A Better Start Southend
our children our community our future

Childhood Obesity Prevention Report

January 2017

PACEC | Public and Corporate Economic Consultants

BIG LOTTERY FUND

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1 EXECUTIVE SUMMARY

1.1 Background to the research

In summer 2016 PACEC were commissioned by partners in the Better Start Southend programme to undertake research on healthy eating among 0-3s and pregnant mothers in the Borough.

The research was intended to support activity in one of the three key areas which are core to the Better Start programme: healthy eating and nutrition

Better Start is a 10-year, £215m programme funded by the Big Lottery Fund and taking place in five sites around the country: Southend, Blackpool, Lambeth, Nottingham and Bradford. It is a research and development programme designed to explore new, more effective approaches to preventative care for young children and their families. Diet and nutrition is one of three key developmental areas which the programmes are collectively addressing, the other key outcome measures are language and communication and social and emotional development.

In Southend, Better Start funding is being deployed in six target wards identified during the bidding process as suffering from high levels of childhood obesity as well as underlying risk factors including socioeconomic disadvantage and higher levels of deprivation.

The research led to findings to support new services, and enhance the quality and reach of the existing care pathway and its effectiveness.

The work programme featured a literature review of best practice interventions to promote nutrition and healthy eating in 0-3s and pregnant mothers as well as a baseline assessment of risk and preventive indicators to provide context and a benchmark for future service provision and evaluation. The findings were then tested during primary research and gaps were mapped out during telephone consultations with strategic stakeholders and delivery staff. Recommendations and conclusions were designed to address gaps and build on best practice.

As part of the primary research a site visit was undertaken in June 2016, involving focus groups and meetings with parents and staff at six children's centres in Better Start wards. This was supplemented by telephone consultations with key health service providers including SEPT and the University Hospital Trust,

Recent changes have occurred in public health commissioning and the wider policy environment as a result of the Health and Social Care Act 2012, placing responsibility for public health and prevention on local authorities, including services for children. Responsibility for major children's health services such as the Healthy Child Programme and the Family Nurse Partnership was transferred to local authorities in October 2015. Councils around the country are currently witnessing a period of adjustment.

Childhood obesity has been earmarked as an emerging public health challenge locally and nationally (see Section 3.3 and 3.4), with an emerging body of evidence supporting preventive

measures and early intervention. The Council have signalled their intention to become a leading local authority in childhood obesity best practice, with a long-term view toward developing a centre for excellence linking together research, teaching and clinical practice.

1.2 Key findings

The best practice review (Section 4) found childhood obesity risk is strongly associated with lifestyle factors including maternal weight and smoking during pregnancy. The literature search found a lower prevalence of obesity in breastfed children in the target age group, highlighting exclusive breastfeeding for 6 months as the safest and most effective known intervention.

Five of the top six wards ranked in order of childhood obesity rates were Better Start wards, with National Child Measurement Programme data showing around one in ten reception-age children (4-5) were obese as of 2014. These numbers are slightly higher than the average for East of England (8.4%) and England as a whole (9.4%). The target wards were also found to feature higher levels of deprivation, lone parents and higher levels of child poverty. The food environment, known to contribute to childhood obesity, was found to be unconducive to healthy eating strategies, with the number of fast food outlets per capita amongst the highest in the country (22nd among English local authorities and 2nd in East England).

Overall provision of services related to healthy eating in the target groups was relatively strong, though with key shortages in certain areas such as support for breastfeeding and weaning support services.

Focus groups and meetings with parents yielded a mixture of findings. Most parents had a relatively sound understanding of nutrition, diet and the importance of breastfeeding, and were aware of and satisfied with services provided at children's centres.

Parents' awareness of the wider risk environment was less strong, and many were less knowledgeable of, for example, appropriate portion sizes for early years' children and the role of maternal obesity in increasing childhood obesity risk.

1.3 Conclusions and key messages

- Childhood obesity is not an issue that can easily be isolated from a public health perspective. It is closely related to a variety of socioeconomic and lifestyle factors. Research highlighted in this report suggests that public health approaches involving whole families, nutritional education, and ongoing support from healthcare professionals and children's centres is required to deliver improved health outcomes. The findings of this research further reinforce the relationship between socioeconomic performance and child health outcomes, in line with findings from the Marmot Report and government public health policies.
- The importance of breastfeeding as a protective factor against childhood obesity is evident in the literature review, and the practice is strongly encouraged in government guidelines. Primary research found there is latent demand for breastfeeding and weaning support services across the Borough.

- The local food environment is challenging from a public health perspective, with a high prevalence of low-cost takeaways and fast food outlets. The Public Health Responsibility Deal has brought in a number of businesses to support healthier eating practices, though there is scope to explore other avenues for change including possible revisions to planning practices.
- The importance of engaging those most in need of support was a recurring theme during focus groups and discussions with children's centre staff. There was a perception that the most deprived and hard-to-reach target groups – those earmarked to be the primary beneficiaries of Better Start funding – were not engaging with service providers or attending children's centres as much as other groups. There is a risk that support is received chiefly by those with limited need, whilst those most in need do not access services.
- The emergence of new models of local care following the Health & Social Care Act 2012 has seen increasing diversity in the delivery models and opportunities for best practice learning from other local government areas. Interaction with other local authorities can help inform the development of a Centre for Excellence in early years' healthy eating and nutrition. Further opportunities exists to integrate elements of the care pathway and ensure a more joined up service.
- Better Start should ensure full implementation of the Healthy Child Programme (0-5) and any further enhancements considered such as the ABS additionality pathway. Health visitors, as the key point of contact for most parents during the 0-3s pathway, are key to ensuring the success of anti-obesity measures in the target age range.
- There is scope to provide a more joined up service to improve the efficiency of existing provision. This includes encouraging a common emphasis on prevention that is understood by GPs and health visitors alike, as well as greater involvement of delivery staff in decision making processes as occurred during Better Start consultations.

1.4 Recommendations

The recommendations that follow from the research are outlined below, with a focus on high impact and 'quick win' changes. Greater detail is provided in Section 8.

- **1 Breastfeeding**: expand **breastfeeding peer support** services as well as services supporting the **introduction of solids**. This should include drop-in services and, where resources are available, home visits. Breastfeeding promotion is one of six high impact areas outlined in early years' commissioning guidelines. The evidence reviewed in this report supports the idea that breastfeeding is a protective factor against childhood obesity, and there is latent demand for related services throughout the borough. Section 8.2.4 outlines the three best options identified.
- **2 Joined up services**: provide training and advice to GPs locally to improve **signposting for childhood obesity-related services**, particularly health visiting and children's centres, promoting preventive approaches in addition to clinical provision.
- **3 Cooking**: ensure consistent support for cooking classes that support healthy eating across the Borough, with an emphasis on budget/low cost and convenient cooking. Promote new smartphone technology providing recipe and sugar content information such as the Change4Life Sugar Smart and Smart Recipe smartphone apps.
- **4 Shopping and the food environment** – ensure complete availability of **healthy start vouchers** across all wards within the Borough, with visible promotion in children's centres. Consider including promotion of healthy start vouchers (i.e. signs in participating retailers) as part of the Public Health Responsibility Deal.
- **5 Engagement** – develop a strategy and key actions to engage hard-to-reach and minority groups, particularly those with a different food culture. This should build on the work of local partners with strong knowledge of the challenges of engaging hard-to-reach groups (see Section 8.4).

2 INTRODUCTION

PACEC were commissioned in May 2016 to assist the Pre School Learning Alliance and Southend Borough Council's public health team in providing a report in relation to childhood obesity prevention and nutrition among pregnant mothers and 0-3 year olds as part of the A Better Start (ABS) initiative. A Better Start provides £40m to 6 target wards within Southend to improve health outcomes by employing a bottom-up "test and learn" approach supported by a strong evidence base. The purpose of this report is to provide recommendations and suggest interventions in light of locally gathered evidence and up-to-date research literature on best practices.

PACEC's report was commissioned in response to findings of the 2015 Annual Public Health Report. The Council's Health and Wellbeing Board set up a Task and Finish Group to consider options for actions to reduce childhood obesity in the city. The membership of the Childhood Obesity Task and Finish Group includes the Chief Executive of Southend-on-Sea Borough Council, the Chief Executive of Pre-school Learning Alliance, Directors of People, Place and Public Health for Southend-on-Sea Borough Council and the Chief Officer of NHS Southend Clinical Commissioning Group.

Southend is a unitary authority with a single CCG, teaching hospital, and well-coordinated voluntary sector. A Better Start is part of Southend's integrated and prevention-led strategy developed following devolution of healthcare delivery in England in 2015.

Childhood obesity is regarded as an emerging public health challenge, with evidence continuing to emerge on the effects of making early-life changes on later life. This report builds on recent scientific evidence on best practice recommendations, with top-line delivery recommendations designed in response to research carried out locally with parents and care practitioners, and in line with the *Southend Way* ethos.

2.1 Terms of Reference

The aims, objectives and service outcomes of this research are outlined in the project specification, and set out below:

2.1.1 Aims

Development of a summary report in relation to childhood obesity prevention and access to healthy food for the 0-3 population of Southend-on-Sea and their families with:

- a proposed locally focused set of strategic interventions
- a robust delivery plan and proposals for evaluation
- baseline data and a set of system wide indicators

2.1.2 Objectives

The principal objectives feature cross cutting principles from the Health & Wellbeing Strategy:

- **Intelligence** – to prepare an overview of the risk and protective factors that influence diet and nutrition, including access to healthy food, and therefore childhood obesity in the six A Better Start wards compared to other wards in the Borough
- **Mapping** – to map existing programmes and services and community assets and opportunities which can be harnessed and/or scaled up to improve diet and nutrition for pregnant women, children 0-3 years and their families
- **Planning** – to inform service requirements (i.e. for how many people, the effectiveness of these services, the benefits that will be expected, and at what cost)
- **Efficiency** – determining whether or not resources and services have been appropriately directed in relation to need (i.e. do those who need a service get it? do those who get a service need it?).
- **Equity** – to identify where inequalities exist, and to identify actions necessary to reduce health inequalities

2.1.3 Specification

1. Review and summarise the available national and local data on risk and protective factors influencing childhood obesity e.g. maternal obesity, breastfeeding, food environment

2. Outline and map the current and future services and interventions which support healthier eating in pregnant women, children 0-3 years and their families e.g. UNICEF Baby Friendly Accreditation, Healthy Start, Eat Better Start Better

3. Ascertain the views of local parents regarding the barriers to healthier eating and what services and interventions will be most helpful to them e.g. financial, access to healthy food in local shops, lack of knowledge or skills to implement healthy eating guidelines, family attitudes and preferences

4. Summarise the evidence for the delivery of high quality and cost effective interventions for health promotion and prevention in relation to healthy diet and nutrition in 0-3's and their families

5. Identify areas for improvement and make recommendations in collaboration with stakeholders regarding health promotion and prevention in relation to healthy diet and nutrition in 0-3's and their families

2.2 Methodology

PACEC employed the following research programme:

- **Background & Policy context** – desk review summarising the history and development of A Better Start in Southend, and the local and national strategies and policies supporting health and nutrition in pregnant mothers and children age 0-3.
- **Evidence / best practice review** – literature review of best practice evidence for interventions to support childhood nutrition carried out by Dr Nick Cavill, including a discussion of risk and protective factors, and the effectiveness of interventions tested to date.

- **Baseline review** – baseline position in Southend with demographic data on Better Start wards, with an overview of key risk and protective factors broken down geographically.
- **Services Map** – mapping the existing services provided to support breastfeeding and childhood nutrition in Southend.
- **Focus Groups** – PACEC carried out focus groups with mothers at five Sure Start children's centres in Southend, asking about the nature of existing services and gathering views on possible future services including those outlined in the literature review.
- **Consultation** – discussion with stakeholders in Southend, including public health team members.
- **Improvements and Recommendations** – delivery plan of top-line messages, public health and service recommendations.

PACEC's research utilises common definitions of obesity stipulated in the research specification:

Defining obesity	
Obesity	The World Health organisation (WHO) defines obesity and overweight as 'abnormal or excessive fat accumulation that presents a risk to health'. Measuring body fat is difficult in most settings, so Body Mass Index (BMI) - weight (kg) divided by height squared (m2) is used as a proxy measure. In adults, obesity is commonly defined as a body mass index (BMI) of 30 or more.
Childhood Obesity	It is more complex to measure BMI in children as they grow and develop at different rates, and there is a difference between boys and girls. The British 1990 growth reference charts are used to define weight status, with those with a BMI >98th centile of the reference chart defined as obese and those with a BMI >91st centile defined as overweight.

3 BACKGROUND & POLICY CONTEXT

3.1 A Better Start

A Better Start (ABS) is a 10-year, £215m Big Lottery-funded programme designed to improve effective early childhood health interventions in five local authorities in England. ABS takes a test-and-learn approach to help develop best practices in providing foundations for 0-3 year olds to improve future health, social and education outcomes, focusing on evidence-based preventative interventions in service delivery and practice. The programme is run in a community partnership structure in Southend with the Pre-School Learning Alliance, with £40m awarded in June 2014. The overarching aim of Better Start Southend is: 'Giving Every Child the Best Start in Life'.

The Better Start programme aims to improve the life chances of 4,000 babies and infants, focused on six wards identified as being in need of support during the bid phase:

- Kursaal,
- Milton,
- Shoeburyness,
- Victoria,
- West Shoebury
- Westborough.

The priorities for childhood nutrition intervention under Better Start are outlined in the Implementation Plan:

- Identifying and addressing obesity in pregnancy
- Improving maternal nutrition
- Improving parental knowledge and skills in infant nutrition
- Ensuring appropriate housing for infants and young children to enable good nutrition
- Breastfeeding and infant feeding strategy from conception to age 3 including UNICEF Baby Friendly Initiative
- Universal Tier 1 lifestyle programmes e.g Health Exercise Nutrition for the Really Young (HENRY)

Source: Better Start Southend – Implementation Plan

Evaluation of the impact and implementation of A Better Start initiatives is the responsibility of the Warwick Consortium, a multi-disciplinary team of health and policy professionals. The team are carrying out research with 4,200 over 10 years, reflecting the test-and-learn approach. The economic effectiveness evaluation of Better Start, known as Preventonomics, is being undertaken by the London School of Economics' Personal Social Services Research Unit.[1]

[1] See 'Preventonomics: A Better Start – how will it pay?'

3.1.1 Delivery approach

A Better Start is underlined by a locally tailored delivery ethos. The partnership are aiming to take a pro-active approach in pioneering new public services rather than responding to familiar challenges of managing large-scale public service consumption. The new approach calls for whole-system change supported by resilient communities, with prevention at the forefront of service delivery (see table 3.2).

Table 3.2: Better Start Focus in Southend

Delivery Focus	
System Change	Shifting existing resources from remedial intervention to prevention and by increasing investment in the period from conception to age three. This will embed fundamental system change bringing our community and voluntary partners into the heart of policies and major decisions across the borough
Community resilience	Communities in Southend will be self-supporting, influence change and take control of their families' lives, with raised aspiration for their children's future
Delivering outcomes in three key areas of development:	
Children's Diet & Nutrition	**Physically healthier children, as a result of investment in good nutrition and physical activity in the prenatal period and early years**
Children's communication & language development	Families from all ethnic and social backgrounds will be equipped for lifelong learning and career success, with well-developed skills of language and interaction, and the ability to articulate need
Children's Social & Emotional Development	Children will have positive social and emotional wellbeing, a nurturing and loving family environment and an enriched early years' experience, leading to positive, supportive secure relationships

Source: A Better Start Southend – programme documentation

The programme bid notes that the partnership are looking to be recognised as a centre for excellence internationally in innovation and best practice. The delivery partnership for Better Start, as a new centre of excellence, will feature strong collaboration with the Anglia Ruskin MedTech Campus and urban transformation initiatives as part of the City Deal, exploiting synergies with business, health and higher education partners.

The delivery ethos of Better Start is aligned with Big Lottery's 9 core delivery characteristics:

Collaboration	Partnership	Co-production
Local delivery	Long-term investment	Focus on prevention
Use of evidence	Understanding impact	Asset-based

Southend Approach

The Southend Approach to delivering A Better Start describes how the partnership will deliver services, and features the following fundamental elements:

- Science-based and evidence-based approach to designing and delivering services.
- Co-production and co-design bringing in parents and the community.
- Extra support for 'transition' phases such as pregnancy, entering nursey education etc.
- Services delivered by a highly qualified workforce, with ongoing training informed by centre for excellence best practice findings.

The strategy notes that the partnership 'will link ABS evidence-based preventative approach to Early Years with existing ambitious initiatives in the borough which together will form the Southend Approach'. By focusing on systems change and improved health outcomes for children, the partnership will look to start a process of innovation diffusion, transforming the way Southend functions as a community.

Southend Way

The Southend Way approach refers to a set of quality standards that delivery participants commit to, including undergoing training. These standards are developed using knowledge and best practices developed by partners and experts at the Centre for Excellence, Innovation and Best Practice. It also focuses on children's development, attachment and the Family Partnership Model.

During the bid Southend engaged services users, care practitioners and strategic stakeholders through an Appreciative Enquiry approach which prioritises 'assets' over 'deficits', informed by an online survey of parents' views.

Services delivered by Better Start follow a Staged Intervention Model:

Stage	Type	Responsibility	Description
	ABS Staged Intervention Model		
1	Universal	Council (Public Health)	Personalised unified services (lifestyle interventions)
2	Vulnerable	Council (Public Health)	Prevention - targeted multi-agency team led by professional
3	Complex	Southend CCG	Early Intervention - Multi-agency team co-ordinated through Children & Family Panel
4	Acute	NHS England	Treatment - Acute services intervention co-ordinated through statutory processes and lead professional

Source: ABS Strategy – Implementation Plan

Changes in services for child / pregnant mothers nutrition forms part of an enhanced maternity-to-age 3 pathway which links 'Preparation for Birth and Beyond' and '0-5 years Healthy Child

Programme' (two year old health development checks) with the 'Early Years Foundation Progress Check'

A key goal of Better Start is to redesign the maternity to age 3 pathway, creating a more personal and joined up service underlined by improvements in information sharing. Care pathways are discussed in greater detail in Chapter 6 – Services Mapping.

3.2 Child health services provision in Southend

Responsibility for commissioning child health services is split between local care services, local authorities and central government under the Health and Social Care Act 2012. Local authorities are responsible for securing and providing early childhood services.

Early Years' commissioning responsibilities are outlined in NHS England's *Securing Excellence in Commissioning for Healthy Child Programme 0-5 Years*:

- Early childhood services are the responsibility of local authorities;
- Clinical Commissioning Groups (CCGs) directly commission children's community services and acute children's health services, child community services for ages 0-5, and most secondary care services;
- NHS England commission the **Healthy Child Programme 0-5**, **Health Visiting** and **Family Nurse Partnership (FNP)**.

Since April 2013, Southend have a single CCG and local service provider in the local authority area, responsible for commissioning and overseeing delivery of health services. From the 1st October 2015, commissioning for both the Healthy Child Programme and the Family Nurse Partnership was transferred to Southend Council, with the potential to offer joined up services across Early Years, social care and housing.

Southend's nine Sure Start children's centres play a central role in co-delivering early years services and the Healthy Child Programme. A key recommendation of the 2015 Annual Report is that early education and child care settings play a leading role in the delivery of integrated early years services in Southend.

The Health and Wellbeing Board was set up as a statutory body following the Health And Social Care Act, and is made up of local health stakeholders (councillors, GPs, charities). The Board provides a forum for strategic co-ordination and planning. The Better Start Programme Management Group feed directly into the Health and Wellbeing Board.

Health and Wellbeing Board
Organisations:
Southend-on-Sea Borough Council NHS Southend Clinical Commissioning Group (CCG) Southend Healthwatch Southend University Hospital NHS Foundation Trust South Essex Partnership University NHS Foundation Trust (SEPT) Southend Association of Voluntary Services (SAVS) Pre-School Learning Alliance

Health and Wellbeing Board	
Personnel:	
Cllr L Salter	Health & Wellbeing Board Chair, (Council)
Cllr C Willis	Councillor
Cllr F Evans	Councillor
Cllr B Ayling	Councillor
Cllr B Lamb	Councillor
Cllr T Callaghan	Councillor
Rob Tinlin	Chief Exec, (Council)
Simon Leftley	Corporate Director, People (Council)
Andrea Atherton	Director, Public Health (Council)
Andrew Pike	Director, Essex Local Area Team (NHS)
Dr Krishna Chaturvedi	Clinical Executive Committee Chair, (Southend CCG)
Dr José Garcia Lobera	Chair, (Southend CCG)
Melanie Craig	Chief Officer (Southend CCG)
Sue Hardy	Chief Exec, (University Hospital NHS Foundation Trust)
Sally Morris	Chief Exec, (SEPT)
Alison Semmence	Chief Exec (SAVS)
Neil Leitch	Chief Exec, (Pre-School Learning Alliance)
Christine Doody	Chair (Southend Safeguarding Children & Adults Boards)
Leanne Crabb	Senior Officer, Southend Healthwatch

3.3 National policy context

Healthy Lives Healthy People (2011) is a public health white paper detailing the government's new strategy for tackling lifestyle-driven public health challenges. The paper describes obesity as 'probably the most widespread threat to health and wellbeing' in England. It sets out a broad approach to prevention focused on localism, the provision of health premium incentives based on health outcomes, and evidence-based service provision, utilising a broad range of delivery partners in the local community.

The *Public Health Outcomes Framework* (2012) sets out the Department of Health's nationwide priorities for improving public heath, part of a series of policy updates recommended in *Healthy Lives Healthy People*. The Framework presents a number of evaluation indicators, including several key to measuring policy progress on childhood obesity: child poverty, birth weight, breastfeeding and maternal smoking.

Strategic High Impact changes – Childhood Obesity (2011) provides a Healthy Weight Model for strategic obesity interventions, focused on four key themes:

- Local intelligence
- Harnessing the contribution of existing community assets, groups and services
- Developing the workforce
- Improving workforce health

The *Marmot Report: Fair Society, Healthy Lives* (2010) is a strategic review of health inequalities in England. It reviews the major discrepancies in child health outcomes in deprived areas, proposing evidence-based strategies to address the socioeconomic factors underlying

health inequalities. The review elaborates a life course framework focused around two broad policy goals:

- an enabling society that maximizes individual and community potential
- ensuring social justice, health and sustainability are at the heart of all policies.

The Health Select Committee published findings of its enquiry into childhood obesity in November 2015, titled *Brave and Bold Action*. It outlines nine areas for improvement across education, pricing, public health and food standards, emphasising the need to put the food environment at the heart of policy making, noting that the amount spent on obesity prevention is dwarfed by the sums spent on treatment. The report proposes greater powers for local authorities to tackle the environment enabling obesity. Brave and Bold Action also builds on public health strategies previously outlined by the Government in Public Health England's *Obesity and the environment briefing: regulating the growth of fast food outlets* (2013), a briefing paper for local authorities with a specific focus on fast food takeaways. It outlines approaches to improving the food environment in a policy toolkit which presents a range of possible public health measures, including the ability to limit the number of fast food takeaways, especially those near schools.

3.4 Local Policy Context

This section outlines the local policy context in respect of child and maternal health services and development in Southend, locating Better Start within the wider policy and service environment.

3.4.1 Southend CCG Strategic Plan 2014-19

The Southend CCG Strategic Plan 2014-19 sets out an integrated five year vision for the health system in the local authority area, reflecting the recent transfer of responsibilities in service provision and the establishment of the Southend CCG.

The strategy outlines key strategic objectives for the Southend area:

- System objective 1 – 'our children have the best start in life'
- System objective 2 – 'encourage and support local people to make healthier choices'
- System objective 3 – 'reduce the health gap between the most and least wealthy'
- System objective 4 – 'people have control over their lives and live as independently as possible'
- System objective 5 – 'enable our older population and those adults with social care needs to lead fulfilling lives as citizens'

The strategy looks to develop a system-wide approach to transforming children's services through 'Our Children, Our Community, Our Future', setting out plans for whole-system change to children's services, focused on prevention-led activities for families and children from conception through to pre-school age. Our Children, Our Community, Our Future is delivered with support from Better Start, and includes the development of an internationally-recognised centre for excellence, innovation and best practice for early years.

The strategy also notes the cost containment environment of public finances, and the need to return to financial balance for future years.

3.4.2 Children and Young People's Plan 2016-17

The Success for All Children Group is the Children's Trust in Southend, supporting the Health and Wellbeing Board. The group features the CCG, SAVS, Foundation Trust SEPT as well as local education and policy stakeholders.

The Children and Young People's Plan 2016-17 identifies areas for improvement identified in the Joint Strategic Needs Assessment (2015), including:

- The Assessment notes National Child Measurement Programme childhood obesity rates in reception in Southend are broadly similar to the England average, but that child poverty rates (21.7%) are slightly higher, a key risk obesity risk.
- World Health Organisation findings that childhood obesity is a serious public health challenge, with a need to reduce prevalence rates regardless of performance against local and national benchmarks.

Breastfeeding and Obesity are identified as two areas to focus on within the 'Improving Children's Health and Wellbeing' strand in response to JSNA

The Children and Young People's Plan notes the following existing initiatives supporting childhood nutrition:

- Healthy Child Programme
- A Better Start
- Unicef Baby Friendly Initiative
- Family Nurse Partnership
- Healthy School Award Scheme.

These initiatives are supported as part of an overall preventative approach which emphasises improving emotional and social wellbeing, supporting vulnerable families and children, and improving children's educational attainment and future prospects in order to tackle 'the underlying inequalities that lead to poorer life chance for children within the borough.'

3.4.3 Health and Wellbeing Strategy

The Health & Wellbeing Strategy (2015-16) is the Health & Wellbeing Board's strategic plan for improving health outcomes in Southend. It outlines the key priorities for improving health and wellbeing for all of the borough's residents, bringing together the Board's key partners (NHS, public health, children's services) to consider local needs and plan appropriate services for Southend residents.

The vision of the document is 'to ensure that everyone living in Southend on Sea has the best possible opportunity to live long, fulfilling, healthy lives', setting out four key vision points:

- our children to have the best start in life
- to encourage and support local people to make healthier choices

- to endeavour to reduce the health gap between the most and least wealthy
- people to have control over their lives as independently as possible
- enable our older population to lead fulfilling lives as citizens

The strategy outlines nine ambitions, of which the first two are relevant to child nutrition and pregnant mothers:

Ambition 1: A positive start in life

The Board note that a quarter of children living in poverty in Southend, with particularly strong pockets of deprivation in inner city wards. The importance of the 0-4 period in a child's development is emphasised, citing evidence on health outcomes from the Marmot report, as well as the role of sound antenatal care and positive parenting. The Board pledges to support the Success for All Children's Group (responsible for Children & Young Peoples Plan), underlining the need for a multi-agency approach to service delivery.

Ambition 2: Promoting healthy lifestyles.

The Board note that 12% of women smoked during pregnancy in 2010-11, the dangers of childhood obesity and the risks for later life. The strategy cites findings from the National Childhood Measurement Programme showing that 8.3% (156) of 4-5 year olds in the local authority area were classified as obese. The Board pledges to increase green spaces and work with families on early preventative interventions.

3.4.4 Southend Public Health Responsibility Deal:

The Southend Public Health Responsibility Deal supports business and local organisations in improving the health and wellbeing of their staff as well as making responsible choices to help customers.

A number of key recommendations in the Annual Health Report 2015 refer to the Deal including its promotion to local schools as part of the Enhanced Healthy School status and action to support fast food providers and takeaways in producing healthier foods. The Healthy Schools initiative is being broadened to include Healthy Early Years' settings as part of an effort to provide a continuous high-quality offer.

3.4.5 A Better Start strategy 2014

The February 2014 Better Start strategy notes the overarching aim to give every child the best start in life by 'shifting resources from remedial intervention to prevention' and increasing investment in the conception-to-age 3 care pathway.

The strategy calls for innovation and integration in primary care, noting the fragmentation of budgets previously controlled by the primary care trust divided between NHS England, Southend CCG, Southend Council and Public Health England. As part of movements towards developing a family-focused practice, the strategy seeks to maximise opportunities presented by the transfer of responsibility of 0-5 Healthy Child Programme to the local authority, bringing together areas such as maternity, health visiting, diet and nutrition with general practice, delivered over a 7 day week.

3.4.6 Conclusion

Childhood obesity is a public health challenge across England: approximately one fifth of children are classified as overweight or obese when they start school. In addition, the costs associated with treating obesity and concurrent associated conditions are projected to cost the NHS approximately £49.9 billion by 2050.

The Chief Medical Officer's recent *Our Children Deserve Better: Prevention Pays* report emphasises that spending on the early years of life should be seen as an investment which will yield returns in future, and can play a key role in preventing high treatment costs further down the line, assisting commissioners in their long-term sustainability goals.

Statutory responsibility for early years now lies with the local authority as a result of the Health and Social Care Act 2012, with service provision supported by local communities. The focus on early years is based on extensive best practice literature outlined in *Healthy Lives Healthy People*, which finds that a strong early start improves health and educational outcomes in later life. Preventive approaches in early years are also economical: social return analyses suggest considerable savings for commissioning local authorities over the long term. The role of early intervention in childhood obesity prevention is well-established in the *Tickell Review* (2011) and elsewhere.

The Healthy Child Programme provides a platform for universal preventive services, though substantial gaps remain. Investments by the Big Lottery Fund were designed in response to consultations which found persistent shortcomings in child health and developmental outcomes.

The joined up approach outlined in the Southend Way follows both best practice literature and consultation findings undertaken for a Better Start, which call for better communications, sharing of information and a more joined up service. *A Better Start* is part of an emerging local authority-level approach which focuses on integrated, evidence-based childhood health intervention services.

4 EVIDENCE ON OBESITY-RELATED INTERVENTIONS

This chapter summarises the evidence on delivery of high quality and cost effective interventions for health promotion and prevention in relation to healthy diet and nutrition in 0-3's and their families. In compiling this review, PACEC worked with health policy expert Dr Nick Cavill to complete a 'best practice' summary, adjusted to the parameters specified in the project brief. The findings from this review were used to inform subsequent research with delivery staff, parents and stakeholders.

Cost-effectiveness evaluations of childhood obesity interventions provide decision-makers with information demonstrating best value for money, a key requirement within the current commissioning environment.

4.1 Method

A systematic approach was used within the time available. Searches were conducted in Pubmed for review articles using a combination of various terms (obesity; weight; interventions; review; pre-school; infants; children). Hundreds of reviews were retrieved; title and abstracts were then screened and 25 reviews selected.

The brief for this evidence was closely focused on children aged 0-3 (and their families). It was found however that this distinction is rarely used in the literature; many reviews focus on 'children' (i.e. aged under 18) and the sub-category used for the youngest children is more likely to be 0-5 than it is 0-3. To focus strictly only on reviews of interventions aimed at 0-3 year olds seemed likely to miss lots of relevant evidence. In some instances we therefore did consider evidence from reviews of interventions among 0-5 year olds, but with a careful consideraton of its relevance to the youngest age children.

The review methods do not apply to section 4.3.2 (Effectiveness of specific initiatives outlined by Southend), which is instead descriptive, due to the limited evidence on highly targeted interventions.

4.2 Literature Review Findings

4.2.1 Risk factors

It is a useful first step to investigate what risk factors have been associated with obesity among very young children. This can help to identify which factors might be amenable to intervention. Two high quality systematic reviews have investigated the risk factors associated with childhood obesity among children aged 0-2 years [2] [3]. Woo Baidal et al [12] have published the most recent systematic review of this field based on a very useful conceptual framework that sets out the risk factors that may be considered to be relevant, making a distinction between

[2] Weng SF, Redsell SA, Swift JA, et al. Systematic review and meta-analyses of risk factors for childhood overweight identifiable during infancy. Archives of disease in childhood 2012;97(12):1019-26
[3] Woo Baidal JA, Locks LM, Cheng ER, et al. Risk Factors for Childhood Obesity in the First 1,000 Days: A Systematic Review. American journal of preventive medicine 2016;50(6):761-79

'underwater' factors (that cannot be modified) and 'above water' factors. This is shown in figure 4.1 below.

Figure 4.1: Risk factors, conceptual framework from Woo Baidal et al

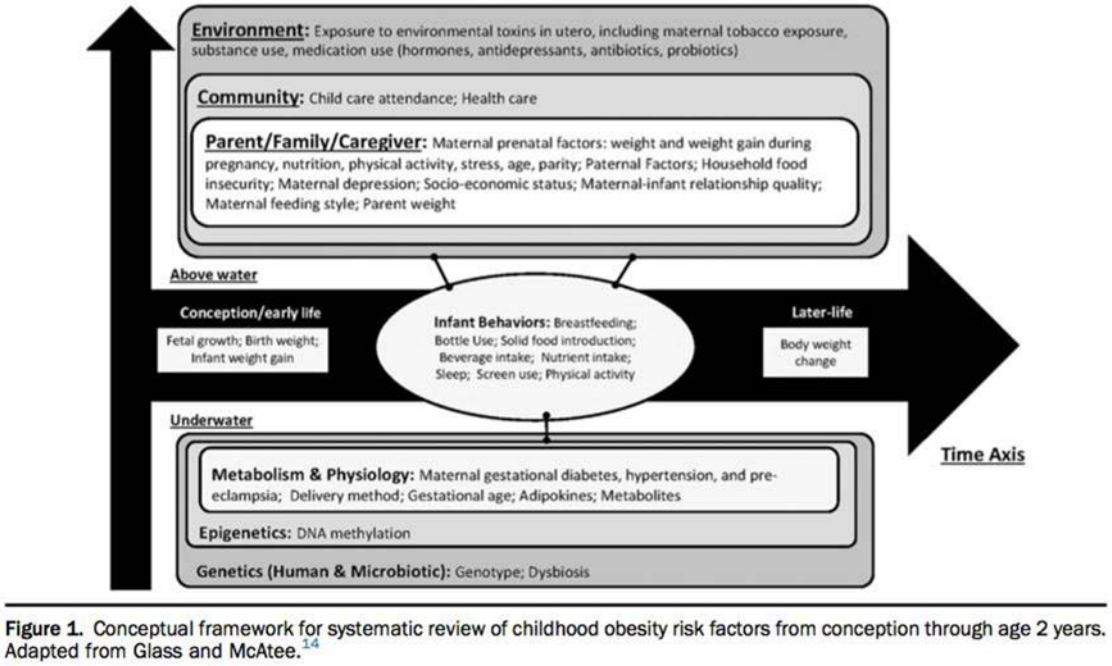


Figure 1. Conceptual framework for systematic review of childhood obesity risk factors from conception through age 2 years. Adapted from Glass and McAtee.[14]

Nearly 300 prospective studies were reviewed to present the evidence for risk factors for obesity in the first 1,000 days of life. This is shown in tables 1-3 in appendix 2. In summary, several risk factors during the first 1,000 days were consistently associated with later childhood overweight:

- higher maternal pre-pregnancy BMI
- maternal excess gestational weight gain
- prenatal tobacco exposure
- high infant birth weight
- high infant weight gain.

A smaller number of studies also supported the importance of:

- gestational diabetes
- child care attendance
- low strength of maternal–infant relationship
- low socio-economic status
- curtailed infant sleep
- inappropriate bottle use
- introduction of solid food before age 4 months
- infant antibiotic exposure as risk factors for childhood overweight.

The review found inconsistent evidence for the relationship between breastfeeding and obesity, despite it being the single risk factor with the largest number of studies examining this relationship. This was in part due to the age range cut-off (0-3s) affecting the number of studies that could be examined. There was stronger evidence for the protective effects of breastfeeding, however.

Weng et al [11] conducted a review and meta analysis of risk factors. This review was slightly older (2012) and reviewed fewer studies (probably due to more stringent evidence criteria) but had the significant advantage of conducting a meta-analysis on some risk factors. The review found a similar list of significant early life risk factors for childhood overweightness:

- maternal pre-pregnancy overweight,
- high infant birth weight,
- early infant rapid weight gain
- maternal smoking during pregnancy.

While the review of studies of breastfeeding found the evidence to be inconclusive, the meta-analysis found that there was a moderate protective effect of ever breastfeeding during the first year on subsequent childhood overweight (see appendix 2).

There was some evidence to suggest that the early introduction of solid foods was associated with childhood overweightness. Several factors were found to have mixed, inconclusive or no association with childhood overweightness: breastfeeding duration, maternal marital status, parity, socioeconomic status, maternal age, maternal education, maternal depression, infant ethnicity, delivery type, maternal postpartum weight loss, gestational weight gain and infant temperament.

4.3 Effectiveness of interventions.

Interventions aimed at children 0-3

The evidence for the effectiveness of interventions specifically aimed at children aged 0-3 is scarce. For example, Flynn et al [4] conducted a rigorous review of the evidence for the effectiveness of interventions to reduce obesity in children (all ages) and found that the majority targeted children aged 6–12 years. Only 6% of programmes (*n* = 9) addressed the 0–5-year age range (so obviously there are even fewer studies specifically of children under 3).

The most reliable evidence source for public health interventions usually comes from Cochrane reviews, as these are conducted to extremely high standards of evidence reviewing. The Cochrane review 'Interventions for preventing obesity in children"[5] included eight studies targeting young children, (0-5 years), but all but one of these included children with a mean age greater than three years at baseline, and one of these specifically recruited children aged four to seven years. The only included study aimed at 0-3 year olds was a pilot of a home

[4] Flynn MA, McNeil DA, Maloff B, et al. Reducing obesity and related chronic disease risk in children and youth: a synthesis of evidence with 'best practice' recommendations. Obesity reviews : an official journal of the International Association for the Study of Obesity 2006;7 Suppl 1:7-66
[5] Waters E, de Silva-Sanigorski A, Burford BJ, et al. Interventions for preventing obesity in children. Cochrane Database of Systematic Reviews 2011(12)

visiting programme aimed at preschool Native-American children, and so did not seem relevant to Southend.

There are a number of good quality reviews of diet and nutrition interventions among 0-3 year olds (and their parents) and these will be summarised in the next section.

Redsell et al[6] reviewed interventions designed to reduce the risk of overweight/obesity that were delivered antenatally or during the first 2 years of life, with outcomes reported from birth to 7 years of age. They found a total of 35 eligible studies, describing 27 unique trials of which 24 were behavioural and three were non-behavioural. The 24 behavioural trials were categorised by type of intervention: (1) nutritional and/or responsive feeding interventions targeted at parents of infants, which improved feeding practices and had some impact on child weight (*n* = 12); (2) breastfeeding promotion and lactation support for mothers, which had a positive effect on breastfeeding but not child weight (*n* = 5); (3) parenting and family lifestyle (*n* = 4); and (4) maternal health (*n* = 3) interventions that had some impact on feeding practices but not child weight. The non-behavioural trials comprised interventions manipulating formula milk composition (*n* = 3). Of these, lower/ hydrolysed protein formula milk had a positive effect on weight outcomes. Interventions that aim to improve diet and parental responsiveness to infant cues showed most promise in terms of self-reported behavioural change. They concluded that "Interventions that aim to improve parental feeding practices, including infant diet and parental responsiveness to infant cues, showed most promise in relation to behaviour change but not weight. The option of advising some families to offer lower protein formula milk is worthy of further exploration if imbedded into a multi- component intervention together with behavioural change components. Despite the known risk factors for child obesity, there were very few intervention studies for pregnant women that continued during infancy."

Flynn et al[13] conducted an extremely comprehensive evidence synthesis (a systematic review combined with expert evidence) that set out to find, select and critically appraise programmes addressing prevention and treatment of childhood obesity and related risk of chronic diseases. They found only one study that focused specifically on early infancy: a well child clinic programme where breast feeding was encouraged. Another three programmes targeted the first 2 years of life: one was the breast feeding programme mentioned above; one involved a short-duration (16 weeks) home-visiting obesity prevention programme for Native American toddlers' age 16–30 months. The second involved a chronic disease prevention programme which followed infants from age 7 months to 7 years. The authors concluded "now that knowledge is accumulating about the importance of early infancy, greater vigilance should be paid to promotion of breastfeeding and good infant feeding practice."

Ciampa et al [7] conducted one of the few reviews focused on the very young: they set out to assess the evidence for interventions designed to prevent or reduce overweight and obesity

[6] Redsell SA, Edmonds B, Swift JA, et al. Systematic review of randomised controlled trials of interventions that aim to reduce the risk, either directly or indirectly, of overweight and obesity in infancy and early childhood. Maternal & child nutrition 2016;12(1):24-38

[7] Ciampa PJ, Kumar D, Barkin SL, et al. Interventions aimed at decreasing obesity in children younger than 2 years: a systematic review. Archives of pediatrics & adolescent medicine 2010;164(12):1098-104

in children younger than 2 years. They found eight studies that used educational interventions to promote dietary behaviors, and 2 studies that used a combination of nutrition education and physical activity. Study settings included home (n=2), clinic (n = 3), classroom (n = 4), or a combination (n = 1). Intervention durations were generally less than 6 months and had modest success in affecting measures, such as dietary intake and parental attitudes and knowledge about nutrition. No intervention improved child weight status. They concluded "Few published studies attempted to intervene among children younger than 2 years to prevent or reduce obesity. Limited evidence suggests that interventions may improve dietary intake and parental attitudes and knowledge about nutrition for children in this age group. For clinically important and sustainable effect, future research should focus on designing rigorous interventions that target young children and their families."

Bond et al [8] conducted a systematic review of the effectiveness and cost-effectiveness of weight management schemes for the under fives restricting the inclusion criteria to controlled trials with objective measures. They found four effectiveness randomized controlled trials of prevention. No treatment or cost- effectiveness studies were found. Only one study in a Latino community showed a statistically significant advantage from the intervention in a slower rate of increase in body mass index. However, trends in decrease in body mass index and weight loss favoured the intervention groups in other studies. From the studies characteristics they hypothesized that important features to include in future interventions may be; cultural sensitivity, sustained moderate to vigorous exercise, active engagement of the parents in the programme and as role models of healthy living and active engagement of the children in nutrition education.

Campbell and Hesketh [9] set out to review systematically the effectiveness of interventions designed to prevent obesity, promote healthy eating and/or physical activity and/or to reduce sedentary behaviours in 0–5-year-old children. The nine included studies were delivered through a variety of settings (family/home, group, primary care, pre-school/ childcare and mixed settings). Most studies involved multi- approach interventions and were conducted in the USA. Many studies targeted socio-economically at-risk families through well-established health service infrastructures. While the designs of studies varied substantially and all had some methodological weaknesses, all showed some level of effectiveness on at least one obesity-promoting behaviour in young children. Only four of these studies were among children aged 0-3. The authors found it 'surprising' that relatively few studies addressed early childhood, despite the increasing prevalence of childhood obesity, and the recognition that early childhood is considered to be a key time for the development of health behaviours. They concluded that "although the mode of delivery and the focus of messages differed across studies, most interventions can be classified as high-intensity interventions; that is, parents were seen many times and in a range of settings by their health service provider or the interventionist. These settings allowed for the repetition of targeted messages, often through

[8] Bond M, Wyatt K, Lloyd J, et al. Systematic review of the effectiveness of weight management schemes for the under-fives. Obesity reviews : an official journal of the International Association for the Study of Obesity 2011;12(4):242-53

[9] Campbell KJ, Hesketh KD. Strategies which aim to positively impact on weight, physical activity, diet and sedentary behaviours in children from zero to five years. A systematic review of the literature. Obesity reviews : an official journal of the International Association for the Study of Obesity 2007;8(4):327-38

different modes (tailored individual feedback, group education set- tings, use of pamphlets and posters in community facilities). These high-intensity interventions resulted in small but potentially meaningful behaviour changes; however, we found no evidence to support the premise that low-level interventions would result in similar changes."

Laws et al [10] systematically reviewed the literature to examine the effectiveness of interventions to prevent obesity or improve obesity related behaviours in children 0-5 years from socioeconomically disadvantaged or Indigenous families. They found only six studies that recruited children before age two and measured anthropometric outcomes, only one study had a small effect on BMI (mean BMI difference −0.29 kg/m^2 95% CI: −0.55 to −0.02 kg/m^2). This was equivalent to a 2.9% (95% CI −3.0 to 8.3%) difference between intervention and control groups in the prevalence of overweight and obesity at age two years. Given that there tends to be a difference in the prevalence of overweight and obesity amongst pre-school children between the top and bottom quintiles of disadvantage, this difference may be important in reducing the socioeconomic 'gap' in obesity. The lack of impact of studies recruiting children before two years on anthropometric outcomes may be explained by a number of factors. These include obesity prevention was not the primary aim of four out of five of the negative studies, these studies largely focused on parental feeding practices and child diet, none focused on physical activity and only one of these studies focused on sedentary behaviours. With two exceptions, these studies also had short term follow up which may not have allowed sufficient time to see the impact of the interventions on anthropometric outcomes.

Finally, a unique systematic review of qualitative evidence of the factors that influence obesogenic dietary intake in young children (0–6 years) was conducted by Paes et al[11]. This set out to describe the barriers to and facilitators of obesogenic dietary intake in early childhood, in order to inform interventions and public health policies to prevent obesity. They found that parental factors increasing young children's obesogenic diets were: negative parent/family/peer modelling, lack of knowledge, time constraints, using food as reward, affordability and concerns about child's health. Child preferences also increased intake. Environmental factors increasing intake include: availability, advertising, societal, cultural and preschool/childcare influences. The authors concluded that "future intervention strategies should aim to promote modelling of positive behaviours, create home and preschool environments that promote healthy diets, and simultaneously target factors at the family and preschool/childcare levels."

Interventions aimed at pregnant mothers

The prevalence of obesity among pregnant women is increasing. In addition to the short-term complications of obesity during pregnancy in both mother and child, it is now recognised that maternal obesity has long-term adverse outcomes for the health of her offspring in later life.

[10] Laws R, Campbell KJ, van der Pligt P, et al. The impact of interventions to prevent obesity or improve obesity related behaviours in children (0-5 years) from socioeconomically disadvantaged and/or indigenous families: a systematic review. BMC public health 2014;14:779
[11] Mazarello Paes V, Ong KK, Lakshman R. Factors influencing obesogenic dietary intake in young children (0–6 years): systematic review of qualitative evidence. BMJ Open 2015;5(9)

Evidence from both animal and human studies indicates that maternal obesity increases the risk for the offspring in developing obesity and altering body composition in child- and adulthood.[12] This section therefore investigates the published evidence from reviews of trials of dietary interventions among pregnant women. These usually have the main outcome measure of gestational weight gain, although some then go on to report birth weight.

The most reliable evidence comes from meta-analyses of published studies. Thangaratinam et al[13] set out to evaluate the effects of dietary and lifestyle interventions in pregnancy on maternal and foetal weight and to quantify the effects of these interventions on obstetric outcomes. They found 44 relevant randomised controlled trials (7278 women) evaluating three categories of interventions: diet, physical activity, and a mixed approach. Overall, there was 1.42 kg reduction (95% confidence interval 0.95 to 1.89 kg) in gestational weight gain with any intervention compared with control. With all interventions combined, there were no significant differences in birth weight (mean difference −50 g, −100 to 0 g) and the incidence of large for gestational age (relative risk 0.85, 0.66 to 1.09) or small for gestational age (1.00, 0.78 to 1.28) babies between the groups, though by itself physical activity was associated with reduced birth weight (mean difference −60 g, −120 to −10 g). They concluded that "dietary and lifestyle interventions in pregnancy can reduce maternal gestational weight gain and improve outcomes for both mother and baby. Among the interventions, those based on diet are the most effective and are associated with reductions in maternal gestational weight gain and improved obstetric outcomes."

Agha et al [14] also conducted a meta-analysis, aiming to assess the efficacy of behavioural interventions for managing gestational weight gain (GWG) in the pre- conceptual and pregnancy period in overweight, obese and morbidly obese women. They found 15 studies involving 3,426 participants. One study (n=692) focused on the pre-conceptual period and the remaining 14 (n = 2,734) in the pregnancy period. Pooled mean difference for GWG indicated a lower GWG in the intervention groups when compared to standard maternity care groups (n = 1771, mean difference (MD) 21.66 kg, 95% CI 23.12 to 20.21 kg). With respect to the types of participants, considerable heterogeneity between studies was shown in the obese subgroup [Tau2 = 15.61; Chi2 = 40.80, df = 3 (P,0.00001); I2 = 93%]. The authors concluded "behavioural interventions in pregnancy may be effective in reducing GWG in obese women without comorbid conditions, but not overweight or morbidly obese women. Behavioural interventions had no effect on postpartum weight loss or retention, gestation week of delivery and infant birth weight in overweight, obese and morbidly obese women."

Tanentsapf et al [15] conducted a similar review but focused on dietary trials only, and did not conduct a meta-analysis. They found 13 studies including 10 trials. Dietary intervention

[12] Drake AJ, Reynolds RM. Impact of maternal obesity on offspring obesity and cardiometabolic disease risk. Reproduction (Cambridge, England) 2010;140(3):387-98

[13] Thangaratinam S, Rogozinska E, Jolly K, et al. Effects of interventions in pregnancy on maternal weight and obstetric outcomes: meta-analysis of randomised evidence. BMJ (Clinical research ed) 2012;344:e2088.

[14] Agha M, Agha RA, Sandall J. Interventions to reduce and prevent obesity in pre-conceptual and pregnant women: a systematic review and meta-analysis. PloS one 2014;9(5):e95132

[15] Tanentsapf I, Heitmann BL, Adegboye AR. Systematic review of clinical trials on dietary interventions to prevent excessive weight gain during pregnancy among normal weight, overweight and obese women. BMC

significantly reduced total gestational weight gain (GWG) (n = 1434; WMD = -1.92 kg; 95% CI = -3.65/-0.19; p = 0.03), weight retention at six months postpartum (n = 443; WMD = -1.90 kg; 95% CI = -2.69/-1.12; p < 0.0001) and incidence of cesarean section (n = 609; RR = 0.75; 95% CI = 0.60/0.94; p = 0.013). However, dietary intervention had no significant effect on weight retention at six weeks postpartum, birth weight, preeclampsia, gestational diabetes and preterm birth. The authors concluded that "Dietary advice during pregnancy appears effective in decreasing total GWG and long-term postpartum weight retention, but so far there is limited evidence for further benefits on infant and maternal health."

Cambell et al [16] undertook a systematic review of quantitative and qualitative evidence. This included a meta-analysis of controlled trials of diet and physical activity interventions to prevent excessive weight gain during pregnancy and a thematic synthesis of qualitative studies that investigated the views of women on weight management during pregnancy. Five controlled trials and eight qualitative studies were included. The overall pooled effect size found no significant difference in gestational weight gain amongst participants in the intervention group compared with the control group (mean difference -0.28 95% CI -0.64 to 0.09). The study designs, participants and interventions all varied markedly and there was significant heterogeneity within this comparison in the meta-analysis (I2 67%). Subgroup and sensitivity analysis did not identify contextual elements that influenced the effectiveness of the intervention.

In a thematic analysis of the qualitative studies, three major themes emerged relating to women's views of weight management in pregnancy: pregnancy as a time of transition and change, conflicting and contradictory messages and a perceived lack of control. When the results of both quantitative and qualitative data were aligned it was clear that some of the barriers that women described in achieving healthy weight gain in pregnancy were not addressed by the interventions evaluated. This may have contributed to the limited effectiveness of the interventions. The authors concluded that "despite intense and often tailored interventions there was no statistically significant effect on weight gain during pregnancy. Inadequate and often contradictory information regarding healthy weight management was reported by women in qualitative studies and this was addressed in the interventions but this in itself was insufficient to lead to reduced weight gain. Multiple types of interventions, including community based strategies are needed to address this complex health problem."

4.3.1 Effectiveness of specific topics identified by Southend

Maternal obesity including gestational weight gain

Currently, 20–40% of women gain more than the recommended weight during pregnancy, resulting in an increased risk of maternal and fetal complications[17]. Excessive weight gain in

pregnancy and childbirth 2011;11:81

[16] Campbell F, Johnson M, Messina J, et al. Behavioural interventions for weight management in pregnancy: a systematic review of quantitative and qualitative data. BMC public health 2011;11:491

[17] Thangaratinam S, Rogozinska E, Jolly K, et al. Interventions to reduce or prevent obesity in pregnant women: a systematic review. Health technology assessment (Winchester, England) 2012;16(31):iii-iv, 1-191

pregnancy is associated with increased risk of childhood obesity, and also associated with persistent retention of the weight gained beyond pregnancy in the mother and an increase in obesity in children at 2–4 years. Reducing maternal obesity is also strongly justified due to the increased risk of complications among obese pregnant women. More than half of women who die during pregnancy, childbirth or the puerperium are either obese or overweight. The maternal complications associated with obesity include miscarriage, hypertensive disorders such as pre-eclampsia, gestational diabetes mellitus, infection, thromboembolism, caesarean section, instrumental and traumatic deliveries, wound infection and endometritis[26].

Maternal diet and nutrition including supplements

As outlined above, the majority of published evidence from randomised trials indicates that interventions to modify maternal diet are effective in reducing maternal gestational weight gain. There is limited evidence that this in turn reduces infant birth weight. The majority of the trials in this area focus on caloric reduction thus there is very limited evidence on the role of dietary supplements.

Breastfeeding

In a study of 32,000 children, Armstrong and Reilly[18] found that the prevalence of obesity is significantly lower in breast-fed children. Association persisted after adjustment for socio-economic status, birth weight and sex. Adjusted odds ratio for obesity (BMI 98th percentile) 0.70 (95% CI, 0.61–0.80). This suggests that breast-feeding is associated with reduction in childhood obesity risk. The results suggest children fed only breast milk for first 6–8 weeks of life are less likely to be obese than children fed only formula in same time frame. Breast-fed children are 30% less likely to have BMIs in obese range at age 39–42 months than counterparts fed formula. The researchers accounted for age, sex, birth weight and socio-economic status.

Flynn et al [13] found that apart from encouragement of breastfeeding, safe and effective interventions in early infancy for the prevention of obesity are not well established. Breastfeeding exclusively for (i) at least 2 months seems to be protective against the development of overweight in childhood, and (ii) for 6 months seems to be protective against the development of overweight during adolescence. After the first 2 months of life, growth rates of breastfed babies compared with formula-fed babies are somewhat slower. One of the mechanisms for the protective effects of breastfeeding probably relates to the relative control breastfed babies compared with formula-fed babies can exert over their energy intake. Flynn et al conclude "*Breastfeeding confers many other long- and short-term health benefits to both mother and baby. Therefore, for prevention of obesity, encouragement of exclusive breastfeeding for the first 6 months of life, if possible, represents the only known safe intervention that can be implemented in early infancy*." [13]

Weaning, food choices, portion sizes

Strong evidence was found[19] for six determinants of early weaning (ie, young maternal age, low maternal education, low socioeconomic status, absence or short duration of breastfeeding, maternal smoking, and lack of information or advice from health care providers) and for two determinants of early introduction of unmodified cow's milk (ie, low maternal education and low socioeconomic status). Of these determinants, improving advice given by health care providers appears the most tractable area for intervention in the short term.

Birch[20] points out that the first year of life is a period of rapid physical, social and emotional growth, during which eating patterns also develop. During this first year, infants move from consuming a single food (i.e., breast milk or formula) to consuming a variety of foods more characteristic of an adult diet. This transition allows children to learn about food through direct experience, as well as through observation of others' eating behaviours.

[18] Armstrong J, Reilly JJ. Breastfeeding and lowering the risk of childhood obesity. Lancet (London, England) 2002;359(9322):2003-4
[19] Wijndaele K, Lakshman R, Landsbaugh JR, et al. Determinants of Early Weaning and Use of Unmodified Cow's Milk in Infants: A Systematic Review. Journal of the Academy of Nutrition and Dietetics;109(12):2017-28
[20] Birch L, Savage JS, Ventura A. Influences on the Development of Children's Eating Behaviours: From Infancy to Adolescence. Canadian journal of dietetic practice and research : a publication of Dietitians of Canada = Revue canadienne de la pratique et de la recherche en dietetique : une publication des Dietetistes du Canada 2007;68(1):s1-s56

With respect to the foods parents select for their children, the FITS study[21] suggests that the "bigger is better" mentality may also be influencing parental feeding practices regarding the portion sizes and energy density of foods offered to children, both of which can increase children's total energy intake. Parents in the study reported serving large portions of energy dense foods, which may negatively influence children's eating behaviour and weight status. The few studies that have investigated the influence of portion size on children's eating behaviours reveal that it is positively associated with increased energy intake and body weight. [22] [23]

Influencing and improving food environment (access to fruit and vegetables and takeaways)

For children aged 0-3, access to food (including fruit and vegetables) is primarily determined by the parents or carers. It is therefore worth considering the influence of the food environment on parents and whether it can be modified to encourage healthy choices. Many environmental, sociodemographic and personal factors affect fruit and vegetable consumption [24] including access to healthy affordable food.

Giskes et al [25] reviewed the literature and found that weight status was consistently associated with the food environment; greater accessibility to supermarkets or reduced access to takeaway outlets were associated with a lower BMI or prevalence of overweight/obesity. However, obesogenic dietary behaviours did not mirror these associations; mixed associations were found between the environment and obesogenic dietary behaviours. Living in a socioeconomically-deprived area was the only environmental factor consistently associated with a number of obesogenic dietary behaviours. Associations between the environment and weight status are more consistent than that seen between the environment and dietary behaviours. The environment may play an important role in the development of overweight/obesity, however the dietary mechanisms that contribute to this remain unclear and the physical activity environment may also play an important role in weight gain, overweight and obesity.

A systematic review of enhancing nutritional environments through access to fruit and vegetables [23] showed however that family interventions had no or small impact on home accessibility, with smaller impact on consumption. Broader state or federally mandated policies or educational programs for food service providers and decision makers had mixed or small impact. The most promising strategies for improving the fruit and veg environment for children was through local school food service policies – but this is clearly only relevant to

[21] Fox MK, Devaney B, Reidy K, et al. Relationship between portion size and energy intake among infants and toddlers: evidence of self-regulation. Journal of the American Dietetic Association 2006;106(1 Suppl 1):S77-83
[22] Fisher JO, Rolls BJ, Birch LL. Children's bite size and intake of an entrée are greater with large portions than with age-appropriate or self-selected portions. The American journal of clinical nutrition 2003;77(5):1164-70
[23] McConahy KL, Smiciklas-Wright H, Mitchell DC, et al. Portion size of common foods predicts energy intake among preschool-aged children. Journal of the American Dietetic Association 2004;104(6):975-9.
[24] Ganann R, Fitzpatrick-Lewis D, Ciliska D, et al. Enhancing nutritional environments through access to fruit and vegetables in schools and homes among children and youth: a systematic review. BMC research notes 2014;7:422
[25] Giskes K, van Lenthe F, Avendano-Pabon M, et al. A systematic review of environmental factors and obesogenic dietary intakes among adults: are we getting closer to understanding obesogenic environments? Obesity reviews : an official journal of the International Association for the Study of Obesity 2011;12(5):e95-e106

older children. Access to FV was successfully improved in four of the six studies that evaluated school-based policies, with the other two studies finding no effect.

Cavill and Rutter [26] provide evidence-based guidance on reducing the growth of fast food outlets using planning legislation, although the effectiveness evidence for this approach is lacking.

4.3.2 Effectiveness of specific initiatives outlined by Southend

UNICEF Baby Friendly standards

Evidence reviews have found that a variety of postnatal environment interventions, including the Baby Friendly Initiative standards, are associated with considerable improvements in infant feeding practices within the UK. UNICEF-commissioned research found that in maternity wards where BFI standards were implemented, breastfeeding rates improved until standards were fully established, and then plateaued following full implementation.[27] McInnes and Chambers,[28] reviewed publications on 36 evaluations (5 in the UK) of interventions to support breastfeeding in neonatal units between 1990 and 2005 focused on breastfeeding or the provision of breast milk as an outcome, targeting low birthweight or premature infants or their parents or those based in a neonatal unit. BFI may have an impact on breastfeeding duration. NICE recommendations encourage maternal care providers to support breastfeeding using the Baby Friendly Initiative as a minimum standard.

Healthy Start

Vouchers

Healthy Start has been shown to have the potential to improve the nutrition and diets of mothers and young children in the longer term.[29] There is some evidence it supports low income families with nutritional food security,[30] though it may have a displacement effect on money reserved for healthy choices, making it available for the purchase of unhealthy foods.[31]

No cost-effectiveness study of the Healthy Start vouchers has been undertaken to date, though research from the Health, Econometrics and Data Group (HEDG) at the University of York has found that the vouchers have noticeable behavioural effects on the subset of families

[26] Cavill N, Rutter H. Obesity and the environment: regulating the growth of fast food outlets In: Public Health England, ed., 2014

[27] Renfrew et al, Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK (2012). It should be noted that this research was commissioned by UNICEF.
[28] MacInnes, Chambers (2006), Breastfeeding in neonatal units: a review of breastfeeding publications between 1990-2005, NHS Health Scotland:
[29] Griffith R et al (2015), *Getting a healthy start: The effectiveness of targeted benefits for improving dietary choices*
[30] Lucas, P.J., Jessiman, T. and Cameron, A. (2015). Healthy Start: The use of welfare food vouchers by low-income parents in England. *Social Policy & Society*; 14(3), 457-469.
[31] McFadden, A., Fox-Rushby, J., Green, J. M., Williams, V., Pokhrel, S., McLeish, J., & Renfrew, M. J. (2013). Understanding the use of vouchers and vitamins. Dundee: University of Dundee.

who would not have spent the equivalent amount of money on fruit, milk and vegetables in the absences of vouchers, with no discernible effect on those who would have spent the same.[32]

Vitamins

NICE 2015[33] conducted a cost-effectiveness assessment of Healthy Start vitamins, contrasting targeted and universal approaches. The study's findings suggested that universal provision of the supplement met NICE's indicative cost-effectiveness threshold (£20,000 / QALY) only in a limited range of circumstances (see Appendix 5).

Eat Better Start Better

Train-the-trainer models for nutrition / lifestyle programmes have been found to have the potential to educate large groups of people in an efficient manner while minimising costs (Gustin et al, 2016[34]). Gustin's survey reported strong skills improvements in early years health professionals' in their ability to support local settings in providing healthy food for children aged between 1-5 years.

Family Nurse Partnership

A NICE investigation of the FNP's underlying evidence base (2015) [35] found that unmarried young women with low incomes and with low psychological resources at the time of intake into the programme were the greatest beneficiaries. The subsequent *Elmira* trial, which followed the children after the FNP programme, found positive longer-term effects on the children's emotional and behavioural development, and also on their involvement in crime.

An evaluation of the impacts that the FNP programme, carried out by Barnes et al[36] and a team from Birkbeck college, found that mothers who participated in the programme showed several positive outcomes including: improved smoking cessation during pregnancy, reductions in smoking, higher breast-feeding initiation rates and better coping mechanisms for meeting the burden of pregnancy and the early stages of parenthood. Father involvement with the child was heightened. The study found that children from mothers in the FNP programme developed in line with the general population – rather than at the rate expected of children from the same socioeconomic background.

4.4 Conclusion

Childhood obesity has complex causes, and interventions to reduce childhood obesity within the target age range are focused on a variety of different interventions, which are described

[32] Griffith R et al (2015), *Getting a healthy start: The effectiveness of targeted benefits for improving dietary choices*

[33] National Institute for Health and Care Excellence (2015) *Examining the Cost-Effectiveness of Moving the Healthy Start Vitamin Programme from a Targeted to a Universal Offering: Cost-Effectiveness Systematic Review*

[34] Gustin, L., Reiboldt, W., Carson, D. E. (2016) *Success and Challenges using a Train-the-Trainer Approach: Educating Children about Nutrition and Physical Activity in After-school programmes*, Journal of Family and Consumer Sciences, 108: 55-61

[35] NICE (2015) *Social and Emotional Wellbeing Early Years Report, The Evidence Base for Family Nurse Partnership*

[36] Family Nurse Partnership (2016) *Research in England*

above. Modifiable risk factors are found within the environment (tobacco, substance use), community (child care and health care) and in parent and family behaviours (physical activity, stress, nutrition), as well as non-modifiable health factors (metabolism, physiology and genetics). The two major evidence reviews had four key risk factors in common in determining childhood obesity likelihood:

- maternal pre-pregnancy overweight,
- high infant birth weight,
- early infant rapid weight gain
- maternal smoking during pregnancy.

The only protective factor identified with a conclusive evidence base within the range of studies assessed was found to be breastfeeding.

Effectiveness of interventions

The effectiveness of interventions on the target groups (pregnant mothers, 0-3s) was reviewed, along with specific assessments of programmes identified in the project brief. The key findings and messages are summarised below.

Because of the parameters of the study (0-3s), evidence on the effectiveness of interventions is relatively scarce. The key findings and conclusions of the various reviews assessed are detailed below:

- Interventions to improve parental feeding practices, including infant diet and parental responsiveness to infant cues, showed most promise in relation to behaviour change but not weight. (*Redsell et al)*
- Evidence synthesis found that greater vigilance should be paid to promotion of breastfeeding and good infant feeding practice. (*Flynn et al)*
- Limited evidence that interventions which used education to promote dietary behaviours and improve dietary intake and parental attitudes and knowledge about nutrition for children in the 0-2 age group were effective. (*Ciampa et al)*
- No treatment or cost-effectiveness studies were found in RCTs of prevention in weight management schemes for under 5s. (*Bond et al*)
- High intensity interventions to promote healthy eating and/or physical activity in multiple settings resulted in small but potentially meaningful behaviour changes, but no evidence to support the premise that low-level interventions would result in similar changes. (*Campbell and Hesketh*)
- Only one study identified that had a small impact on BMI levels in disadvantaged families. (*Laws et al*)
- Negative factors: negative parenting behaviours, lack of knowledge, use of food as reward, affordability concerns. Authors concluded that intervention strategies should promote modelloing of positive behaviours, create home and preschool environments to promote healthy diets and target factors at family / pre school level. (*Paes et al*)

Key findings: Interventions aimed at pregnant women

The evidence that maternal obesity affects the chances of childhood obesity is established and growing. Dietary interventions among pregnant women found:

- Dietary interventions were successful in reducing maternal weight and child health outcomes. Diet interventions were the most effective, and associated with reductions in maternal gestational weight gain. (*Thangaratinam et al*)
- Behavioral interventions in pregnancy may be effective in reducing gestational weight gain in obese women but not overweight or morbidly obese women, with no effect on postpartum weight loss or retention, gestation week of delivery and infant birth weight in overweight, obese and morbidly obese women. (*Agha et al*)
- Dietary advice during pregnancy effective in decreasing total GWG but limited evidence of further benefits on infant or maternal health. (*Tanentsapf et al*)

Key findings: Interventions aimed at pregnant women

- Controlled trials of diet and physical activity interventions to prevent excessive weight gain found no difference vs the control group. (*Cambell et al*)
- Weight management interventions had no statistically significant effect on pregnancy weight gain. Multiple types of interventions including community based strategies are needed to address the complex problem of maternal obesity.

Key findings: Breastfeeding

Breastfeeding was found to confer a range of benefits to mother and baby:

- Prevalance of obesity significantly lower in breastfeed children (*Armstrong and Reilly*)
- The longer a child is breastfed up to six months the later in life they are protected against obesity (*Flynn et al*)
- For prevention of obesity, encouragement of exclusive breastfeeding for the first 6 months of life, if possible, represents the only known safe intervention that can be implemented in early infancy. (*Flynn et al*)

Key findings: Weaning, Food Choices, Portion Sizes

Research on the influence of portion sizes and food choices in early life is less extensive:

- Determinants of early weaning: young mother, low maternal education, low socioeconomic group, low information from providers. Improved advice by health care providers the most tractable intervention in the short term. (Wijndaele et al)
- Large portions may negatively influence children's eating behaviour and weight. Some evidence of the influence of portion size on behaviours and positive association with increased energy intake and weight. (*FITS* study)

The takeaways from these findings were fed into discussions with parents, children's centres, delivery staff and stakeholders. These are included below, and were piloted during the discussions on possible interventions:

- Breastfeeding: support for breastfeeding up to six months, including through BFI.
- Maternal weight: Reduced emphasis on maternal obesity interventions in light of poor evidence of effectiveness on childhood obesity.
- Weaning: improved advice, especially for young mothers and the socioeconomically disadvantaged.
- Knowledge and attitudes: lack of knowledge, use of food as a reward, and affordability concerns.

5 DATA REVIEW / BASELINE REVIEW

This chapter reviews national and local data on risk and protective factors that influence childhood obesity in 0-3s. This includes a discussion of health factors, the general demographic background and the food environment in Southend. This section draws on the best practice review (Chapter 4 – evidence on obesity-related interventions) completed by Dr Nick Cavill, reflecting the risk and protective factors identified in the systematic review.

5.1 Demographic

5.1.1 Population

44% of Southend's children live in the six Better Start target areas. The inner city Better Start wards (Westborough, Milton, Kursaal and Victoria) are the most socioeconomically deprived, and feature highly transient populations which affect the continuity of care and strength of community.[37]

Population growth in Better Start wards has been very rapid in recent years. The Joint Strategic Needs Assessment for Young People notes that Milton's 0-4s population rose by a third between 2008 and 2012, driven by inward migration and high fertility rates among certain groups.

Table 5.1 illustrates the number of 0-4s living in the ABS target wards. The data refer to 2011 and are therefore not as up-to-date as ONS Mid-Year Population estimates, but provide a more accurate picture at granular ward levels.

Population projections for the city indicate an increase in the number of children aged 0-4 in the local authority area by 2021.[38]

Table 5.1: Number of 0-4s living in ABS target wards (2011)

Ward	Number age 0-4	% of ward population
Kursaal,	918	8.2
Milton,	742	6.7
Shoeburyness,	750	6.7
Victoria,	860	7.8
West Shoebury	673	6.5
Westborough.	928	8.6
Southend		6.5% (city average)

Source: Census, Southend Ward Profiles

[37] Southend-On-Sea data to support the city's A Better Start bid
[38] A Better Start: Southend-on-Sea profile (2014)

5.1.2 Ethnicity

There are strong links between childhood health and ethnicity. Genetic risk factors related to obesity can vary considerably: Black African and Caribbean persons are more susceptible to some forms of heart disease, whilst individuals those from the sub-Continent are at greater risk from type 2 diabetes.[39] There are also cultural factors strongly associated with ethnicity, such as cuisine and religious practices (e.g. fasting), which can have concentrated effects on childhood diet and nutrition.

Southend is an increasingly diverse city; Better Start wards particularly so. The most recent data on ethnicity for the target age group (0-4) is taken from the 2011 Census, shown in Table 5.2 below. In general, Better Start wards are considerably more diverse than the Southend average: in Victoria and Westborough, the proportion of 0-4s of Asian background is over one fifth and one quarter respectively, whilst more than one tenth of under-4s in Victoria are of Black African / Caribbean ethnicity. Mixed-ethnicity children are the fastest growing group around the country, including in Southend. The current proportions of ethnic minority groups in these wards are likely to be even higher, given rapid recent population growth since the 2011 Census and high population turnover rates in Southend's inner city wards.

Table 5.2: Ethnicity among 0-4s

Ethnic Group (0-4s)	White	Mixed	Asian	Black	Other	All
Belfairs	92%	4%	1%	3%	0%	435
Blenheim Park	91%	4%	5%	1%	1%	605
Chalkwell	84%	10%	4%	3%	0%	545
Eastwood Park	95%	2%	3%	1%	0%	478
Kursaal	**83%**	**10%**	**7%**	**8%**	**0%**	**918**
Leigh	91%	7%	3%	0%	0%	786
Milton	**79%**	**9%**	**11%**	**9%**	**2%**	**742**
Prittlewell	78%	7%	14%	5%	1%	562
Shoeburyness	**88%**	**8%**	**3%**	**3%**	**1%**	**750**
Southchurch	86%	5%	6%	6%	0%	614
St Laurence	89%	4%	7%	2%	0%	550
St. Luke's	89%	5%	6%	5%	1%	788
Thorpe	89%	7%	2%	2%	0%	439
Victoria	**75%**	**9%**	**20%**	**11%**	**1%**	**860**
West Leigh	95%	4%	1%	0%	0%	540
West Shoebury	**88%**	**5%**	**4%**	**7%**	**0%**	**673**
Westborough	**74%**	**9%**	**27%**	**8%**	**1%**	**928**

Source: Census, 2011

[39] NICE guild lines PH38, *Type 2 diabetes: prevention in people at high risk*

5.1.3 Single parents

Children born to or living with single parents are at greater risk of being affected by a variety of health afflictions, including obesity. The Labour Force Survey estimates suggest that, as of 2015, there were nearly 2 million lone parents in the UK, of whom 90% were women.

The most recent ward-level data on households with a lone parent and one or more dependent children are found in the 2011 Census. With the exception of Milton, all Better Start wards had considerably higher percentages of lone parents with dependent children than the Southend average of 6.8%. As of 2011, there were 2,471, lone parents with dependent children in the target wards, accounting for one tenth of households in Kursaal and Victora.

Table 5.3: Number of 0-4s living in ABS target wards (2011)

Ward	Lone parent, dependent children	% of households
Kursaal	505	9.9%
Milton	303	5.8%
Shoeburyness	449	9.4%
Victoria	494	9.9%
West Shoebury	331	8.4%
Westborough	389	8.9%
Southend		6.8% (city avg)

Source: Census 2011

5.1.4 Deprivation

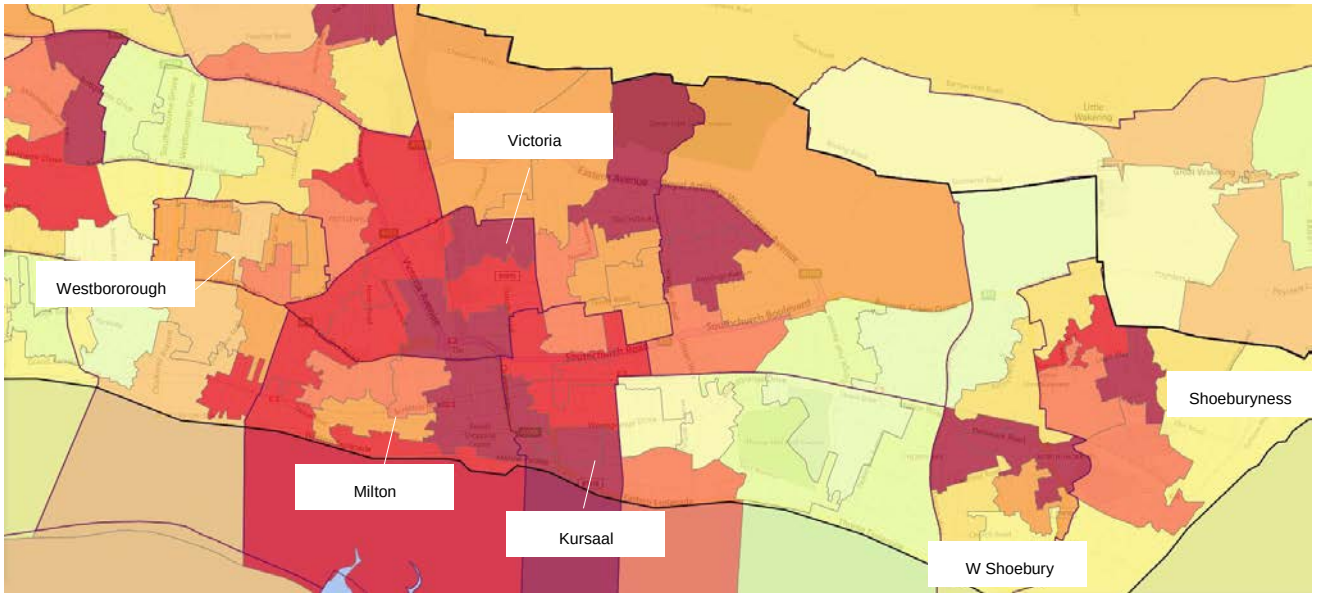
Deprivation is a known risk factor in developing childhood obesity: National Child Measurement Programme research suggests a very strong association between childhood obesity and deprivation in the local area, with increased rates among 4-5 year old's living in higher-deprivation areas. Obesity prevalence among the most deprived 10% of the population at UK level is approximately twice that of the least deprived 10%.[40]

Figure 5.4 shows deprivation levels in lower super output areas (LSOA) within Southend mapped against 2014 electoral ward boundaries using 2015 data from the English Index of Multiple Deprivation. The index consists of 7 domains of deprivation weighted into a single measure: income, employment, education, health, crime, barriers to housing and the living environment.

The map indicates deprivation across ten deciles, where darker colours indicate higher levels of deprivation. Notable concentrations exist in inner city wards, particularly Victoria, Milton and Kursaal.

[40] National Obesity Observatory, *Health Inequalities,* (Public Health England)

Figure 5.4: English Index of Multiple Deprivation by LSOA vs ward boundaries



Source: Index of Multiple Deprivation 2015, PACEC

A key component of deprivation is child poverty, typically measured using HMRC tax credits data (the most recent measure was taken in 2013).

The most commonly reported headline measure of child poverty is the proportion of children living in families in receipt of out-of-work benefits or tax credits where their reported income is less than 60% of median income. It is possible the measure may be affected by Southend residents who commute to the capital, distorting median incomes among residents relative to incomes generated in the city. The table below therefore provides an adjusted measure of child poverty, with some regional weightings applied and rates of child poverty calculated with and without housing costs. The impact on child poverty rates of housing costs in Southend is significant – again a likely consequence on the city's location and proximity to the capital. Inner city wards such as Milton, Kursaal and Victoria jump from around a quarter of children living in poverty to over four in ten once housing costs have been accounted for.

Table 5.5: Oct – Dec 2013 Child Poverty rates before and after housing costs

Ward	Before housing costs	After housing costs
Belfairs	14.22%	22.49%
Blenheim Park	15.90%	25.50%
Chalkwell	12.72%	20.21%
Eastwood Park	10.35%	16.62%
Kursaal	**26.32%**	**40.33%**
Leigh	8.14%	13.23%
Milton	**25.30%**	**38.47%**
Prittlewell	13.33%	21.30%
Shoeburyness	**16.95%**	**26.68%**
Southchurch	16.31%	26.05%
St Laurence	20.90%	32.53%
St. Luke's	23.18%	35.55%
Thorpe	9.39%	15.10%
Victoria	**26.53%**	**40.24%**
West Leigh	20.25%	31.50%
West Shoebury	**9.76%**	**15.51%**
Westborough	**17.66%**	**28.10%**
(Southend)		**28%**

Source: UK Government Child Poverty Unit / Center for Social Policy Studies.

Teenage pregnancy is associated with poor early years health outcomes as well as an increased risk of maternal obesity, itself a risk factor in development of childhood obesity. Teenage pregnancy is defined as pregnancies where conception occurred prior to the mother turning 18 years old. The proportion of under-18 conceptions per thousand has fallen steadily in Southend and across the country in recent years, though the conception rate in the city is a little higher than benchmark areas such as East England and England as a whole.

Indicator	Southend	East England	England
Under 18 conceptions per 1,000	28.8	20.2	22.8

Source: ONS (2014)

5.1.5 Food environment

The Best Practice review (Section 4.3.1) demonstrates how weight status is consistently associated with the food environment: greater accessibility to supermarkets or reduced access to takeaway outlets are associated with a lower BMI or prevalence of overweight/obesity. This is particularly pertinent for 0-3s, whose entire food environment is typically determined by adults.

In Southend, the prevalence of fast food and takeaway outlets are a notable public health issue, referred to extensively in the latest Annual Health Report as well as the Public Responsibility Deal. The density of fast food outlets has previously been linked to rates of childhood obesity in children in England.[41]

A number of measures have begun to emerge recently on the food environment in public places and on the high street. Precise methodologies are difficult to assemble, given the rapid turnover of businesses across premises and changes in menus and portion sizes. However, a recent report by the Royal Society of Public Health, *Health on the High Street,* proposes a comprehensive methodology of high street health which includes the prevalence of fast food. Southend is not scored in the report, though much of the underlying data used to calculate scores is featured in Public Health England area profiles, referred to below.

Table 5.6: Fast food outlets per 100,000 people

Rank	Local Authority or Area	Fast food outlets / 100,000 population
1	City of London	2, 918.9
2	Westminster	209.5
3	Blackpool	189.3
4	Islington	147.8
5	Camden	147.7
6	Burnley	147.1
7	Scarborough	144.4
8	Manchester	136
9	Hyndburn	134.2
10	Tower Hamlets	134
11	Rossendale	132.2
12	Hartlepool	128.1
13	Preston	127.1
14	Lewisham	126.8
15	Hammersmith and Fulham	125
16	Lincoln	122.4
17	Brighton and Hove	121.6
18	Chesterfield	121.4
19	Norwich	121
20	Croydon	119.5
21	Blackburn with Darwen	119.2
22	**Southend-on-Sea**	**118.8**
23	Torbay	118.1
24	Bristol	118

Source: Public Health England, Ordnance Survey InterestMap

[41] Black, et al. 'Dietary inequalities: What is the evidence for the effect of the neighbourhood food environment?', *Health and Place* (2014)

Fast food outlet density has been calculated by Public Health England using 2013 data on businesses, leisure sites and geographic features from Ordinance Survey Interest Map. The indicator includes delivery services, fast food and takeaways and fish and chip shops. Table 5.6 (above) illustrates Southend's ranking at 22nd out of 354 areas (top 7%). The city ranks 2nd in East England after Norwich.

Research undertaken by the National Obesity Observatory has built on this data, finding that fast food outlet density is strongly correlated with the Index of Multiple Deprivation, and the effects are highly localised within areas.

5.2 Health data

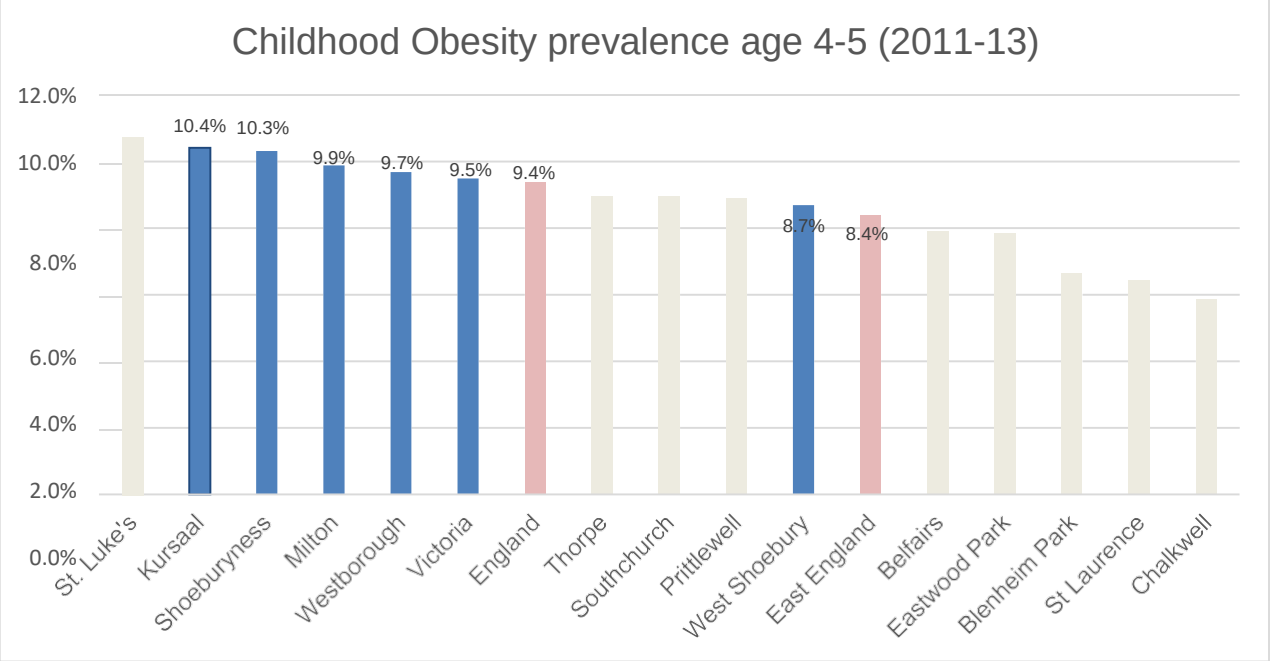
5.2.1 Childhood Obesity (National Child Measurement Data)

Since 2006, childhood obesity rates have been measured at national level through the National Child Measurement Data Programme. The Programme uses BMI level data, benchmarked against the British 1990 growth reference charts, where children with a BMI greater than or equal to the 95th centile from the reference year are classified as obese.

Table 5.4 shows childhood obesity rates in Southend wards. The data shows that around 1 in 10 children is classified as obese in target wards, a little higher than regional and national benchmarks.

To produce a robust indicator, the data features children measured over a three year period, helping to mitigate accuracy problems created by the relatively small sample sizes. Therefore, Southend has an obesity rate of 8.4% for the adjusted 2011-13 NCMP methodology in table 5.7, and 9.1% for the 2014-15 period. The childhood obesity rate for Southend in 2014-15 matches that of the UK as a whole (9.1%).

Table 5.7: Childhood Obesity prevalence in Southend wards (National Child Measurement Programme)



5.2.2 Smoking during pregnancy

Data from Public Health England on pre-natal smoking shows Southend has consistently lower rates of smoking in pregnancy, albeit with a small sample size. 11.5% of pregnant mothers smoked at the time of delivery in 2012/13, against an England average of 12.7% and 10.9% in 2013/14 against a national average of 12%.

The 2015 Public Health Profile finds that smoking status at the time of delivery is 10.9% (244 cases), against an England average of 12%.

5.3 Key protective factors

5.3.1 Breastfeeding: initiation

Breastfeeding data suggests Southend keeps pace with the UK in breastfeeding initiation, at least ini initiation, though there appears to be a major fall-off after 6-8 weeks. NHS England data suggests that for the 2012-13 year Southend breastfeeding initiation rates were 73.0% against a national average of 73.9%.

5.3.2 Breastfeeding: prevalence at six to eight weeks

Breastfeeding rates in Southend appear to fall-off rapidly, more so than the national average. 2012-13 data suggests prevalence rates at six to eight weeks are just 36.7% against a national average of 47.2% for England.

Internal data used during the Better Start Bid finds that 'from raw data we have calculated that the current proportion of mothers initiating breast feeding in Southend on Sea is 80%, but at 6 to 8 weeks only 42% of infants are being breastfed'.[42]

Table 5.8: Southend 2016-17 breastfeeding rates to date YY 2016-17 by case load (April 2016)

New Birth Visits Caseload	New birth (total)	% Breastfed	6 weeks	% Breastfed
Leigh Health Visiting team	65	83.1%	55	43.6%
Valkyrie East	40	87.5%	43	44.2%
Valkyrie South	36	80.6%	30	43.3%
Valkyrie West	20	75.0%	59	30.5%
Total	**312**	**84.9%**	**317**	**40.4%**

Source: SEPT Health Visiting Service (internal)

5.3.3 Green spaces

Southend is densely populated, with the four inner city Better Start wards amongst the four most high-density wards in the borough. Table 5.9 finds that, on average, Better Start wards have population density levels 50% higher than the Southend average, with density levels in Westborough at 117.9 people per hectare, nearly six times the lowest ranked ward.

[42] Better Start: Southend-on-Sea Profile (2014)

Table 5.9: Southend 2016-17 breastfeeding rates to date YY 2016-17 by case load

2014 electoral ward	Hectares	Population	People per hectare
Westborough	92	10,847	117.9
Kursaal	125	11,130	89.04
Victoria	161	11,004	68.35
Milton	164	11,063	67.46
Leigh	151	10,083	66.77
Chalkwell	162	10,045	62.01
Blenheim Park	226	10,475	46.35
Eastwood Park	224	9,364	41.8
Prittlewell	248	9,971	40.21
West Shoebury	287	10,280	35.82
Belfairs	264	9,219	34.92
Thorpe	275	9,215	33.51
St Laurence	294	9,726	33.08
St Luke's	351	11,213	31.95
West Leigh	306	9,154	29.92
Shoeburyness	381	11,159	29.29
Southchurch	465	9,710	20.88
Average			**41.58**
Average Better Start Wards			**61.74**

Source: 2011 Census

5.4 Conclusion/ summary

At the local authority level, Southend has headline childhood obesity indicators relatively similar to those of the national average. However, there are high levels of deprivation in concentrated areas, and these are correlated with childhood obesity data.

The four inner city ABS wards of Kursaal, Milton, Victoria and Westborough share a number of key demographic characteristics, including high levels of diversity and population density.

Southend faces a challenging food environment, with a high density of fast food and takeaway outlets placing it in the top 7% of places in the UK.

The key clinical risk indicators in developing childhood obesity are smoking, high infant weight gain, and maternal weight. Environmental risk factors were focused around economic deprivation. Chapter 4 shows that the key protective factors are breastfeeding-related as the safest intervention.

6 SERVICES MAPPING

6.1 Introduction

This chapter reviews the range of services supporting healthier eating in pregnant women and children between the age of 0 and 3. It maps current and planned interventions focused on eligible target groups within the Southend commissioning area.

The following chapter groups support for pregnant mothers and children 0-3 across the care pathway, including breastfeeding support

Key services for 0-3s and pregnant mothers

- **Health Visiting Service / Healthy Child Programme** – core universal provision for young children across Southend.
- **Family Nurse Partnership** – voluntary programme of structured home visits for teenage mothers.
- **UNICEF Baby Friendly Standards** – voluntary accreditation system for breastfeeding in early years care settings.
- **HENRY** – 8 week training course on healthy food and portions for practitioners. Run by Pre School Learning Alliance with input from HENRY.
- **Early Years Settings** accreditation – standards for children's centres being developed by Southend.
- **Cook 4 Life** Free cooking demonstrations / eating on a budget
- **Eat Better Start Better** – train-the-trainer early years' food settings to meet nutrition standards. (Children's Food Trust)
- **Change 4 Life** – information national NHS scheme including Start4Life leaflets.
- **Healthy Start** – national NHS voucher scheme for disadvantaged pregnant mothers and 0-3s.
- **Delta** – 6 week baby / parenting classes for 1st time parents covering early months of parenthood.

6.2 Expenditure

Table 6.1 below benchmarks Southend's childhood obesity budget expenditure against English local authorities. It uses budget estimates of local authority revenue expenditure and financing for the financial year April 2015 to March 2016, with local authority budget figures across a range of spending categories.

Table 6.1: Public Health & Childhood Obesity expenditure ranked by local authority (2015-16)

Rank	Local Authority or Area	Childhood obesity expenditure (£,000s)	Public Health total	Childhood obesity expenditure as % of public health budget
1	Walsall	£1,292	£18,177	7.11%
2	Lincoln	£5	£72	6.94%
3	Newham	£2,000	£30,756	6.50%
4	Kensington & Chelsea	£1,116	£22,786	4.90%
5	Hammersmith & Fulham	£1,089	£22,851	4.77%
6	Westminster	£1,547	£35,155	4.40%
7	Dudley	£921	£22,472	4.10%
8	Knowsley	£702	£18,612	3.77%
9	St Helens	£519	£14,993	3.46%
10	**Southend-on-Sea**	£327	£9,662	3.38%
11	Thurrock	£334	£10,601	3.15%
12	Surrey	£1,124	£37,629	2.99%

Source: DCLG. Sample = 151

Southend's expenditure estimate for childhood obesity services in the last full financial year is estimated at £327,000, out of a total public health budget of £9.6m. When childhood obesity (category 10) is calculated as a proportion of total public health expenditure in the local authority area, Southend is found to rank 10th among English local government areas. It is the highest ranked among local authority areas in the East of England, the remainder of the top 10 being located in the wider Midlands area or in the capital.

6.3 Universal support

Southend has statutory coverage across the conception to age 3 pathway, as well as commissioned services run with local and third sector partners. Key statutory support is provided under the Healthy Child Programme, a universal preventive programme covering the pregnancy-age 3 pathway.

The Healthy Child Programme is an early intervention and prevention public health programme designed to identify children age 0-5 at risk of poor health outcomes and families in need of additional support. As part of an integrated approach to supporting children and families, the programme offers families a range of services such as screening tests, immunisations, health and development reviews, and information and guidance to support parenting and healthy choices.

Universal support in Southend is delivered across three formats:

- **Universal** – health visiting teams responsible for delivering the Healthy Child Programme and ensuring new mothers and their children have access to a health visitor, development checks and reliable information regarding healthy start issues such as parenting and immunization procedures.

- **Universal Plus** – this grants families access to important information and advice from health visitors when they need it with regards to more specific issues that may arise such as weaning or post-natal depression
- **Universal Partnership Plus** – health visitors provide ongoing support at a community level, being responsible for engaging and bringing together local services in order to serve families with complex needs, for example, families with children who have a long-term condition.

Health visitors are also responsible for delivering the MECSH (Maternal Early Childhood Sustained Home-visiting) programme to expectant mothers. The programme is based on providing support to parents as they transition through pregnancy to parenthood and provides continuous support to the family until the child reaches the age of 2. Advice on nutrition and breastfeeding can also be provided at baby weighing and child health clinics. The universal health visiting schedule includes six key contacts during the conception-age 3 pathway, outlined below.

Health Visits	
From 28 weeks	Antenatal Contact
10-14 days	New Birth Health Assessment
6-8 weeks	6-8 week health Review
Under 1 year	Development Review
2-3 years	Development Review

The Childcare Act 2006 places a range of statutory duties on local authorities to improve health and wellbeing and reduce inequality for children in their local area, including physical health for early years.

In Southend, delivery of HCP is led by health visiting teams as well as Children's Centres. The SEPT Health Visiting Service deliver HCP through primary care clinics in Southend:

- Valkyrie Rd Primary Care Centre (Milton)
- Leigh Primary Care Centre (Leigh)
- Advisory service is also provided through Hamstel Children and Family Centre.

Within the local authority area, health visiting is delivered through clinics and primary care centres, two of them in ABS wards, one servicing inner city wards (Valkyrie Rd Centre), and previously one at a second in the eastern suburbs (Thorpedene) servicing Shoeburyness and W. Shoebury.

Centre	Ward
Blenheim Children's centre	Blenheim Park
Cambridge Road Children's Centre	Milton
Centre Place Family Centre	Kursaal
Eastwood Childrens Centre	Eastwood Park
Friars Childrens Centre	Shoeburyness
The Hamstel Children and Family Centre	Southchurch
Prince Avenue Children's Center	St Laurence
Summercourt children's centre	Victoria
Temple Sutton Children's Centre	St Luke's

Southend has nine Sure Start children's centres across the Borough. All nine centres provide some extent of provision in the following relevant areas, though there are some differences in provision outlined in later in the chapter:

- Nutrition help, advice and information
- Breastfeeding, weaning and feeding
- Lifestyle programmes: courses and training on healthy eating

Four of the children's centres are in Better Start wards. Westborough and West Shoebury do not contain children's centres, though Westborough residents have access to several options in neighbouring wards nearby. Friars Children's Centre (Shoeburyness) is the only children's centre in the Eastern locality of Southend borough.

6.4 Non Statutory Support

Southend's foodbank provision has grown steadily in recent years, with several providers having recently set up in the city. All foodbanks listed below provide some items specific to children, and three of the five providers are located in Better Start wards. Foodbanks tend to provide prepared food and tinned food rather than fresh food, affecting healthy eating and cooking among users.

Foodbank	Postcode	Address	Ward
West Leigh Baptist Church Centre	SS9 2AJ	1150 London Road	Leigh
Crowstone St George's United Reformed Church Centre	SS0 8LH	Crowstone Road	Chalkwell
Belle Vue Baptist Church	SS1 2QZ	Belle Vue Avenue	Kursaal
Shoeburyness Thorpe Bay Baptist Church	SS3 9JD	90 Thorpdene Gardens	West Shoebury
Storehouse	SS2 5AW	Coleman St	Victoria

6.5 Breastfeeding support

Breastfeeding support is provided in multiple stages across the care pathway. Midwife services support breastfeeding in the maternity and neonatal wards at Southend Hospital, with health visitors the main point of contact soon after birth.

Southend Borough Council commissions training to support UNICEF Baby Friendly Initiative accreditation within SEPT and the university hospital. As of March 2016, SEPT's Health Visiting Service is fully BFI-accredited and delivers support at its clinics and primary care centres around Southend.

Southend University Hospital implements baby-friendly standards at the Hugo Liebeschuetz neonatal unit. The unit provides a designated room for breastfeeding mothers, alongside breast pumps and other means of support. An infant feeding adviser (certified Lactation Consultant IBCLC) and team are a resource to the maternity staff and health visiting service.

Community midwifery and antenatal outpatients' services provide the antenatal infant feeding/relationship building information in accordance with the UNICEF BFI standards. Pregnant women with a medical history which could impact feeding are referred to the infant feeding team for specialist advice.

The hospital have set up an antenatal colostrum harvesting service for pregnant women with diabetes as part of the Maternal Medicine antenatal clinic.

Southend hospital infant feeding team work in partnership with the oral-maxillofacial department to provide expertise with feeding issues such as tongue-tie.

The hospital trust worked in partnership with SEPT to secure Stage 2 BFI accreditation in 2014, the first unit of its kind in East England to do so. Accreditation to Stage 2 requires an assessment of staff knowledge and skills and a demonstration that all staff can effectively support mothers and families to BFI standards.

The Maternity ward at Southend University Hospital also enjoys Stage 2 BFI accreditation, and are likewise in the process of progressing to stage 3.

Facility name	Type	BFI Award level
Hugo Liebeschuetz neonatal unit, Southend University Hospital NHS Foundation Trust	Neonatal	Stage 2 accreditation (stage 3 due Nov 2016)
Southend University Hospital NHS Foundation Trust	Maternity	Stage 2 accreditation (working towards stage 3).
South Essex Partnership NHS Foundation Trust (SEPT) Community Services	Community	Full Accreditation (since March)

Ongoing support is provided by health visiting services and in children's centres. Any health visitor can provide BFI-compliant breastfeeding support, including one-to-one, telephone support and signposting to support groups or online services (e.g. Start4Life videos), providing strong coverage across all of Southend.

Breastfeeding support groups and children's centre services are not consistently offered across the Borough. The cost-containment environment has been a key issue for many centres, with services slowing or terminating entirely. Within Better Start wards, support services at children's centres are relatively limited:

- Centre Place (Kursaal) – recently trialling a breastfeeding support element to its Thursday Baby Clinic, though this is now on hold.
- Summercourt (Victoria) – previously a drop-in session was provided, though staffing and planning resources have made it an issue sustaining all services. Presently there is no provision.
- Friars (Shoeburyness) – breastfeeding support has been available at the nearby Thorpedene clinic weekly, though the service is currently on hold.
- Cambridge Road (Milton) – advertised Monday session, though the provision is limited.

Third sector support for breastfeeding in Southend is confined to Hamstel (Southend Breastfeeding Circle) and Blenheim centres, though there is strong demand among parents and children's centres across the city. The Mum-to-Mum service is no longer active, nor are other third sector peer support services elsewhere in the city.

6.6 Parenting and nutrition education

The key parenting support programme in Southend with a nutrition element is Delta, a free six week post-natal programme with one week focused solely on nutrition. Delta is run by Health Visiting teams alongside Family Support workers. It is delivered at children's centres in Blenheim, Hamstel, Temple Sutton, Centre Place (Better Start ward) and Prince Avenue.

The programme is currently being supplemented by a similar service, Bumps and Babies, which begins at 34 weeks into pregnancy and proceeds for five to six weeks with one week dedicated to infant feeding. The service is presently being piloted in Canvey.

Universal support for nutrition education has recently been introduced through the Health Exercise and Nutrition for the Really Young (HENRY) programme, a universal tier 1 lifestyle initiative introduced in Southend by A Better Start, aimed at tackling obesity in children by following guidance from the Healthy Child Programme through a family partnership model.

The programme includes an 8 week training course for health and early years practitioners in the HENRY approach to tackling child obesity. HENRY is outlined as a priority activity in the ABS Implementation strategy.

All Children's Centre staff in Better Start wards have received HENRY training, supporting parents in learning about healthy food, portion sizes and ways of making mealtimes more sociable and healthy.

Southend also provide their own educational leaflets in schools and early years settings.

Southend worked with the pre-School Learning Alliance to deliver Eat Better Start Better across the local authority area. Eat Better Start Better is a VCO-funded programme (Children's Food Trust) designed to support compliance with the Early Years' Foundation Stage and the Ofsted Common Inspection Framework, with design input from the Pre-School Learning

Alliance, intended to smooth the transition between health visiting and early years. Training was completed over two years ago, with updated guidelines and practices being provided by Early Years standards.

A key baseline provision being developed under A Better Start will be the Healthy Early Years Settings accreditation, being rolled out to ensure continuity of standards into pre-school and school-level settings with the Healthy Schools programmes. The 2015 Annual Report aims to complete accreditation across all nine children's centres under A Better Start.

6.7 Shopping and cooking

The Cook 4 Life programme has been running in Children's Centres in Southend since 2008, implemented to improve parents' knowledge and ability to prepare healthy meals on a budget. The programme consists of four 90 minute sessions, and involves demonstrations of unhealthy food content in junk food as well as the opportunity to prepare dishes using fresh produce (though not in all cases). Each Better Start ward carried out Cook 4 Life during the April 2015-16, and the service will be recommissioned.

NICE guidelines recommend use of healthy start vitamins among at-risk groups. Southend's 2015 Annual Public Health report included a recommendation to ensure that Healthy Start was available at all Children's Centres within the city. Healthy Start vouchers are available to pregnant mothers or those with children under 4 and on benefits. Retailer participation across Southend is strong, particularly in target wards (see fig. 6.1).

The extent of availability of the Healthy Start vitamins scheme is limited, with only Hamstel (now run by Family Action) and Centre Place currently making the new vitamins available (licences were recently acquired for distribution throughout the Borough). Recent internal data suggests that distribution has recently increased from one or two distributions per quarter to thirteen.

6.8 Target groups

6.8.1 Single mothers / Young mothers

Family Nurse Partnership

The Family Nurse Partnership (FNP) exclusively assists mothers aged 19 years and under who are having their first baby and is made up of regular home visits centered around improving antenatal health, improving child health and development, and improving mothers' economic self-sufficiency. The FNP scheme is both intensive and preventive in focus, aiming to provide a joined up service with midwife and GP services. The scheme covers the early stages of pregnancy until the child is two years' old.

The partnership was developed with ABS staff and is delivered by in Southend by SEPT. Southend Council manages the FNP contract along with Essex County Council and Thurrock. The FNP has operated in Essex since 2007. The current contract was renewed in 2014, running until January 2017. Southend Council contributes around £220,500 per annum to the Essex-wide scheme. The scheme is currently funded to support 64 teenage parents in

Southend, though the Better Start strategy outlines plans to expand FNP coverage to all parents in the target age range under the enhanced ABS additionality pathway.

As a home visiting programme, FNP is available in all six ABS wards in Southend.

Healthy Start vouchers

Teenage mothers aged 19 and under are automatically entitled to Healthy Start vouchers, an ongoing statutory scheme available throughout England, regardless of whether or not they receive benefits.

Figure 6.1: Healthy Start retailers, Children's Centres and Health Visiting within target wards

6.9 Key gaps

- Family Nurse Partnership: targeted support provide to only 64 teenage mothers per year, though Public Health data suggests potential demand is considerably higher, with over 100 teenage pregnancies reported in the borough each year.
- Breastfeeding: Support groups (voluntary or otherwise) are not active in Better Start Wards. In the voluntary sector there have been issues maintaining commitment and keeping initiatives up-to-date.
- Breastfeeding – support for moving onto solids is provided within the health visiting schedule, though there is limited support within children's centres and a strong all-round perception of limited support.
- Cooking: Hands-on cooking to improve cooking skills, rather than just knowledge.
- Children's centres – limited provision of some services (e.g. cooking classes) for working mothers outside of regular hours.
- Healthy Start – vitamin service is currently provided at Hamstel and Centre Place children's centres only. A license has recently been obtained to roll the service out nationally.

7 CONSULTATION FINDINGS

7.1 Background

The primary research undertaken for this study consists of three main parts:

- Discussions with parents at focus groups and stay-and-play sessions
- Discussions with childcare centre staff
- Strategic consultations with local health and wellbeing stakeholders.

7.2 Research Findings

7.2.1 Findings from parents

Our focus groups were informed by the findings of Dr. Nick Cavill's best practice review, with questions shaped in response to research findings on effective interventions. These included measures to support breastfeeding uptake, as well as targeted education for those suffering socioeconomic disadvantage. The goal of the focus groups was to understand levels of parent knowledge and competence in cooking and shopping, satisfaction and awareness of the support, barriers to healthy eating and views on provision gaps and possible future services.

PACEC discussed child nutrition issues with parents at each ABS ward which contained a Children's Centre, as well as in Eastwood, a non-Better Start ward. Six sessions took place between the 4th of July and the 8th of July:

Date	Focus Group	Ward
Monday (4 July)	Summercourt Rd centre (Top of the Tots focus group)	Victoria
Tuesday (5 July)	Eastwood Children's centre (Stay & Play discussion group)	Eastwood Park
Wednesday (6 July)	Friars Centre (Stay and Play discussion group) Cambridge Road (Single mothers focus group)	Shoeburyness Milton
Thursday (7 July)	Centre Place Family centre (Stay & Play discussion group)	Kursaal
Friday (8 July)	Summercourt Rd (Stay & Play discussion group)	Victoria

The topics of discussion included: cooking and portion sizes, shopping, maternal diet, breastfeeding support and weaning, and overall experience of the pregnancy to age 3 pathway.

The findings are presented in aggregate below.

- **Cooking** – Most parents were relatively satisfied with their healthy cooking skills, with a large number accrediting their skills to cooking support services provided at children's centres. The Cook 4 Life courses were well-regarded as being both informative in their visual approach (which included a demonstration of salt and fat contents in unhealthy foods), as well as the benefits of learning how to cook healthy foods.

  'It was a lot easier than I'd thought [to cook healthy, nutritious meals]. I'd thought before that buying healthy ingredients was more expensive, and I often ended up wasting food or throwing it away, particularly

vegetables.' (Parent view, Eastwood).

Other parents noted that they had found parenting classes such as Delta helpful in providing an understanding of childhood nutrition and portion sizes.

'I found Delta was very good in terms of convenience. It was foods we'd eat normally but mashed up and pureed so you didn't have to buy things that were different when you started on the solid foods. Delta was also good for snacks, making sure they were healthy, which I didn't really know how to do.' (Parent view, Friars)

- **Food choices and portion sizes** – parents generally had a sound awareness of the basic principles of a balanced diet, though there was confusion and a sense of mixed messaging in some cases about transitioning to solid food, portion sizes and feeding times. Change4Life and Start4Life leaflets and email bulletins had assisted many parents in navigating these challenges. Some parents who had attended HENRY events expressed surprise at the relatively small sizes of portion necessary for the very young.
- **Food Knowledge –** certain food types caused continuous confusion. Particularly confusion existed in respect of fruit drinks and dried fruits, particularly raisins, with parents unaware as to how much sugar these items contained, the effects on behaviour, and the nutritional quality. There was a sense that professional 'best practice' advice (for instance, whether a child should sleep on their front or back) was prone to changing and that more information could be provided to ensure best practice understanding. When probed about how to address these confusions, some parents suggested more nutrition advice could be issued by health visitors.
- **Attitudes towards food** – a variety of attitudes were found across the children's centres. Many parents admitted to using food as a behaviour tool, or as a reward, with some reporting that using sugar-rich food as a reward was common practice in their neighbourhoods and sometimes in schools. Other parents admitted to giving their children unhealthy foods "to keep them quiet on the way to school".
  There was a common perception that "eating healthy" food and fresh food were more expensive than eating frozen and processed foods. (A smaller number also believed that ready-meals and takeaways were cheaper than fresh food). It was also not widely known that breastfeeding was much cheaper than using formula milk or solid foods.
- **Shopping** – a number of parents, particularly those in more deprived socioeconomic environments, noted that convenience was the main factor determining shopping decisions, both in terms of the location of the stores they visited and the types of foods purchased (e.g. frozen food, tinned food). The stores visited included frozen food stores (e.g. Iceland) as well as discount-themed stores (Poundland). The trend was particularly prevalent among parents who did not have cars.
- **Maternal Diet and Weight** – a number of parents, particularly single mothers and those in challenge home environments, noted that leading by example on healthy eating was a serious challenge. These same parents also found that providing a social eating environment for children was a major challenge, and that their own eating habits had changed considerably as parents.
- **Breastfeeding** – parents were generally aware of the considerable health benefits of breastfeeding, though in most respects this was an area in which parents reported huge diversity of experience and attitude.

Parents felt generally felt that pre-natal support was helpful, though hospital experiences varied enormously among parents, and did not seem correlated with the parent's age or the hospital they attended to give birth. Some mothers felt that the hospital support was 'rushed' or 'pressuring' and that early experiences played a critical role in determining whether or not breastfeeding would be maintained.

Several parents noted the difference between first and successive children and the importance of initial experience. Hospital support: not enough help for people with second babies.

'Getting the right help early and leaving a positive experience – that's absolutely key to getting breastfeeding to work. It was only when I had my second child that I realised I'd made some really basic mistakes.' (Parent view, Cambridge Rd).

A number of mothers felt that health services were 'pushy' in encouraging mothers to breastfeed and that there was a 'shaming' culture towards mothers who were unwilling or unable to do so. There were also major generational differences, and a perception that older generations considered breastfeeding to be less healthy and frowned upon mothers who fed their babies in public. There was widespread agreement that breastfeeding would be made more comfortable if public places such as cafes made their it clear that they and their staff supported the practice.

Some single mothers or those with a history of social care interaction felt that expectations of them to maintain breastfeeding were very low and that support services did not sufficiently encourage them to continue. Single mothers in work noted particular difficulties and had stopped breastfeeding earlier than they would have liked to.

Cultural differences were perceived to be a factor – levels of comfort with breastfeeding in public varied, and some women felt this affected their freedom of movement in public places.

- **Weaning** – weaning support was a key area where there was a perception of unfulfilled demand from mothers. Many said that visits not ideally timed to help with weaning. Perception that health visitors were busy. Weaning support sorely needed. Some support that can help update views – a lot of grandparents advising new parents on the basis of out-of-date information, perception that best practice regarding weening, latching, feeding frequency etc changes often. Navigating generational differences.
- **Sources of information** – when asked about their source of information for nutrition and breastfeeding-related queries, mothers suggested a variety of sources, including their Health Visitors, their own parents (particularly for younger and first time mothers), and websites such as Mumsnet. However, a number reported that the latter two source often led to contradictory messaging. The Change 4 Life / Start 4 Life informational booklets enjoyed very strong brand recognition within children's centres and were generally well trusted by mothers. Though parents agreed that children's centres were welcoming and a good place to provide early years / pregnancy support, a small number found their likelihood to attend was affected by the social environment at any given time.
- **Food environment** – there was general agreement that Southend, with its rich supply of takeaways and fast food joints, was a challenging environment for parents wishing to bring up their children on a healthy diet, though this tended not to apply to the 0-3s age range so prominently. One parent admitted to having provided their young child with liquidised McDonalds food on one occasion, perceiving it to contain "a little bit of everything".

Parents noted that they found fast food to be addictive and that their children often became over-excited at the sight their favourite outlets.

Some parents noted that 'healthy option' and vegetarian outlets were beginning to emerge, (one cited Fresh Box on Hamlet Court Road as an example), though these outlets were perceived to be a little more costly.

"The healthy option outlets are still cheap but they can't compete on price. When you get a cheap Full English breakfast it's cheap because you're not getting quality. It has to be education" (Parent view, Eastwood).

Nutrition and breastfeeding interventions proposed by parents
Breastfeeding training – getting the right help at the critical early stages and leaving a positive experience.
Breastfeeding support group – perceived to be lacking at most centres, especially relevant for new mothers.
Cooking: single / working parents were interested in attending classes and other services, but these tended only to be available during regular hours on a weekday.
Cooking: More cooking classes targeted to the 0-3 demographic and help on preparation and timing of healthy snacks.
Midwife appointments could provide more nutrition input.

7.2.2 Findings from child care staff

PACEC held lengthy interviews with children's centre staff to gather their views on the extent of existing provision, their understanding of parent needs, barriers to engagement and possible future services. These staff were primarily engaged because of their extensive first- hand knowledge of the day-to-day issues and challenges that could not all be captured in single focus groups. They also play an important role in ensuring buy-in and smooth delivery of future services. The staff engaged included children's centre managers, community support workers and family support workers.

Service provision / best practice gaps:

There was mixed awareness across the children's centres as to the objectives of ABS as well as some confusion on how the programme would be rolled out given that the bid was several years ago.

- Breastfeeding support: when asked what about service gaps or services centres would like to provide, the most common answer was breastfeeding support. This included trained staff who were underutilised, a lack of trained staff to meet demand, and a perception that service provision had been affected by the challenging cost environment. Several centres reported not providing regular breastfeeding support at all.
- Breastfeeding support groups, training and buddy schemes were variously proposed by centre staff. Some centres reported their breastfeeding support was already at capacity.

Others noted that the pathway for volunteering was not clear, nor was the reach or activity level of existing volunteer organisations.

- Staff considered, as did parents, that hospital experience is critical in ensuring breastfeeding is taken up and maintained, noting that many parents had a limited understanding of breastfeeding despite hospital services. Weaning enquiries were common at most centres, and Delta was perceived to not go into enough detail.

Joined up care

- Staff noted frustration at the lack of sharing between child centres, health and social care, resulting in a lack of a joined up pathway as well as the risk that vulnerable families 'slip through the net'. Some staff members were aware of Better Start emphasis on a joined up approach.
- Some health visiting staff noted that GPs may not be fully up-to-date in terms of recent advice in supporting breastfeeding and childhood nutrition, with a perception that a GP referral would not result in effective follow up. There was a general impression that GPs were less enthusiastic about preventive approaches to obesity where no immediate medical problem was present.
- Health visiting staff noted a desire for more joint planning of services, with possible representation of staff from across primary care involved in strategic input.
- When asked about best practice discussions with neighbouring local authorities, most staff said that discussions had ceased or been reduced since changes to health commissioning.
- Some staff noted that nutrition support could be a separate service, with nutrition currently taking a back seat to safeguarding wherever resource constraints are found.

Shopping and cooking

- Shopping: staff believed that convenience was an important issue in each area in which focus groups took place. A lot of parents were unable to use private transport, instead visiting nearby stores designed for convenience shopping rather than healthy / universal stores further from inner city areas.
- Staff in inner city wards noted that discount offers at convenience stores were highly visible to both adults and children alike, usually promoting foods high in fat and sugar.
- One children's centre staff member noted that the failure to provide antenatal cooking classes represented a missed opportunity, and that parents from deprived wards had inherited poor cooking skills from their own parents. Nutrition and cooking education should have a strong visual element, owing to limited levels of education among some target parents.
- Cooking support, such as that provided through Cook 4 Life, was seen as achieving a number of key aims, including improving knowledge of healthy food in a visually appealing way, reducing isolation and improving social engagement, and providing practical cooking skills.

Attitudes towards food / Knowledge

- Children's centre staff noted the use of food as a reward was widespread
- Children's centre staff reiterated the view, common among parents, that junk food is cheaper than healthy food.

- Many mothers were considered to be unaware of their risks to the child of maternal obesity during pregnancy.
- Poor understanding of elementary breastfeeding knowledge was common in the most deprived wards. Many parents were said to introduce food too soon, believing that milk alone was not nutritionally sufficient, leading to overweightness. On the other hand, many parents were reported to not have weaned their children soon enough, feeding them exclusively on milk for too long.

Cultural differences

- There were major cultural differences in eating practices, food knowledge and cooking, particularly in the more diverse wards.
- Many children had a limited concept of eating as a social activity, and this varied depending on cultural background.
- Parents from some minority backgrounds, though particularly from South Asia, were said to feed their children large amounts of whole milk after weening, leading to overweightness, bloating and a lack of balance in their diet. This was said to be fed by a perception among older generations (grandparents) that overweightness is not unhealthy in children.
- In some communities, women spent a lot of time indoors, often cooking out of boredom.
- Many communities, particularly Asian and African, used large amounts of oils and fats and fed them to children at a young age, contributing to obesity.
- Diversity can make it harder to single out problems – different factors could be causing obesity in, Africans, whites, Asians and so on.

Food Environment

- Different management of children's centres led to a variety of food environments across the city, with different rules and practices as well as parent expectations.
- Parents in the most deprived wards set a bad example in some cases, for instance, breaching 'no chocolate' rules in lunchboxes.
- The availability of junk food was widely reported as a key contributor for childhood obesity including in a minority of cases among 0-3s. One centre spoke of a mobile phone app specific to Southend which delivered fast food from well-known chains such as McDonalds and KFC to local homes at low cost.
- The role of public health in developing the Public Health Responsibility Deal was welcomed, though many stakeholders and delivery staff were unsure about the precise division of responsibilities between local and national level and the long-term effectiveness and viability of major planning interventions.

Commissioning / Administration of Children's Centres

- There was a perception, noted above, that differences in management of children's centres led to different practices. Some centres were run by local housing associations, and were less able to act autonomously in articulating their own goals and controlling their environments, affecting the overall service provision and consistency across the city. The example of nutrition at on-site cafes was given by several staff members – the need to

secure a profitable service meant that healthy eating best practices were not always been adhered to.

Engagement

- At several centres, including outside of Better Start wards, it was noted that deprivation existed throughout the city, including highly concentrated pockets in relatively affluent wards, and that an even more targeted approach was necessary to ensure those most at risk of poor nutrition and childhood obesity were engaged with local services.
- Perceptions of children's centres throughout the city varied. Many parents travelled considerable distances to centres that were considered to be in more desirable areas, or which provided parking, and that many parents in highly deprived areas would not engage unless there were inducements on offer (e.g. free childcare, free breakfasts etc). This led to poor awareness of the provisions on offer as a result of parents not being engaged.
- Both children's centre staff and parents considered that the types of parents who may need the most help are also the least likely to engage or visit child centres.
- Some groups were considered a major challenge, including single mothers and those from conservative cultural backgrounds. Both children's centres and mothers felt that the 'social' element of meeting other parents could be intimidating.
- Deprivation: a number of parents in target wards were said to be living in bedsits, and many used food banks. This deprived parents of the ability to control their diet and environment.
- The design of services was an issue in engaging parents, many staff thought. Programmes such as HENRY required eight weeks of commitment, whereas well-publicised one-off sessions could be more attractive and achieve a high level of impact.
- Several health visitors and children's centre staff noted that free provision of items such as healthy food improved uptake of services, though resource was often an issue in sustaining such services.

Future Provision – opinions of children's centre staff members
'We're really in need of trained breastfeeding staff – there's enormous demand here'
'Parenting education is always key – especially portion sizes, risks of maternal obesity, and culturally-tailored issues (e.g. milk). Many mums have no idea that maternal obesity during pregnancy puts their child at risk.'
'Parenting education, including classes such as Maths and English classes simply help us get to know parents so we can explore issues like obesity from a position of trust.'
'Food education for new arrivals to the UK is key'
'Classes should include more visual material, bearing in mind education levels of target parents.'
'Parenting classes should have nutrition and breastfeeding advice and this should be universal not targeted.'
'Provide services in the High St area, where many of the target mothers spend their time. '

7.3 Summary

The focus groups provided access to a wide range of parents in Better Start wards and beyond, yielding useful findings on what types of services parents benefitted from and would

like to see more of. The approach was complemented by interviews with staff who had a greater understanding of the day-to-day issues.

A number of key findings emerged from the research, identifying service gaps and opportunities for enhancing existing initiatives:

- Joined up care – staff and parents expressed frustrations about the lack of information sharing between different parts of the health system as well as social care as well as lack of back-and-forth communication between frontline and decision marking staff.
- Food knowledge and attitudes: a number of misconceptions about food, and in particular the price of different types of food, were prevalent. Parents are not as aware as they should be on the risks of childhood obesity. A number of attitudes had been inherited from friends, communities or parents.
- There was a perception that cooking skills were limited in deprived areas or among deprived groups, and antenatal cooking education could fill a gap so parents are ready prior to having children.
- Engagement – those parents in greatest need of support often failed to engage children's centres. There were mixed views about the causes of obesity in various groups with higher levels of obesity, and mixed views as to the appropriate responses.
- Planning and the Public Health role – stakeholders noted the role of the council in ensuring buy-in and awareness of local businesses in public health matters, expressing a desire to have more influence in areas such as planning while noting that many powers and responsibilities remained at national level and that there are few prescribed tools and pathways for healthy eating and nutrition compared with areas such as licensing.
- Promotion and awareness raising – there was a perception that both the presence and the benefits of services needed to be clearly transmitted to at-risk and target parents, and that they needed to be attractive.

8 IMPROVEMENTS AND RECOMMENDATIONS

8.1 Introduction

- This section features recommendations on the basis of perceived gaps, recommendations from users and practitioners, and a review of best practices.
- A number of gaps exist in research and best practice along the complex conception-to-age 3 pathway owing to limited or inconclusive research, and these are detailed in appendix 2.
- Some parts of Southend, particularly inner city Better Start wards such as Kursaal and Milton, feature high levels of deprivation, population density and transience as well as high levels of child poverty, particularly when adjusted for housing costs. The issue of nutrition in these areas is intimately linked to complex socioeconomic environments, and obesity cannot be seen simply as a lifestyle issue in these areas.

The Better Start strategy document notes that programme interventions will build on the integrated model of staged interventions:

ABS Strategy: Steps to Build on the Staged Intervention Model

- further developing the work of multi-disciplinary teams supporting families and young children, working together where services are being delivered;
- ensuring the effective implementation of the Education, Care and Health plan;
- ensuring multi-disciplinary teams are one team – sharing information, skills and learning , and exploring and debating together ideas for improvement and innovation;
- providing opportunities for all practitioners working with children and families to be part of a "community of learning professionals" and to reflect individually and collegiately on their current practice – identifying gaps, broadening responsibilities and maximising the excellent skills and expertise we have in Southend;
- changing the way we work and embrace new technology and ways of communication to create better access to information and services;
- developing social enterprises run by the community for the community;
- developing a robust family support system. Suggestions for this have included a buddy scheme, volunteer peer supporters and paid "family navigators";
- nurturing and developing community members' expertise and confidence to lead change;
- creating an environment for communities to come together, support each other and build resilience;
- continuing and further developing the engagement and dialogue with our community.

The delivery ethos of Better Start is aligned with Big Lottery's 9 core delivery characteristics:

Collaboration	Partnership	Co-production
Local delivery	Long-term investment	Focus on prevention
Use of evidence	Understanding impact	Asset-based

The evidence reviewed in this report and elsewhere suggests that the most effective interventions for the prevention and treatment of obesity in children involves a **multi-component and holistic approach** that aims simultaneously to improve diet and physical activity across multiple domains of children's lives. Narrow interventions focusing on single aspects of behaviour are unlikely to achieve long-term change in efforts to tackle obesity.[43] An approach involving whole families, nutritional education, and ongoing support from healthcare professionals and children's centres is required. The recommendations below are designed to incorporate the Southend Approach ethos whilst reflecting the views of those who use and deliver service in light of best practices.

8.2 Maximising the effectiveness of universal services

The Better Start strategy proposes enhancing conception to age 3 universal provision provided through the Healthy Child Programme, with high quality entitlement to include peer support, evidence based parenting programmes, flexible and adaptable family support including trained volunteers and a 7 day week family care service.

- The Better Start Strategy calls for full implementation of the Healthy Child Programme. The Government's *Supporting Families in the Foundation Years: Conception to Age* 2 report notes Better Start's role in responding to perceived gaps in HCP, including health inequalities and poor child health outcomes concentrated heavily in deprived areas.
- Perceived gaps in the Healthy Child Programme in Southend were identified during Better Start consultations, with an enhanced pathway developed to improve the universal service offer. The 'ABS additionality' pathway (see Appendix 7) should be fully implemented as a baseline universal service.

8.2.1 Health Visitors

- Health visitors are the primary point of contact for most parents during the 0-3 pathway and play a key role in supporting families in tackling childhood obesity. With children's centres' reach affected in the constrained cost environment, health visitors have become a key gateway in terms of universal access to parents, particularly low engagement and at-risk groups.
- A number of recent studies suggest home visits with follow-ups were effective in reducing obesity. Home visits to families with childhood obesity risks could be resumed, having been discontinued in the cost-constrained environment. Though health visiting staff are already trained in home-visiting to support families in addressing childhood obesity, there is limited capacity and resource within Southend to support home visiting as an ongoing service. Utilising health visiting assistants could help reduce the costs associated with resuming such a service.
- Some delivery staff mentioned that effective practices elsewhere in the SEPT area focused on provision of separate services dedicated to nutrition, with band-4 staff running tailored

[43] Rapid Review to Update Evidence for the Healthy Child Programme, 0-5. (PHE, 2015) p.30

nutrition-related services at cafes and children's centres under the supervision of senior health visitors.

- The HENRY approach is well regarded among staff and has contributed to upskilling and increasing knowledge among parents and staff, though questions persist on the appropriate design and length of delivered programmes. HENRY is also well aligned with best practice - an October 2015 report by the Royal College of Paediatrics and Child Health suggested that Health Visitors should be supported in engaging parents in potentially difficult conversations about childhood weight gain and obesity.
- HENRY's 0-5 focus overlaps to some degree with MEND, and it is less costly.
- Health visitors can influence policies on healthy eating messages, as well as snacks and drinks within children's centres as members of the Management Board at their respective centres. Local health visitor guidelines and training should reflect this Borough-wide to ensure a consistent offer throughout the local authority area.

8.2.2 General Practitioners

- GPs can and should play a proactive role in supporting efforts to reduce and prevent childhood obesity, and are widely perceived as being underutilised to this end. The Royal College of General Practitioners have called for extra training for GPs in target areas with high childhood obesity rates. This includes sending letters from health visitors to GPs or after initial NCMP weighting at reception year in the event of a >30 BMI finding.
- GPs should also be involved in improving the information available to parents of overweight children, proactively identifying at-risk children and families.
- There are widely perceived cultural differences between GPs and other primary care areas, with GP's primary focus being on treatment rather than prevention. Measures to assure buy-in among doctors in supporting the preventive approach should be discussed at commissioning level.

Recommendation: provide training and advice to GPs locally to improve **signposting for childhood obesity-related services**, particularly health visiting and children's centres, promoting preventive approaches in addition to clinical provision.

8.2.3 Healthy Start:

- Healthy Start vitamins are underutilised in Southend, with uptake very low until recently. NICE guidelines (PH56) recommend the increased use of Vitamin D supplements among at-risk groups, and the borough's 2015 Annual Public Health Report recommends making Healthy Start vouchers and vitamins available in all children's centres.
- Provision data presently suggests limited distribution and uptake, and differing levels of awareness among parents. The availability of Healthy Start vitamins should be consistent across the centres, attended by appropriate publicity and awareness-raising measures.
- The strong brand recognition among Southend parents achieved by Change4Life suggests that it is possible to build recognition for child health materials in a relatively short space of time. A recent NICE trial in Croydon which employed video dissemination in waiting rooms and common areas to market Healthy Start vitamins has led to a marked

increase in uptake: where previously 68% of trial participants had not heard of Healthy Start, 56% began supplementation after the trial.[44]

Recommendation – ensure complete availability of **healthy start vouchers** across all wards within the Borough, with visible promotion in children's centres.

8.2.4 Breastfeeding and weaning

- The Department of Health have listed breastfeeding among their six 'high impact' areas in local early years commissioning. The beneficial health effects for young children against obesity and other health risks are well established and parents are strongly aware of the benefits.
- The provision of breastfeeding peer support services is limited in Southend in both the NHS and voluntary sector. Breastfeeding peer support was considered to be highly important by parents and health visitors and is recommended by NICE in official guidelines.
- There is scope to widen the extent of support provided by the voluntary sector in breastfeeding peer support, which stakeholder and delivery staff discussions indicated had declined in recent years. This can be facilitated by providing up-to-date training through evidence-based initiatives (examples outlined below). The cost-savings are debated, given the high cost of upfront training and drop-off risk among participating volunteers. The approach is well-aligned with Southend's co-production emphasis, and there is some evidence to suggest community-led initiatives help strengthen volunteer sector relationships and engage those hardest to reach.
- Introduction to solids (weaning) support was clearly identified as a gap by parents and health visitors. This included the need for advice at 6 months as well as peer support. Suggested supports include:

    - altering to the health visitor timeline to include a six month visit
    - providing a weaning support session at baby clinics and drop-ins
    - workshops on introducing solid foods

- A number of options have been proposed to improve breastfeeding support:

[44] NICE, A social marketing campaign for early years practitioners to increase awareness of the importance of vitamin D & healthy start vitamins.

Option	Description
Peer Support (volunteers)	Peer support is delivered through volunteers, overseen and co-ordinated through health professionals. Providers include the National Childbirth Trust, LeLeche and Assoc. of Breastfeeding Mothers. The local authority would maintain a supervisory role assuring quality.
Nursery Nurse support	Nursery nurses contact all mothers leaving hospital to assess support. This option has previously been piloted by midwifery.
Children's Centres	Breastfeeding leads train Sure Start staff to deliver breastfeeding support to mothers in-house in peer support or one-to-one groups.

Recommendation: expand **breastfeeding peer support** services and those supporting the **introduction of solids**. The evidence reviewed in this report supports the idea that breastfeeding is a protective factor against childhood obesity, and there is latent demand for related services throughout the borough.

8.2.5 Family Nurse Partnership

The Better Start strategy makes clear the aim to increase Family Nurse Partnership availability to all mothers under the age of 19 until the child is two years old.

Better Start funding is expected to remove the annual cap (64) on programme places, providing full intensive coverage for teenage mothers across the borough.

Assuming the maximum cap of £3,500 per participant were applied to the total number of under-18 conceptions recorded since 2014 (range of 83-108 per annum over the last 3 years), the maximum cost per annum for operating the service at demand capacity would be **£66,500 to £154,000 additional spend per year**.

8.3 Shopping and Cooking

The Cook 4 Life programme was popular among parents interviewed during the course of the research. Children's centre staff and health visitors agreed, noting that the simple messaging and strong emphasis on visual presentation was well-tailored to target parents. The programme can play an important role in reducing isolation and increasing engagement as well as improving practical cooking skills. Discussions with parents and delivery staff suggests there is demand to expand the programme:

- Increased coverage of healthy snacks and regular meals
- Practical component in addition to the demonstration component (many staff and health visitors noted the popularity of any service including free meals)
- Advice on budget cooking and access to supermarkets.

8.4 Engaging communities, target groups, and the VCO sector

Devolution of health and social care provide service commissioners with the opportunity to engage smaller organisations to deliver services more easily. This is particularly the case where the local cost environment supports a limited service beyond statutory provisions.

The Better Start strategy looks to engage community and voluntary groups in the process of designing and delivering services, with these communities key to accessing hard-to-reach groups as well as isolated individuals and families.

Engagement was a recurring theme during focus groups and discussions with children's centre staff. There was a perception that hard-to-reach target groups – in particular socioeconomically disadvantaged and particular ethnic groups – were not engaging with service providers as much as others.

Peer support

The Better Start strategy notes that isolation can be a problem, in particular affecting single parents. The strengthened universal pathway for conception to age 3 proposed in the Better Start strategy (see Appendix 7) includes adding peer support availability throughout the pathway.

The strategy notes that:

- Those exiting the Family Nurse Partnership pathway often feel isolated, and that participants should be encouraged through the EPEC and "Me & My Community" programmes to become peer supporters to young mothers and fathers.
- Southend should develop a robust family support system, with possible measures to include a buddy scheme, volunteer peer supporters and paid "family navigators";

Engaging minority communities

The evidence for limited engagement by minority groups was anecdotal, based on discussions with children's centre staff around Southend and national data demonstrating higher rates of early years' obesity among Black African and some South Asian communities.

The Better Start strategy aims to engage ethnic minority families through ESOL courses using topics relevant to parents such as managing behaviours, the antenatal pathway and preparing children for school, as well as encouraging communities members to train in the same so they can offer peer support. Research in children's centres generally found support for the idea of building relationships with minority communities, particularly through language and parent education programmes.

The community sector can also play a role in testing new approaches in areas where existing interventions have not yet proven effective. Best practice findings on maternal obesity interventions outlined in Section 4 found existing supports were of little effect and that 'multiple types of interventions, including community based strategies are needed to address this complex health problem [maternal obesity]'.

Role of Children's Centres

- Section 3(3) of the Childcare Act 2006 notes the statutory role of local authorities in ensuring parents / expecting mothers who are unlikely to take advantage of services are identified.

- Children's centre staff and health delivery staff noted that outreach and engagement activities had retreated in the difficult funding environment, with a focus on core services delivered on-site.
- Increases in the size of the health visitor workforce is expected to result in greater reach and influence among health visitors within communities. The introduction of a named health visitor, combined with improved data sharing and referrals (i.e. the system change approach) will provide children's centres with stronger knowledge of their local communities including those parents deemed to be most in need.
- The recommissioning of the children's centres provides an opportunity to streamline standards in early nutrition. The differences between nutrition practices in children's centres in Southend are notable.

Recommendation – develop a strategy and action plan to engage hard-to-reach communities. Work with local partners such as Healthwatch Essex[45] to devise a strong approach to ensure services reach those they are intended to target.

8.5 Environment

PACEC's research found considerable place disparities in Southend, with access to green spaces, supermarket types, and prevalence of fast food outlets differing considerably across the city.

The role of place poverty and neighbourhood effects in understanding health outcomes has become increasingly important in recent years, and public health mapping guidance now reflects a need to account for place effects in addition to conventional explanatory factors (lifestyle, individual characteristics etc).

Public Health play a key role in improving the health environment in Southend, with a comprehensive agenda outlined in the Public Health Responsibility Deal.

Planning

The food environment is a key determinant of childhood obesity outcomes, particularly for 0-3s whose environment is primarily determined by those around them. Best practice studies note that weight status is linked with several factors surrounding the food environment such as access to supermarkets and the locality and number of takeaway outlets in an area. These factors are also associated with an unhealthy BMI or overweight/obesity. The National Obesity Observatory's findings on the density of fast food outlets found that it is strongly correlated with measures of deprivation. Given that childhood obesity is linked to both access to fast food outlets and the economic status of parents, improvements targeting the number of fast food outlets in low income areas may be of relevance in attempting to reduce childhood obesity.

[45] Healthwatch Essex maintain a dedicated research team, engagement manager, and have undertaken research on the relationship between deprivation, culture and food shopping, ('Social and Cultural Aspects of Food Shopping', July 2016).

The Government's Healthy People, Healthy Places briefing on childhood obesity provides a takeaways toolkit for local authorities, outlining three broad approaches:[46]

- working with the takeaway businesses and food industry to make food healthier
- working with schools to reduce fast food consumed by children
- using regulatory and planning measures to address the proliferation of hot food takeaways

Given the strength of evidence outlined above on the role of the food environment in determining childhood obesity outcomes, there may be grounds for enhancing the role played by Public Health in regulatory and planning measures and in the local development framework, where presently their intervention remit is limited to alcohol licensing.

Improvements to the current food environment, such as enhancing the access to fruit and vegetables, have showed that family interventions have had a relatively small effect on home accessibility and consumption of fruit and vegetables and thus have been ineffective at reducing childhood obesity. There is also little evidence to suggest that limiting the growth of fast food outlets through legislation has a significant effect on childhood obesity, even though it may effect adult or teen obesity. Southend can build on the Public Health Responsibility Deal to work with local retailers to reconsider item placement and pricing strategies for promotions, an issue which emerged during focus groups, as well as strengthening of existing breastfeeding-friendly measures in public places.

Green Spaces

Access to open spaces is identified as a key risk factor in developing childhood obesity. There is a noticeable link between ABS target wards and amount of open space, particularly for those four wards nearest the town centre.

Baseline research found major disparities in both population density and availability of open space around Southend, with inner city Better Start wards having very high population densities, commonly linked to deprivation and poor health outcomes.

The Parks and Green Space Strategy 2015-2020 recommends standards for children's playing space. The benchmark standard of 0.8 hectares of children's play space is commended per 1,000 head of population. This is split into 0.25 hectares of designated equipped playing space (including fenced areas with play equipment) and a further 0.55 hectares of informal playing space, typically consisting of amenity space.

8.6 Centre of Excellence

The Centre for Excellence approach to service delivery, outlined in Appendix 8, calls for information and learning to be shared between early years' settings and integrated with workforce development, research and collaboration partners. Stakeholders and delivery staff agreed this should be a relatively lean operation, led by and responsive to service practitioners rather than researchers.

[46] *Obesity and the Environment, Regulating Fast Food and the Environment* (PHE, March 2014)

Local Government Best Practice

Some stakeholders noted that learning and sharing with neighbouring authorities on best practice had stayed the same or in some cases decreased since changes in the care delivery model were introduced in 2015. Sharing with other local authorities undertaken through *A Call to Action* ended in 2015, with limited engagement at national level since.

The Local Government Association has documented local pilot schemes tested in local authorities around England for *Healthy Weight Healthy Futures.* They show the increasing variety and experimentation in local public health service delivery.

A key feature of devolution is the opportunities afforded for experimentation and innovation. The opportunity to learn from best practices around the country is currently not being taken advantage of in the current funding environment, though opportunities exist in sharing between Better Start areas.

8.7 Evaluation

There is a strong expectation from national and local policy that evidence-based activities undertaken during A Better Start will be evaluated based on how effectively services improve specific developmental outcomes.[47]

The Munro Review (2011) recommends that local authorities and their partners use national and local performance data to benchmark local performance in children's services against national standards.

The Public Health Outcomes Framework sets out national priorities for improving health and wellbeing focused on improved life expectancy and reductions in health inequalities. Local areas use framework data to benchmark performance against the rest of the country, informing local health commissioning.

Each framework domain features priority indicators applicable to early years children.

- Children in poverty
- Low birth weight
- Breastfeeding
- Maternal smoking during pregnancy
- Child development and 2 to 2.5 years
- Infant mortality

Better Start activities are being evaluated over the programme lifetime by the Warwick Consortium, who monitor a range of indicators in order to undertake an evaluation across three workstreams:

- Implementation evaluation of set-up and delivery

[47] Social Research Unit - 'Better Evidence for a Better Start'

- Impact and economic evaluation – outcomes at family and area levels through a longitudinal survey of two cohorts
- Learning and dissemination programme that will extend across the three to five work areas and beyond.

The Big Lottery Fund, as a learning organisation, calls for annual monitoring of supported organisations in order to provide a flexible, evidence-based service for those it supports, in co-ordination with VCO and the CCG.

Local partners should build on the measures developed by the consortium, producing indicators which measure the effectiveness of services in responding to perceived service gaps. In assessing progress towards meeting services gaps, we propose a number of indicators:

- Volunteering: numbers of volunteers trained in breastfeeding support services
- Number of peer supporters trained under Me & My Community and EPEC
- Number of Family Nurse Partnership completions per year
- Uptake of Healthy Start vouchers and Healthy start vitamins
- Breastfeeding: initiation and 6-8 week measures / monthly as well as introduction of solids.

Defining obesity	
Obesity	The World Health organisation (WHO) defines obesity and overweight as 'abnormal or excessive fat accumulation that presents a risk to health'. Measuring body fat is difficult in most settings, so Body Mass Index (BMI) - weight (kg) divided by height squared (m2) is used as a proxy measure. In adults, obesity is commonly defined as a body mass index (BMI) of 30 or more.
Childhood Obesity	It is more complex to measure BMI in children as they grow and develop at different rates, and there is a difference between boys and girls. The British 1990 growth reference charts are used to define weight status, with those with a BMI >98th centile of the reference chart defined as obese and those with a BMI >91st centile defined as overweight.

APPENDIX 2

Table 1. Conception to Birth: Key Findings and Research Needs Based on Systematic Review and Evidence Synthesis

Risk factor	No.	Key findings	Research needs
Biologic			
Maternal diabetes mellitus (DM)—gestational or Type 1	35	Most studies suggest maternal gestational diabetes is a risk factor for offspring overweight; Type 1 DM may also be a risk factor	Independent and combined effects of maternal insulin, glucose, and BMI on offspring overweight; effects of prevention and reversal of gestational diabetes effects
Pregnancy complications	3	One of three studies found maternal hypertension as a risk factor for child overweight	Relationship of maternal health conditions related to maternal excess weight on child health
Method of delivery	11	Moderate evidence that cesarean delivery is a risk factor for overweight in childhood	Plausible mechanisms
Fetal growth	3	Some evidence to support an association between high estimated fetal weight and increased likelihood of childhood obesity	Standardized measures of fetal growth and how they relate to postnatal growth parameters
Gestational age at birth	3	Mixed evidence for a relationship between gestational age and later childhood overweight	Additional prospective studies and plausible mechanisms
Parent/family/caregiver			
Maternal pre-pregnancy BMI	38	Consistent findings of maternal pre-pregnancy BMI as a risk factor for offspring overweight	Effective interventions to reduce maternal overweight/obesity in the pre-conceptual period, and their long-term impacts on maternal–child outcomes
Gestational weight gain	21	Consistent findings of maternal gestational weight gain as a risk factor for offspring overweight; emerging evidence that this relationship might vary by trimester of exposure	Identification of critical periods to intervene and long-term maternal–child outcomes of interventions
Maternal diet and nutrition	4	Limited evidence for fatty acid, caffeine, and sugar intake; no evidence for energy and macronutrient intake	Additional prospective studies of prenatal dietary patterns and plausible mechanisms
Maternal physical activity	1	No association for maternal report of recreational exercise during pregnancy and offspring BMI	Identification of physical activity patterns that safely promote healthy weight gain during pregnancy
Maternal stress	4	Inconsistent evidence for an association between maternal stress and childhood overweight	Prospective studies with self-report of maternal stress complemented with biological stress measures
Maternal age at delivery	2	No evidence to support an association between maternal age and offspring overweight	
Maternal parity	2	Lower parity associated with increased odds of childhood overweight in both studies	Mechanisms through which prior pregnancies may influence future offspring overweight risk
Paternal factors	4	Limited evidence of paternal influences to offspring adiposity measures	Prospective studies of the influences through which partners and fathers modify child overweight risk
Community			
Prenatal health care	2	Insufficient evidence of associations for prenatal care and offspring adiposity	Processes and systems through which health care during pregnancy can reduce risk factors
Environmental			
Environmental pollutant exposure	11	Inconsistent associations between environmental pollutants and child overweight	Impact of change in environmental exposure levels on child weight outcomes

(continued on next page)

Risk factor	No.	Key findings	Research needs
Maternal tobacco use	31	Consistent evidence that smoking during pregnancy is a risk factor for increased offspring adiposity	Effect of interventions aimed at tobacco cessation prior to pregnancy
Maternal prenatal substance use	5	Limited evidence suggests maternal cocaine use during pregnancy may promote childhood overweight	Long-term maternal child effects of programs to reduce maternal substance abuse
Prenatal medication	2	Insufficient evidence	Additional prospective studies

Table 2. Birth to 2 Years: Key Findings and Research Needs From Systematic Review and Evidence Synthesis

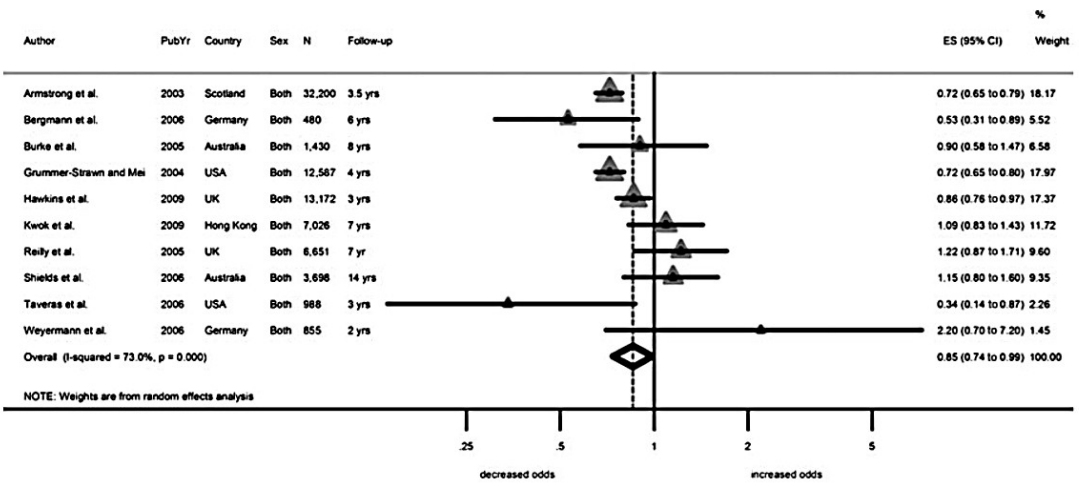
Risk factor	No.	Key findings	Research needs
Biologic			
Birth weight	28	Consistent association with later childhood overweight	Mechanisms that lead to higher risk of childhood obesity among higher birth weight children
High infant weight and weight gain	46	Consistent association with later childhood overweight despite inconsistent exposure definitions.	Thresholds for infant "overweight" and "obese" and approaches to prevent excess infant weight gain
Adipokines and Metabolities	3	Inconsistent association of adiponectin levels in breast milk with childhood overweight.	Influence of breast milk composition on child metabolic pathways and obesity risk
Microbiome	2	Inconsistent findings in 2 studies of same nested case-control study.	Longitudinal studies of infancy microbiome profiles associated with normal and excess weight gain
Epigenetics/ genetics	2	No epigenetic studies. Genetic components likely contribute to some cases of childhood obesity.	Genetic studies in racial/ethnic groups at highest risk for obesity; Longer-term epigenetic outcomes
Infant behaviors			
Child screen time	1	Insufficient evidence to quantify early life screen use effect on child overweight/obesity	Studies of infant screen exposure and its downstream effects
Child sleep	4	In a U.S. geographic pre-birth cohort, curtailed infant sleep found to be risk factor; inconsistent effect in other studies	Valid measurements of infant sleep that expand beyond duration to include quality and timing; consistency in exposure reporting
Child active play/ physical activity	0	No studies	Valid measurements and norms of physical activity; Association with health outcomes
Multiple behaviors	4	Targeting multiple behaviors for intervention development shows promise for obesity prevention	Larger sample sizes and longer follow-up of interventions
Nutrition/feeding		(see Table 3)	
Parent/family/caregiver			
Household food insecurity	3	May act indirectly through parenting and feeding practices to act as a childhood obesity risk factor	Effect of interventions targeting parenting skills and feeding practice in food-insecure families
Maternal depression	3	Insufficient evidence	
Cumulative social stressors	1	Limited evidence to suggest an additive effect of social stressors on childhood obesity risk	Effect of interventions aimed at coping with and reducing social stressors on child overweight
SES	3	Consistent evidence for SES as risk factor, but mechanisms unclear	Mechanisms for obesity risk in low-income families and effective interventions in low-income populations
Maternal-infant relationship	3	Low strength of maternal–child relationship is a likely risk factor	Ways to strengthen maternal–infant relationships and the effect this has on childhood obesity
Parental weight	3	Limited information supports link between parental post-partum weight to childhood overweight	Role of family members other than mothers; mechanisms of association between parental weight and childhood overweight
Community			
Child care attendance	2	Child care attendance was a risk factor in both studies	Individual-level outcomes in evaluation of best practices to promote obesity prevention
Environment			
Antibiotic and probiotic exposure	5	Any infant antibiotic exposure was risk factor; insufficient evidence for probiotic use	Plausible mechanisms for antibiotic effect, such as microbiome change; robust longer-term studies of probiotic use

Table 3. Birth to 2 Years—Feeding Practices and Mode: Key Findings and Research Needs

Risk factor	No.	Key findings	Research needs
Breastfeeding	49	Breastfeeding may be protective, but evidence is inconsistent.	Plausible mechanisms linking feeding style and breast milk composition with biologic changes (e.g., microbiome and adipokines)
Bottle use	5	Inappropriate bottle use and delayed transition from bottles to sippy cup may be risk factors for obesity	Messages and specific behavioral targets for appropriate bottle use; longer intervention follow-up
Early or late solid food introduction	8	Evidence in a few large prospective birth cohorts that introduction of solid foods younger than age 4 months is a risk factor for obesity, and this may be particularly true for children who are formula-fed; however, overall evidence is inconsistent	Optimal life course stages and messaging to target prevention of early introduction of solid foods
Beverage intake	4	Infant coffee and tea drinking may be a risk factor for obesity and severe obesity; no prospective studies of juice or SSB intake; only one study of milk intake, which did not show evidence for milk volume as a risk factor	Confirmation of coffee/tea findings; prospective studies of comprehensive beverage intake in this age group to determine the prevalence, effect on obesity risk, and specific behaviors to target for messaging
Nutrient intake	6	Insufficient information to suggest infant carbohydrate or fatty acid intake as risk factors; high infant protein intake may be a risk factor for child overweight	Comprehensive examinations of diet composition and child obesity and cardiometabolic outcomes
Feeding style	3	Insufficient evidence	Impact of parental feeding beliefs and behaviors with child growth in diverse populations.

SSB, sugar-sweetened beverage.

Figure X. Pooled adjusted odds ratios for childhood overweight from random effects meta-analysis of 10 studies of breastfeeding (comparing ever breastfed with never breastfed).



APPENDIX 3

Synthesis review (Nick Cavill)

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Focus groups and parent discussion groups undertaken with parents / mothers.

Date	Focus Group	Ward
Monday (4 July)	Summercourt Rd centre (Top of the Tots focus group)	Victoria
Tuesday (5 July)	Eastwood Children's centre (Stay & Play discussion group)	Eastwood Park
Wednesday (6 July)	Friars Centre (Stay and Play discussion group)	Shoeburyness
	Cambridge Road (Single mothers focus group)	Milton
Thursday (7 July)	Centre Place Family centre (Stay & Play discussion group)	Kursaal
Friday (8 July)	Summercourt Rd (Stay & Play discussion group)	Victoria

Eastwood Park is not an ABS ward, but was selected because it featured pockets of deprivation.

Telephone consultation was also undertaken with Hamstel children's centre in Southchurch ward.

APPENDIX 5

Eat Better Start Better

Programme Background

Eat Better Start Better was delivered by the Children's Food Trust, a charity established in 2005 dedicated to providing skills and knowledge to help parents prepare fresh, nutritious meals with the aim of improving the standards of what children are eating at home, in school or in childcare. Based in Sheffield, the Trust recognises the necessity of encouraging providers of children's food in helping families make better food choices. The Trust is supported by the Big Lottery Fund and a variety of charity sponsors and foundations. Eat Better Start Better began in 2011, with phase 1 taking place between 2011 and 2013 and phase II taking place between 2012 and 2013. The first phase targeted 5 local authority areas with higher than average levels of childhood overweightness and obesity, as well as higher than average deprivation and geographical spread. The programme was rolled out for phase II (April 2012 to Sep 2013) to include a further twenty areas (including Southend on Sea) based on the same target criteria. The programme is delivered with the Pre-School Learning Alliance in Southend.

Aims and Objectives

The original Voluntary and Community Sector (VCS) grant was awarded to deliver a two-year programme to:

- improve food provision for young children (1-5yrs) in early years settings and at home,
- increase the food, nutrition and healthy cooking knowledge and skills for the early years and childcare workforce and parents.

A key aim of participating in Eat Better Start Better is to demonstrate compliance with the Voluntary Food and Drink Guidelines for Early Years Settings (nutrition guidelines of the Early Years' Foundation Stage) and the Ofsted Common Inspection Framework.

Since 2005 the trust has pursued a range of different objectives, all with the purpose of improving the overall standard of food being provided to children across the UK.

The trust seeks to instil the values of healthy eating into schools and nurseries through various award schemes set up to encourage food providers to build children's understanding of what it means to eat healthily. By receiving the award schools and nurseries will demonstrate their commitment to providing a comprehensive selection of healthy foods as well as reassure parents that the best food is being provided for their children.

Activities to date

The programme is focused on two main training activities:

- 'Voluntary Food and Drink Guidelines for Early Years Settings in England' – train-the-trainer support for health professionals to support Early Years Foundation Stage (EYFS) welfare and nutrition requirements.
- 'Healthy Food and Cooking for families' – train-the-trainer approach to help families understand guidelines and assist with cooking support.

The 'Eat Better Start Better' Voluntary Food and Drink Guidelines for Early Years Settings in England provides an extensive set of guidelines for early years providers and practitioners to follow in order to fulfil their requirement to deliver healthy, balanced and nutritious food and drink.

Programme outcome 1: Focus on delivery of 2 training courses

Course 1 focused on delivering a one-day course, revolving around the 'Voluntary Food and Drink Guidelines for Early Years Settings in England' and utilised a train-the-trainer model.

The 'Healthy Food and Cooking for Families' courses were designed for health practitioners and aimed to help them understand the guidelines more fully and train them how deliver cooking sessions with families more effectively. The purpose was to assist in delivering the following:

Effective application of the food and drink guidelines and resources in early years settings

Develop an understanding of how to productively encourage healthy eating, including how to raise awareness about particular hygiene issues when preparing meals

Understanding how to adapt recipes to make them healthier and more suitable for young children

Programme outcome 2: Improved healthier food provision for children aged one to five years and childcare settings and at home

The aim of outcome 2 was to ensure local settings' approach to and provision of food reflected the core values set out in the food and drink guidelines. The aim was to increase diversity in the types of food being provided as well and increase provision of foods low in salt and sugar.

Programme outcome 3: Increased food and nutrition knowledge and practical cooking skills for parents and families attending early years settings

According to the Programme Outline, local authorities commissioning the programme would receive support in the form of advice from nutritionists and food trainers, and access to a wide range of recipes online and guidance documents for running cooking sessions.

Availability

	Yes	No
Kursaal	✓	
Milton	✓	
Shoeburyness	✓	
Victoria	✓	
West Shoebury	✓	
Westborough	✓	

Impacts Delivered

A case study of Pre School Learning Alliance Early Years team members in Southend Borough Council found Eat Better Start Better helped to establish a consistent message regarding healthy food across public health teams and early years teams in Southend. Guidelines were distributed to every early years setting and childminder in Southend as a means of giving as many people as possible access to basic cooking and nutritional information.

EBSB is reported to have helped public health teams to compound early years teams' resources with their own engage more settings in the programme.

The 'Eat Better, Start Better' phase 2 Evaluation report prepared by the Children's food trust found that the programme was received positively by the twenty phase II local authorities participating.[48] The second phase of the programme trained 804 early years and health practitioners and reached a total of 8,478 families.

The results from a before-and-after survey from the one day course (Voluntary Food and Drink Guidelines for Early Years Settings in England) shows that, on average, the early years and health professionals significantly increased their knowledge, skills and confidence to support local settings to provide healthy food for children aged between one and five years, and monitor the impact of the guidelines and training on their settings approach to and provision of food.

At the end of the course, training evaluation forms were completed by 340 delegates that attended from the 188 early years settings. Overall, feedback was positive, with 88% of delegates rating the course as 'excellent'. 99.7% of those who attended also stated that the aim "To teach you about the Voluntary Food and Drink Guidelines for Early Years Settings in England, and to apply these to help families cook healthy and nutritious meals at home" was met and 96% of delegates confirmed that the aim "To help you develop confidence in running healthy cooking sessions with families" was also achieved.

Eligibility

The training programmes are available to families and early-years childcare providers. No specific criteria was indicated regarding eligibility of parents or childcare providers as the service is available to all.

Funding

National-level funding of £15 million initial funding in 2005, as well as £20 million in 2007 + £2.7 million official capital grant in 2008. The 'Eat Better Start Better' programme was funded by the Department for Education (DfE) through a Voluntary and Community Sector (VCS) grant.

[48] *Eat Better, Start Better Programme Phase 2 Evaluation report: impact and recommendations*

Healthy Start

Programme Background

Healthy Start is a voucher scheme helps pregnant women and those with children under age 4 buy basic foods such as milk and fruit. The programme is managed by the NHS Business Services Authority on behalf of the Department of Health for England, Scotland and Wales, and the Department of Health, Social Services and Public Safety for Northern Ireland.

Aims and Objectives

The aim of the scheme is be to provide a nutritional 'safety net' for pregnant women, new mothers and young children in low-income families.[49] The emphasis on 'starting well' reflects public health strategy outlined in Healthy Lives, Healthy People, and the programme is linked with a range of anti-obesity and early life interventions. Low income is generally associated with lower consumption of fruit and vegetables. [50]

Activities

Healthy Start vouchers are promoted to parents by health professionals (midwives, health visitors etc) and distributed as weekly vouchers which can be redeemed at local retailers. The vouchers are delivered through healthcare professionals who also provide advice and nutrition and healthy eating.

The Healthy Start website detail the range of food items which can be purchased using HS vouchers, and mothers can also access a range of recipes to utilise healthy start purchases most effectively. The website offers advice on subjects including healthy eating in pregnancy, vitamins, breastfeeding and bottle feeding, alcohol and smoking and physical exercise.

Every eight weeks, beneficiaries also receive green vitamin coupons alongside Healthy Start vouchers, which can be exchanged for Healthy Start vitamins. The coupons are either for Healthy Start women's tablets or Healthy Start children's drops.

Information is also available on the website for retailers to familiarise themselves with products that vouchers can be used to buy. Guidelines are available for retailers advising on how the scheme will operate as well compliance regulations.

According to the Department of Health over 15,000 retail businesses across 30,000 outlets are registered to accept Healthy Start vouchers. 2.6 million Healthy Start vouchers are issued to families across the UK every four weeks. Around 91% of these are spent and returned to the Healthy Start retailer reimbursement unit. 70% of vouchers are used with supermarkets, and the remainder are spent at pharmacies, independent shops, market stalls and milk roundsmen.[51] Professionals associated with implementation of the scheme are primarily Midwives, Health Visitors, Nursey Nurses, Children's Centre Staff and to a lesser degree GPs.

Availability – Geography

National availability, though provision of vitamins depends on local authority commissioning. Presently, vitamins are available in Kursaal, with licence to roll the scheme out in other wards.

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[49] Lucas, P.J., Jessiman, T., Cameron, A., Wiggins, M., Hollingworth, K., Austerberry, C. (2013) Healthy Start Vouchers Study: The Views and Experiences of Parents, Professionals and Small Retailers in England, School for Policy Studies, University of Bristol

[50] Irala-Estévez, J.D., Groth, M., Johansson, L., Oltersdorf, U., Prättälä, R., Martínez-González, M.A. (2000) *A systematic review of socio-economic differences in food habits in Europe: consumption of fruit and vegetables*, European Journal of Clinical Nutrition, Sep;54(9):706-14

[51] Department of Health (2012) *Healthy Start: Retailer research summary*

Healthy Start vitamins	Yes	No
Kursaal	✓	
Milton		✓
Shoeburyness		✓
Victoria		✓
West Shoebury		✓
Westborough		✓

Impacts Delivered

Research conducted by the University of Bristol estimated 72-86% of eligible families were registered with the scheme. [52] The research found that uptake of the Healthy Start scheme was more prevalent in deprived areas, reflecting the emphasis on providing financial support for low-income families. A large proportion of parents reported that they had not received detailed information from health professionals about the most effective way to use vouchers that would benefit their family's health. Some parents did, however, find the Healthy Start website as a trusted and useful source of recipes and generic nutritional advice.

The 'Healthy Start: Understanding the Use of Vouchers and Vitamins' summary for practitioners[53] surveyed women who took part on the benefits of receiving the vouchers and found a number of outcomes:

- Reminding them to eat a healthy, balanced diet
- Assisted them in buying better quality food
- Enabled them to purchase fruit and vegetables that they would not have purchased otherwise – this was particularly evident in young women who took part in the survey

A significant proportion of women were informed about the scheme by their midwife or health visitor.

There was a general consensus among health practitioners interviewed as part of the research that the Healthy Start scheme did not encourage the most vulnerable families to access health services earlier. Practitioners also expressed concerns regarding a variety of barriers that either directly or indirectly impeded their ability to deliver more health-related information and some solutions were put forward:

- Training for all professional groups to ensure women receive consistent health messages
- Integration of Healthy Start with the wider anti-obesity strategy
- Training children's centre staff to deliver more information regarding Healthy Start and the benefits associated with a healthier lifestyle.

Age Profiles

Pregnant women with children younger than 4. Teenage parents automatically eligible regardless of whether or not in receipt of benefits.

[52] Lucas, P.J., Jessiman, T., Cameron, A., Wiggins, M., Hollingworth, K., Austerberry, C. (2013) Healthy Start Vouchers Study: The Views and Experiences of Parents, Professionals and Small Retailers in England, School for Policy Studies, University of Bristol

[53] Healthy Start: Understanding the Use of Vouchers and Vitamins Summary for Practitioners, March 2014

Eligibility

One voucher a week is available to women who are pregnant or have a child between age 1 and 4. Households receive weekly vouchers for each member of the family that is eligible, with one for a pregnant woman/children aged 1-3, with two vouchers for each child in their first year. Eligible candidates must also be in receipt of one of the following:

- Income support
- Income-based Jobseekers Allowance
- Child tax credit (only if annual family income is £16,190 or less)
- Income-related employment and support allowance
- Working tax credit (but only if your family is receiving the 4 week 'run-on' payment)
- Under 18 and pregnant

Funding

No cost-effectiveness study of the Healthy Start vouchers has been undertaken to date, though research from the health, econometrics and data group (HEDG) at York University has found that the vouchers have noticeable behavioural effects on the subset of families who would not have spent the equivalent amount of money on fruit, milk and vegetables without the voucher, and no discernible effect on those who would have spent the same.

Universal offering is extended to	Incremental costs	Incremental QALYs	ICER
Current subgroups	£7,874,978	13	£620,898
Current subgroups + women planning a pregnancy and less than 10 weeks pregnant	**£4,211,201**	**750**	**£5618**
Current subgroups + women less than 10 weeks pregnant	£6,839,279	243	£28,185
Current subgroups + infants aged 0–6 months	£7,868,568	13	£620,392
Current subgroups + children aged 4–5 years	£8,564,095	13	£675,230
Current subgroups + all new subgroups (listed above)	**£4,893,907**	**750**	**£6528**

A systematic review undertaken by NICE included a YHEC cost-consequence analysis estimated that:

- Provision of Vitamin D supplements to the whole population of England and Wales would involve in an incremental cost of £4,086,142.
- The cost per symptomatic vitamin D deficiency averted was £2,859 for pregnant and breastfeeding women.
- The cost per symptomatic deficiency averted for children under 5 years was £1,229 (NICE, 2015)[54].

NICE conducted a cost-effectiveness (cost per QALY) assessment of the Healthy Start vitamin supplements, comparing a targeted vs universal approach. The findings suggested that universal provision of the supplement met NICE's standard cost effectiveness threshold (£20,000 / QALY) only in a limited range of circumstances.

[54] National Institute for Health and Care Excellence (2015) *Examining the Cost-Effectiveness of Moving the Healthy Start Vitamin Programme from a Targeted to a Universal Offering: Cost-Effectiveness Systematic Review*

Healthy Child Programme

Programme Background

The Healthy Child Programme (HCP) is a universal early intervention and prevention public health programme designed to identify children age 0-5 at risk of poor health outcomes and families in need of additional support.

As part of an integrated approach to supporting children and families, the programme offers families a range of services such as screening tests, immunisations, health and development reviews, and information and guidance to support parenting and healthy choices.

Aims and Objectives

The programme aims to produce a variety of positive health and developmental outcomes[55]:

- Strong parent-child attachment and positive parenting
- Healthy eating and increased activity, leading to a reduction in obesity
- Early recognition of risk factors for obesity
- Identification of factors that could influence health and wellbeing in families
- Better short-term and long-term outcomes for children at risk of social exclusion

Greater emphasis is placed on early intervention and prevention in light of new information regarding neurological development and the impact of stress during pregnancy (Allen, 2011[56]). Therefore, children born into disadvantaged circumstances are of particular importance.

With regards to obesity, the 'Tackling Obesity through the Healthy Child Programme a Framework for Action' report outlines a framework to intervene and prevent obesity in the early years (Rudolf, 2009)[57]

Activities to date

In Southend, services are delivered through the children's centres. The South Essex Partnership University NHS Foundation Trust (SEPT) provide community health, mental health and learning disability services for a population of around 2.5 million people throughout Bedfordshire, Essex and Luton. In Southend, the Hamstel Children and Family Centre is an example of one such centre which focuses on the delivery of a range of key services such as:

- Advice and support for parents and carers
- Child and family health services, from health visitors to breastfeeding support
- Crèche facilities, play and early learning for babies and toddlers and family learning
- Help in finding child care, employment and training, including links with Jobcentre Plus
- Family fun and a place to meet friends

The HCP also identifies public health priorities such as obesity and seeks to focus on early identification and prevention of obesity through an emphasis on breast feeding, delaying weaning, introducing children to healthy foods, limiting consumption of foods high in fat and sugar, and encouraging an active lifestyle.

[55] Department of Health (2009) Healthy Child Programme: Pregnancy and the first five years of life

[56] Allen, G. (2011) Early Intervention: The Next Steps.

[57] Rudolf, M. (2009) Tackling Obesity through the Healthy Child Programme a Framework for Action

Activities are strongly integrated with Sure Start services, with a strong emphasis on joint working as an effective way of delivering support services for parents and children under the age of 4 (Melhuish et al, 2009)[58]. These centres provide a range of integrated services such as health and family support as well as early year's education. According to the 'Healthy Child Programme: Pregnancy and the first five years of life' report Sure Start Children's centres are vital to delivering the HCP.

As well as delivering services through the Sure Start Children's Centres and identifying risk factors that may affect a child's outcomes, internal 'Universal Health and Development Reviews' are a core feature of the HCP.

The Delta Parenting Programme delivered by SEPT as part of the health visiting service offers new mothers a free six week post-natal programme that will cover the topics in weekly 2 hour sessions[59] including nutrition and child development.

Availability – Sure Start Children's Centres

	Yes	No
Kursaal	✓	
Milton	✓	
Shoeburyness	✓	
Victoria	✓	
West Shoebury		✓
Westborough		✓

Funding

The total amount of funding available to Local Authorities to fund the costs of commissioning public health services for 0-5s is £2.3m (half year), equivalent to £15,000 per Local Authority. This figure represents the £300,000 identified by NHS England as its commissioning costs for 2015/16, equivalent to £2,500 per Local Authority, plus £2m of additional funding from the Department bringing the total per Local Authority to £15,000 for the half year.

On 1st October, commissioning responsibilities for 0-5s public health services were transferred from NHS England to Local Authorities. The Department of Health have placed a minimum funding floor of at least £160 per head of 0-5s spend in 2015-16. The purpose of which will be to support local authorities at the bottom of the funding distribution. Total funding for the six month period from 1 October 2015 to 31 March 2016, as announced in February 2015, is £428m (DH, 2015)[60].

[58] Melhuish, E., Belsky, J., Barnes, J. (2009) *Child health and well-being in the early years: the National Evaluation of Sure Start*

[59] More information available at: http://www.sept.nhs.uk/

[60] Department of Health (2015) *Transfer of 0-5 children's public health commissioning to local authorities: Finance Factsheet: Final Allocations*

HENRY (Health Exercise Nutrition for the Really Young)

Programme Background

The HENRY programme is run by a charity of the same name, introduced in an attempt to give babies and young children a healthy start in life so as to reduce the growing problem of childhood obesity[61]. The HENRY programme seeks to deliver this through practitioner training and a family programme called *Healthy Families-Right from the Start with HENRY.*

Gardner et al (2009)[62] states that most excess weight in children is gained before the age of 5, which is part of the rationale for the HENRY programme being offered to children aged 5 and younger. HENRY is delivered across Sure Start children's centres across Southend, with staff undergoing training at the time of writing.

Aims and Objectives

The aim of the HENRY programme is to tackle childhood obesity for children under the age of 5 by helping children make positive, healthy changes to their lifestyle in a way that reduces their risk of obesity and obesity related diseases. Indirectly, the HENRY programme aims to promote healthy family lifestyles in the areas that they operate in by encouraging parents to also make positive changes to their own lifestyles which HENRY believe will help build healthier communities.

Activities

Healthy Families-Right from the Start with HENRY supports parents and their babies by identifying and focusing on the factors that are known to cause obesity in later life. The family programme works to address factors that have been found to cause obesity in an attempt to give babies and young children the best, healthiest start to their life.

Within the HENRY *Healthy Families* programme, there are two different forms that the programme can take; The HENRY Group Programme or the HENRY 1-to-1 Programme. The group programme is designed for parents and/or the carers of children, under the age of 5, to give them all the necessary tools, skills and knowledge that is required to introduce a healthy lifestyle into families and also to maintain the healthy lifestyle. The 1-to-1 programme is different in that it is a structured, targeted intervention that is aimed at those families with babies or young children who are deemed to be either at a real risk of obesity or who are already overweight.

The programme is delivered by local NHS health visiting staff and children's centre staff.

Availability

Intermittent availability across the wards due to different commissioning practices between SEPT and individual centres. Currently the Council funds HENRY in some wards, though there has been availability in all Better Start wards in recent years.

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[61] HENRY (2016) Overview of HENRY

[62] Gardner, D.S., Hosking, J., Metcalf, B. S. et al (2009) Contribution of early weight gain to childhood overweight and metabolic health: a longitudinal study, Paediatrics 123: 67–73

HENRY	Yes	No
Kursaal	✓	
Milton	✓	
Shoeburyness	✓	
Victoria	✓	
West Shoebury	✓	
Westborough	✓	

Impacts Delivered

An evaluation of the HENRY programme conducted by Willis et al. (2016)[63] found that the programme delivered highly positive impacts on the lifestyles of both parents and families who participated in the scheme. They found that the participant satisfaction of families who completed the programme was high with a total of 96% of participants stating that they felt either great (71%) or good (25%). Participants were also asked to rate their family health and from this data, scores rose significantly around the middle of the programme and continued to rise until the very end, which is a similar story to that of parenting scores. Parents reported greater ability to set limits in relation to different aspects of their children's behaviour and the parents reported a significantly enhanced well-being.

Another key finding from the evaluation was the improvement in positive eating for the family. This includes a reduction in the number of families who have the Television on during meal times, a reduction in the amount of families eating takeaway foods regularly, an increase in the number of families sitting down together for a meal or eating a home meal and improvements in the personal eating habits of the participants.

There were also significant changes in terms of the dietary intake observed for both parents and children with the frequency of consumption of fruit and vegetables increasing for parents and children as well as the parents reporting a reduction in the number of times in a day that their children consumed high fat and sugar foods. Similar positive changes were also found for other food groups including an increase in the frequency of eating rice, pasta, meat, fish, eggs etc. The number of parents eating at least five fruit or vegetables in a day experienced an increased from 14% to 33% whereas the number of children eating at least five-a-day doubled from 22% at the start of the programme to 44% by completion.

Finally, in terms of physical activity, there was an increased in the reported time spent engaging in physical acitvity for both parents and children with an increase in the number of parents getting at least the recommended level of 30 minutes physical activity per day rising from 56% at the start of the programme to 67% at the end. There was also a similar increase found for parents who managed one hour of physical activity a day, rising from 33% to 41%. In terms of the children, there was an increase in the amount of active play in children as well as a reduction in the amount of TV that children watched.

[63] Willis, T.A, Roberts, K.P.J, Berry, T.M, Bryant, M. and Rudolf, M.C.J. (2016) The impact of HENRY on parenting and family lifestyle: A national service evaluation of a preschool obesity prevention programme, Public Health. 2016 Jul; 136:101-8.

Research has found that this scheme has had an overall positive effect on family lifestyle, in addition to child well-being. The primary factor behind these positive results was the success of the 1-to-1 programme interventions that have helped change families attitudes towards their own lifestyle, and in some cases, their attitude towards their children's lifestyle.

Age Profiles

The HENRY programme is aimed at children who are between 0 and 5 years old and their parents, however the HENRY 1-to-1 family programme is specifically aimed at those families that have children who are either at risk of obesity, or who are currently overweight. The HENRY group programme targets not just parents and their children, but is also open to carers as well.

Eligibility

Depending on the programme, there are some eligibility criteria. For the group programme, only parents or carers that have or look after children under the age of 5 can participate. For the 1-to-1 programme, only those families who have a child, between 0 and 5 years, that is at risk of obesity, or is currently overweight are targeted.

Funding

The programme has been funded variously by the NHS and local authority depending on commissioning practices within individuals children's centres.

Healthy Schools Programme

Programme Background

The Healthy Schools Programme was introduced in 1999 as a joint Department of Health and Department for Education initiative with the goal of supporting schools in adopting a more hands-on approach in promoting the health and wellbeing of children and young people.

The Southend Healthy Schools Programme is a voluntary award programme with four areas of focus:

- Healthy Eating
- Physical Activity
- Personal social and Health Education
- Emotional Health and Wellbeing

Participating schools undertake a needs assessment and develop an action plan and then demonstrate achievement across the focus areas. 54 schools in the local authority area currently enjoy Healthy Schools Status.

Aims and Objectives

The main aims of the programme were to (Arthur et al, 2011[64]):

- Encourage and support young people to make healthier lifestyle choices
- Raise the standard of achievements among pupils
- Reduce the disparity of health among pupils
- Promote social inclusion

Impacts Delivered

According to the Enhanced Healthy Schools Stories 2014-15 report (Southend-On-Sea Borough Council, 2015[65]), schools in Southend-On-Sea have been implementing strategies to promote healthier lifestyles among their pupils in a number of different ways:

Our Lady of Lourdes Catholic Primary School conducted a survey in 2011 and identified that the majority of their pupils travelled to school by car and, in 2013, following P.E. assessments discovered that a large percentage of pupils were inactive outside of school. Following these findings, a decision was made to address these problems through a focus on:

- Increasing the number of extra-curricular clubs available to pupils
- Increasing the number of inactive pupils participating in physical activity
- Increasing the number of children travelling to school by foot, bike or scooter

In order to affect these changes the school put in place a number of interventions:

[64] Arthur, S., Barnard, M., Day, N., Ferguson, C., Gilby, N., Hussey, D., Morrell, G., Purdon, S. (2011) *Evaluation of the National Healthy Schools Programme: Final Report*

[65] Southend-On-Sea Borough Council (2015) *Enhanced Healthy School Stories 2014-15*

- Assemblies were held to award children for walking and cycling to school
- With the support of Cycle Southend, the school established a whole school initiative to teach children how to ride a bike
- The schools runs and participates in a variety of training events, bike maintenance clubs and 'Bike It' safaris aimed at encouraging children to cycle to school
- As of June 2015, the proportion of children travelling to school by foot, bike or scooter increased from 17% to 65%.
- The number of extra-curricular clubs was increased from 5 to 15 and in January 2014 **Change 4 Life** initiative leaflets were distributed to pupils to bring home

UNICEF Baby Friendly Initiative

Programme Background

UNICEF UK's Baby Friendly Initiative (BFI) is a global accreditation programme for maternity and health visiting services to support breastfeeding and mother-child relationships, introduced in 1994 to tackle low rates of breastfeeding initiation and prevalence and to support evidence-based policy responses.

BFI provides a framework for the implementation of best practice by NHS trusts, other health care facilities and higher education institutions. Facilities and institutions that meet the required standards can be assessed and accredited as Baby Friendly. In recent years, Southend University Hospital has worked to upgrade its baby friendly accreditation standards, with accreditation upgrades in both neonatal and maternity units.

Aims and Objectives

The key aim of the BFI standards is to promote breastfeeding and maximise the proportion of babies that receive breastfeeding. The goal is for the standards to assist evidence-based care provision as well as implementation of high quality care.

The rationale for the initiative relates to sub-optimal rates of breastfeeding, as well as differences in breastfeeding initiation between different socioeconomic and demographic groups: breastfeeding plays a key role reducing health inequality and improving child health and development outcomes, and mothers from lower socioeconomic backgrounds are less likely to breastfeed,.[66]

BFI requires that a number of unit-based activities which support breastfeeding must be met across three stages in order to meet assessment standards and achieve accreditation:

UNICEF UK – BFI Accreditation stages
Stage One – Foundation

[66] UNICEF UK, The Evidence and Rationale for the UNICEF UK Baby Friendly Initiative standards, 2013

- Written policies and guidelines
- Outline education programme for staff to assist implementation of policies and guidelines
- Processes for implementing, evaluating and auditing standards
- Ensured non-promotion of breastmilk substitutes.

Stage Two – Educated Workforce

Practical education for staff to implement standards according to their role and the services they provide.

Stage Three – Parent experience

Parent experience across four areas:

- Maternity services (pregnancy support, breastfeeding support, child relationship support)
- Neonatal units (breastfeeding and parent support services)
- Health visiting / public health services (breastfeeding and relationships enablement & support)
- Children's centres (breastfeeding and parent support services)

Source: UNICEF, Guide to the Baby Friendly Initiative standards

Funding and Timescale

The estimated cost per maternity facility of achieving 'baby friendly' accreditation are given in Figure 6.1 below.

Figure 6.1: Cost per facility / institution to achieve BFI accreditation

	Typical cost for maternity	Typical cost for community	Typical cost for university
Accreditation			
Implementation visit	£950	£950	n/a
Stage 1	£810	£810	£810
Stage 2	£3,150	£3,150	£2,700
Stage 3	£4,150	£4,150	n/a
Training			
Breastfeeding / relationship building	£5,600	£5,600	n/a
Place on Train-the-Trainer course	£690	£690	£690
Place on project management course	£405	£405	n/a
Place on audit workshop	£260	£260	n/a
Item			
Audit Tool	£290	£290	n/a

Source: UNICEF: Renfrew et al 2013. Prices given = 2012 prices.

NICE's costed guidance recommends the use of BFI standards as a minimum across all providers of care, including hospital, primary, community and children's centre settings. NICE postnatal guidelines suggest that

investment costs for BFI accreditation begin to be recovered after implementation of Stage 3, with a return on investment realised after 15 years.[67]

A UNICEF-commissioned report estimated that breastfeeding increases resulting from successful implementation of standards could lead to a 5% reduction in childhood obesity, equating to a UK-wide saving of £1.6m.[68] Cost-per-QALY savings were produced using estimated rates of prevention of key diseases as a result of improved breastfeeding rates, which the authors believed to be highly conservative estimates.

Change 4 Life

Programme Background

Change 4 Life is a government marketing campaign aimed at reducing obesity through encouraging healthier nutrition and lifestyles. Launched in England in 2009, the campaign initially focused on 5-11 year olds, but in recent years began to target 1-4 year olds (Early Years) and new parents with babies (Start4Life), as well as those most at risk of weight gain (disadvantaged community, target ethnic minority communities).[69]

Aims and Objectives

Change4Life's latest major campaign saw the introduction of the 'Sugar Smart' smartphone application, providing rapid access to food and drink sugar-level information.

Start 4 Life is a sister programme of Change 4 Life aimed at pregnant mothers and children aged 0-2. Similar to Change 4 Life, by signing up, members will receive emails, texts and videos on a weekly basis with help and advice needed during pregnancy, birth and the early stages of parenthood. Adults can also subscribe to free texts and emails with 'how to' guides giving them healthy eating advice and recommendations about healthy activities. As well as this, parents have access to a range of online resources such as recipes, nutritional information and ideas for physical activity.

Change 4 Life is delivered in Southend with Active Southend.

Impacts Delivered

Currently over 2.7 million people are registered with Change 4 Life.

A year after implementation of the programme, the British Market Research Bureau published findings that indicated over 1 million mothers had made changes to their children's diets based on joining Change 4 Life[70].

As of April 2014[4]:

- Change4Life delivered 300,000 million personal activity plans, 500,000 Meal Mixers and over a million people downloaded Change4Life apps

[67] NICE 2006, Postnatal care: routine postnatal care of women and their babies. Clinical guideline 37

[68] Renfrew et al, Preventing disease and saving resources: the potential contribution of increasing breastfeeding rates in the UK,

[69] Department of Health (2009) Change 4 Life Marketing Strategy

[70] Department of Health (2010) Change 4 Life One Year On

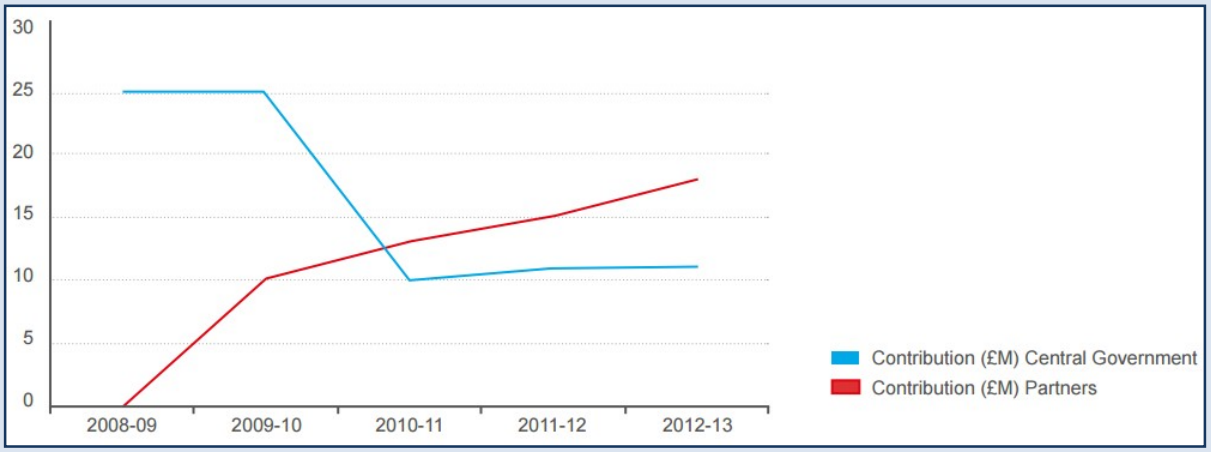
- 220,000 primary school children participated in sport as part of the Change4Life Sports Clubs in schools
- Over 200 national organisations collectively provided £51.5 million of support to the programme
- Over 70,000 local supporters, including schools, general practices, charities and leisure centres joined the programme
- 56% of community venues (such as schools, general practices, hospitals, leisure centres and town halls) display Change4Life materials
- The campaign has garnered over £90 million of free media coverage and it is estimated that Change4Life and its partners have saved £13 million since 2009

Funding and Timescale

The programme began in January 2009.

In 2014-2015 Public Health England allocated approximately 17.5% of their £53 million total core budget to Change 4 Life[71]. Approximately 4% of the total core budget was allocated to Start 4 Life.

The annual budget is approximately £10 million and £51.5 million of commercial sector funding.



Source: http://www.nhs.uk/Change4Life 1

More Life UK

[71] Public Health England (2014) Public Health England Marketing Strategy 2014-2017

Programme Background

More Life was founded by Professor Paul Gately and delivers evidence-based and cost-effective weight loss programmes and weight management services. More Life also seeks to raise awareness about obesity and support people in making sustainable changes to their lives. Formerly called Carnegie Weight Management founded in Leeds Metropolitan University in 1993.

Aims and Objectives

More Life UK are dedicated to delivering weight management and health improvement programmes to individuals, families, local communities and within workplaces. The main focus of More Life is to tackle the problem of obesity by raising awareness and inspiring people to take action. More Life deliver personalized weight management services to children and adults across the England.

Age Profiles

More Life clubs are available in Southend to Children aged 5-16 and give children the opportunity to lose weight through physical activity in different settings including family clubs and holiday clubs. Family Clubs are available for children aged 5-10 and 11-16 and similarly holiday clubs are run over the summer holidays available to children aged 5-16. The most recent family club was run at Southend Leisure & Tennis Centre, Garon Park in Southend and started Wednesday 27th April and each club session runs for 11 weeks, 2 hours per week.

APPENDIX 6

The three stages of the conception to age 3 care pathway outlined in the Better Start Strategy's Implementation Plan.

1 - Conception to birth

- Everyone has access to complete, accurate, up-to-date, high-quality information, decision support, and education to help ensure that they feel emotionally and psychologically prepared to make decisions and be a prepared to be a responsive parent. This includes full implementation of the *Preparation for Birth and Beyond framework*, including offering antenatal classes delivered by a variety of providers to ensure that evenings and weekend sessions are available. These classes will be held with smaller numbers (currently there can be up to 30 couples in a class) to encourage peer friendships, and therefore enable informal peer support, to develop. Each course will include a separate session for mothers and for fathers/partners so that they can thoroughly explore the impact a baby will have on their relationship and discuss any topics they may have felt unable to cover in front of their partners.
- Each pregnant woman receives personalised coaching and has access to high-quality resources to maximise maternal health including improved nutrition and exercise for optimal wellness during her pregnancy, with good emotional wellbeing.
- Care of the woman will include offering a room in hospital for fathers/partners to promote the attachment process and care delivery.
- Care during pregnancy acknowledges the social context in which pregnancy occurs for each woman and includes opportunities for social networking and access to adequate professional and peer support during pregnancy.

2 - Postnatal period and transition to health visiting

- Mothers, babies and fathers/partners routinely stay together, skin to skin, receiving evidence-based care, support, and minimal disruption in the minutes and hours after birth to promote early attachment and the initiation of breastfeeding, whenever neither requires specialised care at this time.
- Each woman, baby, and family receives care that effectively addresses their needs starting in the immediate postnatal period, and extending seamlessly forward across time, settings and disciplines to anticipate and respond to both continuing and new-onset mental, physical, and social needs that may develop throughout the first year of life and beyond.
- Each woman receives strong support for breastfeeding through a variety of community-based resources.
- Employers in Southend will be encouraged to develop workplace policies which support breastfeeding women.
- Parents receive strong support for parent–baby attachment that includes educational offerings, learning opportunities, and peer group support.
- Each woman has adequate help to cope with the challenges of the period after birth, including physical health, shifting priorities, changes in primary relationships, isolation, mother–baby co-dependence, and postnatal depression and other mood disorders. Fathers/partners will not be excluded from this knowledge and every effort will be made to

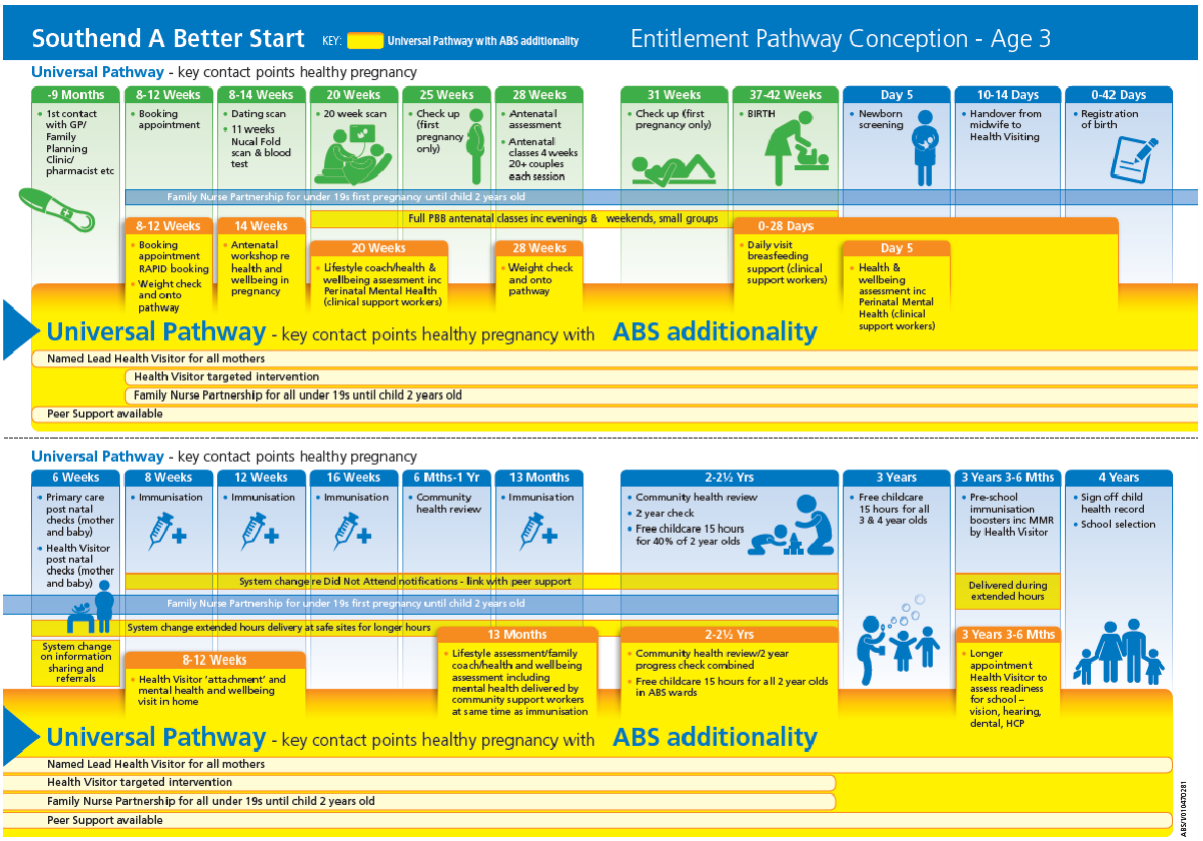
include them. Care at this time includes opportunities to connect with people and services through innovative mechanisms and delivery models that emphasise community and social networking, and facilitate the development of longitudinal supportive relationships.

- Each woman receives practical support at home as needed to cope with increased demands after birth and to develop confidence in her competence as a new mother. Each woman has access to social support, health care services and information, and practical advice and assistance in the period after birth. This helps to ensure that each woman is valued and supported by the community in her role as a new mother. Again, this will not be done in isolation. Where fathers/partners are around they will be fully respected by professionals and included at every possible and appropriate opportunity.

3 - Healthcare in the early years

- Families will have a 'family friendly' primary care experience as a result of training in The Southend Way and changes to more flexible delivery times and places.
- Contact such as for immunisations will be used by services as an opportunity to maximise key messages and delivering services with the parent in situ.
- We will be developing a joint Health Development Check and EYFS Two Year Progress Check. To facilitate this we will phase in 15 hours of free childcare to all 2 year olds in the Better Start wards, starting with offering the last term and extending if places are available.
- Currently teachers tell us that their teams are spending time changing nappies and encouraging children who are dependent on their dummies and are not verbally communicating well and emotionally not ready to stop using this as a comfort. We will give advice and guidance to families about potty training, stopping dummy use etc. so that children are ready for school.
- Evidence and Science-based programmes to promote communication and language development, healthy diet and nutrition and emotional wellbeing will be delivered to childcare professionals as well as parents so that similar messages are being received. An early years specialist teacher will support links between education and health services and this will help children be ready for school.

Current and planned pathways for healthcare under A Better Start



APPENDIX 8

The Better Start Implementation Plan for Southend outlines the current (2014) services provided to support diet and nutrition:

A mother's diet affects not only the short-term health of her baby, but long-term health as well.

Healthcare professionals with shared management and contact, should actively discourage smoking, alcohol consumption and illicit drug use, and encourage healthy eating habits and proper nutrition to improve pregnancy outcomes. If a woman follows sound dietary guidelines and minimises other lifestyle risks, she will have done her best to create a healthy infant.

When given advice to eat well, gain the proper amount of weight, take prenatal vitamins and abstain from alcohol, drugs and cigarettes, these women will have a lower incidence of low birth weight babies and less adverse outcomes in pregnancy. It is crucial that healthcare professionals across the 0-3 pathway, take an active role to help women improve their nutritional status to ensure the optimal health of their babies.

Appropriate weight gain is critical to a good pregnancy. Nutrition and weight gain recommendations for overweight and obese women are needed to prevent poor pregnancy outcomes for both mother and baby, as this problem has been growing over the years.

Complications of excessive weight gain include:

- Gestational diabetes
- Gestational hypertension
- Preeclampsia
- Cesarean delivery
- Large-for-gestational-age babies
- Congenital anomalies
- Short- and long-term health of the baby8,9

Poor diet during pregnancy is linked to poor pregnancy outcomes, but they also may be linked to diseases such as hypertension, heart disease, stroke and diabetes later in the child's life.

Lower socioeconomic groups have a larger percentage of poor maternal nutrition, but socioeconomic status alone does not ensure an adequate diet.

The increasing trend in obesity in families is reflected locally particularly with maternal weight gain in pregnancy and childhood obesity

Maternal obesity is of particular concern as pregnant women and babies are at higher risk for adverse health outcomes and as a result need more specialist input and resources.

The priorities for this work area are:

- Identifying and addressing obesity in pregnancy
- Improving maternal nutrition
- Improving parental knowledge and skills in infant nutrition
- Ensuring appropriate housing for infants and young children to enable good nutrition

- Breastfeeding and infant feeding strategy from conception to age 3 including UNICEF *Baby Friendly Initiative*
- Universal Tier 1 lifestyle programmes e.g. *Health Exercise Nutrition for the Really Young (HENRY)*

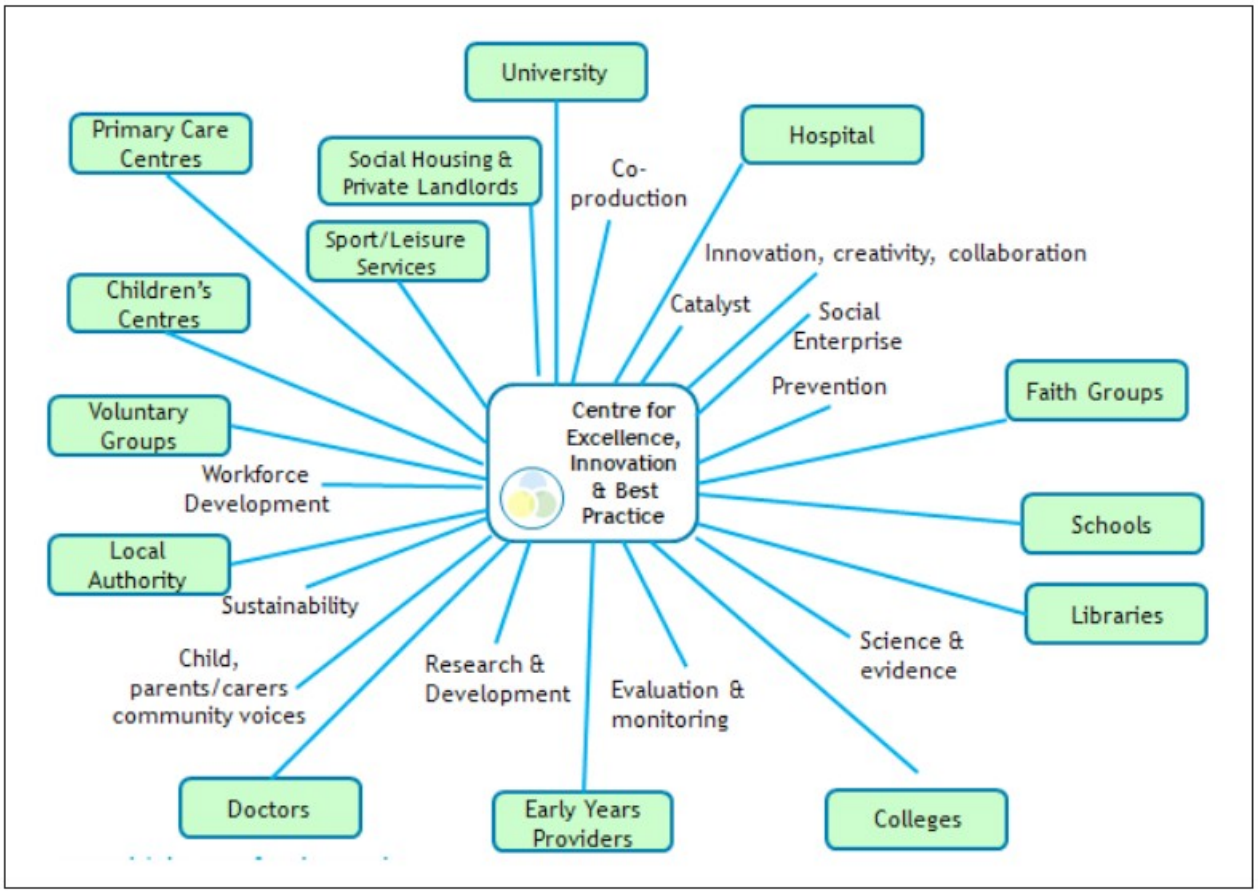
Families sometimes do not have sufficient physical resources to cook and this will be discussed at booking in and other appointments. Cooking classes will be offered and these will include family learning.

Breastfeeding will continue to be encouraged. The hospital and community provider are awaiting assessment for Stage 2 UNICEF Baby friendly accreditation. We will be working with local Children's Centres to ensure the work through the stages of accreditation, and will be rolling out a Southend Breastfeeding *Welcome Scheme* for businesses.

Breastfeeding support workers will contact mothers every day for the first 28 days to encourage and help with any problems such as latching on. This scheme was successful in improving sustained breastfeeding rates when recently piloted in a small area of Southend.

Families will be encouraged on the *Health Exercise Nutrition for the Really Young (HENRY)* programme which aims to tackle obesity in children by following guidance from the Healthy Child Programme.

New service delivery spaces and the Centre for Excellence



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