

Estimating Future Service Demand and Cost to Inform a Strategy to Optimise Elder Care in the Eastern Locality of Devon – A Health Needs Assessment

1. Introduction

- 1.1 This health needs assessment is part of a programme of work to inform (1) the development of an elder care strategy for the Eastern Locality of the North East and West Devon Clinical Commissioning Group and (2) the Transforming Community Services Programme for this locality which has the remit of reconfiguring and re-specifying community services to meet the health and social care needs of the population (see 3.10).
- 1.2 This health needs assessment should be considered alongside a number of reports produced by Public Health Devon concerning the current and future health and social care needs of the elder / elder-frail population of Devon. These include:
- *Joint Strategic Needs Assessment – Devon Overview – Understanding the Different Needs Across the Life Course in Devon*
 - *Devon Prevention Strategy – ‘Promoting Independence and Wellbeing’ 2011-2013*
 - *Joint Health and Wellbeing Strategy for Devon 2013-2016*
 - *Acuity of Hospital Bed Occupancy in Devon June 2012*
 - *Extra Care Housing in Devon: Health Needs and Impact Assessment (awaiting ratification and publication)*
- 1.3 In developing the aims, objectives and methodology of this health needs assessment a collaboration with the Peninsula Collaboration for Health Operational Research and Development (PenCHORD) has been established. This has enabled the utilisation of specialist expertise in health and social care service modelling and simulation. Subsequently a specification with PenCHORD colleagues (Appendix 1) has been agreed to both deliver and expand on the original aims and objectives of this health needs assessment. The PenCHORD project will be complete in September 2013. Subsequently, the aims and objectives of this health needs assessment have been revised to provide background and context information to inform a broader programme of modelling and simulation work.

Aims

- 1.4 The aims of this health needs assessment are (1) to model, using primary and secondary data sources, the expressed health and social care needs of persons aged 65 years and over residing in the Eastern Locality of Devon and its districts: Mid Devon, East Devon (Wakley and WEB) and Exeter over a ten year period and (2) outline further opportunities and the principles of service redesign to reverse the anticipated future rising demand and cost on both acute and community hospital facilities.

Objectives

- 1.5 To describe the changes in age profile and life expectancy of the Eastern Locality and sub-localities over a ten year period.
- 1.6 For the Eastern Locality and sub-localities, to model these changes on health and social care service demand and cost over a ten year period (assuming steady state in relation to technological advancement and health behaviour impacts (see 3.7).
- 1.7 For the Eastern Locality and sub-localities, to model the economic impact of these demographic changes on future health and social care service utilisation with specific attention to:
- future composition of GP registered population
 - emergency admissions to hospital
 - emergency admissions to hospital for Ambulatory Care Sensitive Conditions
 - elective admissions to hospital
 - Accident & Emergency and Minor Injury Unit Attendance
 - Devon County Council funded social care activity
- 1.8 To conduct a rapid review of literature to identify evidence based interventions that seek to reverse the anticipated rise in demand and use of hospital based care in older age (acute and community based).
- 1.9 Outline recommendations to support Eastern Locality commissioning strategies to optimise elder-care and support the Transforming Community Services Partnership Board.

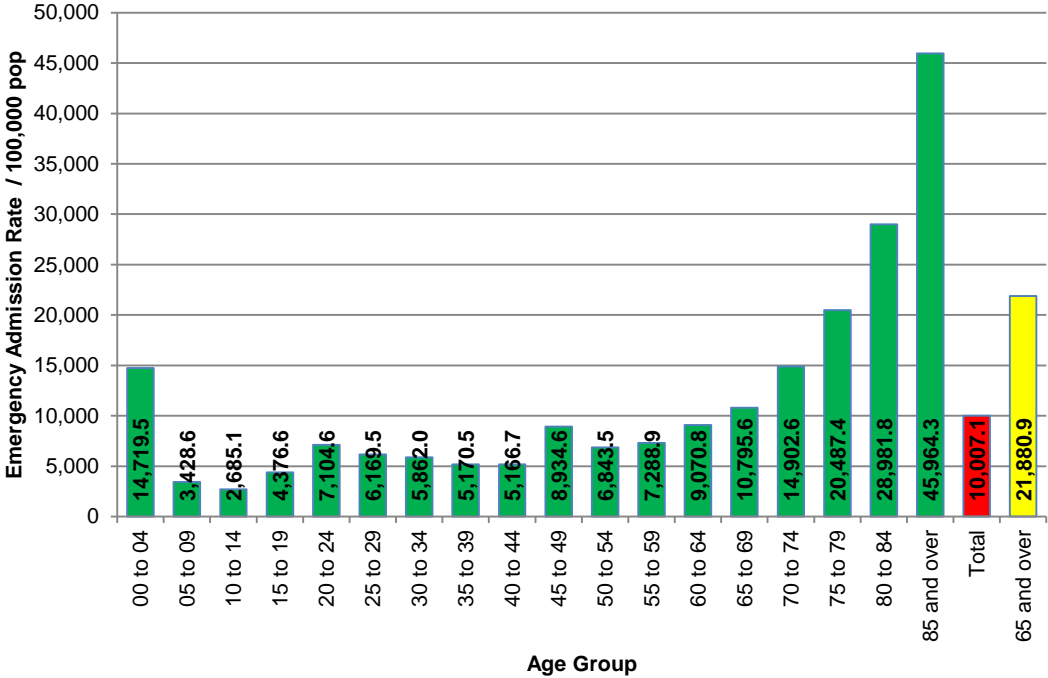
2. Background

National Context

- 2.1 Currently, the main users of hospitals and care homes in England today are older people. Nationally persons 65 years and over account for 62 per cent of total bed days in hospitals and 68 per cent of emergency bed days (Imison et al 2012). The average length of stay in hospital is eight days for patients aged 65–74 years; ten days for patients aged 75–84 years; and twelve days for patients aged 85 years or older (Cornwell et al. 2012).

2.2 In 2012, persons 65 years and over residing in the Eastern Locality of Devon accounted for 49.2% of all emergency admissions. The highest rate is observed in those 85 years and over (Figure 1).

Figure 1: Emergency Admissions for the Eastern Locality by Age Group, 2012-13



2.3 Meeting the health and social care needs of the ageing population poses a significant challenge to commissioners and service providers regarding the future configuration of health and social services to meet need. Although it is predicted that the number of people with long-term conditions will remain relatively stable over the next six years, the number of people with multiple long-term conditions (known as multi-morbidity) is set to rise from 1.9 million in 2008 to 2.9 million in 2018 (Ham et al. 2012)

2.4 Rises in demand must be considered in the context of the current economic climate where government-led austerity measures will limit public sector growth for the foreseeable future. Imison (2012) reports that the Office for Budget Responsibility, the independent body charged with producing government economic forecasts, has calculated that from 2012 to 2016-17 the proportion of gross domestic product spent on health will fall from eight to seven per cent as a result of current fiscal restraint. Near zero growth is expected for the next five years and social care budgets face year-on-year cuts in most local authority areas. The requirement to achieve much more from the existing pool of health and social care resources is inevitable in order to meet increased future demand.

2.5 The Nuffield Trust report that if austerity continues at the current level, and spending on the NHS remains broadly flat in real terms, the funding gap in England will be between £28 to £34 billion in the 2021-2022. In addition, the Personal Social Services Research Unit estimates a funding gap of between £7-£9 billion by 2021-22 if funding remains constant in real terms (Roberts et al. 2013).

2.6 Anticipating future demand on health and social care services is complex. The King’s Fund, as part of their ‘Time to Think Differently’ Programme argue that there is no consensus on whether in the future there will be an expansion or

compression of morbidity (more or fewer years spent in ill health) partly because conflicting influences are at work. For example, Ham et al (2012) report that *'while medical advances could postpone or limit the impact of ageing, risk factors like obesity may increase the number of years spent in ill health. This uncertainty means that it is also difficult to assess whether increased life expectancy postpones or increases the costs of ageing.'*

2.7 Imison et al. (2012) report that current trends suggest healthy life expectancy (years of life lived in good health) is extending at the same rate as life expectancy, so as people live longer they are not experiencing more years of ill-health. However, inequalities in healthy life expectancy and life expectancy between those living in the most deprived communities compared to the least deprived means that this will not be the case for all people.

2.8 Despite a lack of consensus on future morbidity, there are additional factors that suggest the ageing population will increase demand and costs of health and social care (Imison et al. 2012). These include:

- the additional resources required to manage more people presenting with complex co-morbidities in the ageing population
- elective and non-elective hospital admissions for older people have increased more rapidly than the growth in absolute numbers suggesting increased utilisation of hospitals
- projections suggest that a high proportion of older people in the future will be living on their own and are therefore likely to require formal care.

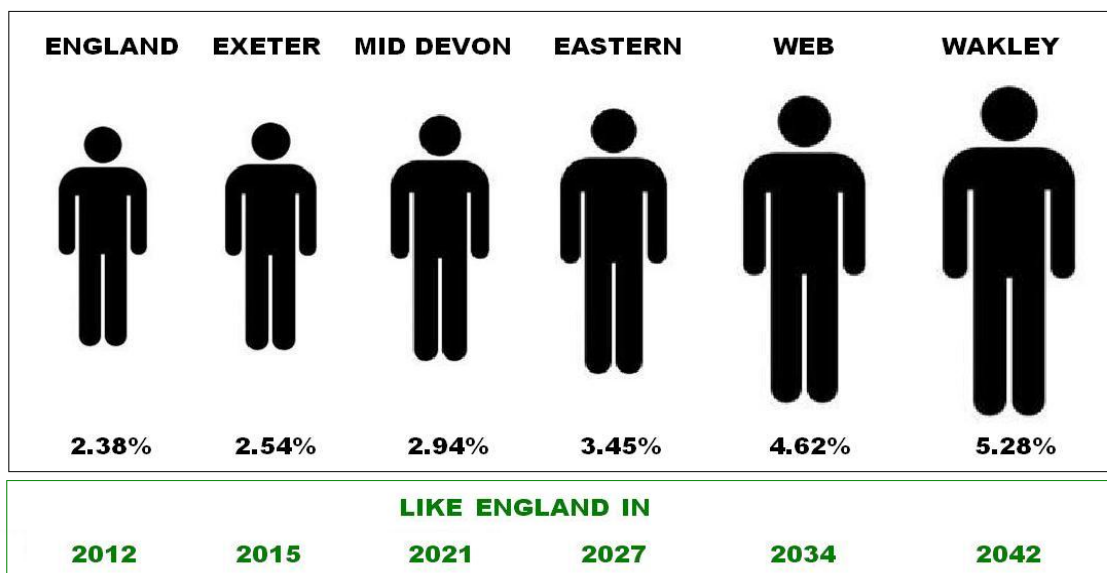
2.9 Alongside increased demand on services, the system's ability to supply the required range of health and social care services could be compromised by future workforce capacity and capability. The majority of professional staff who will be working in health and social care in ten years' time work in health and social care today. Regarding future workforce configuration, The King's Fund estimate:

- a potential shortfall of between 40,000 and 100,000 nurses by 2021 (Royal College of Nursing 2011)
- that the adult social care workforce would need to grow by 1 million people by 2025 if current service patterns are maintained (Skills for Care 2010)

Local Context

2.10 The Eastern Locality of Devon (which includes the Clinical Commissioning Group sub-localities of Exeter, Mid Devon, WEB and Wakley), has specific challenges with regards to its ageing population. Between the years 2011-12 and 2020-21, the proportion of those aged 65 and over residing in the locality will increase by 22% (from 71,980 to 87,878). In addition, it is estimated that the proportion of persons 85 years and over in the sub-locality Wakley today, (5.28%) compares to what the expected proportion for England will be in the year 2042 (Figure 2).

Figure 2: Proportion of the population aged 85 years and over in the Eastern Locality of Devon and its sub-localities.



2.11 To coordinate a local response to meeting the challenges outlined above, a strategy outline for optimising elder¹ care in the Eastern Locality of Devon was developed with several partnership organisations. The strategy outline described the following principles:

- health and care services to work in a fully integrated way to meet the needs of elders, seven days a week
- the community is the place of expertise for the care and support of elders
- inpatient stay, if required clinically, is minimised to prevent loss of independence

2.12 At time of writing, the elder care strategy remains unwritten. However, its principles have been incorporated in the Transforming Community Services Programme led by the Transforming Community Services Programme Board for the Eastern Locality of the North East and West Devon Clinical Commissioning Group. As described by the Department of Health (2009), this programme concerns delivering improved quality and productivity in community services with a focus on preventive approaches to reduce avoidable and unnecessary hospital admissions.

2.13 The Programme Board has the remit of re-specifying community services for the Locality with services specifications to be in place by December 2013.

2.14 As part of its core offer to the Clinical Commissioning Group, Public Health Devon are coordinating several programmes to support Locality Commissioners and members of the Transforming Community Services Programme Board to understand the health and social care needs of its ageing population and implications on demographic change to inform future capacity planning and service configuration. This health needs assessment report concerns one part of this programme of work.

¹ Elder in this strategy is defined as a person aged 80 years and above although the focus of this needs assessment is those over 65 years.

3. Methodology

- 3.1 This health needs assessment is based on an epidemiological approach using routinely available data of service use; a proxy of 'expressed need'. It is important to note that expressed needs only reflect a proportion of total need in a given population, i.e. in this assessment, only those who have made contact with health services (Naidoo & Wills 2010). A 'corporate' perspective (considering views of stakeholders) has been provided through engagement with the Transforming Community Services Partnership Board and the Localities Commissioning Executive Team.
- 3.2 A scoping paper outlining the initial aims, objectives and proposed methodology was circulated to key stakeholders within Devon County Council, commissioning leads (including GP leads) within the Eastern Locality Commissioning Group, local providers of health and social care and the Peninsula Collaboration for Health Operational Research & Development (PenCHORD).
- 3.3 Due to the complex modelling and simulation methodology required to meet some of the original objectives outlined in the scoping paper (for example, modelling future services requirements and configuration options), elements of the original scope were extracted to inform a specification of work to be led by PenCHORD working in collaboration with Devon County Council's Public Health Intelligence Team. The anticipated completion date for this project is September 2013. It is anticipated that this collaboration will maximise opportunities to share skill and intelligence across the two organisations.
- 3.4 The Transforming Community Services Programme Board has acted as a steering group to oversee this health needs assessment and subsequent modelling and simulation project led by PenCHORD.
- 3.5 With regards to the variables of interest (1.7), in order to estimate service demand (e.g. emergency admission rate) and future costs for the year 2021, the following four scenarios were applied to changes in the population's age structure:
- the activity level for the variable of interest remains the same as the 2012 level
 - the average activity level for the variable of interest is calculated over the last five years and applied
 - regression analysis on time series data over the last six years will determine best-fit equations that can be used to estimate future activity levels
 - annual reduction of activity by 1% based on 2012 rate
- 3.6 This modelling approach does not involve forecasting future policies or changes in future patterns of care. Therefore the projected rates of activity and associated costs are simply indications of likely future expenditure on care and support if policies are unchanged and drivers of demand follow the trends specified.
- 3.7 Although it is anticipated that the consequences of poor lifestyle choices (e.g. morbidities as a result of obesity and harmful drinking) will contribute to the prevalence of individuals living with long-term conditions and multi-morbidity in later life, it is unclear, over the next ten years, how prevention activities, new technologies and service re-design will impact on future service use. Therefore,

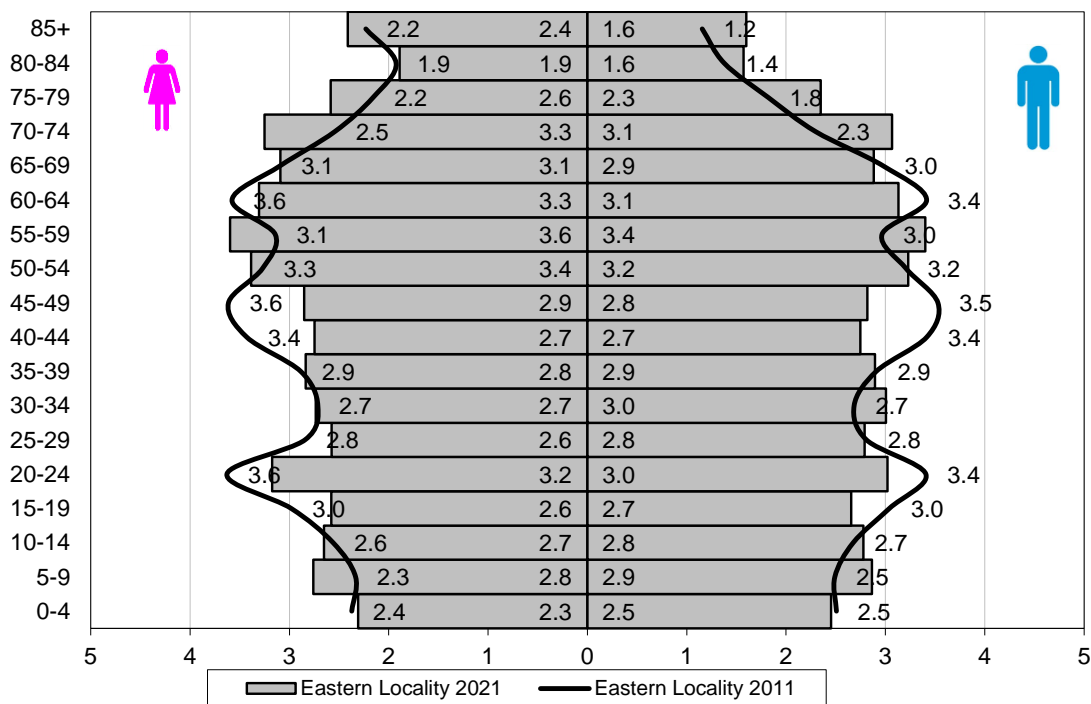
the three scenarios assume a steady state principle and do not factor-in these variables.

- 3.8 Population estimates were based on Office for National Statistics Mid-Year Population Estimates 2011 by Local Authority, and Office for National Statistics Interim Sub-National Population Projections 2011 to 2021. Local Commissioning Care Group locality populations for 2011 were projected forwards using growth rates by age group from the sub-national projections.
- 3.9 Hospital activity data were extracted from Health and Social Care Information Centre Secondary Uses System Commissioning Data Set. Unit costs for activity described are based on NHS Payment by Results tariffs for 2012-13 applied to the Health and Social Care Information Centre Secondary Uses System Commissioning Data Set to produce estimated average costs by age group. Future cost estimates are based on 2012-13 prices and inflation/discounting not applied.
- 3.10 Devon County Council funded activity includes all adult social care such as residential placement costs, nursing care costs, direct payments, domiciliary care provided at home (including personal care, cleaning and meals on wheels), respite care and day-care. Averages for costs to Devon County Council do include clients who receive care through the authority but are self-funding (and therefore zero cost) and those who are making a financial contribution to their care. Therefore the costs represent the cost to Devon County Council and not the total cost of all care provided. The funding snapshot is all clients receiving a service during the first week of April 2013.
- 3.11 In addition, the dataset excludes care provided and/or funded by other organisations as well as care that is directly purchased from a non-Devon County Council provider and funded by the client themselves.
- 3.12 Although an increase in the elderly population residing in the Eastern Locality will increase, we do not know how the burden of funding will change between the NHS, Devon County Council or with clients themselves.
- 3.13 A rapid literature review was undertaken to identify any additional interventions or principles of service redesign that might reduce the demand on acute and community hospital services, over and above those already outlined by Public Health Devon (see 2.2).
- 3.14 Presentations to the Commissioning Executive Team of the Eastern Locality Clinical Commissioning Group describing the findings of the needs assessment have provided expert opinion and challenge where appropriate to support the development of recommendations.

4. Results – Eastern Locality

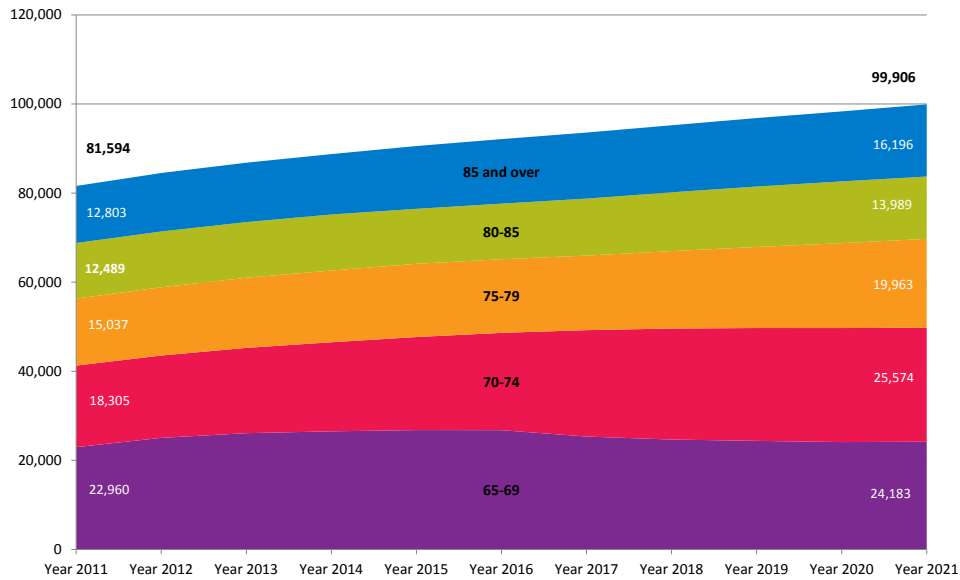
- 4.1 The following report describes the changes in age profile and life expectancy of the Eastern Locality over the period 2011-12 to 2020-21 and estimates the impact of these changes on health and social care service demand and cost. Sub-locality reports for Exeter, Mid-Devon, WEB and Wakley are provided as Appendices 2 to 5.
- 4.2 Figure 3 shows the population profile of the Eastern Locality by five-year age group for the years 2011 and 2021. By 2021 there will be an increase in the proportion of males and females aged 85 years and over (0.4% and 0.2% respectively). Generally by 2021, there will be a contraction in the proportion of males and females in the middle age groups, most notably those aged between 40 and 49. This pyramid can be used to indicate how the GP registered population profile is likely to change over the next ten years.

Figure 3: Population pyramid for the Eastern Locality of Devon for the years 2011 and 2021 by 5-year age group, males and females



- 4.3 Figure 4 shows that in absolute terms, over the period 2011 and 2021, the population of those aged 65 years and over residing in the Eastern Locality will increase by 18,312 persons (22.4%). The 70 to 74 year age group increases by 7269 persons over this period showing the greatest percentage increase of all age groups (39.7%).

Figure 4: Population estimates for the Eastern Locality of Devon for the years 2011 and 2021, persons 65 years and over by five year age group

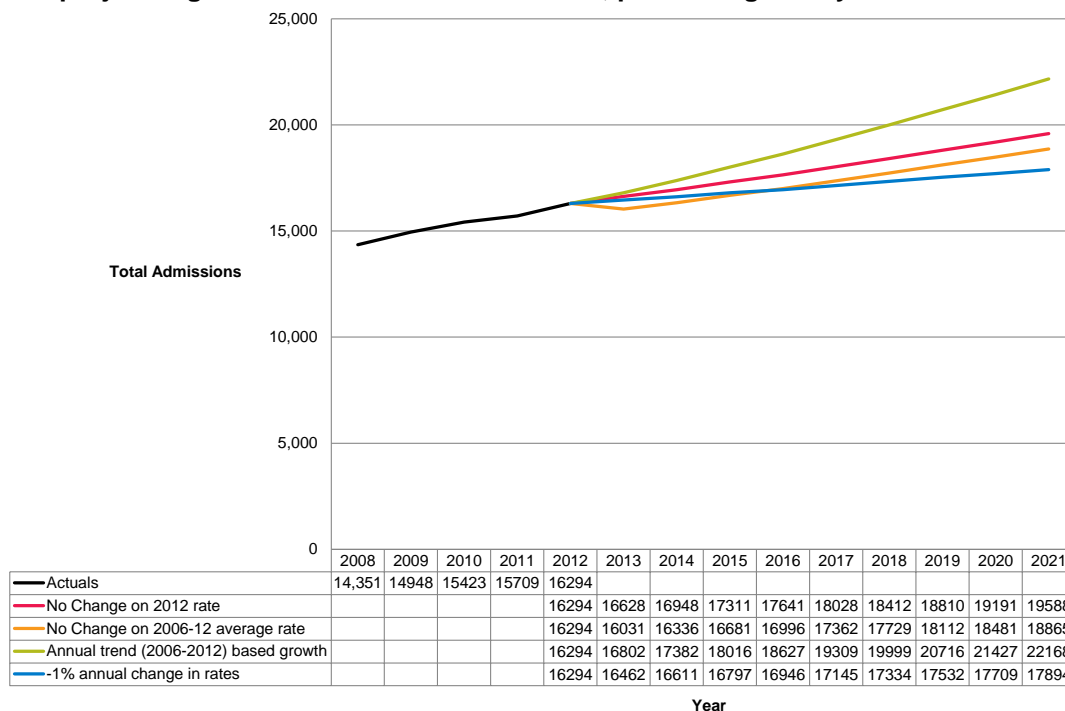


4.4 For the Eastern Locality, average life expectancy at birth (persons) is expected to increase by 2.1 years from 82.7 years in 2011 to 84.8 years in 2021.

Emergency Admissions

4.5 Four scenarios have been used to estimate the future number of emergency admissions: (1) no change on the 2012 admission rate, (2) no change to the average admission rate for the period 2006-2012, (3) trend based growth-rate based on the period 2006-12 and (4) -1% annual change in admission rate from the 2012 baseline. Figure 5 illustrates the projected impact of population change (persons 65 years and over) in the Eastern Locality on emergency admissions using the four scenarios.

Figure 5: Emergency admissions, Eastern Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 years and over.



- 4.6 Based on the first three scenarios, the model projects an increase in emergency admissions of between 15.8% (2571 admissions) and 36.1% (5874 admissions). An annual reduction of -1% admissions, results in a net increase of 9.8% admissions (1600 admissions).
- 4.7 Based on 2012-13 payment by results tariffs, unadjusted for inflation, Table 1 shows the projected costs (thousands) of emergency admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 94.2% (£39,838,000) as a result of changes to the population aged 65 years and over. An annual reduction of -1% to the baseline rate over the period would result in costs increasing by 56.8% (£24,013,000).
- 4.8 An annual reduction of 2.03% in age-specific emergency admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 4.9 Based on current average length of stay for emergency admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 28,400 additional bed-days would be required to accommodate the projected increase.

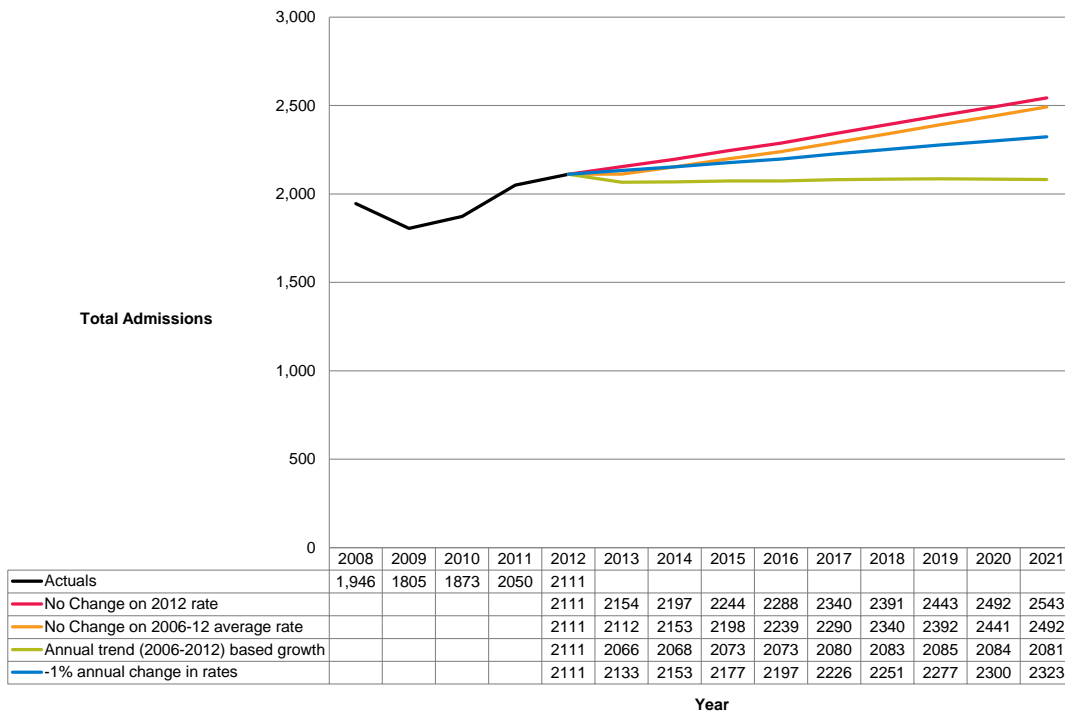
Table 1: Eastern Locality projected emergency admissions and costs under different scenarios, 2012-2021

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	33,103	£66,991	16,294	£42,258
2021 - Scenario 1: No Change on 2012 rate	37,136	£94,745	19,588	£72,545
2021 - Scenario 2: No Change on 2006-12 average rate	35,360	£90,654	18,865	£70,142
2021 - Scenario 3: Annual trend (2006-2012) based growth	42,026	£107,219	22,168	£82,096
2021 - Scenario 4: -1% annual change in rates	33,925	£86,550	17,894	£66,271

Emergency Admissions for Ambulatory Care Sensitive Conditions

- 4.10 Ambulatory Care Sensitive Conditions are those considered most preventable as a result of good quality primary care and secondary prevention (e.g. screening and monitoring). The following primary diagnoses were considered for these analyses: *coronary heart disease, angina, chronic obstructive pulmonary disease, asthma, dehydration and gastroenteritis, cellulitis, influenza, pneumonia and diabetes complications.*
- 4.11 Figure 6 illustrates the projected impact of population change (persons 65 years and over) in the Eastern Locality on the number of emergency admissions for ambulatory care sensitive conditions using the four scenarios.

Figure 6: Emergency admissions for selected ambulatory care sensitive conditions, Eastern Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 4.12 Based on the first three scenarios, the model projects a change in the number of admissions of between – 1.42% (-30 admissions), based on trend and +20.5% (432 admissions) based on no change to the 2012 rate. An annual reduction of -1% admissions, results in a net increase of 10.0% (212 admissions).
- 4.13 Table 2 shows the projected costs (thousands) of emergency admissions for all ages and persons 65 years and over in 2021. Based on best case scenario (trend), costs could reduce by 0.93% (£52,000) despite changes to the population aged 65 years and over. The worst case scenario (no change on the 2012 rate) would incur an increase in costs of 21.0% (£1,173,000). An annual reduction of -1% emergency admissions over the period would result in costs increasing by 10.6% (£590,000).
- 4.14 An annual reduction of 1.96% in age-specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 4.15 Based on current average length of stay for these admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 2,200 additional bed-days would be required to accommodate the projected increase.

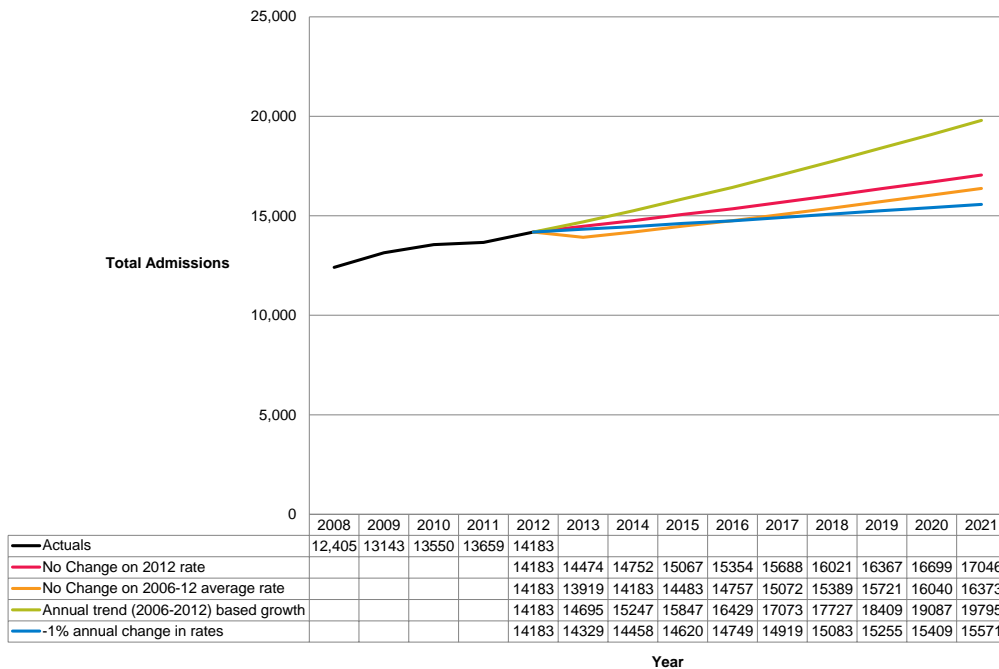
Table 2: Eastern Locality projected emergency admissions for ambulatory care sensitive conditions and costs under different scenarios, 2012-2021.

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	3,335	£7,648	2,111	£5,575
2021 - Scenario 1: No Change on 2012 rate	3,826	£8,938	2,543	£6,748
2021 - Scenario 2: No Change on 2006-12 average rate	3,854	£8,913	2,492	£6,616
2021 - Scenario 3: Annual trend (2006-2012) based growth	3,132	£7,315	2,081	£5,523
2021 - Scenario 4: -1% annual change in rates	3,496	£8,166	2,323	£6,165

Emergency Admissions Excluding Selected Ambulatory Care Sensitive Conditions

- 4.16 The following analysis shows projections for emergency admissions with the selected Ambulatory Care Sensitive Conditions outlined above removed.
- 4.17 Figure 7 illustrates the projected impact of population change (persons 65 years and over) in the Eastern Locality on the number of emergency admissions excluding selected ambulatory care sensitive conditions using the four scenarios.

Figure 7: Emergency admissions for emergency admissions excluding selected Ambulatory Care Sensitive Conditions, Eastern Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 4.18 Based on the first three scenarios, the model projects a change in the number of admissions of between +15.4% (2,190 admissions), based on no change on the average 2006-12 rate and +39.6% (5,612 admissions) based trend. An annual reduction of -1% admissions, results in a net increase of 9.8% (1,388 admissions).
- 4.19 Table 3 shows the projected costs (thousands) of emergency admissions for all ages and persons 65 years and over in 2021. Based on best case scenario (2006-12 average rate), costs could increase by 15.6% (£5,735,000). The worst case scenario (trend) would incur an increase in costs of 39.6% (£14,530,000). An annual reduction of -1% emergency admissions over the period would result in costs increasing by 9.8% (£3,601,000).
- 4.20 An annual reduction of 2.02% in age-specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 4.21 Based on current average length of stay for these admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 26,200 additional bed-days would be required to accommodate the projected increase.

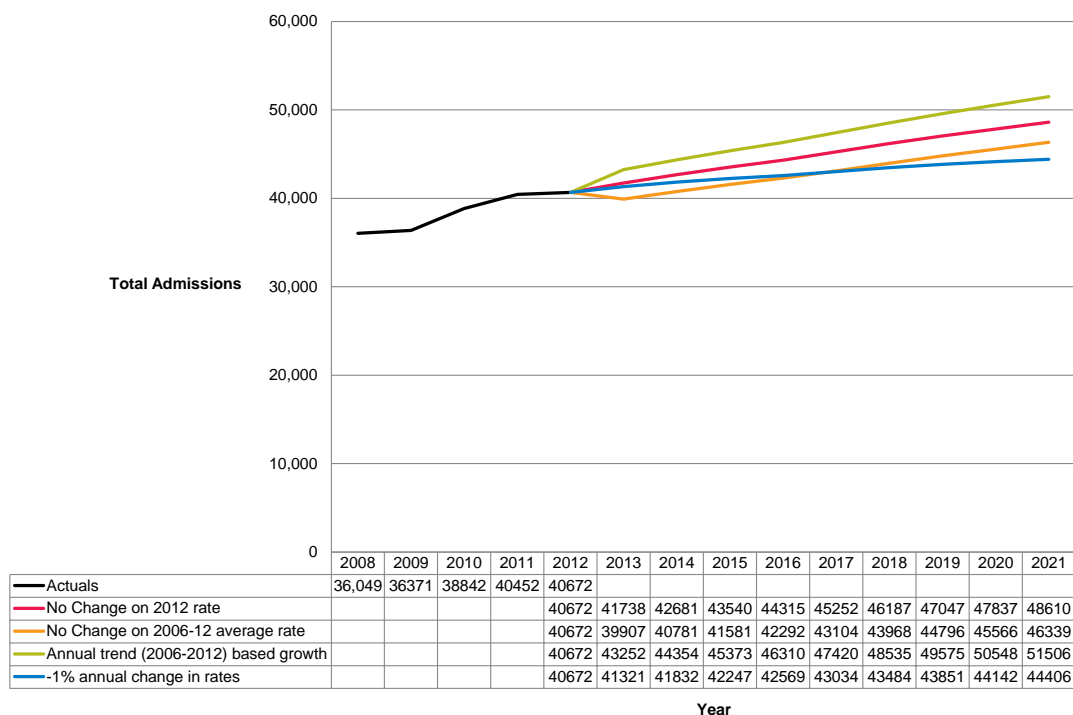
Table 3: Eastern Locality projected emergency admissions excluding selected ambulatory care sensitive conditions and costs under different scenarios, 2012-2021.

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	29,768	£59,335	14,183	£36,684
2021 - Scenario 1: No Change on 2012 rate	33,310	£67,898	17,046	£44,100
2021 - Scenario 2: No Change on 2006-12 average rate	31,506	£64,451	16,373	£42,419
2021 - Scenario 3: Annual trend (2006-2012) based growth	38,682	£78,852	19,795	£51,214
2021 - Scenario 4: -1% annual change in rates	30,429	£62,026	15,571	£40,285

Elective Admissions

4.22 Figure 8 illustrates the projected impact of population change (persons 65 years and over) in the Eastern Locality on the number of elective admissions using the four scenarios.

Figure 8: Elective admissions, Eastern Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 4.23 Based on the first three scenarios, the model projects an increase in admissions of between 13.9% (5667 admissions) based on the no change to the 2012 rate scenario and 26.6% (10,834 admissions) based on trend. An annual reduction of -1% admissions, results in a net increase of 9.18% (3734 admissions).
- 4.24 Table 4 shows the projected costs (thousands) of elective admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 26.7% (£14,364,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline rate - 1% over the period would result in costs increasing by 9.25% (£4,974,000).

Table 4: Eastern Locality projected elective admissions and costs under different scenarios, 2012-2021.

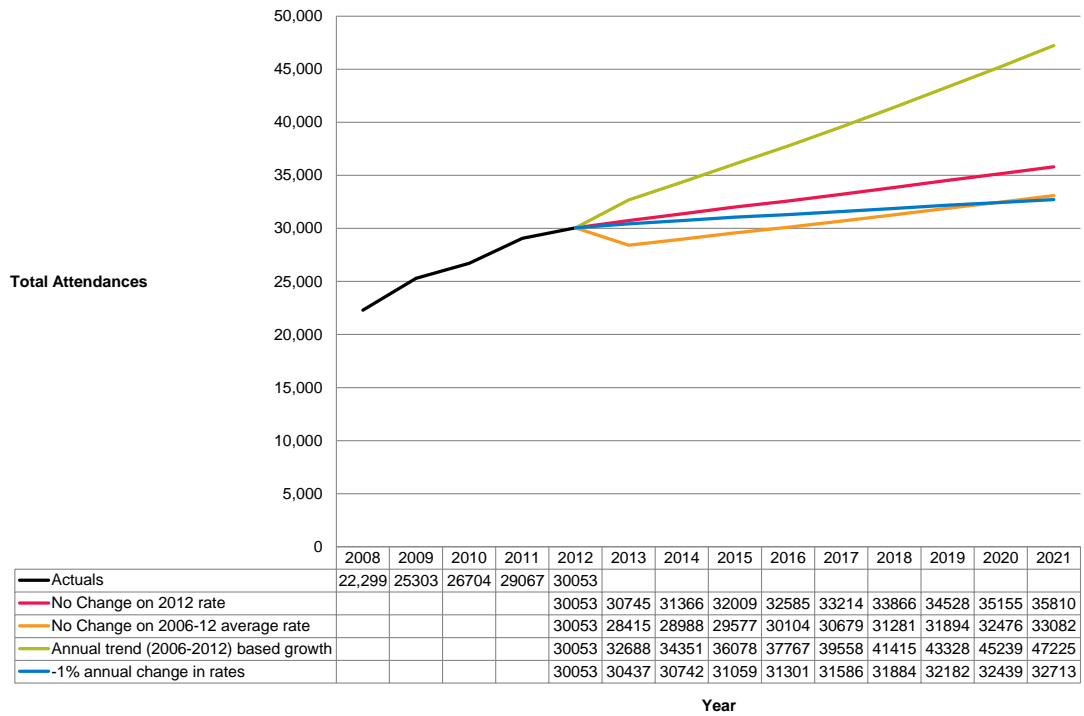
Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	83,788	£105,461	40,672	£53,750
2021 - Scenario 1: No Change on 2012 rate	94,399	£119,370	48,610	£64,283
2021 - Scenario 2: No Change on 2006-12 average rate	93,115	£117,114	46,339	£61,090
2021 - Scenario 3: Annual trend (2006-2012) based growth	100,022	£126,484	51,506	£68,114
2021 - Scenario 4: -1% annual change in rates	86,235	£109,049	44,406	£58,724

- 4.25 An annual reduction of 1.93% in age-specific elective admission rates would be required to maintain attendance levels in over 65s at the 2012 baseline.
- 4.26 Based on current average length of stay for elective admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 5,700 additional bed-days would be required to accommodate the projected increase.

Accident and Emergency (A&E) / Minor Injury Unit Attendances (MIU)

- 4.27 Figure 9 illustrates the projected impact of population change (persons 65 years and over) in the Eastern Locality on accident & emergency and minor injury unit attendances using the four scenarios.

Figure 9: Accident & Emergencies and Minor Injury Unit Attendances, Eastern Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 4.28 Based on the first three scenarios, the model projects an increase in attendances of between 10.1% (3029 attendances) based on the no change to the 2006-12 average rate scenario and 57.1% (17,172 attendances) based on trend. An annual reduction to the baseline attendance rate of -1%, results in a net increase of 8.85% (2660 attendances).
- 4.29 Table 5 shows the projected costs (thousands) of accident & emergency and minor injury unit attendances for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 57.4% (£1,455,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline attendance rate of -1% emergency admissions over the period would result in costs increasing by 9.04% (£229,000).

Table 5: Eastern Locality projected Accident & Emergency and Minor Injury Unit Attendances and costs under different scenarios, 2012-2021.

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	116,947	£8,921	30,053	£2,534
2021 - Scenario 1: No Change on 2012 rate	125,363	£9,607	35,810	£3,025
2021 - Scenario 2: No Change on 2006-12 average rate	119,723	£9,157	33,082	£2,794
2021 - Scenario 3: Annual trend (2006-2012) based growth	165,326	£12,669	47,225	£3,989
2021 - Scenario 4: -1% annual change in rates	114,521	£8,776	32,713	£2,763

- 4.30 An annual reduction of 0.77% in age-specific attendance rates would be required to maintain admission levels at the 2012 baseline level.

Social Care Costs (to Devon County Council)

- 4.31 Based on its financial assessment and benefit criteria Devon County Council funds a range of social care services, including residential and nursing care to eligible residents in the Eastern Locality of Devon. For included activity and limitations to these data, see 4.10.
- 4.32 Table 6 shows the average weekly spend in 2013 on persons aged 65 years and over and projects this spend against the estimated increase of persons in the age group shown at 2021. These data have not been modelled using alternative scenarios.
- 4.33 Costs in the 65 years and over age group are projected to increase by 19.7% (£131,222). The largest percentage increase (21.45%) equating to an additional cost of £83,134 is observed in the 85 years and over age group.

Table 6: Eastern Locality projected weekly spend for Devon County Council funded social care activities

Age Group	Cost (£) 2013	Predicted cost (£) 2021	% Increase
65 to 74	80,443	88,475	9.98
75 to 84	197,984	238,041	20.23
85 and over	387,571	470,705	21.45
Total 65+	665,998	797,220	19.70

5. Reversing the Trend – Summary of Literature Review

Kings' Fund – 'Time to Think Differently Programme'

(<http://www.kingsfund.org.uk/time-to-think-differently>).

- 5.1 This programme coordinated by the King's Fund is aimed at stimulating debate across the health and social care community to consider the changes needed for NHS commissioned services and social care to meet the future challenges outlined in section 3 of this report.
- 5.2 In outlining 'the case for fundamental change' Ham et al. (2012) outline several important components that should underpin service re-design to meet future health and social care need. These are:
- Continue to shifting the emphasis from treatment to prevention. Maximising opportunities to improve health in primary care settings with a workforce skilled in techniques such as motivational interviewing. Authors advocate the 'Every Contact Counts' campaign outlined in the NHS Future Forum Report 'The NHS's Role in the Public's Health' (2012). Author's stress the importance of prevention in older age in order to translate increases in life expectancy to increases in healthy life expectancy.
 - Further Integration of services, between acute hospitals and community settings, health and social care. Investment in intermediate-care services that provide a rapid response to enabling people to be cared for in their own homes and avoid admission to hospitals and care homes, is considered a key part of this.
 - Co-production – the concept of patients and service users being supported to share decision-making, and to self-manage their health and care. It has been described as requiring professionals to move from being 'fixers to facilitators', with a redistribution of power towards service users.
 - Self-Care – the active involvement of patients through care-planning to decide, agree strategies to manage their own condition in collaboration with a health care professional.
 - Asset-based approaches - promoting health and wellbeing in marginalised communities that utilise the capacity, skills, knowledge, connections and potential within the community, rather than focusing on the needs and problems. See 'A glass half-full: how an asset approach can improve community health and well-being' London Government Association 2010.
 - Team-empowerment – all members of the health and social care team (including patients and lay-members) to be empowered to take as many responsibilities as they are able.
 - 'Home as hub' where patients/service users are enabled with the support of carers and family members to maximise as much independence in their own environment for as long as possible. This will require improved housing and the development of initiatives such as 'Extra Care Housing' designed to meet the current and future needs of residents with access to 24 hours support.

- Improving access to diagnostic services – maximising efficiencies of scale through primary care collaborations e.g. federations to provide diagnostic services for a given community.
- Teams without walls – improved collaborations between primary-care based community teams and hospital consultants to provide consultant-led care closer to home.
- Population risk stratification - using patient data to allow more anticipatory proactive case-management and targeted preventive services to reduce hospital admission of those most at risk of being admitted.

Transforming Community Services

5.3 The Transforming Community Services Programme (Department of Health 2009) outline seven basic principles to inform service re-design. These are:

- Know about local health needs and plan services accordingly (incorporating an assessment of population needs through joint strategic needs assessments, agreeing outcome measures and data requirements to measure and evaluate change and to audit change as a result of service user feedback)
- Create effective health and care partnerships (including voluntary and third sector involvement)
- Implement new services/approaches (supporting teams/empowering practitioners to develop creative approaches to evidence-based/evaluated service provision)
- Access and availability (good information about services and provision of the right resources in the right place at the time required)
- Care-planning and case-management (single assessment process and personalised care planning for those with long-term/complex health needs utilising a number of services)
- Information and technology (providing practitioners with appropriate IT to carry remote work and support joint-care planning/single assessments)
- Education and Training (developing competent work-force and promoting evidence-based practice in the field).

5.4 To inform a set of guidance documents under its banner ‘Transforming Community Services: ‘Ambition, Action Achievement’ the Health Services Management Centre on behalf of the Department of Health reviewed 18,000 studies to examine the evidence of a range of community services. The following recommendations are reported in the guidance document ‘Acute Care Closer to Home’ (Department of Health 2009).

5.5 Consistent with the King’s Fund principle of ‘home as hub,’ the principle of acute care closer to home is advocated for a range of clinical interventions historically provided in hospital settings as outpatient settings (citing anti-coagulant testing and IV therapies).

- 5.6 Again, consistent with the King's Fund principle, predictive analytical tools are advocated as a means of identifying those most at risk of hospital admission in order to support targeted prevention/improved case-management.
- 5.7 Guidance reports that both intermediate care and rehabilitation services should form part of the urgent care pathway *'ensuring that admissions are prevented and early discharge facilitated, enabling people to achieve the optimum level of independence for their long term future.'*
- 5.8 Hospital at home is reported as being as effective as hospital-based care. Although evidence of cost-benefit is described as inconclusive, patient satisfaction was found to be higher, quality of care better and self-management improved in studies considered.
- 5.9 It is also recommended that education and training be extended to carers, family members and staff in other settings, such as care homes, to recognise ill health needs, and to know who to contact for advice and support to manage these acute episodes at home or in the patient's usual place of care.

Devon Partnership Strategy – 'Promoting Independence and Wellbeing' 2011-2013

- 5.10 This strategy outlines Devon's shared approach across organisations in the public, voluntary and community, and private sector to deliver services to an ageing and often geographically widespread population
- 5.11 A comprehensive evidence review was completed to underpin the Devon Prevention Strategy aiming to scope activities likely to be of greatest benefit in improving quality and performance in the Devon Health Economy, particularly in relation to the care of older people. In relation to independent people maintaining their independence, the following (consistent with both the King's Fund and Transforming Community Services recommendations) are advocated:

Self-Care

- Self-care involves people who are at a higher risk of ill health in learning how to cope with their symptoms (for example by servicing information and advice on lifestyle choices) and therefore reducing the risk of needing healthcare and treatment.

Falls Prevention

- Falls prevention involves interventions or packages of interventions intended to reduce falls and fall-related harm. The prevention may be primary (intended to prevent falls and fall-related harm in those who have never fallen) or secondary (intended to prevent further falls and related harm in those who have previously fallen).

Volunteering

- Volunteering involves working without payment, typically towards some social, political, or cultural cause, as well as enhancing social capital within the community. Local volunteering also has the potential to make the life of the volunteer more meaningful and connected.

Extra-Care Housing

- An extension of sheltered housing that aims to meet the housing, care and support needs of older people, while helping them to maintain their independence in their own private accommodation. The qualifying age for entry may be below 65 years but most entrants are older than this. Extra-care housing offers support and care to residents for 24 hours a day, and has been viewed as a possible alternative to moving into a care home. (Department of Health 2005)

5.12 Ways in which people are helped to regain independence after a crisis include:

Social Care Reablement

- Reablement involves services for people with poor physical or mental health that help them accommodate their illness by learning or relearning the skills necessary for daily living (Allen and Glasby 2010). It is different from but complimentary to rehabilitation, which involves services for people with poor physical or mental health to help them get better and similarly focussed on recovery.

Intermediate Care

- Intermediate care is provided to individuals who would otherwise face long hospital stays or be referred to in-patient care inappropriately. It involves individualised care intended to maximise independence and enable individuals to live in their own homes. Intermediate care involves a single comprehensive assessment framework and cross-professional working and information sharing. It should be provided for six weeks at most. (Adapted from Department of Health 2001).

6. Report Summary and Recommendations

- 6.1 The development of the aims and objectives of this Health Needs Assessment has led to collaboration between the NEW Devon Clinical Commissioning Group through its Eastern Locality, Devon Public Health Intelligence Team and the Peninsula Collaboration for Health Operational Research and Development (PenCHORD). This collaboration will develop the modelling and simulation tools to support the Transforming Community Services Partnership in its reconfiguration of services to achieve an effective and efficient health and social care system fit to respond to demographic change and future need.
- 6.2 As a result of the economic climate and fiscal restraint, a requirement to achieve more from the existing pool of health and social care resources is inevitable. The Transforming Community Services Programme provides a timely opportunity to consider this challenge. Consideration must be given to the future resources required to (1) manage people with complex and multi-morbidities in community settings and closer to home, (2) support for the increase in people who will be living alone and (3) reducing emergency admissions.
- 6.3 Once the Transforming Community Services programme has agreed the health and social care functions required to meet the health needs of the elder population, developing the future workforce and voluntary sector will be required to optimise capacity across the system.

- 6.4 There is currently no over-arching elder-care strategy in place for the locality that articulates a vision, underlying principles and required actions for a health and social care system designed to meet the future needs of the ageing population. This could provide a coherent framework for all future commissioned activity.
- 6.5 The population of persons 65 years of age and over resident in the Eastern Locality will increase by 22.4% (18,312 persons) between 2011 and 2021 and life expectancy will increase by 2.1 years to 84.8 years over the same period.
- 6.6 Based on the scenarios used in this report, the area of health-care activity most impacted by this demographic change in terms of potential future resource use is emergency admission. The average of the four scenarios used projects an additional 3334 additional admissions in 2021 costing an additional £30,505,500 based on 2012-13 prices. 28,400 additional bed-days would be required to accommodate the projected increase. An annual reduction of 2.03% in age-specific emergency admission rates would be required to maintain admission levels at the 2012 baseline level.
- 6.7 Emergency admissions for ambulatory care sensitive conditions are not contributing significantly to the increase in all emergency admissions. Using the average of the four scenarios, an increase of 249 admissions for these conditions is projected, incurring an additional cost of £688,000 based on today's prices. Work is required to further understand the causes of emergency admission contributing to further reduce the potential future burden on resource use.
- 6.8 Prevention should be at the heart of future service configuration bringing together the breadth of partners required to deliver the health and social care service of the future. The definition of prevention outlined in '*Making a strategic shift towards prevention and early intervention*' (Department of Health 2008) provides a useful framework on which service bundles / pathways to be commissioned by the Local Authority and Clinical Commissioning Group can be grouped:
- Primary Prevention: provision of universal access to good quality information, supporting safer neighbourhoods, promoting health and active lifestyles etc
 - Secondary Prevention: identification of individuals at risk of specific health conditions or events, such as strokes or falls or those who have existing low level care needs
 - Tertiary Prevention: maximise people's independence through interventions such as rehabilitation and joint case management of people with complex needs
- 6.9 As well shifting the focus onto prevention of ill health, several strategies/ interventions are consistently cited in order to reduce hospital admission and develop community infrastructures to improve health and social care outcomes for the elderly population. As outlined in this report, these include:
- knowing and responding to the population at risk using risk stratification tools
 - expansion of intermediate care
 - developing the concept of 'home-as-hub'

- maximising voluntary sector input
- 6.10 To that end, an evaluation of the evidence-based Devon Partnership Strategy 'Promoting Independence and Wellbeing, 2011-13' would be timely.
- 6.11 Recommendation 1: Through the core offer agreement with Public Health, produce a Health Needs Assessment (including rapid review of evidence) focusing on the health and social care needs of elder people with multiple-morbidities.
- 6.12 Recommendation 2: Eastern Locality to work in collaboration with Devon County Council, voluntary/third sector and other relevant stakeholders to produce an 'Elder Care Strategy.'
- 6.13 Recommendation 3: Eastern Locality to produce a strategy and action plan with the voluntary/third sector outlining a vision of collaboration and capacity building to support the needs of the elder population.
- 6.14 Recommendation 4: Public Health Intelligence Team to review leading causes of emergency admission for the period 2006-12 and work with clinical colleagues to design and implement a case review for an agreed cohort of patients to further understand need and opportunities for reducing avoidable admission.
- 6.15 Recommendation 5: Review the impact of Devon Joint Strategy 'Promoting Independence and Well-being 2011-13 (Devon County Council) and section 256 investment aligned to this strategy.

7. Authors

Mike Wade – Specialty Registrar in Public Health – Public Health Devon

Simon Chant – Public Health Specialist (Intelligence) – Public Health Devon

Acknowledgements:

Gemma Hobson – Senior Public Health Information Analyst – Public Health Devon

8. References

Allen, K., Glasby, J. 2010. *'The billion dollar question': embedding prevention in older people's services – 10 high impact changes.*[Online]. Available at: <http://epapers.bham.ac.uk/759/1/policy-paper-eight.pdf>. [Accessed May 15th 2013].

Cavanagh, S., Chadwick, K. 2005 *Health needs assessment. A practical guide.* National Institute for Health and Clinical Excellence.

Cornwell, J., Levenson, R., Sonolo, L., Poteliakhoff, E. 2012. *Continuity of Care for Older Hospital Patients: A call for action.* [Online] Available at: www.kingsfund.org.uk/publications/continuity_of_care.html [Accessed 3rd March 2013].

Department of Health. 2001. *Intermediate Care.* London: Department of Health.

Department of Health. 2005. *Independence, Well-Being and Choice. Our Vision for the Future of Social Care for Adults in England.* The Stationery Office, Norwich.

Department of Health. 2008. *Making a strategic shift to prevention and early intervention – A guide.* Department of Health.

Department of Health. 2009. *Transforming community Services: Ambition, Action, Achievement – Transforming Services for Acute Care Closer to Home.* Department of Health.

Devon County Council & NHS Devon. 2011. *Devon Prevention Strategy – 'Promoting Independence and Wellbeing.'* [Online]. Available at: http://www.devon.gov.uk/prevention_strategy_updated_31_05_11_-_latest_version-29.09.11.pdf. [Accessed Jan 14th 2013].

Ham, C., Dixon, A., Brooke, B. 2012. Transforming the Delivery of Health and Social Care – The case for fundamental change. *The King's Fund.*

Imison, C. 2012. *Future Trends - Overview.* The King's Fund.

Improvement and Development Agency. 2010. *A glass half full: how an asset approach can improve community health and well-being.*[Online]. Available at: <http://www.bankofideas.com.au/Downloads/GlassHalfFull.pdf>. [Accessed 15th May 2013].

Naidoo, J., Wills, J. 2009. Ch. 18. Assessing Health Needs. In: *Foundations for Health Promotion – 3rd. Edition.* Elsevier.

NHS Future Forum. *The NHS's role in the public's health – A report from the NHS Future Forum.* [Online]. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/152170/dh_132114.pdf.pdf. [Accessed May 4th 2013].

Roberts, A., Marshall, L., Charlesworth, A. 2012. *The funding pressures facing the NHS from 2010/11 to 2021/22 – A decade of austerity?* Nuffield Trust.

Royal College of Nursing. 2011. *A Decisive Decade: Mapping the future NHS workforce.* [Online] Available at: www.rcn.org.uk/_data/assets/pdf_file/0004/394780/004158.pdf.

[Accessed on 15th January 2012].

Skills for Care. 2010. *The state of the adult social care workforce in England, 2010.*

[Online]. Available at:

www.skillsforcare.org.uk/research/research_reports/state_of_the_adult_social_care_workforce_reports.aspx

[Accessed on 2nd February 2013]

APPENDIX 1

PenCHORD Specification

Date of Proposal	21/05/13	Reference	P063
Title	Wakley Community Hospital Usage : Phase 1 – Process Mapping		
Proposer/Collaborator	<ol style="list-style-type: none"> 1) Eastern Locality Transforming Community Services Partnership Board 2) Public Health Intelligence team- Devon County Council – contact: Mike Wade MFPH (Public Health Specialty Registrar) 		
Research objectives/question	What are the current clinical pathways between community hospitals and the acute hospital for over 85 year olds in the Wakley sub-locality?		
Deliverables:	<ul style="list-style-type: none"> • Process maps of the relevant identified clinical pathways • Descriptive analysis and visualisation of the levels and types of demand entering and exiting each community hospital, along with the sources of admission and discharge destinations, and their relationships with the acute hospital. 		
Start Date	21/05/13	End Date	10/07/13
Time constraints	Phase 1 needed before can start Phase 2; Phase 2 needed by end of September 2013		
Main PenCHORD contact	Dr Daniel Chalk	PenCHORD time allocation	One RF, 30% of their time
Collaborator allocation	<ul style="list-style-type: none"> • Simon Chant (data requirements and access) • Phil Taylor (description of clinical pathways) • Mike Wade (Public Health team oversight) • Eastern Locality Transforming Community Services Partnership Board 		
Other Resources			
Proposed Methods:	<ul style="list-style-type: none"> • Process mapping, outputs generated using Visio • Analysis of demand, referral, admission and discharge data • Visualisation methods 		
Data Requirements and access:	<ul style="list-style-type: none"> • Process maps (either formal or expert opinion-based) for each of the relevant clinical pathways • Anonymised referral, admissions and discharge data for individual patients over 85, where the referral, admission or discharge related to a community hospital. Data should include source of referral, condition, Length of Stay, Discharge, Discharge Destination, and other relevant data. • HES data • Other relevant data as required, as mutually agreed between PenCHORD and collaborators 		
Links and extensions	This work will lead on to Phase 2 of the project, in which we will aim to model a number of scenarios (4-5) for reconfiguring the community and acute hospital system in Wakley using a simplified model. The scenarios will be generated by the Eastern Locality Transforming Community Services Partnership Board.		
Research potential/publications	Unlikely from this phase (unless impact is high).		
Notes	This will be a two phase project.		

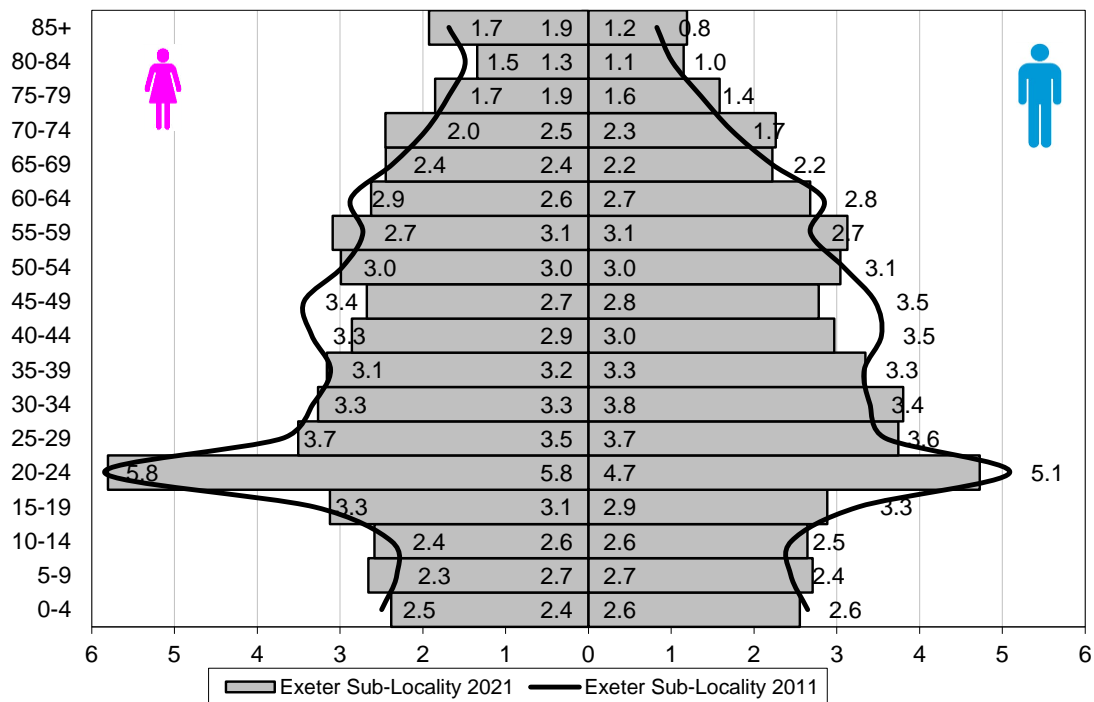
APPENDIX 2

Exeter Sub-Locality Report

1.1 The following report describes the changes in age profile and life expectancy of the Exeter Sub-Locality over the period 2011/12 to 2020/21 and estimates the impact of these changes on health and social care service demand and cost.

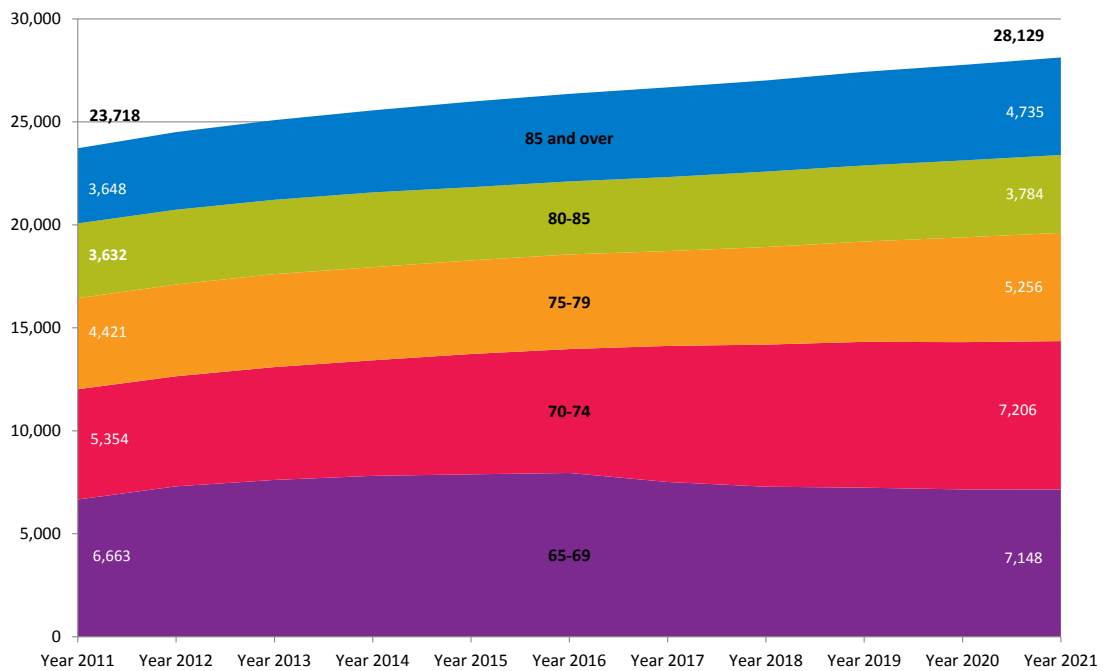
1.2 Figure 1 shows the population profile of the locality by five-year age group for the years 2011 and 2021. By 2021 there will be an increase in the proportion of males and females aged 85 years and over (0.4% and 0.2% respectively). There will be a contraction in the proportion of males and females in the middle age groups, most notably those aged between 40 and 49. This pyramid can be used to indicate how the GP registered population profile is likely to change over the next ten years.

Figure 1: Population pyramid for the Exeter Sub Locality of Devon for the years 2011 and 2021 by 5-year age group, males and females



1.3 Figure 2 shows that in absolute terms, over the period 2011 and 2021, the population of those aged 65 years and over residing in the locality will increase by 4,411 persons (18.6%), which compares to the Eastern Locality increase of 22.4%. The 70 to 74 year age group increases by 1852 persons over this period, the greatest percentage increase within these age groups (34.6%).

Figure 2: Population estimates for the Exeter Sub-Locality of Devon for the years 2011 and 2021, persons 65 years and over by five year age group

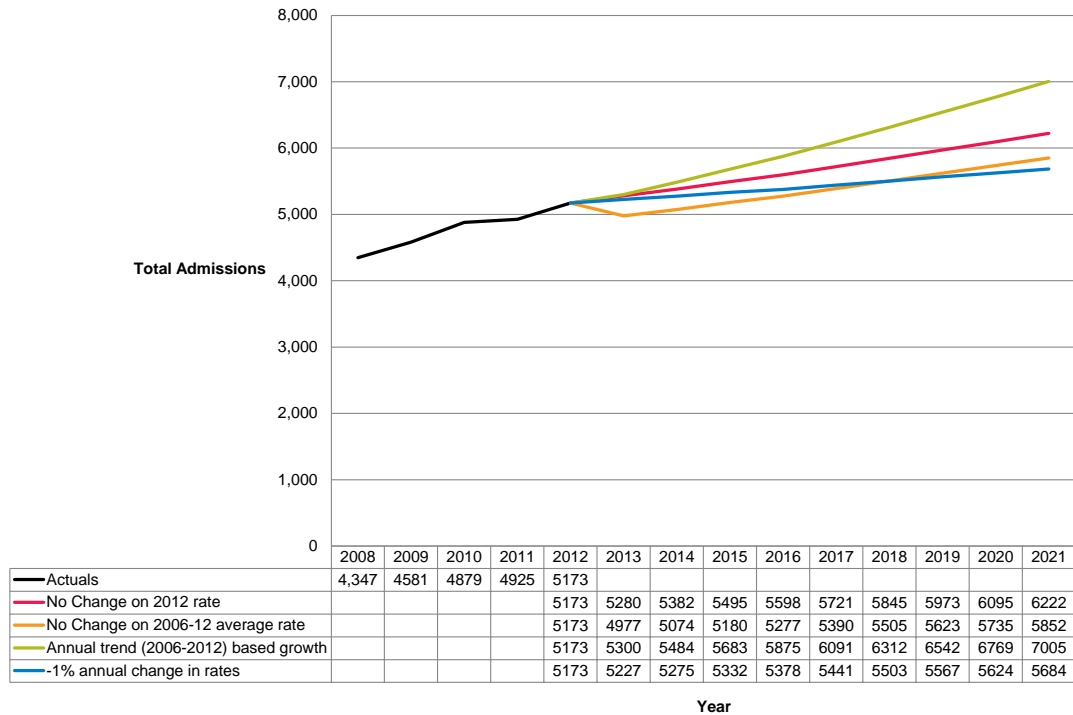


1.4 For the Exeter Sub Locality, average life expectancy at birth (persons) is expected to increase by 2.1 years from 82.1 years in 2011 to 84.2 years in 2021. This compares to an increase for the Eastern Locality as a whole of 2.1 years from 82.7 years in 2011 to 84.8 years in 2021.

Emergency Admissions

1.5 Four scenarios have been used to estimate the future number of emergency admissions: (1) no change on the 2012 admission rate, (2) no change to the average admission rate for the period 2006-2012, (3) trend based growth-rate based on the period 2006-12 and (4) -1% annual change in admission rate from the 2012 baseline. Figure 3 illustrates the projected impact of population change (persons 65 years and over) in the Exeter Sub-Localities on emergency admissions using the four scenarios.

Figure 3: Emergency admissions, Exeter Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 years and over.



- 1.6 Based on the first three scenarios, the model projects an increase in emergency admissions of between 13.1% (679 admissions) and 35.4% (1832 admissions). An annual reduction of -1% admissions, results in a net increase of 9.88% (511) admissions.
- 1.7 Based on 2012-13 payment by results tariffs, not adjusted for inflation, Table 1 shows the projected costs (thousands) of emergency admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 35.5% (£4,759,000) as a result of changes to the population aged 65 years and over. An annual reduction of -1% to the baseline rate over the period would result in costs increasing by 9.99% (£1,337,000).
- 1.8 An annual reduction of 2.03% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 1.9 Based on current average length of stay for emergency admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 7,600 additional bed-days would be required to accommodate the projected increase.

Table 1: Exeter Sub-Locality projected emergency admissions and costs under different scenarios, 2012-2021

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	12,607	£24,033	5,173	£13,390
2021 - Scenario 1: No Change on 2012 rate	13,974	£27,293	6,222	£16,121
2021 - Scenario 2: No Change on 2006-12 average rate	13,118	£25,593	5,852	£15,131
2021 - Scenario 3: Annual trend (2006-2012) based growth	15,732	£30,725	7,005	£18,149
2021 - Scenario 4: -1% annual change in rates	12,766	£24,936	5,684	£14,727

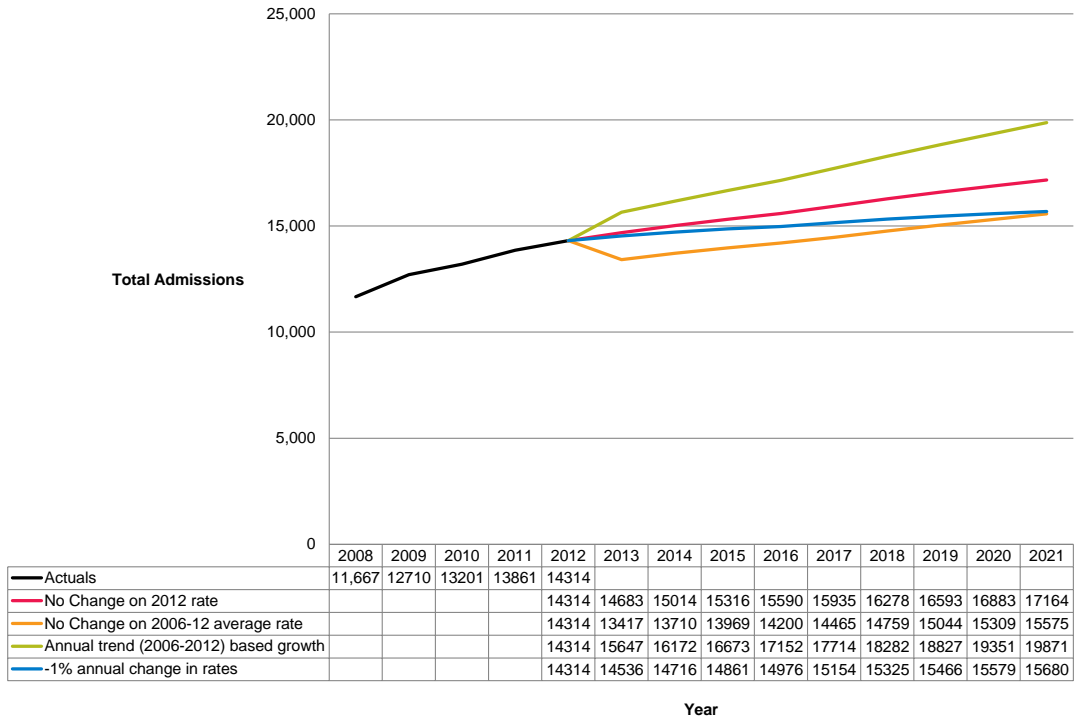
Emergency Admissions for Ambulatory Care Sensitive Conditions

- 1.10 Ambulatory Care Sensitive Conditions are those considered most preventable as a result of good quality primary care and secondary prevention (e.g. screening and monitoring). The following primary diagnoses were considered for these analyses: *coronary heart disease, angina, chronic obstructive pulmonary disease, asthma, dehydration and gastroenteritis, cellulitis, influenza, pneumonia and diabetes complications.*
- 1.11 Due to the smaller number of admissions involved for these admission causes, sub-locality analyses are not reported.

Elective Admissions

- 1.12 Figure 4 illustrates the projected impact of population change (persons 65 years and over) in the locality on the number of elective admissions using the four scenarios.

Figure 4: Elective admissions, Exeter Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 1.13 Based on the first three scenarios, the model projects an increase in admissions of between 8.81% (1261 admissions) based on the no change to the 2012 rate scenario and 38.8% (5557 admissions) based on trend. An annual reduction of -1% admissions, results in a net increase of 9.54% (1366 admissions).
- 1.14 Table 2 shows the projected costs (thousands) of elective admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 38.9% (£7,359,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline rate -1% over the period would result in costs increasing by 9.64% (£1,821,000).

Table 2: Exeter Sub-Locality projected elective admissions and costs under different scenarios, 2012-2021.

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	32,363	£40,287	14,314	£18,897
2021 - Scenario 1: No Change on 2012 rate	36,326	£45,467	17,164	£22,681
2021 - Scenario 2: No Change on 2006-12 average rate	34,858	£43,389	15,575	£20,568
2021 - Scenario 3: Annual trend (2006-2012) based growth	42,054	£52,633	19,871	£26,256
2021 - Scenario 4: -1% annual change in rates	33,184	£41,532	15,680	£20,718

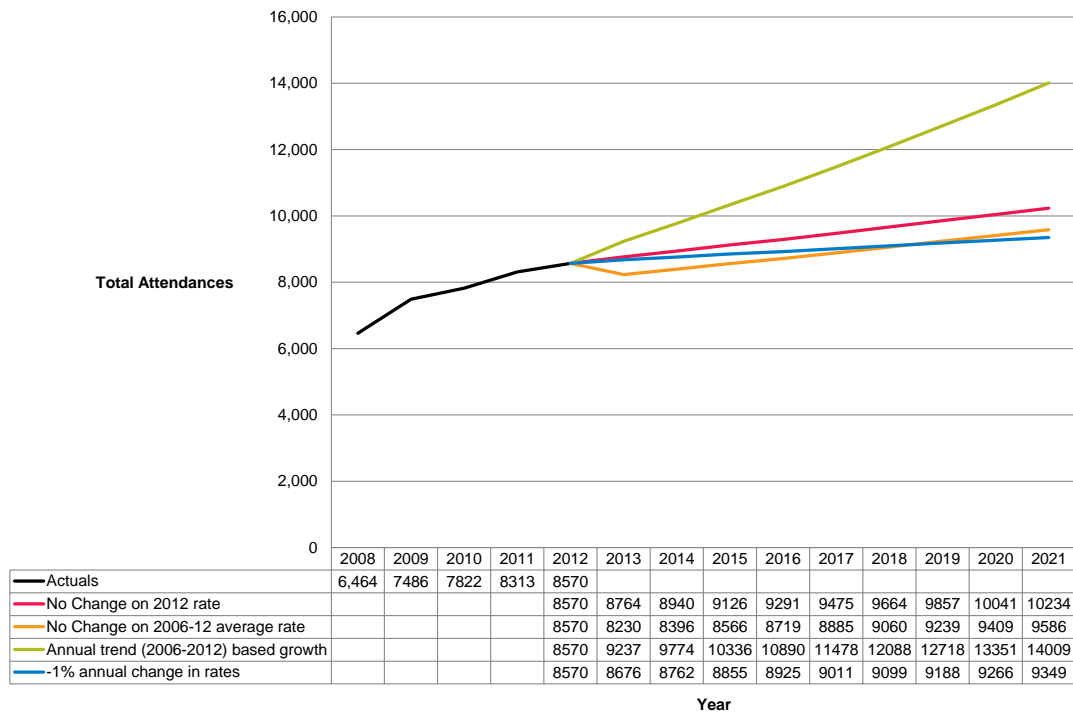
1.15 An annual reduction of 1.99% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.

1.16 Based on current average length of stay for elective admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 2,000 additional bed-days would be required to accommodate the projected increase.

Accident and Emergency (A&E) / Minor Injury Unit Attendances (MIU)

1.17 Figure 5 illustrates the projected impact of population change (persons 65 years and over) in the Exeter Sub-Locality on A&E and MIU attendances using the four scenarios.

Figure 5: A&E and MIU attendances, Exeter Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 1.18 Based on the first three scenarios, the model projects an increase in attendances of between 11.9% (1016 attendances) based on the no change to the 2006/12 average rate scenario and 63.5% (5439 attendances) based on trend. An annual reduction to the baseline attendance rate of -1%, results in a net increase of 9.09% (779 attendances).
- 1.19 Table 3 shows the projected costs (thousands) of A&E and MIU attendances for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 63.5% (£460,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline attendance rate of -1% emergency admissions over the period would result in costs increasing by 9.39% (£68,000).

Table 3: Exeter Sub-Locality projected A&E and MIU attendances and costs under different scenarios, 2012-2021.

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	39,794	£3,013	8,570	£724
2021 - Scenario 1: No Change on 2012 rate	42,442	£3,229	10,234	£865
2021 - Scenario 2: No Change on 2006-12 average rate	39,628	£3,016	9,586	£810
2021 - Scenario 3: Annual trend (2006-2012) based growth	58,100	£4,419	14,009	£1,184
2021 - Scenario 4: -1% annual change in rates	38,772	£2,950	9,349	£792

- 1.20 An annual reduction of 1.95% in age specific admission rates would be required to maintain attendance levels in over 65s at the 2012 baseline.

Social Care Costs (to Devon County Council)

- 1.21 Based on its financial assessment and benefit criteria Devon County Council funds a range of social care services, including residential and nursing care to eligible residents in the Exeter Sub-Locality of Devon. For included activity and limitations to these data, see 4.10.
- 1.22 Table 4 shows the average weekly spend in 2013 on persons aged 65 years and over and projects this spend against the estimated increase of persons in the age group shown at 2021. These data have not been modelled using alternative scenarios.
- 1.23 Costs in the 65 years and over age group are projected to increase by 17.24% (£41,330). The largest percentage increase (22.39%) equating to an additional cost of £29,814 is observed in the 85 years and over age group.

Table 4: Exeter Sub-Locality projected weekly spend for Devon County Council funded social care activities

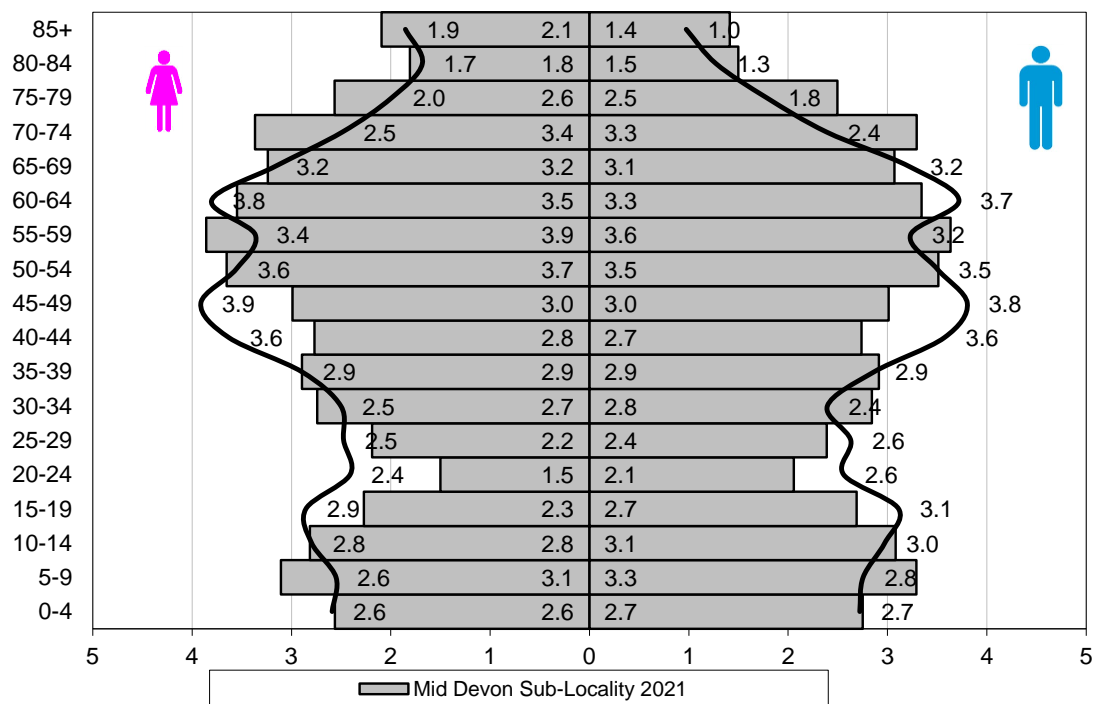
Age Group	Cost (£) in 2013	Predicted Cost (£) in 2021	% Increase
65 to 74	30,849.50	33,821.21	9.63
75 to 84	75,757.00	84,302.21	11.28
85 and over	133,160.50	162,974.48	22.39
Total 65+	239,767.00	281,097.91	17.24

APPENDIX 3

Mid Devon Sub-Locality Report

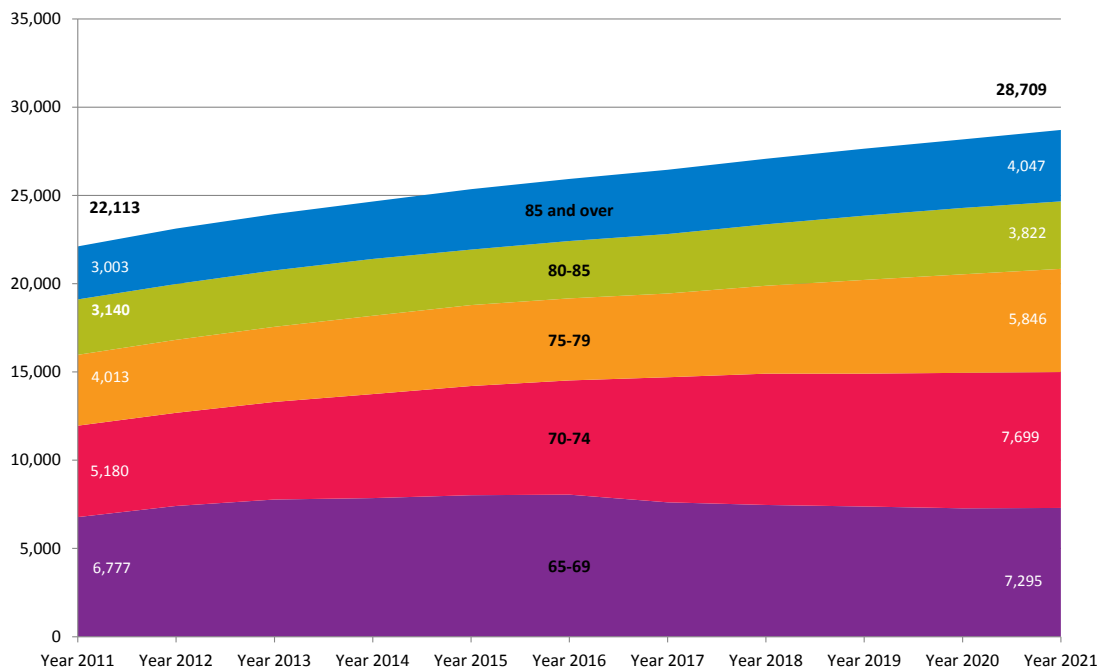
- 1.1 The following report describes the changes in age profile and life expectancy of the Mid Devon Sub-Locality over the period 2011/12 to 2020/21 and estimates the impact of these changes on health and social care service demand and cost.
- 1.2 Figure 1 shows the population profile of the locality by five-year age group for the years 2011 and 2021. By 2021 there will be an increase in the proportion of males and females aged 85 years and over (0.4% and 0.2% respectively). There will be a contraction in the proportion of males and females in the middle age groups, most notably those aged between 40 and 49. This pyramid can be used to indicate how the GP registered population profile is likely to change over the next ten years.

Figure 1: Population pyramid for the Mid Devon Sub-Locality of Devon for the years 2011 and 2021 by 5-year age group, males and females



- 1.3 Figure 2 shows that in absolute terms, over the period 2011 and 2021, the population of those aged 65 years and over residing in the locality will increase by 6596 persons (29.8%), which compares to the Eastern Locality increase of 22.4%. The 70 to 74 year age group increases by 2519 persons over this period, the greatest percentage increase within these age groups (48.63%).

Figure 2: Population estimates for the Mid Devon Sub-Locality of Devon for the years 2011 and 2021, persons 65 years and over by five year age group

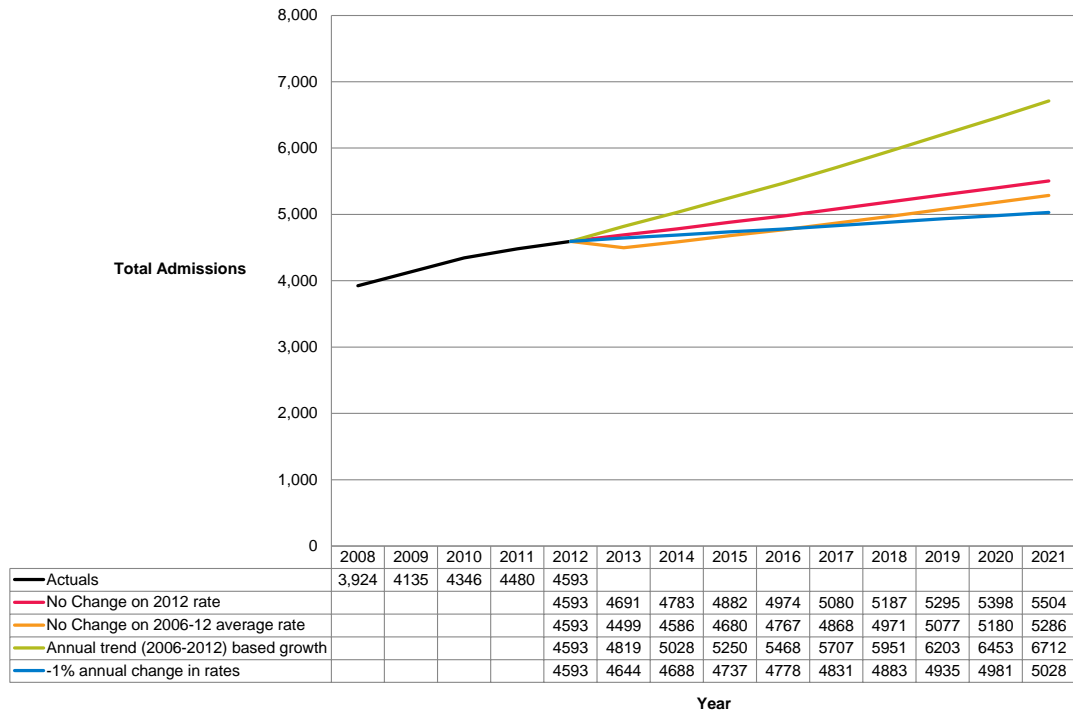


1.4 For the Mid Devon Sub-Locality, average life expectancy at birth (persons) is expected to increase by 2.1 years from 82.6 years in 2011 to 84.7 years in 2021. This compares to an increase for the Eastern Locality as a whole of 2.1 years from 82.7 years in 2011 to 84.8 years in 2021.

Emergency Admissions

1.5 Four scenarios have been used to estimate the future number of emergency admissions: (1) no change on the 2012 admission rate, (2) no change to the average admission rate for the period 2006-2012, (3) trend based growth-rate based on the period 2006-12 and (4) -1% annual change in admission rate from the 2012 baseline. Figure 3 illustrates the projected impact of population change (persons 65 years and over) in the Mid Devon Sub-Locality on emergency admissions using the four scenarios.

Figure 3: Emergency admissions, Mid Devon Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 years and over.



- 1.6 Based on the first three scenarios, the model projects an increase in emergency admissions of between 15.1% (693 admissions) and 46.1% (2119 admissions). An annual reduction of -1% admissions, results in a net increase of 9.47% (435) admissions.
- 1.7 Based on 2012-13 payment by results tariffs, not adjusted for inflation, Table 1 shows the projected costs (thousands) of emergency admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 46.3% (£5,483,000) as a result of changes to the population aged 65 years and over. An annual reduction of -1% to the baseline rate over the period would result in costs increasing by 9.61% (£1,138,000).
- 1.8 An annual reduction of 1.99% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 1.9 Based on current average length of stay for emergency admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 8,900 additional bed-days would be required to accommodate the projected increase.

Table 1: Mid Devon Sub-Locality projected emergency admissions and costs under different scenarios, 2012-2021

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	9,452	£19,116	4,593	£11,838
2021 - Scenario 1: No Change on 2012 rate	10,586	£21,869	5,504	£14,204
2021 - Scenario 2: No Change on 2006-12 average rate	9,988	£20,716	5,286	£13,673
2021 - Scenario 3: Annual trend (2006-2012) based growth	12,908	£26,666	6,712	£17,321
2021 - Scenario 4: -1% annual change in rates	9,671	£19,977	5,028	£12,976

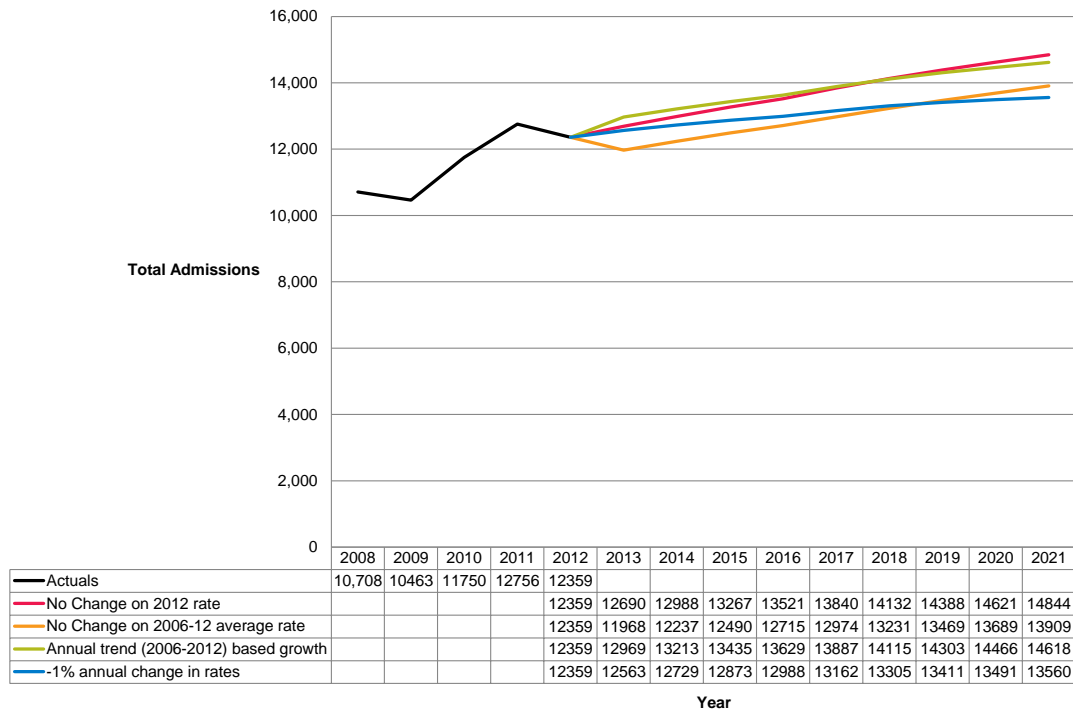
Emergency Admissions for Ambulatory Care Sensitive Conditions

- 1.10 Ambulatory Care Sensitive Conditions are those considered most preventable as a result of good quality primary care and secondary prevention (e.g. screening and monitoring). The following primary diagnoses were considered for these analyses: *coronary heart disease, angina, chronic obstructive pulmonary disease, asthma, dehydration and gastroenteritis, cellulitis, influenza, pneumonia and diabetes complications.*
- 1.11 Due to the smaller number of admissions involved for these admission causes, sub-locality analyses are not reported.

Elective Admissions

- 1.12 Figure 4 illustrates the projected impact of population change (persons 65 years and over) in the locality on the number of elective admissions using the four scenarios.

Figure 4: Elective admissions, Mid Devon Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 1.13 Based on the first three scenarios, the model projects an increase in admissions of between 12.5% (1550 admissions) based on the no change to the 2006-2012 average rate scenario and 20.1% (2485 admissions) based on no change to the 2012 rate. An annual reduction of -1% admissions, results in a net increase of 9.72% (1201 admissions).
- 1.14 Table 2 shows the projected costs (thousands) of elective admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (no change on 2012 rate), costs could increase by 20.2% (£3,303,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline rate -1% over the period would result in costs increasing by 9.82% (£1,606,000).

Table 2: Mid Devon Sub-Locality projected elective admissions and costs under different scenarios, 2012-2021.

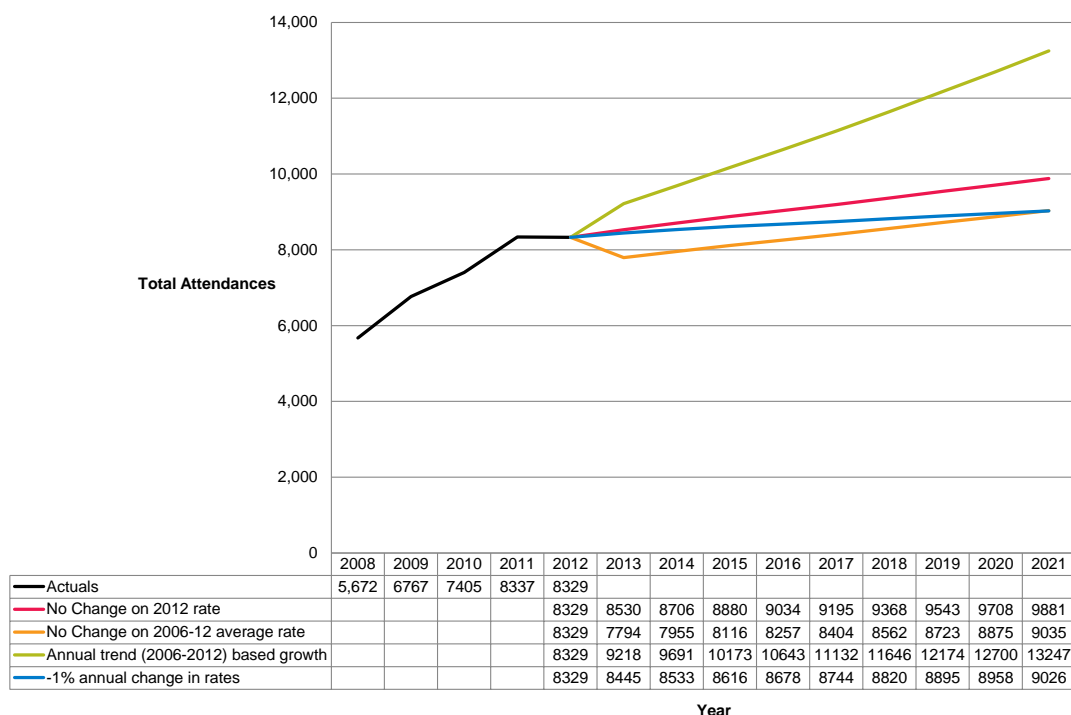
Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	24,666	£31,221	12,359	£16,351
2021 - Scenario 1: No Change on 2012 rate	27,925	£35,504	14,844	£19,654
2021 - Scenario 2: No Change on 2006-12 average rate	27,797	£35,107	13,909	£18,344
2021 - Scenario 3: Annual trend (2006-2012) based growth	27,500	£34,964	14,618	£19,356
2021 - Scenario 4: -1% annual change in rates	25,510	£32,438	13,560	£17,957

- 1.15 An annual reduction of 2.02% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 1.16 Based on current average length of stay for elective admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 1,600 additional bed-days would be required to accommodate the projected increase.

Accident and Emergency (A&E) / Minor Injury Unit Attendances (MIU)

- 1.17 Figure 5 illustrates the projected impact of population change (persons 65 years and over) in the Mid Devon Sub-Locality on A&E and MIU attendances using the four scenarios.

Figure 5: A&E and MIU attendances, Mid Devon Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 1.18 Based on the first three scenarios, the model projects an increase in attendances of between 8.48% (706 attendances) based on the no change to the 2006/12 average rate scenario and 59.0% (4918 attendances) based on trend. An annual reduction to the baseline attendance rate of -1%, results in a net increase of 8.37% (697 attendances).
- 1.19 Table 3 shows the projected costs (thousands) of A&E and MIU attendances for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 59.2% (£414,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline attendance rate of -1% emergency admissions over the period would result in costs increasing by 8.44% (£59,000).

Table 3: Mid Devon Sub-Locality projected A&E and MIU attendances and costs under different scenarios, 2012-2021.

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	34,621	£2,632	8,329	£699
2021 - Scenario 1: No Change on 2012 rate	36,989	£2,824	9,881	£830
2021 - Scenario 2: No Change on 2006-12 average rate	35,701	£2,720	9,035	£760
2021 - Scenario 3: Annual trend (2006-2012) based growth	49,593	£3,787	13,247	£1,113
2021 - Scenario 4: -1% annual change in rates	33,790	£2,579	9,026	£758

- 1.20 An annual reduction of 1.88% in age specific attendance rates would be required to maintain attendance levels in over 65s at the 2012 baseline.

Social Care Costs (to Devon County Council)

- 1.21 Based on its financial assessment and benefit criteria Devon County Council funds a range of social care services, including residential and nursing care to eligible residents in the Mid Devon Sub-Locality of Devon. For included activity and limitations to these data, see 4.10.
- 1.22 Table 4 shows the average weekly spend in 2013 on persons aged 65 years and over and projects this spend against the estimated increase of persons in the age group shown at 2021. These data have not been modelled using alternative scenarios.
- 1.23 Costs in the 65 years and over age group are projected to increase by 25.98% (£43,324). The largest percentage increase (29.75%) equating to an additional cost of £14,407 is observed in the 75 to 84 year age group.

Table 4: Mid Devon Sub-Locality projected weekly spend for Devon County Council funded social care activities

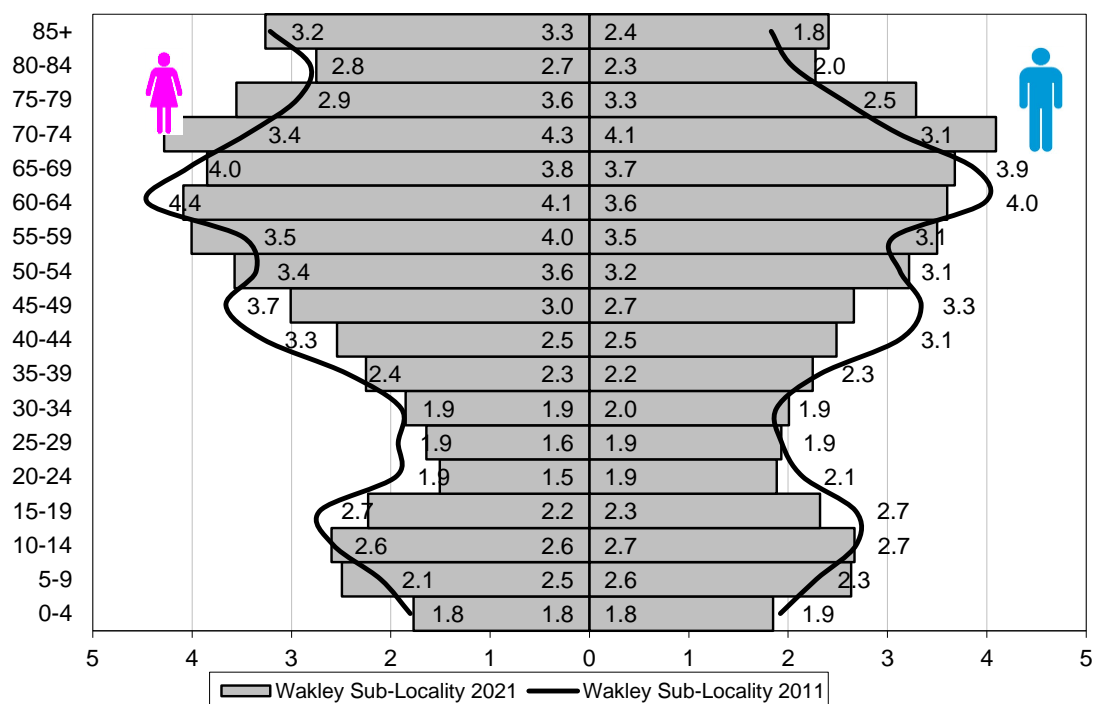
Age Group	Cost (£) in 2013	Predicted Cost (£) in 2021	% Increase
65 to 74	20,110.75	22,668.99	12.72
75 to 84	48,422.00	62,829.66	29.75
85 and over	98,210.75	124,568.84	26.84
Total 65+	166,743.50	210,067.50	25.98

APPENDIX 4

Wakley Sub-Locality Report

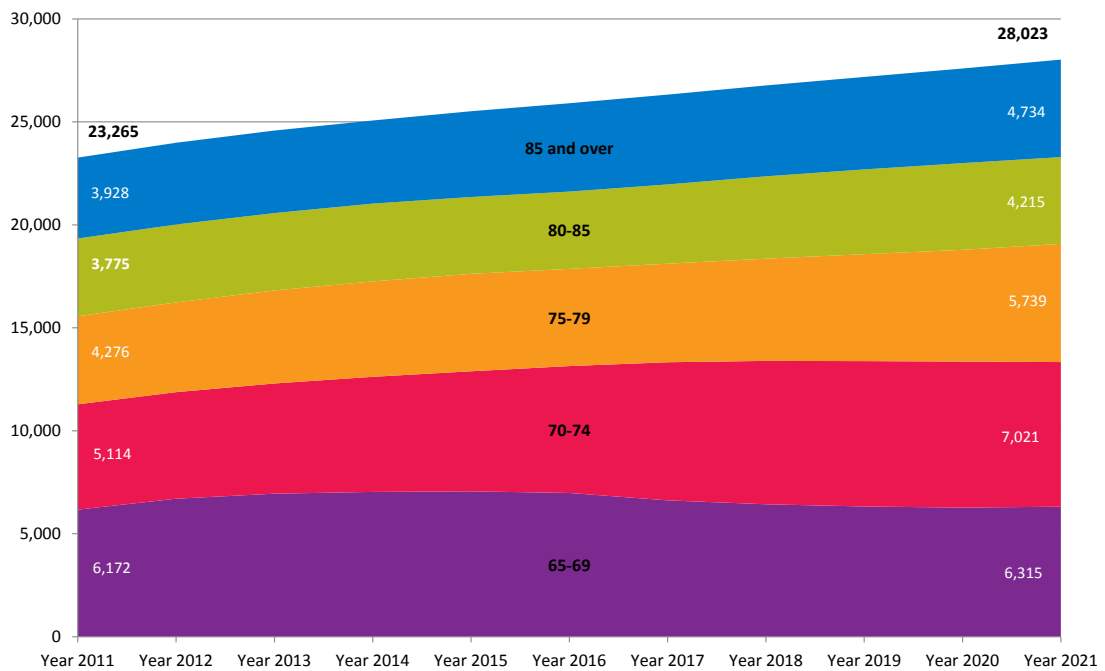
- 1.1 The following report describes the changes in age profile and life expectancy of the Wakley Sub-Locality over the period 2011/12 to 2020/21 and estimates the impact of these changes on health and social care service demand and cost.
- 1.2 Figure 1 shows the population profile of the locality by five-year age group for the years 2011 and 2021. By 2021 there will be an increase in the proportion of males and females aged 85 years and over (0.6% and 0.1% respectively). A contraction in the proportion of males and females in both the younger and middle-aged groups, most notably those aged between 20 and 29 and 40 and 49 years is anticipated. This pyramid can be used to indicate how the GP registered population profile is likely to change over the next ten years.

Figure 1: Population pyramid for the Wakley Sub-Locality of Devon for the years 2011 and 2021 by 5-year age group, males and females



- 1.3 Figure 2 shows that in absolute terms, over the period 2011 and 2021, the population of those aged 65 years and over residing in the locality will increase by 4758 persons (20.45%), which compares to the Eastern Locality increase of 22.4%. The 70 to 74 year age group increases by 1907 persons over this period, the greatest percentage increase within these age groups (37.3%).

Figure 2: Population estimates for the Wakley Sub-Locality of Devon for the years 2011 and 2021, persons 65 years and over by five-year age group

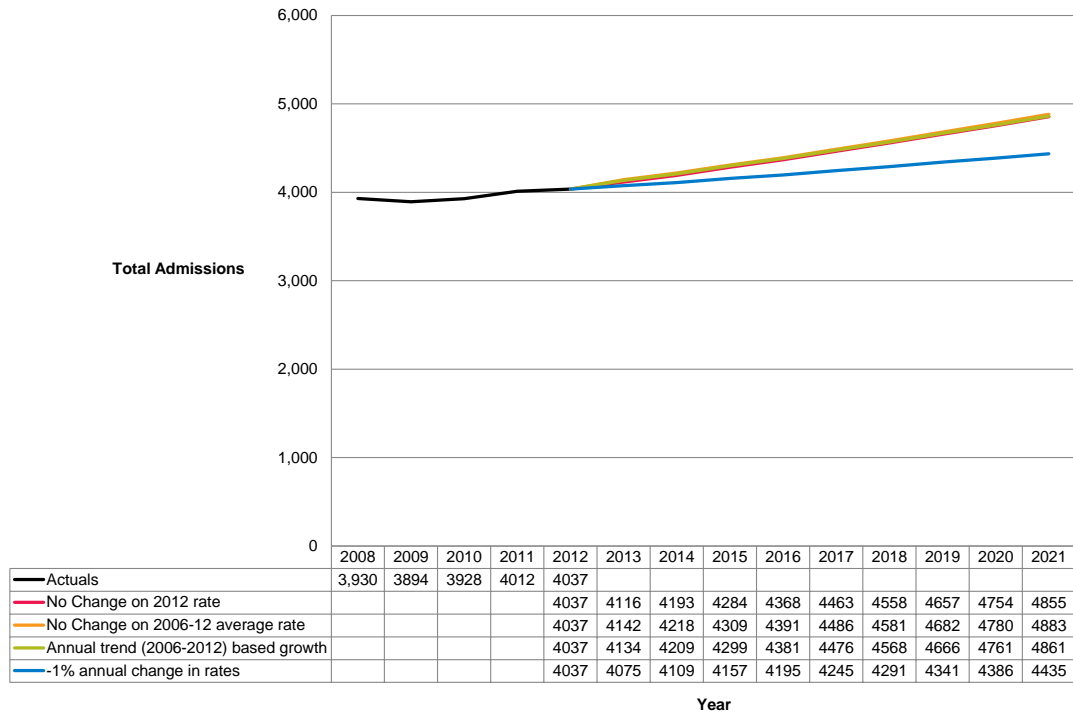


1.4 For the Wakley Sub-Locality, average life expectancy at birth (persons) is expected to increase by 2.1 years from 83.4 years in 2011 to 85.5 years in 2021. This compares to an increase for the Eastern Locality as a whole of 2.1 years from 82.7 years in 2011 to 84.8 years in 2021.

Emergency Admissions

1.5 Four scenarios have been used to estimate the future number of emergency admissions: (1) no change on the 2012 admission rate, (2) no change to the average admission rate for the period 2006-2012, (3) trend based growth-rate based on the period 2006-12 and (4) -1% annual change in admission rate from the 2012 baseline. Figure 3 illustrates the projected impact of population change (persons 65 years and over) in the Wakley Sub-Locality on emergency admissions using the four scenarios.

Figure 3: Emergency admissions, Wakley Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 years and over.



- 1.6 Based on the first three scenarios, the model projects an increase in emergency admissions of between 20.3% (818 admissions) and 21.0% (846 admissions). An annual reduction of -1% admissions, results in a net increase of 9.9% (398) admissions.
- 1.7 Based on 2012-13 payment by results tariffs, not adjusted for inflation, Table 1 shows the projected costs (thousands) of emergency admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (no change to 2006/12 average rate), costs could increase by 21.2% (£2,237,000) as a result of changes to the population aged 65 years and over. An annual reduction of -1% to the baseline rate over the period would result in costs increasing by 9.96% (£1,051,000).
- 1.8 An annual reduction of 2.03% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 1.9 Based on current average length of stay for emergency admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 6,100 additional bed-days would be required to accommodate the projected increase.

Table 1: Wakley Sub-Locality projected emergency admissions and costs under different scenarios, 2012-2021

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	6,536	£14,367	4,037	£10,548
2021 - Scenario 1: No Change on 2012 rate	7,464	£16,708	4,855	£12,696
2021 - Scenario 2: No Change on 2006-12 average rate	7,439	£16,665	4,883	£12,785
2021 - Scenario 3: Annual trend (2006-2012) based growth	7,472	£16,726	4,861	£12,711
2021 - Scenario 4: -1% annual change in rates	6,818	£15,266	4,435	£11,599

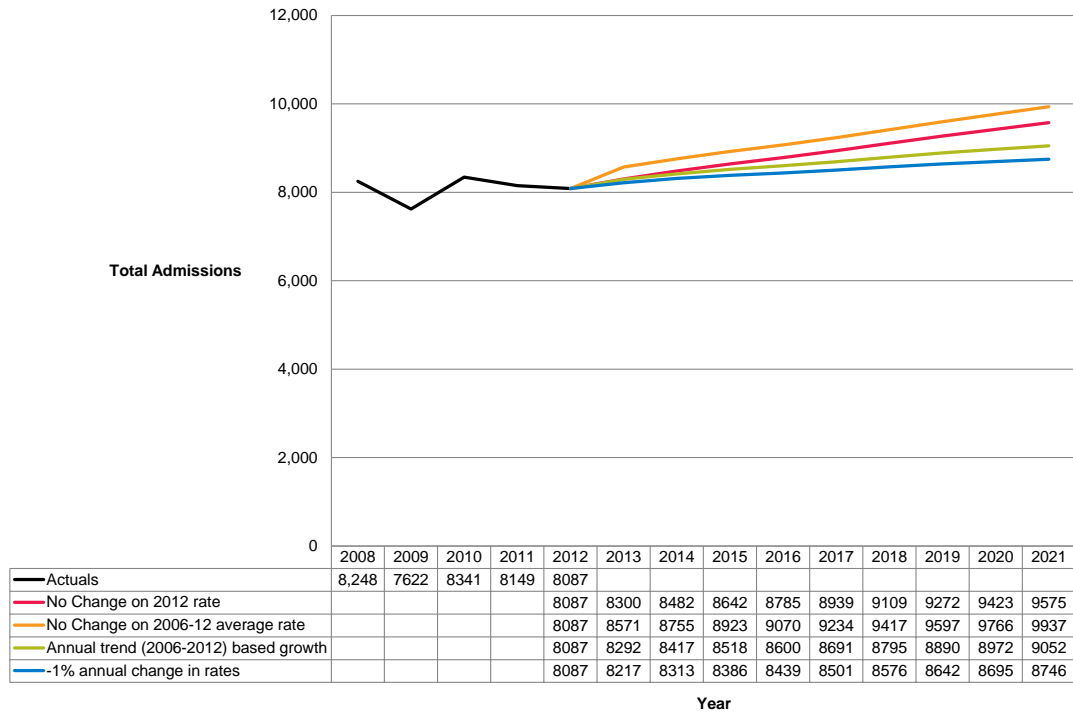
Emergency Admissions for Ambulatory Care Sensitive Conditions

- 1.10 Ambulatory Care Sensitive Conditions are those considered most preventable as a result of good quality primary care and secondary prevention (e.g. screening and monitoring). The following primary diagnoses were considered for these analyses: *coronary heart disease, angina, chronic obstructive pulmonary disease, asthma, dehydration and gastroenteritis, cellulitis, influenza, pneumonia and diabetes complications.*
- 1.11 Due to the smaller number of admissions involved for these admission causes, sub-locality analyses are not reported.

Elective Admissions

- 1.12 Figure 4 illustrates the projected impact of population change (persons 65 years and over) in the locality on the number of elective admissions using the four scenarios.

Figure 4: Elective admissions, Wakley Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



1.13 Based on the first three scenarios, the model projects an increase in admissions of between 11.9% (965 admissions) based on the annual trend scenario and 22.9% (1850 admissions) based on no change to the 2006/12 average rate. An annual reduction of -1% admissions, results in a net increase of 8.15% (659 admissions).

1.14 Table 2 shows the projected costs (thousands) of elective admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (no change on the 2006/12 average rate), costs could increase by 22.3% (£2,386,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline rate -1% over the period would result in costs increasing by 8.2% (£877,000).

Table 2: Wakley Sub-Locality projected elective admissions and costs under different scenarios, 2012-2021

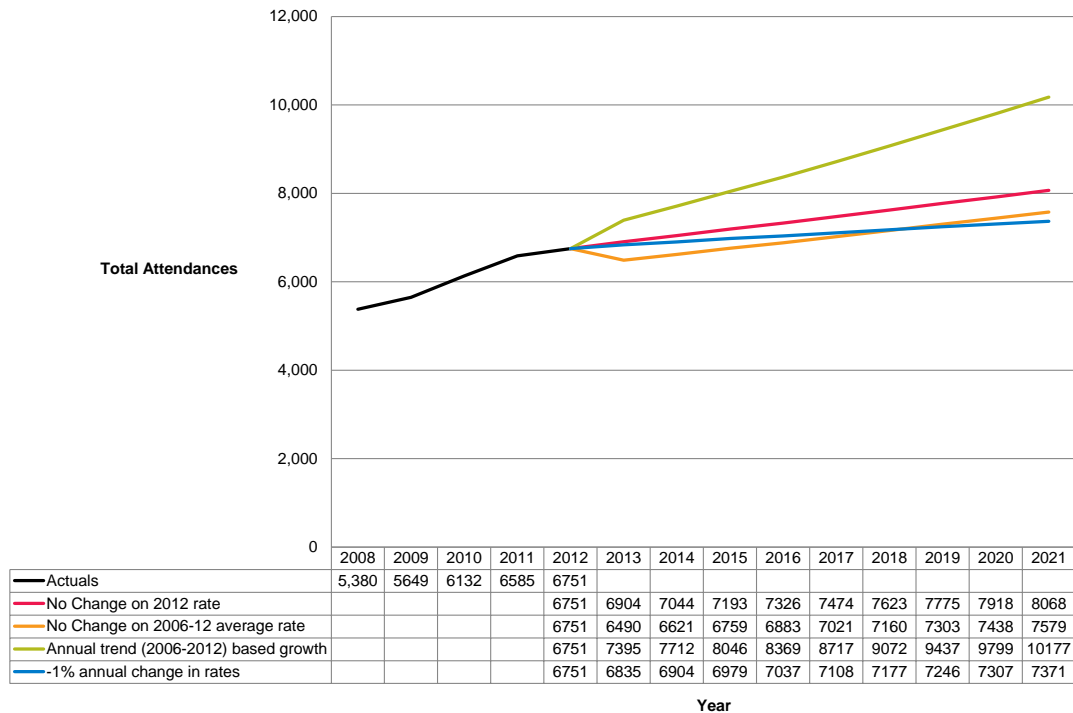
Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	15,057	£19,165	8,087	£10,692
2021 - Scenario 1: No Change on 2012 rate	16,940	£21,649	9,575	£12,665
2021 - Scenario 2: No Change on 2006-12 average rate	17,431	£22,173	9,937	£13,078
2021 - Scenario 3: Annual trend (2006-2012) based growth	16,015	£20,465	9,052	£11,973
2021 - Scenario 4: -1% annual change in rates	15,475	£19,775	8,746	£11,569

- 1.15 An annual reduction of 1.86% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 1.16 Based on current average length of stay for elective admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 1,000 additional bed-days would be required to accommodate the projected increase.

Accident and Emergency (A&E) / Minor Injury Unit Attendances (MIU)

- 1.17 Figure 5 illustrates the projected impact of population change (persons 65 years and over) in the Wakley Sub-Locality on A&E and MIU attendances using the four scenarios.

Figure 5: A&E and MIU attendances, Wakley Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 1.18 Based on the first three scenarios, the model projects an increase in attendances of between 12.3% (828 attendances) based on the no change to the 2006/12 average rate scenario and 50.7% (3426 attendances) based on trend. An annual reduction to the baseline attendance rate of -1%, results in a net increase of 9.18% (620 attendances).
- 1.19 Table 3 shows the projected costs (thousands) of A&E and MIU attendances for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 50.8% (£290,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline attendance rate of -1% emergency admissions over the period would result in costs increasing by 9.28% (£53,000).

Table 3: Wakley Sub-Locality projected A&E and MIU attendances and costs under different scenarios, 2012-2021

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	21,320	£1,646	6,751	£571
2021 - Scenario 1: No Change on 2012 rate	23,070	£1,788	8,068	£683
2021 - Scenario 2: No Change on 2006-12 average rate	22,567	£1,743	7,579	£641
2021 - Scenario 3: Annual trend (2006-2012) based growth	29,099	£2,255	10,177	£861
2021 - Scenario 4: -1% annual change in rates	21,074	£1,632	7,371	£624

1.20 An annual reduction of 1.87% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.

Social Care Costs (to Devon County Council)

1.21 Based on its financial assessment and benefit criteria Devon County Council funds a range of social care services, including residential and nursing care to eligible residents in the Wakley Sub-Locality of Devon. For included activity and limitations to these data, see 4.10.

1.22 Table 4 shows the average weekly spend in 2013 on persons aged 65 years and over and projects this spend against the estimated increase of persons in the age group shown at 2021. These data have not been modelled using alternative scenarios.

1.23 Costs in the 65 years and over age group are projected to increase by 17.63% (£27,405). The largest percentage increase (20.30%) equating to an additional cost of £9037 is observed in the 75 to 84 year age group.

Table 4: Wakley Devon Sub-Locality projected weekly spend for Devon County Council funded social care activities

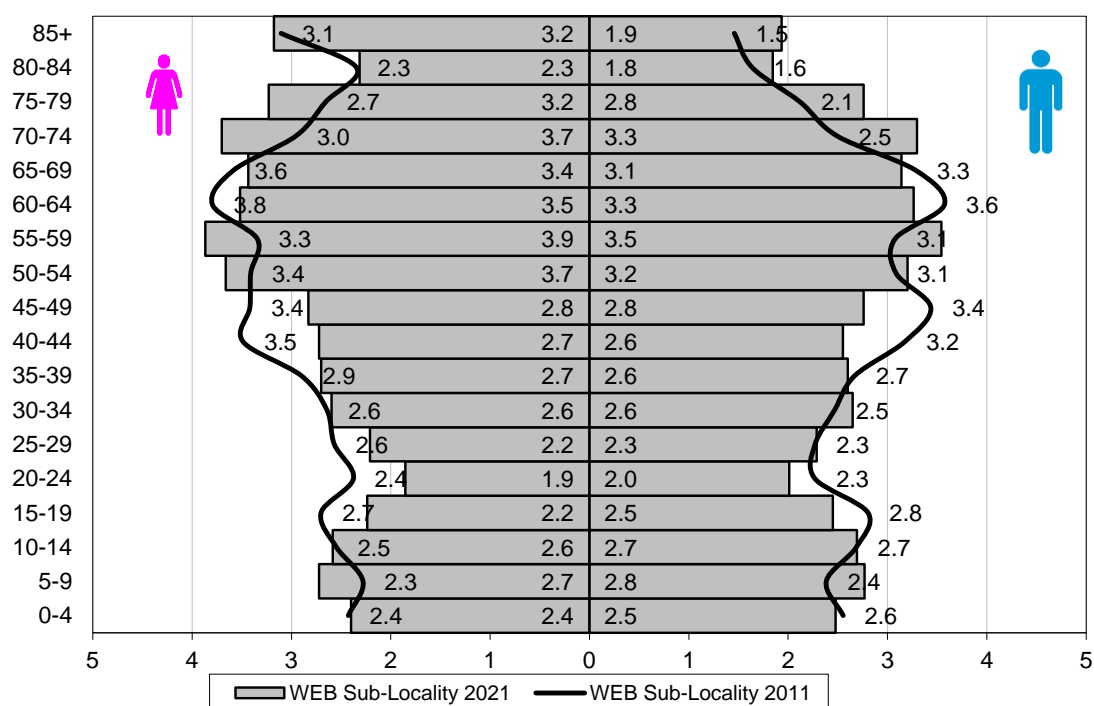
Age Group	Cost (£) in 2013	Predicted Cost (£) in 2021	% Increase
65 to 74	17,963.00	19,479.92	8.44
75 to 84	44,517.00	53,554.30	20.30
85 and over	92,939.00	109,790.15	18.13
Total 65+	155,419.00	182,824.37	17.63

APPENDIX 5

WEB Sub-Locality Report

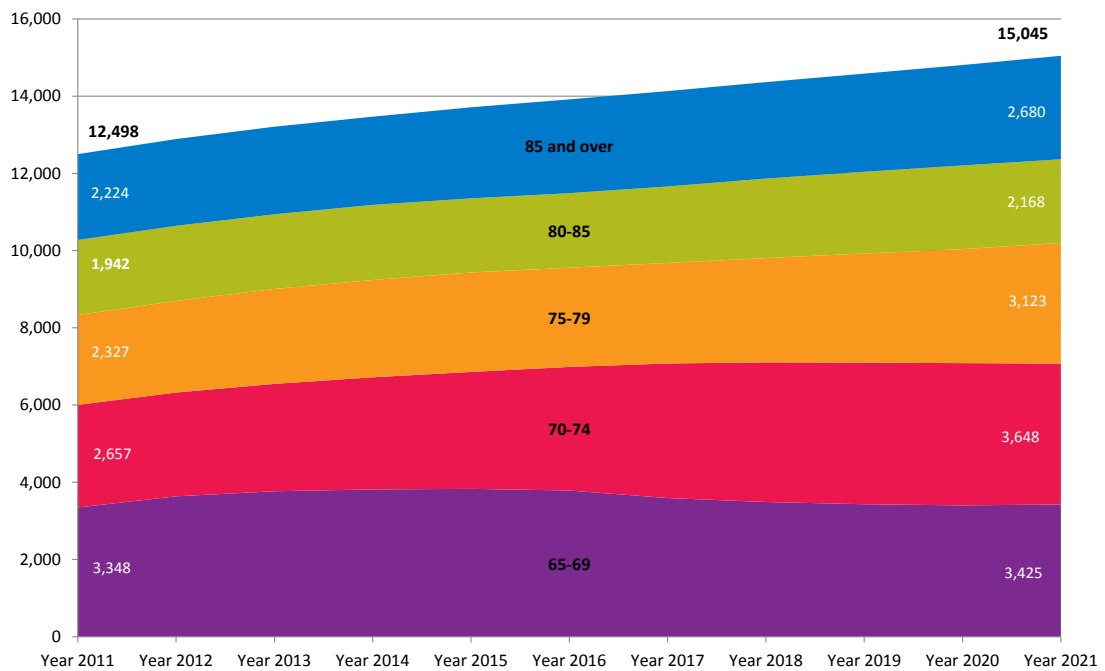
- 1.1 The following report describes the changes in age profile and life expectancy of the WEB Sub-Locality over the period 2011/12 to 2020/21 and estimates the impact of these changes on health and social care service demand and cost.
- 1.2 Figure 1 shows the population profile of the locality by five-year age group for the years 2011 and 2021. By 2021 there will be an increase in the proportion of males and females aged 85 years and over (0.4% and 0.1% respectively). A contraction in the proportion of males and females in both the younger and middle-aged groups, most notably those aged between 20 and 29 and 40 and 49 years is anticipated. This pyramid can be used to indicate how the GP registered population profile is likely to change over the next ten years.

Figure 1: Population pyramid for the WEB Sub-Locality of Devon for the years 2011 and 2021 by 5-year age group, males and females



- 1.3 Figure 2 shows that in absolute terms, over the period 2011 and 2021, the population of those aged 65 years and over residing in the locality will increase by 2547 persons (20.4%), which compares to the Eastern Locality increase of 22.4%. The 70 to 74 year age group increases by 991 persons over this period, the greatest percentage increase within these age groups (37.3%).

Figure 2: Population estimates for the WEB Sub-Locality of Devon for the years 2011 and 2021, persons 65 years and over by five-year age group

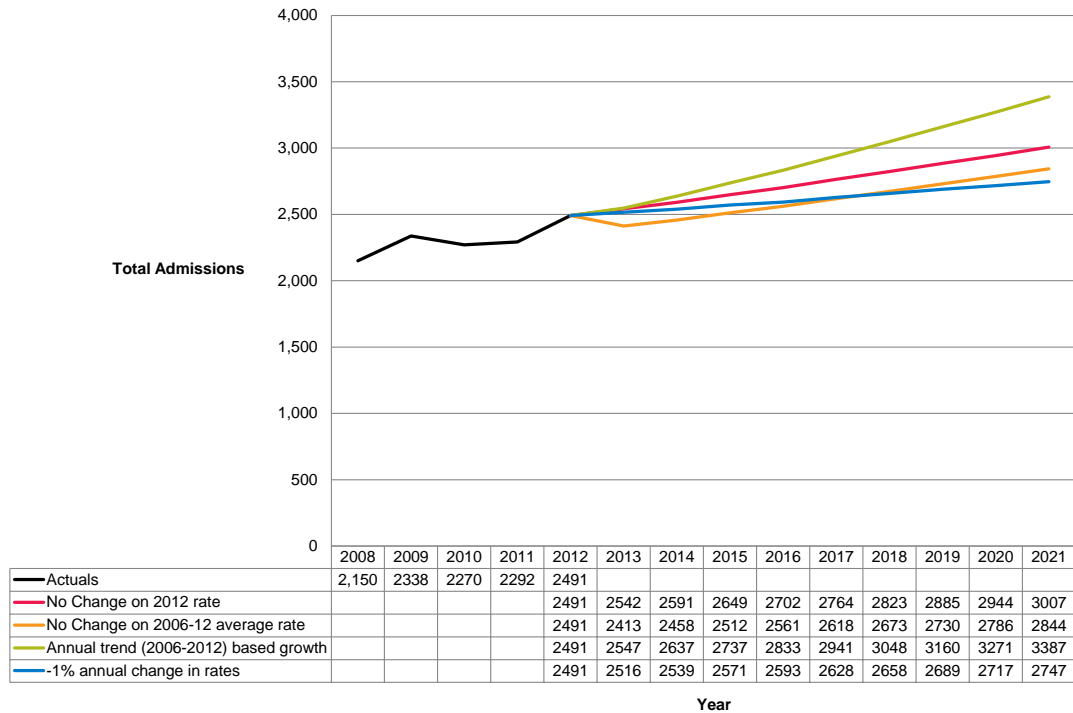


1.4 For the WEB Sub-Locality, average life expectancy at birth (persons) is expected to increase by 2.1 years from 83.0 years in 2011 to 85.1 years in 2021. This compares to an increase for the Eastern Locality as a whole of 2.1 years from 82.7 years in 2011 to 84.8 years in 2021.

Emergency Admissions

1.5 Four scenarios have been used to estimate the future number of emergency admissions: (1) no change on the 2012 admission rate, (2) no change to the average admission rate for the period 2006-2012, (3) trend based growth-rate based on the period 2006-12 and (4) -1% annual change in admission rate from the 2012 baseline. Figure 3 illustrates the projected impact of population change (persons 65 years and over) in the WEB Sub-Localities on emergency admissions using the four scenarios.

Figure 3: Emergency admissions, WEB Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 years and over.



- 1.6 Based on the first three scenarios, the model projects an increase in emergency admissions of between 14.2% (353 admissions) and 36.0% (896 admissions). An annual reduction of -1% admissions, results in a net increase of 10.3% (256) admissions.
- 1.7 Based on 2012-13 payment by results tariffs, not adjusted for inflation, Table 1 shows the projected costs (thousands) of emergency admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 36.1% (£2,337,000) as a result of changes to the population aged 65 years and over. An annual reduction of -1% to the baseline rate over the period would result in costs increasing by 10.3% (£670,000).
- 1.8 An annual reduction of 2.07% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 1.9 Based on current average length of stay for emergency admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 4,300 additional bed-days would be required to accommodate the projected increase.

Table 1: WEB Sub-Locality projected emergency admissions and costs under different scenarios, 2012-2021

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	4,508	£9,473	2,491	£6,481
2021 - Scenario 1: No Change on 2012 rate	5,113	£10,976	3,007	£7,827
2021 - Scenario 2: No Change on 2006-12 average rate	4,815	£10,365	2,844	£7,437
2021 - Scenario 3: Annual trend (2006-2012) based growth	5,759	£12,364	3,387	£8,818
2021 - Scenario 4: -1% annual change in rates	4,670	£10,027	2,747	£7,151

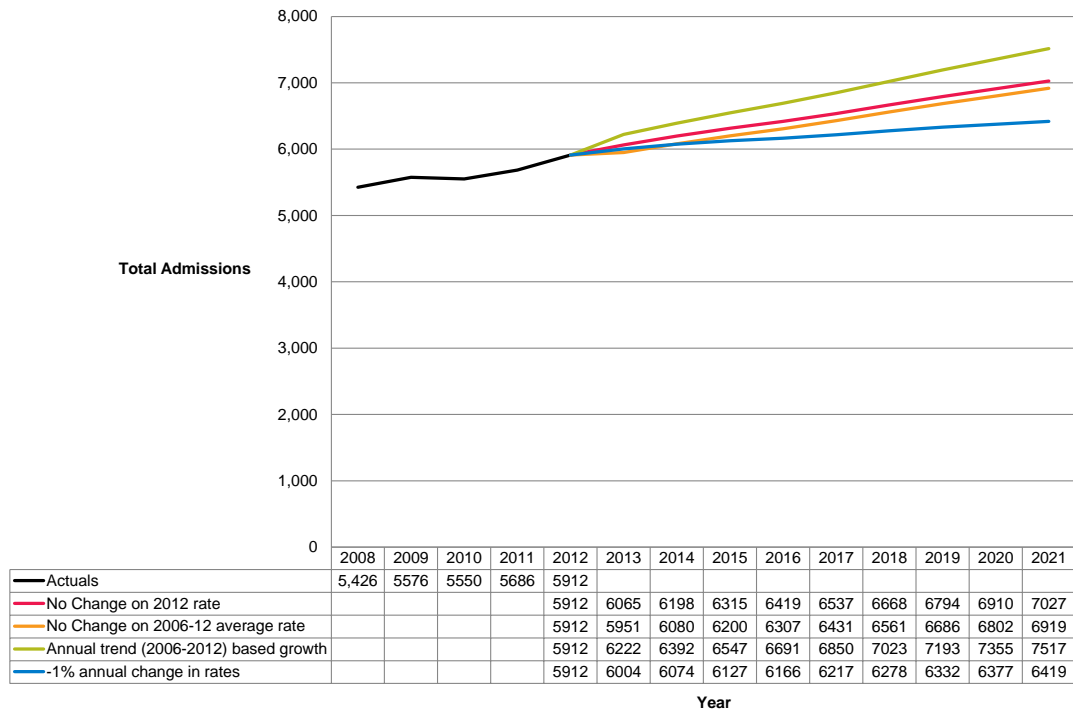
Emergency Admissions for Ambulatory Care Sensitive Conditions

- 1.10 Ambulatory Care Sensitive Conditions are those considered most preventable as a result of good quality primary care and secondary prevention (e.g. screening and monitoring). The following primary diagnoses were considered for these analyses: *coronary heart disease, angina, chronic obstructive pulmonary disease, asthma, dehydration and gastroenteritis, cellulitis, influenza, pneumonia and diabetes complications.*
- 1.11 Due to the smaller number of admissions involved for these admission causes, sub-locality analyses are not reported.

Elective Admissions

- 1.12 Figure 4 illustrates the projected impact of population change (persons 65 years and over) in the locality on the number of elective admissions using the four scenarios.

Figure 4: Elective admissions, WEB Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



1.13 Based on the first three scenarios, the model projects an increase in admissions of between 17.0% (1007 admissions) based on the no change to the 2006/12 average scenario and 27.0% (1605 admissions) based on annual trend based growth. An annual reduction of -1% admissions, results in a net increase of 8.6% (507 admissions).

1.14 Table 2 shows the projected costs (thousands) of elective admissions for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 27.2% (£2,124,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline rate -1% over the period would result in costs increasing by 8.62% (£673,000).

Table 2: WEB Sub-Locality projected elective admissions and costs under different scenarios, 2012-2021

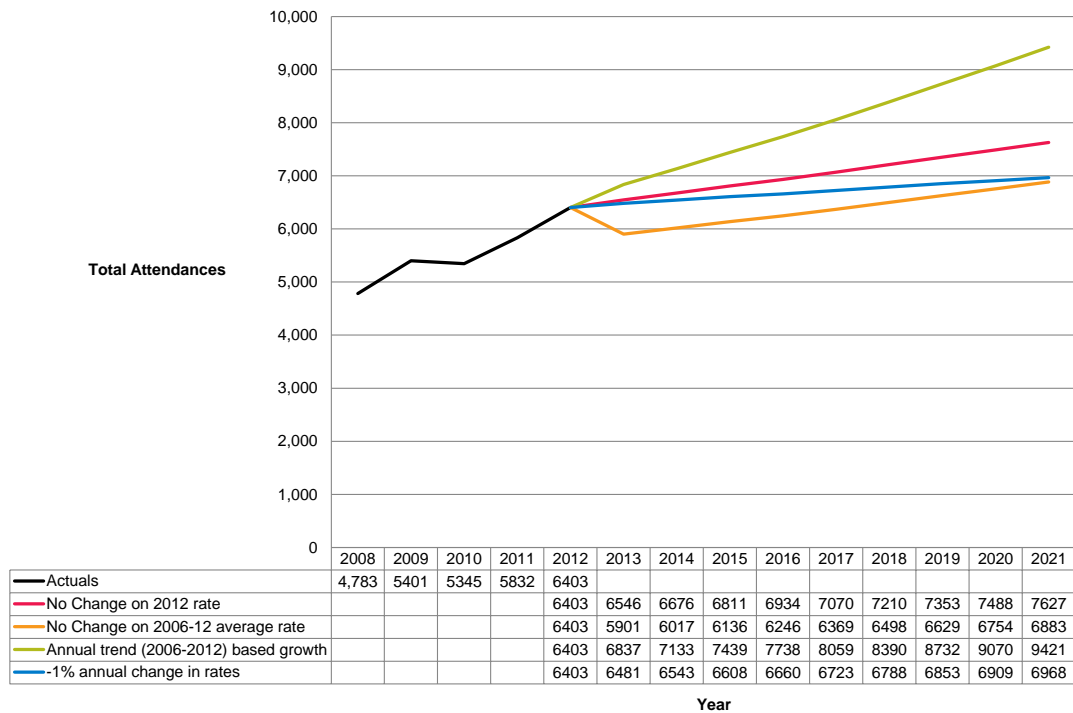
Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	11,702	£14,785	5,912	£7,809
2021 - Scenario 1: No Change on 2012 rate	13,209	£16,755	7,027	£9,287
2021 - Scenario 2: No Change on 2006-12 average rate	13,029	£16,447	6,919	£9,099
2021 - Scenario 3: Annual trend (2006-2012) based growth	14,131	£17,923	7,517	£9,933
2021 - Scenario 4: -1% annual change in rates	12,067	£15,305	6,419	£8,482

- 1.15 An annual reduction of 1.90% in age specific admission rates would be required to maintain admission levels in over 65s at the 2012 baseline.
- 1.16 Based on current average length of stay for elective admissions in persons aged 65 and over, and the average admission growth rate of the four scenarios to the year 2021, 900 additional bed-days would be required to accommodate the projected increase.

Accident and Emergency (A&E) / Minor Injury Unit Attendances (MIU)

- 1.17 Figure 5 illustrates the projected impact of population change (persons 65 years and over) in the WEB Sub-Locality on A&E and MIU attendances using the four scenarios.

Figure 5: A&E and MIU attendances, WEB Sub-Locality projections 2011 to 2021, projected growth under different scenarios, persons aged 65 and over



- 1.18 Based on the first three scenarios, the model projects an increase in attendances of between 7.50% (480 attendances) based on the no change to the 2006/12 average rate scenario and 47.1% (3018 attendances) based on trend. An annual reduction to the baseline attendance rate of -1%, results in a net increase of 8.80% (565 attendances).
- 1.19 Table 3 shows the projected costs (thousands) of A&E and MIU attendances for all ages and persons 65 years and over in 2021. Based on the worst case scenario (trend), costs could increase by 47.1% (£255,000) as a result of changes to the population aged 65 years and over. An annual reduction to the baseline attendance rate of -1% emergency admissions over the period would result in costs increasing by 8.87% (£48,000).

Table 3: WEB Sub-Locality projected A&E and MIU attendances and costs under different scenarios, 2012-2021

Scenario	All Ages		65 and over	
	Admissions	Costs (thousands)	Admissions	Costs (thousands)
2012 - Baseline	21,212	£1,630	6,403	£541
2021 - Scenario 1: No Change on 2012 rate	22,863	£1,765	7,627	£646
2021 - Scenario 2: No Change on 2006-12 average rate	21,828	£1,683	6,883	£584
2021 - Scenario 3: Annual trend (2006-2012) based growth	28,240	£2,180	9,421	£796
2021 - Scenario 4: -1% annual change in rates	20,885	£1,611	6,968	£589

1.20 An annual reduction of 1.93% in age specific attendance rates would be required to maintain attendance levels in over 65s at the 2012 baseline.

Social Care Costs (to Devon County Council)

1.21 Based on its financial assessment and benefit criteria Devon County Council funds a range of social care services, including residential and nursing care to eligible residents in the WEB Sub-Locality of Devon. For included activity and limitations to these data, see 4.10.

1.22 Table 4 shows the average weekly spend in 2013 on persons aged 65 years and over and projects this spend against the estimated increase of persons in the age group shown at 2021. These data have not been modelled using alternative scenarios.

1.23 Costs in the 65 years and over age group are projected to increase by 17.68% (£18,400). The largest percentage increase (20.51%) equating to an additional cost of £6006 is observed in the 75 to 84 year age group.

Table 4: WEB Sub-Locality projected weekly spend for Devon County Council funded social care activities

Age Group	Cost (£) in 2013	Predicted Cost (£) in 2021	% Increase
65 to 74	11,519.75	12,443.55	8.02
75 to 84	29,287.50	35,293.56	20.51
85 and over	63,261.00	74,731.11	18.13
Total 65+	104,068.25	122,468.22	17.68