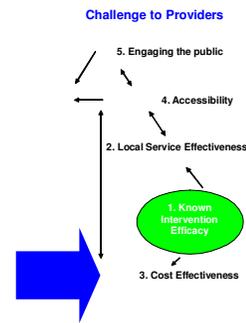
Is there a strategy to increase this proportion?

- What do the neonatal survey results show, by provider and commissioner:
 - survival of death rates, actual versus expected
 - ventilated cot day rates
 - any geographical variation of the above

¹¹ UK National Screening Committee (2010), Infectious Diseases in Pregnancy Screening Programme: Programme Standards

¹² NICE Guidelines (2011) Antenatal Care <http://guidance.nice.org.uk/CG62>

¹³ NHS Evidence - screening formerly a Specialist Library of the National Library for Health (2000): Organisation and cost-effectiveness of antenatal haemoglobinopathy screening and follow up in a community-based programme



3. Cost effectiveness

Aim for programme elements that are as affordable as possible at population level

1. Cost analysis and modelling

- What evidence of cost effectiveness/cost benefit/cost utility has been explored for the evidence-based interventions under review (see reference 6)?
- Have the costs of implementing the programme to achieve desired population outcomes been modelled?
 - Has this been used in a business case for implementation?
 - How has Return on Investment (RoI) been described?

2. QIPP

- How have considerations of quality, innovation and productivity and prevention (QIPP) been taken into account in designing the programme to maximise cost effectiveness?
- Is the proposal cost effective, cash saving, or cost incurring?

3. Cost and outcome¹⁴

- In implementing the interventions, have costs and outcomes been analysed together?
- Has this information been fed back to providers allowing them to benchmark their performance against others?
- Are mechanisms in place to support systematic approaches to improved cost effectiveness?

4. Programme budgeting and marginal analysis¹⁵

- Have programme budgeting and marginal analysis been applied to this area of work?
- Does interpretation make comparison with peer groups as opposed to an average figure (because of disproportionate cost of delivering average outcomes in disadvantaged areas)?

5. Benchmarking

¹⁴ The SPOT tool provides a detailed report with useful explanation notes in a visually 'friendly' way and allows comparisons between the area, England and ONS clusters. It also outlines the NHS Comparators tool as it provides a useful general data source. Available at <http://www.yhpho.org.uk>.

¹⁵ Further information on programme budgeting is available on the Department of Health website: <http://www.dh.gov.uk/en/Managingyourorganisation/Financeandplanning/Programmebudgeting/index.htm>

- How does the budget for maternity and neonatal care benchmark:
 - within the region
 - nationally
 - Maternity Matters¹⁶

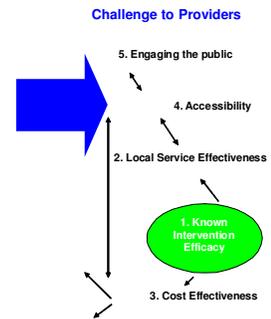
What might explain any outlier status?

- How does the budget for Community Services benchmark:
 - nationally
 - within the region

6. Joint working

- What joint working arrangements are in place?
 - shared posts
 - aligned or pooled budgets

16



4. Accessibility

Aim for services to be designed with the minimum barriers to access, balancing a drive to bring services closer to the patient with the need for efficiency and effectiveness of that service.

1. Equity and interest

- Has analysis of appropriate and proportionate provision according to need been carried out in relation to the following protected characteristics?
 - race
 - religion
 - age
 - gender reassignment
 - sex
 - sexual orientation of parent/ carer
 - marriage and civil partnership
 - disability:
 - physical disability
 - learning disability
 - enduring mental health problems

What action has been taken as a result?

2. Appropriate access according to need (Maternity Units and Community providers)

- How many maternity units provide services to this population?¹⁷
 - How are they distributed in relation to pattern of need?
- Is the following provided or taken into account in order to improve access for all mothers? Do they include clear roles for primary care, maternity, paediatric and clinical genetic services?
 - On booking, are all mothers given the information booklets (in appropriate formats)?
 - How is screening offered to mothers when they book late?
 - Do women receive information about the benefits and risks involved with specific screening tests and are they able to exercise their choice?
 - What has been done to target specialist community resource staff to any specific groups where uptake of any specific screening test is low?
 - What strategies have been employed to improve accessibility of screening services for families whose first language is not English?

¹⁷ DH (2007) Maternity matters: choice, access and continuity of care in a safe service.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_073312

- Is there appropriate access to:
 - Interpreter services, including signing
 - Specialist intermediaries (e.g. for learning disabled) and service advocates
- Have segmented approaches been taken in campaigns to address messages such as the importance of early booking, and screening offered to mother and newborn, rather than a 'one-size-fits-all' approach?

3. Joint communication plan

- Is there a joint communication plan in place for reducing infant mortality?
 - How well advertised or marketed are the variety of arrangements for access, and are messages targeted to priority need groups?
 - What are the remaining gaps? Are there any plans to fill them?

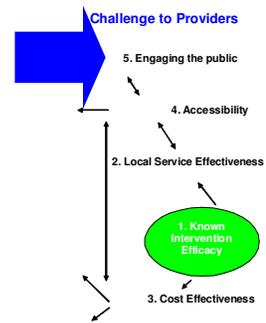
4. Children's centres¹⁸

- How are children's centres used to deliver:
 - antenatal care
 - smoking in pregnancy services
 - nutrition
 - brief interventions
 - immunisation and vaccination

5. Specialist staff

- Are there specialist:
 - midwives
 - health visitors
 - community health educators targeted at high risk groups (immigrants/asylum seekers, homeless teenagers)
- How comprehensive and inclusive is the service each of these specialists provide?

¹⁸ NHS Evidence - child health formerly a Specialist Library of the National Library for Health (2007)
Delivering health services through Sure Start Children's Centres



5. Engaging the public

Working with service users and communities to aim for needs and requirements being placed at the centre of service provision and for quality assurance systems in place that makes the services acceptable to service users

1. Involvement of communities in service development

- Have the priorities in the Infant Mortality and/or the Children and Young People's Action Plan been developed with the involvement of the community?
- Is this involvement part of a joint wider community engagement programme?
- Are population segmentation tools used to define and engage appropriately with the communities of interest?

2. Voluntary sector involvement

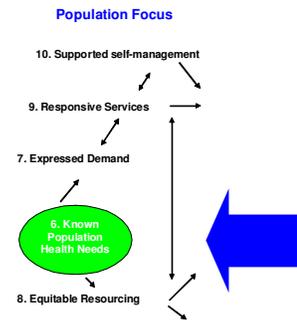
- Are there local voluntary and community sector (VCS) networks in existence locally to coordinate and/or advocate for all the major communities of interest (e.g. a multi-faith forum; a disability forum etc)?
- If not, what role is played by local statutory organisations/the local strategic partnership/the children's trust, play in trying to strengthen the VCF sector infrastructures?
- Do local partnerships work well with the Local Involvement Network (LINK)? How wide is the LINK's reach in relation to the engagement of equalities communities?

3. Mechanisms to involve service users and the public

- How is the local Maternity Services Liaison Committee involved in service design?
 - Does this include women from disadvantaged groups?
- Which of the following mechanisms have been used to involve service users and the public in design, modification and improvement of services:
 - patient/user satisfaction surveys
 - systematic involvement of user and carer representatives in the networks
 - audit of 'did not attend' episodes in (by ethnicity, gender, age, social segment, etc.)
 - discovery interviews
 - focus and reference groups
 - local support and interest groups

4. Use of frontline staff

- How systematic is engagement with, and empowerment of, frontline staff in local organisations, to draw in intelligence and ideas to improve the accessibility and appropriateness of service provision?



6. Known population health needs

Aim for a realistic assessment of the size of the problem locally, and its distribution geographically and demographically and the level and type of service being based upon this assessment.

1. Needs assessment

- Has a comprehensive local children and families needs assessment been carried out in relation to reducing infant mortality?
 - What are the main conclusions?
 - What are the important trends?

- Has consideration been given, as appropriate, to distribution of the problem, and its predisposing factors, by population sub-group:
 - Maternal age
 - disability:
 - physical disability
 - learning disability
 - enduring mental health problems
 - geographically
 - by social class
 - race
 - religion or belief
 - segmentation group
 - other relevant vulnerable groups (e.g. prisons, Gypsies and Travellers)

- Does this include:
 - crude Infant Mortality Ratio (IMR)
 - IMR standardised for gestation (above and below 22 weeks)
 - separate analysis for neonatal and post-neonatal rates
 - breakdown by broad cause of death?

- As a result has there been any prioritisation or stratification of the extent of need?
 - Have particular areas with high infant mortality been identified?

2. Needs assessment for specific areas of concern

- Has the needs assessment looked at the following areas, looking at current level and trend
 - SUDI
 - Smoking in pregnancy
 - Breastfeeding
 - Obesity

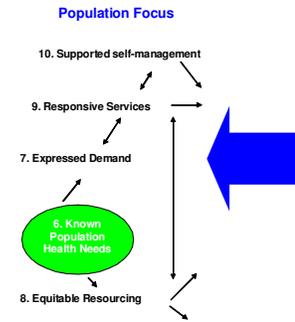
- Teenage pregnancy
- Immunisation (including an analysis of immunisation rate by: GP practice and ethnicity)

3. Cross organisational data sharing

- Has information from the range of organisational sources:
 - been shared
 - been pooled
 - been jointly analysed
 - formed part of a joint strategic needs assessment
- Is there any joint training in place for professionals to understand partner roles and responsibilities in the prevention of SUDI?

4. Information for a range of audiences

- Has the information been collated, analysed and interpreted for a range of audiences? Which?
- How has the intelligence been disseminated/communicated, and to whom?
- Has it been received by all relevant parties who might use it to support decision making and action? Who has been missed out?
- Has any 'market' research been carried out to establish how the information may have been made more accessible?



7. Expressed demand

Aim for as many people as possible suffering from the problem or its precursors, to present to services in a timely and appropriate fashion, through informing, educating and supporting the population.

1. Actual Versus Expected

- Has work been done to address the need

2. Barriers to presenting to services¹⁹

- Have any forms of survey or Insight work been carried out to establish what barriers may be preventing women and families from presenting appropriately to services?

Have these explored:

- perceived practical problems with delivery of the service
- cultural issues of community knowledge and expectation
- problems of individuals (e.g. self esteem, knowledge, low expectations of life, low expectations of service)
- How has this knowledge been translated into actions to address barriers;
 - in access and the way services are delivered
 - in engaging with communities to work on cultural barriers
 - in reaching out to individuals/families to support them to appropriately engage in services?
- What has been done specifically to address barriers to
 - Early booking
 - Antenatal and neonatal screening
 - Immunisation uptake (including Hepatitis B, rubella - non-immune women)
 - Breastfeeding
 - Smoking in pregnancy

3. Equality

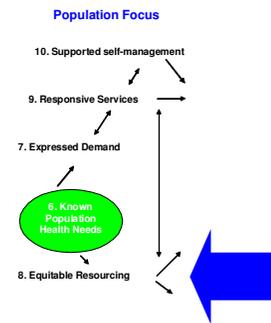
- What ethnic monitoring is possible across the range of information sources? How is the validity being improved? Have estimates been used where appropriate (e.g. Nam Pechand software for identification of South Asian names)?
- How far advanced are key local public sector organisations regarding the use of Equality Impact Assessments (EqIAs)?
 - Are EqIAs undertaken all services which help prevent IM?

¹⁹ House of Commons Select Committee (2003), **Inequalities in Access to Maternity Services**

- What training is offered to staff in completing EqlAs?
- Are the outcomes of the assessment acted upon?
- How is implementation monitored?

4. Engagement of frontline staff

- To what extent has partnership with frontline staff been harnessed to help address the infant mortality? Has this included:
 - prioritisation by commissioners
 - systematic initial and ongoing training for staff to engage them in problem identification
 - training for staff in brief interventions
 - referral pathways into specialist services (e.g. smoking in pregnancy, dietary)
 - monitoring referrals numbers from different parts of the system
- Do supported housing services meet the needs of teenage parents?
- Do those working with young people aged 16 to 19 who are not in education, employment or training, address the issues of teenage pregnancy?
- Do those working with families who live in overcrowded conditions provide advice and support?



8. Equitable resourcing

Aim for the distribution of finance and other resources to support equitable outcomes according to need.

1. Specialist staff

- What has been done to target specialist resource staff in the community, particularly according to need?
 - midwives
 - health visitors
 - partners (e.g. children's centre staff)

2. Specialist training

- Is there any specialist training/provision in recognition of the different cultural and social needs:
 - of minority ethnic groups
 - of teenage parents
 - for housing
 - vaccination and immunisation

3. Brief advice

- Is brief advice systematically provided by all relevant staff including children's centre staff?

4. Smoking in pregnancy

- Are there dedicated resources to reflect the special needs of working differently with pregnant smokers?

5. Resources for special needs

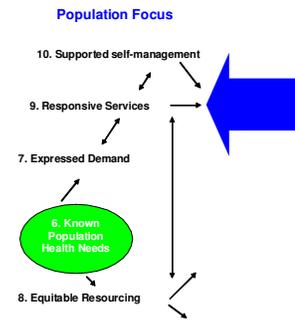
- Are there (sufficient) dedicated resources to manage the special needs of:
 - parents and carers with drug and alcohol problems
 - parents and carers with blood born virus infections

6. Outreach

- Are there mechanisms to fund targeted outreach programmes (see reference 19), such as:
 - pre-natal care in deprived areas/disadvantages groups
 - education about the advantages of early booking
 - 'Back to sleep' and associated programmes.

7. Integrated services

- Are relevant children and families services integrated?



9. Responsive services

When people present to services, aim to make sure they are afforded equal access to timely beneficial interventions according to need.

1. Booking and referral

- Is there a system in place to identify those who book late and encourage early booking?
- On booking, is there direct referral of smokers to smoking cessation services – an ‘opt out’ referral system?

2. Protocols

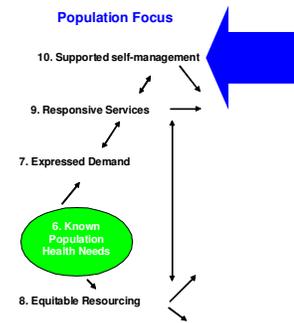
- Have protocols on managing maternity based on medical and social risk assessments been implemented to support high risk groups? These would include certain ethnic minority groups (Pakistani, Caribbean); teenage mothers; single parents, as well as high risk individuals (e.g. obese women).

3. Children’s centres

- Is there provision of health services available in children’s centres?

4. Women’s choice

- Are women given choice about where and how they participate in antenatal care
 - midwifery led units
 - hospital
 - home
- Do women receive information about the benefits and risks that relate to the different types of care to enable them to exercise choice?
- Do women have a choice of maternity care provider?



10. Supported self-management

Where appropriate, help service users to be empowered to make choices about their circumstances and service offer on the basis of good information, and to be supported to utilise the service offer to best effect

1. Flexible services

- What mechanisms are in place to work towards all services being flexible to cultural needs, and modified to accommodate unharmed differences in cultural beliefs around maternity and childrearing?
- What services are in place for genetic testing and counselling of families at increased risk of having a baby with a congenital anomaly especially in communities that favour consanguinity (marriage between close blood relatives)?

2. Translation and interpretation

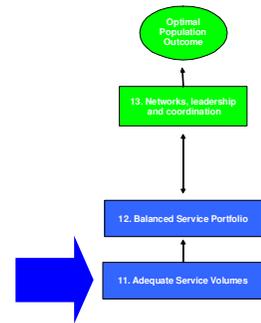
- Are appropriate translation and interpreting services available throughout the 'parent pathway'?
- Are materials on education and advice available in a variety of formats and languages, and do they reflect different cultural interpretations?

3. Segmented approaches

- Have 'segmented' approaches been taken in campaigns to address:
 - sudden unexpected deaths in infancy
 - late booking
 - obesity
 - smoking
 - breastfeeding
 - housing

4. Screening

- Who provides the counselling pre- and post-screening tests?
- How are positive or negative results communicated to the family?
- Are appropriate counselling and support services in place?



11. Adequate service volumes

Commissioning adequate service volumes to aim for acceptable access times

1. Meeting quality standards

- Do midwifery staffing levels comply with the Birthrate Plus Standard²⁰?
 - There should be a midwife to birth ratio of 1:28 to 1:35 – is this the case in the local area?
- Do health visiting caseloads meet national guidance?
- Do neonatal staffing levels comply with BAPM levels²¹ (1:1 nursing for a baby receiving intensive care)?
- Is there at least one consultant notional half day attendance on labour ward per 500 deliveries? ²²

2. Commissioning planning

- Is there a commissioning strategy for the provision of maternity services that provides high quality maternity services that best meets users' wants and needs within the financial limits available to them?
- Is there an action plan to improve the quality of maternity services?

3. Process mapping

- Have all partners involved in delivering maternity care carried out a process mapping exercise to help identify areas where there are inefficiencies, lack of resources or duplication? Have the outcomes been acted upon?

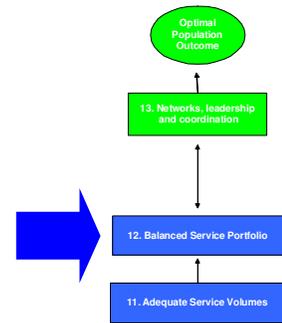
4. Walking the patient journey

- Have techniques been used to gain a real picture of the issues and problems for women as they move through the care pathway?

²⁰ <http://www.birthrateplus.co.uk/>

²¹ NICE (2010) [Specialist neonatal care](http://www.nice.org.uk/aboutnice/qualitystandards/specialistneonatalcare/skilledandmultidisciplinarystaff.jsp): Skilled and multidisciplinary staff
<http://www.nice.org.uk/aboutnice/qualitystandards/specialistneonatalcare/skilledandmultidisciplinarystaff.jsp>

²² (RCOG 2007) *Safer Childbirth*



12. Balanced service portfolio

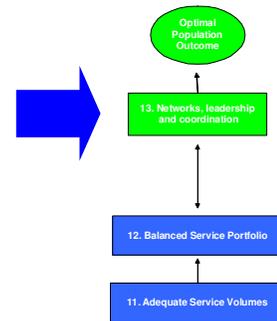
Aim for balance of services within pathways to avoid bottlenecks and delays.

1. Identifying bottlenecks

- Have points on the care pathways where delays occur been identified (e.g. obesity, smoking)?
- Have the causes of any bottlenecks been determined? Are there any delays or bottlenecks in mothers and babies receiving screening services from the primary care staff?
- Are there persistent problems with admissions to labour ward or cot occupancy rates in neonatal/special care baby units? Are there strategies to address the problem?
- What is current cot occupancy?
- Are there any delays in discharge?
- Have steps been put in place to alleviate the problem (e.g. through reallocation of resources, consideration of skills mix, demand and capacity calculations)?

2. Workforce capacity and training

- Are there any concerns around staffing for maternity and child services?
 - obstetrics and gynaecology
 - neonatal doctors and nurses
 - midwives
 - health visitors
 - sonographers
 - social workers



13. Networks, Leadership and Coordination

Designating leadership and co-ordination to aim for services that are commissioned and networked to meet population need and the population is supported to use services and interventions appropriately

1. Neonatal network

- Is there an active neonatal network?
- Do the component parts meet current guidance in relation to 'treat' or transfer?

2. Commissioners

- Is there evidence that there is a commissioning plan for maternity and children's services that is:
 - comprehensive
 - needs based
 - geared to population rather than service outcomes
 - actually addresses differential need/ health inequalities

3. Provider networks

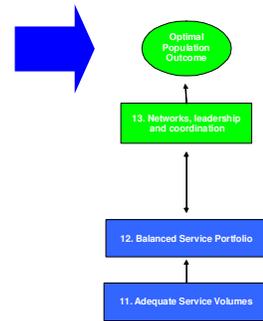
- How are provider networks performance managed by commissioners

4. Local providers and partners

- Are there shared outcomes and leadership capacity for children's services?
- Is there a network or local implementation team in place to coordinate activity for maternal and child health?
 - What is the level of leadership of the network?
 - Is there a clinical lead with dedicated time?
 - Is there a dedicated coordinator with dedicated time?
 - Is there appropriate public health specialist input?
 - Is there a recent network strategy/ action plan?
 - Has the network been subject to external/peer review? If so, what was the outcome?
 - Who are the main partners, and what is their level of representation and attendance?
- How are the needs of joint commissioning and joint provision partners in the local authority accommodated in these arrangements?
- Is there a joint action plan (either discreet or identifiable within other plans such as the Children and Young People's Plan)?

5. Supra-district providers

- Is there a supra-district network?
- Has it been subject to a recent peer review? If so, what were the main findings?
- How does it reconcile the needs of commissioners, clinicians, general managers and patients/carers?
- What are the governance arrangements between the network and the trusts
- What roles do the children's trust and the Director of Children's Services have in relation to supra-district provision?



Optimal Population Outcome

Aiming for maximum health gain at population level, with minimal health inequalities.

1. Local Outcomes

- What are the current local outcomes for infant mortality?
- Are there local SMART²³ targets to improve outcomes?
- Who is responsible for delivery?
- What is the ownership of the agenda locally by
 - Local Authority
 - Health and Wellbeing Boards
 - GP Commissioning Consortia
 - Public Health
 - Acute Sector?

2. Monitoring outcomes

- How will the outcomes be monitored, and by whom?
- What is the frequency of reporting?
- Has the contribution to reducing Health Inequalities, both locally and in comparison to the rest of England, been modelled?
- How is this information communicated and to whom?

²³ SMART: Specific / Measurable / Achievable / Realistic / Timed

Appendix 1: Health Inequalities National Support Team - Tackling Inequalities in Infant Mortality: Priority Actions: High Impact Changes

Strategic priority actions

1. Develop a multi-agency strategy (NHS, local authority, and voluntary, community and faith sector) to tackle health inequalities in infant mortality.
2. Undertake a comprehensive needs assessment to assess the causes of infant mortality, including analysis by risk factor and understanding the needs of women and families.
3. Work for each component of the strategy to reduce infant mortality to be explicit on all commissioning plans
4. Joint commissioning between the NHS and local authority is important to aim for a whole systems approach to tackling infant mortality.
5. Develop a database of relevant indicators for local monitoring of infant and maternal health, which can guide and inform commissioning, planning and service delivery.

Specific priority actions

6. Develop services to reduce the number of women who smoke before, during or after pregnancy. This should also provide support for fathers.
7. Develop a strategy to increase breastfeeding initiation and continuation rates.
8. Develop a strategy to tackle overcrowding.
9. Undertake a campaign about risk factors for Sudden Unexpected Deaths (SUDI) in Infancy and develop a Care of the Next Infant (CONI) service to support families who had a SUDI.
10. Aim for high quality of neonatal services.
11. Develop a strategy to aim for all women to receive a health and social care needs assessment by 12 completed weeks of pregnancy.
12. Develop a safeguarding joint performance framework across the NHS and local authority
13. Develop specialist services for obese pregnant women.
14. Develop a strategy to tackle child poverty
15. Develop a strategy to reduce teenage pregnancies and support pregnant teenagers
16. Develop genetic screening services for families at risk of inherited disorders

Appendix 2: Acronyms and abbreviations

BAPM	British Association of Perinatal Medicine
CDOP	Child Death Overview Panel
CONI	Care of the Next Infant
EqIA	Equality Impact Assessment
IMR	Infant mortality rate
LHO	London Health Observatory
LINK	Local Involvement Network
R&M	Routine and Manual
SUDI	Sudden Unexpected Deaths in Infancy
VCF	Voluntary, community and faith