Cambridgeshire County Council

NHS Cambridgeshire

Joint Strategic Needs Assessment

New Communities 2010

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1. EXECUTIVE SUMMARY

KEY
In this section the following applies to bullet points:
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What do we know?

1.1 Facts, figures and trends

Demography

- Age structure is a key factor for planners and service providers as it affects requirements for services such as education, health, leisure, arts and sports facilities. It influences household composition and therefore the overall size of a new development's population.
- People who move into new developments can have very different population characteristics to the surrounding area.
- Initial populations tend to have a young age structure, with many young couples and young children, and very few older people.
- Population age structures change markedly over time as developments mature, with children and adults ageing and the age structure gradually becoming older and more similar to the surrounding population. This process may take as long as 30 years.
- Type of tenure is important, as more children tend to live in social housing than market housing. Building specific types of properties, such as retirement or sheltered housing, can bring specific population groups to a development which can help create a more balanced community in the initial phases.

Table 1: Average number of people per household, by property size and tenure, for new developments in Cambridgeshire

Tenure	1-2 beds	3 beds	4+ beds
Market housing	1.50	2.55	3.30
Social Rented housing	1.70	3.60	5.40

Source: Household size multipliers for new developments, Cambridgeshire County Council Research Group October 2009

- The demographic profiles available for planning new communities may lack the dimensions to plan for the diverse needs in new communities[1]. It is extremely difficult to predict the eventual diversity of the new communities. Diversity encompasses age, experience, culture, physical and mental ability, race and background.

Housing needs

- Housing affordability is a major issue for Cambridgeshire with Cambridge City and South Cambridgeshire less affordable than the three other districts.

[1] Building Communities that are Healthy and Well in Cambridgeshire, Cambridge City and South Cambs Improving Health Partnership with Cambridge Council for Voluntary Services (June 2008) http://www.cambridgeshire.nhs.uk/Your-health/Health-in-Cambridgeshire.htm

- In June 2009, Hometrack[2] provided the ratio of average income to purchase price for an average home in each district:

Table 2: Price of average home in relation to average income at June 2010

City	8.78 times	South Cambridgeshire	6.98
Fenland	4.80	East Cambridgeshire	5.82
Huntingdonshire	5.32		

Source: Hometrack

- Using registers of expressed housing need and other key housing market data, the Strategic Housing Market Assessment[3] (SHMA) has projected the number of affordable homes needed in each district. The latest SHMA update was completed in 2009, based on 2007/08 data. The overall net need for new affordable homes per year is presented in the table below.

Table 3: The overall net need for affordable homes per year

City	1,609 homes	South Cambridgeshire	1,552 homes
Fenland	694 homes	East Cambridgeshire	849 homes
Huntingdonshire	1,038 homes		

Source: Strategic Housing Marketing Assessment

- The need for affordable and specifically rented housing across the sub-region has increased without a proportional increase in social housing stock. Some 15% of existing homes across the housing sub-region are socially rented - that is, from a council or a housing association. While overall housing stock has increased by 5% in the past five years, social housing has increased by just 0.3% in the same period.
- Following the change in Government in May 2010, it was announced that there was an intention to reduce regional planning and abolish regional plans. For the purpose of this JSNA, the East of England Plan remains the most relevant plan until it is superseded or replaced by other measures.
- New developments have the potential for improving the provision of affordable and social housing and also bring new opportunities to look at services afresh, and explore new more appropriate models of delivery. Implementation of new services and infrastructure may also be affected by policy and funding changes.

Out and about: transport, green spaces and the built environment

- Living close to green space reduces mortality. Planning for green space could therefore help to reduce the inequalities of life expectancy experienced between socio-economic groups.
- Aspects of the built environment such as energy efficiency, ventilation and safety features of houses have a direct impact on health. High quality building can be health promoting.
- Transport planning can enhance health by promoting active transport (such as cycling and walking), facilitating social interaction, improving access to green spaces, fresh food and other amenities as well as services that promote health.
- Good transport planning can reduce the risk of injury to road users and pedestrians and minimise air pollution.

2 www.hometrack.co.uk

3 Cambridge housing sub-region's SHMA June 2008 is available at: www.cambridgeshirehorizons.co.uk/shma.

- People are more likely to walk, cycle and play in natural, attractive spaces. The overall 'quality' of the green space – its function, safety, accessibility, emotional and physical attractiveness with diverse and interesting natural sights is an important theme in the frequency and consistency of its use.
- Exposure to green spaces is good for health, can improve mental wellbeing and it may stimulate more social contact.
- Community gardening can serve as a mechanism for combating social isolation and promoting social cohesion by contributing to the development of social networks. Positive health benefits include improved access to food and increased physical activity. Factors which promote the use of community gardens include safety, proximity to users' homes providing natural surveillance and secured tenure.

Social environment

- When planning for new communities, it is important to understand and make provision for the factors that contribute to developing the *social environment* alongside planning for the more visible aspects of the physical environment such as community facilities.
- Aspects that contribute to the social environment are social capital, social cohesion and social infrastructure.
- Social capital can be described as the collective value of a person's social networks which are a key aspect of mental wellbeing and of stronger healthier connected communities. Approaches known to be effective in building social capital are those that help people increase social contacts, engage in community activities and contribute to their local community[4]. It can be enhanced by improving community participation in local governance[5].
- Social infrastructure is made up of a number of components: community development work; community facilities; groups and organisations; grant funding; learning and skills development; volunteering and other mutual support.
- The need to put in place mechanisms for building social capital and for community support in order to create a sense of belonging for people was identified in the report on New Towns[6]. Voluntary organisations and the church were seen as means to encourage integrated communities. Posts with a neighbourhood base were developed to foster social relationships and help the new residents to settle into their new homes and communities.
- Effective community engagement is dependant on the existence of both community and organisational capacity[7].
- A conclusion of a review conducted in Cambourne in 2005[8] is that planners and housing providers need to do everything in their power to create the conditions in which social capital can flourish and trust can be built.

4 Social Capital for health; issues of definition, measurement and links to health HDA 2004, http://www.nice.org.uk/niceMedia/documents/socialcapital_ issues.pdf

5 Skidmore P, Bound K, Lownsbrough H (2006). Community Participation: Who Benefits? York: Joseph Rowntree Foundation.

6 Transferable lessons from the New Towns July 2006, Department for Communities and Local Government.

7 Popay J Community engagement and community development and health improvement: a background paper for NICE 2006 (available on request by emailing antony.morgan@nice.org.uk or lorraine. taylor@nice.org.uk).

8 Cambourne: a sustainable community? Nov 2005 http://www.scambs.gov.uk/admin/documents/retrieve.asp?pk_document=3574

Monitoring health and wellbeing

- The profile and needs of new communities will change as they evolve. Monitoring is necessary to identify the changing needs of the growing community so that adjustments and continuing improvement can made throughout the life of a development [1]. Mental health issues have been one of the greatest concerns in recent new settlements in the county.
- An important criterion for a health indicator is that it should be based on data of sufficient quality in terms of: its availability, coverage, sample size, accuracy and frequency of collection. Data sources for monitoring health and wellbeing are either routine statistics or surveys.
- Existing data sources and surveys such as the Place Survey are not sensitive to the rapid changes that may occur in new communities and are not feasible for monitoring health and wellbeing in the population sizes typically involved such as in Cambridge Southern Fringe or St Neots eastern expansion.
- The measurement and monitoring of mental health and wellbeing can in itself be an important aspect of community development of new communities. The 'People Assessing Their Health' (PATH) project in Canada is one such approach. This is a facilitated approach where the community identifies the issues of importance to them and selects the indicators to be used.
- The potential for collecting timely information about issues that matter to the community using standard tools such as Place Survey questions has been shown to be feasible in North Huntingdon. If community members volunteer their time and skills this can reduce cost while increasing levels of participation, volunteering and civic engagement. Response rates from so called "hard to reach" groups may also be improved by this approach.

1.2 Local views

- The Cambridgeshire Quality Charter for Growth[9] provides a vision for new growth in Cambridgeshire. It was developed taking into account views from a broad range of local practitioners, and was based on local priorities and learning from elsewhere. Its themes are summarised under the four Cs: Community, Connectivity, Climate and Character. There is also a cross cutting theme of Collaboration.
- Local planning authorities will use the Quality Charter as a consideration in their decision making, especially in determining planning applications.
- "There is something of a pioneer spirit about the early residents – determined to make the best of their circumstances and to better themselves and their families!" Colin Wiles in Cambourne: a sustainable community?
- South Cambridgeshire District Council's Scrutiny and Overview Committee interviewed a range of local people involved with the development of Orchard Park (previously Arbury Camp - a new development in North Cambridge) over a six month period in 2008[10]. Among the achievements cited was the setting up a local members forum. A key lesson learnt was the need to produce an agreed design guide that should be adhered to through the phases of the development. A

9 Cambridgeshire Quality Charter, 2008. www.cambridgeshirehorizons.co.uk/documents/publications/horizons/quality_charter.pdf

10 Arbury Park Scrutiny Review, October 2008. http://scambs.moderngov.co.uk/ieSearchResults2.aspx?SS=Orchard&DT=3&WI=0&CI=417&CA=false&SB=true&CX=ooicyxhl.tnn&PG=1

recommendation was that a community development plan should be produced at a very early stage for each new development.

- Cambourne and Orchard Park are two new communities within South Cambridgeshire. Results from the district wide Place Survey did not allow for statistically robust results from residents living in these areas. Therefore a survey was undertaken with all residents in the new communities to allow South Cambridgeshire District Council to compare and contrast the results with the overall district results.

Table 4: Results of a survey carried out with all residents in the new communities to allow South Cambridgeshire District Council to compare and contrast the results with the overall district results.

Indicators where residents in new communities have higher scores than the district	Indicators where residents in new communities have lower scores than the district
People 'very well' or 'fairly well' informed about what to do in the event of a large-scale emergency (26.7% compared to District score of 14.6%)	People who 'very' or 'fairly' strongly feel that they belong to their neighbourhood (46.2% compared to District 63.9%)
People who rate their health in general as very good or good (89.0% compared to District 81.6%)	People who perceive drunk or rowdy behaviour to be a problem in local area (17.9% compared to District 8.6%)
People who are treated with respect and consideration by local public services 'all' or 'most' of the time (83.1% compared to District 77.5%)	People who perceive drug use or drug dealing to be a problem in local area (22.0% compared to District 13.1%)
People who agree the police and local public services seek people's views about anti-social behaviour and crime issues (29.1% compared to District 27.5%)	People who have participated in regular volunteering in last 12 months (24.1% compared to District 33.0%)
	People satisfied overall with local area (81.7% compared to District 90.4%)
	Anti-social behaviour (15.9% compared to District 7.5%)
	People who think older people receive the support they need to live independently (23.8% compared to District 29.8%)
	People who have taken part in a civic activity (15.1% compared to District 20.1%)
	People who agree they can influence decisions in their locality (30.3% compared to District 33.6%)

Source: CELLO MRUK Research: Place Survey – Orchard Park and Cambourne, 2009

The Building Communities that are Healthy and Well in Cambridgeshire Project[1] in 2008 used three local events to examine issues related to mental health and wellbeing in new communities.

Key findings and outcomes included:

- Planning for the hard infrastructure alone will not build a community and a matrix of formal and informal opportunities or supported activities will be needed. However, given the scale of the growth, it was clear that this would present a challenge to the flexibility of voluntary sector organisations to respond.
- A list of actions and specific roles were identified that are believed to be successful in reaching the outcome of a healthy and well community. Different agencies and interests ranging from transport and health workers to community policing, would benefit from a single point of coordination, supported by partnership funding to help achieve people-centred solutions.
- A methodology was developed that provides principles for planning for the diverse needs of future communities. It puts people into the planning process and also helps to generate a 'menu' of roles and activities that contribute to a strong and cohesive community.

The People Proofing Principles for the growth agenda

Set up a coherent social development team structure at the outset
Agree the evaluation method at start
Design all activities and actions designed to meet **People Outcomes**

People Outcomes:

1. **I can meet up with people I know**
2. **I can meet new people**
3. **I can have a say in how things are run around here**
4. **I can run things around here**
5. **I can easily get the information I need (and easily get to facilities for) health, leisure, transport, housing, education, environment etc**
6. **I know who to go to for help with…..**

Monitor actions against outcomes
Review effectiveness of actions as a team
Change or design new actions
Survey local population about improvements using People Outcomes
Cycle of monitoring and reviewing (at least annually)

What is this telling us?

1.3 What are the key inequalities?

- Providing appropriate housing for Cambridgeshire's ageing population is a significant issue, and work about the aspirations of older people and the need for different housing models is ongoing. Details are given in the JSNA chapter on Older People and the Strategic Market Housing Assessment.
- Housing needs have been indentified for several vulnerable populations in Cambridgeshire. These are discussed in detail in JSNA chapters on Homelessness, Learning Disabilities, Travellers and Migrant Workers.

- The Supporting People programme has commissioned work to project housing support needs for each vulnerable client group. Given the anticipated growth it is expected that the need for housing support services will increase considerably over coming years.
- The districts where the greatest growth in need for supported household units is anticipated are Huntingdonshire and South Cambridgeshire.
- Housing affordability is a major issue for Cambridgeshire but Cambridge City and South Cambridgeshire are affected to a greater degree than the three other districts.
- The need for socially rented housing across the sub-region has increased without a proportional increase in social housing stock.

1.4 What are the gaps in knowledge/services?

- The type of housing provided influences the demography of new communities. Market forces largely determine the housing stock developers provide. However, it is unclear whether different types of housing provision and marketing would change market demand.
- An important question is whether provision of housing to meet the needs of older populations would attract more of this age group into new communities.
- Provision of social amenities should be available when the first residents move into a new community. The range and type of provision will change as the community develops. Economic viability of these facilities is important especially for those that require large footfalls such as pubs and shops. There is a gap in knowledge about the best models for ensuring adequate provision of amenities for initial residents in new communities.
- Service provision in new communities can also help to alleviate need in existing communities and could potentially help to redress inequity in provision. However, current funding regimens dictate that developer contributions can only be used to provide for needs that arise specifically from the new settlements.
- In addition to capital investment for social infrastructure, revenue streams are needed to ensure that community development approaches are sustained and adapted as new communities form. There is uncertainty about how to provide sustainable revenue funding.
- Although the social environment is recognised as important for the development of healthy new communities, the focus of planners and developers is often primarily on the provision of physical infrastructure. There is a substantial gap in understanding how to ensure these softer elements do not fall off the agenda or lose priority.

1.5 Is what we are doing working?

- The planning process already incorporates measures to ensure that best practice is maintained in the provision of the physical environment in new developments.
- The Quality Charter and Quality Panel as well as the Green Infrastructure Strategy for Cambridgeshire are useful mechanisms to ensure that developments adhere to locally agreed principles for sustainability and quality in new developments.
- In a recent audit, the Department for Education (DfE) was very positive about the work that Cambridgeshire County Council had done with partners in relation to Cambridge Southern Fringe and how new services are to be provided to support children and young people.

1.6 Recommendations

1. Plan housing and the places we live so that they reflect the changes that occur over the lifetime, and so that people are not excluded by design as they grow older and frailer[11] or as their circumstances change. 'Lifetime homes' is a mechanism for achieving this.
2. Provision for affordable housing needs to include a range of options to address the need for social rented housing.
3. Options need to be developed to fund more flexible service provision to allow greater integration of new communities with existing settlements than offered by current Section 106 arrangements.
4. Ensure resourcing of community development roles which may be fulfilled by different workers employed by different agencies and in different phases but within an agreed and coordinated approach. This in keeping with the findings of the Building Communities that are Healthy and Well in Cambridgeshire report and the report's recommendations should be adopted:

   When planning new communities

   - At every stage of planning, ensure that partners have a well defined and co-ordinated approach to community working.
   - Include a range of community roles that reflect the needs of a diverse population and are identified by an agreed methodology such as the 'People Proofing Principles' identified by this project.
   - Partners need to ensure there is mainstream funding to sustain the implementation of this approach, in addition to any Section 106 funding.
   - Agree a monitoring system based on criteria that ensure people have opportunities for inclusion eg as illustrated by the 'People Proofing Principles'. Include an action researcher to facilitate this process and to ensure that any required adjustments to the community support infrastructure are made in a timely and appropriate manner.

5. There should be a mixture of formal and informal green spaces, which should include considerations for community gardens and allotments that are close to residential areas, accessible, well-maintained and well connected to existing networks of strategic spaces and walking routes such as green chains.
6. There should be consultation with residents of new communities, at the earliest opportunity, about the provision of community resources including green space provision, a clear allocation of responsibilities in managing these resources and a mechanism to ensure that locally agreed monitoring is implemented and the results acted upon.

11 Lifetime Homes, Lifetime Neighbourhoods: A National Strategy for Housing in an Ageing Society.

2. INTRODUCTION

Joint Strategic Needs Assessment (JSNA) was introduced in the Government's *Commissioning framework for health and wellbeing* published in March 2007[12]. JSNAs form the basis of a new duty to co-operate for Primary Care Trusts (PCTs) and local authorities.

A JSNA is the means by which primary Care Trusts (PCTs) and local authorities describe the future health, care and wellbeing needs of the local populations and the strategic direction of service delivery to meet those needs. The reason for doing a JSNA is to develop the whole health and social care response so that it more closely meets the wants and needs of local people.

The aim of a JSNA is to:

- Provide analyses of data to show the health and wellbeing status of local communities.
- Define where inequalities exist.
- Provide information on local community views and evidence of effectiveness of interventions which will help to shape future plans for services.
- Make specific recommendations based on the information and evidence collected.

Unlike other JSNAs, this one focuses on the health and wellbeing needs of new communities which do not yet exist. While all JSNAs use some assumptions about future changes in size and needs of the population, to plan for their health and wellbeing needs, these extrapolations are generally based on fairly stable estimates in existing populations. For a whole new community, this is more difficult as some of the residents will come to Cambridgeshire from other parts of the UK and the world, while others already live near to the new community. Every new community is different and while lessons learnt from experiences in one community can inform planning for another there must necessarily be caution in transferring these lessons from one setting to another.

The particular challenge for a JSNA is that each new community poses very different challenges. The largest and most complex such as Northstowe will be built over relatively long periods of time (15 years – not allowing for any slow downs during periods of economic downturn). This prolonged period will likely have unpredictable impacts on community identity and cohesion, and in turn on mental health and wellbeing.

Smaller developments will also have impacts on existing neighbouring communities and infrastructure. It is difficult to guarantee that the relevant infrastructure and services will be available when needed, despite the best laid plans. For example, decisions about transport infrastructure though informed by spatial plans for housing are taken independently. Health care facilities must similarly be commissioned at the optimal point. If delivered too early the facilities are underused and uneconomical; if delivered too late then health needs are not adequately met and waiting times increase.

In planning for a JSNA for Cambridgeshire's new communities, timeliness of information is important. Changes in trajectories for housing delivery as well as the

12 Department of Health, (2007) Commissioning framework for health and wellbeing.

expected demographic profile of residents of the new homes can happen fairly quickly (over months) and require rapid changes in the assumptions underlying planning decisions.

JSNA process in Cambridgeshire

This New Communities JSNA is part of the fourth phase of JSNAs published in 2010. Phase 4 also covers new JSNAs for Children and Young People, Older People and Adult Mental Health and a JSNA on the health and wellbeing needs of Gypsies and Travellers.

In Phase 1 a public health and health inequalities dataset was produced, which included the data recommended in national JSNA guidance. We also produced six JSNAs, which focussed on different groups within the population. These were:

- Children and Young People
- Adults of Working Age
- Adults with mental health problems
- Adults with learning disabilities
- Adults with sensory or physical impairment and long term conditions
- Older People

In Phase 2, we undertook a review of existing surveys and consultation with service users, carers and the public, to provide qualitative information on local health needs. The full report, '*Joint strategic needs assessment for Cambridgeshire: Community Views'* and other JSNA reports are available on the public health pages of the NHS Cambridgeshire website www.cambridgeshire.nhs.uk/Your-health/Health-in-Cambridgeshire.htm.

In Phase 3, we produced two further JSNAs which looked at the needs of groups at particular risk of social exclusion within Cambridgeshire – people who are homeless or at risk of homelessness; and migrant workers. We also compared key health outcomes for Cambridgeshire against national averages and against other areas with similar socio-demographic characteristics to Cambridgeshire and to each of its Local Authority Districts. Finally, wherever possible, we updated the statistics in the Phase 2 JSNA. The summary document can be found at www.cambridgeshire.nhs.uk/Your-health/Health-in-Cambridgeshire.htm

The JSNA summary is being continuously updated as new demographic and other information becomes available. Since the first version (Phase one) was published, population estimates and forecasts as well as the Index of Multiple Deprivation (IMD)[13] have been revised. Key demographic data taken from the most recent Phase Four summary are set out below but to check for any updates, please see the Cambridgeshire County Council website[14].

Summary – key demographic and health data

- It is estimated that there are 600,800 people living in Cambridgeshire, around a quarter are under 20 years and around one in seven is aged 65 years and over[15].

13 www.cambridgeshire.gov.uk/business/research/economylab/deprivation/IMD2007.htm
14 www.Cambridgeshire.gov.uk/business/research/populationresearch/population/
15 Cambridgeshire County Council Research Group, Mid-2009 district level population estimates.

- Forecasts suggest that the population of Cambridgeshire is set to increase by 13% between 2008 and 2021, with the majority of the increase seen in Cambridge City and South Cambridgeshire[16]. This is associated with a forecast increase in the number of new dwellings between 2008 and 2021, of 50,100[17].
- Cambridgeshire has a predominantly white population. However, Cambridge City has a higher proportion of people from non-white ethnic groups[18] when compared to the national average, many of whom are students or professionals. There are also considerable numbers of Travellers[19] and migrant workers within Cambridgeshire.
- Deprivation varies greatly across the county, with Fenland, North East Cambridge and parts of North Huntingdon having the highest levels of relative deprivation[20]. The same pattern exists for children living in poverty. Income deprivation for older people is more widely dispersed.
- Cambridgeshire is a predominantly rural area[21]. Nearly a fifth of Cambridgeshire's households do not have access to a car or van[22]. This goes down to less than a tenth for children living in households with no access to a car or van but up to four in ten pensioners. Cambridge City has the lowest levels of car ownership, which may be expected given that it is an urban area. However, Fenland has the second highest levels of no access to a car or van in Cambridgeshire.
- The unemployment rate in Cambridgeshire increased from 1.2% in September 2007 to 2.3% in May 2010. The highest level of unemployment is seen in Fenland (4.0%). In England as a whole the rate is 3.9%[23].
- Overall, half of all lone parents do not work, with higher proportions in South Cambridgeshire and Huntingdonshire[24].
- Educational attainment varies greatly across the county, with low levels of Key Stage 2 Level 4+ in Fenland and Cambridge City and noticeably low GCSE attainment in Fenland. South Cambridgeshire has markedly high attainment in both of these qualification areas (2002-2008 data)[25].
- All districts in Cambridgeshire except for Fenland have a higher life expectancy at birth than seen nationally in 2006-2008. This is most noticeable in South Cambridgeshire. Life expectancy in Fenland is at the national level[26].
- There are on average 4,855 deaths a year in Cambridgeshire[27]. Circulatory disease and cancer are the main causes of death in the overall population. Conditions originating in the perinatal period and transport accidents are the main causes of death for children. County level death rates for circulatory disease and cancer are significantly lower than the national average, but transport accident deaths are higher. Fenland has a high all-age mortality for all causes compared with that seen nationally[28].

16 Cambridgeshire County Council Research Group, Mid-2008 district level population forecasts by age and gender.
17 Cambridgeshire County Council Research Group local authority dwelling forecasts, 2001 to 2021 based on 2007-based ward age-group forecasts.
18 2001 Census.
19 Cambridge sub-regional Traveller Needs Assessment 2006.
20 The English Indices of Deprivation 2007, Department for Communities and Local Government (DCLG).
21 DEFRA classification 2004.
22 2001 Census.
23 NOMIS, Claimant count, May 2010.
24 2001 Census.
25 Cambridgeshire County Council and NHS Cambridgeshire, Children and Young People Data Profile 2009.
26 ONS, November 2009.
27 ONS Death Registrations 2006-2008.
28 Compendium of Clinical and Health Indicators 2005-2007.

Community Views in PLACE Survey 2008

According to the autumn 2008 Place Summary at least 86% of Cambridgeshire residents in Cambridge, East Cambridgeshire, Huntingdonshire and South Cambridgeshire are satisfied with their local area as a place to live. In Fenland 75% of residents are satisfied (79.7% in the national Place Survey).

Four residents out of five (79%) agree that people from different backgrounds get on well together in their local area. In Fenland every three in five residents agree (61%).

At least 70% of residents rate their general health as very good or good.

Among those residents who have used their local public health services, 84% were satisfied with their GP, 80% were satisfied with their local hospital and 69% with their local dentist.

Facilities and services that are the most important in making somewhere a good place to live for Cambridgeshire residents are: public transport, affordable decent housing, shopping facilities and a low level of crime. In residents' opinion all the above areas require improvement[29, 30].

JSNA: Community Views – Health Services[31]

- Patients rated GP Services in Cambridgeshire in the top 20% nationally on a number of questions asked in the 2008 Healthcare Commission Survey. GP services were not rated in being within the worst 20% nationally on any question.
- Access to NHS dental services, including out of hours is highlighted by more than one report.
- Inpatient services at Papworth were rated by patients in the top 20% of Trusts nationally on almost all questions. Both Addenbrooke's and Hinchingbrooke were rated by patients in the top 20% of Trusts on a number of different questions, but there were some areas where they scored within the bottom 20%.
- The inpatient and GP services surveys both found that patients in Cambridgeshire rated local doctors in the top 20% for understanding the answers given by doctors, of being treated with respect and having trust and confidence in doctors.
- Maternity services are rated above the national average by women in the areas identified nationally as strong. Broadly, the areas identified for improvement nationally are also those for Cambridgeshire.
- Responses to PCT consultations on service changes raise a number of different issues including service capacity, funding and access and transport.

Aims of a JSNA for New Communities

The first aim is to provide information on the likely profile of residents in new developments and to collate information about the factors that influence health and wellbeing in these communities. Chapter 4 provides a summary of the expected demography of new communities based on research and past experience about the characteristics of people who move into new developments. This chapter also gives

29 Cambridgeshire County Council, Cambridgeshire Place Survey 2008 (commissioned from Cello MRUK).
30 Audit Commission, Place Survey 2008 (commissioned from Cello MRUK).
31 This section reports the result of several patient surveys – for full references see JSNA: Community Views.

an overview of the assumptions underlying calculation of household size which is a key variable in estimating the expected population of a new settlement. Planning of services depends on having accurate estimates of the population.

Chapter 5 briefly describes the context for new growth in Cambridgeshire and describes the drivers and policies that determine the pattern of development. For example, new developments have been planned for the fringes of Cambridge City so that people can benefit from high connectivity to jobs and services. This chapter gives a summary of information that can be accessed in greater detail from source documents (where possible links are provided to relevant documents).

Chapters 6 and 7 explore the health implication of the social environment and the built environment including green infrastructure, respectively. These chapters emphasise some of the 'softer' outcomes for health and wellbeing such as community development and social cohesion. They seek to make explicit the health dimensions of aspirations to build high quality and sustainable communities.

New communities do not develop in isolation from existing communities. The character of new communities is also determined by much more than their physical infrastructure. Communities continue to develop for decades after building has stopped. Chapter 8 describes an approach for monitoring the health and wellbeing of new communities.

Finally, a JSNA seeks to identify where existing inequalities may exist, or gaps in provision, and in this case seeks to identify how the new communities can help meet these needs.

3. HEALTH AND WELLBEING IN THE CONTEXT OF NEW GROWTH

3.1 Sustainable development

The vision for new growth in Cambridgeshire as articulated by Cambridgeshire Horizons www.cambridgeshirehorizons.co.uk, the local delivery company for the growth agenda, includes a commitment to "deliver high quality, sustainable new communities." In placing emphasis on the delivery of communities, the vision is clear that the new growth agenda in Cambridgeshire must be about more than achieving housing targets. The principles for achieving this vision are set out in Cambridgeshire Quality Charter for Growth[32].

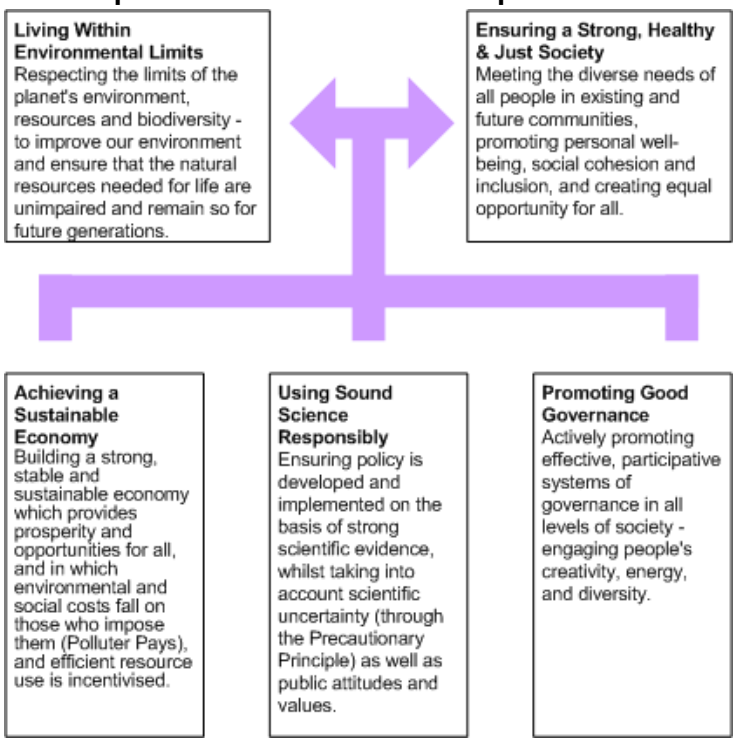
A community is a group of people with some important common characteristics or concerns and a network of relationships which endure over a long period. The quality and sustainability of the houses and associated infrastructure in the growth areas must be judged in terms of their impact on people; those who will live in the new settlements, those who live in the surrounding communities and the future generations who will be affected by the new developments.

The goal of sustainable development is to enable all people to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations. The UK Department for Environment, Food and Rural Affairs (Defra) put forward five principles for sustainable development. According to Defra "we want to live within environmental limits and achieve a just society, and we will do so by means of sustainable economy, good governance, and sound science." [33]

Sustainable development promotes health and wellbeing as well as fostering social cohesion and inclusion. Community development in turn describes the values and principles involved in helping people form and maintain sustainable communities.

32 The Cambridgeshire Quality Charter, 2008 www.cambridgeshirehorizons.co.uk/documents/publications/horizons/quality_charter.pdf
33 DEFRA Securing the future: delivering UK sustainable development strategy (2005).

Figure 1: Principles for Sustainable Development



Source: Defra Securing the future: delivering UK sustainable development strategy (2005)

3.2 Health and Wellbeing

The World Health Organisation (1948) defines health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." Implicit in the definition is the notion that there are both positive and negative elements of health.

This interplay between positive and negative is also found in the Defra (2009) definition of wellbeing. Wellbeing is defined as "a positive physical, social and mental state; it is not just the absence of pain, discomfort and incapacity."

Health and wellbeing are therefore related concepts. It has been observed [34] that "health" is generally used in a medical context where the presence or absence of physical and psychological symptoms is used to categorise an individual. "Wellbeing" tends to be used to describe a broader and more encompassing concept that takes into consideration the "whole person". It aims to capture how a person is flourishing. The social rather than the medical context is relevant in defining "wellbeing". Indicators that attempt to quantify "quality of life" generally attempt to measure wellbeing. A more in depth discussion of measures of health and wellbeing is found in Chapter 7.

A "healthy community" would be one that prevented ill-health and promoted wellbeing. Building structures and transport systems that reduce or minimise air and noise pollution have demonstrable health benefits in terms of respiratory illness and stress related conditions. Providing adequate green space can promote physical activity with the subsequent benefits of reducing overweight and promoting mental health. The

34 Danna, K. & Griffin, R.W. (1999). Health and Wellbeing in the Workplace: A Review and Synthesis of the Literature. Journal of Management 25(3), 357-384

evidence base for ensuring healthy communities through design and planning is summarised in reports[35] such as "Future Health: sustainable places for health and wellbeing" by the Commission for Architecture and the Built Environment (CABE).

There are, however, other aspects of a new community that are as vital to its health as the built environment. The social environment is important for the benefits to physical and mental health, and as the context in which people can flourish. The social environment can be facilitated by the social amenities that are included in a new community such as community buildings but relies heavily on how people work together to achieve good governance and build cohesive and inclusive communities. This aspect is discussed further in Chapter 5.

Culture and sport are integral to the success of communities. The next 15 years will see the largest programme of house building in the UK for a generation. This provides a huge opportunity to use culture as a major tool for galvanising community engagement and creating a sense of identity and pride. If new housing is supported by the right cultural infrastructure we can build communities that are empowered, confident, cohesive and visionary.

Living Places http://living-places.org.uk/ emphasises the use of culture and sport to support local distinctiveness and quality of place and promotes the advantage of cultural bodies working together to support local services for communities and individuals. There are three key objectives:

To provide those people who are shaping communities with information, advice and support on the use of culture and sport to create better places.

1. To align investment from the sporting and cultural sector with sustainable communities funding across organisational boundaries so it works harder for people.
2. To empower communities to make culture and sporting activity and infrastructure a part of their lives

Cambridgeshire Horizons has commissioned studies to inform an Arts and Culture Strategy (http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/arts_and_culture_strategy.pdf) and a Major Sports Facilities Strategy for the Cambridge sub-region (http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/major_sports_facilities_strategy.pdf). These provide further details on the strengths and opportunities for achieving the objectives set out by Living Places.

3.3 The Cambridgeshire Quality Charter for Growth

The Quality Charter for Growth identifies what matters most for Cambridgeshire, and is designed to help people understand the 'big picture' of housing growth. The Charter has been built upon well-established local priorities, enhanced by learning from experiences of excellence elsewhere in the UK and Europe.

35 http://www.cabe.org.uk/publications/future-health

It summarises the core principles for achieving higher quality under four broad themes:

- **Community** - providing a greater choice of housing along with the active participation of people in the way their neighbourhoods are run (this principle may be expanded to include Culture when the document is refreshed).
- **Connectivity** - new developments should be located where people can benefit from high connectivity to jobs and services, and the infrastructure upgraded to match the pace of development.
- **Climate** - climate change should be tackled through imaginative landscaping that treats water as a friend not an enemy, and through innovative approaches to transport, energy and waste.
- **Character** - places of character should be created, with distinctive neighbourhoods and a first class public realm.

All principles should be achieved through working **collaboratively** across all sectors within the growth partnership.

The Quality Charter has three overriding aims:

- To inspire innovation and the pursuit of higher standards by using examples of what works.
- To help communication by crossing professional boundaries and providing a simple common framework.
- To support a genuinely cooperative approach between stakeholders and consequently secure better value from investment by helping investors align their spending plans.

The participating councils and agencies are adopting the Quality Charter as a clear policy statement of the aspiration to create major new developments that offer future communities a fulfilling, visually pleasing and environmentally sensitive way of life. All of the principles of the charter are underpinned by national, regional and local planning and environmental policies and it seeks to interpret these rather than to repeat them. The local planning authorities will use the charter as a material consideration in their decision-making, especially in determining planning applications.

The partners urge other organisations to support the Quality Charter as a sign of their commitment to raising standards.

The Quality Charter provides a basis for:

- helping communication with existing communities, including those who may want to move into the new settlements;
- equipping councillors and officers with a common language, and enabling them to demonstrate their commitment to achieving quality growth;
- securing investment commitments from government agencies and public utilities, and enabling them to align their spending plans with the growth of new settlements;
- encouraging the private sector to develop better masterplans and development frameworks, and to build quality into their design and management.

3.4 Cambridgeshire Quality Panel

The Cambridgeshire Quality Panel is made up of 12 experts from various design, renewable energy and development backgrounds. This diversity plays an important role in assessing all elements of a development from design to the wider sustainability and functionality of a project. The Cambridgeshire Quality Panel assesses schemes against the four core principles of the Cambridgeshire Quality Charter for Growth.

The principal purpose of the Quality Panel is to provide ongoing scrutiny of the emerging proposals for the major growth sites in Cambridgeshire, and to assist officers and members in upholding and reinforcing the high quality aspirations set out in the Quality Charter. The Panel will also support and challenge the in-house design and planning processes of the local authorities, where required, in order to ensure that the best possible outcomes are achieved. It may also support local authorities in their own procurement and development process, for instance on the design of schools or community facilities.

The role of the Cambridgeshire Quality Panel also includes providing advice to developers/clients and their design teams, and to advise local planning authorities, with the aim of improving the quality of the development being proposed.

3.5 The planning system and health impacts

Planning control is the process of managing the development of land and buildings. The purpose of this process is to save what is best in our heritage and improve the infrastructure upon which we depend on for a civilised existence.

The plan-led system

Planning involves making decisions about the future of our cities, towns and countryside. This is vital to balance our desire to develop the areas where we live and work with ensuring the surrounding environment isn't negatively affected for everyone. It includes considering the sustainable needs of future communities.

The planning system in England has involved two main levels of plans – setting out what can be built and where. These are:

- **Regional Strategies** – The purpose of the Regional Strategy is to set out a long-term strategic, spatial and integrated framework for the region which promotes sustainable economic growth; tackles challenges posed by climate change and contributes to sustainable development. Following the general election of May 2010, the government announced its intention to abolish regional strategies in favour of a more localised approach to planning.
- **Local Development Frameworks** (LDFs) – A collection of planning documents prepared by your local planning authority (LPA) to outline how they will manage development and land use in your area is called the **Local Development Framework** (LDF). The documents included in an LDF are:
    - **Development Plan Documents**
    - **Supplementary Planning Documents**
    - The **Statement of Community Involvement**
    - The **Local Development Scheme** (LDS)
    - The **Annual Monitoring Report**
    - Any **Local Development Orders**

- Details of any **Simplified Planning Zones**

Further explanation can be found at
http://www.planningportal.gov.uk/uploads/ldf/ldfguide.html

Planning permission

The **local planning authority** (LPA) – usually the district or borough council – is responsible for deciding whether a proposed development should be allowed to go ahead and planning permission granted. The application is assessed against compliance with the 'plan'.

Planning applications require two levels of mandatory supporting information – national and local - which include plans and certificates of ownership. Health Impact Assessments (HIAs) may be requested in appropriate circumstances.

Further information about local planning authorities can be found through the following links:

http://www.cambridge.gov.uk/ccm/navigation/planning-and-building-control/planning-policy/

http://www.scambs.gov.uk/CommunityandLiving/NewCommunities/default.htm

http://www.fenland.gov.uk/ccm/navigation/building/planning-policy/

http://www.huntingdonshire.gov.uk/Environment%20and%20Planning/Planning/Pages/default.aspx

http://www.eastcambs.gov.uk/planning/development-services

http://www.cambridgeshire.gov.uk/environment/planning/

Influencing the planning system

In order to ensure health impacts are assessed and successful outcomes are achieved opportunities to include health related policies in emerging planning guidance and policy documents should be sought. Health impacts may already be assessed in a range of assessments that include air quality and transport for example as well as HIAs.

The consideration of health impact assessment in the Government's impact assessment process is mandatory. As part of the White Paper 'Choosing Health' 2004, the Government gave a commitment to building health into all future legislation by including health as a component in regulatory impact assessment (RIA). Cabinet Office has revised RIA to become impact assessment (IA) and HIA is one of the specific impact tests. This means that health and wellbeing are designed into national policy.

HIAs assess the health effects of plans and programmes and are usually included within Strategic Environmental Assessment (SEA).

Delivering quality growth

One of the challenges of developing new communities derives from the way in which these developments have been funded in the last forty years or so in the UK. The current model relies on private developers and house builders identifying suitable sites for development, agreeing to acquire them, and then putting in planning applications

which then raise the land values enough to borrow for the next stage of development. When houses or sites are sold, the developer moves on to the next site. The process can be protracted with local authorities struggling to negotiate improvements, including contributions towards social facilities and infrastructure.

Cambridgeshire Horizons commissioned the Steps to Quality Growth Report[36] to provide fresh thinking on 'encouraging smarter growth through innovative forms of finance' for major housing development sites. The report sets out four essential steps that local authorities could take to achieve their housing plans:

1) focus growth in the right places
2) invest in sustainable infrastructure
3) build balanced communities
4) manage the public realm well.

[36] Falk, N. The Steps to Quality Growth: Towards a new business model for house building. CambridgeshireHorizons June 2010 http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/final_steps_to_quality_growth.pdf)

4. DEMOGRAPHY

What do we know?

4.1 The demography of new developments

People who move house are not representative of the population as a whole. This means that that new developments, and new settlements in particular, which are initially formed entirely from people moving into new properties, can have very different population characteristics to the surrounding area.

Forecasting the population of a new development is an inexact science. While larger houses tend to contain higher numbers of people, there are many intangibles connected with place and design that affect the types of people and households attracted to individual developments. In general, however, new developments have a distinctive demography in two ways. Firstly, unless developments are specifically built as retirement housing, initial populations tend to have a young age structure, with many young couples and young children and very few older people. Secondly, population age structures change markedly over time as developments mature, with children and adults ageing on and the age structure gradually becoming older and more similar to the surrounding population. Age structure is a key factor for planners and service providers as it affects requirements for services such as education, health, leisure and sport facilities, and it influences household composition and therefore the overall size of a development's population.

This section outlines general information about the demography of new developments. As there is little documented national or academic research on the subject, the information contained here is based on work carried out by Cambridgeshire County Council Research Group and other local authorities.

The age structure of migrants

Figure 2 shows the age structure of all people who moved house within or into Cambridgeshire in the year prior to the 2001 Census, and compares this with the age structure of Cambridgeshire's population as a whole.

Figure 2: The age structure of migrants moving into or within Cambridgeshire

Source: 2001 Census ST008

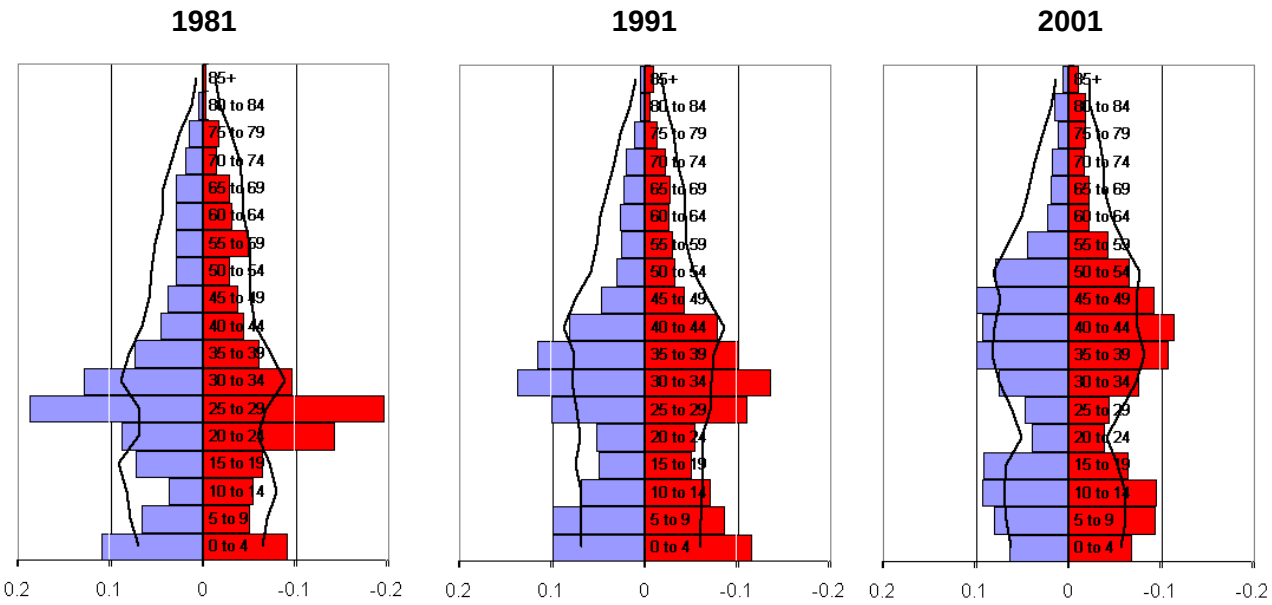
This comparison shows clearly that migrants moving into or within Cambridgeshire have a much younger age structure than the population overall, with a higher proportion of adults aged 20 to 39 and children under the age of four. Migrants were less likely to be older adults or children of secondary school age. In particular, very few migrants were over the age of 65.

As new developments are initially composed entirely of migrants, it follows that their populations tend to have a young age structure, with more children and fewer older people than surrounding areas, particularly when the developments are new. Over time, as families settle in their new homes, the population is likely to age, with a gradual rise in the number of older children and middle-age adults. Experience in Cambridgeshire, however, indicates that new developments retain their younger age structures for a long time. Examination of age structures in Hardwick and Bar Hill shows that they still have younger age structures than the surrounding area 20-30 years after they were built. While the population in these new developments does begin to age, it remains more mobile than surrounding areas, with younger families moving in replacing older families moving out. Figures 5 and 6 show the population of these settlements in the 1981, 1991 and 2001 censuses.

The age structure of Hardwick

Hardwick is a village about 8km west of Cambridge. Originally a small rural settlement with a population of 1-200, the village grew rapidly in the 1970s and 1980s bringing the mid-2008 population to 2,740.

Figure 3: The age structure of Hardwick over time

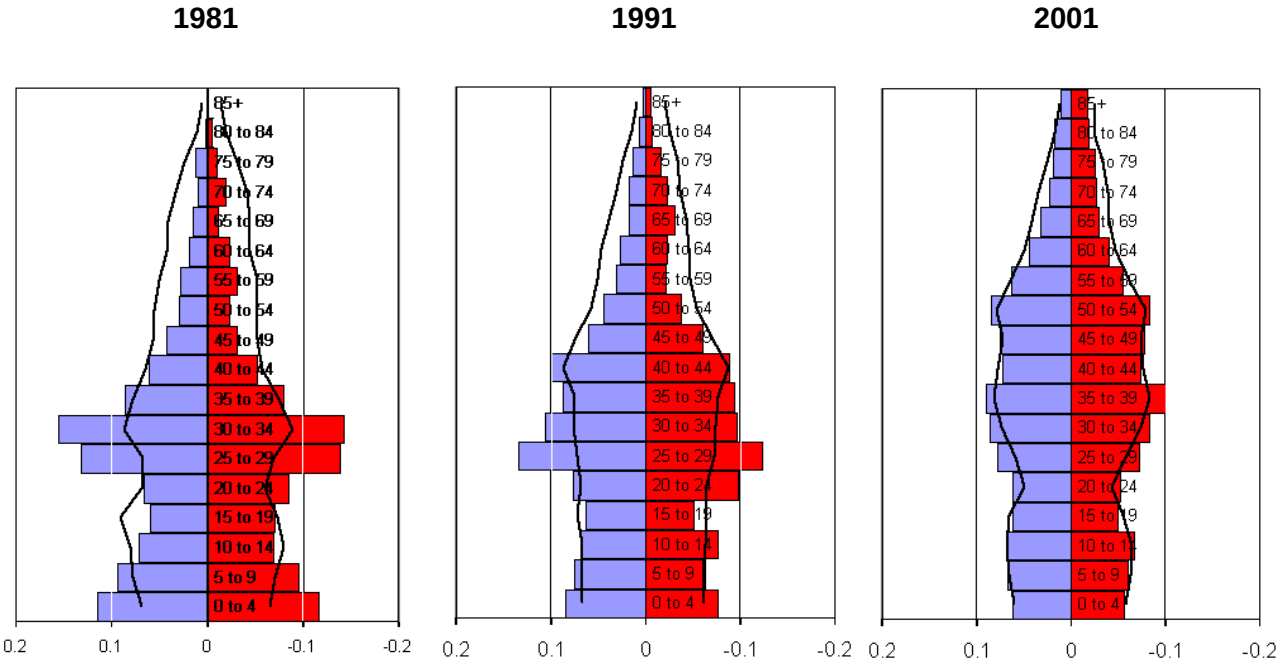


Source: 1981, 1991, 2001 Census; black line shows age structure of South Cambridgeshire's population

The age structure of Bar Hill

Figure 4: The age structure of Bar Hill over time

Bar Hill is a new village 8km north of Cambridge. Construction began in 1965 and continued throughout the 1970s and 1980s. The mid-2008 population is 4,120.

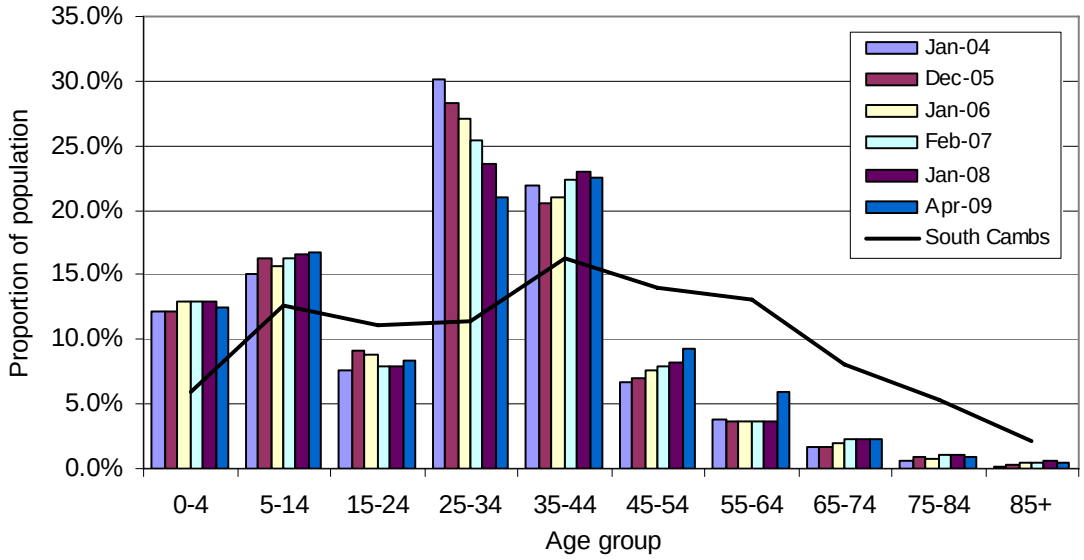


Source: 1981, 1991, 2001 Census; black line shows age structure of South Cambridgeshire's population

The age structure of Cambourne

Figure 5 shows how the age structure of Cambourne residents is changing over time, and how it compares to the South Cambridgeshire average. Since 2004, the proportion of the population made up of 25-34 year olds has dropped rapidly, from around 30% to just over 20%, although it remains well above the district average. Conversely, the proportion aged over 45 is starting to rise, but remains well below the district average. Proportions aged 5-14 are above the district average and are continuing to rise.

Figure 5: The age structure changes in Cambourne, 2004-2009



Source: Exeter GP Registration System

Table 5 shows an example age structure for a new development, showing how the initial structure might change over time. Note that this is intended to be illustrative only – the age structure of a particular development will depend on the type of housing provided. The structure shown here is consistent with a development where around 50% of market properties have one or two bedrooms, and where around 20% of the development is made up of social housing.

Table 5: Example of a changing age structure for a hypothetical new development

	Half Way	Finish	Five years after completion	Ten years after completion	Fifteen years after completion	Twenty years after completion
Age	%	%	%	%	%	%
0-9	15	15	14	13	13	13
10-19	12	12	13	14	14	14
20-29	27	23	17	15	12	12
30-39	22	22	22	20	19	18
40-49	9	12	16	17	17	17
50-59	7	7	8	9	13	13
60-69	5	5	5	5	5	6
70-79	3	3	4	4	5	4
80+	1	1	2	2	2	3
TOTAL	100	100	100	100	100	100

Source: Cambridgeshire County Council Research Group

4.2 Everywhere is different

People move into housing that meets their current or anticipated needs. It follows that developments with a high proportion of one- or two-bedroom properties will, on average, contain fewer children than developments dominated by 'family sized' houses. Tenure is also important, as social housing tends to house more children than market housing. In addition, building specific types of properties, such as retirement or sheltered housing, can bring other population groups to a development that may help to create a more balanced community.

While many of these factors can be taken into account when forecasting the population of a new development, it is important to remember that each development will have its own indefinable character. This, together with location and the broader jobs and housing market, will affect the types of households and people that choose to live in any individual development.

Another consideration is that housing should be planned to reflect the changes that occur over the lifetime so that people are not excluded by design as they grow older and frailer. Good design works well for people of all ages, but for those with mobility problems or with sensory or cognitive impairments it can make the difference between independent living and social exclusion. It is not just lifetime homes that are needed, but lifetime neighbourhoods, where older people are not left out or forgotten because they cannot access buildings or public spaces. Lifetime neighbourhoods are a simple concept. They are neighbourhoods where transport, good shops, green spaces, decent toilets, and benches, are consciously planned for people of all ages and conditions in mind.

Average household size

Younger populations have a higher average household size than the population overall, as more households contain families and fewer are composed solely of adults living alone or as a couple. Inevitably, average household size on a development will vary in relation to the size mix of properties. While the average number of adults per

dwelling is fairly stable across different sized dwellings, particularly for dwellings with two bedrooms or more, numbers of children are largely dependent on dwelling size.

A number of local authorities have undertaken surveys of residents in new developments, both to gain a better understand of their demography and to learn more about how people feel about their new home and community. Table 2 shows the average number of adults and children living in houses less than eight years old in Northamptonshire, according to the number of bedrooms. Overall these developments contained an average of 1.88 adults per dwelling and 0.83 children, giving an overall household size of 2.70. Table 3 presents comparable information from a survey of Cambourne residents carried out in July 2006. For each individual dwelling size the average numbers of adults and children per dwelling were remarkably similar in the two areas. Overall, because of the different dwelling mix in the two areas, Cambourne had a lower average household size of 2.55. These figures compare to an estimated average household size across England of 2.32 in 2006 (Source: CLG 2006-based household projections), down from 2.36 in 2001 (Source: 2001 Census).

Table 6: Composition of households in new dwellings in Northamptonshire

	1 bedroom	2 bedroom	3 bedroom	4+ bedroom	Total
Average no of adults	1.30	1.60	1.89	2.06	1.88
Average no of children	0.02	0.16	0.71	1.29	0.83
Total average household size	1.32	1.75	2.60	3.35	2.70
Proportion of houses surveyed	3.5%	24.2%	26.0%	46.3%	100.0%

Source: BMG *Pupil Generation Survey*, Northamptonshire CC, May 2005 (3000 properties surveyed, response rate 53%)

Table 7: Composition of households in Cambourne

	1 bedroom	2 bedroom	3 bedroom	4+ bedroom	Total
Average no of adults	1.29	1.52	1.78	2.02	1.81
Average no of children	0.05	0.23	0.64	1.30	0.74
Total average household size	1.34	1.75	2.42	3.32	2.55
Proportion of houses surveyed	7.1%	23.5%	32.6%	36.9%	100.0%

Source: *Living in Cambourne: A survey of Cambourne residents,* Cambridgeshire County Council, July 2006 (2012 properties surveyed, response rate 41%)

These, together with surveys from East Cambridgeshire, Huntingdonshire, South Cambridgeshire, Kent and Oxfordshire, show that a high average household size has been a common feature of new developments across different areas for some time, despite generally declining household size in the population overall.

Predicting average household size on new developments

Based on analyses of average household size from a range of new development surveys and other sources, the Research Group has developed the following guidelines for the number of people per household for different sizes and tenures of dwelling. More information about how these were compiled is available in the Research Group's paper "Household Size Multipliers for New Developments, 31 October 2009".

Table 8: Average number of people per household, by property size and tenure, for new developments in Cambridgeshire

	Number of bedrooms		
Tenure	**1-2**	**3**	**4+**
Market housing	1.50	2.55	3.30
Social Rented housing	1.70	3.60	5.40

Source: Cambridgeshire Research Group: Household Size Multipliers for New Developments, 31 October 2009

These multipliers can be used to calculate the overall average household size expected on a development, given the mix of property sizes and tenures that is planned. Analysis of the likely range of housing mixes on new developments, based on current planning policy, indicates that average household size on the majority of future developments will be between 2.25 and 2.75 people per household, or 2.5 ±10%. Where the detailed housing mix of a proposed development is unknown, it is reasonable to assume that the average household size will lie within this range. Table 9 shows how average household size varies across developments with different housing mixes. In general, as the proportion of market housing with three or more bedrooms rises, and as the proportion of social rented properties rises, so too does the average household size. Household size is higher when the social housing is more biased towards larger properties.

Table 9: Average household size for developments with different property size and tenure mixes

(a) Assumes 50% of social housing has three or more bedrooms

		Mix of market housing			
% 3 bed		25%	30%	35%	40%
% 4+ bed		25%	30%	35%	40%
Total 3+4		**50%**	**60%**	**70%**	**80%**
% social rented	15%	2.32	2.44	2.57	2.69
	20%	2.35	2.48	2.58	2.70
	25%	2.41	2.51	2.61	2.71
	30%	2.44	2.54	2.64	2.74

(b) Assumes 30% of social housing has three or more bedrooms

		Mix of market housing			
% 3 bed		25%	30%	35%	40%
% 4+ bed		25%	30%	35%	40%
Total 3+4		**50%**	**60%**	**70%**	**80%**
% social rented	15%	2.25	2.38	2.48	2.60
	20%	2.25	2.37	2.50	2.60
	25%	2.27	2.37	2.49	2.59
	30%	2.29	2.39	2.49	2.58

Source: Cambridgeshire Research Group: Household Size Multipliers for New Developments, 31 October 2009

4.3 What is this telling us?

People who move into new developments and in particular new settlements can have very different population characteristics to the surrounding area. Unless developments are specifically built as retirement housing, initial populations tend to have a young age structure, with many young couples and young children and very few older people.

Population age structures change markedly over time as developments mature, with children and adults ageing and the age structure gradually becoming older and more similar to the surrounding population. This process may take as long as 30 years.

Age structure is a key factor for planners and service providers as it affects requirements for services such as education, health, leisure and sport facilities, and it influences household composition and therefore the overall size of a development's population.

People move into housing that meets their current or anticipated needs. It follows that developments with a high proportion of one or two-bedroom properties will, on average, contain fewer children than developments dominated by 'family sized' houses.

Tenure is also important, as social housing tends to house more children than market housing. In addition, building specific types of properties, such as retirement or sheltered housing, can bring other population groups to a development that may help to create a more balanced community.

4.4 Recommendations

Plan housing and the places we live so that they reflect the changes that occur over the lifetime, and so that people are not excluded by design as they grow older and frailer[37] or as their circumstances change. 'Lifetime homes' is a mechanism for achieving this.

37 Lifetime Homes, Lifetime Neighbourhoods: A National Strategy for Housing in an Ageing Society. February 2008 http://www.communities.gov.uk/publications/housing/lifetimehomesneighbourhoods

5. SPATIAL PLANS AND HOUSING NEEDS

A brief summary of plans for growth across Cambridgeshire is set out below.

It is recognised that this JSNA comes forward in a period of uncertainty as planning for new communities moves away from regional targets to a more localised system following the change of Government in May 2010.

Further information and plans are available to view at the following link www.cambridgeshirehorizons.co.uk

5.1 Context

New communities will make a major contribution to the future prosperity of Cambridgeshire by providing new homes and infrastructure to support our growing economy, providing opportunities for existing and new residents, and enabling the county to reduce its existing carbon footprint, and reduce its future environmental impact. It can also encourage healthier lifestyles choices.

5.2 The East of England Plan[38] (our regional spatial strategy)

An area of outstanding recent economic performance and seemingly more resilient to the recession than many other parts of the country, Cambridgeshire offers potential for significant delivery of new jobs and new homes up to and beyond 2021.

Cambridgeshire is part of the London-Stansted-Cambridge-Peterborough growth area. Leaders across the county have long accepted the need to increase the rate of housing growth and associated infrastructure delivery, as set out in the Regional Spatial Strategy (the East of England Plan) – our basis for planning to 2021.

In May 2008 The East of England Plan was adopted, which provides targets for districts from 2001 to 2021. Across Cambridgeshire, 73,300 new homes are to be built. Around 35% of these are expected to be affordable homes, and in Cambridge City and South Cambridgeshire, this is expected to be 40%. Taking into account the homes already built from 2001 to 2006, over 59,000 homes are still needed (2006 to 2021) to meet these targets (see Table 10).

Table 10: Housing targets as per The East of England Plan, published May 2008

RSS targets	Minimum Dwelling Provision, 2001 to 2021 (net increase, with annual average rates in brackets)		
	Total to build April 2001 to March 2021	Of which already built April 2001-March 06	Minimum still to build April 2006 – March 2021
Cambridge City	19,000	2,300 (460)	16,700 (1,110)
East Cambs	8,600	3,240 (650)	5,360 (360)
Fenland	11,000	3,340 (670)	7,660 (510)
Huntingdonshire	11,200	2,890 (580)	8,310 (550)
South Cambs	23,500	3,520 (700)	19,980 (1,330)
Total	73,300	15,290 (3,060)	58,010 (3,860)

Source: The East of England Plan, published May 2008

38 The East of England Plan, published May 2008 and available at: http://www.gos.gov.uk/goee/docs/Planning/Regional_Planning/Regional_Spatial_Strategy/EE_Plan1.pdf

Following the change in Government in May 2010, it was announced that there was an intention to reduce regional planning and abolish regional plans. For the purpose of this JSNA, the East of England Plan remains the most relevant plan until it is superseded or replaced by other measures.

The Spatial Plan for development across Cambridgeshire makes sequential provision for housing and related development at locations in the following order of preference:

- Within the built up area of Cambridge.
- As an extension to Cambridge on land to be removed from the Green Belt.
- In the new town of Northstowe.
- Within or as an extension of the surrounding market towns.
- In rural settlements where sustainable.

A new regional spatial strategy was being developed, planning to 2013, and was consulted upon in October 2009. There were a number of options proposed for housing targets, of which the lowest level of development was considered the most appropriate for Cambridgeshire. By the end of 2010 the aim was to have agreed a new regional spatial strategy, which would then have been incorporated in to a new integrated regional spatial strategy which brings together plans and targets for jobs, homes, communities and the environment.

This JSNA will need to be updated as and when the new RSS and integrated regional spatial strategy are adopted or whatever replaces it in due course.

5.3 Inventing our future (our Regional Economic Strategy)

"Inventing our future", the East of England's Regional Economic Strategy[39] (RES) makes reference to the importance of the growth agenda, setting out the sub-region's economic ambitions and recognising Cambridge as a key engine of growth - but one whose future economic success depends to a large part on the successful delivery of additional homes and infrastructure.

The RES sets out a vision for the East of England, with bold targets and priorities to drive forward in a globally competitive environment. The vision is for it to be:

- Internationally competitive with a global reputation for innovation and business growth.
- A region that harnesses and develops the talents and creativity of all.
- At the forefront of the low-carbon and resource-efficient economy.

And known for:

- Exceptional landscapes, vibrant places and high quality of life.
- Being a confident, outward-looking region with strong leadership and where communities actively shape their future.

This vision can only be achieved if Cambridgeshire maximises its contribution, and that in turn depends upon the successful delivery of a significant number of new homes and associated infrastructure.

39 Inventing our future, the regional economic strategy for the East of England 2008-2031, published Autumn 2008 and available at http://www.eastofengland.uk.com/res/files/RES_Complete.pdf

For 2001 to 2021 the indicative target for net growth in jobs for Cambridgeshire, set out in the strategy, is 75,000. This represents some 17% of the Region's total indicative target of 452,000 jobs.

The value-added nature of many of the jobs in Cambridgeshire is particularly high, especially for those based in the high-tech, bio-tech and medical research clusters around Cambridge. There is a clear link to the housing targets, for example:

- If insufficient good quality housing is available, employers will struggle to recruit and retain the appropriate staff.
- If homes are located too far from employment centres, or if transport links are poor, commuting will increase with consequences for air quality and the environment.
- If affordable housing is not made available in perpetuity, lower paid workers who are essential to the running of the economy, will not be able to afford to live near their employment or to work in the Cambridge area. This is exacerbated by the unusually high process commanded around Cambridge.

5.4 Plans for growth across Cambridgeshire

There are a variety of sites and developments currently identified in our plans at October 2009. It is important to note, however, that these plans are dynamic and may well change over time:

Within the built up area of Cambridge

Cambridge Urban Area: Station Gateway

There are several sites being developed across the city. Of great significance is the CB1 proposal that will deliver a mixed use development, including market, affordable and student housing, employment, retail and cultural facilities, and public realm infrastructure, including an improved rail and bus gateway to the city and the wider sub region.

This development is considered a major opportunity to transform the area around the rail station into an attractive gateway to Cambridge (and indeed to the region) that will do justice to the historic city. The quality of the planned built environment and the public spaces will transform what is currently a tired and outdated entrance to the city to provide a modern and effective multi-modal transport interchange.

As an extension to Cambridge on land to be removed from the Green Belt

Cambridge Southern Fringe

Approximately 4,000 homes (40% affordable) will be built as a sustainable urban extension to Cambridge, which will include schools, community infrastructure and green spaces. The location to the south of the city comprises of development at Clay Farm (up to 2,300 dwellings), Glebe Farm (up to 286 dwellings), Trumpington Meadows (1,200 dwellings) and Bell School (347 dwellings), plus the Addenbrooke's Bio-medical campus, which will provide for around 8,000 jobs linked to medical research and development.

The area will be served by Cambridgeshire Guided Busway – the longest guided busway in the world – and a new Addenbrooke's Access Road.

The Bio-medical campus, Clay Farm, Glebe Farm, Bell School and Trumpington Meadows are expected to gain full planning permission and agreed Section 106 Agreements during 2010/11.

North-West Cambridge

Potentially, up to 6,000 homes (with at least 40% affordable housing provision) could be built in north-west Cambridge as a sustainable urban extension to the city, which would include residential, new schools and a library and academic development, the latter of which would be linked to the growth of Cambridge University.

A planning application for 187 dwellings has already been approved for the NIAB frontage site and outline planning permission approved (July 2010) for development of 1,593 dwellings (at least 40% affordable) on further NIAB land. An additional 1,100 homes has also been allocated in the SCDC Local Development Framework at the NIAB site.

The University site is expected to provide around 3,000 dwellings with around 50% of this provided as affordable housing to meet identified key worker needs of the University.

The development of north west Cambridge as a whole will include education and community infrastructure, open spaces and encourage the use of sustainable transport to other parts of the city.

Orchard Park

Orchard Park is situated on the northern fringes of Cambridge bounded by the A14 on one side. Outline planning permission was granted for the development in June 2005 with a total of 900 homes (300 of which are to be affordable) and supporting community facilities such as a new primary school and community building. As of June 2010 over 600 of the planned 900 homes are occupied on the development, with all the affordable homes completed. A further 220 homes are planned following a shortfall report to the planning inspectorate. This will be challenging as some of this likely to be located along the A14 with noise and air quality issues. Planning permission has been granted for a local centre. . A planning application for a second hotel is being considered along with proposals for a self-provided housing scheme on land owned by the City Council.

Cambridge East

Cambridge East is planned to be a modern, high quality, vibrant and distinctive urban extension to the city, comprising between 10,000 and 12,000 new homes in three areas to the east of the city centre: north of Newmarket Road, north of Cherry Hinton, and Cambridge Airport.

New homes will be built alongside a wide range of employment opportunities, community facilities, schools, open spaces, and other essential services. The new community of around 24–29,000 people will be well connected to the rest of the city by a range of high quality public transport (and potentially an extension to the Cambridgeshire Guided Busway), walking and cycle links.

Progressing plans to develop Cambridge East is subject to relocating the current aviation-related activities at the airport to an alternative site. In spring 2010 the sites

current owners announced they were unlikely to relocate in the short to medium term meaning any development of the sight is likely to be a longer term option.

In the new town of Northstowe

The proposed new town of Northstowe will provide for 9,500 homes (40% affordable) and a whole new community of around 24,000 people who will be linked to Cambridge and St Ives by the new Guided Busway.

Northstowe will be the country's first new town since Milton Keynes and is proposed to be an exemplar of sustainable development, especially in terms of transport; energy, waste and water and quality of design.

Progress with the planning of Northstowe has been affected by the economic and political events of 2009/10. There is uncertainty as to when a revised planning application will come forward for this site.

Within or as an extension of the surrounding market towns

St Neots

Government has already recognised the potential for the sustainable expansion of St Neots through the potential delivery of a significant urban extension to the east of the town. Comprising of approximately 5,000 homes, the extension incorporates the existing Loves Farm development of 25ha of high quality employment and related community facilities.

The proposed sustainable urban extension has the potential to act as a catalyst to enhance the sustainability of the whole community, to make good use of established and enhanced sustainable transport links and to act as a national example of renewable energy provision - by exploring the potential to re-use waste heat from the nearby Little Barford power station.

Ely

Plans are being drawn up to expand the City of Ely through a northern sustainable urban extension and regeneration of the Station area and city centre sites. The expansion, linked to provision of a Southern Bypass and sustainable travel improvements, could result in 3,000 to 5,000 homes being built by 2031. Plans are still early in development and are subject to approval through the planning process.

March

The town is the administrative centre of Fenland District and connected by rail to Cambridge and Peterborough. Proposals for 3,000 homes at sites to the west and south of the town centre are proposed. Both projects are linked to investment in learning through the proposed College of West Anglia and expansion of Neil Wade Community College Building Schools for the Future scheme. The development will reinforce the role of the town as a key local centre, and March has already been at the forefront of exemplar projects with two Smartlife Modern Methods of Construction housing schemes having recently been developed.

Wisbech

The port area of this historic town provides the basis for a regeneration project aimed at delivering over 300 new homes, retail and cultural improvements, linked to new jobs at the already complete Boathouse innovation incubator project and future growth in port related commercial and tourism activity. In addition, a further 2,000 homes at sites around the town are proposed. This is likely to involve partnership working by linking up with development proposals in neighbouring Kings Lynn and West Norfolk being promoted through their Local Development Framework process.

Huntingdon

Huntingdon is strategically located in respect of nationally important transport links on the East Coast mainline and at the inter-section of the nationally important A1 and A14 trunk roads.

Growth funds have already been used to stimulate regeneration of parts of the Oxmoor estate including direct contributions towards new affordable homes and enhanced community facilities.

Funding is also being made available to deliver new road infrastructure on brownfield land to the west of the town centre and in the Hinchingbrooke area; which will create capacity for the expansion of the town centre, stimulate new housing and employment growth and ensure the early delivery of key public infrastructure (including enabling the relocation and enhancement of the regional further education college).

Other sites and Eco-towns

There are a number of other sites being developed or considered for development across the County, including Orchard Park on the edge of Cambridge, Cambourne eigh miles west of Cambridge and sites within Cambridge and the market towns.

In 2007, the Government launched a national challenge to develop new zero-carbon settlements of around 5-10,000 homes, sustainable transport, strong community involvement and 30-50% affordable housing. The Cambridge Challenge, centred around Northstowe and three Fringe Sites, and later government releases provided opportunities for developers to put forward other schemes and a panel of leading figures from the worlds of design, the environment, transport and sustainability - selected by the Housing Minister - signed up to provide expert advice and support to bidders and to inject new thinking on how eco-towns could best be delivered in each of the 15 short-listed potential locations.

Despite early interest in developing a site known as Hanley Grange, there are currently no eco-town proposals in the process for Cambridgeshire, however, the objectives continue, in whole or part, as part of other sites being promoted through the planning process.

5.5 Health and wellbeing implications of new growth

One of the most obvious impacts on the public sector is the provision of health and social care services for new residents. Significant new settlements or extensions will cater for a growing population, both from existing residents in the County and for newcomers to the County. All bring with them real or potential health and social care

needs which need to be well catered for if people are to reach their full potential and achieve a good quality of life.

New communities also bring new opportunities to look at services afresh and explore new models of delivery.

The factors that influence health and wellbeing are numerous and some may be influenced by provision of services by Local Authorities. In addition to direct health and social care provision, statutory organisations can impact the health of new residents through direct provision, commissioning of services or regulation and facilitation of services offered by other providers. Examples include:

- Education: successful outcomes leading to better life chances; quality of schools facilities promoting healthy lifestyles (gardening projects, walking to school etc).
- Transport: reducing the reliance on car and petrol-based travel reduces harmful emissions, promotes an active lifestyle through safe walking and cycling routes, and makes better use of miles per emission through e.g. reliable public transport systems such as busses. Links to air quality.
- Employment: health and safety issues at work; self-actualisation through work and work contacts; access to employment fairly close to home to reduce commuting, stress and inhaling fumes.
- Community infrastructure; supports a feeling of community and of informal support networks; good provisions can mean active and positive inputs to an area by many residents.
- Community cohesion/integration: integration of different groups can lead to health benefits; health benefits of community spirit.
- Culture: sense of place, identity, creativity, health and wellbeing.

In partnership, Cambridgeshire Horizons, Cambridgeshire County Council, the district councils and others have produced strategies to help deliver high quality growth, which are periodically updated. In addition there is also national guidance relevant to these areas. Some key examples are listed below.

- Green infrastructure strategy: http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/green_infrastructure_strategy.pdf

- Major sports facilities strategy http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/major_sports_facilities_strategy.pdf

- Arts and culture http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/arts_and_culture_strategy.pdf

- Balanced and mixed communities http://www.cambridgeshirehorizons.co.uk/documents/publications/horizons/balanced_and_mixed_communities_brochure.pdf

5.6 Principles for planning community and health services and facilities

The new communities emerging as a result of the growth agenda require different responses for community service provision. The Cambridge fringe sites, at Cambridge North West, Cambridge East and Cambridge Southern Fringe find themselves adjacent to, and therefore lined to existing communities - so local services may already exist to meet some or all of the new communities needs. In some cases, however, no spare capacity may be available, so entirely new infrastructure will be required and would need to be funded by the developer. These new facilities may also help provide services for the existing neighbours.

Conversely, entirely new communities developed outside the City - such as Cambourne or Northstowe - will require entirely new facilities since no or few local facilities will be in place. This can lead to innovative approaches to service delivery such as co-location and the opportunity for engagement with the emerging community.

As part of the emerging Local Development Frameworks that establish the planning and development parameters for each local authority area, there is a legal duty to allocate official Gypsy and Traveller sites. In so doing, it is important that the services these citizens require are fully considered and integrated into the delivery plans for the local communities in which they would reside[40].

Health services and facilities

All new developments have an impact on local health services and infrastructure. Historically the focus has tended to be solely on Primary Care services, GPs and Dentists, and not on the whole range, including Acute Hospital, Community Health services and the full range of Primary health care services. Calculating capacity tended to use a “rule of thumb” of 1,800 patients per GP and 2,000 patients per Dentist and then calculate the size of building required.

Over recent years there has been considerable change in the way in which health care and services is delivered with ongoing shift away from Hospital settings into community based settings, delivering services as close to home as possible. Advancements in medicine and technology have also had considerable impact on the way services are delivered and what can now be delivered outside of hospitals. These trends will continue over the years ahead.

The London Healthy Urban Development Unit (HUDU) has developed a model www.healthyurbandevelopment.nhs.uk that uses a more sophisticated and sensitive approach to planning the service and infrastructure requirements arising from population growth.

The model uses the numbers of proposed housing units in a development, and the likely resulting population and calculates the following information:

- Amount of hospital beds or floor space required for that population in terms of acute elective, acute non-elective, intermediate care, mental health and primary care.
- The capital cost of providing the required space.

40 Cambridge sub-regional Traveller Needs Assessment 2006

- The revenue costs of running the necessary services before mainstream NHS funding takes account of the new population.

In 2007, the model was updated and improved, this included:

- The model having its own web platform.
- Creating new default assumptions to aid users of the model who do not hold the necessary details of a scheme for assessment.
- Looking in more detail at the types of household profiles associated with different types of new housing (tenure, size etc).
- Looking at the proportion of people moving into a housing scheme that would be new to the area (population gain factor).
- Improved relation to the enlarging role of primary care.
- Incorporating Inflation to build costs.
- Ensuring all outputs are phased over time rather than one static output.
- Improving the layout and functionality of the model.
- In addition to using the model for health service planning, it has now been successfully used in London to secure over £10 million for additional health facilities, through Section 106 agreements.

The shift in location and delivery of services also requires as much flexibility to be incorporated into planning agreements and the detailed planning and procurement of health facilities.

One key principle that should be considered is the co-location of non-NHS community, voluntary sector and commercial spaces alongside primary and community care services if their addition accords with the philosophy of care and can improve affordability.

Co-locating services may provide the following benefits:

- Focal point for the community.
- Promotion of healthy lifestyles as part of an integrated health and community care approach.
- Connectivity with other services and opening up new possibilities for residents.
- Increased footfall to the building/site and hence activity levels.
- Creation of a critical mass of linked services.
- Increased convenience for users.
- Improved funding.
- Improved transport links.
- Reinvigoration of deprived areas.
- Job creation.

These co-location principles have already been used in the development of co-located facilities in Cambourne and in the planning for Northstowe, Cambridge Southern Fringe and North West Cambridge.

Education

Forecasting the number of children living in new developments requires details such as housing mix and tenure, information that is often unavailable at the early stages of a development. Initially the County Council uses a general multiplier to forecast the expected number of children for a development and then a more detailed and robust methodology for forecasting accurate child yield, based on analysis of Census data, local surveys of new developments and local experience.

Where there is insufficient local provision, new developments will be required to fund new education facilities, through s106 agreements. Other community facilities of benefit to the wider new community may also be co-located at school sites.

Housing needs

Across the sub-region, housing affordability continues to create huge pressures. This is true more for Cambridge City and South Cambridgeshire than for the three other districts, however the multipliers are all well in excess of the traditional 3 or 3.5 times income used to calculate affordability. At June 2010, Hometrack www.hometrack.co.uk/ provides the average ratio of income to purchase price for an average home in each district:

Table 11: Price of average home in relation to average income at June 2010

City	8.78 times	South Cambridgeshire	6.98
Fenland	4.80	East Cambridgeshire	5.82
Huntingdonshire	5.32		

Source: Hometrack

According to the strategic housing market assessment[41] (SHMA) at current incomes rates, some 74% of existing Cambridge City residents could not afford to buy a lower quartile (that is, an entry-level priced) home. This percentage drops to 68% in South Cambridgeshire, 60% in East Cambridgeshire, 56% in Fenland and 54% in Huntingdonshire – indicating significant pressures when trying to purchase a home.

The predicted increase in households will include a mix of existing households growing and forming, alongside people moving into the area supporting economic growth. There will be an increase in single person households, and older households, including the frail elderly, as outlined in Chapter 3 on demography.

Using registers of expressed housing need, the SHMA has projected the number of affordable homes needed in future. The latest SMHA update completed in 2009 and based on 2007/08 data indicates the overall net need for new affordable homes per year as:

Table 12: The overall net need for affordable homes per year

City	1,609 homes	South Cambridgeshire	1,552 homes
Fenland	694 homes	East Cambridgeshire	849 homes
Huntingdonshire	1,038 homes		

Source: SHMA

41 Cambridge housing sub-region's SHMA was published in June 2008 and is available at: www.cambridgeshirehorizons.co.uk/shma.

Housing registers show a large proportion of applicants needing one and two bedroom homes - however, it is interesting to note that the pattern of housing choice in Cambourne would emphasise less preference for one bed and more for two beds or more. The SHMA is currently being developed to provide guidelines for the appropriate sizes of homes (that is, number of bedrooms) for each district, taking into account future changes in the population, needs as expressed for affordable housing and preferences as identified through surveys of new developments.

The SHMA housing need calculation, as set out by CLG, sets out how many homes are needed per year for the next five years to clear the backlog of housing need, and after that, sets out the number of homes must be delivered to meet newly arising need per year. Over the first five years, affordable housing needed exceeds the RSS targets for all homes for many districts. However, Local Development Frameworks set out a percentage of affordable housing to be secured which is based partly on housing need (as per the SHMA) and partly on viability, which depends on economic factors. These factors are set out in more detail in chapters 23 and 27 of the SHMA.

Some 15% of existing homes across the sub-region are socially rented - that is, from a council or a housing association. While overall housing stock has increased by 5% in the past five years, social housing has increased by just 0.3% in the same period. Meanwhile, the number of households waiting for these homes rose from 15,000 to almost 21,000, while re-lets held about steady at 2,586 in 2001/02 to 2,663 in 2006/07, an overall change of only 77 across the sub-region.

Supporting People is a national programme funded by Central Government, which commissions housing support services. These include homeless hostels, supported accommodation for a wide range of client groups, women's refuges, sheltered housing for the elderly and floating support for people in their own home. Supporting People services are non-statutory, the funding is separate from that for health and social care and comes from the Department of Communities and Local Government. From April 2009 in Cambridgeshire in common with authorities in England, Supporting People funding has become part of the Area Based Grant used to deliver Cambridgeshire's Local Area Agreement. Supporting People has close links to health and social care which are also represented on its partnership boards.

Supporting People services are generally open to anyone aged 16 years and over with a housing support need, such as rent arrears or poor life skills that keep them from setting up or maintaining their own tenancy. Individual services will, however, have their own eligibility criteria, such as services for young people being restricted by age or women's refuges only accepting female clients.

In November 2008 CIVIS Consultants were commissioned by the Supporting People Team in Cambridgeshire to develop a model to project housing support needs for each vulnerable client group within the Supporting People programme. The model also takes account of future growth within the county. Given the anticipated growth it is expected that the need for housing support services will increase considerably over coming years. Projections from the CIVIS needs analysis show the following:

Table 13: Projected need for housing support services

Year	Projected need (in household units)*
2010	12,862
2015	14,360
2020	15,832
2025	17,341

*A household unit equates to the unit of support required by a single person, couple or family.

Source: Cambridgeshire Supporting People

In 2010 the supply of household units is around 8500 units. The districts where the greatest growth in need for household units is anticipated are Huntingdonshire and South Cambridgeshire. The CIVIS model takes account of growth in that it projects the need for services based on prevalence rates and links these to population projections produced by Cambridgeshire County Council's Research Team. This projects need at county and district levels but cannot give specific need for each of the growth areas within the county. Further work is being undertaken to look at the projected need for housing support services in each growth site.

5.7 What is this telling us?

It is anticipated that the new communities planned for Cambridgeshire will make a major contribution to the future prosperity of the county by providing new homes and infrastructure to support our growing economy and providing opportunities for existing and new residents.

Housing affordability is a major issue for Cambridgeshire but Cambridge City and South Cambridgeshire are affected to a greater degree than for the three other districts.

The need for socially rented housing across the sub-region has increased without a proportional increase in social housing stock.

Following the change in Government in May 2010, it was announced that there was an intention to reduce regional planning and abolish regional plans. For the purpose of this JSNA, the East of England Plan remains the most relevant plan until it is superseded or replaced by other measures.

Significant new settlements or extensions will cater for a growing population, both from existing residents and for newcomers to the county. These new developments have the potential for improving the provision of affordable and social housing but also bring new opportunities to look at services afresh and explore new models of delivery.

However, the new communities emerging as a result of the growth agenda require different responses for community service provision. Policy changes may affect the models of service provision and funding sources available for implementing service infrastructure.

5.8 Recommendations

Provision for affordable housing needs to include a range of options to address need for social rented housing.

Options need to be developed to fund more flexible service provision to allow greater integration of new communities with existing settlements than offered by current s106 arrangements.

6. SOCIAL ENVIRONMENT

6.1 What do we know?

A number of local studies and reports have been developed in Cambridgeshire[42,43] and Milton Keynes[44] that relate specifically to the social environment/social infrastructure in new communities. These reports summarise relevant research literature as well as local views and developments and the main findings are incorporated into this section.

Research shows that if you live in a community that has strong 'social capital' with high levels of interaction where people look out for each other, you are likely to live longer than people who live in similar but less cohesive communities. Social capital is associated with better levels of health, better educational attainment, better chances of employment and lower crime rates. Social capital and social cohesion are factors that contribute to the 'social environment' and are related to societal wellbeing. Thus when planning for new communities, it is important to understand and make provision for the factors that contribute to developing the social environment, alongside planning for the more visible/physical aspects such as community facilities.

There are a range of related terms that describe the characteristics of the social environment such as social cohesion and inclusion; social exclusion; social capital; community development. These are discussed and defined in more detail in Appendix 1.

6.2 Health and Wellbeing Implications

Community cohesion is part of an area's stock of social capital. Where it is strong there is a positive impact on health with improved life expectancy and reduced health inequalities. Where it is weak, the reverse tends to be true. By addressing community cohesion issues 'health' organisations and their partners have a positive impact on health determinants. Whilst community cohesion contributes to health it is also true that health contributes to community cohesion. When people are fit and well they play a more active role in their community's life.

New communities will be made up of diverse populations in terms of culture faith, ethnicity and needs. As new people move into established communities and as others move away, the nature of places will become more diverse. The Institute of Community Cohesion[45] describes how this can open up new opportunities which can enrich people's lives, but it also presents new challenges as old social networks break down and new ones develop.

The networks and support groups that reflect strong social capital will, by their nature, have developed and changed over time in response to local need. The networks will be particularly strong in established communities where statutory organisations work in partnership with the local community and where there is an active voluntary sector. New developments that are extensions of these established communities will have opportunities to tap into and build on these existing networks.

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42 Goh S, Bailey P. The effect of the social environment on mental health: Implications for service provision. Cambridgeshire PCT 2007

43 Building Communities that are Healthy and Well in Cambridgeshire Report 2008 A Project of the Cambridge City and South Cambridgeshire Improving Health Partnership; Promoting Sustainable communities in growth areas, Cambridge City and South Cambs Improving Health partnership (2008).

44 Boldero, N. Strong Communities: a social infrastructure plan for voluntary and community action in the Milton Keynes and South Midlands growth area 2006.

45 www.cohesioninstitute.org.uk/home

An illustration of this was the variety of community groups that gave their time to attend a Saturday morning workshop in June 2007 to discuss requirements and new ideas for health in the Southern Fringe. Delegates came from the local history group; Trumpington Community Orchard project; Elderly Action Group; Trumpington Estate Resident's Association; Trumpington Fish Scheme; Crossways Social Club; Environmental Action Group as well as local councillors and staff from the medical practice. The discussions went beyond traditional service delivery and there was much focus on health and wellbeing and the community contribution to this, for example: by using local people to help provide appropriate information; promoting inclusion through local projects such as the Community Orchard Project.

For entirely new communities such as the new town of Northstowe, much more help and support will be required to create these networks that are so important for community health. Within all this, there needs to be recognition that some people choose not to actively engage with their neighbours or the wider community; this may be linked to the stage in a person's life eg a household with two or more working adults.

6.3 The effect of the social environment on mental health

A literature review was undertaken in 2006/07 to examine the question "Can the environment contribute to mental distress?" This study was done in response to reports of mental distress observed in a new settlement in Cambridgeshire. Members of the Public Health Department and colleagues sought to answer the question through a study of existing evidence[46,47,48], with a view to identifying any actions that could and should be taken to reduce risk and improve opportunities for health.

While it is not possible to conclusively infer cause and effect because of the multiplicity and complexity of factors, the following evidence was drawn from the study:

- Environmental factors
  There is clear evidence that environmental factors influence health. Many studies identify the effects of poverty, poor housing, work environments and social class as key determinants of health. Durkheim[49] in 1897 described the **relationship between social integration and patterns of mortality**, especially suicide. Subsequent authors[50] have also confirmed that collective characteristics of communities and societies determine population health status.

- Social integration/social cohesion
  The importance of social integration/cohesion is confirmed by a series of studies through the 1970s and 1980s[51],[52] showing that **lack of social ties or social networks predicted mortality from almost every cause of death**. The focus on "social" indicates an ecological characteristic external to the individual, reinforcing the importance of looking at the external environment rather than individual characteristics.

46 Transferable lessons from the New Towns July 2006, Department for Communities and Local Government.
47 From New Towns to Growth Areas, Jim Bennett May 2005, Institute for Public Policy Research (IPPR).
48 Social Epidemiology edited by Berkman and Kawachi 2000, Oxford University Press.
49 Durkheim Le suicide: étude de sociologie 1897 cited in Social Epidemiology editors Berkman and Kawachi 2001
50 Shaw and Mckay (1942) Juvenile Delinquency in Urban Areas. Chicago: University of Chicago Press cited in Social Epidemiology editors Berkman and Kawachi 2001
51 Berkmann LF(1995) the role of social relations in health promotion
52 House JS (1988) Social relationships and health Science241:540-545

- Lessons learnt from New Towns
  Publications[46,47] reflecting on the lessons from previous New Town developments identified the creation of community as a fundamental New Town objective but also highlighted the tendency for "built environment" design and physical issues to dominate the planning process, with **community and social provision falling off the agenda.**

These reports identified **social facilities and community infrastructure as key requirements**. The **need to put in place mechanisms for building social capital and for community support in order to create a sense of belonging for people was identified.** Voluntary organisations and the church were seen as means to encourage integrated communities. Posts were developed by corporations involved in the delivery of New Towns in order to foster social relationships, social liaison and community development with a neighbourhood base. Their aim was to support the emergence of social networks between the new residents and help them settle into their new homes.

The lack of any formal monitoring and evaluation of the community development work was identified as a key weakness in the New Towns programme. It was recommended that **evaluation should commence at the start of a new project and should become part of the continuous improvement process**.

The term "New Town Blues" has been used to describe the feelings of people who have recently moved into new communities, particularly where large new settlements have been built rapidly, lacking a sense of history, community, and tradition. Reports of loneliness and problems of adjustment faced by families are symptomatic of this syndrome. However, the evidence is mixed as to whether this phenomenon is unique to the New Towns, or whether it was a more widespread occurrence in many different communities in different towns and cities. The report on New Towns concluded that although there were challenges in creating communities, "the existence of 'New Town Blues' appears to have been short-lived, if it existed at all."

The local study concluded that despite the dearth of prospective research about the effectiveness of community workers in improving health and wellbeing, the overwhelming weight of published evidence suggests that more can be done to create safe and healthy communities, particularly when a significant proportion of people move into new locations.

It will be necessary to ensure people (new and existing communities) are informed and involved and supported in decision making in order to create cohesive, healthy communities. This is a core foundation block in building a healthy environment and must be given equal weight with the physical environment. Evidence indicates that a failure to do so will disadvantage people and expose the new community to an avoidable excess risk of distress and disease.

Recommendations arising from the study – the effect of the social environment on mental health (2007)[42]

Those responsible for the establishment of new towns and development should influence developers to ensure they recognise and provide resources for social cohesion as well as the physical environment. They should:

- Ensure that the concept of social and community development is considered alongside physical developments.
- Ensure community facilities are available from the start, alongside schools and health provision.
- Build the infrastructure for social cohesion and social capital into the framework e.g. ensuring development workers are part of the framework.
- Require partners in the development to agree measures of social cohesion and build these into routine monitoring indicators.
- Require regular review and evaluation of such indicators as part of a continuous improvement programme, with the local community as partners.
- Ensure sustainability (resource, management and delivery).

In addition, for existing developments they should:

- Require developers and planners to review existing provision of the infrastructure for social cohesion.
- Require developers and planners to remedy deficiencies during the later phases of the build.
- Involve existing (adjacent) communities in the planning of new/the next phase of development.

6.4 Uptake of health services in Cambourne (2005)

An analysis of the uptake in health service use in Cambourne was conducted in 2005 by the Public Health Information team to inform planning for Northstowe. This data provides an insight into the primary care activity at the time of the public health study. It described that by June 2005, over 95% of the residents were registered locally with on average 75 registrations per month. Based on the very young age structure one would expect a GP consultation rate of 2.8 per year and nurse consultation of 2.8 per year. The primary care usage in Cambourne was higher at 3.8 consultations per year for the GP and 0.82 for the practice nurse. The disease prevalence was lower than expected. There were small numbers of hospital admissions and little evidence to support these were higher than expected. The birth rate in 2004 was 89 births per 1,000 women compared to a rate of 55/1000 in the South Cambridgeshire PCT area at that time.

6.5 Building Communities that are Healthy and Well in Cambridgeshire Project

In response to the recommendations of the Cambridgeshire Public Health study on mental health and the environment, Cambridge City and South Cambridgeshire Improving Health Partnership commissioned Cambridge Council for Voluntary Service (CCVS) to design and lead a time limited project to clarify and progress the recommendations that related to **community development**. As part of the project, three different events were held at which different groups of individuals came together to examine the issues in a local context. Throughout the process a growing body of data was generated that has been used to develop the 'People-Proofing' principles that contribute to the recommendations of this project.

Key findings and outcomes included:

- There was a perception of little or poor communication between sectors with regard to the provision of community development services or policy development in new developments.
- A list of actions and specific roles were identified that are believed to be successful in reaching the outcome of a healthy and well community. The different agencies and interests, from transport strategy, health workers to community policing, would benefit from a single point of coordination, supported by partnership funding to help achieve people-centred solutions.
- Planning for the hard infrastructure alone will not build a community and a matrix of formal and informal opportunities or supported activities will be needed. However, given the scale of the growth, it was clear that this would present a challenge to the flexibility of voluntary sector organisations to respond.
- The demographic profiles available for planning new communities may lack the dimensions to plan for the diverse needs in new communities. It was extremely difficult to predict the eventual diversity of the new communities. Diversity was considered in terms of age, experience, culture, physical and mental ability, race and background.
- A methodology was developed that provides principles for planning for the diverse needs of future communities. This is illustrated in the table below and it is based on 3 how's – how to meet up with people, how to have a say in what goes on and how to get information, on a range of issues such as health, leisure, transport, housing, education, faith, environment etc. It puts people into the planning process and helps to generate a 'menu' of roles and activities that contribute to a strong and cohesive community.

The People Proofing Principles for the growth agenda

Set up a coherent social development team structure at the outset
Agree the evaluation method at start
Design all activities and actions designed to meet **People Outcomes**

People Outcomes:

1. **I can meet up with people I know**
2. **I can meet new people**
3. **I can have a say in how things are run around here**
4. **I can run things around here**
5. **I can easily get the information I need for health, leisure, transport, housing, education, environment etc**
6. **I know who to go to for help with…..**

Monitor actions against outcomes
Review effectiveness of actions as a team
Change or design new actions
Survey local population about improvements using People Outcomes
Cycle of monitoring and reviewing (at least annually)

As a result of the project, the following **recommendations** were made:

Building Communities Recommendations

When planning new communities

- At every stage of planning, ensure that partners have a well defined and co-ordinated approach to community working.
- Include a range of community roles that reflect the needs of a diverse population and are identified by an agreed methodology such as the 'People Proofing Principles' identified by this project.
- As an essential supplement to section 106 funding, partners to ensure there is mainstream funding to sustain the implementation of this approach.
- Agree a monitoring system based on criteria that ensure people have opportunities for inclusion eg as illustrated by the 'People Proofing Principles'. Include an action researcher to facilitate this process and to ensure that any required adjustments to the community support infrastructure are made in a timely and appropriate manner.

6.6 Social infrastructure plan for voluntary and community action

A strong influence on the Building Communities that are Healthy and Well Project was research commissioned to provide a social infrastructure plan for voluntary and community action in the Milton Keynes and South Midlands growth area. The key researcher of "Strong Communities" Nigel Boldero, also contributed to the Cambridgeshire project by taking a key part in the Building Communities Conference held in Cambridge in November 2007.

Social infrastructure is defined as: "Building strong communities through the continuing development and delivery of activities, resources and support to strengthen the skills and confidence of people and community groups to enable them to take effective action and play leading roles"[44]. It is made up of a number of components: community development work; community facilities; groups and organisations; grant funding; learning and skills development; volunteering and other mutual support. 'Strong Communities' makes the case for and gives proposals for investment in these areas.

Boldero identified the importance of investing in social infrastructure for the following reasons:

- People lacking previous connections or social relationships need opportunities and help in forming new links and to develop the bonds which build 'social capital' and contribute to strong communities, always recognising that there will be some people who choose not to actively engage with their neighbours or the wider community.
- People coming together in new communities often lack an immediate and appropriate service infrastructure and require help to identify different types of need and, where appropriate, help in forming together to lobby for these, meet the needs themselves or to tap into wider service networks.
- People living in existing communities alongside or in areas of growth should be involved in shaping the physical form, facilities and character of growth areas

(including helping to develop or maintain a 'sense of place' and with the formation of socially cohesive communities), need help to adjust to the influx of new people, and to embrace the opportunity that this growth might bring to improve their own circumstances (eg in provision of public or other services through increased scale).

6.7 Promoting Sustainable Communities in Growth areas: best practice for providing community resources to promote social infrastructure

Further to the work of Building Communities, members of Cambridge City and South Cambridgeshire Improving Health Partnership undertook a piece of joint work[53] to illustrate best practice when planning the types of community resources and actions that should be considered at the various stages of new developments. The types of community activities described are designed to meet 'people outcomes' and the elements necessary for a sustainable community as described by Egan[54]. The report illustrates how community development roles may be fulfilled by different workers employed by different agencies and in different phases but within an agreed and coordinated approach.

Following the initial population of the new development, community-based tasks could be delivered by workers employed by any of the following of providers: registered social landlords, voluntary organisations or local authorities and other statutory organisations as appropriate.

The report proposed that additional community development worker roles should be activated at pre-specified trigger points of housing occupation, for example at around 1,000 homes, and should complement the initial community development role(s) that should already be in place.

As more residents move in, additional resources will be required to support the increasingly diverse needs of a growing community. A key activity will be one of monitoring to identify and be responsive to the needs of the growing community. The types of activity will build on those already described and is likely to involve a greater need for coordination with the increased range of provision that is likely to evolve. Rather than making fixed decisions on numbers and types of community development roles, it is important that financial resources are allocated than be used flexibly and chime with the needs of the community.

Although there is strong rationale to support the need for a community development approach to build social capital in new communities, little formal evaluation has been conducted in this area. A recurring theme that has emerged is the need to put in place a robust evaluation process from the outset and this should include an ongoing monitoring process so that adjustments and continuing improvement can made throughout the life of a development.

6.8 What is this telling us?

Social capital and social cohesion are factors that contribute to the 'social environment' and are related to societal wellbeing. Thus when planning for new communities, it is important to understand and make provision for the factors that contribute to developing the social environment, alongside planning for the more visible/physical aspects such as community facilities.

53 Promoting Sustainable Communities in Growth Areas: Best Practice for providing Community Resources to promote Social Infrastructure, Cambridge City and South Cambs Improving Health Partnership. Draft to Northstowe Board Nov 2008.

54 The Egan review -Skills for Sustainable Communities 2004 RIBA publishing

Planning for the hard infrastructure alone will not build a community and a matrix of formal and informal opportunities or supported activities will be needed. Social infrastructure is made up of a number of components: community development work; community facilities; groups and organisations; grant funding; learning and skills development; volunteering and other mutual support.

The demographic profiles available for planning new communities may lack the dimensions to plan for the diverse needs in new communities. It is extremely difficult to predict the eventual diversity of the new communities. Diversity encompasses age, experience, culture, physical and mental ability, race and background.

The profile and needs of new communities will change as they evolve. Monitoring is necessary to identify the changing needs of the growing community so that adjustments and continuing improvement can made throughout the life of a development.

6.9 Recommendations

Ensure the resourcing of community development roles which may be fulfilled by different workers employed by different agencies and in different phases but within an agreed and coordinated approach. This is in keeping with the findings of the Building Communities that are Healthy and Well in Cambridgeshire report and the report's recommendations should be adopted:

When planning new communities

- At every stage of planning, ensure that partners have a well defined and co-ordinated approach to community working.
- Include a range of community roles that reflect the needs of a diverse population and are identified by an agreed methodology such as the 'People Proofing Principles' identified by this project.
- Partners need to ensure there is mainstream funding to sustain the implementation of this approach, in addition to any s106 funding.
- Agree a monitoring system based on criteria that ensure people have opportunities for inclusion eg as illustrated by the 'People Proofing Principles'. Include an action researcher to facilitate this process and to ensure that any required adjustments to the community support infrastructure are made in a timely and appropriate manner.

7. OUT AND ABOUT: TRANSPORT, GREEN SPACES AND THE BUILT ENVIRONMENT

Man-made changes to the physical environment are inevitable when new communities are created. The architecture of the housing and public buildings, the transport infrastructure and the nature of public spaces all influence health and wellbeing of residents. The built environment can have both positive and negative impacts on human health. This chapter gives a summary of the main links between aspects of the built environment and does not seek to duplicate evidence reviews that have already been published.

7.1 Transport

Good transport links can improve access to health-improving life opportunities such as education, fresh food and health-care. Transport planning can encourage active forms of transport which can lead to improvement in the physical activity. Good transport planning can also enhance social capital by increasing the number of people walking or cycling on the streets and making the streets a place of social interaction.

However, traffic crashes and other incidents are an important cause of death and disability. Road users at highest risk of being killed or seriously injured are cyclists and pedestrians. The most commonly cited cause of a road crash is speed. Environmental and engineering interventions that can effectively reduce transport crashes include single-lane roundabouts, guardrails, pavements, pelican crossings, lighting and area-wide traffic calming. There is, however, little research evidence that these interventions lead to reductions in fatal or serious injury.

Motorised transport generates air pollution, noise pollution and land blight, with direct and indirect health effects, as well as contributing to climate change. People's enjoyment of their environment can be negatively influenced by noise, air and visual pollution. People are more likely to actively exercise, and children are more likely to play in traffic-free areas. For many pollutants, concentrations in vehicles are higher than background and general roadside concentrations.

Poorly planned transport increases social severance and increases health inequalities. Major roads dividing communities can produce severance effects still apparent 30 years after the road construction takes place. Railways can also divide communities.

When traffic increases on roads with previously low levels of traffic, social severance increases. Busy roads form a dangerous barrier between different sections of the community. Poorly constructed pathways and insufficient lighting lead to a degraded pedestrian environment and a subsequent decrease in pedestrian interaction. When people drive rather than walk there is less chance of spontaneous interpersonal interaction.

Neighbourhoods have less amenity and people feel less safe when the number of people on the street decreases. Bypasses and traffic calming measures that reclaim the streets for all users can decrease the impact of social severance. Where this is not possible, improved pedestrian facilities (eg safe crossings) and cycleways, and paths separating pedestrians and cyclists from the traffic, may decrease social severance.[55,56,57]

55 Fizzell, J (2006) Transport, access and health in the East of England, Eastern Region Public Health Authority.

7.2 World Health Organization (WHO) priority issues in built environments and health

The WHO notes that in some European countries, accidents in the home kill more people than do road accidents. Poor design or construction of homes is the cause of many of these accidents. Indoor pollutants or mould cause asthma, allergies or respiratory diseases, which might be prevented by the use of proper building materials and construction[58].

The WHO priority issues for the built environment are:

- thermal comfort and energy
- housing and mental health
- the challenge of ageing populations
- home safety and accidents
- indoor air quality
- residential environments and physical activity.

The reduction of energy consumption in housing is one of the key components of sustainable housing strategies. Private households are the primary energy consumers – before traffic and industry – and affordable energy is necessary to allow all residents to heat their homes. Research has shown a strong relation in most countries between the socioeconomic status of households and their ability to keep their homes adequately warm in cold periods.

The efficiency of thermal insulation and the heating system are the main factors in the maintenance of thermal comfort. Nevertheless, increased housing insulation often comes at the expense of ventilation and air quality, so a compromise must be found between ventilation/air exchange, and the loss of warmth and energy.

Poor housing or homelessness can contribute to mental ill health or can make an episode of mental distress more difficult to manage. This may also be compounded by the fact that poor housing and homelessness are often linked to other forms of social exclusion, such as poverty. Houses that are damp, cold and in poor repair are more likely to be associated with mental ill health that good quality housing. Improvements in general, respiratory, and mental health were reported following warmth and energy efficiency improvements.

Overcrowding and noise pollution may also adversely affect people's mental health. The WHO notes: "Although the triggers are mostly objective problems (such as noise, bad housing conditions or insecurity), the subjective perception and interpretation of the objective conditions have the strongest impact. The knowledge that, compared to friends or neighbours, one's own dwelling is of lower quality can significantly decrease the psychosocial benefits attached to the home, and provide grounds for the development of mental health issues."

The design of residential buildings and the urban setting too often neglect the needs of elderly residents or those with functional limitations. Environmental barriers thus lead

56 NICE public health guidance 8 (2008) Promoting and creating built or natural environments that encourage and support physical activity.

57 Health Scotland, MRC Social and Public Health Sciences Unit and Institute of Occupational Medicine (2007) Health Impact Assessment of Transport Initiatives NHS Scotland Guide.

58 Braubach and Savelsberg (2009) Social inequalities and their influence on housing risk factors and health: A data report based on the WHO LARES database, WHO Europe) (WHO Europe (2007) Large analysis and review of European housing and health status (LARES).

to decreased participation, increase the risk of accidents, or cause social isolation. Although the initial demography of new communities may suggest a young population, the physical environment should accommodate all ages and reflect the changes that occur over the lifetime, and so that people are not excluded by design as they grow older and frailer. Neighbourhoods are needed where older people are not left out or forgotten because they cannot access buildings or public spaces. These are neighbourhoods where transport, good shops, green spaces, decent toilets, and benches, are consciously planned for people of all ages and conditions in mind. They promote community spirit and civic pride.

Most falls among children occur in or around their home. Most are related to the design and maintenance of housing and recreational areas. Examples of factors that increase the risk of falls and injuries include poor lighting, lack of window guards, safety catches and restrictors in high-rise buildings, lack of fixing points for stair gates, missing guardrails for stairs, unsafe balconies and open room access.

Microbial pollution is a key element of indoor air pollution in Europe. Excess moisture on almost all indoor materials leads to growth of microbes, such as mould, fungi and bacteria, which pollute the indoor air. Dampness also initiates the degradation of materials which can also causes pollution. Sufficient epidemiological evidence is available to show that the occupants of damp or mouldy buildings, both houses and public buildings, are at increased risk of respiratory symptoms, respiratory infections and exacerbation of asthma.

The quality of the construction and maintenance of housing and buildings are the main determinants of whether they will be energy efficient, well ventilated and safe for all age groups. High quality buildings can therefore be health promoting. There is also a correlation between housing and health inequalities. Poor quality housing is a feature of area-based measures of deprivation and are associated with poor health outcomes. Adequate provision of high quality housing can therefore help to ameliorate health inequalities.

People have less control on the residential environment than they do on their homes. There is also a greater awareness in planning law and regulations of the evidence base linking housing with health than there is on many aspects of the residential environment. Concern about the rapid increase in obesity, and childhood obesity, in particular have prompted a closer examination of the obesogenic nature of residential environments. A more extensive review of green space provision in new communities is therefore warranted. This ensuing review of the evidence supports the Green Infrastructure Strategy for Cambridgeshire[59] .

7.3 Green Spaces

A green space is usually used in the context of an area or plot in the built environment which is “open, undeveloped land with natural vegetation.”[60] These include parks, forests, playing fields, river corridors, play areas and cemeteries. Urban green spaces can range from linear parks, squares, and crescents to more intimate communal spaces such as allotment gardens or other communal spaces looked after by adjoining properties or community trusts.

59 Green Infrastructure Strategy, Cambridgeshire Horizonshttp://www.cambridgeshire.gov.uk/NR/rdonlyres/DFC9B030-E462-47B4-8365-12454D0B01AC/0/GreenInfrastructureStrategy.pdf

60 Centres for Disease Control and Prevention. Health places terminology. http://www.cdc.gov/healthyplaces/terminology.htm (accessed 17 September 2009).

There is increasing attention paid to the relationship between the amount and quality of green space in the living environment and peoples' health and wellbeing. A number of national and international studies suggest that exposure to green spaces, which may be experienced via various means including viewing natural settings, participating in recreational activities and undertaking nature-based therapy programmes, can be both psychologically and physically restorative leading to improved mental and physical health and wellbeing.

This section aims to summarise the findings of these studies to identify and build an evidence base for the positive health effects of green spaces in the natural environment. In particular, it will draw on case reports and examples of best practice and explore the key factors which encourage its use by the local community.

Green spaces improve physical health

The first large-scale study that assessed the relationship between green spaces and physical health was done in Tokyo, Japan[61]. A prospective cohort study analysed the five year survival rates of a large cohort of senior citizens aged 75+ and measured the association from a baseline assessment performed five years earlier in the form of a questionnaire in which nine items affecting the residential environment were asked. These included space near the residence for taking a stroll, a park, and tree lined streets near the residence, and existence of a garden near the residence. Even after controlling for the effects of the residents' age, sex, marital status, and socio-economic status, the factor of walkable green streets and spaces near the residence showed significant predictive value for the survival of the urban senior citizens over the five year period. The authors concluded that "walkable green spaces near the residence significantly and positively influenced five year survival".

These findings have been corroborated by other cohort studies. A large Dutch study looked at the health of over 10,000 people in the Netherlands and compared it both with the degree of urbanity and the amount of green space in the living environment.[62] The global health indicators used in the study were the number of symptoms experienced in the last 14 days and perceived general health measured on a five point scale running from "very good" to "very bad". The analysis performed suggested that the amount of green space in the living environment has a strong relationship with self-reported health. Separate analyses were conducted for socioeconomic status and it was found that the lower socioeconomic status groups appeared to be more sensitive to the amount of green in the living environment. The study also found that for housewives and the elderly, the relationship between the amount of green space and the number of symptoms is stronger than for the population in general. Extrapolation from this analysis assuming a causal relationship between green space and health, suggest that 10% more green space in the living environment leads to a decrease in the number of symptoms that is comparable with a decrease in age by five years.

An Australian review examined the empirical, theoretical and anecdotal evidence exploring the link between health and nature and concluded that "contact with nature positively impacts blood pressure, cholesterol, outlook on life and stress reduction".[63]

61 Takano T et al. Urban residential environments and senior citizens' longevity in megacity areas: the importance of walkable green spaces. J Epidemiol Community Health. 2002;56:913-918.

62 De Vries et al. Natural environments – healthy environments? An exploratory analysis of the relationship between greenspace and health. Environment and Planning. 2003;35:1717-1731.

63 Maller C et al. Healthy nature healthy people: 'contact with nature' as an upstream health promotion interventions for populations. Health Promotion International. 2006; 21(1):45-54.

Green spaces and mental health

The evidence to suggest a direct beneficial effect on mental health by exposure to the natural environment is compelling. This effect is thought to arise from what is known as the attention-restoration theory.[64] This argues that natural environments lead to an individuals' attention and fascination (effortless attention) being drawn to more natural environments which in turn have a restorative effect from stress. In a study which compared stress recovery against different kinds of environmental exposure, natural settings were perceived by the participants as having the highest overall restorative effectiveness.

Studies on hospital inpatients which compared those with a window view of a brick wall against those with a view overlooking a park and trees reported that patients with a view of a green space reported shorter post-operative hospital stays, received fewer negative evaluative comments in nursing notes and received fewer analgesics.[65] Similar studies carried out in a prison environment in the mid-western USA demonstrated the association between viewing nature and positive wellbeing outcomes. These inmates had a lower frequency of stress-related symptoms including illness of the digestive tracts and headaches.[66]

A survey of garden users in a children's hospital founded that users felt more relaxed and less stressed after visiting the garden, refreshed and rejuvenated and more able to cope and more positive.[67] Nearly half of the visitors observed spent fewer than five minutes in the garden which suggests that even short visits were beneficial.

Does the presence of green space increase physical activity?

It has long been known that being physically active has positive health effects. People are inclined to undertake physical activity in aesthetically appealing environments. Natural environments are perceived to be more aesthetically appealing than built-up environments. Therefore, it has been suggested that natural environments may stimulate people to undertake healthy physical activities such as walking or cycling, and to spend more time on them.

There is however no clear relationship between the amount and availability of green spaces and physical activity. Studies conducted in the Netherlands and more recently in East Anglia, did not find a relationship between the amount of green space in the living environment and whether or not people were physically active.[68,69]

Positive associations have however been shown to be influenced by the specific type of green space and physically active behaviour. Some of these factors include distance to footpath networks, network distance to newsagents and other local amenities, and perceptions of footpath condition, which were all significantly associated with the likelihood of participation in recreational walking.[70] Attractiveness

64 Herzog et al. Reflection and attentional recovery as distinctive benefits of restorative environments. Journal of Environmental Psychology. 1997; 17(2):165-170.

65 Ulrich R. View through a window may influence recovery from surgery. Science. 1984; 224:420-421.

66 Moore E. A prison environment's effect on health care service demands. Journal of Environmental systems. 1981; 11:17-34.

67 Sustainable Development Commission. Health, place and nature. How outdoor environments influence health and wellbeing: a knowledge base. 2008. Whitehall place, London

68 Hillsdon et al. The relationship between access and quality of urban green space with population physical activity. Public Health. 2006; 120:1127-1132.

69 Mass J et al. Physical activity as a possible mechanism behind the relationship between green space and health: A multilevel analysis. BMC Public Health. 2008; 8:206.

70 Giles-Corti B et al. Increasing walking: how important is distance to, attractiveness and size of public open space. American Journal of Preventative Medicine. 2005; 28:169-176.

of the streetscape was one of the most important features related to increased levels of walking and cycling.[71] An attractive streetscape included trees, wide grassy verges, parks, private gardens, diverse and interesting natural sights. This would correlate with NICE guidance which suggests that people are more likely to walk or cycle if there is an attractive streetscape with well-maintained and unobstructed pavements.[72]

Is there a synergistic effect of green exercise?

Both physical activity and exposure to nature are known separately to have positive effects on physical and mental health. Research has gone on to examine whether there is a synergistic benefit in adopting physical activities while being exposed to nature.

The national association for mental health, Mind, commissioned a study that compared groups taking part in two walks in contrasting environments – one in a county park which had a varied landscape of woodlands, grasslands and lakes, and the other took place in a large indoor shopping centre.[73] Participants were asked to complete identical questionnaires immediately before and after each walk. Those on the natural walk reported significant improvement in self-esteem, depression, anger, tension, confusion, fatigue, and vigour compared to the participants in the shopping centre walk. Overall the green walk improved mood by an average of 13% whereas measures for the indoor walk show that on average mood was unaffected.[54]

Other studies report that participants who run through urban parks report more psychological benefit than street joggers.[74] Participants who were exposed to different images whilst on a treadmill report that natural scenes significantly increased self-esteem in addition to that gained simply by taking the exercise and had the greatest effect on lowering blood pressure.[55] These, and similar findings have led Mind to conclude that green exercise was "more enjoyable, more therapeutic, and had a positive effect on mental health and wellbeing."[73]

Green spaces and neighbourhood social ties

The history of public spaces as areas for relaxation, providing places to rest and meet people have been well-documented.[75] The evidence available indicates that natural features within urban environments can encourage greater use, facilitate higher levels of social contact and social integration.

Studies in inner-city USA investigating the accessibility and use of public spaces report that the presence of trees and grass is related to the use of the space, the amount of social activity that takes place within them and the proportion of social to non-social activities they support.[76] Results consistently indicate that natural landscaping encourages greater use of outdoor areas by residents. Spaces with trees attracted larger groups of people, as well as more mixed groups of youths and adults, than did spaces devoid of nature.

71 Pikora T et al. Developing a framework for assessment of the environmental determinants of walking and cycling. Social Science and Medicine. 2003; 56:1693-1703.
72 National Institute for Health and Clinical Excellence. Physical Activity and the Environment. PH-8. January 2008.
73 Mind. Ecotherapy – the green agenda for mental health. 2007.
74 Pretty et al. A countryside for Health and Wellbeing: the physical and mental health benefits of green exercise. 2005.
75 Sullivan WC et al. The fruit of urban nature: vital neighbourhood space. Environment and Behaviour. 2004; 36(5):678-700.
76 Coley R et al. Where does community grow? The social context created by nature in urban public housing. Environment and Behaviour. 1997; 29(4):468-494

Community gardening

Community gardens are increasingly part of the urban fabric. Anecdotal evidence from community members and local organisations suggest that these have a number of positive health benefits including improved access to food, increased physical activity, improved sense of security in local communities and increased social capital.[77]

One study collected data on the perceived health impacts of community gardening in Toronto, Canada through participant observation, focus groups and interviews. The community gardens studied varied greatly in size from a large field to a narrow space between a building and the road, and in organisation from allotment gardens to community worked gardens. Community gardens that were situated near the homes of the gardeners involved were used regularly and consistently, whereas gardens in areas not immediately adjacent to the housing of participants were not frequented as regularly. The gardens were most active in the evenings. Important themes that arose from the interviews include better access to fresh food, greater physical activity, and improved mental health. The participants also expressed their belief that community gardens benefit the community as a whole, by improving relationships among people, increasing community pride, and serving as an impetus for broader community improvement and mobilisation. Some concerns identified include insecure tenure and concerns about personal safety.

Lessons from Cambourne

Cambourne is a new settlement 10 miles west of Cambridge comprising three villages (Lower, Great and Upper Cambourne) that is divided by two shallow green valleys radiating out from the settlement centre. Its projected size is 4,250 households with a density of 32 dwellings per hectare. The Master Plan and Design Guide envisions a sustainable, self-sufficient settlement in the country with urban amenities with a specific aim which takes into account the natural environment and the creation of attractive public spaces.[78] An evaluation of the implementation of this master plan was undertaken by reviewing existing reports and surveys and conducting a new survey of 55 stakeholders including local residents and developers.[79]

The evaluation suggests that while not all the objectives of the master plan have been met, Cambourne is considered by residents and developers alike to have delivered on its goal of creating attractive, user-friendly and well-integrated green spaces throughout the settlement. It is now home to more wildlife than the farmland it was built upon. There is an 80 acre country park with lakes and a 20 acre eco park. The woodland is natural and greenways between the houses create a sense of space. There are two allotments with an active society attracting families interested in growing their own food. The landscape designers used the original woodlands to create pleasant walks which act as short cuts from housing to the centre of the village. The green space is managed by the Wildlife Trust. This is considered to be one of the main factors for its success. Residents report frequent use and appreciation of the green spaces both in terms of the physical attractiveness and character it provides to the community and its function as areas for rest and relaxation and physical activity.

One major issue identified in the report has been the lack of connectivity to surrounding villages and countryside. There are three footpath links to the south,

77 Wakefield S et al. Growing urban health: community gardening in south-east Toronto. Health Promotion International. 2007; 22(2):92-101.

78 Randall Thorp Chartered Landscape Architects. Cambourne New Settlement. http://www.randallthorp.co.uk/Cambourne-New-Settlement-Landscape-Arch.html (accessed 17 September 2009).

79 Platt S. Lessons from Cambourne. Cambridge Architecture Research. 2007. http://www.carl.co.uk/downloads/Cambourne.pdf

however one is blocked two metres from the Cambourne boundary. It is also more difficult to reach footpaths to villages in the north since walking around the traffic interchange into Cambourne is inhospitable and uninviting. Residents also report problems regarding pedestrian connections within Cambourne due to the availability of detailed maps (as the layout is constantly changing) and the lack of street plans showing road names and footpaths on local display boards.

The report is generally favourable to the developers' actions with regards to the incorporation of green spaces in the new settlement although it recommends that any new settlement should have good pedestrian and cycle links to all local footpaths and bridleways and these rights of ways needs to be established well in advance of construction.

Green Infrastructure Strategy

In May 2006, Cambridgeshire Horizons published the Green Infrastructure (GI) Strategy[80] for the Cambridge Sub-region. The Vision for the 2006 Strategy was to "create a comprehensive and sustainable network of green corridors and sites that: enhance the diversity of landscape character, connect and enrich biodiversity habitats, extend access and recreation opportunities and enhance the historic environment, for the benefit of the environment as well as current and future communities in the Cambridge Sub-region".[81]

A total of £23.6 million has been invested directly into green infrastructure in Cambridgeshire since 2004, of which £9million came from Growth Funding. This investment has helped to create and/or safeguard approximately 5.5 square miles of green infrastructure for the benefit of our environment and local communities. The 2006 Green Infrastructure Strategy has played a key role supporting decision makers in their investment priorities.

Since the publication of the 2006 Green Infrastructure Strategy, there has been greater recognition of green infrastructure's contribution to sustainable communities and the importance of planning policy to secure long term implementation and investment. The Strategy is now under review in order to take into account a number of factors:

- Extending the coverage of the Strategy to the whole of Cambridgeshire rather than just the Cambridge Sub-Region. This means that those areas in the county experiencing a greater deficit of green infrastructure and areas of socio-economic challenge are included.

- Strengthening the role of green infrastructure in the planning process by providing a robust evidence base to support local planning authority policies and plans.

- Supporting the development of Cambridgeshire's Integrated Development Programme (IDP). The IDP identifies the strategic infrastructure requirements for Cambridgeshire's growth and provides an evidence base for funding strategies. The IDP requires a robust evidence base for providing strategic green infrastructure.

- Integrating the wider benefits of green infrastructure delivery, particularly with regard to climate change, health and wellbeing and the delivery of sustainable communities.

[80] http://www.cambridgeshire.gov.uk/NR/rdonlyres/DFC9B030-E462-47B4-8365-12454D0B01AC/0/GreenInfrastructureStrategy.pdf

- Supporting national policy developments such as Natural England's guidance[82] which provides a comprehensive overview of the concept of green infrastructure including a policy statement and wider policy priorities.

Taken together, these factors prompted Partners with the support of Cambridgeshire Horizons, to review the 2006 Green Infrastructure Strategy and replace it with a new Cambridgeshire Green Infrastructure Strategy.

Four objectives have been identified in developing the new strategy:

1. **Reverse the decline in biodiversity** – conserving and enhancing biodiversity and geodiversity, through the protection and enhancement of habitats and wildlife sites and linkage of key habitats at the landscape scale

2. **Mitigate and adapt to climate change** – manage the impacts of climate change through developing initiatives that reduce green house gas emissions and that actively take carbon dioxide out of the atmosphere, promote access to green routes reducing the need for travel by car and green infrastructure that supports our adaptation to a changing weather pattern.

3. **Promote sustainable growth and economic development** – green infrastructure plays a key role in place making ensuring Cambridgeshire remains a place that people want to live and invest in. It can help attract and keep high quality workers; increase property values and attract visitors.

4. **Support healthy living and wellbeing** – green infrastructure can support healthy and active lifestyles, support good mental health, inspire learning, and create a sense of community.

The Strategy will go out to public consultation in January 2011 and is expected to be signed off by the end of March 2011.

7.4 What is this telling us?

Transport planning can enhance health by promoting active transport, facilitating social interaction, and improving access to green spaces, fresh food and other amenities and services that promote health. Good transport planning can also reduce the risk of injury to road users and pedestrians and minimise air pollution.

Aspects of the built environment such as energy efficiency, ventilation and safety features of houses have a direct impact on health. High quality building can be health promoting.

People are more likely to walk and cycle in natural, attractive spaces. The overall "quality" of the green space – function, safety, accessibility, and physical attractiveness – is an important theme in the frequency and consistency of its use. Exposure to green spaces is good for health in and of itself, can improve mental wellbeing and in some cases may stimulate more social contact.

Access and size of green space alone is not enough to influence physical activity. Specific factors which contribute to increasing physical activity include an attractive

[82] Natural England, Green Infrastructure Guidance, 2009.

streetscape which includes trees, parks, gardens and diverse and interesting natural sights.

Community gardening can serve as a mechanism for combating social isolation and promoting social cohesion by contributing to the development of social networks. It also brings about positive health benefits which include improved access to food and increased physical activity. Factors which promote the use of community gardens include safety, proximity to users homes and secured tenure.

7.5 Recommendations

There should be a mixture of formal and informal green spaces, which should include considerations for community gardens and allotments, which are close to residential areas, accessible, well-maintained and well connected to existing networks of strategic spaces and walking routes such as green chains.

8. MONITORING COMMUNITY WELLBEING

What do we know?

8.1 Community wellbeing

There are many definitions and descriptions of wellbeing. *New Horizons Confident Communities, Brighter Futures Report*[83] describes wellbeing as:

"A positive state of mind and body, feeling safe and able to cope. With a sense of connection with people, communities and the environment".

The report offers a public mental health framework to help make sense of the complex interplay between the many social, economic and environmental factors that influence individual and community mental health and wellbeing. It looks at the risk and protective factors associated with mental wellbeing and categorises them into 5 dimensions:

- a life course approach: ensure a positive start in life and healthy older years
- build strength, safety and resilience
- develop sustainable, connected communities
- integrate physical and mental health
- promote purpose and participation.

These dimensions with the risk and protective factors are discussed more fully in Chapter 3 the Mental Health JSNA and in addition the *New Horizons Confident Communities* summary framework[84] provides a helpful check list of evidence based interventions for promoting wellbeing. All aspects of the framework apply to a new community and should be taken into consideration when planning and developing new communities.

The third dimension – 'develop sustainable, connected communities'' reinforces the importance of the social environment as discussed in Chapter Six and the importance of green spaces as discussed in Chapter Seven. Interventions that are specifically mentioned include developing social networks and enhancing safe green community spaces.

8.2 Indicators of mental health and wellbeing

Mental wellbeing and mental health are largely a matter of definition that is influenced by culture and religious beliefs[85]. This is a vital matter for it will determine the effectiveness of interventions and therefore measures of success. Furthermore, even if the mental health management tools (eg General Health Questionnaire) has positive and negative questions about an individuals mental health, they have a 'cut-off' value which determines whether or not they are considered to have mental problems, for example patients with a sufficient number of symptoms to be considered depressed. Diagnostic tools normally measure mental illness, not positive mental health.

83 HM Government Confident Communities, Brighter Futures March 2010. http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_114774

84 New Horizons Confident Communities summary framework

85 Bhui K and Rudell K (2002). Transcultural mental health promotion. Journal of Mental Health Promotion 1(1):8-16

However, there are a number of well-validated instruments which include questions that identify positive mental health in individuals. These contain feeling loved and valued, interest in life, autonomy and optimism.

Measuring community indicators creates other problems in that the answers to the questions are normally aggregated to form a community level. This means that the levels are expressed in broad terms. The association observed between variables at the group level does not necessarily represent the association that exists at the individual level - an ecological fallacy.

In 2001, the Scottish Government's *National Programme for Improving Mental Health and Wellbeing*[86] was established with the vision to help improve the mental health of everyone in Scotland and to improve the quality of life, wellbeing and social inclusion of people who experience mental illness or mental health problems. A core set of national, sustainable mental health indicators was needed to support implementation and monitoring of the programme.

The approach taken by Health Scotland in developing indicators of mental health and wellbeing is illustrative of the challenges that need to be considered in monitoring health and wellbeing in new communities www.healthscotland.com/scotlands-health/population/mental-health-indicators.aspx

Health Scotland proposed that indicators should:

- provide a summary mental health profile for Scotland that includes both positive mental health and mental health problems
- enable monitoring of changes in Scotland's mental health
- inform decision-making about priorities for action and resource allocation
- where data allows, enable comparison between population groups and geographical areas of Scotland, as well as with other countries

These criteria are also relevant for any indicators of health and wellbeing in new communities. Community indicators need to reflect, whether on their own or in combination with other indicators, an accurate picture of the overall health of the community at any given time. As such, both the negative and positive aspects of health should be monitored. Indicators should be sensitive enough to detect changes in the health profile of a community in time to influence relevant corrective action to be taken. These indicators should also be able to monitor the results of interventions taken to address problems detected in the community. Finally, indicators should allow for comparisons with other communities and track trends over time.

The Scottish approach offers two further sets of consideration. First, there are a number of practical considerations when developing indicators and second, there needs to be a conceptual framework underpinning the indicator set that is chosen.

In terms of operational criteria for indicators the following were listed:

- comprehensive and balanced across mental health dimensions - positive/negative, individual/societal, key determinants as well as health outcomes;
- clear and unambiguously defined, based on commonly shared definitions;

86 www.wellscotland.info/index.aspx

- robust – ie feasible, measurable, evidence-based, specific (cause and effect), relevant, reliable, valid, replicable, comparable, practical, clearly interpretable and sensitive to change over time, indicating any direction of change, and ethical;
- based on data of sufficient quality in terms of: its availability, coverage (geographical, completeness, population groups), sample size (sufficient to allow more precise estimates, greater statistical analysis and subgroup analysis), accuracy and frequency of collection;
- flexible to allow adaptation and improvement where appropriate, whilst maintaining a degree of consistency through time;
- comparable with data from other countries where possible.

The factors that influence mental health and wellbeing are complex and are described more fully in the Mental Health JSNA. An acknowledgement of the complex inter-relationships should inform the choice and interpretation of community indicators.

8.3 Classification of Indicators

The classification of indicators by conceptual constructs as outlined by Health Scotland offers a simple way to capture the most important domains for monitoring without the need for elaborate theoretical frameworks linking all the elements. A construct refers to a conceptual element that is (arguably):

- high level construct - an important or necessary constituent of mental health or
- contextual construct - where a contextual variable can be a determinant of mental health (usually a risk or protective factor, as direction of causality is often unknown), a consequence of mental health, or both. These may be at:

    - an individual level eg learning and development
    - at a community level eg social support
    - at a structural level eg equality.

Figure 6: Constructs for Adult Mental Health Indicators

HIGH LEVEL CONSTRUCTS		
Positive mental health	Mental health problems	
CONTEXTUAL CONSTRUCTS		
Individual	**Community**	**Structural**
Learning and development	Participation	Equality
Healthy Living	Social Networks	Social inclusion
General health	Social support	Discrimination
Spirituality	Trust	Financial security/debt
Emotional Intelligence	Safety	Physical environment
		Working life
		Violence

Source: Health Scotland Adult Mental Health Indicators

Higher level constructs

Positive mental health encompasses more than the absence of mental health problems and covers both experience (eg emotions and life satisfaction) and functioning (eg coping skills and relationships with others). Positive mental health generally refers to a range of emotional and cognitive attributes associated with a self-reported sense of wellbeing and/or resilience in the face of adversity, it is more than the absence of mental health problems and may also be present in people with a mental illness diagnosis. Dimensions cited include: self-esteem, internal locus of control or mastery, resilience, satisfaction with life, optimism, social integration, sense of coherence and satisfying relationships.

Data on positive mental health will typically be obtained through surveys where people are asked to complete validated questionnaires. For example, life satisfaction is assessed in Scotland by a question from Scottish Health Survey, "All things considered, how satisfied are you with your life as a whole nowadays?" (0- extremely dissatisfied to10-extremely satisfied).

Data on mental health problems are covered in the JSNA for Mental Health. The indicators, their rationale and profile for Cambridgeshire are described there and will not be discussed in detail.

Contextual constructs

Individual

One of the potential strengths of the conceptual constructs approach is that it identifies areas of importance for which there may not be a readily identified data source or indicator. Spirituality and emotional intelligence were identified by Health Scotland as important individual level factors influencing mental health and wellbeing even though they were unable to identify suitable indicators.

The JSNA for Mental Health describes indicators for learning and development, healthy living and general health for Cambridgeshire. The following are illustrative of indicators that might fit this construct.

- Percentage of pupils aged 15 years in schools maintained by the Local Authority achieving 5 or more grade A*-C GCSEs or equivalent. Qualifications include GCSEs; full, short and double award, GNVQs; Part 1, or full, and Level 2 qualifications.
- Percentage of working-age people who received job-related training in the past 13 weeks, employed and unemployed.
- The percentage of adults who meet the current recommended level of physical activity (at least three occasions of 30 minutes per week).
- Proportion of adults aged 16 and over who consume five or more portions of fruit and vegetables per day.
- The proportion of people living in a household who consider themselves to have a limiting long term illness (LLTI), health problem or disability that limits daily activities and work that the individual can undertake.

Further examples of these indicators can be found in *Confident Communities Brighter Futures*[83] where comprehensive lists of indicators are given for each dimension of the public mental health framework referred to in the introductory paragraph of this chapter.

Community

Studies have consistently showed that the lack of social ties or social networks predicted mortality from almost every cause of death (see Chapter 6). The following describes two types of measures: social networks and social cohesion.[87]

1. Measures of the support and networks that people have which may or may not be a result of where they live.

House and Kahn[88] divided measures of social ties, network and support into three different dimensions:

- **Measures of social ties and integration:**

  These measures usually comprise of between nine and 18 items, taking between two to five minutes to administer. They describe the size of networks, frequency of contact, membership in voluntary and religious organisations and social participation. Berkman and Syme [89] developed a social network index which has been used in large prospective community based studies. They provide limited information on the depth and quality of social relationships but studies show that they consistently predict health outcomes, particularly mortality

- **Measures of social network**

  These are usually complex and detailed description of networks, how they work, the social support that people either perceive they get or actually get. They provide a rich understanding of complex dynamics and morphology of networks but take a long time to complete. They are useful for research but probably not for day to day use.

- **Measures of social support**

  Measure elements of emotional, tangible support and financial support. Measurements may then measure either perceived support ("if you need help, is there anyone who can help") or received support ("did anyone talk to you in the last month about your feelings/lend you money"). These measures usually include from 15–40 items and take between 10–20 minutes to administer. However, they have been developed on the basis of small, often college aged groups making applicability to other populations uncertain.

  These measures describe the networks people/individuals have. People with these networks are less at risk than others who do not have these networks. They apply to people, and may/may not be related to where they live.

87 Berkman LF and Glass T in Social Epidemiology (Berkman LF and Kawachi I) Chapter 7 on Social Integration, Social Networks, Social Support and Health.

88 House JS and Kahn RL (1985) Measures and concepts of social support, in S.Cohen and SL Syne (Eds) Social support and health New York: Academic Press

89 Berkman LF, Syme SL. Social networks, host resistance, and mortality: a nine-year follow-up study of Alameda County residents.Am J Epidemiol 1979;109:186–204

2. Measuring collective societal dimensions: **the social environment**

Sampson's[90] survey of 343 Chicago neighbourhoods in 1995 which asked how strongly people agreed on a five point scale:

"People around here are willing to help their neighbours"
"This is a close knit community"
"People in this neighbourhood can be trusted"
"People in this neighbourhood generally don't get along with each other"
"People in this neighbourhood do not share the same values"

Results were combined with responses to questions about the level of informal social control (whether neighbours would intervene in situations where children were engaging in delinquent behaviour) to produce a summary index of "collective efficacy".

Collective efficacy turned out to be significantly related to level of organisational participation and of neighbourhood services. The index of collective efficacy was significantly inversely associated with reports of neighbourhood violence and violent victimisation as well as homicide rates.

Kawachi[91] carried out an ecological analysis of social capital indicators across the United States in relation to state-level mortality rates. Data was obtained from residents in 39 states from General Social Surveys between 1986 and 1990 which also asked about membership in associations (church groups, sports groups, hobby groups etc).

- Per capita group membership in each state was strongly inversely correlated with age adjusted all cause mortality.
- The density of membership in voluntary associations was also a predictor of deaths from coronary heart disease, malignant neoplasms and infant mortality.
- The correlation of membership in associations to civic trust was very high. In turn; the level of distrust was strikingly correlated with age adjusted mortality rates.
- Lower levels of social trust were associated with higher rates of most major causes of death, including coronary heart disease, unintentional injury and infant mortality.

Kawachi used social capital indicators (levels of interpersonal trust as measured by % people responding to "most people can be trusted", "most people are helpful" and per capita membership in voluntary organisations) and found that low trust was more likely to associated with poor health with areas with low trust having a significantly higher risk of poor health than areas of medium and high trust even when other factors such as smoking status and income had been taken into consideration.

Strong associations were also found between individual risk factors eg low income, low education etc but even after adjusting for these variables, individuals living in states with low social capital were at increased risk of poor self-rated health.

90 Sampson RJ, Raudenbush SW, Earls F (1997) Neighbourhoods and violent crime: a multilevel study of collective efficacy. Science, 277:918-24.

91 Kawachi et al (1997) Social capital, income inequality and mortality. Am J Public Health 87:1491-8

Structural

There is a large range of potential indicators that cover the domains highlighted by the Health Scotland construct and these are listed in *Confident Communities Brighter Futures*. The indicators are listed by the dimensions of the public mental health framework referred to in the introductory paragraph of this chapter.

In the past, indicators of mental health have been hard to find. Targets for mental health improvement have largely concentrated on suicide rates, which although important, give a limited picture of the mental health of a community.

Examples of indicators that might fit into what Health Scotland refers to as the structural construct are as follows:

- Rate per 100,000 population aged 16 to 59 years claiming incapacity benefit or severe disablement allowance with a diagnosis in the mental and behavioural disorders category (irrespective of whether they receive payments).

- The percentage of all working age people who are in employment (either employees, self-employed or on government employment / training programmes). Working age is defined as males aged between 16 and 64 and females aged between 16 and 59.

- The percentage of the population who had a 'high level of worry about violent crime' from the British Crime Survey 2006/07 ('fear of crime').

- The total incidence of violence per 10,000 adults reported by people in the British Crime Survey 2004/5 ('reported crime').

- The percentage of Super Output Areas (SOAs) in each district, by quintile of deprivation.

Data sources

An important criterion for an indicator is that it should be based on data of sufficient quality in terms of: its availability, coverage, sample size, accuracy and frequency of collection. Data sources for monitoring health and wellbeing are either routine statistics or surveys.

Routine statistics are not often collected for the specific function of describing or monitoring health and wellbeing. As such they may serve as proxy measures of health and wellbeing but will have limitations. For example, data on incidence of suicide or violent crime may be very accurate but relate to relatively rare events. They may be useful in monitoring trends in large populations but become meaningless when assessing the health and wellbeing of a new community because the numbers may be so small. In addition they represent a failure of prevention.

Surveys allow collection of information on specific factors that are important for monitoring health and wellbeing. The Place Survey www.audit-commission.gov.uk/localgov/audit/nis/pages/placesurvey.aspx
for example, was until 2010, a statutory exercise that must be undertaken by all local authorities every two years. The Place Survey provided 18 performance indicators relating to citizen's perspectives. The survey captured local people's views, experiences and perceptions, so that any proposed solutions and interventions for an

area reflect local views and preferences. Many of the National Indicators that were measured by the Place Survey reflect aspects of the community construct of mental health and wellbeing.

However, the Place Survey was only required to be carried out biannually and did not ordinarily sample enough individuals to allow meaningful description or monitoring of health and wellbeing in small communities. Its purpose was to inform action at a district level.

Cambourne and Orchard Park are two new communities within South Cambridgeshire. Results from the Place Survey did not allow for statistically robust results from residents living in these areas. Therefore a survey was undertaken with all residents in the new communities to allow South Cambridgeshire District Council to compare and contrast the results with the overall District results. Additional questions to those asked by the Place Survey were included. Residents were asked to list up to five services or facilities that were most important in making somewhere a good place to live and up to five services that most need improving in their local area. The findings are summarised in chapter nine.

While this approach can provide accurate data that are collected in a standardised way and can be used to compare new communities with other areas and potentially over time, cost and timeliness are important considerations and do not support this approach as a feasible way to routinely monitor health and wellbeing.

Community development approaches to monitoring health and wellbeing

The Standing Conference for Community Development states that "community development is about building active and sustainable communities based on social justice and mutual respect. It is about changing power structures to remove barriers that prevent people from participating in issues that affect their lives." A sustainable community is a place where people want to live and work now and in the future.

The values of social justice, participation, equality, learning and co-operation that undergird community development are also key aspects of the contextual constructs for measuring mental health and wellbeing. Several questions that were included in the Place Survey and were National Indicators (NIs) aim to measure components of these values. These included:

- NI 1 – % of people who agree people from different backgrounds get on well together in their local area.
- NI 2 – % of people who 'very' or 'fairly' strongly feel that they belong to their neighbourhood.
- NI 3 – % of people who have taken part in civic activity in the local area in last twelve months.
- NI 4 – % of people who agree they can influence decisions in their locality.
- NI 5 – % of people satisfied overall with local area.
- NI 6 – % of people who have participated in regular volunteering in last twelve months.
- NI 140 – % of people who are treated with respect and consideration by local public services 'all' or 'most' of the time.

The notion that the measurement and monitoring of mental health and wellbeing could itself be an important aspect of community development has been tested in several projects. The 'People Assessing Their Health' (PATH) project [92] was undertaken in a region of Canada that is geographically isolated and faces difficult socio-economic circumstances. Community health impact assessment was used to increase public understanding of the determinants of health and empower citizens to play an active part in decisions influencing their health.

The first stage in the work was the local development of community health impact assessment tools (CHIATs) tailored to the special needs of each of the communities. All three CHIATs were intended to provide answers to the same question: "What does it take to make and keep our community healthy?" Other objectives were to develop the CHIATs in such a way as to:

- examine a broad range of factors that determine health, rather than only specific interests;
- identify what community members consider important in building a healthy community;
- encourage all community members to become involved in decisions about local programmes and policies;
- reflect community concerns and priorities;
- provide information useful to community health boards to guide decisions about the organization of primary health care.

The process used included four steps:

1. At the first step, public meetings were held to determine who in the community was interested in becoming involved, a local committee then selected a local person to coordinate the project, teams were trained in communication and group facilitation techniques, and local steering committees were formed.

2. In the second step, facilitators conducted citizen meetings, starting from the premise that community people know what it takes to make their community healthy. The process included measures that encouraged community members to consider the broadest possible range of determinants of health, and they were not steered (or distracted) by a pre-determined list complied by public health 'experts'.

3. In the third step, steering committees designed their CHIATs based on data collected during step two. Information typically included was a statement of the values and principles that guided the work, a vision statement for a healthy community, a summary of key determinants of health, a list of factors important in building and sustaining a healthy community, and priorities for action. Community workshops were used to obtain feedback on drafts and the final CHIATs incorporated this feedback.

4. In the final step, steering committee members worked with local community leaders to ensure that the CHIATs were used in decision-making undertaken by community health planning groups and municipal decision-makers.

92 Eaton, S (2009) A brief history of PATH National Collaborating Centre for Healthy Public Policy (NCCHPP))

A local example of a community run survey to identify local views about community priorities was the Voice Your Choice project, a participatory budgeting scheme carried out in the Huntingdon North Ward in Cambridgeshire. The scheme aimed to give £50,000 to local groups to improve conditions in the ward and local residents were questioned to obtain their views on how the money should be spent. Three questions in the Voice your Choice survey can be found on the Place Survey. These questions addressed satisfaction with their local area, community cohesion and resident perceptions to influence on local decisions.

There were 234 responses to the doorstep survey, which represents 10% of households in Huntingdon North ward. The survey was conducted by 12 people some of whom were community members who were part of the steering group for the Voice Your Choice project and required 60 person hours. The process was facilitated by the Neighbourhood Management team but the potential for collecting timely information about issues that matter to the community using standard tools such as Place Survey questions was shown to be feasible. If community members volunteer their time and skills this will reduce cost while increasing levels of participation, volunteering and civic engagement. Response rates from so called “hard to reach” groups may also be improved by this approach.

8.4 What is this telling us?

Mental wellbeing is greater than the absence of mental illness and is influenced by positive or protective factors as well as negative or risk factors. Indicators of mental health and wellbeing should be comprehensive and balanced across mental health dimensions - positive/negative, individual/societal, key determinants as well as health outcomes.

An important criterion for an indicator is that it should be based on data of sufficient quality in terms of: its availability, coverage, sample size, accuracy and frequency of collection. Data sources for monitoring health and wellbeing are either routine statistics or surveys.

Existing data sources and surveys such as the Place Survey are not sensitive to the rapid changes that may occur in new communities and are not feasible for monitoring health and wellbeing in the typically small populations involved.

The measurement and monitoring of mental health and wellbeing could itself be an important aspect of community development of new communities. The ‘People Assessing Their Health’ (PATH) project in Canada is one such approach. This is a facilitated approach where the community identifies the issues of importance to them and selects the indicators to be used. Another potential approach is to use the ‘People Proofing Principles’ approach recommended in Chapter 6.

The potential for collecting timely information about issues that matter to the community using standard tools such as Place Survey questions has been shown to be feasible in north Huntingdon. If community members volunteer their time and skills this will reduce cost while increasing levels of participation, volunteering and civic engagement. Response rates from so called “hard to reach” groups may also be improved by this approach.

8.5 Recommendation

There should be consultation with residents of new communities, at the earliest opportunity, about the provision of community resources including green space provision, a clear allocation of responsibilities in managing these resources and a mechanism to ensure that locally agreed monitoring is implemented and the results acted upon.

9. LOCAL EXPERIENCE

Cambourne

Cambourne is one of the most recent new developments in South Cambridgeshire and the 102nd village settlement in the district. There is real value and opportunity to learn lessons from Cambourne's development and apply them elsewhere. Several reports have identified lessons from the early experience of residents in Cambourne.

A report by the Research Group of Cambridgeshire County Council in 2006 surveyed residents of Cambourne (http://www.cambridgeshire.gov.uk/NR/rdonlyres/FEFB45BC-5CC4-459C-85D6-226285501035/0/CAMBOURNESURVEYREPORT310107webversion.pdf). The top reasons for moving to Cambourne were the appearance of the houses and wanting to live in a village, with 39% and 37% stating these reasons respectively. Price was also an important factor, identified by 25%. 20% moved to be nearer to their jobs or for a new job, whilst 12% of respondents wanted to move to Cambourne to move into school catchments.

A report "Cambourne: a sustainable community?" (http://www.scambs.gov.uk/admin/documents/retrieve.asp?pk_document=3574) produced for the Chartered Institute of Housing's Eastern Region Conference held at Cambourne in November 2005 concluded that planners and housing providers need to do everything in their power to create the conditions in which social capital can flourish.

With respect to community facilities the following observations were made:
"Early provision is essential, even if temporary buildings are used. A meeting place for residents and play space is vital at an early stage: do not rely on the school hall as it is not always available or compatible. There is no substitute for a community development officer 'on the ground' from the time residents start to arrive or a little earlier, to help the growth of community infrastructure using the facilities available."

"Open space should be clearly defined in terms of ownership and maintenance. Verges and open spaces too often conveyed to adjacent householders, leading to conflict and a desire to fence the land, as well as uncertainty as to who should maintain it."

"There is something of a pioneer spirit about the early residents – determined to make the best of their circumstances and to better themselves and their families!" Colin Wiles in Cambourne: a sustainable community?.

Stephen Platt authored a 2007 report "Lessons from Cambourne (http://www.carl.co.uk/downloads/Cambourne.pdf) based on a review of existing reports and surveys, observation by the author and a survey of over 50 'stakeholders'. Among the conclusions he made were the following:
"Cambourne is less congested than Cambridge and there is less pollution and better air quality than in the city. It is quieter and there is a better sense of community. Despite the bad press, there is less crime and less antisocial behaviour. It is perceived as a safe place to bring up a family and young children seem to be given more freedom and independence than in Cambridge or established villages. Houses are cheaper, there is more choice and the houses are new. Above all people really appreciate the green space and lakes that have been incorporated into the built form.

But Cambourne can feel isolated, especially for those without children who have less opportunity to make friends or for those who find mixing more difficult. There is an obvious lack of history, a continuity of generations and a sense of belonging. There is less reason for civic pride, compared with Cambridge and some villages. There is less choice of shops, fewer public transport options and facilities were late in arriving."

Orchard Park

South Cambridgeshire District Council's Scrutiny and Overview Committee interviewed a range of local people involved with the development of Orchard Park (previously Arbury Camp - a new development in North Cambridge) over a six month period in 2008[93]. Among the achievements cited was the setting up a local members forum. A key lesson learnt was the need to produce an agreed design guide that should be adhered to through the phases of the development. A recommendation was that a community development plan should be produced at a very early stage for each new development.

Place survey findings

Results from the district wide Place Survey did not allow for statistically robust results from residents living in Cambourne and Orchard Park. Therefore a survey was undertaken with all residents in the new communities to allow South Cambridgeshire District Council to compare and contrast the results with the overall district results.

Table14: Results of a survey carried out with all residents in the new communities to allow South Cambridgeshire District Council to compare and contrast the results with the overall district results.

Indicators where residents in new communities have higher scores than the district	Indicators where residents in new communities have lower scores than the district
People 'very well' or 'fairly well' informed about what to do in the event of a large-scale emergency (26.7% compared to District score of 14.6%)	People who 'very' or 'fairly' strongly feel that they belong to their neighbourhood (46.2% compared to District 63.9%)
People who rate their health in general as very good or good (89.0% compared to District 81.6%)	People who perceive drunk or rowdy behaviour to be a problem in local area (17.9% compared to District 8.6%)
People who are treated with respect and consideration by local public services 'all' or 'most' of the time (83.1% compared to District 77.5%)	People who perceive drug use or drug dealing to be a problem in local area (22.0% compared to District 13.1%)
People who agree the police and local public services seek people's views about anti-social behaviour and crime issues (29.1% compared to District 27.5%)	People who have participated in regular volunteering in last 12 months (24.1% compared to District 33.0%)
	People satisfied overall with local area (81.7% compared to District 90.4%)

[93] Arbury Park Scrutiny Review, October 2008
http://scambs.moderngov.co.uk/ieSearchResults2.aspx?SS=Orchard&DT=3&WI=0&CI=417&CA=false&SB=true&CX=ooicyxhl.tnn&PG=1

	Anti-social behaviour (15.9% compared to District 7.5%)
	People who think older people receive the support they need to live independently (23.8% compared to District 29.8%)
	People who have taken part in a civic activity (15.1% compared to District 20.1%)
	People who agree they can influence decisions in their locality (30.3% compared to District 33.6%)

Source: CELLO MRUK Research: Place Survey – Orchard Park and Cambourne, 2009

APPENDIX 1

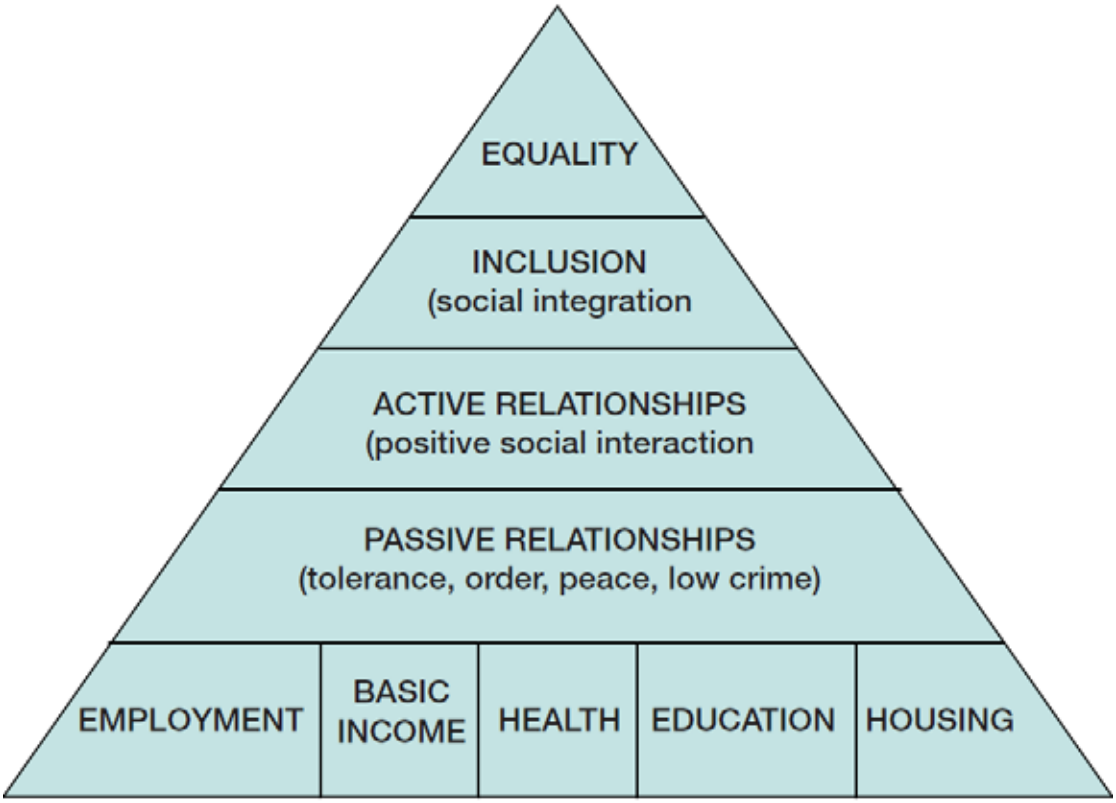
Definitions associated with the social environment

The Local Government Association/Home Office's definition[94] of a **cohesive community** is one where:

- There is a common vision and a sense of belonging for all communities.
- The diversity of people's different backgrounds and circumstances are appreciated and positively valued.
- People from different backgrounds have similar life opportunities.
- Strong and positive relationships are being developed between people from different backgrounds in the workplace, in schools and within neighbourhoods.

The "State of the English Cities" thematic report on **social cohesion** describes five different dimensions of social cohesion: material conditions, passive relationships, active relationships, inclusion and equality [95] (see Fig 3).

Figure 7. Social Cohesion Framework



Source**:** Turok et al (2006), State of English Cities: Social Cohesion, Department of Communities and Local Government

According to the report "relations between and within communities suffer when people lack work and endure hardship, debt, anxiety, low self esteem, ill-health, poor skills and bad living

94 Guidance on Community Cohesion LGA/Home Office 2002 page 6.
95 Turok et al (2006), State of English Cities: Social Cohesion, Department of Communities and Local Government.

conditions. These basic necessities of life are the foundations of a strong social fabric and important indicators of social progress."

By ensuring the delivery of high quality affordable housing supported by schools, health care facilities and employment areas some of these material conditions might be achieved through master planning. However, these are only foundational and will not produce social cohesion in new communities on their own.

The social environment in a community will influence whether it is cohesive or not. Social order, safety and freedom from fear are necessary ingredients.
Tolerance and respect for other people, along with peace and will foster stable communities while lack of acceptance of social and cultural differences, along with conflict and crime will lead to stress, insecurity and instability.

"The third dimension refers to the positive interactions, exchanges and networks between individuals and communities, or active social relationships. Such contacts and connections are potential resources for places since they offer people and organisations mutual support, information, trust and credit of various kinds. The opposite is misunderstanding, suspicion, mistrust and resentment, which undermine social wellbeing."

"The fourth dimension is about the extent of social inclusion or integration of people into the mainstream institutions of civil society. It also includes people's sense of belonging to a [community] and the strength of shared experiences, identities and values between those from different backgrounds – do they have a genuine stake in local society and pull together? The opposite is social or residential segregation, social exclusion, disaffection and isolation."

"Lastly, social equality refers to the level of fairness or disparity in access to opportunities or material circumstances, such as income, health or quality of life, or in future life chances. The opposite is a high level of inequality in living standards or very unequal prospects for upward social mobility. This may be associated with frustration, envy and resentment experienced by those lower down the scale, which can damage overall social welfare in a variety of ways."

Social inclusion is therefore a dimension of social cohesion in the State of English Cities framework. Along with passive and active social relationships, social inclusion describes aspects of the social capital of a community. This is the "currency" that derives from the wealth of social connections or networks within a community and help to ensure it is cohesive.

Social inclusion is also the opposite of **social exclusion**. The Cabinet Office Social Exclusion Taskforce describes social exclusion as "a short–hand term for what can happen when people or areas have a combination of problems, such as unemployment, discrimination, poor skills, low incomes, poor housing, high crime and family breakdown. These problems are linked and mutually reinforcing. Social exclusion is an extreme consequence of what happens when people do not get a fair deal throughout their lives and find themselves in difficult situations." These factors prevent full participation of each member in a community and lead to further inequalities within the community[96].

Another way in which the term "social inclusion" is used is as an umbrella term for strategies to combat social exclusion. The Development Trusts Association[97] defines **social inclusion**

96 The Cambridge Local Strategic Partnership (2005) A Social Inclusion Strategy for Cambridge.
97 www.dta.org.uk/resources/glossary/socialinclusion.htm

as “a positive phrase covering a range of policies aimed at promoting equality of opportunity, maintaining Social Cohesion, building Social Capital and minimising social exclusion.”

There are a range of definitions of **social capital**, but they have common features that include: trust, reciprocity, citizenship, neighbourliness, social networks and participation. The Office for National Statistics uses a definition from the Office for Economic Co-operation and Development which defines social capital as “networks together with shared norms, values and understandings that facilitate co-operation within and among groups.” Robert Putnam[98] refers to social capital as “features of social organisation, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions. Putnam[99] has suggested that “joining and participating in one group cuts in half your odds of dying the next year”.

Coleman[100] provides a word of caution; he considers social capital as a ‘neutral resource’ as whether society is better as a result, depends on the individual uses to which it is put. If used by people of privilege to gain access to powerful positions through their social connections, it will create inequality.

Community development is a set of values and practices which plays a special role in overcoming poverty and disadvantage, knitting society together at the grass roots and deepening democracy. The values and principles associated with community development are:

- Social justice
- Self determination
- Working and learning together
- Sustainable communities
- Participation
- Reflective practice

Community development combines six aspects:

- helping people find a common cause on issues that affect them;
- helping people work together on such issues under their own control;
- building the strengths and independence of community groups, organisations and networks;
- building equity, inclusiveness, participation and cohesion amongst people and their groups and organisations;
- empowering people and their organisations where appropriate to influence and help transform public policies and services and other factors affecting the conditions of their lives;
- advising and informing public authorities on community needs, viewpoints and processes and assisting them to strengthen communities and work in genuine partnership with them.

98 Putnam RD (1993) Making democracy work: civic traditions in modern Italy. Princeton NJ, Princeton University Press.
99 Putnam, R. ‘Bowling alone: the collapse and rise of the American Community’ 2000.
100 Coleman JS (1990) Foundations of social theory. Cambridge, MA: Havard University Press.