Swale Borough Council Core Strategy
Rapid Health Impact Assessment

September 2010
Contents

Overview of purpose of Health Impact Assessment (HIA) ...................................................... 5
What is health impact assessment? ............................................................................................ 6
HIA and health equity .................................................................................................................. 12
What scenario this health impact assessment is trying to prevent – the characteristics of social exclusion .................................................................................................................. 13
Details of Core Strategy Spatial Options .............................................................................. 17
Option 1 .................................................................................................................................... 19
Option 2 .................................................................................................................................... 21
Option 3 .................................................................................................................................... 23
Option 4 .................................................................................................................................... 26
Health Impact Assessment of all four options ....................................................................... 29
Type of HIA and project management ....................................................................................... 30
How can this HIA be used in relation to the agreed Core Strategy throughout the strategic period? .......................................................................................................................... 30
Core Health Improvement Issues through local planning policy irrespective of option .......... 33
Travel and Mobility .................................................................................................................... 34
Economic Development and Employment ............................................................................... 35
Tourism ....................................................................................................................................... 35
Building for Life ........................................................................................................................ 38
Homes for wheelchair users ...................................................................................................... 38
Integration and co-location of facilities .................................................................................. 38
Town Centres – General .......................................................................................................... 38
Sittingbourne Town Centre and Milton Creek Health Impact Assessment ........................... 39
Adaptable Buildings .................................................................................................................. 40
Community Cohesion ............................................................................................................... 40
Planning and design of new developments ........................................................................... 41
Educational Provision ............................................................................................................. 43
Health Facilities ....................................................................................................................... 44
Open Spaces and Recreation .................................................................................................... 44
Infrastructure ............................................................................................................................. 45
Infrastructure – Green ............................................................................................................. 45
Infrastructure – Waste management ....................................................................................... 47
Infrastructure – Flood risk ...................................................................................................... 47
How planning policy can exacerbate but also reduce inequalities in health ...................... 49
Introducing unequal areas and health inequalities ................................................................. 51
Evidence of the built environment and health inequalities .................................................. 52
Disadvantaged areas and poor health ..................................................................................... 53
Evidence of planning interventions that work to reduce health inequalities ....................... 54
Rapid Health Impact Assessment on detail of draft Swale Core Strategy ............................. 55
How can planning policy within the Borough be employed to improve health?........71
Appendix 1 - Area and Community Profile for the Borough of Swale .....................79
   Mosaic Public Sector – Kent and Medway groupings by location.......................... 80
   Indices of Multiple Deprivation (IMD) ..................................................................... 93
   Main causes of death in Swale - 2008 ...................................................................... 102
References ..................................................................................................................113
Overview of purpose of Health Impact Assessment (HIA)
Local planning policy can have a profound effect on the factors that influence health. In turn, health is important for the wellbeing of individuals and society and a healthy population is also a pre-requisite for economic productivity and prosperity. A population’s health is not an issue of health policy alone. A high level of human health protection can be assured in the implementation of all the Council’s policies and activities.

Health is important in the issue of growth and jobs, emphasising the links between health and prosperity. There is an association between health status, land use, transport planning and resource planning. A citizen’s agenda recognises people’s rights to be empowered. Major incidents pose potential threats to population health. Climate change is a major threat to existing health status. Over the strategic period for which the Core Strategy spans, demographic changes including population ageing requires promoting health across the lifespan, with the aim of preventing health problems and disabilities from an early age. Tackling inequalities in health is linked to socio-economic and environmental factors.

Swale Borough Council is developing a Core Strategy, part of the portfolio of policies that constitute its Local Development Framework (LDF). The Core Strategy is the Council’s overarching policy statement that will guide future planned development in the Borough to the year 2031. To that end, four options have been prepared with a spatial focus. All four options are predicated on a planning development model that plays up the necessary changes in the physical environment but downplays the human and health dimensions. One of the key tasks of the HIA is to re-balance this discourse.

Accordingly the HIA is structured on the following basis:

- A range of planning issues that are health promoting and which need to be addressed regardless of which option or combination of options is eventually adopted by the Council as the local planning authority;
- A broad assessment of each of the four options in turn, highlighting specific population groups that might be affected, the benefits and dis-benefits of each option and to the remedial measures that should be put in place to mitigate the dis-benefits to health status;
- A profile of the main determinants of health of the existing population within the Borough of Swale (appendix one).

**What is health impact assessment?**

**Definition and process**

The World Health Organisation defines health impact assessment as:
‘A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population and the distribution of effects within the population’.

Thus HIA is a flexible tool that uses a mixture of qualitative and quantitative methods within a now well accepted process and (usually) using a health determinants framework for identification of impacts. Most guides describe a five or six stage process that includes:

- Proposal analysis and screening;
- Scoping/agreeing terms of reference for the HIA;
- The appraisal – based on qualitative and quantitative methods;
- Developing suggestions for enhancing potential positive health impacts and mitigating potential negative health impacts;
- Working with decision makers with respect to implementation;
- Monitoring and evaluation;
- Health impact assessment offers a process for appraising potential health impacts – both positive and negative – on health and wellbeing and for suggesting ways to address these;

Objectives

HIA objectives are to:

- Inform decision makers about the potential positive and negative health and wellbeing impacts of a policy, programme or spatial plan (in this case the AAP);
- Suggest ways to minimise potential negative health impacts and maximise potential positive health impacts;
- Highlight the potential differential distribution of health impacts among specific vulnerable groups.

Policy Context

In the European Union, Article 152 of the Amsterdam Treaty stated that:

“A high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities”.

The Council Resolution, June 1999, called for monitoring of the impact of policies and activities on public health.

In a recent review of health inequalities the Department of Health stressed the importance of considering how health impact assessments could be used more systematically and consistently. Development of local policies and approaches to assessing health impacts can support this aim.
Processes such as Strategic Environmental Assessment (SEA) or Sustainability Appraisal (SA) must be carried out on all spatial development plans and programmes in EU member states in fulfilment of the obligations of the European SEA Directive. There is a view that health impacts are adequately addressed in well conducted environmental assessments. Furthermore the EU directive explicitly states that human health impacts must be considered as part of SEA, leading some practitioners to assume that health is adequately covered by SEA. Others have argued that environmental, health and other impact assessments should be integrated. In practice, however, environmental impact assessments should be a narrow or incomplete view of health. Furthermore, they rarely address health impacts with reference to the profile of the local population and vulnerable groups within it. Fischer (op cit) points out that the proponents of HIA and EIA come from different disciplines with differing conceptual frameworks. HIA, conducted in the context of openness and partnership between decision makers from health and planning, can foster dialogue such that locally appropriate processes for considering health impacts in spatial planning can be developed. HIA enables recognition of the responsibilities of a wide range of partners for health and wellbeing.

Definition of health

HIA takes a broad view of health – one which incorporates social factors and wellbeing and is defined by the World Health Organisation as:

‘A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity’.

In accepting this broad definition, HIA recognises that a wide range of factors can influence individual health. These are known as ‘determinants of health’. They include:

- Individual biological factors such as genetic make-up, age, sex and ethnicity;
- Lifestyle and behaviour choices such as nutrition, exercise, smoking, drug/alcohol use and health seeking/self care behaviours;
- Social and environmental factors such as air quality, education, employment, housing, transport, access to green spaces and social support;
- The policy context which influences broad socio-economic and socio-cultural conditions such as access to and distribution of goods and services.

In their classic model of health determinants, Dahlgren and Whitehead illustrate these broad domains and the relationships between them as follows:
The relationships between health determinants are complex. For example, whilst there is a direct link between environmental determinants like air quality and respiratory illness, education impacts on health indirectly through opportunities for employment and material prosperity. Material prosperity has a major determining influence on our environmental living conditions – and ultimately the likelihood that we will have respiratory illness or a range of other health outcomes.

**Wellbeing**

Wellbeing is one of our most important ends, as individuals and as societies. However, data shows that whilst economic output in the UK has nearly doubled in the last 30 years, happiness levels have remained flat\(^\text{11}\).

Psychological or emotional wellbeing has been defined as follows:

‘Wellbeing is about being emotionally healthy, feeling able to cope with normal stresses and living a fulfilled life. It can be affected by things like worries about money, work, your home, the people around you and the environment you live in. Your wellbeing is also affected by whether or not you feel in control of your life, feeling involved with people and communities and feelings of anxiety and isolation\(^\text{12}\)’.
Psychological factors are receiving increasing attention in HIA both as determinants of health outcomes as defined in a biological model of health and as health outcomes in their own right\textsuperscript{13}. Psychological constructs such as stress and depression are thought to have a direct effect on biological systems that increases the risk of negative health outcomes such as cardiovascular disease, stroke and diabetes\textsuperscript{14}. The relationship is reciprocal with poorer biological health leading to poorer emotional health. Psychosocial factors may also indirectly influence biological health outcomes through their impact on health behaviours such as smoking and physical exercise. Individual factors that have been associated with psychological health status include self-esteem, aspiration, sense of control, belonging and identity. Socio-cultural factors such as personal support and relationships, isolation, discrimination and inclusion, are likely to have a modulating effect (positive or negative) on these individual factors\textsuperscript{15}. They may, in turn, be associated with biological factors – age, gender, ethnicity and disability.

A commonly used definition of mental health is that produced by the Health Education Authority in 1997:

‘Mental health is the emotional and spiritual resilience which allows us to enjoy life and to survive pain, disappointment and sadness. It is a positive sense of wellbeing and an underlying belief in our own and others’ dignity and worth’.

Mental health problems impair a person’s thinking, feeling and behaviour and may affect up to one in four of the population. The stigma of mental illness often has serious and disabling impacts on individuals and families. Action can be taken at all levels – individual, community, organisational and structural – to increase protective factors for mental health and wellbeing and reduce risk factors for mental ill health.

The WHO\textsuperscript{16} recognises that:

‘Mental health and wellbeing are fundamental to quality of life, enabling people to experience life as meaningful and to be creative and active citizens. Mental health is an essential component of social cohesion, productivity and peace and stability in the living environment, contributing to social capital and economic development in societies. Public mental health and lifestyles conducive to mental wellbeing are crucial to achieving this aim. Mental health promotion increases the quality of life and mental wellbeing of the whole population, including people with mental health problems and their carers. The development and implementation of effective plans to promote mental health will enhance mental wellbeing for all’.

**HIA and sustainability**

Egan\textsuperscript{17} defines sustainability as follows:

‘Sustainable communities meet the diverse needs of existing and future residents, their children and other users, contribute to a high quality of life and provide opportunity and
choice. They achieve this in ways that make effective use of natural resources, enhance the environment, promote social cohesion and inclusion and strengthen economic prosperity.

The objective of sustainability in spatial planning reinforces the imperative to include a rigorous HIA either separately or as part of SEA or SA. The interdependence of health and sustainability – where poor health is associated with socio-economic deprivation and degradation of the environment and deprivation leads to poorer health – creates a vicious cycle. HIA aims to propose potential actions towards a more virtuous cycle, summed up by Barton et al\(^{18}\) as follows:

‘A healthy neighbourhood, with equity of access to housing, work, local facilities, good food, green environment, safe streets, exercise and diverse social opportunities, together with a concern for the wellbeing of future generations, is likely to be a sustainable neighbourhood’.

Sustainability entails the integration of the objectives of ecological sustainability, economic vitality and health and quality of life.

![Diagram showing the integration of ecological sustainability, economic vitality, and health and quality of life.](source: Hugh Barton, Marcus Grant and Richard Guide. Shaping Neighbourhoods: A guide for health sustainability and vitality, Chapter 1, Figure 1.1)

The framework used in the SA for the AAP covers a number of areas in common with this HIA. However, the outcomes of the two processes are different in emphasis. The HIA pays greater attention to social, quality of life and healthy lifestyle concerns while the SA places greater emphasis on environmental and ecological concerns.
Sustainability is closely associated with equity. The UK’s sustainable development strategy ‘Securing the Future’ sets out its aims:

‘To live within environmental limits and achieve a just society’.

**HIA and health equity**

HIA has long been recognized as an important tool in addressing health inequalities:

‘**As part of health impact assessment, all policies likely to have a direct or indirect impact on health should be evaluated in terms of their impact on health inequalities and should be formulated in such a way that by favouring the less well off they will, wherever possible, reduce such inequalities**’ (The Acheson Report, Recommendation1)\(^{19}\).

Intrinsic to HIA is the view that the distribution of positive and negative health impacts among diverse groups in the community is as important as the impacts themselves. The association of HIA with health determinants implies a definition of health inequalities which focuses on fairness of the opportunities that people have to achieve positive health outcomes. From this standpoint:

‘**Equity in health implies that ideally everyone should have a fair opportunity to attain their full potential and more pragmatically, that no one should be disadvantaged from achieving this potential if it can be avoided. Based on this definition the aim of policy for equity and health is not to eliminate all health differences so that everyone has the same level of health, but rather to reduce or eliminate those which result from factors which are considered to be both avoidable and unfair. Equity is therefore concerned with creating opportunity for health and with bringing health differentials down to the lowest levels possible**’. Margaret Whitehead, cited in\(^{20}\)

More recently, in its 2008 review of health inequalities (see \(^{13}\)) the Department of Health has stressed the importance of cross-departmental work:

‘**To ensure that all programmes are focused on tackling inequality and that the impact on health inequalities of each programme is understood**’.

The objective of addressing potential impacts on health inequalities through HIA is pursued to a greater or lesser extent in most HIAs. At the heart of this are two processes:

- A community profile that enables an assessment of the potential differential impacts on diverse members of the community – and in particular the most vulnerable. At its best, the community profile draws not only on quantitative
datasets but also on local qualitative information about the most excluded groups in the communities affected.

- Engagement with the communities affected to gain direct insight into their experiences of health impacts and their opinions (based on their life experience) of what the future impacts might be. These insights form part of the evidence-base and are given equal consideration alongside evidence derived from the research literature. Community engagement also underpins the democracy value\textsuperscript{21} of HIA.

The Australasian Collaboration for Health Equity Impact Assessment (op cit) has developed a strategic framework to assess the health inequalities impacts of policies and plans through ‘Equity Focused HIA’. This gives primacy to health equity through explicit and concerted focus at every stage of the HIA process. Approaches which consider ‘who will benefit’? are considered to be using an ‘equity lens’. This HIA attempts to consider ‘who will benefit’? with reference to a community profile and the views of local stakeholders. Our aim is to apply an equity lens to the appraisal.

**What scenario this health impact assessment is trying to prevent – the characteristics of social exclusion**

Whilst the expression is unfashionable and some would argue politically loaded, social solidarity is crucial to the future of any place. Health and specifically population health, is a factor in solidarity. Poverty is a euphemism for social exclusion. How social exclusion occurs is illustrated by the model below.
This model derived from Donnison (1999) describes a process in four stages – though the reality is rarely as elegant as this. Stage one is driven by major economic change. This can for example be the closure of a major source of employment, some closure event that reflects a long term decline in a local economy (such as the decline in the two week British seaside holiday) or a significant structural downturn in the economy. The immediate effect (stage two) is rising unemployment which leads to increased poverty. Older established workers opt out of employment and in the short term public spending has to increase. Because of the demands on such expenditure, all governments have to put in place the means to restrict this through measures such as means testing. Substitute jobs often are less established, reflect different employment patterns, are less secure and frequently part time.

By stage three, there are growing concentrations of poverty. Those that can, move out of the area, with a consequential effect of causing the local economy to decline still further. This places increased pressure on the existing services, there is less emphasis placed on prevention as demands for resources require a focus on treatment and care services. One consequence of the decline in local businesses is a corresponding increase in the so-called ‘black economy’.

The effect of the earlier stages (stage four) is to place additional and in some cases excessive burdens, upon the family unit. Many families will of course cope but for many the cumulative effect of social exclusion results in significant concentrations of people in relative deprivation evidenced by predictable increases in educational failure, educational under-performance, poor aspirations, school exclusions, additional crime, increased addictions, rent arrears, difficult neighbours, increased single parent families and children in need, teenage pregnancy, homelessness – all of which ultimately impact on health status but personally and at a population level.

Powerlessness and social exclusion, unemployment and poverty, violence and crime, are public health issues. Put together an effective programme for resisting and reversing these evils, creates social capital. Because ill health in England is so closely related to poverty, inequality and the break-up of families brought about by hardship and long term unemployment, any discussion of planning policy to improve health, must deal with the broader canvas of social capital.

Where significant pockets of relative deprivation are to be found (in Swale there are a number of these) investment for the purposes of regeneration seeks to address the challenge of turning these communities around. We cannot however prescribe a single programme of action which will suit every case. The social divisions and inequalities which have become pronounced during the past generations have created deep divisions, not only between individuals and social groups, but also between neighbourhoods and towns. So each place has different needs and problems calling for different solutions. There is no set formula that can reverse this.

It is necessary in each case to profoundly understand the kind of places affected by social exclusion. If there has been a huge loss in skills opportunities, especially for
traditionally unskilled men, then emphasis should be placed on remedies that address the supply side of the local economy (ie training).

It is also important to recognize that too often the State and its instruments of the local public sector, is responsible for causing some of these difficulties, particularly where proposed changes or indeed long term policies (in this instance proposed local long term planning policy) do not adequately take account of the impact that proposed change will have on the quality of life of the people who are to be affected. Remedies must also involve the participation of people on whom local policies will impact.
Details of Core Strategy Spatial Options
Option 1 – Planned housing scenario (urban regeneration focus) and lower employment growth scenario

**Key Characteristics**

a) Housing growth at SEP rates 10,800 to 2026 extended to 2031 by pro-rate = 13,500 units, leaving 4,500 to identify via option.
b) Thames Gateway focus.
c) Housing provision primary focus upon main urban areas including urban regeneration locations, but also recognize need/role of urban extensions.
d) Employment provision aimed at delivery existing quantitative commitments as indicated by Employment Land Review to broadly meet lower growth scenario of 415,000m².
e) Expansion of Kent Science Park within existing capacity.
f) Completion of Sittingbourne Northern Relief Road.
g) At Faversham, meet town’s needs from within existing urban framework.
h) Rural areas to meet localized development needs as set out in Core Policy.

**Main Features**

a) Re-assessment of housing, retail and leisure urban regeneration opportunities in central Sittingbourne to search for circa 1,000 homes, circa 35,000m² retail and leisure, together with search for further urban housing opportunities at Queenborough (circa 1,000 homes).
b) Search for housing site(s) for circa 2,500 homes at Sittingbourne and/or Minster/Halfway.
c) Community facilities associated with ‘a-b’ above.
d) Green infrastructure provided by Country Park at Milton Creek, habitat creation on eastern Sheppey and the creation of accessible, natural green space associated with 2,500 dwellings at one or more locations.
e) Circa 397,800m² of existing employment commitments delivered (circa 180,500 at Sittingbourne, 143,000 at Sheppey and 74,400 at Faversham.
f) Expansion of Kent Science Park by circa 7,000m² (2 hectares) but limited to transport constraints.
g) Completion of Sittingbourne Northern Relief Road to A2.
h) At Faversham deliver outstanding employment commitments, with no new land identified for housing, unless able to support delivery or urban regeneration and employment objectives. Regenerate Faversham Creekside.
i) No sites identified at rural settlements.
Option 2 – Planning housing scenario (urban regeneration and larger rural centres focus) and delivery of current employment land provisions

Key Characteristics

a) Housing growth at SEP rates 10,800 to 2026 extended to 2031 by pro-rata = 13,500 units, leaving 4,500 to identify via option.

b) Thames Gateway focus.

c) Housing provision primary focus upon main urban areas including urban regeneration locations but with additional housing provision at larger village centres to support/expand their sustainability.

d) Employment provision aimed at delivering existing quantitative commitments as indicated by Employment Land Review to meet lower growth scenario of 415,000m².

e) Expansion of Kent Science Park within existing capacity.

f) Completion of Sittingbourne Northern Relief Road.

g) At Faversham, meet town’s needs from within existing urban framework.

h) Remaining rural areas to meet localized developments needs as set out in Core Policy.

Main Features

a) Re-assessment of housing, retail and leisure urban regeneration opportunities in central Sittingbourne to search for circa 1,000 homes, 34,000m² retail and leisure), together with search for further urban housing opportunities at Queenborough (circa 1,000 homes).

b) Search for greenfield housing site(s) for circa 2,500 dwellings and supporting employment distributed between one, some or all of the following larger village centres: Eastchurch, Leysdown, Iwade, Newington, Teynham and Boughton Street (minor provision reflecting non-Thames Gateway location).

c) Community facilities associated with ‘a-b’ above.

d) Green infrastructure provided by Country Park at Milton Creek, habitat creation on eastern Sheppey and the creation of accessible, natural green space associated with 2,500 dwellings at one or more locations.

e) Circa 397,800m² of existing employment commitments delivered (circa 180,500 at Sittingbourne, 143,500 at Sheppey and 74,400 at Faversham).

f) Expansion of Kent Science Park by circa 7,200m² (2 hectares) but limited to transport constraints.

g) Completion of Sittingbourne Northern Relief Road to A2.

h) At Faversham, deliver outstanding employment commitments, with no new land identified for housing unless able to support delivery or urban regeneration and employment objectives. Regenerate Faversham Creekside.

i) No sites identified at rural outside key rural settlements in ‘b’ search areas above.
Option 3: South East Plan housing with higher growth employment scenario
Option 3 – Planned housing growth scenario (urban regeneration focus) with employment led, higher growth employment scenario

Key Characteristics

a) Housing growth at SEP rates 10,800 to 2026 extended to 2031 by pro-rata = 13,500 units, leaving 4,500 to identify via option.
b) Thames Gateway focus for employment led development supported by housing.
c) Housing provision primary focus upon main urban areas including urban regeneration locations, but also urban extensions and key village locations where close to employment opportunities.
d) Employment provision at higher growth scenarios to provide 595,000m² (197,161m² net not including ‘e-f’ below) resulting in 27,940 net jobs capacity (including ‘e’ below).
e) Major expansion of Kent Science Park included in net job figure in ‘d’ including focus on new and emerging markets.
f) Expansion of Port of Sheerness for employment purpose (not included in new job figures) including focus on new and emerging markets.
g) Employment provisions likely to extend beyond plan period.
h) Completion of Sittingbourne Northern Relief Road.
i) Commencement of new infrastructure provision in plan period to form new M2 junction with access to Science Park to form first phase of Sittingbourne Southern Relief Road.
j) At Faversham, meet most of town’s needs from within existing urban framework, but improve quality of employment land supply.
k) Rural areas to meet localized development needs as set out in Core Policy.

Main Features

a) Re-assessment of housing, retail and leisure urban regeneration opportunities in central Sittingbourne to search for circa 1,000 homes, 34,833m² retail and leisure and circa 25,000m² of office provision), together with search for further urban housing opportunities at Sheerness (to support Port expansion – circa 2,000 homes) and Queenborough (circa 1,000 homes).
b) Search for housing site(s) for circa 500 units between Sittingbourne, Iwade, Teynham or Minster/Halfway to support increased employment provision.
c) Community facilities associated with ‘a-b’ above.
d) Green infrastructure provided by Country Park at Milton Creek, habitat creation on eastern Sheppey and the creation of accessible, natural green space associated with 3,500 dwellings for Sheerness/Queenborough and other locations.
e) Port of Sheerness expansion for circa 17,600m² (697 jobs) for existing and new markets.
f) Addressing quantitative and qualitative additional employment provision for general industrial land and strategic distribution employment needs at Sittingbourne up to 240,000m² (60 hectares) on greenfield land.
g) Expansion of Kent Science Park for employment purposes up to 175,000m² (up to 50 hectares) gross, extending beyond plan period (circa 2041). Phased subject to ‘i’ below and/or capacity of existing transport network and strategies to encourage modal shift.

h) Completion of Sittingbourne Northern Relief Road to A2.

i) New junction to M2 to provide first phase of northward provision of a new Sittingbourne Southern Relief Road with associated access to Kent Science Park to facilitate ‘g’. Commitment to longer term provision of remaining northward link to A2 and commitment to exploration of full range of funding opportunities, including Community Infrastructure Levy.

j) At Faversham deliver outstanding employment commitments. Regenerate Faversham Creekside. Search for employment site of circa 20,000m² (5 hectares) at Faversham to improve quality of local supply. Limited housing provision where justified in support of viability of employment provision or via redevelopment of existing poor quality urban site(s).

k) No sites identified at rural settlements (subject to resolution of areas in ‘b’ above), although small enterprise centres at Leysdown (500m²) encouraged through Core Strategy settlement policies.
Option 4 – Planned housing scenario with higher growth employment scenario, supported by additional housing provision, to strengthen Sittingbourne’s main town role and to address transport constraints

**Key Characteristics**

a) Housing growth at SEP rates 10,800 to 2026 extended to 2031 by pro-rata = 13,500 units with additional higher rate provision of 5,000 homes (subject to further assessment) for a total of circa 18,500 units leaving 9,500 ‘outstanding’.  
b) Thames Gateway focus for housing to support employment provision and to strengthen an enhanced retail and leisure offer at Sittingbourne.  
c) Housing provision focus upon main urban areas including urban regeneration locations, but also role/need for urban extensions and key village locations where close to employment opportunities and proposed new infrastructure.  
d) Employment provision at higher growth scenarios to provide 595,000m² (197,161m² net not including ‘e/f’ below) resulting in 27,940 net jobs capacity (including ‘e’ below).  
e) Major expansion of Kent Science Park included in jet job figure in ‘d’ including focus on new and emerging markets.  
f) Expansion of Port of Sheerness for employment purposes (not included in new job figures) including focus on new and emerging markets.  
g) Major new green infrastructure provision required.  
h) Employment provisions likely to extend beyond plan period.  
i) Completion of Sittingbourne Northern Relief Road.  
j) Provision of full infrastructure corridor between M2 and A2 to include Sittingbourne Southern Relief Road, associated services and green infrastructure, provided predominantly by private investment.  
k) At Faversham, meet most of town’s needs from within existing urban framework but improved quality of employment land supply.  
l) Rural areas to meet localized development needs as set out in Core Policy.

**Main Features**

a) Re-assessment of housing, retail and leisure urban regeneration opportunities in central Sittingbourne to search for circa 1,000 homes, 35,000m² retail and leisure and circa 25,000m² of office provision) together with search for further urban housing opportunities at Sheerness (to support Port expansion – circa 2,000 homes) and Queenborough (circa 1,000 homes).  
b) Search for housing site(s) for circa 5,500 units some or all of which (subject to further assessment) are able to facilitate the unlocking of capacity at junction 5, including provision of a potential new M2 junction with Sittingbourne Southern Relief Road (junction 5a). Possible use of area with Community Infrastructure Levy approach. Areas of search to include Sittingbourne, Minster/Halfway, Iwade and Teynham.  
c) Community facilities associated with ‘a-b’ above.
d) Green infrastructure provided by Country Park at Milton Creek, habitat creation on eastern Sheppey and the creation of accessible, natural green space associated with 8,500 dwellings for Sittingbourne, Sheerness/Queenborough and other locations.

e) Port of Sheerness expansion for circa 17,600m² (607 jobs) for existing and new markets.

f) Addressing quantitative and qualitative additional employment provision for general industrial land and strategic distribution employment needs at Sittingbourne up to 240,000m² (60 hectares) on Greenfield land.

g) Expansion of Kent Science Park for employment purposes up to 175,000m² (up to 50 hectares) gross, extending beyond plan period (circa 2041). Phased subject to ‘i’ below and/or capacity of existing transport network and strategies to encourage modal shift.

h) Completion of Sittingbourne Northern Relief Road to A2.

i) Full identification of Sittingbourne Southern Relief Road from M2 to A2 with associated access to Kent Science Park to facilitate ‘g’ together with other associated infrastructure, including strategic level open space, provision extending beyond plan period. Exploration of full range of funding opportunities, including Community Infrastructure Levy.

j) At Faversham delivery outstanding employment commitments. Regenerate Faversham Creekside. Search for employment sites of circa 20,000m² (5 hectares) at Faversham to improve quality of local supply. Limited housing provision where justified in support of viability of employment provision or via redevelopment of existing poor quality urban site(s).

k) No sites identified at rural settlements, (subject to resolution of areas of search in ‘b’) although small enterprise centre at Leysdown (500m²) encouraged through Core Strategy settlement policies.
Health Impact Assessment of all four options
Type of HIA and project management

This was a desk top exercise. Swale Borough Council is developing its Core Strategy and this is currently limited to four outline options.

The intention is that the HIA highlights anticipated risks to population health so that as options are amended through iteration and development, the maintenance of good population health is at all timed safeguarded.

Dialogue with Swale Borough Council officers has been maintained through a series of meetings with planning policy officers Alan Best and Shelly Rouse with the overall support of the Council’s Director of Planning and Regeneration, Pete Raine.

Drafts of the HIA have been shared with these LSP’s Health and Housing Thematic Partnership for both observation and amendment. A stakeholder workshop is also being contemplated.

This is set out in two parts. The general part outlines overall planning policies in relation to all four options that should be adopted regardless of which of the four options or the final preferred response – likely to be an amalgamation of some of these four options, is pursued.

The second part specifically relates to proposals as set out by the Council and referred to in the previous section of this study. However most of these options are variations on a more limited range of objectives. Therefore in addressing the HIA it is largely necessary to comment only once on the detail of proposals. In addition, specific focus is given to two additional objectives which appear in later options. The first of these concerns the potential expansion of the Port of Sheerness and related housing developments to create a maritime quarter for Sheerness (options three and four). The second proposal is to substantially expand the development of housing to the south of Sittingbourne and on a scale that may through Section 106 funding, allow for the construction of a motorway interchange and new road access to an expanded Kent Science Park (option four). These two proposals have been specifically commented upon.

How can this HIA be used in relation to the agreed Core Strategy throughout the strategic period?

A Core Strategy (and its successor planning policy instruments) focuses on key planning issues at a very high level. Detailed projects are necessary to deliver the final response strategy adopted by Swale Borough Council as local planning authority. This Health Impact Assessment offers an overview of the risks and opportunities to health status implicit within the Core Strategy. Thus the main purpose of this HIA is to provide a screening process that Swale Borough Council should use in the future.
When detailed projects are undertaken to give effect to the principles described in the Core Strategy, the consequential health impacts should be recognized and safeguards that maintain and preferably improve population health status should be detailed within each key project.

Some specific projects may warrant their own in-depth health impact assessment determined through dialogue between the planning officers and the public health input that the Borough should continue to receive throughout the coming strategic period. In-depth HIAs should involve and engage with the local community and communities of interest that are directly affected by the proposed projects. In terms of HIA project process, the Merseyside Guidelines for Health Impact Assessment should be followed.
Core Health Improvement Issues through local planning policy irrespective of option
Travel and Mobility

Land use and transport planning is one of the most critical spheres for a collaborative approach to planning, and public transport accessibility needs to be a starting point for neighbourhood planning with land uses attached to the public transport network, including housing, employment uses, community facilities and services, and leisure and recreation uses.

It is important to consider ways of reducing congestion apart from highway improvements, including planning positively for other forms of transport such as good-quality public transport and active travel options.

To ensure that rural areas can support economic development/rural diversification, it is important to provide sustainable transport options to rural areas, including public transport, community transport and active travel; this transport provision to support rural diversification could also be used to address the transport inequalities currently experienced by rural communities in the district.

Transport has several features that contribute positively to the determinants of health by providing access to a range of services, facilities and amenities and by providing the opportunity for social contact and interaction. In a review for the DETR, transport was highlighted as providing access to work, food, health facilities, education and training and leisure and representing a symbolic expression of an area as well connected with wider society in the Borough as a whole. For vulnerable groups who do not have access to private transport, good public transport will increase access to amenities, facilities, services and job opportunities and may help to reduce health and other inequalities.

Barton and Tsourou recommend using new development to help fund public transport improvements and that new development should be orientated towards public transport stops. Public transport accessibility should be the starting point for neighbourhood planning with land uses attached to the public transport network: all housing should be within easy walking distance (ie 400m) of good public transport services that give access to main centres of urban activity; and office, retail and leisure developments should be less than 300m walking distance from good public transport services. A reduction in car usage encourages the use of local facilities by making streets more pleasant and safe, especially for children and also fosters a sense of community through social contact and interaction. With respect to parking, Barton and Tsourou recommend that parking provided at all major trip generators should be kept to an operational minimum as far as possible in order to reduce the number of trips by car.
Economic Development and Employment

It is important to recognise the role health plays in promoting economic development, and that significant economic benefits can be achieved by improving health – better health increases labour supply and productivity and contributes to economic growth.

There is a need to support the development of clusters of various businesses in the district, including those associated with the “green” economy, the visitor/tourism economy, manufacturing and assembly and rural diversification.

It is important to ensure that employment land is easily accessible by public transport and active travel options.

Information base relating to employment uses and the need for education, training and skills development

- Neighbourhoods require local work opportunities to develop the bridging ties necessary to generate social capital and better health. However, employment does not necessarily lead to health improvement because the health consequences of employment are directly related to the quality of work.
- It is not enough to provide work opportunities in order to improve people’s health, the nature of the impact also depends on the key attributes of a job, e.g. pay, job security, job control, worker involvement, support at work, reward/effort ratio, prestige, physical working conditions and equality opportunities where the effects are positive for high-grade jobs and negative for low-grade jobs.
- As employment is a source of income, it has the potential to increase the level of disposable income and provide a route out of poverty, therefore there is the possibility of tackling health and other inequalities if planning for employment is accompanied by an economic development strategy that addresses social inequalities to reduce social inequalities.

Training and skills development will be fundamental in equipping existing district residents to be able to take advantage of the job opportunities created by economic development, particularly in rural areas. This will help to counteract the potential for people from outside the district to fill the jobs (commuters).

To encourage home-based working, it is important that the necessary infrastructure and key services are provided to ensure appropriate access for home workers and thereby reduce their need to travel.

Tourism

With respect to the visitor/tourist economy, it is important to ensure that any provision for tourists/visitors also meets at least some of the needs of residential communities in the district.
There is a need to plan for the increased demand for services, utilities and infrastructure that encouraging the visitor/tourism economy will generate throughout the district, which, if not met, could result in a decrease in availability and quality of services for not only visitors but also district residents, especially those in rural areas.

It is important that the provision of visitor/tourist accommodation does not compromise opportunities for housing provision for existing district residents, especially affordable housing provision, eg from the conversion of existing buildings in rural areas.

**Housing and Residential areas**

Housing that is well designed and maintained helps to foster and reinforce a sense of community. The condition, cost and availability of well designed housing is critical to the development of sustainable communities. For the planning process to contribute to a socially balanced population, it is important to provide housing appropriate for a range of family types and household incomes. Barton and Tsourou recommend that every part of a city should have a good range of housing type, tenure, size, price and garden availability. Mixed communities are a good place to raise children. The provision of public, social and low-cost housing is central to the interests of vulnerable people in the population – low-income groups do not gain access to adequate housing simply through an ample overall supply but by removing the institutional and market barriers to provide for special needs and movement of households between sectors. For vulnerable groups, improving people’s housing may reduce health inequalities.

Research shows that people who rent homes are both poorer and in poorer health than home owners. Low income households tend to be trapped within disadvantaged areas while higher income groups are able to escape. This is especially so for those within private landlord owned housing. A sense of control over housing conditions is a significant factor for the prevalence of anxiety or depression. If choice is combined with maximum availability of affordable housing in a variety of housing types, locations and neighbourhoods, most people will be able to choose a location that, matches their income and family needs, is convenient for their day to day activities, minimises travel distances – especially for people who do not own cars. The relative lack of car ownership is particularly noteworthy on the Isle of Sheppey.

In rural communities, it is important to ensure targeted low-cost home ownership for local people. With respect to key workers, housing problems are a major factor in the recruitment crisis in both education and housing (the areas where teacher shortages are most acute correlate strongly with areas where house prices are highest). If key workers can be attracted to the area through the provision of affordable housing, the quality of service provision for the community as a whole will be improved, which will then have the potential to promote health and reduce inequalities (particularly through the provision of education and health services).
In the past there was a suggestion that high-density living could have a harmful effect on mental health, however the design of housing may not be solely responsible for this link and it is thought that this effect is not seen in residential dwellings of six storeys or less. In a relatively recent study, residents in high-density affordable housing often reported that they did not feel they lived at high densities – they appreciated the innovative architecture and design that offered a sense of light and space in their homes. High-density housing needs to be built in the most accessible locations because higher density increases the demand for local facilities and public transport services and located close to clusters of facilities within easy walking distance of a range of facilities. Land close to public transport needs to be used at an appropriately high intensity.

Incorporating energy efficiency into the design and construction of new build will reduce the level of health-damaging emissions (from the inefficient combustion of wood, coal, oil or natural gas) and of carbon dioxide, thereby reducing the potential for global climate change. Renewable energy can be promoted through design, eg incorporating passive solar features and a layout that ensures good solar access to all buildings (in cooler climates) with consideration given to the feasibility of solar water heating and photovoltaic cells. It is important to promote low energy in the construction of buildings, as well as in their use (65) and where appropriate, to consider using recycle and/or renewable materials in the construction of buildings and other infrastructure. Sustainable practice in design also includes reducing the unnecessary consumption of pure of ‘white’ water by households and businesses and encouraging the collection and use of rain or ‘grey’ water on site (water supply and treatment also requires large amounts of energy).

To support dwelling-based work options (and employment uses), Barton and Tsourou recommend that broadband or similar high-quality telecommunications are provided in new developments.

Swale Borough Council should consider including Lifetime Homes Standards in the Development Brief. Lifetime homes standards have been developed to ensure that homes are accessible, visitable and adaptable for people who have problems with mobility whether permanent or temporary. These standards encompass 16 design features that comprise a blueprint for accessible and adaptable housing. The potential effects of building to Lifetime Homes Standards:

- Increased choice for buyers;
- Independence for residents;
- Longevity of tenure for residents, which has the potential to sustain the community within a residential area, maintaining levels of social contact and support.

The use of Lifetime Homes Standards may be important with respect to the level of long term limiting illness seen in the local population.
Building for Life

Swale Borough Council should consider including Building for Life Standards in the Development Brief. The standards encompass 20 criteria for housing design covering four themes including:

(i) character;
(ii) roads, parking and pedestrianisation
(iii) design and construction; and
(iv) environment and community.

The effect of building to these standards will be to create good-quality housing conditions and surrounding external environment, both of which could help to maintain and possibly improve the health and wellbeing of new residents. In addition, there will be the potential to reduce vandalism in the external environment.

Homes for wheelchair users

Swale Borough Council should consider including provision of homes specifically adapted for wheelchair users within the affordable housing element of the development.

Integration and co-location of facilities

Swale Borough Council should consider specifying the need for integration and co-location of facilities and service provision. Integrating and co-locating facilities and service delivery (eg education, leisure, library, religious and police facilities) has a wide range of benefits from health promotion to service synergies to more cost-effective one-stop shop models, including extended and full service schools.

Town Centres – General

Buildings for social and commercial use in the Town Centres need to be adaptable to take account of changing social and market trends and uses.

With respect to retail development, it is important to support small and medium-sized enterprises as well as regional or national chains, especially in the smaller towns and rural areas. It is also important to support the provision of retail outlets that encourage healthy or health-related behaviours, e.g. by ensuring access to affordable fruit and vegetables and other nutritious foods and to medication (through the provision of pharmacies). It may also be helpful to consider provision for markets (street markets or covered markets).
If retail growth is generated through redevelopment of town centres – and in particular Sittingbourne, increasing socio-economic inequality is likely to occur. Poorer people will face increasing financial exclusion as cost of housing, goods and services will increase. If public and commercial spaces are not well integrated, lower income and vulnerable groups could be displaced from high profile public spaces. This could produce a downward spiral effect in which disadvantaged people are displaced to a lower quality environment, leading to increasing feelings of exclusion and a further cycle of health disadvantage to those people.

When considering leisure and recreation development, it is vital that leisure and recreation opportunities are suitable for all age groups and include the provision of opportunities for affordable leisure and recreation to cater for low-income groups in the district.

The most disadvantaged in a community are the least likely to participate. Therefore vulnerable groups should be targeted specifically for cultural sport, leisure and civic participation. Some people will be more vulnerable still in consequence of physical changes taking place in towns – in particular people with disabilities or long term conditions. Design facilities may inadvertently or even deliberately deter certain groups from using buildings and spaces. The Commission for Architecture and the Built Environment (CABE) describes how people with disabilities, people from different age groups, gender, sexual orientation or faiths, may be ‘designed out’ of public spaces. Such spaces tend to be designed on an adult scale, thus excluding families with small children.

Safeguarding allocated sites gives the possibility of maintaining the availability of a mix of uses, which will contribute to sustainable communities.

**Sittingbourne Town Centre and Milton Creek Health Impact Assessment**

In addition to the general principles outlined both within the previous section on town centres and indeed elsewhere in this section, NHS Eastern and Coastal Kent in collaboration with Swale Borough Council, commissioned a detailed HIA in respect of the supplementary planning guidance (SPG) relating to the redevelopment of central Sittingbourne. The SPG area covered four electoral wards; Chalkwell, Milton Regis, Murston and St Michael's. There are also implications from the development for Kemsley ward.

This HIA published in 2009, makes specific recommendations as regards to:

- Transport and movement, traffic volume and traffic congestion;
- Walking and cycling;
- Bus services;
- The railway station;
- Car parking;
The proposed north/south pedestrian bridge;
Social and community cohesion, social inclusion;
Participation, inclusion and cohesion within the town centre;
Neighbourhood and community, residential areas, connectivity with adjoining neighbourhoods;
Housing mix;
Access to goods, services and demands on public services (health and education);
Employment;
Flood risk;
Character and identify of the town.

The redevelopment of central Sittingbourne is seen as a key element within the Borough’s regeneration and for the promotion of improvements within the local economy. As regards the latter, too high a proportion of the Borough’s wealth for retail purposes is disposed outwith the Borough.

The current economic climate and the retrenchment of the public sector mechanisms to deliver regeneration, has dramatically slowed up the pace of town centre regeneration. Some key elements of the plan are still proceeding (Summer 2010) – specifically the creation of a country park reclaimed from industrial land adjoining Milton Creek.

Further elements of the town centre redevelopment may necessarily be taken forward incrementally with a concomitant risk to the coherence of the overall plan. It is important that the principles of this specific health impact assessment are safeguarded and refreshed at all future stages of the progressive implementation of the overall project.

**Adaptable Buildings**

Swale Borough Council should consider specifying in Development Briefs the need for adaptable buildings in the retail and commercial element of the new mixed developments in town centres. It is important when planning for mixed use to ensure sufficient space and flexibility in buildings in town centres to accommodate growth. Barton and Tsourou suggest that localities should be planned to encourage the clustering of facilities in ways that can adapt and flourish as social and market conditions change. One of their policy objectives for healthy neighbourhood planning is to construct buildings for social and commercial uses that are adaptable.

**Community Cohesion**

A thriving localised community life needs appropriate facilities and meeting places – neighbourhood resources are important for building and sustaining networks,
developing trust and economic participation and have an impact on residential continuity, interaction and socialising with fellow residents; it also helps to facilitate identity, pride in an area and can have a direct influence on some forms of antisocial behaviour\textsuperscript{24}. Important to the potential pleasure and social benefits of walking is the creation of places where it is natural for people to stop and look\textsuperscript{25}; the design and provision of streets and places where people can meet, eg incidental spaces and squares, increases social contact, with the potential to foster local networks of support and improve people’s quality of life\textsuperscript{26}. Casual meetings between people increase and facilitate friendship networks and a sense of community\textsuperscript{27}.

Mixed use developments with well connected accessible and attractive walking routes with focal points/places to meet or stop and talk, favour social interaction and a sense of community. Community cohesion between residents is necessary for fostering and maintaining social capital and enabling it to be used. Social capital provides the leverage that offers information about employment, child care and other services and resources that can promote health and wellbeing. It also helps facilitate pride in an area and can have direct influence on some forms of anti-social behaviour.

Research highlights the close relationship between social networks and mortality rates. Studies have indicated that the risk of death was 2-3 times higher for persons lacking social support than those who were well integrated into social networks.

In urban areas there should be planning policies that positively promote connectivity between adjoining neighbourhoods. If established communities are unable to benefit from regeneration projects, or changes to the shape of the main towns of the Borough, there may be a perception of unfairness and social tension. This would have negative impacts on mental health and wellbeing in the area and would increase anti-social behaviour.

**Planning and design of new developments**

Planning can have a profound effect on all levels of factors that influence health. It is important to ensure a collaborative approach to planning – based on co-operation and partnership – to build a healthy human habitat that functions to create opportunities and a high-quality environment irrespective of residents’ wealth or status, in a way that is ecologically sustainable. The design of the built environment is important for people’s psychosocial health. Good design encourages greater ownership and involvement of communities and can reduce negative effects such as vandalism and the under-use of facilities. A well-designed built environment will help to foster and reinforce a sense of community. An aesthetically pleasing environment will encourage people to walk for exercise or recreation.

If public and commercial spaces are not well integrated, lower income and vulnerable groups could be displaced from the high profile commercial areas of public spaces. This would produce a downward spiral effect in which disadvantaged people are
displaced to a poorer quality environment leading to increasing feelings of exclusion and a further cycle of health disadvantage for those people.

Some people are more vulnerable than others to physical changes taking place in towns. In particular people with disabilities or long term conditions. Design features may inadvertently or even deliberately, deter certain groups from using buildings and spaces. The Commission for Architecture and the Built Environment (CABE) has described how people with disabilities, people from different age groups, genders, sexual orientation, or faiths may be ‘designed out’ of public space. Public spaces tend to be designed on an adult scale, thus excluding families with small children. People with disabilities, young people, teenage parents, people from minority ethnic groups and women are particularly vulnerable to financial exclusion. New retail employment may provide more opportunities for women and it is possible that the impact of financial exclusion will be greater for young men.

Places to meet and celebrate and to create and display social and cultural rituals and symbols, provide meaning and enhance inclusion and wellbeing. In a Swedish study, regular attendance at cultural events has been shown to have a positive impact on life expectancy. Participation in sport and physical activity can have a beneficial effect on mental health and relate to an improved sense of wellbeing and social esteem.

Social exclusion has been directly associated with psychological and physiological effects. Perceived social exclusion includes the risk of mental illness and the use of negative ‘coping’ behaviours such as smoking or binge drinking in the short term. In the longer term, perceived social exclusion or perceived inferior social status, is associated with increased vulnerability to cardiovascular disease. Perceived exclusion and inequality is a source of social tension and associated with health damaging and anti-social behaviour.

A good relationship between housing and local employment, retain, education and health facilities is critical to establishing healthy neighbourhoods; it means that people who do not have access to a car can get local jobs and use neighbourhood shops, clubs, school and health facilities. It also means that a higher proportion of trips will be on foot or by bicycle and casual meetings between people will increase and facilitate friendship networks and a sense of community. Mixed land use is positively related to walking for shopping and work-related trips and less travel by car. The Borough has by national standards, too few physically active children, only average numbers of physically active adults, significantly high rates of adults who are obese and thus well above national average rates of diabetes. The physical environment of town centres needs to be designed to encourage more people to be physically active and less reliant on private motorised transport.

The use of locally distinctive architecture or townscape as a starting point for design and the use of local traditional building materials will give a sense of place and
continuity with the past, enhancing mental wellbeing and a sense of belonging in the community and the use of traditional building materials will also reduce energy use.

**Educational Provision**

By national comparators, educational attainment in the Borough is poor overall. Well below average numbers of young people achieve the minimum requirement of robust educational qualifications. This pattern has pertained for some years. Such qualifications are necessary to equip young people with reasonable expectations of a lifetime participation in the labour market. The Borough has high numbers of young people not in education, employment or training (NEET). Such participation will require many people to re-train, possibly twice or even three times over a 40-50 year period of employment. Those who are not equipped with the core set of education skills face the prospect of casualised work and spasmodic episodes in and out of employment. The lack of prospects will discourage aspiration and movement away from the Borough, a risk compounded particularly because of geographical factors, especially on the Isle of Sheppey.

The inability to participate through employment in mainstream society will result in a widening gap in relative deprivation, which will be reflected in all aspects of the quality of life, including for those who are participants in the local economy. It will deter inward investment. The poverty that will be a consequence of lack of consistent employment will increase health inequalities, through an incurring burden of chronic ill health built up during the life course and result in higher rates of early death. Finally, it will fuel the pre-conditions of this pattern being reinforced through subsequent generations.

The Core Strategy therefore needs to actively enable the sustained provision of early years programmes, facilitate the development of school buildings which are up-to-date and fit for purpose. Particular attention needs to be paid to enabling appropriate premises for skills training and re-training, accessible to all within the Borough.

Swale Borough Council should consider the need for educational facilities in new developments especially for nursery and primary school facilities and the need for secondary school places as a result of developments.

**Information base relating to education**

- Education is positively correlated with employment earnings and educational attainment in one generation has positive effects on educational attainment in the next - better-schooled parents have children with higher future earnings potential.
- Educational attainment in childhood is linked to a range of improved adult health outcomes. People with higher educational qualifications tend to be healthier and have a lower take on social benefits and education is associated with lower crime, helping young people to remain in school.
- People who have had more schooling tend to be less overweight and engage in more
exercise per week than those who are less educated – they are also better able to identify relevant health-related information and use it in a constructive manner, for instance, one year of additional schooling is associated with reduced daily average cigarette consumption.

Health Facilities

Swale Borough Council should liaise with NHS Eastern and Coastal Kent about the need for health facilities as a result of the influx of a new population of ~1,000-2,000 people or more. The PCT will need to assess the health needs of this new population in relation to those of the surrounding populations whilst taking into account existing provision (specifically the local GP surgeries) and Department of Health requirements for service provision.

- High quality local health and social services provide vital sources of support, treatment and preventative services.
- In their general guidelines for spatial planning of local facilities, Barton and Tsourou suggest that health facilities are located on local high streets and in town centres. Barton and Tsourou also recommend that a health centre is within 800-1,000m of residential units.

Open Spaces and Recreation

To realise the benefits to health and well-being of open space provision, it is important to consider the needs for the management and maintenance of open space, especially to control the occurrence of potential harms to health from antisocial behaviour, aggression and substance misuse.

When supporting rural diversification through the provision of leisure and recreation opportunities, consideration needs to be given to the potential for disturbance and loss of amenity to existing residents, for instance, through increased traffic, and to the potential for increasing access to leisure and recreation through the provision of sustainable transport options.

It is also important to ensure that green space in the district appeals, and is accessible, to all socio-economic groups and not only those on higher incomes.

To increase the viability and sustainability of services in rural areas, it may be helpful to consider the potential for co-location of services and facilities, and one-stop shop models.

Rural economic development and diversification will need to be supported by the provision of training and skills development to ensure that any employment
opportunities will be available to existing rural residents, and that businesses will have
a skilled labour force on which to draw.

Local landscape areas could be used to support major landscape areas of national
status, and consideration needs to be given to including the benefits to health and well-
being of local landscape areas as a criterion when assessing the justification for
landscape protection.

The sequential approach to development and settlement hierarchy needs to be
complemented by (i) Accessibility Planning, in order to promote accessibility to local
transport, employment and key services, and (ii) an approach that takes account of the
need for affordable housing in rural areas, even though development in larger well-
serviced villages is relatively low down in the hierarchy.

With respect to the re-use of existing rural buildings, it is important not to “miss”
opportunities to provide affordable housing, and also to develop a mechanism to
determine which uses are most appropriate in different rural areas depending on need
for housing, employment and other services and facilities.

Any new agricultural and rural buildings need to respect the character of existing built
settlements and the surrounding landscape.

To increase the viability and sustainability of rural settlements, the potential for
innovative service delivery and for community-owned retail outlets (and other
amenities) needs to be considered.

**Infrastructure**

Water stress is increasing and aquifers supplying water for drinking or for productive
uses are often exploited faster than recharge.

Ground water and surface waters are vulnerable to pollution and both require localised
and large-scale actions to prevent pollution of drinking water and water for other
human uses. An accelerated switch to renewable sources of energy has the potential
to deliver appreciable health benefits, though a major switch will pose a challenge
particularly in relation to the intermittency of renewable production, land use
requirements and cost.

**Infrastructure – Green**

To incorporate the flood risk area into the development, it is important to: safeguard
water catchment zones from inappropriate ie pollution, development; where subsoil
permits, to allow rainwater to percolate into the ground to recharge aquifers and avoid
the danger of flooding and where run-off is inevitable, consider the use of swales and
holding ponds. Sustainable urban drainage should maintain a good public health barrier, avoid local or distant pollution of the environment, minimise the use of natural resources (water, energy, materials) and be operable in the long-term and adaptable to future requirements. Green space including green space on the urban fringe can contribute to health and wellbeing. Health outcomes improved by access to quality public parks and natural spaces include depression, obesity, heart disease, cognitive function and problem-solving ability. Access to open spaces can increase the level of exercise undertaken in a community, contributing to reducing the levels of obesity, cardiovascular disease, diabetes and arthritis, but the impact on levels of exercise is most likely to be experienced by children. In addition, access to open spaces can increase the level of social contact and interaction, contributing to a reduction in stress-related problems. Access to parks has a positive influence on various measures of children’s behaviour, including the number and nature of friendships and characteristics of play patterns. However, criminal, social or psychological aggression and drug abuse and conduct offences can take place in green spaces. On balance, the London Health Commission advises that the health benefits of parks and open spaces outweigh the dis-benefits, if there are policies and management practices in place to overcome barriers, such as fears about safety and to maximise the benefits.

Wildlife habitats in cities benefit wellbeing and quality of life through providing an educational community resource in addition to the value of the habitat itself. People who can see green space or trees from their home report higher levels of health and wellbeing and children who have access to, or sight of, the natural environment have higher levels of attention than those who do not. Trees can benefit health in other ways by improving air quality, by reducing wind speed, by contributing to a supportive microclimate, by providing shelter, by increasing the level of carbon fixing and by providing a supportive environment for some types of wildlife. The provision of trees will break up and counteract the concentration of pollution and can moderate excessive summer heat and winter cold. Suburban areas can be 6°-8°F warmer than surrounding areas, an effect known as a heat island, which has two main causes, including the lack of vegetation, especially trees, in urban areas; the effects on health include heat syncope or fainting and heat oedema or swelling. It is important to ensure proper management of green infrastructure in order to realise the potential positive impacts on health and wellbeing and where possible, ensure that homes are within 2,000m of major natural green space.

The provision of allotments can help to increase access to safe and healthy food; working in an allotment encourages regular exercise, improves mental health, promotes social contact, networking and support and provides the opportunity to grow fresh, nutritious and affordable food. Barton and Tsourou recommend locating allotments in any new development within easy ‘barrow distance’ from homes, eg 200m or less.
Infrastructure – Waste management

Central Government policy encourages a waste hierarchy that ranks recycling as third in a list of five possible strategies, the upper levels of the hierarchy reflecting more sustainable management of resources.

Any communal/community composting scheme that is introduced needs to take account of the potential health impacts and establish appropriate control and management measures; the composting process can release or produce bio-aerosols (ie particles of microbial, plant or animal origin (sometimes called organic dust) many of which are known to cause symptoms and/or illness, including a wide range of adverse health effects and infection; individuals may become increasingly sensitised to some bio-aerosols through repeated exposure. The composting process can also produce odour and volatile organic compounds. Adverse health effects include respiratory symptoms, mucosal membrane irritation, skin diseases and markers showing immune system response. There is an association between distance to an outdoor composting facility and respiratory symptoms and general health complaints but not to allergies or infectious disease.

Infrastructure – Flood risk

The Core Strategy should take full account of the predicted flood risk to the Borough. If flooding occurs the health impacts can be very marked. They range from clinical problems requiring hospitalisation or consultation with doctors to an increase in the use of non-prescription drugs or alcohol, depression and insomnia\textsuperscript{32}. In a small study by the Thames Region, by the Flood Hazard Research Centre, people from vulnerable groups reported many health effects from flooding, ranging from headaches, digestive problems, lethargy, stress and anxiety; they also reported other problems that contributed to their level of stress affecting personal relationships, employment and feelings of isolation\textsuperscript{33}. There was also a loss of confidence in the authorities and institutions perceived to be associated with the provision of flood protection and recovery support. There was also a fear that those institutions would fail to protect or warn against future event\textsuperscript{34}.

Flooding could have particular impacts upon the following more vulnerable sections of the community:

- Lower income groups – less likely to be insured; particularly in areas of already high crime rates;
- Women tend to spend more time in the home and so are affected more by damage to the home or having to spend time in temporary accommodation;
- People with disabilities, older people, children, carers, who find it more difficult to leave a flood area;
- People new to an area or who are visiting who will have more difficulty in finding or understanding escape routes.
How planning policy can exacerbate but also reduce inequalities in health
Area inequality and health

Open and green spaces
- Link to mental health
- Children’s play
- Social links
- Link to obesity

Housing conditions, fuel poverty and inequality
- Existing built environment
- How to change through time
- Tenure (renting)
- Social infrastructure including GP access/health centres
- Cooling and shading
- Food growing
- Insulation and energy efficiency

Safety and security on streets – anti-social behaviour
- ‘broken windows’
- Social and community activities

Density, noise, traffic, ‘urban stress’
- Social isolation and interaction caused and fostered by design and its impacts
- Public transport

Cross-cutting

Public health (including violent incidents)
- Childhood
- Pathogens
- Physical activity
- Active old age
Introducing unequal areas and health inequalities

There is a link between the built environment, health outcomes and inequalities in health. The evidence from literature on unequal area conditions is comprehensive and although the gap in conditions has closed, it is still very wide.

The direct elements that have an impact on health outcomes of any area include: air pollution, traffic, ‘dirty’ activities, noise, space, housing, indirect safety, security, behaviour, stress and mental health, infections and obesity.

Climate change will have different impacts: heat and cold; flooding, insulation problems and migration. Low income communities have fewer resources and lower resistance and less ability to deploy resources or achieve energy efficiency in homes. Therefore climate change will make poor communities even more vulnerable.

Neighbourhood conditions create serious disadvantages in people’s lives and published evidence has demonstrated complex interactions leading to a serious gap in conditions and opportunities for people living in poor areas.

The lack of play and green space for children in disadvantages areas is very significant. Parents’ fears about safety lead them to constrain their children. Environmental conditions can give strong signals of problems and fear generates withdrawal from streets and public spaces, particularly by families and the elderly.

Ethnic minorities have on average poorer health and tend to be concentrated in poorer areas.

Gaps in health, for example in life expectancy have not closed in spite of general improvements. Concentrated relative deprivation and concentrated premature mortality go together.

Sustainable development, generally understood as bringing together social, economic and environmental progress in a complementary and mutually reinforcing way requires operating within natural resource limits while promoting socially just and healthy societies. Social development by definition requires no trade-offs and therefore poorer areas need special efforts to integrate them within a more sustainable framework. Environmental limits require intense care of local urban environments so that spaces, buildings and materials are conserved and reused for social as well as environmental benefit.
Evidence of the built environment and health inequalities

Physical activity – through the presence of green space not only reduces the risk of heart disease (buy p to 50%) but also has a positive impact on stress, obesity and a general sense of wellbeing. It also cuts the risk of premature death (by 20-30%).

Green infrastructure – has a significant impact on health, mental health in particular and wellbeing in general:

- Green spaces link directly to levels of physical activity. Children with more green space are less likely to be overweight. Children in greener neighbourhoods have lower body mass index (BMI);
- Green infrastructure will help mitigate the effects of climate change;
- Residents who live ‘near nature’ in poorer areas cope better with nature and have an innate sensitivity to and need for other living things. A population is generally healthier if it is near green areas;
- ‘Walkable’ neighbourhoods help because they are by definition more compact and traffic tamed. Many walkable destinations such as shops, schools etc encourage exercise through cycle routes, parks and footpaths which is a pre-requisite for ‘active travel' and healthier life styles;
- Better off areas are more likely to have access to facilities, spaces, physical activity;
- Urban design can help deliver green infrastructure, play areas and active routes.

Housing – a main issue is the lack of space for children to play as they get older with a concentration of environmental problems in the surrounding areas and a sense of insecurity on streets, in parks and play areas. Therefore letting children out becomes problematic:

- Poor housing conditions such as damp and cold are problematic, especially in private rented housing. Rising fuel prices may impact further on the problem of poorly insulated and energy inefficient homes causing more serious fuel poverty and related health impacts. Well designed and well laid out housing helps. Poor quality private renting is a major problem, but so is concentrated poverty in social housing;
- Overcrowding affects only a small proportion of households, often large families or multiple adult households. It creates high pressures on those families.

Child and elderly friendly neighbourhoods need:

- Community facilities and meeting points.

And such neighbourhoods need to be designed so that they are able to promote:

- Encouragement in decisions and local services;
Sociability, knowing you can call on neighbours, sense of security.

Growing things – community gardens, allotments, trees etc are all positive.

- Also helps link to food and diet;
- The use of vacant land for allotments can produce cheap and nutritious food, encourage exercise, facilitate building of local social capital and contribute to a more sustainable environment.
- The natural green environment has a beneficial effect on mental health and wellbeing in general. This is very deficient in poor areas.

Disadvantaged areas and poor health

Street crime and ASBOs deter people from using the street and generate knock-on fears.

- The broken windows theory that neglected small crimes and anti-social behaviour generate more crime is generally accepted. Adopting it can seriously reduce crime, eg NYC;
- Youth violence as ‘epidemic’ (Boston public Health Authority) – by targeting whole population (media), parents (schools), youth directly and creating ‘weapons amnesty’, cut violent crime dramatically – also cut copy-cat aspect.

Traffic, street life, sociability and acquaintances: social contact between neighbours is low in car-busy residential streets, but high in quiet residential streets. This affects both families and the elderly:

- Increased risk of respiratory illness;
- Noise affects one third of households – worse in (RCEP) high density, rented housing areas, lined to deprivation and urban (RCEP);
- Also affects mental health, children’s concentration and sleep patterns, eg airports.

Urban development generally affects health negatively – and can also lead to psychotic and depressive illnesses. The size of a city may make things worse, eg schizophrenia is twice as common London as Bristol.

- Poor urban design, congestion, pressure of numbers, poorer quality services: together impact on health.

Generally poor area conditions and poor health go together – linked to poor diet, lack of exercise, poor education, cramped conditions, sense of insecurity, crime rates etc.

Poor areas have predominantly worse quality housing and more households in fuel poverty.
The effects of climate change impact disproportionately on poor areas. This includes increased respiratory and cardiovascular problems, flooding and lack of escape. Deprivation often increases vulnerability to climate change and climate change increases deprivation.

Disability is highly concentrated in the poorest areas. Among children and young people, the lack of infrastructure for play, walking etc actually generates ill health and disability, including obesity and mental health problems as well as violent behaviour. Moreover, disabled people’s level of physical activity is hampered by access barriers and the need carefully designed built environment and buildings.

**Evidence of planning interventions that work to reduce health inequalities**

Many interventions to improve and equalise poor areas don’t reduce health gap but do improve the basic conditions that may, in the long run, improve health.

Neighbourhood management and neighbourhood wardens have improved area conditions, increased involvement, led to more local delivery and therefore measurable improvements in quality of life and wellbeing. They have also closed the gap on crime, education, jobs etc.

Sure Start, by targeting vulnerable families with under fours, has demonstrated measurable gains in quality of parenting, child health (immunisation), health education for parents, parents’ involvement etc, again closing gaps.

Many experiments in local policing (eg Meadowhall, Bluewater Farm, Birmingham) have shown a steep fall in crime and some reductions in fear of crime (Louise Casey’s report, Home Office 2008).

Many NGOs show beneficial links between safe cycle routes, cycle/walk to school and children’s health (Sustrans); benefits of cared for outdoor spaces (Groundwork); the link between community involvement of itself and a sense of wellbeing (City Survivors; Empowering Communities, Trafford Hall, Co-operatives and credit unions) inner city farms and allotments. There are many other examples. These bodies focus on trying to benefit lower income groups.

Overall action to target specific area-based problems and disadvantages through local action and involvement has shown some significant gains and closing the gap – at least in the sense of wellbeing, belonging and overall conditions. It seems reasonable to assume that if sustained, it should feed through into better health. Indeed, whole primary preventive health (eg health visitors) initiatives, through local delivery in poor areas, has shown improved health outcomes and the gap is closing.
Rapid Health Impact Assessment on detail of draft Swale Core Strategy
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>All population groups</td>
<td>Housing growth @ SEP rates 10,800 to 2026 extended to 2031 by pro rata = 13,500 units, leaving 4,500 to identify via option</td>
<td>Positive – beneficial: Housing growth should meet population need</td>
<td>Negative – adverse: Potential for dust, noise and vibration from construction works. Types of housing built should match population needs, rather than be driven by the preferences of developers. NB much of developers proposals are driven by a need to maximize returns to satisfy finance market preferences (eg pension funds). This has a reported tendency to distort housing development configurations. Developments should be driven by housing need first (which should provide a good return to the developer rather than developments driven wholly by a wish to maximize financial return).</td>
</tr>
<tr>
<td>Population Group</td>
<td>Activity</td>
<td>Predicted health impacts</td>
<td>Comments/Recommendations</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>--------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Thames Gateway Focus</td>
<td>Can be used as an opportunity to re-balance the local housing market (owner occupation, private rental, social rental) with particular focus on an increase in the private rental sector to encourage people into the area and for the provision of housing for young people on leaving home</td>
<td>Positive – beneficial: Potential for increased flooding from increased areas of non-permeable surfaces</td>
<td>Negative – adverse: The HIA contains detailed principles as to housing design and urban layout. These should be incorporated into or maintained within SBC planning policy for the period of the Core Strategy (or its equivalent)</td>
</tr>
<tr>
<td></td>
<td>Necessity to positively design for integration of existing and new communities to facilitate community cohesion. This guidance is available from Planning Policy Statement 1: Delivering Sustainable Development</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: Soft landscaping to support free movement of pedestrians, cyclists and vehicles between new and existing communities (and the avoidance of gated communities)</td>
</tr>
<tr>
<td></td>
<td>Increased potential for planned community spaces (including the provision of open active transport routes) and the promotion of greater social cohesion</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>New zoned housing developments should be within walking or cycling distance of employment zones with links that enable walking and cycling between each kind of zone</td>
<td>Positive – beneficial: Potential for empty properties to blight areas and provide focus for anti-social behaviour</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Each major new housing development should be served by a frequent bus service</td>
<td>Positive – beneficial: Housing market preferences of developers could risk mono-culture estates leading to social exclusion</td>
<td>Negative – adverse: Housing tenures and types need to be specified for each new housing development zone. All housing types within zones should adopt a common vernacular style</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
<tr>
<td></td>
<td>Opportunity to integrate through design, affordable housing with higher market properties</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to design lifetime neighbourhoods where a mix of properties including specialist accommodation is provided therein</td>
<td>Positive – beneficial: Potential for tensions between existing and new communities</td>
<td>Negative – adverse: If planned badly, new zone developments could encourage increased outward commuting, dependency on cars, discourage physical activity in normal community living</td>
</tr>
<tr>
<td></td>
<td>Opportunity to provide affordable housing</td>
<td>Positive – beneficial: Potential for tensions between socially affordable housing tenants and owner/occupiers</td>
<td>Negative – adverse: Within planning developments allowance should be made for the provision of community facilities and meeting spaces in order to reduce social tension</td>
</tr>
</tbody>
</table>
| | Opportunity to integrate through design, affordable housing with higher market properties | Positive – beneficial: Potential for tensions between existing and new communities | Negative – advers
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Positive – beneficial</td>
<td>Negative – adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Housing and residential areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Building for life</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Homes for wheelchair users</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Integration and co-location of facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Town centres</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Adaptable buildings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Community cohesion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Planning, design of new developments</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Educational provision</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Health facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Open spaces and recreation</td>
</tr>
<tr>
<td></td>
<td>Opportunities to reduce surface water flooding risks by installing permeable hard landscaping</td>
<td></td>
<td>SBC to develop a planning principle preventing further impermeable surfaces on new and existing residential areas</td>
</tr>
<tr>
<td></td>
<td>Opportunities to maximize use of Sustainable Urban Drainage Systems (SUDS) to reduce risk of localized surface water flooding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Group</td>
<td>Activity</td>
<td>Predicted health impacts</td>
<td>Comments/Recommendations</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| All population groups | Housing provision primary focus upon main urban areas including urban regeneration locations but also recognizes need/role of urban extensions | Opportunities for socialisation                                                           | Some evidence to suggest that new build developments may have inadequate kitchen facilities, play and clothes drying space. Limited kitchen facilities discourages cooking with a corresponding increased dependency on less nutritional, prepackaged, more expensive foods. This could have a compounding effect on subsequent generations through lack of cookery skills and knowledge of nutritional choices. There is no ready solution to this, which lies chiefly within the realm of innovative design. However planning policy and regulation should seek to minimize the apparent practice of compromising on kitchen space within market houses. There is a risk that the safeguards around the specification of affordable housing may in time result in new developments of these being the only adequate houses for healthy nutrition. Homes without external clothes drying spaces should be provided with sufficient controllable ventilation to allow clothes to be dried inside without giving rise to condensation. The lack of play space demands that there is ready access to well maintained, stimulating, open play space within child walking distance of homes. |}
<p>|                  |                                                                          | Inadequate easily manoeuverable household focused refuse storage                        | Prescribe within planning policy adequate garden sizes with fences to maintain security yet allow social interaction with neighbours. |
| Services including primary schools, primary care centres, bus services, postal services, are more likely to be viable where population densities are higher | Undersized garden spaces providing inadequate play areas for children with corresponding risk of increased obesity | See also health improvement planning policies stated in the general part of the HIA and specifically those relating to: |
|                  |                                                                          |                                                                                         | - Housing and residential areas                                                        |
|                  |                                                                          |                                                                                         | - Building for life                                                                     |
|                  |                                                                          |                                                                                         | - Homes for wheelchair users                                                             |
|                  |                                                                          |                                                                                         | - Integration and co-location of facilities                                              |
|                  |                                                                          |                                                                                         | - Town centres                                                                         |
|                  |                                                                          |                                                                                         | - Adaptable buildings                                                                   |
|                  |                                                                          |                                                                                         | - Community cohesion                                                                   |
|                  |                                                                          |                                                                                         | - Planning, design of new developments                                                  |
|                  |                                                                          |                                                                                         | - Educational provision                                                                 |
|                  |                                                                          |                                                                                         | - Health facilities                                                                     |
|                  |                                                                          |                                                                                         | - Open spaces and recreation                                                             |</p>
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>People of employment age</td>
<td>Employment provision aimed at delivering existing quantitative commitments as indicated by Employment Land Review to broadly meet lower growth scenario of 415,000 sq metres</td>
<td>More jobs available locally</td>
<td>Risk of increased daily inward migration of skilled people outwith the Borough because of existing under-development of local skills base</td>
</tr>
<tr>
<td>People entering the labour market</td>
<td></td>
<td>Reduction in travel and travel costs, especially if appropriate employment is located close to residential housing zones</td>
<td>Increased traffic congestion and pollution</td>
</tr>
<tr>
<td>People leaving the labour market</td>
<td></td>
<td>Greater demand for employment skills amongst local people</td>
<td>Skills acquisition during the lifecourse (ie all ages) may have the unintentioned effect of promoting outward migration to more readily available job opportunities</td>
</tr>
<tr>
<td>NEETs</td>
<td></td>
<td>Matching of employment skills for local people to employment opportunities within the Borough</td>
<td>Potential for tension within communities between the employed and the unemployed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Since house building is a key driver zoned within the Borough, additional time limited opportunities for skilled employment within the construction industry for local people.</td>
<td>Time limited construction job opportunities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased training and apprenticeship opportunities especially for 16-24 year olds (greater preponderance of male take-up)</td>
<td>May be frustrated by the limitations of local further education facilities and age limits placed on the apprenticeship programmes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater spending power, potentially disposed of through local economy.</td>
<td>Risk of increased part time poor quality jobs, poor pay, poor job security, poor worker control, poor involvement, poor support at work, low reward/effort ratio. NB – it is not enough to provide work opportunities in order to improve people’s health. The nature of the impact depends on the key attributes of a job</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Innovative companies more likely to offer sustained employment over longer periods</td>
<td>Risk of accidents on construction sites, particularly for younger workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Opportunities for environmentally sophisticated businesses with resultant employment skills</td>
<td>Risk of reducing employment due to market conditions for locally established businesses (eg the import of motor vehicles, steel manufacture)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Opportunity to re-balance local labour market structure which will result in reduction in long</td>
<td>Unless expressly addressed, professional and managerial residents of Swale will continue to</td>
</tr>
</tbody>
</table>

Page 60 of 114
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Positive – beneficial</td>
<td>Negative – adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>distance travel (more than 60km to work); reduced harm to health</td>
<td>commute outwith the Borough (ie London, Canterbury, Thanet).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If appropriately targeted training linked to new employment opportunities, reduced annual percentage of young people in Swale who are NEET (less alcohol and substance misuse, fewer teenage pregnancies, less anti-social behaviour)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If sustained employment pattern, containment and reduction in the black economy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less outward migration of young people thus a more balanced population structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Greater potential for sustained social cohesion</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less long term unemployed, potential containment of demands for housing and other benefits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased aspiration for everyone, especially young people linked to incentives to increase formal education and skills attainment</td>
<td>Implement all general health improvement policies set out in the general part of the health impact assessment and specifically as regards:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Economic development and employment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Town centres</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Community cohesion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Educational provision</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Infrastructure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Planning policies and health inequalities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased need for and demand on children’s centres and nursery provision</td>
<td>SBC should work with partners to protect and maintain children’s centres and nursery provision on the basis of the potential to maximize employment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>met or is scaled back, this may be deleterious to the drive to increased employment</td>
<td></td>
</tr>
<tr>
<td>Population Group</td>
<td>Activity</td>
<td>Predicted health impacts</td>
<td>Comments/Recommendations</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>--------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>People of employment age</td>
<td>Expansion of Kent Science Park within existing capacity</td>
<td>More local employment opportunities within the Borough</td>
<td>Increased training for local people and specifically younger people, targeted at the skilled opportunities that can be offered through employment at the Science Park.</td>
</tr>
<tr>
<td>Skilled employees/participants in a knowledge based economy</td>
<td>Expansion of knowledge based skills within the Borough</td>
<td>Likely to attract greater employment from outside the Borough because of required knowledge base</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provision of additional lower skilled but vital jobs associated with these additional enterprises</td>
<td>Little employment impact on isolated/deprived communities on the Isle of Sheppey or north Sittingbourne</td>
<td>Increased public transport provision to the Science Park</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low paid/part time low paid job opportunities for less skilled local people with little opportunity for progression or skills acquisition</td>
<td>Increased cycling provision to the Science Park</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Potential increased inward migration to become new residents of the Borough (limitations of site access may positively promote this)</td>
<td>New employees can't be presumed to come from within the Borough or have much inclination to settle</td>
<td>If the companies located on the Science Park site are seen as vital to the future prosperity of the Borough, but on a site constrained by its location and specifically the limitations of road access, then consider re-siting the firms within the Park on alternative employment zoned land more central to the Borough as a whole and higher grade transport links</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Economic and social benefits to local communities – especially Sittingbourne, from increased employment opportunity and inward migration</td>
<td>Restricted access to the Science Park site will result in additional enterprises adding to traffic congestion, particularly in central Sittingbourne at peak hours, more air pollution, more car dependence</td>
<td>The Kent Science Park was established fortuitously, the location originally being established as a research facility rather than for its current purpose. Whilst this is a prestigious asset, the impact that it has had on local employment is questionable and the people working there, command the skills to work and live (and travel) anywhere – or at least elsewhere within the County</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Developments kept within overall envelope of existing site</td>
<td>Increased car dependency may bring additional harmful health consequences</td>
<td>There should be specific air quality monitoring in the residential area affected by traffic to and from the Kent Science Park with the requirement for each business in the Science Park to develop an Active Travel Plan should action levels be breached</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modest growth with additional but limited environmental impact on site and immediate surroundings</td>
<td>Developments reinforce the community divide within Sittingbourne adjacent to the opportunities offered by the Science Park, with poorer north Sittingbourne further isolated from a potentially significant employment growth point</td>
<td>Appraise how the Science Park can increase its employment offer to residents of the northern parts of Sittingbourne, including improved access by public transport</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NHS Eastern and Coastal Kent commissioned for Swale Borough Council a Health Impact Assessment on the proposed redevelopment of Sittingbourne town centre and Milton Creek (Supporting Public Health 2009). Detailed recommendations promoting health improvement are specified therein and should where relevant be implemented as general planning guidance irrespective of whether the planned redevelopment of Sittingbourne town centre takes place</td>
</tr>
<tr>
<td>Population Group</td>
<td>Activity</td>
<td>Predicted health impacts</td>
<td>Comments/Recommendations</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>--------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Positive – beneficial</td>
<td>Negative – adverse</td>
</tr>
</tbody>
</table>

All general health improvement policy measures and in particular those recommended measures relating to:

- Travel and mobility
- Economic development and employment
- Waste management
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>All persons living in Sittingbourne town centre</td>
<td>Expansion of Kent Science Park for employment purposes up to 175,000 sq metres linked to new junction to M2 to provide first phase of northward provision of new Sittingbourne southern relief road with associated access to Kent Science Park</td>
<td>Increased economic opportunity for town centre businesses through a significantly expanded population base from south Sittingbourne</td>
<td>NB - In addition to those benefits identified in options 1-3: it is understood that in the absence of specific funding for road building, the costs would be levied from Section 106 agreements with housing developers (verbal communication with SBC planning policy officers) Additional housing capacity would lack the necessary community facilities and open space provision necessary to accommodate transformed quantity of housing development</td>
</tr>
<tr>
<td>All persons living in south Sittingbourne</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All persons living in Tunstall, Borden, Bredgar, St Michaels and Teynham wards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All persons living in Iwade and Minster/Halfway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persons employed in extended Kent Science Park</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Any Section 106 levy from increased building development based at Teynham, Iwade and Halfway, should not be diverted towards funding southern relief road costs</td>
</tr>
</tbody>
</table>

NB - In addition to those benefits identified in options 1-3:

Increased inward migration of new residents to the Borough who are largely economically active

Increased employment opportunities particularly those requiring a high skill base

Greater probability of sustained presence for existing businesses on the Kent Science Park site, the retention of growing businesses with the consequential prospects of increased employment

Further pursuance of employment diversification with specific focus on private sector employment, leading to greater diversity of employment within the Borough and reduced dependency on public sector employment

Lack of availability of Section 106 contributions to necessary community infrastructure including community buildings, schools provision, primary/community health service provision

Greater risks of increased car dependency within new developments, increased congestion in town centre and related pollution

Increased use of limited road capacity from central Sittingbourne and related areas to the Science Park and its access to the M2, increased risks of air pollution, congestion and road traffic accidents in south Sittingbourne

The absence of community facilities related to new developments will increase personal isolation with a risk of poorer mental health

Transformation of south Sittingbourne and its population structure would further widen the socio-economic divide of the town (specifically its more northern settlements, ie Murston, Kemsley, Milton Regis), thereby increasing community tensions (poor mental health, crime, alcohol and substance misuse)

SBC and its LSP should campaign for the costs of M2 junction 5a and southern relief road to be met from central road building funds

If there is a case to allow for the scale of development envisaged for south Sittingbourne in option 4, the southern relief road should not be funded from Section 106 levy but from other road funding sources

If there is a case to allow for the scale of development envisaged for south Sittingbourne in option 4, the southern relief road should not be funded from Section 106 levy but from other road funding sources

Any Section 106 levy from increased building development based at Teynham, Iwade and Halfway, should not be diverted towards funding southern relief road costs
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents of central Sittingbourne wards</td>
<td>Completion of northern relief road. NB there is no funding for this at present, access to the business park and industrial estates of north Sittingbourne are via a new road currently under construction but because of current lack of funding, will not be further developed into the full northern relief road round central Sittingbourne</td>
<td>Relief of traffic congestion in central Sittingbourne                                                                                                                                                                                                                                                                                                           SBC and LSP to campaign for the retention of the original line of the northern relief road</td>
<td></td>
</tr>
<tr>
<td>Residents of Teynham, Tonge, Murston, Kemsley, Milton Regis, Iwade</td>
<td>People employed in businesses in central Sittingbourne                                                                                                                                                                                                             Improvements to transport infrastructure such as roads can have a negative impact on health through air and noise pollution, accidental injury and death, community severance and a reduction in the uptake of sustainable forms of travel, eg walking and cycling and the use of public transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne</td>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne                                                                                                                                                                                          Relocation of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough                                                                                                                                                  Until full northern relief road is completed, a ban on HGV traffic through central Sittingbourne should be imposed (except for local access) with a requirement to use the A249, specifically where the direction of travel is eastwards along the M2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne</td>
<td>Diversion of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough</td>
<td>Similar levels of air pollution</td>
<td></td>
</tr>
<tr>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne</td>
<td>Diversion of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough</td>
<td>Improved levels of air pollution</td>
<td></td>
</tr>
<tr>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne</td>
<td>Relocation of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough</td>
<td>Air pollution has both short and long term damaging effects on health, it can worsen the condition of people who have heart and/or lung disease, it can aggravate asthma and in the longer term may reduce average life expectancy. Traffic contributes disproportionately to human exposure to air pollutants because they are emitted at nose height and in close proximity to people</td>
<td></td>
</tr>
<tr>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne</td>
<td>Relocation of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough</td>
<td>Traffic calming measures to be placed in the principle streets of inner urban areas relieved of traffic flow from a completed northern relief road in order to constrain opportunistic traffic increase from eased traffic flows</td>
<td>Traffic calming measures to be placed in the principle streets of inner urban areas relieved of traffic flow from a completed northern relief road in order to constrain opportunistic traffic increase from eased traffic flows</td>
</tr>
<tr>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne</td>
<td>Relocation of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough</td>
<td>Increased risk of accidents to persons from faster moving traffic (evidence shows a higher rate of road traffic accidents to children is caused to those from poorer backgrounds)</td>
<td></td>
</tr>
<tr>
<td>People travelling east/west; west/east across the A2 axis of Sittingbourne</td>
<td>Relocation of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough</td>
<td>A cheaper revised route for the northern relief road would threaten/abolish the established green corridor between east Sittingbourne and Bapchild resulting in:</td>
<td>20mph zones for East Hall Farm and residential areas of Murston</td>
</tr>
</tbody>
</table>
| People travelling east/west; west/east across the A2 axis of Sittingbourne | Relocation of heavy goods vehicles traveling to and from the industrial/distribution centres of north Sittingbourne from the eastern side of the Borough                                                                                                                                 | • Increased noise pollution to residents of East Hall Farm developments  
• Increased air pollution to residents of East Hall Farm developments  
• Risk of ‘rat runs’ from relief road through East Hall Farm and Murston unless expressly planned out  
• Risk of containment of east Sittingbourne from green space and countryside by the imposition of a ring road effect created buy the revised line of the northern relief road. As traffic volumes increase people’s sense of neighbourliness and the traffic density of their |                                                                                                             |
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Positive – beneficial</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Negative – adverse</strong></td>
<td></td>
</tr>
</tbody>
</table>

- Friendships decreases
- Roads and traffic create real and perceived barriers to social contact and can break social networks and change the quantity or quality of support they can provide
- Increased traffic through Bapchild and Teynham
- Increased risk to mental health through isolation effects of traffic volumes through affected areas

Reinforcement of health inequalities and social exclusion through the poorer areas of Sittingbourne remaining separated/segmented by corridors of heavy traffic through urban areas. Disadvantaged urban areas tend to be characterized by high traffic volume, leading to increased air pollution, noise pollution and increased risk of accidents. High risk groups for the adverse effects of particulates include older people, infants, people with acute respiratory infections and cardio-vascular problems. People who have existing mental health problems, e.g., depression or anxiety, are more prone to be annoyed and disturbed by environmental noise exposure than the general population, people who are ill, older people and people with existing sleep difficulties, are more likely to experience noise related sleep disturbance.

NHS Eastern and Coastal Kent commissioned for Swale Borough Council a Health Impact Assessment on the proposed redevelopment of Sittingbourne town centre and Milton Creek (Supporting Public Health 2009). Detailed recommendations promoting health improvement are specified therein and should where relevant be implemented as general planning guidance irrespective of whether the planned redevelopment of Sittingbourne town centre takes place.

All general health improvement policy measures as regards:

- Travel and mobility
- Housing and residential areas
- Community cohesion
- Planning design of new developments
- Green infrastructure
- Planning policies and health inequalities
<table>
<thead>
<tr>
<th>Population Group</th>
<th>Activity</th>
<th>Predicted health impacts</th>
<th>Comments/Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>All population groups of Faversham residents</td>
<td>Faversham – meet town’s needs from within existing urban framework</td>
<td>Broad social structure of town maintained</td>
<td>The promotion of inter-generational projects to reduce mistrust and mis-understanding by older persons and middle aged persons towards younger people and vice versa</td>
</tr>
<tr>
<td>All persons employed or schooled in Faversham</td>
<td></td>
<td>Housing aspirations for local people may become compromised</td>
<td></td>
</tr>
<tr>
<td>All visitors</td>
<td></td>
<td>Gentrification may reinforce existing inequalities and further divide communities</td>
<td>More training opportunities for young people</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employment prospects for the less skilled remain unchanged</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased commuting to workplaces outwith the town and often outwith the Borough</td>
<td>Focus on affordable housing for local people first rather than concede to market pressures for the higher housing market preferences of developers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased commuting leads to less community activity, more social isolation, the atomization of communities, more mental health problems</td>
<td>All new housing developments should follow the general principles laid out in the General Conditions for Health Improvement set out in this study and regardless of which option is adopted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existing traffic flows already causing some air pollution. There is an already recognized air quality issue at Ospringe</td>
<td>Continued focus on improved opportunities for cycling and walking within the town and into the surrounding countryside. Ensure the maintenance and preservation of open green space and parks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New retail associated with employment opportunities at Faversham Creek may impact on established businesses and related employment in the town centre. The net overall effect on employment may prove negative</td>
<td>Ensure that public access to community assets is maintained. Developments aimed at increased prestige and image, eg the regeneration of Faversham Creek, should not expressly exclude local people through measures that in effect ‘privatize’ public space</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child poverty rates do not improve</td>
<td>Explore with other agencies and sectors the opportunities to actively engage and use the skills of older people whether through re-training or through volunteering</td>
</tr>
<tr>
<td>All population groups of Faversham residents</td>
<td></td>
<td>Income deprivation of older people does not improve and is predicted to worsen</td>
<td></td>
</tr>
<tr>
<td>All persons employed or schooled in Faversham</td>
<td></td>
<td>Reinforcement of health inequalities through fundamental lack of change to socio-economic structure of the town</td>
<td>All general health improvement policies set out in the general part of the health impact assessment</td>
</tr>
<tr>
<td>All visitors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Group</td>
<td>Activity</td>
<td>Predicted health impacts</td>
<td>Comments/Recommendations</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>--------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>All population groups of residents in rural Swale</td>
<td>Rural areas to meet localized development needs as set out in the core policy</td>
<td>Broad social structure of villages and rural areas maintained</td>
<td>Positive – beneficial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some rural areas are already high in terms of relative deprivation – especially Leysdown and Warden but also mainland areas</td>
<td>Negative – adverse</td>
</tr>
<tr>
<td></td>
<td>Broad patterns of rural health status maintained – drivers limited to a predicted ageing of the population structure attributed to demographic change</td>
<td>High rates of child poverty will remain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High rates of older persons poverty will remain and can be predicted to increase</td>
<td>Public sector agencies to commission social enterprises/voluntary sector concerned with community and wellbeing and target at mature population groups</td>
</tr>
<tr>
<td></td>
<td>Low levels of educational attainment – especially in the rural parts of the Isle of Sheppey could remain</td>
<td>Poor employment prospects – especially for less skilled people remain</td>
<td>Continue to support the Sheppey Academy to innovate schooling patterns that specifically address attainment and improved aspiration of children living in rural communities. Continue to support children’s centres serving rural locations, particularly on the Isle of Sheppey.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of higher rates of crime especially Leysdown and Warden</td>
<td>Promote inter-generational projects</td>
</tr>
<tr>
<td></td>
<td>Isolation from many public amenities will remain</td>
<td>Some existing community amenities may become threatened, e.g. village stores, village schools, public houses – because of limited patronage through and aging (and poorer) population</td>
<td>Encourage social enterprises whether as a Borough-wide or County-wide initiative to support the maintenance of key community infrastructure that safeguards the quality of daily living in rural communities.</td>
</tr>
<tr>
<td></td>
<td>Rural areas of Swale suffer from lack of access to appropriate housing. This will be exacerbated over a strategic period if no counter measures – specifically affordable housing, are allowed for in rural areas</td>
<td>Rural areas to meet localized development needs as set out in the core policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor public transport will make the rural areas further isolated. High rates of mental illness could result from isolation. Also increase risk of</td>
<td>Maintain and enhance community transport infrastructure</td>
</tr>
<tr>
<td>Population Group</td>
<td>Activity</td>
<td>Predicted health impacts</td>
<td>Comments/Recommendations</td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>-------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Positive – beneficial</td>
<td>Negative – adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Group</td>
<td>Activity</td>
<td>Predicted health impacts</td>
<td>Comments/Recommendations</td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>-------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>People living in Sheerness West, Queenborough, Iwade, Bobbing, Borden, Bredgar</td>
<td>Port of Sheerness expansion (Options 3 and 4)</td>
<td>Positive – beneficial</td>
<td>Negative – adverse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sustained employment opportunities from a significant local employer</td>
<td>Risk of increased air pollution and traffic congestion from port access/egress in the surrounding areas and for those areas adjacent to the principal road (A249)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Opportunities for Port related employment to diversify away from an over dependency on the trade of motor vehicle imports</td>
<td>Port development whilst diversified, may be restricted to rapid import/export movements with less labour needs than at present</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential for Port based industry with related training opportunities for local people and especially local younger people</td>
<td>Port based industry is not developed, or is highly specialized demanding corresponding labour of necessity recruited from outwith the local area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Opportunity for additional housing to the creation of a new ‘docklands community’ in the vacated Port area adjacent to Sheerness; more employment opportunities during the construction period and potentially in servicing the new quarter once occupied, thereby enhancing the local economy of Sheerness</td>
<td>Disruption to western side of Sheerness during construction period</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overall employment effects prove marginal with minimal impact on a local community relatively isolated from main opportunities, consequent dampening of aspirations, generating further outward migration especially of younger people and ultimately poorer overall population health</td>
<td>Swale Borough Council with multi-agency and multi-sector partners should establish a standing working party on the specific community regeneration needs of western Sheppey and of the town of Sheerness in particular</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of separateness between newcomers within docklands community and the established communities of Sheerness</td>
<td>Ensure that public access to docklands development allows for and promotes an additional community asset/open space. The development of a prestigious housing development in the dockside area should not be designed to exclude local people through measures that in effect ‘privatise’ public space. The design of the docklands development should follow the principles set out in the general part of the health impact assessment, specifically as regards to: • Tourism • Housing and residential areas • Building for life • Integration and co-location of facilities • Adaptable buildings • Town centres • Community cohesion • Planning and design of new developments • Educational provision • Health facilities • Open space and regeneration • Infrastructure</td>
</tr>
</tbody>
</table>
How can planning policy within the Borough be employed to improve health?

Target populations and risks
Compared to many other parts of Kent, the health status of the Borough of Swale is not good overall. The 2010 health profile which compares Swale to the rest of England, continues to reflect a consistent pattern of poorer health status.

**Health Summary for Swale 2010**

![Image of a health summary chart]

Even this data at population level masks major disparities in health status within the Borough. The overall pattern is bolstered by segments of the population whose health is significantly better than the England average. This is a Borough with a continuing challenge of significant socio-economic disparity which is reflected in differential health status.
The distribution by socio-economic status across the Borough of Swale is steeply graded. The middle three quintiles are of broadly similar composition; the small number amongst Kent and Medway’s most affluent should also be noted.
The relative gap between richest and poorest has decreased. Overall life expectancy is the second lowest in Kent and Medway and the increase in life expectancy is amongst the lowest.

Over the 10 years 1999-01 to 2008-10, the long term trend has shown a marginal improvement in health status (a narrowing gap in life expectancy between richest and poorest). However this is largely explained by a worsening (and unexplained) health status amongst the richest residents of the Borough in more recent years.

With the current economic outlook the future prospects for the Borough are uncertain. However one of its strengths is that the employment base is less grounded on public sector employment when compared to some other parts of Kent.

Overall the planning options as currently stated, do not positively improve the health status and have the potential to reinforce the socio-economic divisions within the Borough. Some options have the clear potential to worsen the divide.

Local planning policy can have a profound effect on the factors that influence health status. The exercise of that policy should move beyond considerations that are primarily concerned with the physical environment or with economic development and look at the whole impact potential of such policies and specifically their capacity to improve health.

Many of the remedies required are in the hands of Swale Borough Council as the planning authority. With clear directive leadership that positively promotes and
incorporates the remedies outlined, the promotion of good population health within the Borough can be maintained and possibly improved.

Since many of the measures have implications outwith the strict confines of planning policy of Swale Borough Council and indeed outwith the powers of the Borough Council within the two tier structure of local government within Kent, the implications for planning policy that will shape the development of the Borough over the coming period, should be monitored at regular intervals by the Public Services Board of the Local Strategic Partnership in order to promote and agree a co-ordinated policy response.

Swale Borough Council’s Core Strategy, it’s long term planning policy, should seek, even if not described in such terms, to improve population health. Good health promotes wealth (Byrne 2003)³⁵

A long term strategy is likely to go through several iterations and re-assessments. The short term issues and priorities may evolve over the strategic period. Nevertheless through whichever partnership mechanism pertains at the time, the following questions should constantly be addressed:

1. **Exclusion, poverty, powerlessness are all vague and contentious terms. What kinds of exclusion should we focus upon?**

   A focus on ‘hardship’ – meaning living conditions we would all find hard to bear – and the hopelessness of those who see scant chance of escape from these hardships. Lack of control over one’s fate is a major threat to health and wellbeing. The definition of this problem is worth careful discussion because public opinion and community leaders may focus on the ‘easier’ cases. There is usually more public concern for the elderly and certain kinds of disability, eg veterans – rather than for unskilled, white middle aged working class men. Ultimately politicians will make their own choices, but they should do so with a good knowledge of the relevant facts.

2. **Who are the excluded people to whom priority should be given?**

   Swale Borough Council is typical of most of England and thus it is likely that the focus should be on the large and growing numbers of excluded people. In this regard, children, young people and those who care for them are likely to be the main groups needed to be safeguarded. There will be three overlapping groups whose interests we should have always in mind, people earning low wages, people out of work and lone parents.

3. **Do we know what is happening to these people?**

   Public services have regular and effective procedures for monitoring numbers, conditions and the problems experienced by these people and for publishing information so that over the years, civic leaders can see if things are getting better or worse for the target groups of any programme that is go counter social exclusion. All agencies should bring their data together to explore in
greater depth the needs for particular neighbourhoods and groups. Civic leadership should insist on this.

4. **Do we have effective ways of giving a voice to the people who are excluded and of ensuring that they powerful listen to what they say?**

Their is not the only voice that must be heard but it should be the first. The usual means of learning the views of the socially excluded should be used but it will be equally important to encourage easy informal communication by making front line services accessible, shared by different agencies, creating a team that becomes well known in neighbourhoods. That may be more valuable than inviting people to lots of meetings.

5. **What are likely to be the main priorities?**

In the areas of relative deprivation, safety, decent jobs (and therefore training and childcare too), usually come at or near the top of residents’ priorities. But such priorities should not be assumed until they have been checked out with the people experiencing the problems to be addressed.

6. **Can people be helped into decent jobs?**

So far the Government is focusing mainly on benefit cuts whilst providing training, childcare and advisory services – measures dealing with the supply side of the labour market. This is based on the assumption that the main problems arise from defects among people who have been out of work for a long time. Such measures will work very well in some places, eg Swindon, west London, M4 corridor. The bigger challenge is to provide jobs to replace those that still haven’t been replaced from the major thinning out of manufacture during the 1980s and 1990s. If unemployed people are placed in work they will only substitute for others who might have held those jobs.

7. **How can main public services rebuild social capital?**

Housing, planning, health and social services will all be involved. A central part must be played by education. In a system of two tier local government it is important that educational leadership is sustained within the wider context of regeneration. Public sector agencies should positively address:

- *How schools with the hardest job to do be helped.* (NB league tables are mainly a measure of the social privileges and handicaps of the schools)
- *How can children who have been excluded from school be helped to remain in or return promptly to the mainstream system.* Many of those who are recorded as having under achieved at school within the Borough have been excluded. How can this be addressed?
- *How can our more poorly qualified adults be helped to get further education and training.* The routes into professional and technical work need to remain open until middle life and sustained. *This is a particular challenge within the Borough in the absence of a local substantial further education presence.*
Finally, all partners need to recognise that there are places within the Borough where people in the public, private and voluntary sectors are working hard to address social exclusion. They need to be encouraged, recognising also that often they have set about rebuilding social capital within their own communities, without waiting on a lead from public sector bodies. In doing so they are maintaining an important tradition of local civic leadership which was familiar to our Victorian forebears.
Mosaic Public Sector – Kent and Medway groupings by location

Mosaic Public Sector is a population segmentation tool, designed specifically for use by the public sector. It focuses on the needs of citizens and provides a detailed and accurate understanding of population location, their demographics, lifestyles and behaviours.

Mosaic Public Sector provides a common currency that enables the same population to be viewed in the same way by all public bodies, thereby assisting joined-up government and partnership working.

To help support the understanding of the population and their service needs, Mosaic Public Sector is linked to a number of specific public sector data sources from criminal justice, education, the environment and health, as well as central and local government. This gives a considerable insight into the UK population and their requirements enabling agencies to deliver better value for money by focusing services around the needs of the individual.

The rural areas a predominantly populated by people who fall into group K (people living in rural areas far from urbanisation). In Faversham there is a mix of people with groups D (close knit, inner city and manufacturing town communities), C (older families living in suburbia) and H (upwardly mobile families living in homes bought from social landlords) being the most prevalent.
There is a similar pattern in Sittingbourne with groups C and D being prevalent. Sittingbourne also has a large section of group B (younger families living in newer homes) and group I (older people living in social housing with high care needs).

The groups of people who live on the Isle of Sheppey fall into three main categories. There are those from groups D and G (low income families living in estate based social housing) who live in Sheerness and people from group C in Minster.
<table>
<thead>
<tr>
<th>No</th>
<th>Ward name</th>
<th>No</th>
<th>Ward name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Iwade and Lower Halstow</td>
<td>14</td>
<td>West Downs</td>
</tr>
<tr>
<td>2</td>
<td>Minster Cliffs</td>
<td>15</td>
<td>Sheppey Central</td>
</tr>
<tr>
<td>3</td>
<td>Milton Regis</td>
<td>16</td>
<td>St Ann’s</td>
</tr>
<tr>
<td>4</td>
<td>Watling</td>
<td>17</td>
<td>Sheerness East</td>
</tr>
<tr>
<td>5</td>
<td>Teynham and Lynsted</td>
<td>18</td>
<td>East Downs</td>
</tr>
<tr>
<td>6</td>
<td>Queenborough and Halfway</td>
<td>19</td>
<td>Grove</td>
</tr>
<tr>
<td>7</td>
<td>Borden</td>
<td>20</td>
<td>Roman</td>
</tr>
<tr>
<td>8</td>
<td>Hartlip, Newington and Upchurch</td>
<td>21</td>
<td>Boughton and Courtenay</td>
</tr>
<tr>
<td>9</td>
<td>Leysdown and Warden</td>
<td>22</td>
<td>Kemsley</td>
</tr>
<tr>
<td>10</td>
<td>Woodstock</td>
<td>23</td>
<td>Chalkwell</td>
</tr>
<tr>
<td>11</td>
<td>Davington Priory</td>
<td>24</td>
<td>St Michaels</td>
</tr>
<tr>
<td>12</td>
<td>Murston</td>
<td>25</td>
<td>Abbey</td>
</tr>
<tr>
<td>13</td>
<td>Sheerness West</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Swale has a higher percentage of under 19s than the national profile but a much smaller proportion of 20 to 34s. The pyramid also highlights the largest section of the local population are aged 35 to 49.

The proportion of the population in all categories between the ages of 60 and 75 is also higher than the national average. This will have an impact on health services because people over 60 will generally have greater health needs and service usage.
The highest numbers of children aged 0-4 are in Sheerness East, Kemsley and Grove wards. All of these wards have between 500 and 700 0-4 year old children. There are no wards in Swale that contain fewer than 100 children.
There is a greater proportional distribution of young people (0 to 19) in Kemsley, Queenborough and Halfway, and Sheppey Central wards. All of these wards have more than 2,000 of the population under the age of 19 years.
The area with the highest number of working age people is Sheppey Central. Grove, Kemsley, Minster Cliffs and Queenborough and Halfway also have high levels. Davington Priory and West Downs are the wards with the lowest numbers of working age people.
There are relatively high numbers of older people (65+) living in Watling, Woodstock and Hartlip, Newington and Upchurch wards on the mainland and Minster Cliffs, Sheppey Central and Queenborough & Halfway wards.

This will have implications for NHS commissioning bodies and those providing services because the 65+ age group use health services at a higher rate relative to the rest of the population. Acute service usage by individuals from these areas will continue to be based predominately in Medway.
The rural parts of Swale are relatively sparsely populated with 0-1 people per hectare. The most densely populated area is Sheerness East, followed by the wards around the centre of Sittingbourne and the St Ann’s ward in Faversham.
Population projections from the Office for National Statistics (ONS) show a rise in all age groups over the next five years with the largest percentage rises occurring in the 65+ age group. The rise in this group is predicted to increase by 3.7% in 2010 and by 20.1% in 2014. The overall population projected increase for Swale for 2014 is around 5% and would result in the size of the population just below 139,000.

Future NHS commissioning bodies will need to take account that planning will be necessary for an increased population capacity, particularly as regards older people’s health services. Older people’s needs place greater demands upon health services and it may be necessary to expand the capacity of certain health services such as general practitioners in areas where it can be predicted that there is both marked demographic change as well as an overall increase in the local population.
The General Fertility Rate (GFR) measures the ratio between the number of new born babies to the number of females aged 15 to 44 in each year. The GFR for Swale has risen steadily in recent years to a high of 66.7 in 2008. The trend in rising GFRs is also seen across the other local authorities in the area with the exception of Canterbury.
There are considerable differences in the General Fertility Rates (GFRs) for each electoral ward over a five year period. The slide shows that the highest rates are in Sheerness East, Grove and Iwade & Lower Halstow and Kemsley. The lowest rates are found in East Downs, Woodstock and Minster Cliffs.

Sheerness East, Kemsley and Grove wards also had the highest proportion of 0 to 4 year olds. Iwade & Lower Halstow, Kemsley and Grove have a concentration of relatively new property developments that attract young families, which may account for the higher GFR. Sheerness East is a more deprived area that has one of the highest teenage conception rates in Kent.

The implications of the GFRs at a localised level are that it shows where the infant population will increase most in the future. This will show where the greatest need is to target interventions aiming to ensure that children are given a healthy start in life. This is particularly important if the area has higher relative deprivation such as Sheerness East.
The teenage conception rate for Sheerness East, Sheerness West and Leysdown and Warden was relatively high in comparison to most areas of eastern and coastal Kent. Only Minster Cliffs has a teenage conception rate of less than 25 per 1,000.

This data fits with the notion that women from poorer backgrounds are more likely to become mothers as a teenager, young women from social class V being ten times more likely to become teenage parents than those from social class I. Teenage pregnancy reflects limited aspirations and often culturally determined notions of self-worth. It is important to aim to reduce teenage conceptions because evidence suggests that teenage mothers and their children face poorer social, economic and health outcomes than their older peers. Clinically, such outcomes include an increased risk of premature birth, low birth weight and infant death. Teenage mothers are more likely to suffer from poorer mental health in the three years after giving birth compared with older mothers, more likely to have male partners who are poorly qualified and suffer unemployment and more likely to be single parents, again at increased risk of being unemployed and economically and socially deprived. A high teenage conception rate in an area with existing deprivation makes it more difficult to break the cycle of health inequalities.
Indices of Multiple Deprivation (IMD)

The Indices of Multiple Deprivation are constructed using 36 variables across seven domains. These domains are income, barriers to housing, health and disability, crime, education, living environment and employment. Scores are present at lower super output areas (LSOAs). LSOA areas are constructed using populations from communities or naturally bounded areas. The number of people in an LSOA is between 1,000 and 1,500 and they are aggregated together to form electoral wards. The number of LSOAs in an electoral ward can vary from one to five depending upon the original size of the electoral ward. For each map in this section the overall and domain scores have been split into local quintiles (five equal parts) with the fifth quintile being the most deprived and the first being the least deprived for the area.

The overall index shows that the 20% most deprived areas of Swale are found mostly on the Isle of Sheppey in all of Sheerness, Leysdown, Queenborough and Eastchurch in the Sheppey Central ward. There are also several areas of Sittingbourne that fall into the worst 20%; parts of Murston, Milton Regis and Kemsley. There is also a small concentration of relative deprivation in Davington Priory ward in Faversham. The least deprived areas of Swale are Woodstock and West Downs ward areas, Upchurch, parts of grove and Kemsley wards in Sittingbourne and parts of the Davington Priory and Watling wards in Faversham. Knowledge of the location of the most deprived communities is important in order to understand where the varying health need may be greatest. For example, there is an association between deprivation and a multitude of lifestyle choices such as smoking and poor diet.
There are strong similarities between overall deprivation and the individual domains, although there are slight differences for some of the Lower Super Output Areas (LSOAs) depending on the domain. Deprivation for income is a strong reflection of the overall deprivation score. Income deprivation affecting children is a sub domain of the income domain exhibits similar patterns to the overall index, although the levels of child poverty are a little more wide spread in Sittingbourne and Faversham. Income deprivation affecting older people slide shows similar patterns to the overall index although there are a few more areas in Faversham that fall into the worst 20%.

The scores for the individual domains can be useful because it can give a reason as to why particular communities may have relatively higher levels of deprivation. For example, some areas are not in the most deprived quintile overall, but may be for a particular domain. Therefore it highlights that specific action may be required around the improving particular domains deprivation score for communities.

Income deprivation takes account of income support, job seekers allowance, family tax credit, disability tax credits, asylum-seeker subsistence and accommodation support. The income deprivation profile reflects the overall deprivation profile for Swale.
Employment deprivation includes unemployment claimant count, severe disablement allowance, incapacity benefit claimants. The employment deprivation profile reflects the overall deprivation profile for Swale.
Education deprivation describes the average points score by pupils at key stages two, three and four, the proportion of young people not staying on in school or non-advanced further education above 16, the secondary school absence rate, the proportion of those aged under 21 not entering higher education and the proportion of working age adults (aged 25 to 54) in the area with no or low qualifications. The education deprivation profile is similar to the overall deprivation profile for Swale.
Deprivation due to health and disability includes mortality rates, comparative illness and disability ratio, emergency admissions to hospital (derived from hospital episode statistics) and adults under 60 suffering from mood or anxiety disorders (based on prescriptions, hospital episode statistics, suicides and health benefits data. Health deprivation for Swale is a close reflection to the overall deprivation profile for Swale.
The crime deprivation domain covers burglary, theft, criminal damage and violence. The highest crime deprivation is in Sheerness, Leysdown, Kemsley, Milton Regis, Murston, the rural area around Teynham, part of the St Ann’s ward and part of the Abbey ward in Faversham.
The domain relating to deprivation regarding barriers to housing fall into two sub-domains: geographical barriers and wider barriers. Geographical barriers take into account road distance to doctor surgery premises, supermarket, primary school and post office and the wider barriers include household overcrowding and difficulty of access to owner-occupation. The association with overall deprivation is less clear due to housing affordability having an impact on the domain score.

Most of the rural area of Swale and the eastern part of the Isle of Sheppey are the most deprived for this domain.
Living environment deprivation includes social and private housing in poor condition, housing without central heating, air quality and road traffic accidents involving injury to pedestrians and cyclists. The highest levels of deprivation for this domain are in Sheerness East and part of Sheerness West, Leysdown, the area to the north of Sittingbourne centre, and parts of the rural wards of East Downs, Teynham and Lynsted and Boughton and Courtney. There is not a clear relationship with overall deprivation for this domain.
The average gross weekly wage earnings of males living in Swale is £506 a week, females can expect to earn £388 a week. This places them third and second respectively in comparison with other local authorities in the eastern and coastal Kent area. The ratio of female to male average earnings in Swale is 0.76 (compared to 0.6 in Shepway and 0.86 in Thanet).
The main causes of death are from circulatory diseases (35%) and cancer (27%). Within circulatory disease, just under half are due to coronary heart disease and just under a quarter are due to strokes. For cancer deaths, the majority are for cancers of the digestive system and respiratory system.
Trends in all age all cause mortality (AAACM) have been steadily falling over the past 10 years or so. The rates in males remain higher than the female rate. The rates for the eastern and coastal Kent area are broadly comparable to the rates for England, slightly higher than the West Kent area but slightly lower than Medway.
Trends in all age all cause mortality (AAACM) rates in Swale are consistently higher than that of the rest of the eastern and coastal Kent area. In 2005, the gap narrowed to the extent that the Swale rate was below the eastern and coastal Kent rate, but since then the rate for Swale has been slightly higher.
Cancer mortality rates in the under 75 in Swale have been steadily falling and are generally comparable than the eastern and coastal Kent rate.

Circulatory mortality rates in the under 75 in Swale have been steadily falling and are consistently higher than the eastern and coastal Kent rate.
Respiratory mortality rates in the under 75 in Swale have been relatively stable and higher eastern and coastal Kent rate. There was a decrease in the rate in 2007 to the extent that the rates were almost the same.
Trends in infant mortality are harder to analyse when there are only a small numbers of infant deaths in an area. The national infant mortality rate has been steadily falling since 1998 whereas the trend in the eastern and coastal Kent area and Swale has been rising, however the very small numbers involved (average of 39 infant deaths per year in the eastern and coastal Kent area and just an average of just 8 in Swale) mean that the year on year rate can varying erratically.
Admission rates in Swale for admission due to an assault are broadly comparable with those for the eastern and coastal Kent area. Admission rates for alcohol and drug related conditions have fallen below the eastern and coastal Kent rates in recent years.
Burglary, criminal damage and theft are the offences that resulted in the highest crime rates in Swale in 2007/08.

Housing Tenure and Overcrowding in East Kent districts

<table>
<thead>
<tr>
<th></th>
<th>Kent 402598</th>
<th>Ashford 30900</th>
<th>Canterbury 40277</th>
<th>Dover 31763</th>
<th>Shepway 29923</th>
<th>Swale 36327</th>
<th>Thanet 38863</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned</td>
<td>402598</td>
<td>30900</td>
<td>40277</td>
<td>31763</td>
<td>29923</td>
<td>36327</td>
<td>38863</td>
</tr>
<tr>
<td>Overcrowded owned</td>
<td>9814</td>
<td>680</td>
<td>954</td>
<td>714</td>
<td>759</td>
<td>978</td>
<td>952</td>
</tr>
<tr>
<td>Rented from council</td>
<td>41484</td>
<td>5287</td>
<td>5321</td>
<td>4936</td>
<td>3617</td>
<td>653</td>
<td>3434</td>
</tr>
<tr>
<td>Overcrowded rented from council</td>
<td>5219</td>
<td>573</td>
<td>898</td>
<td>515</td>
<td>598</td>
<td>108</td>
<td>455</td>
</tr>
<tr>
<td>Other rented</td>
<td>1323</td>
<td>204</td>
<td>1609</td>
<td>1889</td>
<td>1420</td>
<td>930</td>
<td>3933</td>
</tr>
<tr>
<td>Overcrowded socially rented</td>
<td>204</td>
<td>204</td>
<td>304</td>
<td>284</td>
<td>253</td>
<td>930</td>
<td>559</td>
</tr>
<tr>
<td>Private rented or living rent free</td>
<td>63940</td>
<td>4030</td>
<td>8377</td>
<td>5725</td>
<td>6197</td>
<td>5345</td>
<td>9009</td>
</tr>
<tr>
<td>Overcrowded private rented or living rent free</td>
<td>5222</td>
<td>204</td>
<td>304</td>
<td>284</td>
<td>253</td>
<td>930</td>
<td>559</td>
</tr>
<tr>
<td>Total % of Overcrowded Households</td>
<td>8667</td>
<td>425</td>
<td>1387</td>
<td>571</td>
<td>877</td>
<td>651</td>
<td>1289</td>
</tr>
</tbody>
</table>

Swale has the smallest number and proportion of council homes (1.3%) in the eastern and coastal Kent area but the largest proportion of socially rented homes (14.1%). The area also has the third lowest percentage of overcrowded homes in the eastern and coastal Kent area.
There have been changes in the types of houses that have been built in Swale in recent years. There are now much fewer 4 and 5 bedroom houses being built than at the turn of the century, but far larger numbers of 2 and 3 bedroom properties.

This trend may improve the supply of affordable homes in the area.
References


2 A number of HIA guides can be found on the HIA Gateway: www.hiagateway.org.uk


5 Health Inequalities. Progress and Next Steps. 9.6.08 Department of Health


9 Ison E, Public Health Resource Unit Aug 2008, HIA of the Wincheap Draft Development Brief


13 Scott-Samuel A, Cooke A, Stansfield J (2008) 9th International Health Impact Assessment Conference. IMPACT, Liverpool


16 Mental Health Action Plan for Europe, World Health Organisation 2005

17 The Egan Review: Skills for Sustainable Communities, 2004


19 Acheson Sir Donald (1998) Independent Inequity into Inequalities in Health, Department of Health

21 Gothenburg consensus paper, op.cit


30 Ruiz J (2004) A literature review of the evidence for culture, the arts and sports policy. Scottish Executive


