

Topic Paper 12 - Population and Human Health

Population and Human Health

Introduction

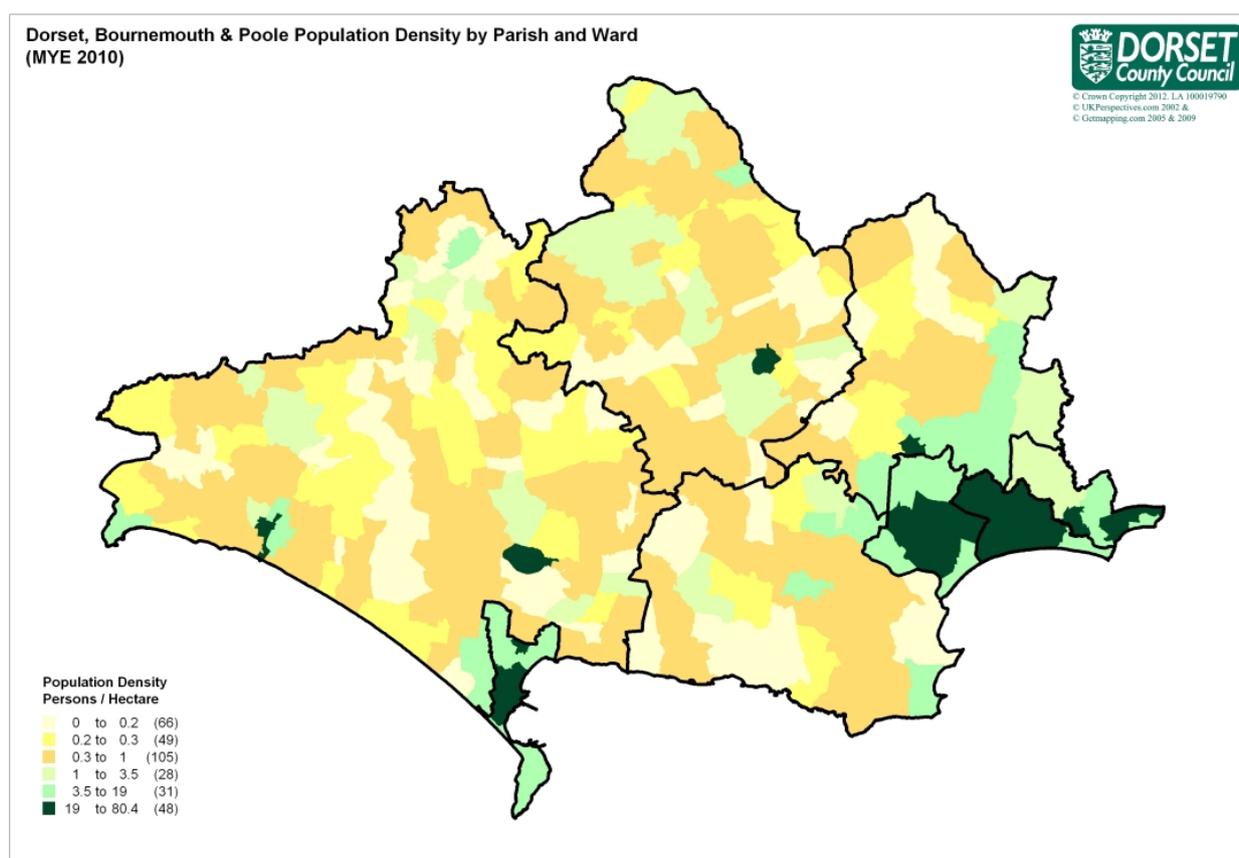
1 This topic paper sets out the baseline information firstly for population and development and secondly for health in Dorset. The summary then brings together the two topics in terms of relevant policy documents, potential impacts and issues and identifies sustainability objectives.

Population - Baseline

Population Characteristics

2 The county of Dorset, including the unitary authority areas of Bournemouth and Poole, covers an area of 265,273ha. Its total population is 744,000. ⁽¹⁾ Population density, which is illustrated in Figure 1, is highest in the south east of the county, comprising Bournemouth, Poole, Christchurch and surrounding areas.

Figure 1 Population Density



3 The county's population is characterised by a higher than average population of people over retirement age compared to England and Wales as a whole (see Table 1). The population pyramid shown in Figure 2 illustrates that the proportion of younger adults is lower than the national average. This can be attributed to younger people moving out of the county to find employment or attend university whilst older people are moving into the county for retirement.

1 Census 2011

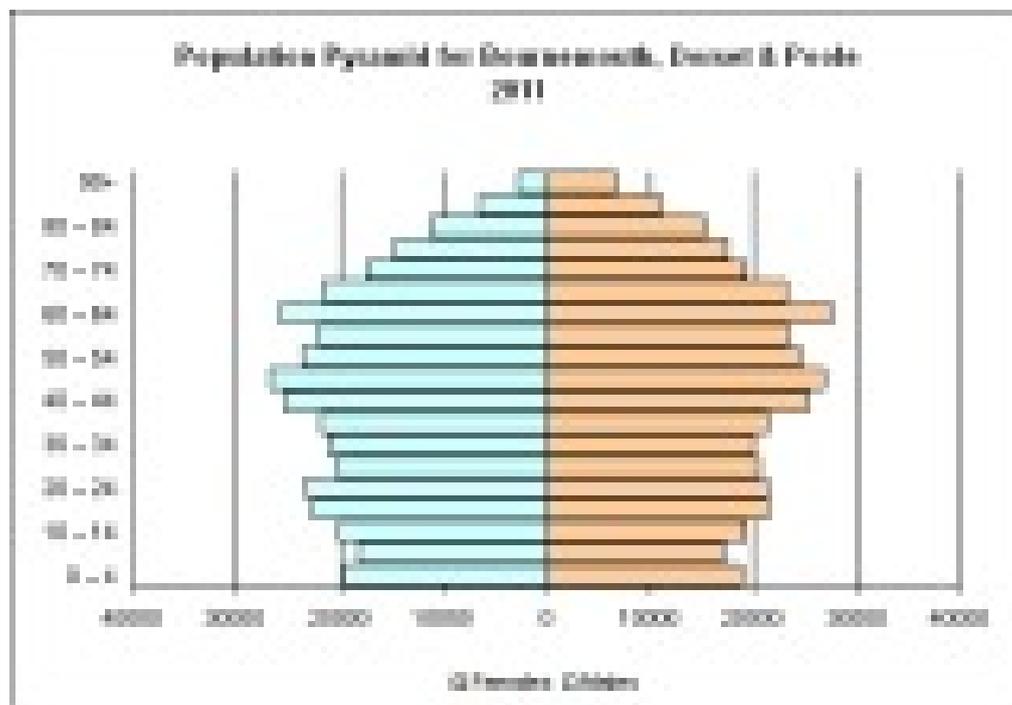
Table 1 Key Population Statistics (2011 Census)

Population of all Dorset	744,000
Population of Bournemouth	183,500
Population of Poole	147,600
Population of the area covered by Dorset County Council	412,900
Percentage of the Dorset, Bournemouth and Poole population over retirement age	22.4%
Percentage of the England and Wales population over retirement age	16.4%
Estimated total number of dwellings in Bournemouth, Dorset and Poole *	350,000

Source: 2011 Census Data - <http://www.dorsetforyou.com/census-2011>

*Dwellings have been estimated using 2001 census and 2011 council tax data on second homes/holiday homes/vacant properties

Figure 2 Dorset Age Structure

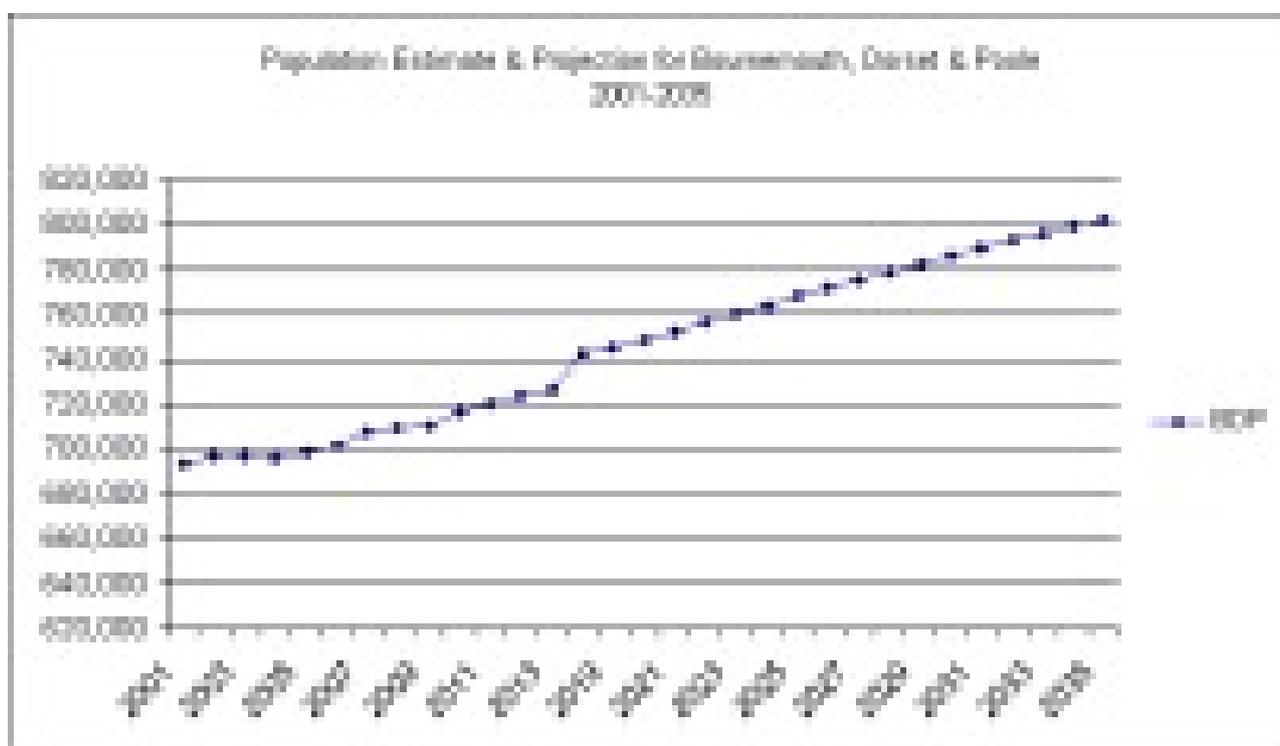


Population Growth

4 According to 2011 census data, Dorset’s population has grown by 7.4% over the last ten years. This is a similar rate to that of England and Wales (7.8%). The population for the county excluding Bournemouth and Poole has grown at a rate of 5.6%, whilst Poole’s population increased by 6.7%. Bournemouth’s population has grown at a higher rate of 12.3%.

5 It is projected that the total population of the county will increase to 789,500 by 2031⁽²⁾, which is an important consideration when analysing the context for the Plan period. The 25 year growth projection (from 2010 to 2035) is estimated to be an increase of 11.9%. Projected growth is illustrated in Figure 3.

Figure 3 Projected Population Growth



6 The population growth figures and the level of anticipated development both within the plan area and potentially in other locations will need to be supported by the provision of sufficient waste management facilities, in the context of managing waste in accordance with the waste hierarchy.

7 For this reason it is useful to understand the overall context for growth in the sub-region. The level of development planned by each authority within Dorset, Bournemouth and Poole provides the local context. Table 2 summarises the current position of authorities in Bournemouth, Dorset and Poole, as stated through their adopted or emerging plans.

Table 2 Proposed Housing Growth in Dorset, Bournemouth & Poole

	Total dwellings	Dwellings per annum (approx)	Period
Bournemouth Local Plan: Core Strategy (adopted October 2012)	14,600	730	2006 - 2026

2 2010 Census sub-national population projections, ONS

	Total dwellings	Dwellings per annum (approx)	Period
Poole Core Strategy (adopted February 2009) & Poole Site Specific Allocations & Development Management Policies (adopted April 2012)	10,000	500	2006 - 2026
Purbeck Local Plan Part 1: Planning Purbeck's Future (adopted November 2012)	2,520	120	2006 - 2027
Christchurch & East Dorset Core Strategy (submitted March 2013)	8,200	545	2013 - 2038
West Dorset, Weymouth and Portland Local Plan (submitted June 2013, proposed modifications) - <i>West Dorset growth</i>	8200 – 8680	410 (2011–2021) 410-458 (2021-2031)	2011 - 2031
West Dorset, Weymouth and Portland Local Plan (submitted June 2013, proposed modifications) - <i>Weymouth & Portland growth</i>	2920 – 3220	146 (2011-2021) 146-176 (2021-2031)	
North Dorset Interim Planning Statement (adopted January 2011)	3,650	245	2011 - 2026

8 The implications of population and economic growth for the provision of waste management facilities will be a key consideration in developing the Waste Plan. Population growth is taken account of in projected waste arisings, which are established in the Municipal Waste Management Strategies for Dorset, Bournemouth and Poole. In addition, the projected levels of growth in waste arisings take account of issues such as planned changes in household waste collection schemes and the economy. These figures will therefore enable the Waste Plan to ensure sufficient waste management capacity is planned for.

9 As well as the level of provision that needs to be made to take account of projected waste arisings, there are a number of other considerations that are relevant to ensure waste is managed appropriately in the context of planned growth and development. These include: ensuring that waste management is integral to the design of a new development; securing on-site management of construction and demolition wastes; provision of reduction and/or recycling infrastructure in housing or retail development; and accommodating space for recycling within housing design.

Health - Baseline

10 The World Health Organisation defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'.⁽³⁾ Human health can be influenced by environmental factors such as air quality and water quality, as well as the space available for

3 <http://www.who.int/about/definition/en/print.html>

recreation and exercise. Health and life expectancy in Dorset are generally good and above the national average, although there are certain areas and population groups who experience poorer health.

11 The national average life expectancy is 82 years for women and 78 years for males born during 2007-2009 in England and Wales. Life expectancy in Dorset is generally higher, although Weymouth & Portland and Bournemouth are similar to the national figure. Figures 4 and 5 show the life expectancy for males and females born during 2007-2009 for the districts and boroughs within Dorset.

Figure 4 Male Life Expectancy in Dorset (2007-2009)

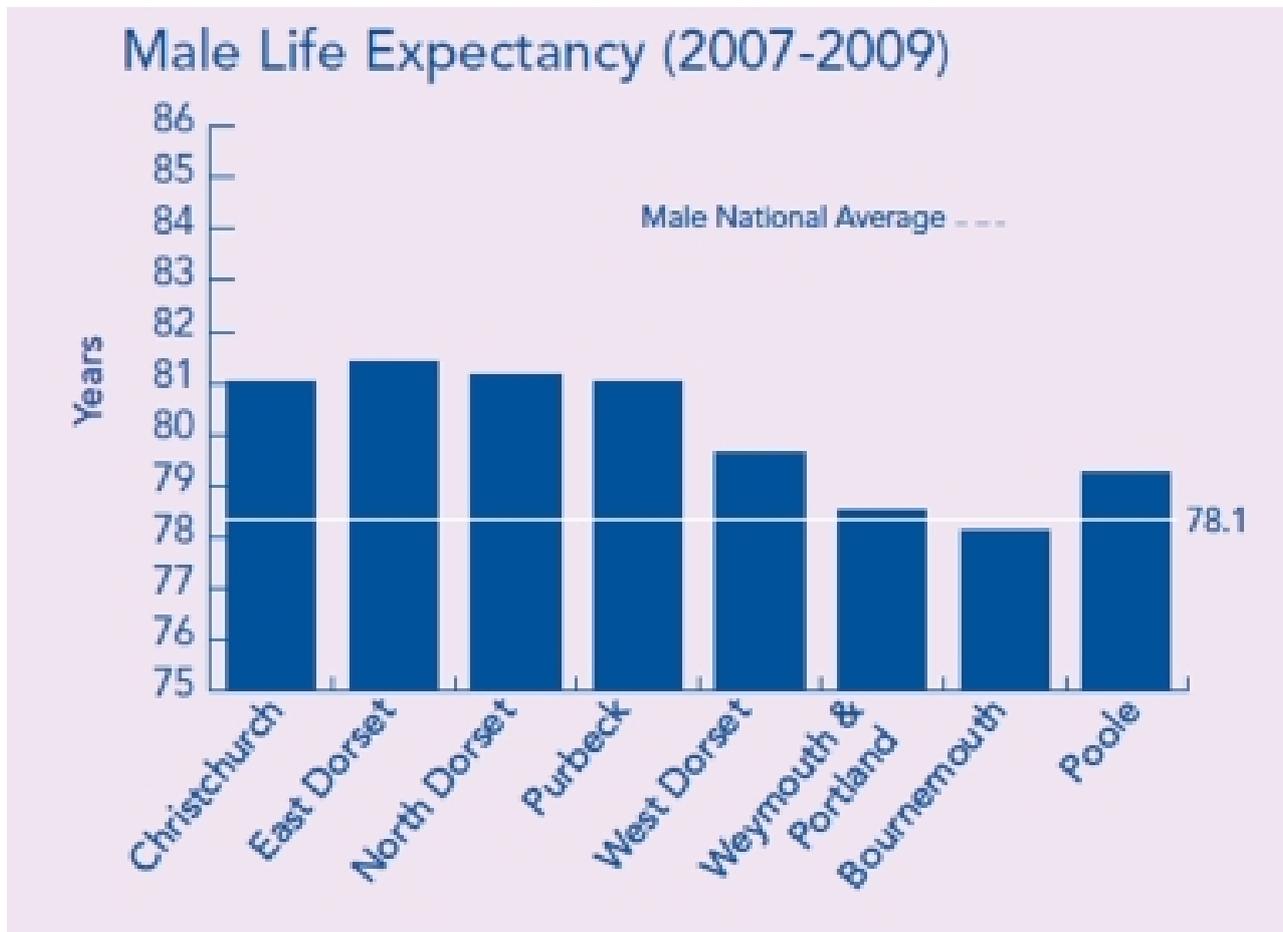
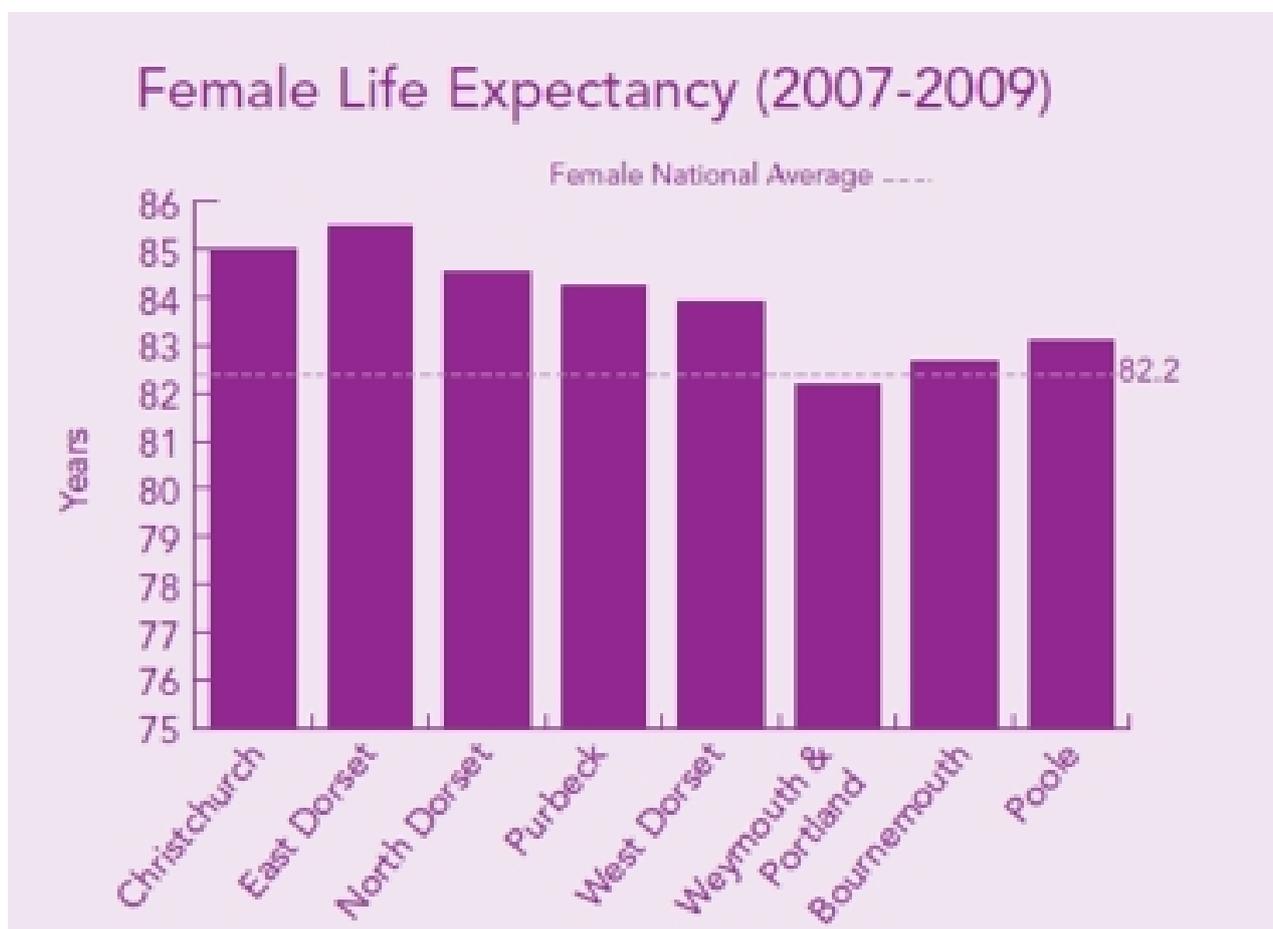


Figure 5 Female Life Expectancy in Dorset (2007-2009)

Source: ONS (Dorset Data Book 2011)

12 The major causes of death in Dorset, as in the rest of the country, are heart and circulatory disease and cancers, which are slightly above the national average. This may be due to the county having an older population than England and Wales as a whole. ⁽⁴⁾

13 Figure 6 shows the Index of Multiple Deprivation for Dorset. This combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for each area in England. ⁽⁵⁾ Overall Dorset is less deprived than the UK as a whole, although there are differences across wider Dorset. Whilst the overall quality of life for Dorset's residents is high, there are still significant pockets of disadvantage in the County resulting in a lower level of well-being, as illustrated by the Index of Multiple Deprivation. Areas most deprived within the county tend to be urban and can be seen to be concentrated within Weymouth and Bournemouth. However, many areas of Dorset are among the most disadvantaged in the UK in terms of access to services, probably because of the rural nature of the county. This is something now recognised as having a much greater influence on health than was previously thought.

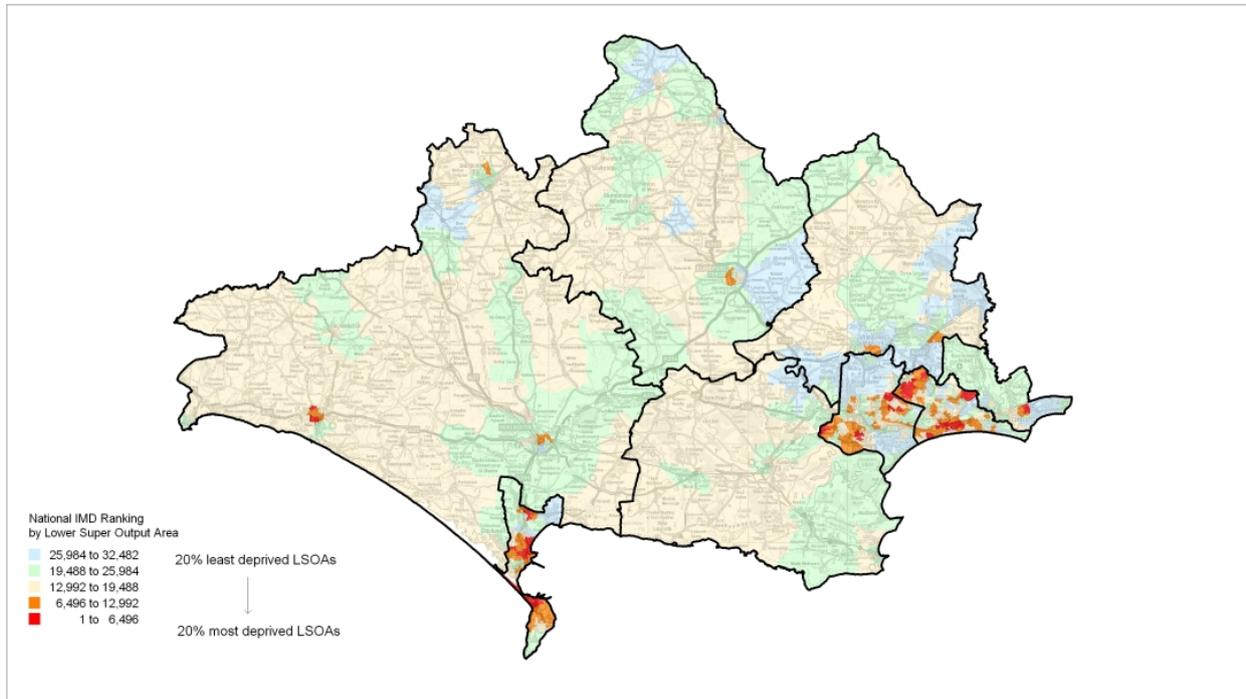
4 ONS: Dorset Data Book 2011

5 <http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/>

Figure 6 Index of Multiple Deprivation 2010

Bournemouth, Dorset and Poole - Index of Multiple Deprivation 2010

National ranking by lower super output area



Health and wellbeing in relation to waste planning

14 The overall objective of Government policy on waste is to protect human health and the environment by producing less waste and by using it as a resource wherever possible ⁽⁶⁾. By more sustainable waste management, moving the management of waste up the ‘waste hierarchy’ of prevention, preparing for reuse, recycling, other recovery, and disposing only as a last resort, the Government aims to break the link between economic growth and the environmental impact of waste. This agenda shows there is a positive relationship between waste planning and health.

15 Through an assessment of existing studies, Defra found that present day practises for managing municipal solid waste, and other similar wastes, have only a minor effect on human health. ⁽⁷⁾

16 Whilst noise, odour and pollution can be regarded as potential impacts of waste management facilities on health and amenity, they are stringently regulated. The planning and pollution control regimes are separate but complementary. Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the release of substances to the environment to the lowest practicable level. It also ensures that ambient air and water quality meet standards that guard against impacts to the environment and human health. Noise and air quality is considered in Topic Paper 8.

6 Department for Environment, Food and Rural Affairs (March 2005) Securing The Future

7 Defra (2004) Review of *Environmental and Health Effects of Waste Management: Municipal Solid Waste and Similar Wastes*

17 The transportation of waste to treatment facilities can have effects on the health, environment, access and safety of those using, and living close to, roads on which they pass. Those most likely to be affected include motorists, pedestrians and cyclists, people at home or undertaking recreational activities and people in schools. The effects of the road transport of waste to the highway network are considered in detail in Topic Paper 9.

18 It is the role of the planning system to ensure that the location of proposed development is acceptable in the public interest. Health can be material to such decisions. Health impact assessment will be integral to the preparation of the Waste Plan.

Specific Impacts of Mineral Exploitation

19 Dust can potentially be generated from mineral operations and, if not managed or controlled, can have a noticeable environmental impact and could affect the quality of life of local communities⁽⁸⁾. Living with dust fallout in surrounding areas can be a source of annoyance for local people and concerns regarding the health impacts of dust may be difficult to dismiss irrespective of the likely risk. As with all environmental issues, prevention is better than cure and the mineral extraction operators' efforts should be focused on controlling dust generation.

20 Activities that can generate dust include soil and overburden stripping, drilling and blasting, stockpiling, disposal of wastes, processing operations, loading and unloading, haulage, site restorations and ancillary operations such as concrete and asphalt plant. The relevance of each of these is influenced by duration and location (particularly whether it takes place above or below surface level), site topography and the proximity of local communities. Local weather is also extremely important – an activity that is a major dust generator during hot, dry and windy weather may generate no dust when it is raining or when there is little or no wind.⁽⁹⁾

21 Noise and vibration are also significant issues and are stringently regulated. Noise is considered further in Topic Paper 8: Air Quality and Noise. HGVs used to transport aggregates can have significant effects on the health, environment, access and safety of those using, and living close to, roads on which they pass. Those most likely to be affected include motorists, pedestrians and cyclists, people at home or undertaking recreational activities and people in schools. The effects of the road transport of aggregates to the highway network are considered in Topic Paper 9: Transport.

Summary of relevant policy documents - Human Health and Population.

N.B. More detail on these and other policy documents is included at the end of this topic paper.

8 MPS2, Annex 1: Dust

9 http://www.bgs.ac.uk/planning4minerals/AirQuality_1.htm

Table 3 Key messages from relevant policy

Policy Documents	Relevance to Waste and Minerals Plans
<p>Key National/Regional Policy</p> <ul style="list-style-type: none"> • National Planning Policy Framework • National Planning Policy for Waste (October 2014) • Draft Regional Spatial Strategy for the South West 2006-2026 (SWRA, 2006) • Draft Guidance on Health in SEA: Consultation Document 	<ul style="list-style-type: none"> • Sustainable economic development, either through direct employment in the mineral industry or indirectly through the provision of raw materials required for development of other economic sectors can improve local economies, especially in rural areas where pockets of deprivation can be difficult to observe. • Moving waste up the waste hierarchy to protect both human health and the environment is a key message that the Waste Plan must reflect. • Impacts of mineral working and waste management on local communities and their health and well-being are key issues to be taken into consideration.
<p>Key Local Policy</p> <ul style="list-style-type: none"> • Shaping our Future: Dorset Sustainable Community Strategy 2010 to 2020 	

Potential impacts related to minerals operations and waste management facilities

- Nuisance from dust and particulates
- Physical damage to property due to blasting, subsidence, instability and changes to hydrology
- Increased risk of flooding due to impacts on hydrology and flood storage capacity
- Health effects of dust and noise emitted by mineral working, waste facilities and associated traffic
- Emissions from plant and landfill
- Risk to safety of persons using local roads, from HGV traffic
- Congestion and damage to highway
- Odour (particularly open sites)
- Vermin in relation to landfill sites
- Risk to surface and groundwater quality
- Effects on land-uses that influence well-being - e.g. amenity, recreation, natural environment
- Disturbance through working at unsocial hours
- Concern at the effects of loss of property value and amenity
- Loss of open space previously available for recreation
- Severance or diversion of footpaths and other routes

Issues relevant to Health and Population

- Population is projected to grow by 11.9% by 2035 with new development concentrated in urban areas such as Bournemouth, Poole and surrounding areas as well as the main towns of the respective local authority areas. This has an implication for waste arisings, which will need to be taken account of in ensuring sufficient waste management capacity is planned for. In addition, minerals will be needed to meet the need for new built development, or repair/refurbishment of existing infrastructure including buildings.
- Provision of waste management facilities to move up the waste hierarchy would be in the public interest.
- There is an ageing population and a large rural population in Dorset, which may have implications in relation to access to public facilities such as household recycling centres.
- Potential impacts on health, well-being and quality of life should be taken into account in identifying suitable sites for waste management facilities and in considering the potential impact of noise, dust, blasting, vibration, lighting and water pollution generated by minerals operations.
- The Waste and Mineral Sites Plans should take account of the need to conserve green areas for informal and formal recreation, and to site development away from communities, where possible, in order to minimise amenity impacts on local communities.
- Safer roads and improved air quality should be promoted through sensitive planning for waste and minerals transportation, including where appropriate the provision of necessary infrastructure to support additional operations.
- To move up the waste hierarchy in the context of planned growth and development, consideration should be given to ensuring that waste management is integral to the design of a new development; securing on-site management of construction and demolition wastes; provision of reduction and/or recycling infrastructure in housing or retail development; and accommodating space for recycling within housing design.
- Identification of the necessary number of new minerals sites to meet the need for minerals, without causing unacceptable impacts on local communities. While minerals operations can provide valuable employment opportunities, adverse impacts of dust, noise and vibration on communities should be avoided.

Suggested Sustainability Objective(s)

To sustain the health and quality of life of the population

To enable safe access to countryside and open spaces

...and Broad Indicators

"To what extent does the strategic option, objective, strategy or policy..."

- Contribute to quality of life through the provision of a network of accessible facilities to move waste up the hierarchy?
- Ensuring access for all to public facilities
- Impact on the quality of life of local communities (including through factors such as noise, artificial light, odour and vermin)?
- Cause a cumulative impact on certain communities (i.e. through permitting further development in an area, or extending the life of an existing permission)?

- Promote linkages between open spaces, and enable access to the countryside and urban green spaces?
- Provide an opportunity for Suitable Alternative Natural Greenspace (SANG)?

Relevant Policy Documents

Table 4

<p>National Planning Policy Framework</p> <p>The National Planning Policy Framework (NPPF) was published on 27 March 2012. It sets out the Government's planning policies for England and how these are expected to be applied to protect the environment and to promote sustainable growth.</p> <p>A core planning principle is to proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs.</p> <p>Implications:</p> <p>The policy guidance contained within the NPPF will be fundamental to the preparation of the Waste and Mineral Sites Plans.</p>
<p>National Planning Policy for Waste (October 2014)</p> <p>The National Planning Policy for Waste sets out detailed waste planning policies and should be read in conjunction with the NPPF, the Waste Management Plan for England and National Policy Statements for Waste Water and Hazardous Waste.</p> <p>Positive planning plays a pivotal role in delivering this country's waste ambitions. The policy provides guidance on the use of a proportionate evidence base, identifying the need and identification of suitable sites for new waste facilities, determination of planning applications and monitoring and reporting.</p> <p>Implications:</p> <p>This policy guidance will be fundamental to the preparation of the Waste Plan.</p>
<p>Planning4Minerals - Environment (British Geological Survey)</p> <p>The main cause of air quality issues in mineral extraction is dust, which is also one of the most common sources of complaints from local communities and residents. Although loud or persistent noise, that is audible beyond the site boundary, is unlikely to ever be so severe that it causes physical damage to an individual, it can seriously affect people in noise-sensitive locations. Vibration can also have similar nuisance impacts and, rarely, cause structural damage to nearby buildings.</p> <p>Although government policy is designed to promote an integrated transport system that encourages the carriage of freight by rail and water, the dispersal of aggregate customers and high handling costs mean that the road transport by Heavy Goods Vehicles (HGVs) is likely to remain the main means of transporting aggregates in the foreseeable future.</p> <p>Implications:</p> <p>Identifies some of the key potential impacts on health of local communities, to be taken into account in the emerging Mineral Sites Plan.</p>

RPG10: Regional Planning Guidance for the South West (GOSW: 2001) and Draft Regional Spatial Strategy for the South West 2006-2026 (SWRA: 2006)

Under powers provided through the Localism Act (2011), the Secretary of State has revoked the Regional Planning Guidance and Draft Regional Strategy documents. However, the evidence underpinning the Draft Regional Spatial Strategy will remain an important consideration for the Waste and Mineral Sites Plans.

A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England 2001

This is an integrated strategic framework, endorsed by the South West Assembly, for the promotion of the sustainable economic, social and environmental well-being of the South West. It provides a set of sustainable development guidelines for all organisations within the region. The main themes and objectives are summarised as follows:

- Health and wellbeing
- Reduce health inequalities
- Improve key determinants of health

Implications:

The Waste and Mineral Sites Plans should seek to minimise health impacts wherever possible.

Shaping our Future: Dorset Sustainable Community Strategy 2010 to 2020 (Dorset Strategic Partnership)

The strategy articulates the vision and priorities for the county and how people want to see their quality of life improve over the next decade. It identifies the challenges faced in Dorset and sets out a number of priorities for the country, namely:

- Narrowing the inequality gap so that people across Dorset have fairer access to opportunities which can improve their quality of life.
- Everyone can live in a good quality home and neighbourhood that meets their needs.
- A strong economy offers better job opportunities for people in Dorset.
- Dorset people can access work, education and training, healthcare, essential shopping and leisure opportunities
- People are safe and feel safe in their communities.
- Dorset's natural, built and historic environment is safeguarded and enhanced now and for the future.
- Everyone has the opportunity to take part in cultural activities.
- Communities thrive: everyone feels they belong, can take an active part in community life and can influence decision making.

- Everyone has the opportunity to live a long and healthy life and to receive high quality care that meets their needs.
- Children and young people realise their potential.
- Older people are healthy, active and independent in their communities.
- Dorset people experience lasting benefits from hosting the sailing events for the 2012 Olympic and Paralympic Games in Weymouth and Portland.

Implications:

The emerging Waste and Mineral Sites Plans should ensure that sufficient provision is made for managing waste and providing minerals.

Draft Guidance on Health in Strategic Environmental Assessment: Consultation Document (DCLG and Dept. Of Health, 2007)

The Department of Health published a consultation document on Health and SEA, which refers specifically to how the health topic could be addressed in Local Development Documents (LDDs). The Guidance was prepared to inform Responsible Authorities (RAs) who to contact in health organisations in relation to the population's health and well-being for information, input and interpretation as well as for health organisations to know and understand what was required for contributing to the health assessments undertaken in the SEA process.

Implications:

The guidance should be taken into account during the SA/SEA of the Waste and Mineral Sites Plans.