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Cabinet – Supplementary agenda

A meeting of the Cabinet will be held on:	
Date:	7 September 2010
Time:	3.00pm
Venue:	Meeting Room 2 - Level 3, Gun Wharf, Dock Road, Chatham ME4 4TR

Items

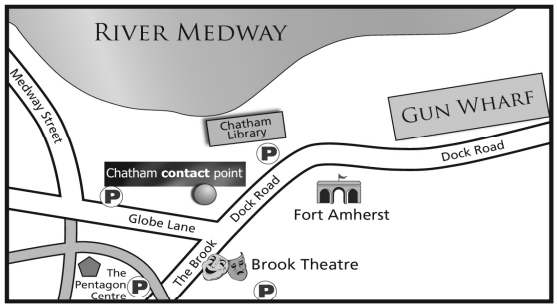
4. Investing in Health: Annual Public Health Report 2009/2010 **(Pages 1 - 280)**

A copy of the Annual Public Health Report is attached.

For further information please contact Wayne Hemingway/Anthony Law, Cabinet Coordinators on Telephone: 01634 332509/332008 or Email: democratic.services@medway.gov.uk

Date: 27 August 2010

Please note that parking is available at Gun Wharf from 5pm



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If you have any questions about this meeting and you want to speak to someone in your own language please ring **01634 335577**

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Medway Council
Serving You

NHS Medway

Investing for Health

The Annual Public Health Report of
The Director of Public Health 2009/10

Foreword

This year's Public Health Report is themed on programme budgeting. This aims to answer three fundamental questions for NHS Medway and its partners:

- How do we spend our money?
- What outcomes do we achieve?
- How does this compare with our peers?

These questions have always been important for commissioners but are even more relevant in the current economic climate which will cause significant pressures on NHS and other public sector budgets for many years. Commissioners will need to make explicit prioritisation decisions in order to invest in the most cost effective interventions and disinvest in the least cost effective. Approaches as outlined in this report will help in informing these decisions. Investigating the relationship between investment and health outcomes is perhaps more of an art than a science not least because of the limitations of some of the routine data sets in particular the programme budgeting data. However if the quality of data is to be improved then it needs to be used and understood locally by those who provide it.

In the report we have focused on the programme budgeting categories which align most closely with the strategic priorities identified by NHS Medway in the Strategic Commissioning Plan. Many of the programme budgeting categories have common preventative needs. These are brought together in the chapter on Choosing Health which also summarises the latest evidence on the cost effectiveness of public health programmes.

The chapters also map onto the areas of work being led through the Strategic Change Groups which involve commissioners from NHS Medway and Medway Council as well as providers and primary and secondary care clinicians. I hope that this report will be useful to all those engaged in delivering the Strategic Commissioning Plan and welcome feedback on its contents.

Finally I would like to thank all those who have contributed to this report in particular Dr Maggie Bruce and Gerri Chant for co-ordinating its production.

Dr Alison Barnett
Director of Public Health
NHS Medway and Medway Council
April 2010.

Contributors

Amy Bird, Dr Maggie Bruce, Katrina Brown, Emma Burns, Dr Julia Duke-MacRae, Sam Fox, Aeilish Geldenhuys, Sally-Ann Ironmonger, Nicky Ling, Karen MacArthur, Allan Pau, Natasha Roberts, Jinny Robinson, Dr Ben Tang, Dave Trudinger, Julia Thomas, James Westwood, Kent & Medway Public Health Observatory, Public Health Specialty Registrars from across Kent and Medway.

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Chapter 1: Introduction

This year Medway's Annual Public Health Report is themed on programme budgeting. Programme budgeting is a national initiative that enables NHS organisations to identify spend by 23 key categories, the majority of which are based on groups of conditions or diseases. Comparing spend in each category, the services the people of Medway utilise, and their health outcomes, enables an assessment of what is being achieved with the money that is spent. NHS Medway (Medway Primary Care Trust) can then make decisions about whether the level of investment is appropriate across the categories and make adjustments where necessary to ensure maximum health gain for the local population.

Of the 23 programme budgeting categories, 17 are related to specific disease groups, two to stages of life, one to adverse effects, one to spend on healthy lifestyles, another to spend on social care need and the final is a miscellaneous 'other' category. Several of the main categories e.g. cancer and tumours, mental health disorders and problems of circulation have a number of sub categories. This report will focus on the 13 categories which relate most closely to NHS Medway's strategic change programmes.

Calculation of programme budgets

Programme budgeting guidance is issued annually by the Department of Health for primary care trusts (PCTs) which commission services, and provider organisations which provide them.[1,2] Provider organisations include hospital trusts and community services.

Each provider organisation calculates how much it costs to provide its services. The main basis of this calculation are the costs to the provider to perform specified treatments (these are called reference costs). The reference costs are mapped to programme budgeting categories as stipulated by national guidance. Providers then inform all appropriate commissioners of their share of these costs.

The data submitted by the providers cover three main areas.

a) Patients admitted into hospital - admitted patient care (APC)
b) Patients not admitted into hospital - non admitted patient care (NAPC)
c) Generic data not traceable to a specific PCT e.g. direct access radiology

Any costs that are unable to be classified, e.g. overheads are apportioned to the 23 categories based on actual costs. The 'other' category includes expenditure that is not attributable to any of the other categories.

Each commissioner then collates the provider information along with expenditure on other services it commissions such as general practice and dentistry.

The commissioner also has to split the spend in each programme budgeting category between primary and secondary care. There is no universally agreed definition of what is 'primary' and 'secondary' care. The pragmatic definition used is who provides the care, so that primary care spend would include:

- General practice, dentists, optometrists
- Pharmacies
- Prescriptions[a]
- All community work where the PCT carries out the activity via its provider arm (in the case of Medway this would be Medway Community Healthcare)

Secondary services would include:

- Ambulance services
- Hospital services

The resultant programme budget, which is the spending on services commissioned by the PCT, is then sent to the Department of Health.

Strategic change programmes

NHS Medway has established 16 strategic change programmes to lead the changes required to deliver the strategic commissioning strategy within the health economy.

Table 1 shows how the programme budgeting categories and chapters relate to some of these groups.

[a] Details of how drug costs are attributed to the programme budgeting categories are included as an appendix on the NHS Medway website
http://www.medwaypct.nhs.uk/publications

Table 1: Medway strategic change programmes and programme budgeting categories

Programme budgeting category	Related strategic change programme	Chapter title
01 Infectious diseases		Infectious diseases
02 Cancers and tumours	Cancer	Cancer and tumours
03 Disorders of blood		
04 Endocrine, nutritional and metabolic problems	Diabetes	Diabetes
05 Mental health disorders	Substance misuse Adult mental health Children Older people	Mental health disorders
06 Problems of learning disability	Learning disability	Problems of learning disability
07 Neurological	Long term conditions	Neurological disorders
08 Problems of vision		
09 Problems of hearing		
10 Problems of circulation	Coronary heart disease Stroke	Problems of circulation
11 Problems of the respiratory system	Long term conditions	Problems of the respiratory system
12 Dental problems		Dental problems
13 Problems of the gastro intestinal system		
14 Problems of the skin		
15 Problems of the musculoskeletal system		
16 Problems due to trauma and injuries		
17 Problems of genito urinary system	Renal*	Renal problems
18 Maternity and reproductive health	Maternity	Maternity and reproductive health
19 Conditions of neonates	Children	Conditions of neonates
20 Adverse effects and poisoning		
21 Healthy individuals	Choosing health	Choosing health
22 Social care needs		
23 Other		

*This group covers the whole of the South East Coast (SEC) Strategic Health Authority (SHA) area not just NHS Medway.

Background and caveats

It should be considered that in 2008/09 NHS Medway received 3.5% below its capitation funding target and so relatively low spends may have been due to lack of monies to invest rather than a decision to not invest.

2008/09 was the sixth year that programme budgets were collected from the NHS. Annual refinements to programme budgeting data collection have been implemented since the first collection in order to improve date quality. Year on year comparisons are not straight forward due to changes in the way activity is coded and reference costs are calculated. This may then affect allocation of costs to programme budgeting categories from one year to the next.[3]

However, one of the key purposes of programme budgeting is to enable PCTs to benchmark their spend against similar PCTs. Between years spending may be constant in Medway for a category, but changes in spend or allocation of spend (e.g. between primary and secondary care) in comparator areas may make it appear that Medway's spend is out of step with other areas and might need to be adjusted. It is also possible that spend may change from one year to the next because of unplanned fluctuations in activity. This can affect comparisons and suggest a need for a possible adjustment in spend when this is unlikely to be required.

Therefore, trends of spend are not included in the individual chapters of this report. However a discussion of the issues of trend with examples is included at the end of this chapter.

Programme budgeting figures should be considered to be best estimates of the actual spend on the categories. Before adjustments are made in category spend there is a need to understand any recent changes that have occurred in services with detailed analysis of the finance, activity and outcomes achieved.

Comparators

The programme budgeting toolkit allows comparison with other similar PCTs. This report uses 'New and Growing towns – subgroup A' as our comparator cluster. Within this cluster are eight other PCTs:

- East & North Hertfordshire PCT
- Peterborough PCT
- South West Essex Teaching PCT
- West Essex PCT
- Bexley PCT
- Havering PCT
- Milton Keynes PCT
- Swindon PCT

Spend in Medway in 2008/09

Table 2 presents spend per 100,000 unified weighted population[b] for the 23 programme budgeting categories for NHS Medway, the cluster and England averages. Overall NHS Medway spent slightly less on all 23 programmes than the cluster and England average. The largest spend was for the 'other' category, followed by mental health disorders, problems of circulation and then cancers and tumours. This pattern was the same as the cluster average and England as a whole.

Table 2: Spend per 100,000 unified weighted population by programme budgeting category 2008/09

	Spend per 100,000 unified weighted population (£)		
Programme Budgeting Category	**NHS Medway**	**Cluster average**	**England average**
01 Infectious diseases	1,569,447	1,523,926	2,345,644
02 Cancers and tumours	9,535,393	9,076,176	9,455,005
03 Disorders of blood	2,077,458	1,848,053	1,950,212
04 Endocrine, nutritional and metabolic	4,462,521	4,350,816	4,339,455
05 Mental health disorders	14,450,465	17,263,381	19,121,515
06 Problems of learning disability	5,222,342	5,426,135	5,611,091
07 Neurological	6,783,739	6,294,782	6,767,417
08 Problems of vision	3,314,467	3,617,465	3,295,434
09 Problems of hearing	868,441	592,511	815,757
10 Problems of circulation	11,626,091	11,416,883	12,993,582
11 Problems of the respiratory system	6,125,908	6,713,510	7,796,769
12 Dental problems	7,313,571	6,432,989	6,243,572
13 Problems of gastro intestinal system	6,949,823	7,444,071	7,788,606
14 Problems of the skin	4,336,031	3,133,058	3,234,375
15 Problems of musculo skeletal system	7,675,650	7,106,399	7,969,542
16 Problems due to trauma and injuries	7,159,938	6,062,194	6,354,238
17 Problems of genito urinary system	6,679,383	6,788,442	7,377,513
18 Maternity and reproductive health	4,647,774	6,576,483	6,044,223
19 Conditions of neonates	1,943,578	1,757,623	1,722,642
20 Adverse effects and poisoning	1,539,737	1,624,349	1,831,307
21 Healthy individuals	4,021,186	3,561,576	3,574,482
22 Social care needs	3,275,360	2,616,854	3,650,616
23 Other	24,891,368	26,357,723	22,770,624
All	**146,469,670**	**147,585,397**	**153,053,619**

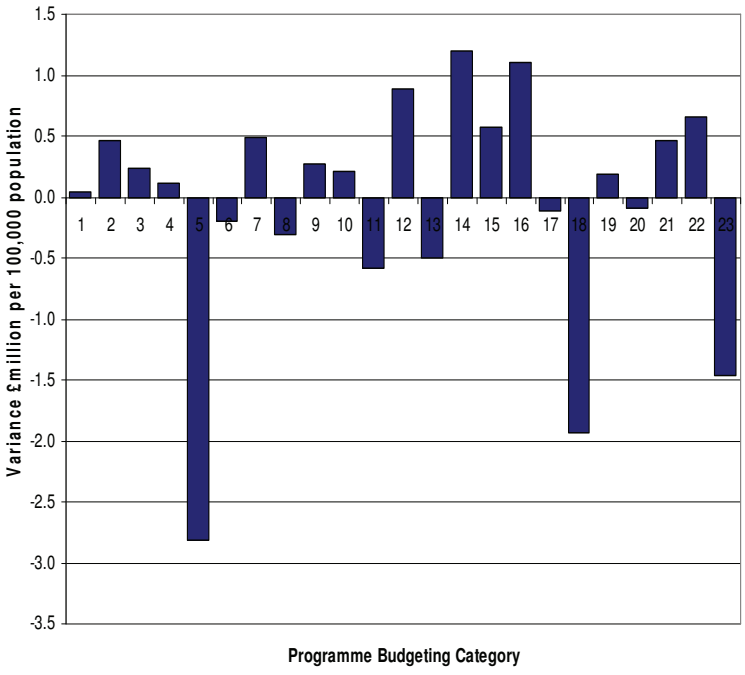
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

b The unified weighted population is the PCT responsible population adjusted using the national weighted capitation formula, for the age structure of the population, its additional need over and above that accounted for by age, and the unavoidable geographical variations in the costs of providing services.

Figure 1 presents the variance in spending between NHS Medway and the cluster average in the main programme budgeting categories. Bars above the line represent categories where NHS Medway is spending more than the cluster average and those below are where NHS Medway spends less. These are indicators of how NHS Medway compares to similar PCTs, and the changes in investment that would be required to bring NHS Medway in line with the cluster average. However it has to be considered that although the cluster represents similar areas, there may remain differences in populations which may impact on need and consequently the required level of spend to meet that need. Also, not every PCT in the cluster may be spending at the appropriate level for the population, impacting on the validity of the average as a comparator.

In 14 categories, NHS Medway spends more than the cluster average per 100,000 population and in nine, it spends less. The greatest variance is for mental health disorders (over £2.8 million per 100,000 population below the cluster average), followed by maternity and reproductive health (just under £2 million per 100,000 population below the cluster average).

Figure 1: Variance of NHS Medway spend per 100,000 population from cluster average for main categories



Programme budgeting categories

01 Infectious diseases
02 Cancers and tumours
03 Disorders of blood
04 Endocrine, nutritional and metabolic problems
05 Mental health disorders
06 Problems of learning disability
07 Neurological
08 Problems of vision
09 Problems of hearing
10 Problems of circulation
11 Problems of the respiratory system
12 Dental problems
13 Problems of the gastro intestinal system
14 Problems of the skin
15 Problems of the musculo skeletal system
16 Problems due to trauma and injuries
17 Problems of genito urinary system
18 Maternity and reproductive health
19 Conditions of neonates
20 Adverse effects and poisoning
21 Healthy individuals
22 Social care needs
23 Other

Source: Department of Health Programme Budgeting Toolkit v 1.0, 20

Programme budget spend and outcomes

The Yorkshire and Humberside Public Health Observatory has developed PCT Spend and Outcome Tools (SPOT) which bring together outcomes and spend for the different programme budgeting categories. Using the mean health outcome score and spend, each depicts how far from the national average the programme is for spend and outcomes using a standard z score. The z score measures how far away and in what direction the programme budget deviates (measured by a standard deviation) from the mean. In this case the mean (average) for England. The pink dotted line shows one standard deviation from the England average, and the solid pink line two deviations from the England average. A programme lying outside the solid pink +/- 2 z scores box indicates that the outcome and/or expenditure are significantly different from the England average i.e. that the differences are very likely to be real and not as a result of chance. The results for Medway are shown in Figure 2. The outcome indicators used in this diagram are listed in Table 3.

Figure 2: Outcomes and spend data, NHS Medway, relative to other PCTs in England, 2008/09

◇ No outcome indicators readily available
♦ Outcome indicators available

Programme Area Abbreviations					
Infectious diseases	Inf	Hearing	Hear	Disorders of blood	Blood
Cancers and tumours	Canc	Circulation	Circ	Maternity	Mat
Respiratory system	Resp	Mental health	MH	Neonates	Neo
Endocrine, nutritional and metabolic	End	Dental	Dent	Neurological	Neuro
Genito urinary system	GU	Gastro intestinal system	Gastro	Healthy individuals	Hlth
Learning disabilities	LD	Musculoskeletal	Musc	Social care needs	Soc
Adverse effects and poisoning	Pois	Trauma and injuries	Trauma	Problems of the skin	Skin

Source: Yorkshire and Humber Public Health Observatory, 2010

Table 3: Health outcome indicators used in Figure 2

Programme budgeting category	Health outcome indicator
Infectious diseases	Mortality from infectious and parasitic diseases
Cancers and tumours	Mortality from all cancers, under 75 years
Endocrine, nutritional and metabolic problems	% of diabetic patients whose last HbA1c was 7.5 or less
Mental health disorders	% of patients on enhanced Care Programme Approach receiving follow up within 7 days of discharge
Neurological	Mortality from epilepsy, under 75 years
Problems of vision	Total sight tests per 10,000 population
Problems of circulation	Mortality from all circulatory diseases, under 75 years
Problems of respiratory system	Mortality from bronchitis and emphysema and chronic obstructive pulmonary disease, under 75 years
Dental problems	Decayed, missing and filled teeth 5 years
Problems due to trauma and injury	Mortality from accidents
Problems of genito urinary system	% of patients on chronic kidney disease register who have a blood pressure measured under 140/85
Maternity and reproductive health	% of low birth weight births (live and still) < 2500 gms
Conditions of neonates	Neonatal infant mortality per 1,000 births

Source: Yorkshire and Humber Public Health Observatory, 2010

None of the Medway programme budgeting categories has a score significantly different (a z score +/-2) to the national average. This suggests that for the majority of programmes, Medway is within the expected ranges for the country for both spend and outcomes. However, using the national average means that the comparisons of spend may not take into account fully any differing levels of need in Medway that could impact on the required level of spend and the validity of the comparison.

There are a number of categories which, although are not significantly different, have a z score of +/-1 or more. This means that the differences between the spend and outcome measures in Medway compared to those in England as a whole may be as a result of chance and not a true difference. However, it could suggest a need for further exploration to measure the extent of the differences.

Mental health and respiratory problems feature in the bottom left section of Figure 2. This means that in Medway less money is spent on them and they have worse associated outcomes than the national average. This could suggest a need for further exploration to assess whether greater investment or a change in the pattern of investment could result in better outcomes for the population.

The maternity, infectious diseases and genito urinary system programmes feature in the top left section of Figure 2. This means that there is less money spent on these categories than the national average, but there are better outcomes than found in England as a whole. The infectious diseases and genito urinary system have only a slightly lower amounts of money spent on them than the national average. This could suggest the need for an exploration of how the lower spending impacts on outcomes other than those featured.

The dental programme features in the upper right section of Figure 2 where better outcomes are being achieved that the national average. However this programme also has a higher level of spending in Medway than the national average. Further exploration could look at identifying whether similar outcomes could be achieved for a spend more similar to the national average.

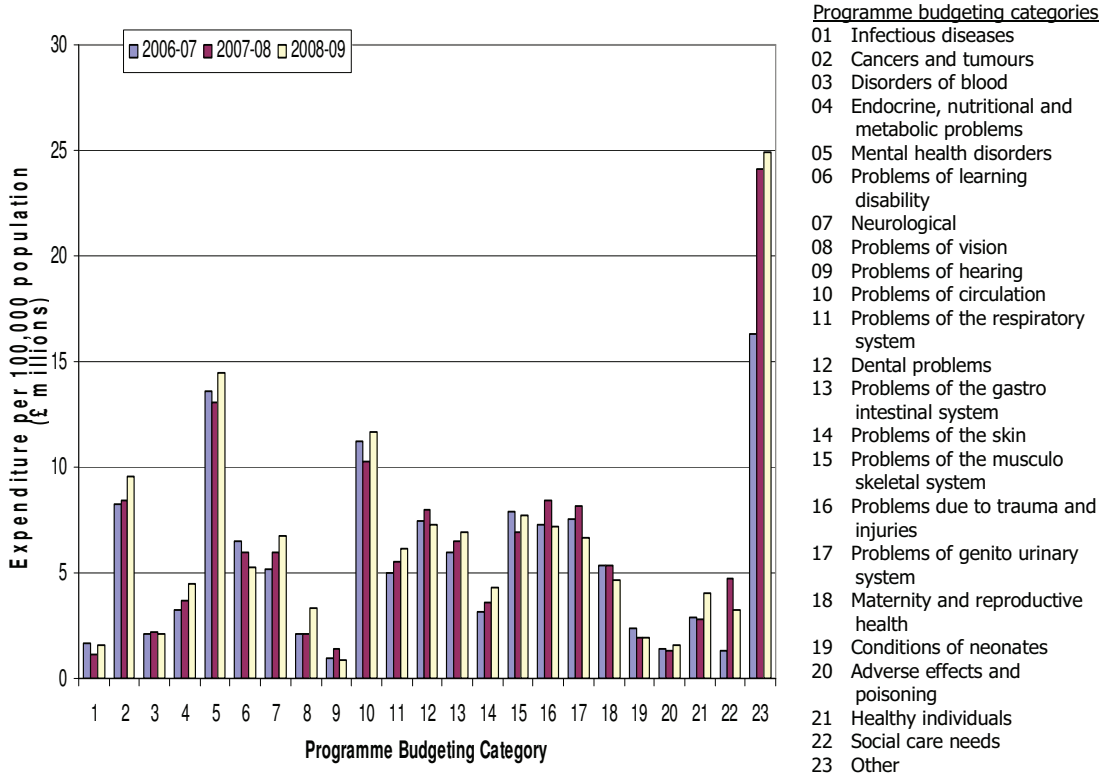
Finally, problems of skin category has more money spent on it than the national average. There are no outcome measures available to assess whether the money is achieving good results. The level of spending is almost statistically significantly higher than the national average, which would suggest that this is a true difference and not as a result of chance. This higher spend should be further explored with information about local activity and outcomes.

Comparisons to previous years

Figure 3 presents the changes in reported spend by main category for the last three financial years. The level of spend varies by year. Some of the changes in spending will be explained by the changes in the coding of activity and the allocation of reference costs. For example, between 2007/08 and 2008/09, there were changes in the methodology for allocating the different types of activity and for allocating costs between the subcategories in the mental health disorders and infectious diseases.

The biggest change in spend has been for the 'other' category. For mental health disorders and problems of circulation, the second and third highest spending categories, there was a decrease from 2006/07 to 2007/08 but an increase in spending for 2008/09. The fourth highest spending category, Cancer and tumours, has seen an increase each year.

Figure 3: NHS Medway spend (£millions) per 100,000 population by year



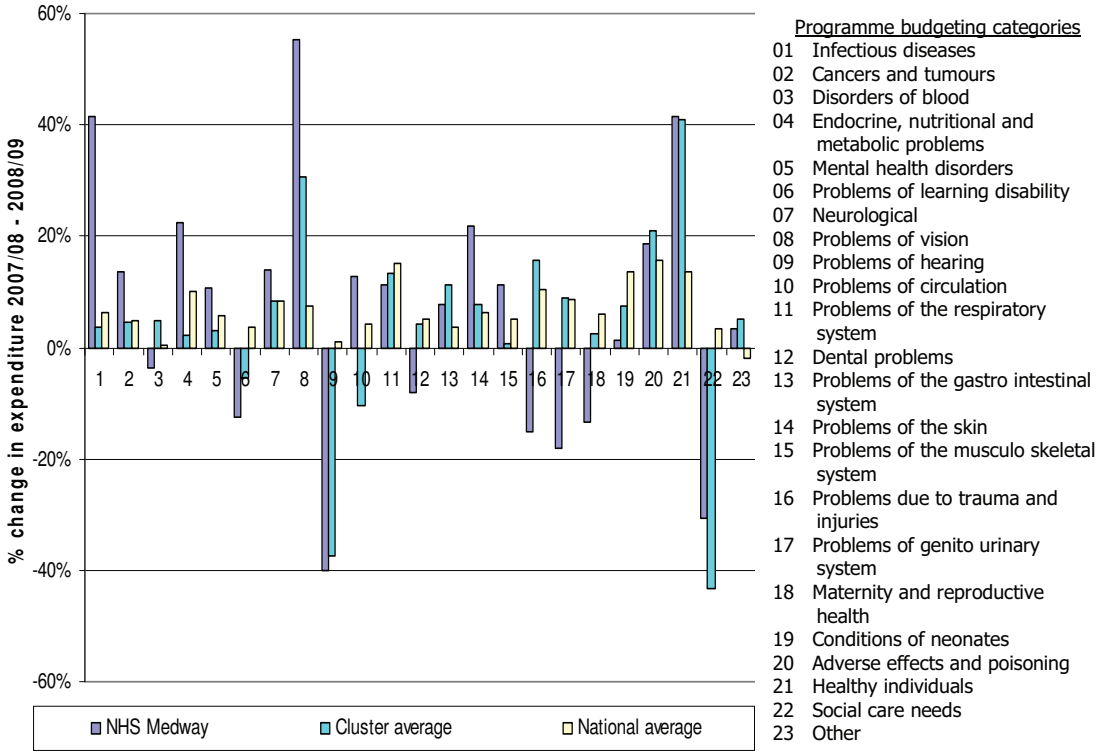
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 4 presents the change in percentage funding for each of the main categories between 2007/08 and 2008/09 for NHS Medway, the cluster average and the national average. This shows that there is fluctuation in all

of the categories for the cluster average and the national average as well as for NHS Medway. In some categories, e.g. adverse effects and poisoning (20) and neurological (7), there is a similar proportional change for all three areas. In other categories, such as problems of hearing (9) and maternity and reproductive health (18), the percentage changes are negative for one or more of the areas and positive for the others.

In some categories there are positive and negative changes by area. This suggests that these are not only the result of changes in the methodology and coding. The other reasons could be a real change in the level of spend and/or lack of consistency in accurately attributing activity and spend. Unlike other financial information, programme budgeting returns are not subject to an audit process.

Figure 4: Percentage change in spend per 100,000 population 2007/08 - 2008/09 for NHS Medway, cluster and national average

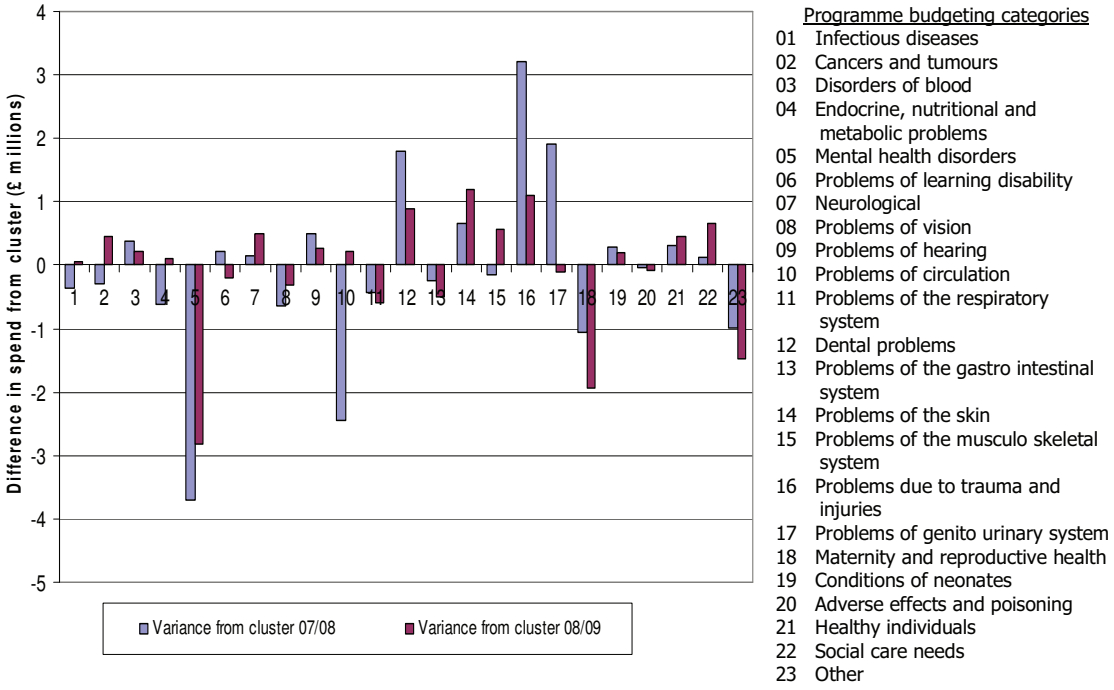


Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 5 presents the variance between NHS Medway and the cluster average spend for 2007/08 and 2008/09. This shows that the variances over the last two years vary by category. Figures 3 to 5 show the importance of considering more than one year's spend and knowing more detailed information about activity, spend and outcome if change is planned.

For example, in Figure 5 in 2007/08 the variance for problems of circulation (10) would have suggested that, potentially, investment would be required. In 2008/09 Medway's spend is slightly higher than the cluster average suggesting that no change is needed, providing reassurance. However, looking at Figure 4, not only did Medway's funding increase but the average cluster spend decreased meaning that Medway had to make a smaller change to reach parity. In fact, looking at figures from the previous year in Figure 3 Medway is only spending slightly more in 2008/09 than it did in 2006/07. Further investigation in the spending and activity would be required to understand what has changed over the three years and whether anything has been done differently with the spend to improve overall outcomes.

Figure 5: Variance between Medway and cluster average spend per 100,000 population 2007/08 and 2008/09



Source: Department of Health Programme Budgeting Toolkit v 1.0, 201

For the same reasons quadrant analysis resulting in SPOT diagrams (Figure 2) can change significantly from year to year. It can be potentially misleading to use these without consideration of the detailed data from which they are constructed.

As a result of this and the changes in methodology year to year, programme budgeting information as a tool to inform commissioning decisions needs to be used with care.

Although, consideration of the changes in methodology should be taken when looking at trend data, trends should be used to provide a clear context behind the levels of spending and comparisons with other areas to enable more informed conclusions to be made. The use of outcome data is also of key importance when assessing whether the money spent is achieving the desired outcome for the population.

Chapter 2: Infectious diseases

Background

This programme budgeting category (01) includes a range of infectious diseases from common, usually mild, diseases such as chickenpox to less common life threatening ones, such as septicaemia, and incredibly rare life threatening diseases such as Ebola disease. Within programme budgeting human immunodeficiency virus (HIV) has its own subcategory (01a) and is described in the second part of this chapter.

The second subcategory, infectious diseases (other) 01x, however does not include spend on all infectious diseases. For example, non - pulmonary tuberculosis (TB) is within the infectious disease category, but TB affecting the lungs (pulmonary) is within the respiratory category as are many of the most common causes of pneumonia. Similarly, gastrointestinal infections are included in the gastrointestinal problems category of programme budgeting and genito urinary infections are allocated either to the genito urinary category, the maternity and reproductive category or the disorders of neonates category, according to the characteristics of the infected person.

Although the infectious disease programme budgeting category is not linked to a PCT strategic change programme, several of the diseases within this programme budgeting category are preventable either by vaccination programmes (such as diphtheria, tetanus, *haemophilus influenzae*, measles, mumps & rubella) or good sexual health (HIV and AIDS). Immunisation is one of the most cost effective healthcare interventions and the first part of this chapter is particularly concerned with infectious diseases for which there are vaccines available and which are included in the national immunisation programme.

Details of the childhood immunisation programme in England are given in Table 4. In addition, adults in at risk categories, those over 65 and healthcare and social care staff, are offered vaccination against seasonal flu and in 2009/10 there was a national campaign to vaccinate against Influenza A H1N1 virus which reached pandemic proportions in July 2009.

Other vaccines, which protect against diseases such as hepatitis B, varicella (chickenpox) and tuberculosis (TB), are offered to at risk groups or individuals. Others are recommended when travelling to countries where prevalence of a particular disease is particularly high (e.g. yellow fever).

Table 4: The childhood immunisation programme 2009

Routine childhood immunisation programme		
When to immunise	**Diseases protected against**	**Vaccine given**
Two months old	**Diphtheria, tetanus, pertussis (whooping cough), polio and *Haemophilus influenzae* type b (Hib)** **Pneumococcal infection**	**DtaP/IPV/Hib + Pneumococcal conjugate vaccine (PCV)**
Three months old	**Diphtheria, tetanus, pertussis (whooping cough), polio and *Haemophilus influenzae* type b (Hib)** **Meningitis C (meningococcal group C)**	**DtaP/IPV/Hib + MenC**
Four months old	**Diphtheria, tetanus, pertussis (whooping cough), polio and *Haemophilus influenzae* type b (Hib)** **Meningitis C (meningococcal group C)** **Pneumococcal Infection**	**DtaP/IPV/Hib + MenC and PCV**
Around 12 months	***Haemophilus influenzae* type b (Hib) and meningitis C**	**Hib/MenC**
Around 13 months	**Measles, mumps and rubella (German measles)** **Pneumococcal infection**	**MMR + PCV**
Three years and four months or soon after	**Diphtheria, tetanus, pertussis and polio** **Measles, mumps and rubella**	**DTaP/IPV or dTaP/IPV** **+ MMR**
Girls aged 12 to 13 years	**Cervical cancer caused by human papillomavirus types 16 and 18**	**HPV**
13 to 18 years old	**Tetanus, diphtheria and polio**	**Td/IPV**
Non-routine immunisations		
At birth (to babies who are more likely to come into contact with TB than the general population)	**Tuberculosis[c]**	**BCG**
At birth (to babies whose mothers are hepatitis B positive)	**Hepatitis B**	**Hep B**

Source: Department of Health,[4] 2009

[c] In 2005, following a continued decline in TB rates in the indigenous UK population, the schools programme was stopped. The BCG immunisation programme is now a risk-based programme, the key part being a neonatal programme targeted at protecting those children most at risk of exposure to TB, particularly from the more serious childhood forms of the disease. In Medway further risk assessment is conducted via a questionnaire in school year 9.

Risk factors

The transmission of all infectious diseases can be limited by good infection control such as hand washing, and in the case of respiratory infections catching coughs and sneezes in tissues and safe disposal of these and other materials that have been contaminated. Food safety and adequate cooking are important in the prevention of many common gastrointestinal infections.

Incidence

Table 5 gives an indication of the number of new cases of selected vaccine preventable disease locally. These diseases are notifiable diseases on which the Health Protection Agency collects data.

Table 5: Rates of notifications of selected notifiable diseases in NHS Medway and neighbouring PCTs per 1,000 population from 2006 to 2008

	Measles	Meningitis	Meningococcal septicaemia	Mumps	Rubella	Whooping cough	Total
NHS Medway	0.12	0.03	0.00	0.09	0.02	0.00	0.27
NHS Eastern & Coastal Kent	0.09	0.02	0.01	0.10	0.02	0.01	0.25
NHS West Kent	0.13	0.02	0.01	0.19	0.06	0.02	0.43

Source: Health Protection Agency: Notification of Infectious Diseases (NOIDs), 2009

It should be noted that these are not confirmed cases, but notification of a probable case. Conversely notifications may not always occur, especially if there has been no laboratory testing.

Immunisation

The primary aim of vaccination is to protect the individual who receives the vaccine. Vaccinated individuals are also less likely to be a source of infection to others, benefiting individuals who for one reason or another cannot be vaccinated. This concept is called population or 'herd' immunity. Herd immunity does not apply to all diseases because they are not all passed from person to person. For example, tetanus can only be caught from spores in the ground. The herd immunity thresholds for most diseases are between 80-94% coverage in the population. When vaccination coverage is below this outbreaks of disease are more likely.

In 2008/09 national coverage targets were assigned to parts of the childhood immunisation programme (see shaded areas in Tables 6 to 9).

Table 6: Percentage of children completing a primary course of immunisation by their 1st birthday 2008/09, Medway and comparators

	Diphtheria Tetanus Polio Pertussis *Haemophilus influenzae* type B – 3 doses **(National target 95%)** (DTaP/IPV/Hib)	Meningitis C (MenC)	Pneumococcal Disease (PCV)
England	92	91	91
South East Coast	92	91	91
NHS Medway	**96**	**96**	**96**

Source: Health Protection Agency: COVER[d], 2009

Table 7: Percentage of children completing a primary course of immunisation by their 2nd birthday 2008/09, Medway and comparators

	Diphtheria Tetanus Polio Pertussis *Haemophilus influenzae* type B (DTaP/IPV/Hib)	Measles Mumps Rubella (one dose) (**National target 88%**) (MMR)	Meningitis C (MenC)
England	94	85	92
South East Coast	94	85	91
NHS Medway	**98**	**94**	**92**

Source: Health Protection Agency: COVER, 2009

[d] The COVER (Cover of Vaccination Evaluated Rapidly) programme monitors immunisation coverage data for children in the United Kingdom who reach their first, second or fifth birthday during each evaluation quarter. This information is promptly fed back to local level, creating the opportunity to improve coverage and to detect changes in vaccine coverage quickly. An annual report is also produced.

Table 8: Percentage of children completing a booster course before 2nd birthday 2008/09, Medway and comparators

	Haemophilus influenzae type B Meningitis C **(National target 95%)** (Hib/MenC)	Pneumococcal disease **(National target 95%)** (PCV)
England	85	81
South East Coast	86	83
NHS Medway	**93**	**93**

Source: Health Protection Agency: COVER, 2009

Table 9: Percentage of children completing vaccination courses before 5th birthday 2008/09, Medway and comparators

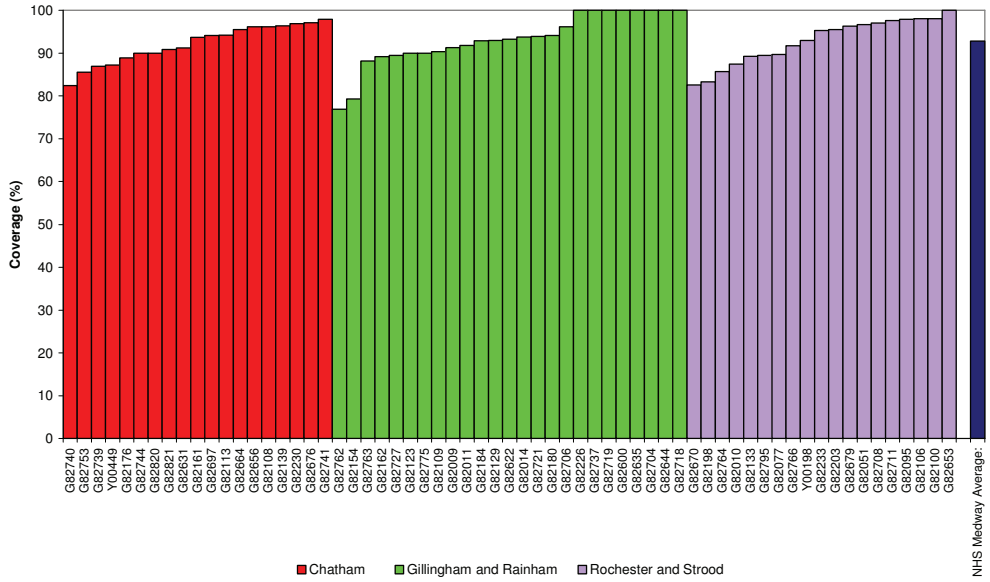
	Diphtheria Tetanus Polio Pertussis (primary)	Diphtheria Tetanus Polio Pertussis (booster – 4 doses) **(National target 95%)** (DTaP/IPV)	*Haemophilus influenzae* type B (primary)	Measles Mumps Rubella (first dose) (MMR)	Measles Mumps Rubella (two doses) **(National target 95%)** (MMR)
England	93	80	91	89	78
South East Coast	92	82	92	87	76
NHS Medway	**94**	**93**	**95**	**91**	**87**

Source: Health Protection Agency: COVER, 2009

Medway has higher uptake of vaccinations in all areas when compared to England and South East Coast SHA. The lowest percentage coverage is for the MMR first and second dose by 5th birthday (Table 9), 87% of children had received both in Medway compared to 78% and 76% in England and South East Coast SHA respectively. For all other vaccines the coverage was above 90%.

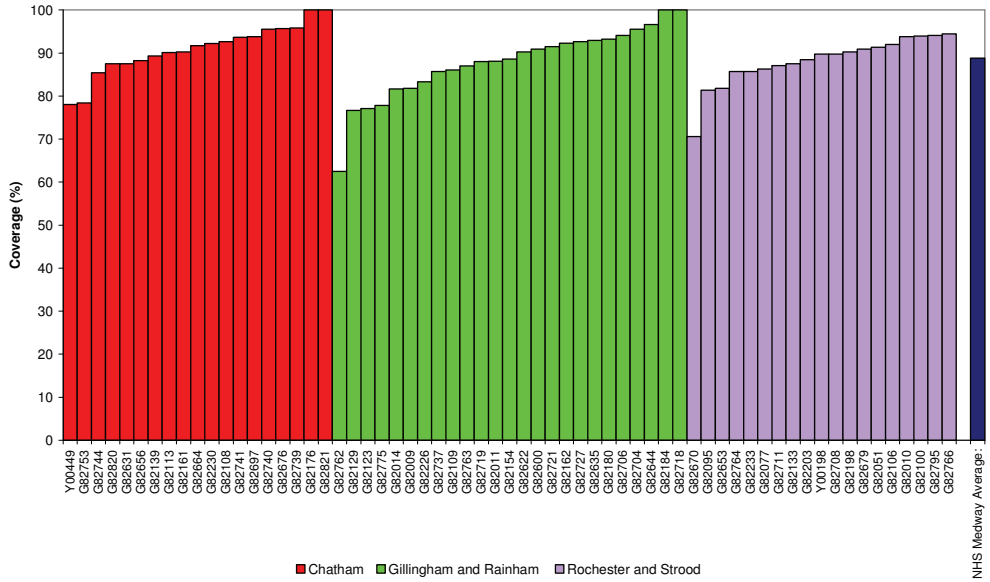
While vaccination uptake is high within Medway, there is a variation between practices. Figure 6 shows the coverage within Medway, by individual practices within the three practice based commissioning (PBC) localities, for the first dose of MMR. In Medway, data on childhood immunisations are collected via the child health system held by Medway NHS Foundation Trust. For data to remain fully accurate there is a need for practices to inform the child health office not only when they immunise children (for which a payment is made) but also of the immunisation status of children moving into Medway. Figure 7 shows MMR coverage by the age of 5 years and Table 10 shows the range of coverage for other vaccines offered to infants.

Figure 6: Percentage of children immunised with first dose of measles, mumps & rubella vaccine before 2nd birthday, 2008/09, NHS Medway by practice and PBC locality



Source: Medway NHS Foundation Trust: COVER, 2009

Figure 7: Percentage of children immunised with second dose of measles, mumps & rubella vaccine before 5th birthday, 2008/09, NHS Medway by practice and PBC locality



Source: Medway NHS Foundation Trust: COVER, 2009

Table 10: Range of coverage for childhood immunisations before first birthday 2008/09, NHS Medway practices

Immunisation	Lowest (%)	Highest (%)
Diphtheria, Tetanus, Pertussis, Polio, Hib (given as a single injection)	82.1	100
Men C	79.5	100
Pneumococcal	82.1	100

Source: Medway NHS Foundation Trust: COVER, 2009

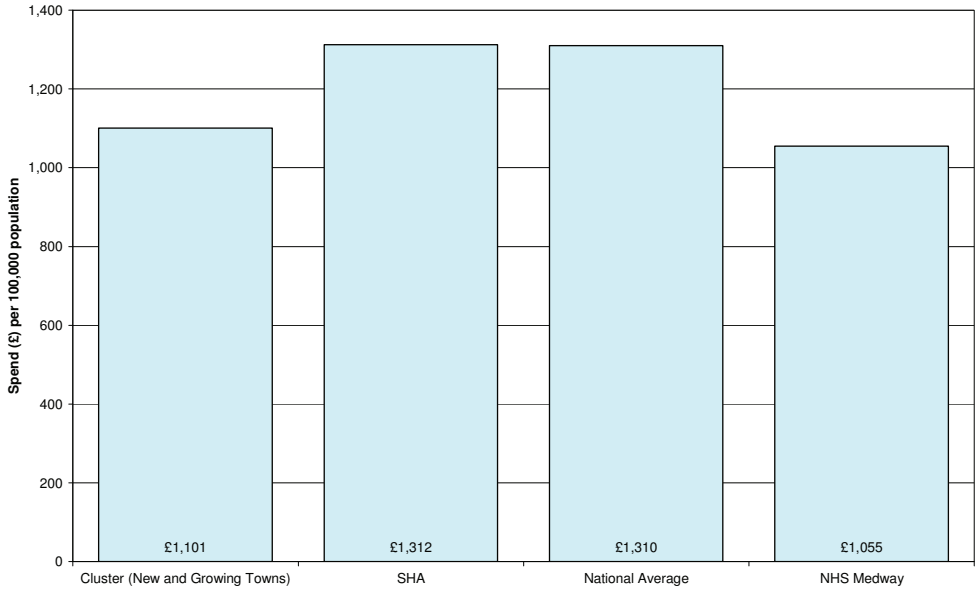
Mortality

In the period 2005/09, there were 40 (non HIV and AIDS) deaths attributable to infections within the programme budgeting infectious diseases category. Of these, none were identified as vaccine preventable and 34 were due to septicaemia. In addition, there were 2 deaths from pneumococcal meningitis (categorised within programme budgeting category neurological) - both in adults who, because of their age, would not have been offered vaccination against pneumococcal disease as infants.

Programme spend in 2008/09

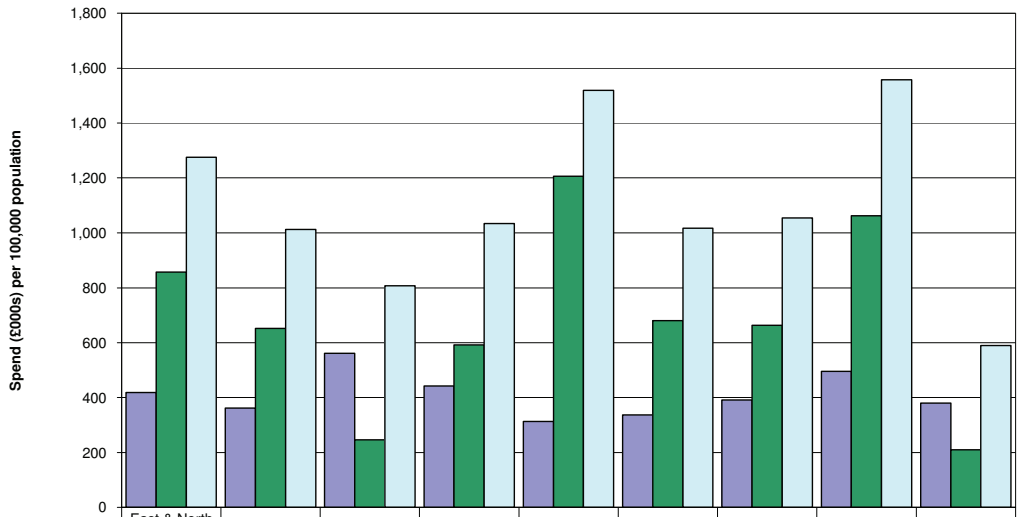
In 2008/09, NHS Medway spent £1,054,725 per 100,000 population on non AIDS/HIV infectious diseases, ranking 110th out of 152 PCTs, with spend being lower per 1,000 population than all of the comparators (Figure 8). In Medway, 63% of spend was within secondary care. Within the comparator cluster only Swindon and South West Essex spent more for this sub category in primary care than secondary care (Figure 9). The cost of vaccination programmes is not included within this programme budgeting category rather under the programme budgeting category healthy individuals.

Figure 8: Spend per 100,000 population, Medway and comparators, 2008/09: 01x infectious diseases (other)



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 9: Spend per 100,000 population infectious diseases (other), Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing town cluster group



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	418	361	561	442	313	336	391	495	380
Secondary	857	652	246	592	1,206	681	664	1,062	210
Total	1,276	1,013	807	1,034	1,519	1,017	1,055	1,557	590

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Health inequalities

Immunisation rates overall are high in NHS Medway compared to comparators but inequalities are present at the practice level.

Conclusions

The effect of infectious disease can be mitigated by immunisation where vaccines are available and also by good infection control.

Currently the spend on infectious diseases in Medway is less than the average in our comparator cluster, SEC SHA and nationally.

There appears no reason to increase spend in this area, although efforts should continue to ensure that all the NHS Medway population continues to be appropriately vaccinated.

Next steps

- Continue to closely monitor the immunisation coverage to ensure that herd immunity is maintained and targets are met.

- Efforts to improve MMR uptake need to continue, particularly working with practices where uptake is low.

- Improve systems for transferring immunisation data from primary care to the child health system.

HIV and AIDS

Background

The human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) subcategory (01a) covers services which relate to the assessment, management and treatment of individuals diagnosed with HIV and AIDS.

HIV infects specific cells in the body's immune system (primarily $CD4^+$ T cells) and causes a progressive deterioration in immune function. AIDS develops when $CD4^+$ T cells fall below a critical level, increasing susceptibility to potentially life-threatening opportunistic infections (e.g. TB) and/or HIV related tumours.

Services for HIV infected individuals focus on providing advice on reducing the risk of HIV transmission, regular immunological and virological monitoring to assess the progression of the disease, initiating anti-retroviral therapy to suppress viral replication and prophylactic chemotherapy. Management of the disease is best achieved through a multidisciplinary team approach, usually in specialist clinics or secondary care settings.

Risk factors

The key risk factors for HIV infection include:

Sexual transmission

The majority of HIV infections are acquired through sexual contact with an infected individual. In the UK, heterosexual transmission rates are steadily increasing; in 2007, an estimated 55% of persons diagnosed acquired HIV through heterosexual contact and 41% through sex between men.[5] Concurrent sexually transmitted disease, particularly those that cause genital ulceration, increases the risk of transmission. In 2008, of the 148 individuals who accessed HIV related care in Medway, 138 (93%) acquired the infection through sexual transmission.[6]

Ethnicity

Communities in the UK originating from areas with high HIV prevalence (e.g. sub-Saharan Africa) are particularly affected by HIV. The number of diagnosed HIV positive black Africans accessing care in the UK has increased seven fold in the last 10 years.[7] Approximately 0.8% of the Medway population is of black-African ethnicity. Of diagnosed HIV-infected individuals seen for care in Medway in 2008, 71 out of the 148 (48%) were of black-African origin.

Mother to infant (vertical transmission)

HIV can be transmitted from mother to infant pre and peri-natally. Six out of the 148 (6%) diagnosed HIV individuals fall into this exposure category in Medway.[6] Breastfeeding is also an important risk factor for transmission, particularly in countries where antenatal screening is not widely available.

Intravenous drug use

There is a high prevalence of HIV in many intravenous drug user populations, with transmission occurring through the sharing of contaminated needles and syringes. In the UK, 1,489 diagnosed HIV intravenous drug users were seen for care in 2008.[8]

Transfusion

Transfusion associated transmission can occur with contaminated blood or blood products. This is a less common route of transmission in developed countries where blood and blood products are routinely screened.

Prevalence

The number of diagnosed HIV infected individuals in NHS Medway in 2008 was 148.[6] In line with national trends, the number of diagnosed HIV infected individuals seen for HIV related care has steadily increased over the last few years (Table 11). However, the diagnosed HIV prevalence per 1,000 population in Medway is lower than that of the South East Coast SHA and England each year from 2003 to 2008 (Figure 10).

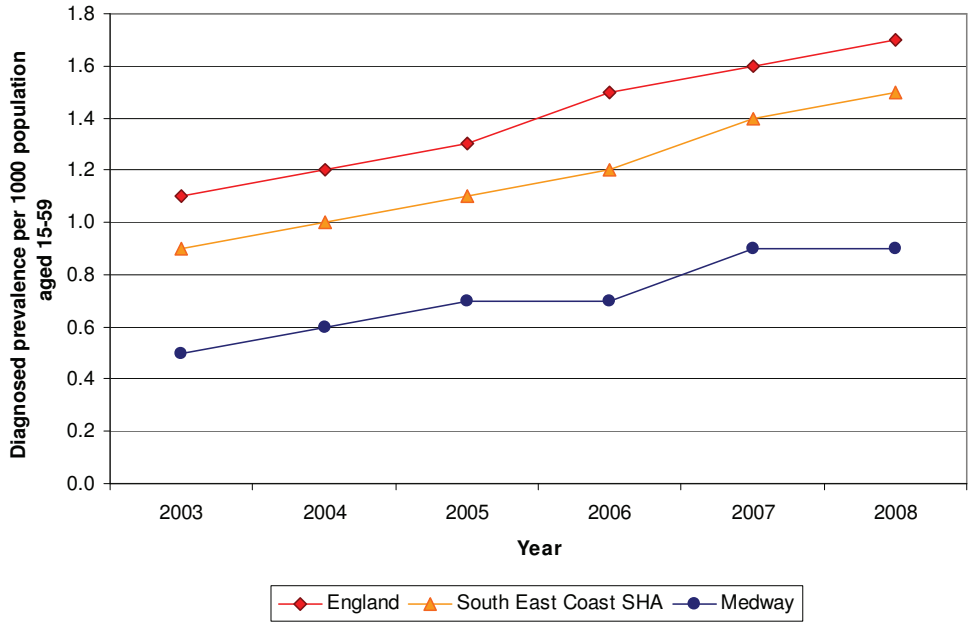
Table 11: Number of diagnosed HIV infected individuals (all ages), NHS Medway, South East Coast SHA and England, 2004 to 2008

	2004	2005	2006	2007	2008
NHS Medway	96	120	124	151	148
South East Coast SHA	2,536	2,873	3,210	3,641	3,939
England	37,999	43,093	47,723	52,031	56,433

Source: Health Protection Agency: SOPHID[e], 2009

[e] Survey of Prevalent HIV Infections Diagnosed

Figure 10: Diagnosed HIV prevalence (aged 15-59), NHS Medway, South East Coast SHA and England, 2003 to 2008



Source: Health Protection Agency: SOPHID, 2009

Mortality

The number of deaths in diagnosed HIV infected individuals in NHS Medway, the South East Coast SHA and England are given in Table 12.

Table 12: Deaths in HIV infected individuals, NHS Medway, South East Coast SHA and England, 2004 to 08

	2004	2005	2006	2007	2008
NHS Medway	0	<5	<5	<5	0
South East Coast SHA	30	35	33	41	31
England	361	416	367	402	365

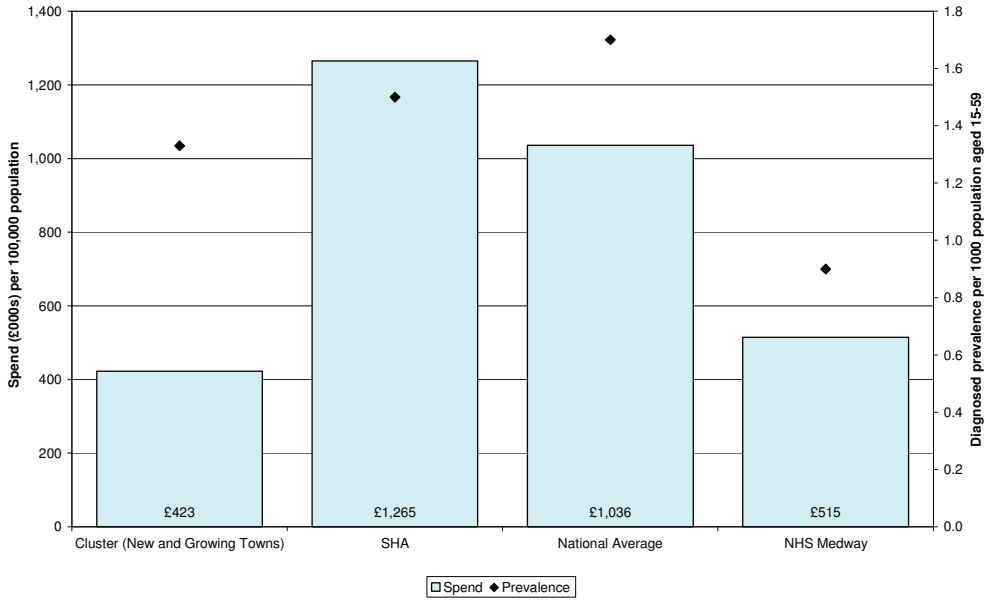
Source: Health Protection Agency: SOPHID, 2009

Programme spend in 2008/09

HIV and AIDS sub category data has been collected for the last 3 years. The spend on this in Medway was £514,722 per 100,000 population for 2008/09, and Medway ranked 70th out of the 152 PCTS in England.

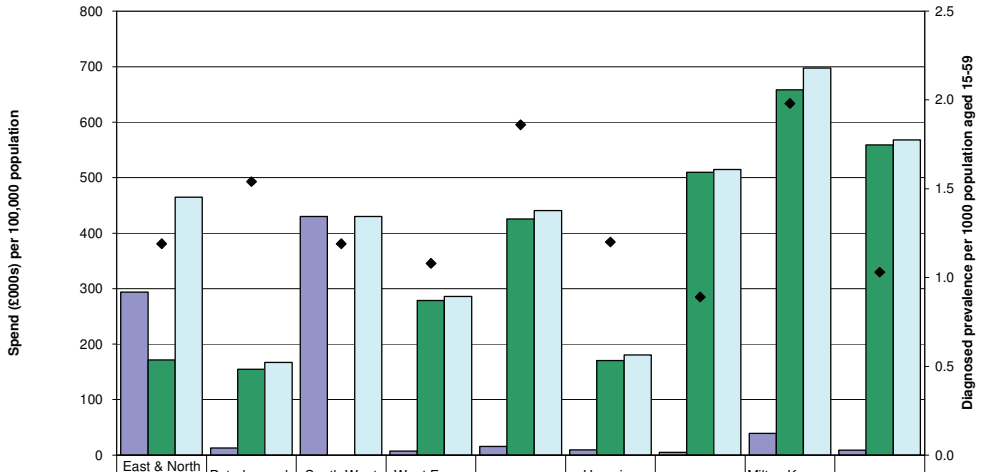
Figure 11 shows that Medway spent less per 100,000 population on HIV and AIDS in 2008/09 compared to national and SHA averages. The prevalence of HIV in Medway for this period was lower than that of the SHA and nationally which may explain its relatively low spend. When compared to the cluster group, Medway has a relatively high level of spend given its lower HIV and AIDS prevalence.

Figure 11: Spend per 100,000 population, Medway and comparators, 2008/09 and HIV prevalence 2008: 01a HIV and AIDS



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; SOPHID, 2009

Figure 12: Spend per 100,000 population HIV and AIDS, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing town cluster group, and HIV prevalence, 2008



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	294	13	430	7	16	10	5	39	9
Secondary	171	154	-	279	425	171	510	658	559
Total	465	167	430	286	441	180	515	698	568
Prevalence	1.19	1.54	1.19	1.08	1.86	1.2	0.89	1.98	1.03

Sources: Department of Health Programme Budgeting Toolkit v 1.0, 2010; SOPHID, 2009

Figure 12 shows the spend on HIV and AIDS between primary and secondary care for Medway and the cluster PCTs. It shows that in Medway, the majority of spend is within secondary care. This is the case with all of the cluster PCTs except for South West Essex PCT. It can also be seen that Medway has a low prevalence compared to the other PCTs in the cluster, and yet has one of the higher total spends.

Primary care prescribing data

The prescription spend on HIV and AIDS in Medway was £3,310 per 100,000 population in 2007/08 (latest period for which data is available).This compares with a prescription spend of £10,450 per 100,000 population in the South East Coast SHA and £5,620 per 100,000 population in England for the same period.[9]

The prescription volume per 100,000 population was 23.18 items in 2007/08 in Medway. This compares with a prescription volume of 22.67 items per 100,000 in the South East Coast SHA and 22.13 items per 100,000 population in England for the same period.[9] The reason Medway has a similar level of prescription volume per 100,000 compared to the SHA and England despite its lower prevalence is unclear.

Conclusions

The number of individuals diagnosed with HIV/AIDS seen for care in Medway has gradually increased over the last few years, in line with national trends. However, the diagnosed prevalence rates are lower in Medway compared to the SHA and England.

A large proportion (48%) of those accessing HIV related care in Medway are of black-African origin.

The majority of HIV infected individuals fall into the sexual transmission exposure category.

Prescription spend per 100,000 population is lower in Medway as compared to the SHA and England in 2007/08 which is in line with its lower prevalence rate.

Programme spend per 100,000 population associated with HIV and AIDS in Medway was £514,722 in 2008/09. This is a relatively high level of spend as compared to the PCTs in the cluster group, given its relatively low prevalence.

Next steps

- To explore the reasons behind the relatively high spend on HIV and AIDS in Medway given its lower prevalence.

- As a large proportion of those affected by HIV and AIDS in Medway are of black-African origin, it is important to review services to ensure that they are accessible to this population.

- Health professionals need to continue to provide advice and education regarding the risk factors for HIV transmission, particularly around sexual transmission.

Chapter 3: Cancer and tumours

The cancers and tumours programme budgeting category covers cancer of the head and neck, upper and lower gastrointestinal, lung, skin, breast, gynaecological, urological, haematological, and other cancers. Cancer is the second leading cause of morbidity and mortality in Medway.

This chapter identifies the top four cancers with the highest incidence and mortality in Medway - cancer of the lung, breast, colorectal and prostate.

Risk factors

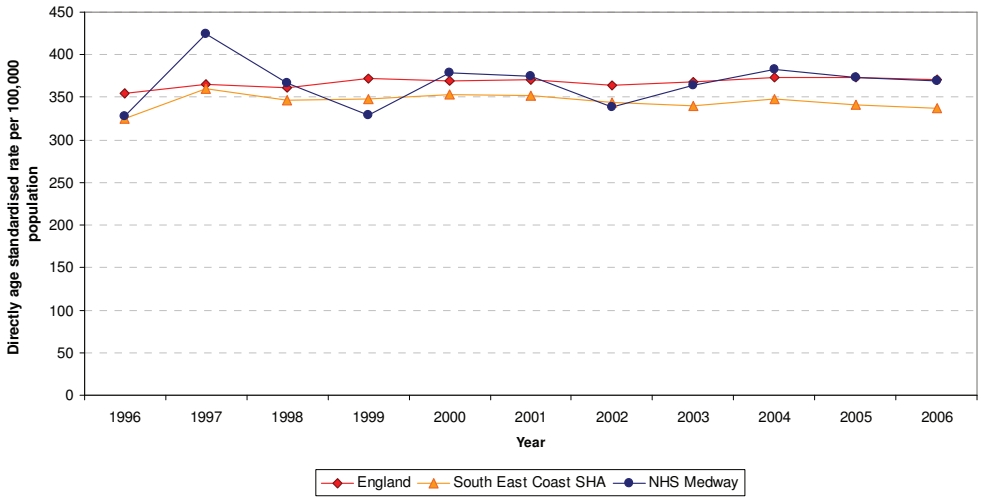
A number of factors play a part in determining an individual's risk of developing cancer and the outcome if they do develop it. Some of these are fixed such as age, sex and genetics. Others relate to the individual's lifestyle. Smoking is the single biggest cause of cancer and it is estimated that around 50% of all current smokers are likely to be killed by their smoking habits.[10] Smoking increases the risk of cancers of the lung, bladder, cervix, kidney, larynx, lip, mouth and pharynx, oesophagus, pancreas, stomach and some types of leukaemia.[10] Alcohol has been linked to increased risk of cancer of the mouth, larynx, oesophagus, liver, breast and bowel.

Diets high in fats and proteins, low in fruits, vegetables and fibre increase the risk for colorectal (bowel) cancer.[11] Being overweight or obese are the most important known avoidable causes of cancer after tobacco.[12]

Incidence

Over the last ten years, the incidence rate of all cancers in Medway has remained steady and similar to the incidence rates in the South East and England as a whole (Figure 13).

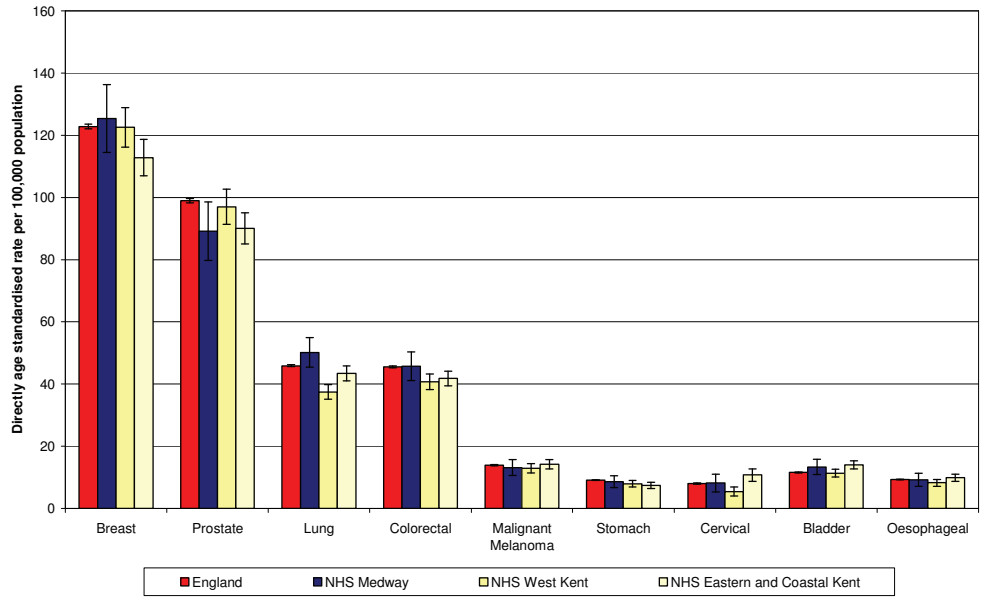
Figure 13: Directly age standardised incidence rates for all cancers in Medway, South East Coast SHA and England, all persons, all ages, 1996 to 2006



Source: National Centre for Health Outcomes Development, 2009

Figure 14 shows the incidence of cancers by tumour sites in Medway, Kent and England.

Figure 14: Directly age standardised incidence rate all ages, all persons, by cancer site, Kent and Medway PCTs, three year average 2004/2006

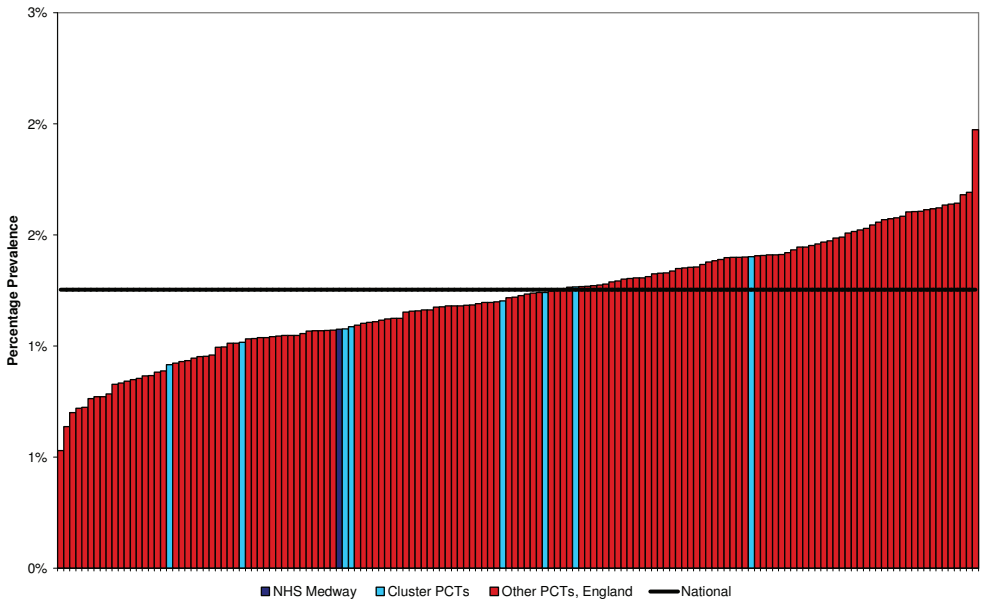


Source: National Centre for Health Outcomes Development, 2009

Prevalence

The prevalence of cancer is recorded within the Quality and Outcomes Framework (QOF) dataset. Practices are required to produce a register of all patients with cancer (excluding those with non-melanoma skin cancers) who have been diagnosed since 1st April 2003. Figure 15 shows the recorded prevalence in Medway compared with other PCTs in England and demonstrates that local prevalence is below the national average at approximately one percent of the population.

Figure 15: Recorded prevalence of cancer, all PCTs, England, 2008/09

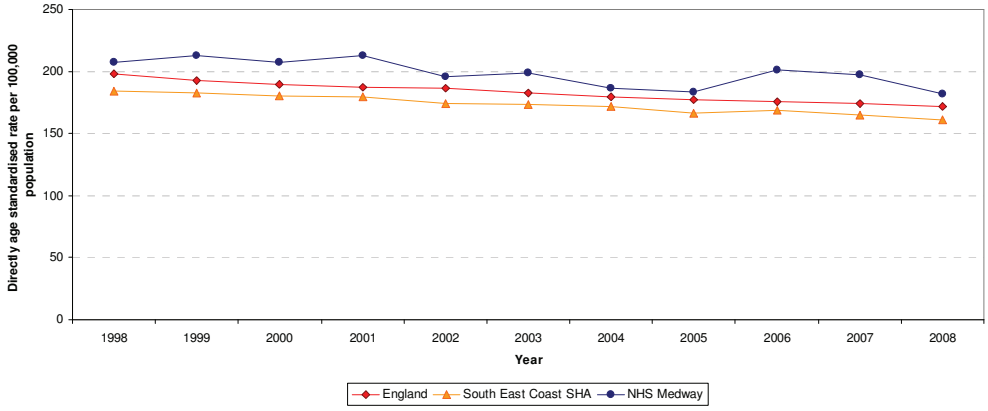


Source: QOF, 2009

Mortality

There is a downward trend in mortality for all cancers in Medway (from 1997 to 2008) although cancer death rates in Medway have remained higher than in the South East and England (Figure 16). In 2008, the mortality rate in Medway was significantly higher than the rate in the South East Coast SHA, but was not significantly different from the national rate.

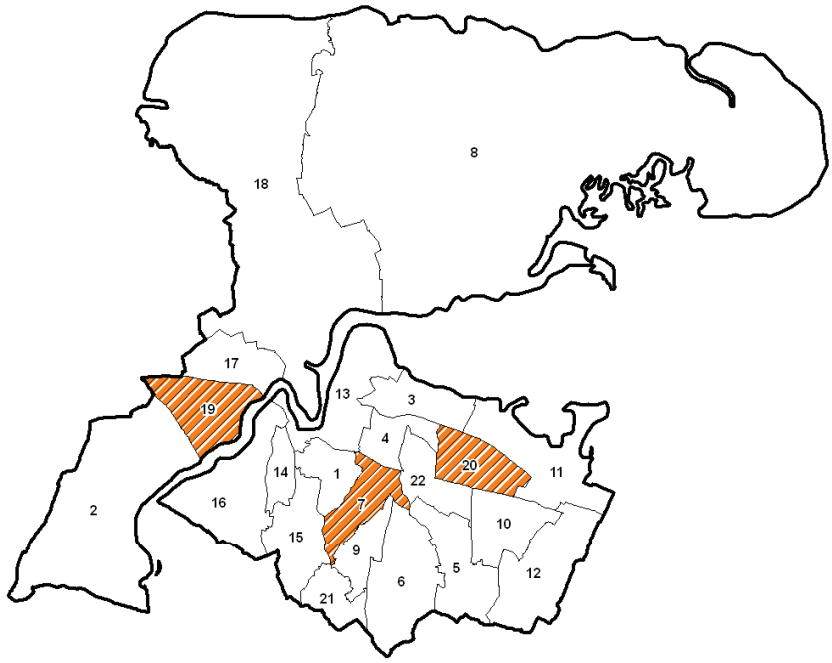
Figure 16: Directly age standardised mortality rates for all cancers in Medway, South East Coast SHA and England, all persons, all ages, 1998 to 2008



Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Map 1 shows that there are three wards within Medway where the all age death rate from cancer is significantly higher than the national rate, namely Luton and Wayfield, Strood South and Twydall.

Map 1: Directly age standardised mortality rates (DASMR) from all cancers, all ages, three year average 2006/08, Medway



DASMR per 100, 000 population - All Ages

Within National rate confidence intervals

Significantly higher mortality rate than National rate

1. Chatham Central
2. Cuxton and Halling
3. Gillingham North
4. Gillingham South
5. Hempstead and Wigmore
6. Lordswood and Capstone
7. Luton and Wayfield
8. Peninsula
9. Princes Park
10. Rainham Central
11. Rainham North
12. Rainham South
13. River
14. Rochester East
15. Rochester South and Horstead
16. Rochester West
17. Strood North
18. Strood Rural
19. Strood South
20. Twydall
21. Walderslade
22. Watling

Sources: ONS Mid Year Population Estimates by Ward 2006, ONS Annual District Deaths Extract 2006-2008, Clinical and Health Outcomes Knowledge Base (nchod)

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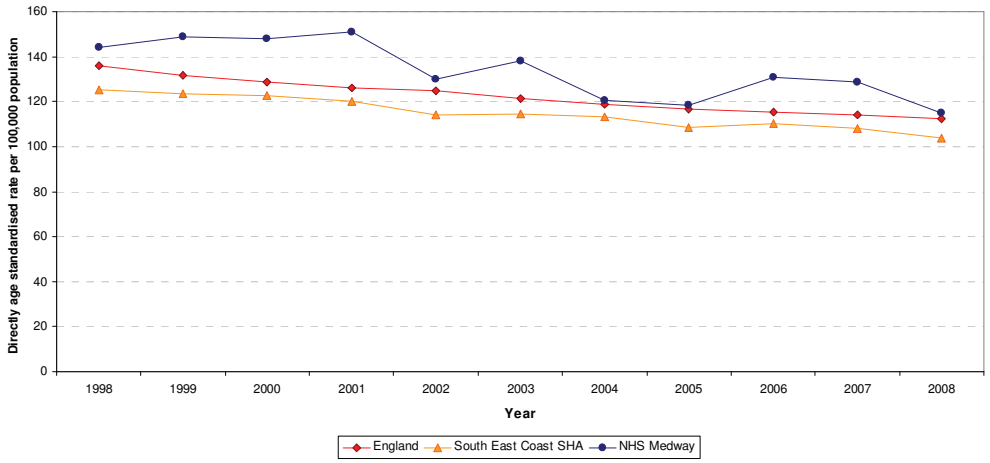
Figure 17 shows that while the death rate from all cancers for those aged under 75 has also decreased in Medway, it continues to be higher than in SEC SHA while being equal to the national rate in three of the past ten years. In 2008, the mortality rate in Medway was significantly higher than the rate in the South East Coast SHA, but was not significantly different from the national rate.

Figure 17: Directly age standardised mortality rates per 100,000, all cancers, in Medway, South East Coast SHA and England, all persons, <75 years, 1998 to 2008



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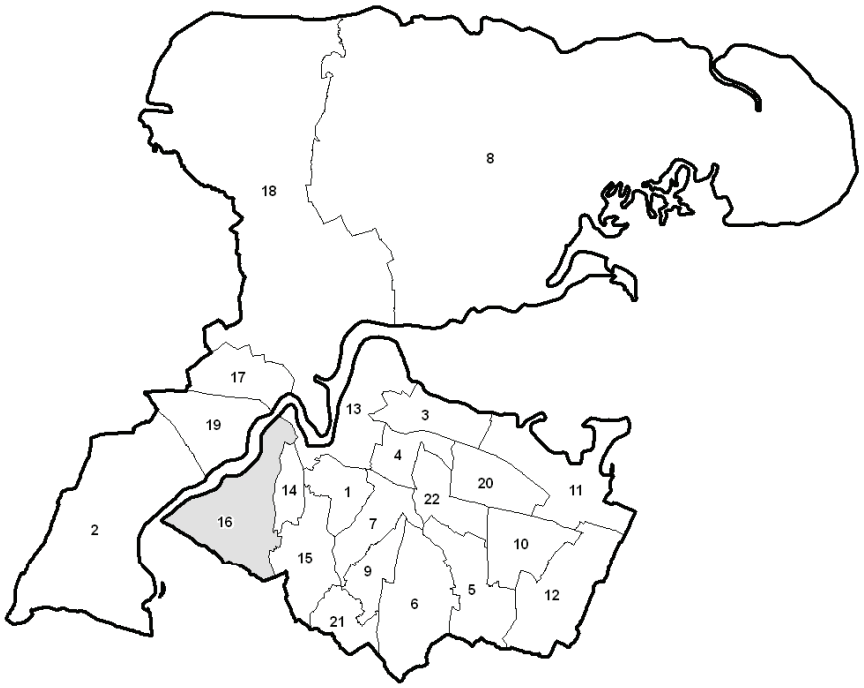
Map 2 shows that there are no wards within Medway where the under 75 death rate from all cancers is significantly higher than the national rate and that in one ward, Rochester West, this rate was significantly below the national level.

Map 2: Directly age standardised mortality rates from all cancers, <75 years, three year average 2006/08, Medway



DASMR per 100, 000 population - <75s

Within National rate confidence intervals

Significantly lower mortality rate than National rate

1. Chatham Central
2. Cuxton and Halling
3. Gillingham North
4. Gillingham South
5. Hempstead and Wigmore
6. Lordswood and Capstone
7. Luton and Wayfield
8. Peninsula
9. Princes Park
10. Rainham Central
11. Rainham North
12. Rainham South
13. River
14. Rochester East
15. Rochester South and Horstead
16. Rochester West
17. Strood North
18. Strood Rural
19. Strood South
20. Twydall
21. Walderslade
22. Watling

Sources: ONS Mid Year Population Estimates by Ward 2006, ONS Annual District Deaths Extract 2006-2008, Clinical and Health Outcomes Knowledge Base (nchod)

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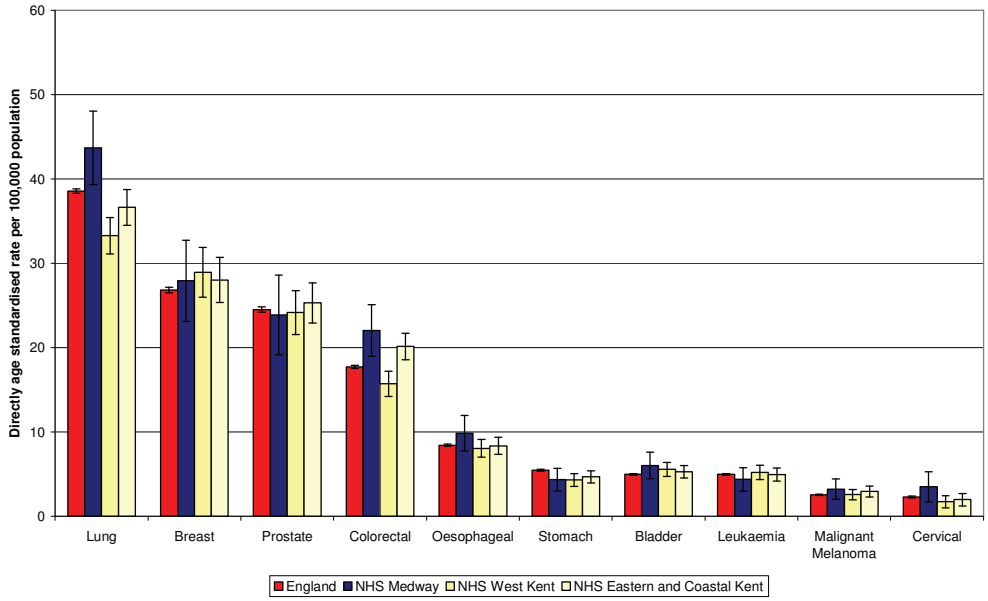
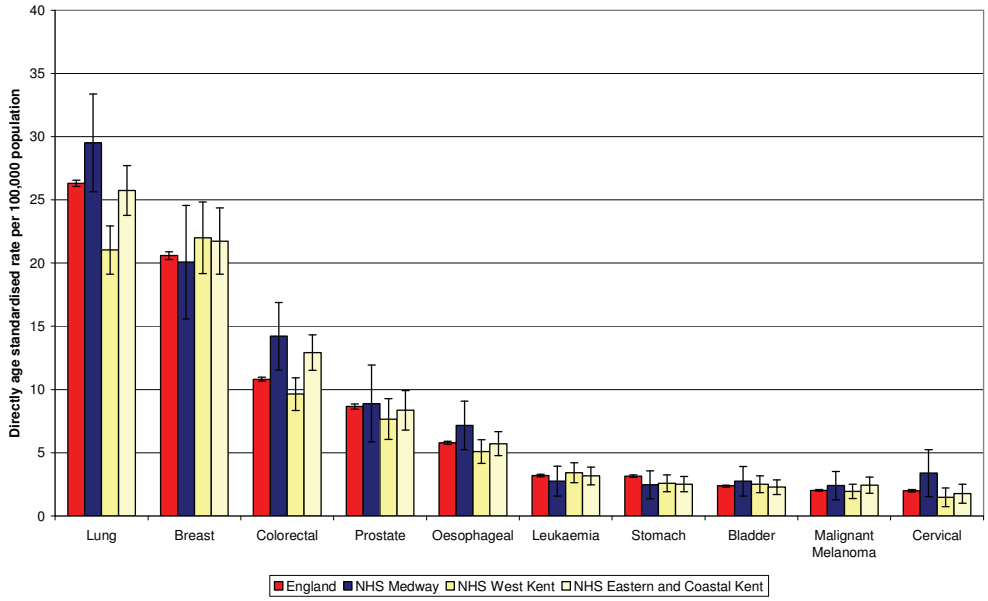
Lung, breast, prostate and colorectal cancers are the most frequent causes of cancer deaths in Medway, which is similar to the national picture (Figure 18). Medway has significantly higher all age mortality rates for lung and colorectal cancer than England (Figure 18). In those under 75 years, mortality rates from colorectal cancer are significantly higher (Figure 19).

Figure 18: Directly age standardised mortality rates per 100,000 from cancer by site, all ages, Kent and Medway, three year averages 2006/08



Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Figure 19: Directly age standardised mortality rates per 100,000 from cancer by site, <75 years, Kent and Medway, three year averages 2006/08



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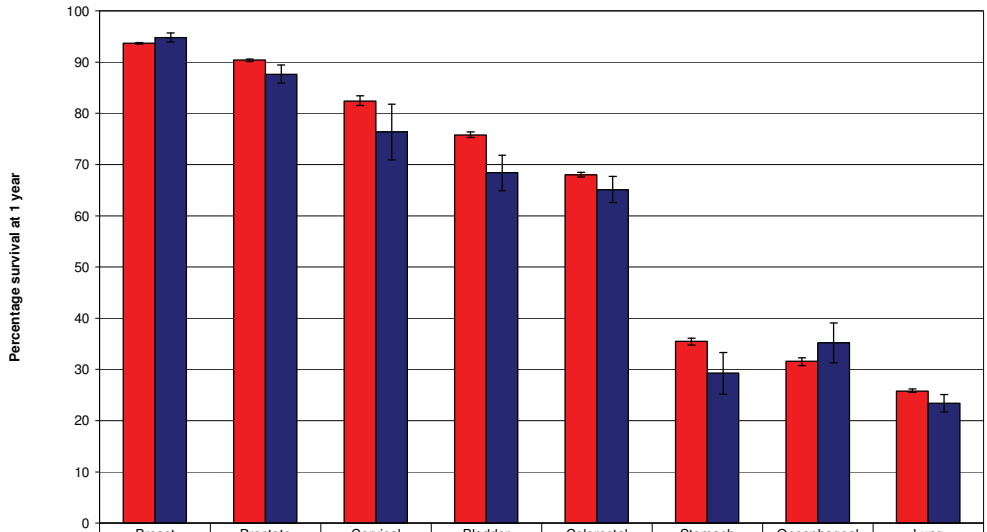
Survival rates

Figure 20: One year survival following diagnosis (patients aged 15 to 99 years, diagnosed between 2000 and 2002, and followed-up to December 2003)

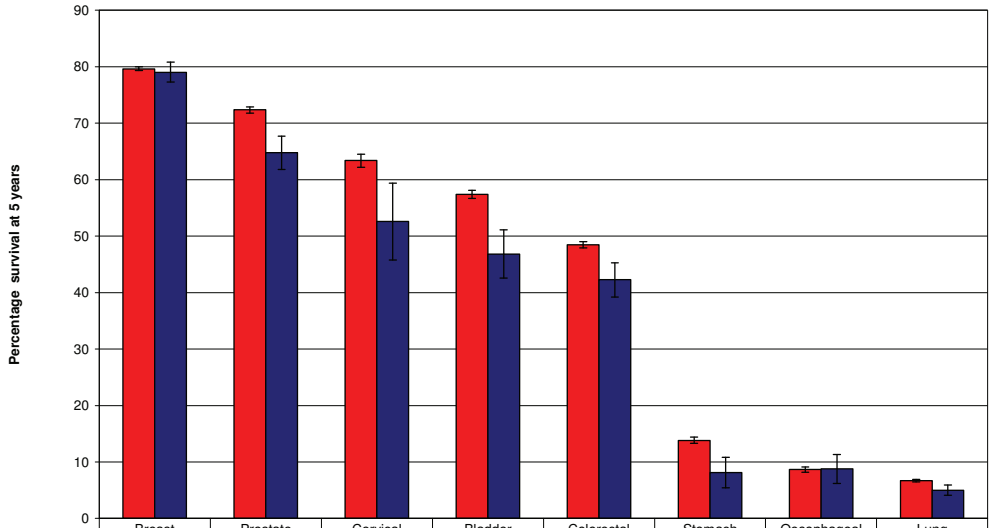


	Breast	Prostate	Cervical	Bladder	Colorectal	Stomach	Oesophageal	Lung
England	93.7	90.4	82.4	75.8	68	35.5	31.6	25.8
KMCN*	94.8	87.6	76.4	68.4	65.1	29.3	35.2	23.4

* Kent and Medway Cancer Network
Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Figures 20 and 21 show the latest survival data available. The Kent and Medway Cancer Network have significantly lower one and five year survival rates for some types of cancers when compared with England. At one year, there are significantly lower survival rates for prostate, bladder, stomach and lung cancers (Figure 20). The five year survival rate is significantly lower for prostate, cervical, bladder, colorectal, stomach and lung cancer (Figure 21).

Figure 21: Five year survival following diagnosis (patients aged 15 to 99 years, diagnosed between 2000 and 2002, and followed-up to December 2007)



	Breast	Prostate	Cervical	Bladder	Colorectal	Stomach	Oesophageal	Lung
England	79.6	72.4	63.4	57.4	48.5	13.8	8.7	6.7
KMCN*	79	64.8	52.6	46.8	42.3	8.1	8.8	5

* Kent & Medway Cancer Network
Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

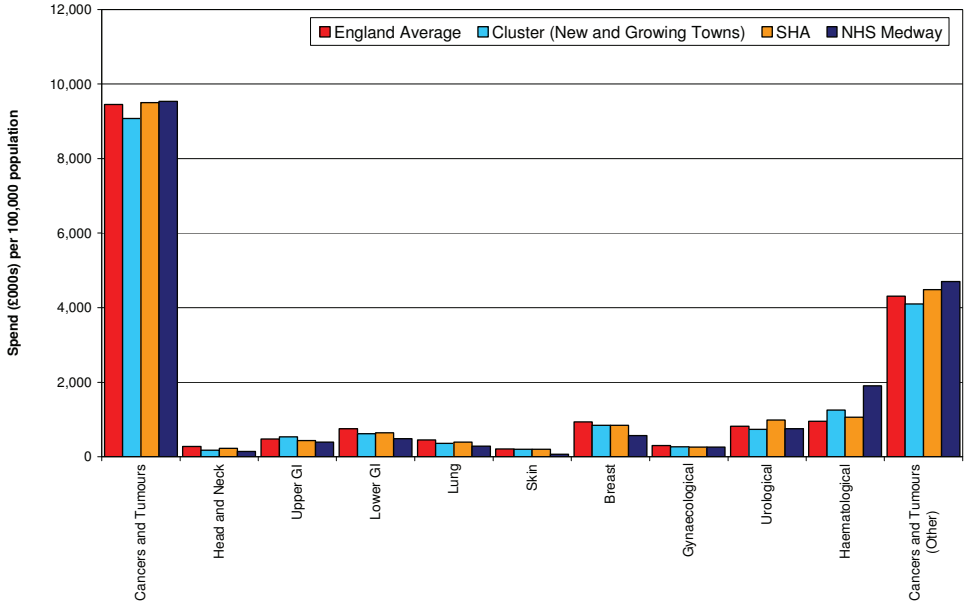
Programme spend in 2008/9

In 2008/09, Medway spent £9,535,393 per 100,000 population on cancers and tumours, the 4th highest spend for the PCT.

There is variation in Medway's ranking for spend on each of the cancer sub categories compared to the other English PCTs. Medway ranks 144th of 152 PCTs for skin sub categories and nationally, is the third highest in spending for haematological cancers. However, Medway has the 43rd highest spend assigned to the 'other' sub category (a 10% drop from the previous year). This may have skewed the results of spend within the other sub categories. In total 49% of all spend on cancer and tumours was assigned to the 'other' category (Figure 22). This suggests further work is required to identify true spend.

Medway has a higher spend on cancers and tumours when compared with the cluster group average.

Figure 22: Spend per 100,000 population, Medway and comparators, 2008/09: 02 Cancer and tumours subcategories



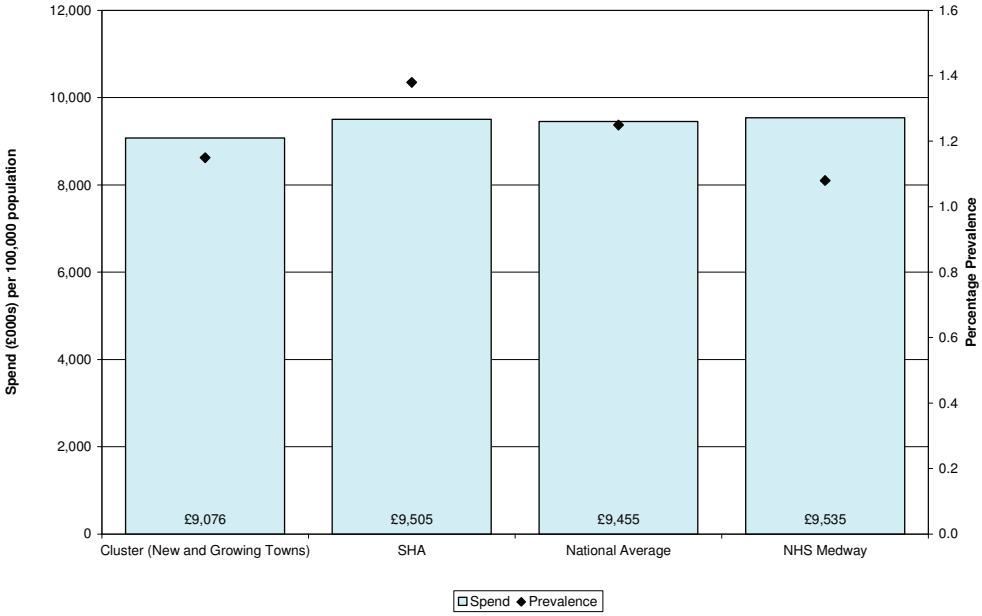
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

The majority (80%) of spend on cancer and tumours is in secondary care. All spend linked to the head and neck, upper gastro intestinal (GI), lung, skin and haematological cancer sub categories was within secondary care.

The remaining 20% spend in primary care is distributed between urological, breast, gynaecological cancers and 'other' cancers.

Figure 23 shows the spend on cancer and QOF recorded cancer prevalence in Medway and comparator areas. It demonstrates much lower recorded cancer prevalence for similar spend for Medway when compared to the SHA and the national average.

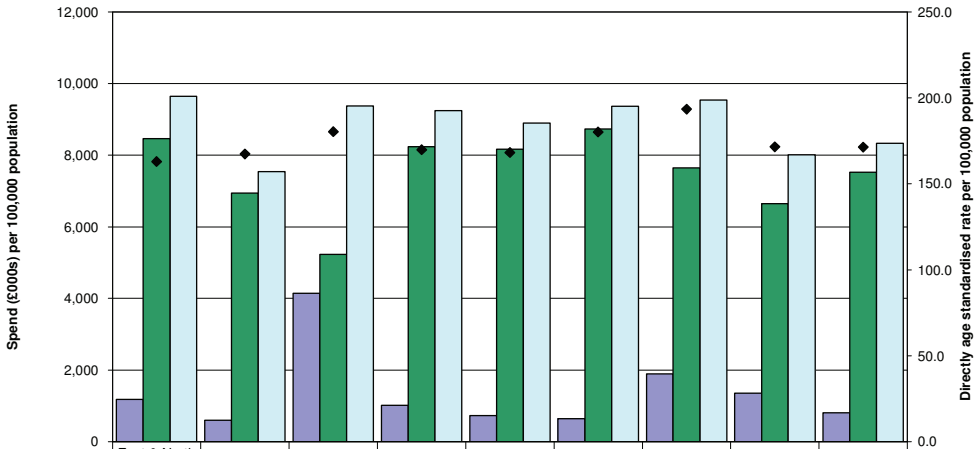
Figure 23: Spend per 100,000 population and prevalence, Medway and comparators, 2008/09: 02 Cancer and tumours



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; QOF, 2009

Figure 24 shows that with the exception of South West Essex PCT, much more is spent in secondary care than in primary care in the cluster PCTs.

Figure 24: Spend per 100,000 population cancer and tumours, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing towns cluster group, and directly age standardised mortality for all cancers 2006/08



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	1,181	600	4,146	1,014	727	639	1,892	1,359	810
Secondary	8,468	6,942	5,232	8,236	8,171	8,732	7,643	6,651	7,528
Total	9,649	7,542	9,378	9,250	8,898	9,371	9,535	8,010	8,338
Mortality	162.92	167.43	180.38	169.85	168.22	180.12	193.41	171.6	171.38

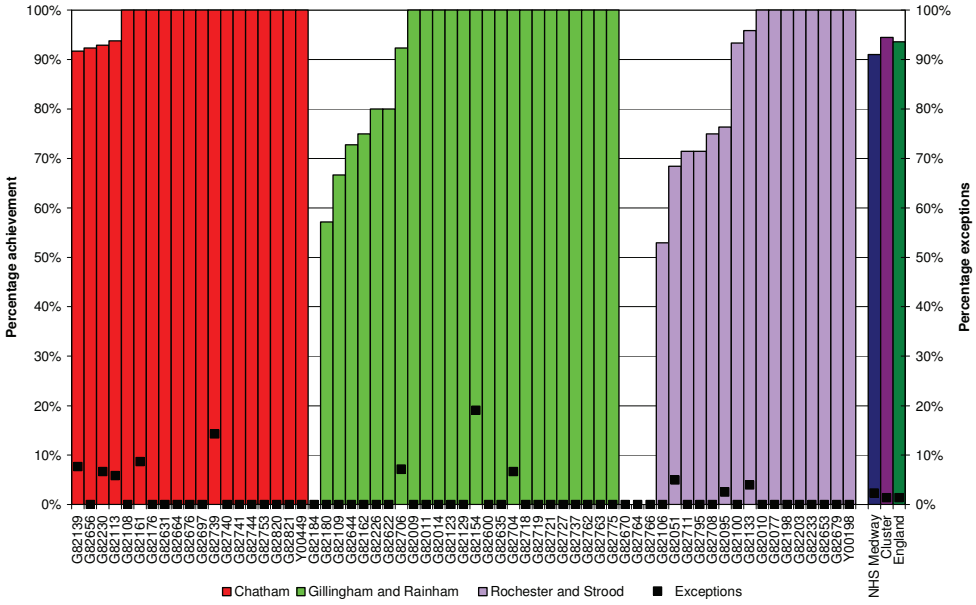
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; National Centre for Health Outcomes Development, 2009

Primary care

Figure 25 provides an indication of the quality of care those with cancer on general practice registers are receiving. The overall percentage of people with cancer diagnosed within the last 18 months in Medway, whose review was recorded as occurring within six months of the practice receiving confirmation of their diagnosis, is below that recorded in the cluster group and England as a whole. The level of exceptions recorded is similar.

There are significant variations between practices in Medway in the proportion of people whose review occurred within six months of diagnosis ranging from 52% to 100%. The lowest levels of achievement were in the Rochester and Strood area. These variations should, however, be explored further to provide a fuller picture of the quality of care people with cancer are receiving and to ensure this is consistent across Medway.

Figure 25: The percentage of patients with cancer, diagnosed within the last 18 months who have a patient review recorded as occurring within 6 months of the practice receiving confirmation of the diagnosis, by practice and PBC locality (QOF indicator Cancer 3) 2008/09



Source: QOF, 2009

Cancer screening

Cancer screening is a vital tool for the early detection of cancers and pre-cancerous changes. There are three national screening programmes in the UK: breast, cervical and bowel. Costs for screening programmes are allocated to the Healthy Individuals category (21) of programme budgeting.

Breast Screening

Women aged between 50 and 70 are routinely invited to breast screening once every three years. In Medway there has been an increase in breast screening coverage between 2007 and 2008. Coverage in Medway is 80.7%, higher than the coverage levels seen in the South East Coast SHA region and England as a whole (Table 13). There are plans to extend the coverage to women aged 47 to 73 years in 2010.

Table 13: Coverage of breast cancer screening, England, Medway and South East Coast SHA, March 2007 and March 2008

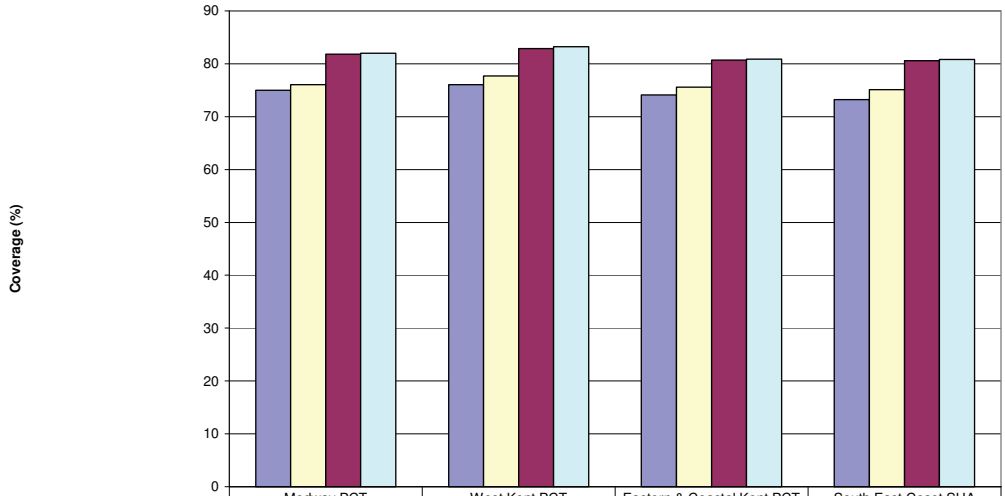
	Coverage (less than 3 years since last test) %	
	March 2007	**March 2008**
England	73.8	75.9
South East Coast SHA	75.1	76.7
NHS Medway	73.8	80.7

Source: NHS Information Centre, 2009

Cervical Screening

All women between the ages of 25 and 64 are eligible for cervical screening every three to five years depending on their age. In Medway, cervical screening uptake rates are higher than uptake rates for England and the South East Coast SHA region. This is true for both 3.5 year and 5 year coverage, with 76% of eligible women having been screened in the previous 3.5 years and 82% screened in the preceding 5 years.

Figure 26: Cervical screening programme coverage (age group 25-64), 2007/08 and 2008/09, Kent and Medway PCTs and South East Coast SHA



	Medway PCT	West Kent PCT	Eastern & Coastal Kent PCT	South East Coast SHA
3.5 Year coverage 07/08 (%)	75.0	76.0	74.1	73.2
3.5 Year coverage 08/09 (%)	76.0	77.7	75.6	75.1
5 Year coverage 07/08 (%)	81.8	82.8	80.7	80.6
5 Year coverage 08/09 (%)	82.0	83.2	80.8	80.8

Source: The NHS Information Centre, 2009

Bowel cancer screening has been introduced across the UK through a phased roll out. The NHS Bowel Cancer Screening Programme covered the whole of the UK by the end of 2009 and offers screening to all men and women aged 60 to 69 every two years. People over 70 will be offered screening on request. Routine uptake data are not yet available for comparison across areas.

Human papillo virus (HPV) vaccination

The HPV vaccination was introduced in September 2008, for girls aged 12-13 (in school year 8) across the UK. The full course of vaccination costs of three doses (shown as HPV1, HPV2 and HPV3 in Table 14). Originally a catch up programme for girls in years 9–13 was to occur over two years but this was brought forward so that all these girls would be vaccinated by the end of the school year 2009/10.

In Medway in 2008/09, year 8 girls were immunised in school and the year 13 girls via general practice. In 2009/10 girls in years 8, 10 and 11 are being immunised in school and years 12 and 13 via general practice.

Table 14 shows the 2008/09 figures as collected in August 2009. In Medway, the start of this programme was delayed, hence the comparatively low uptake figures. Year 8 girls who missed vaccination in school have been offered this via general practice. The uptake rate for the full course in the year 13 cohort

(6.9% in Table 14) now stands at 32%.[f] The programme for the 2009/10 cohorts is underway.

Table 14: HPV vaccination uptake rate, 2008/09

PCT	West Kent PCT			Eastern & Coastal Kent PCT			Medway PCT		
	HPV1	**HPV2**	**HPV3**	**HPV1**	**HPV2**	**HPV3**	**HPV1**	**HPV2**	**HPV3**
***Year 8** (12-13 yrs) **(uptake %)**	92.9	92.6	80.2	85.7	78.9	58.8	79.3	78.7	70.9
≠**Year 13** (17-18yrs) **(uptake %)**	58.2	55.1	38.2	58.6	50.5	26.9	53.2	45.0	6.9

Source: Department of Health, 2009

* denominator based on school roll data
≠ denominator based on PCT population data

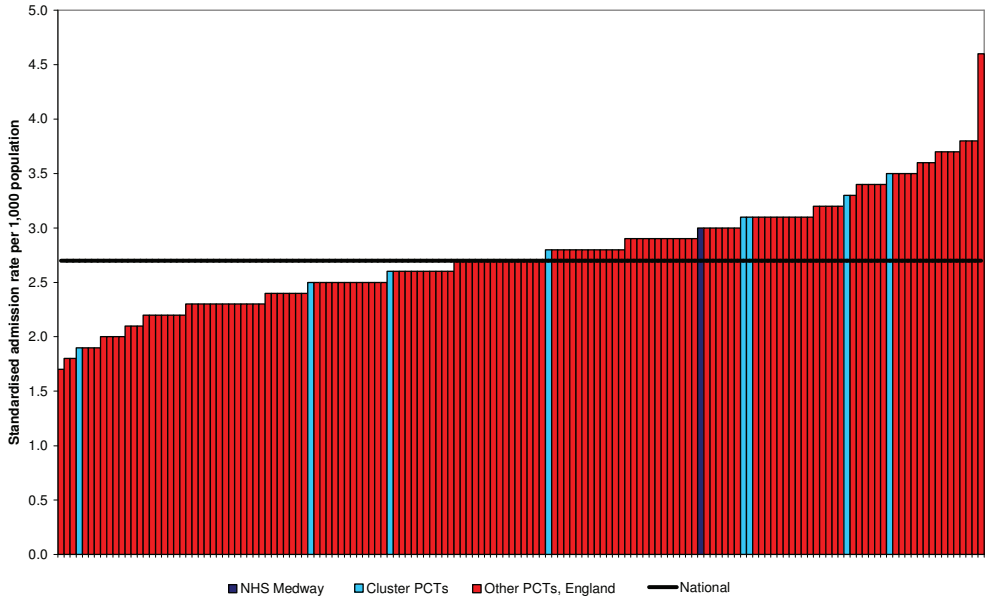
It remains to be seen how, if at all, this partial protection might in future affect young women's take up of invitations from the cervical screening programme.

Admissions

Figures 27 and 28 shows that Medway has a rate of emergency admissions slightly above that seen nationally. The corresponding spend is also slightly above the national rate but Medway remains centrally placed in the cluster; the admission rate is higher than four of the eight cluster PCTs and the spend rate is higher than three.

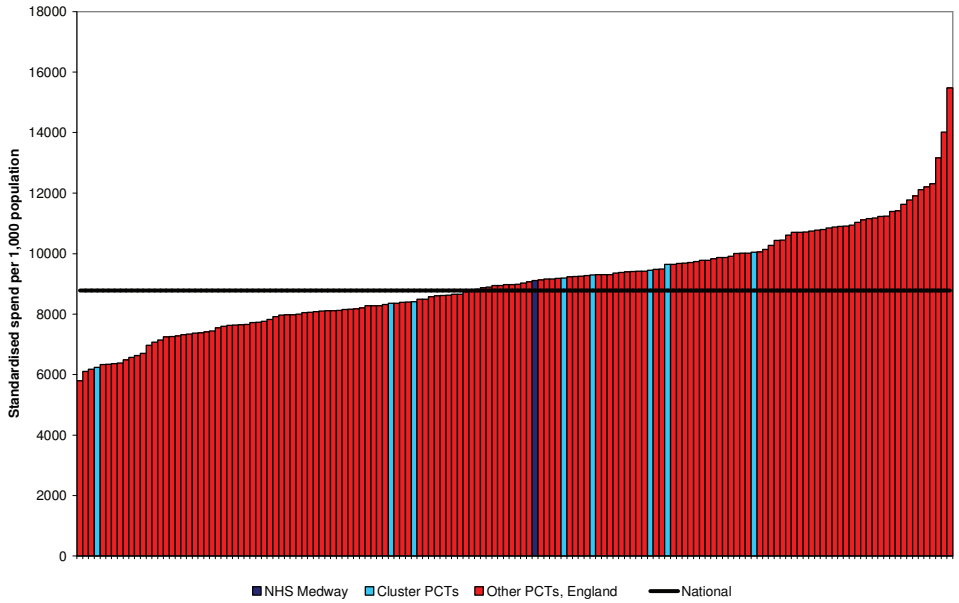
[f] Information from Medway NHS Foundation Trust's child health system, Jan 2010

Figure 27: Emergency admissions per 1,000 population, cancer, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

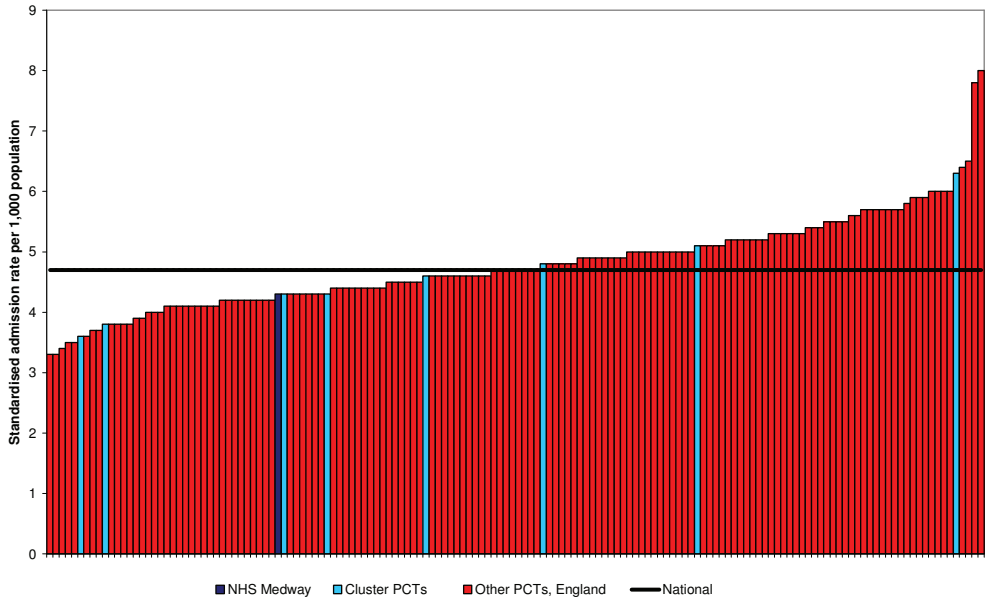
Figure 28: Spend per 1,000 population, emergency admissions, cancer, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

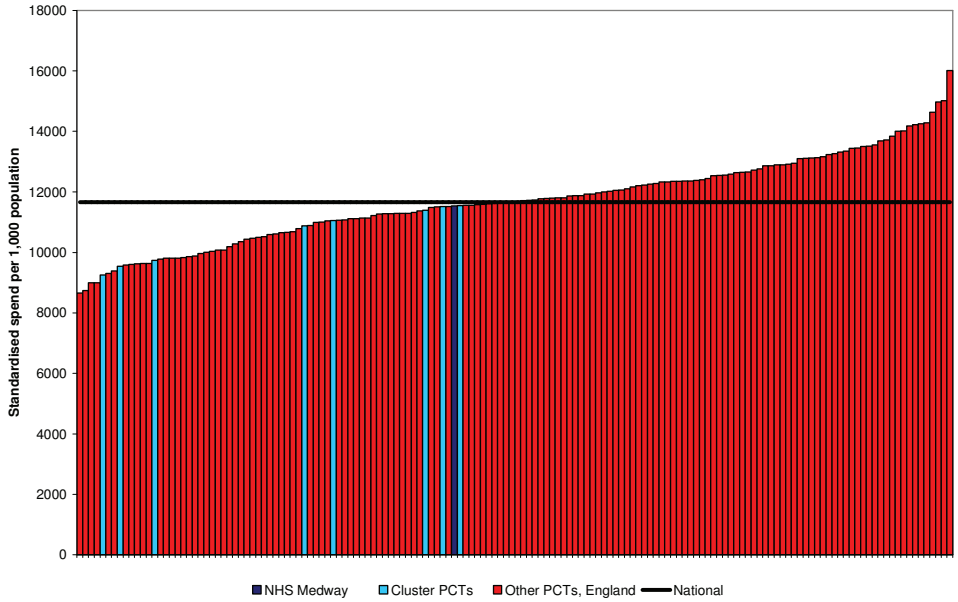
Figures 29 and 30 show that Medway has a rate of elective admissions due to cancer below the national average but a spend at the national average. Only one of the cluster PCTs has a spend higher than Medway.

Figure 29: Elective admissions per 1,000 population, cancer, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 30: Spend per 1,000 population elective admissions, cancer, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Conclusions

The all cancers incidence rate in Medway has remained steady and similar to the rates in South East Coast SHA and England as a whole.

One and five year survival rates following diagnosis are significantly lower in Kent & Medway for some common forms of cancer (prostate, bladder, stomach and lung).

Breast and cervical cancer screening coverage is higher in Medway than the national average.

The cancers and tumours category attracts the 4th highest levels of spend in Medway and ranks 70th highest spend of all English PCTs for this programme. Analysis of subcategory spend shows that 49% of all spend in the cancer and tumours programme is assigned as 'other' spend. Spend on lung cancer, upper GI cancers and haematological cancers in Medway is amongst the lowest of all PCTs in England. However this could be due to the high proportion of spend in the 'other' category. Eighty percent of spend in this programme is in secondary care.

It may be worth considering reviewing spend on the cancer programme especially in primary care, given that the comparator area with the lowest cancer mortality rate (East and North Hertfordshire PCT) has a relatively similar spend in secondary care but a moderately higher spend in primary care compared to Medway.

Next steps

- More work needs to be done to ensure spend is accurately assigned to tumour site sub-categories.
- Explore reasons for the high emergency hospital admission rates for cancer.
- More resources need to be put into cancer prevention, awareness and early detection programmes in primary care
- Uptakes of HPV vaccination and bowel cancer screening will need to be closely monitored locally to ensure high levels of coverage.

Chapter 4: Diabetes

The programme budgeting category endocrine, nutritional and metabolic problems (category 04) includes diabetes, obesity, malnutrition, nutritional deficiencies, disorders of glucose regulation and disorders of the thyroid gland. Diabetes has its own subcategory (04a) and is the focus of this chapter.

Background

Diabetes can have profound effects on health. In Type 1 diabetes, the pancreas is no longer able to produce insulin (a hormone that the body needs to use glucose effectively) because the insulin producing cells (β cells) have been destroyed by the body's immune system. In Type 2 diabetes the β cells are unable to produce enough insulin for the body's needs and there is often also some degree of insulin resistance where the cells in the body are not able to respond to the insulin that is produced.

People with diabetes are at increased risk of developing various forms of cardiovascular disease (e.g. angina, heart attacks, heart failure, strokes, pain in the legs on walking and foot ulcers that may result in the need for amputation).[13] Prolonged exposure to raised blood glucose levels can also damage the eyes, kidneys and nerves. Diabetes is the leading cause of blindness in people of working age, the largest single cause of end stage renal failure and the second most common cause of lower limb amputation.[13] Life expectancy is reduced, on average, by more than 20 years in people with Type 1 diabetes and by up to 10 years in people with Type 2 diabetes.[13]

Risk factors

Diabetes is becoming more common in all age groups including children and young people. Type 1 diabetes is not preventable, but Type 2 diabetes is linked with behavioural factors such as being overweight and physically inactive. There is good evidence that lifestyle changes can reduce the risk of progression to Type 2 diabetes in overweight people with impaired glucose tolerance.[14] Once diabetes is present, good management of blood sugar levels and blood pressure can reduce the risk of complications.[13]

The main risk factors for developing Type 2 diabetes are:

Age

The risk of developing Type 2 diabetes increases with age; most cases of Type 2 diabetes develop in people aged over 40.[13]

Currently 47% of the population of Medway are aged 40 or over; this is projected to increase to around 51% by 2030. The proportion of the population that are aged over 65 is predicted to increase from 13.6% to 20.3% by 2030. This means that a greater proportion of the population of Medway will be at risk of developing diabetes.

Ethnicity

Type 2 diabetes is up to six times more common in people of South Asian descent and up to three times more common in those of African and African-Caribbean descent, compared with the white population. It is also more common in people of Chinese descent and other non-white groups.[15]

Weight

Over 80% of people diagnosed with Type 2 diabetes are overweight. The more overweight and the more inactive a person is, the greater their risk of developing diabetes. Information on the prevalence of obesity in Medway and levels of physical activity are presented in the choosing health chapter of this report.

Waist Circumference

The greater the waist circumference, the higher the risk of developing diabetes. For women, a waist measurement of 80cm (31.5in) or more confers an increased risk. Among men, a waist circumference of 94cm (37in) or more gives an increased risk of developing diabetes; this figure is lower for Asian men where a measurement of 90cm (35in) or more confers increased risk.[16]

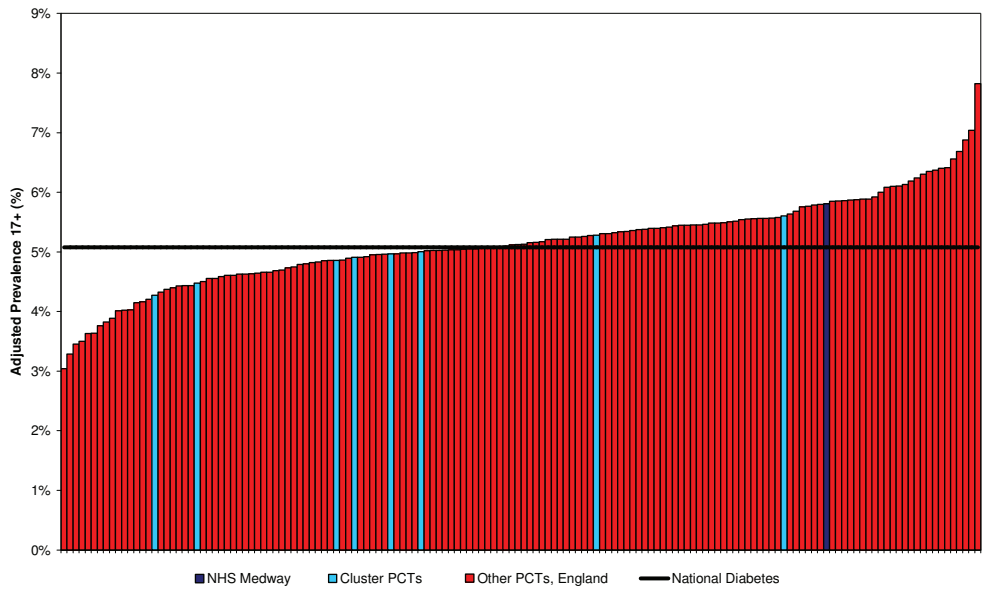
Prevalence

From QOF data, in 2007/08, 11,562 people (aged 17 and over) were registered with a general practice in Medway with a diagnosis of diabetes (both Type 1 and Type 2). This equated to an overall prevalence of 5.3%, higher than the prevalence across the South East Coast SHA (4.5%) and nationally (4.8%).

By 2008/09 over 1,000 more people (aged 17 and over) were recorded as having a diagnosis of diabetes in Medway, giving a total of 12,583 people and a prevalence of 5.8% compared to 4.2% across South East Coast SHA (a slight reduction) and 5.1% nationally.

Figure 31 shows the recorded prevalence of diabetes in NHS Medway compared to other PCTs in England in 2008/09.

Figure 31: Recorded prevalence of diabetes, population aged 17 and over, all PCTs, England, 2008/09



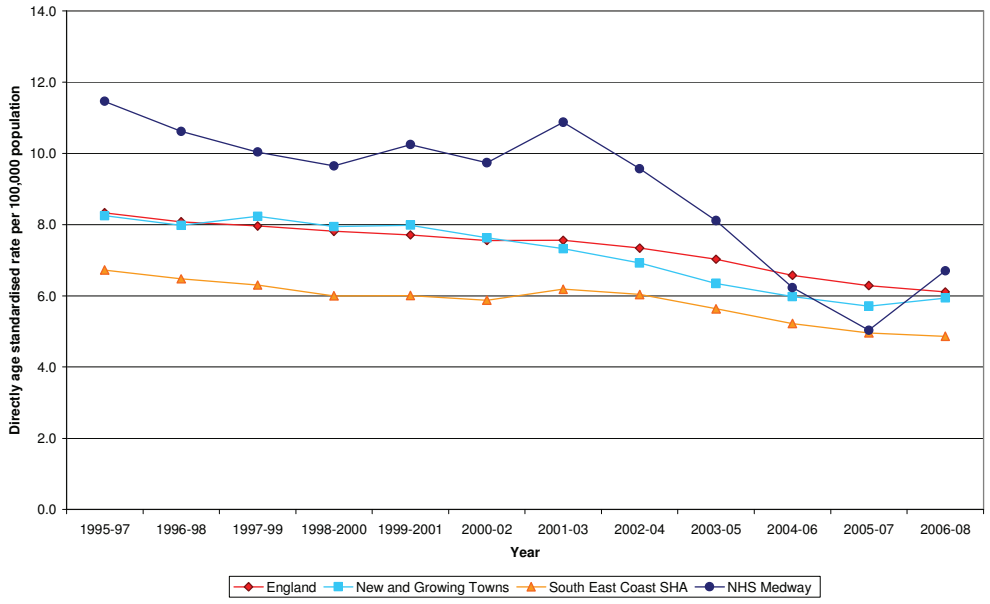
Source: QOF, 2009

The Association of Public Health Observatories (APHO) has undertaken work nationally to develop disease prevalence models (DPMs) of common conditions in geographical areas.[17] The diabetes model was one of the first to be developed (in 2004 prior to the introduction of the QOF, the National Diabetes Audit and additional information from Health Survey for England). Recently it has become evident that the model is underestimating diabetes prevalence, and further work is planned to update the model in 2009/10.[18] A comparison of the prevalence from the QOF with this model is therefore not included in this chapter.

Mortality

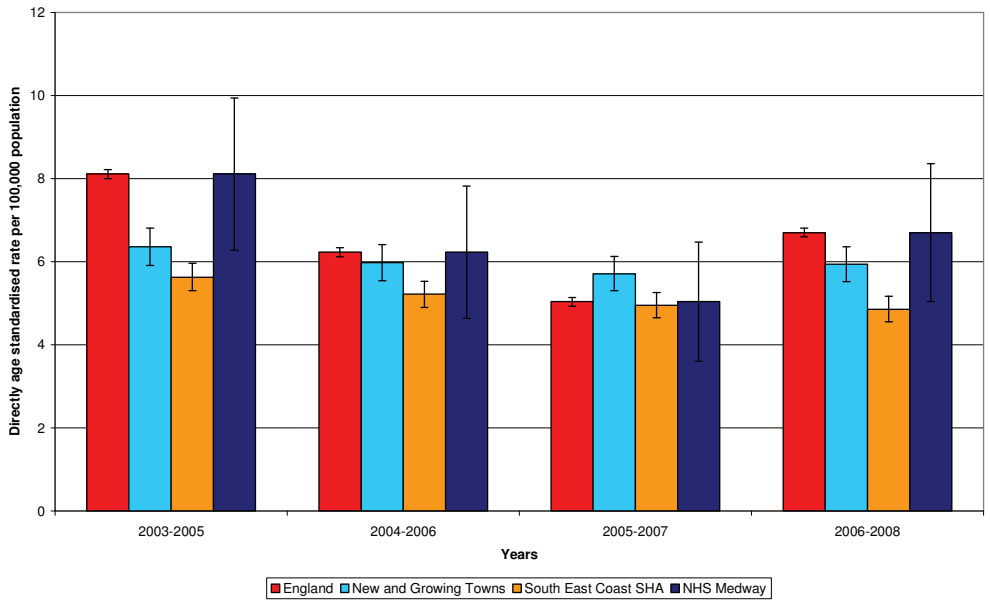
In 2007, a total of 15 deaths in Medway were due to diabetes. Because deaths due to diabetes are so low, three year averages are used to reduce the large amount of variability inherent in observations of rare events. Mortality rates due to diabetes more than halved in Medway, from 11.5 per 100,000 population in 1995/97 to 5.0 per 100,000 population in 2005/07 with an increase in 2006/08 (Figure 32). When the 2006/08 increase was investigated by applying confidence intervals it was not found to be significant (Figure 33).

Figure 32: Directly age standardised mortality rates per 100,000 from diabetes (underlying cause of death), three year averages, 1993/95 to 2006/08, all ages, NHS Medway and comparators



Source: National Centre for Health Outcomes Development, 2009

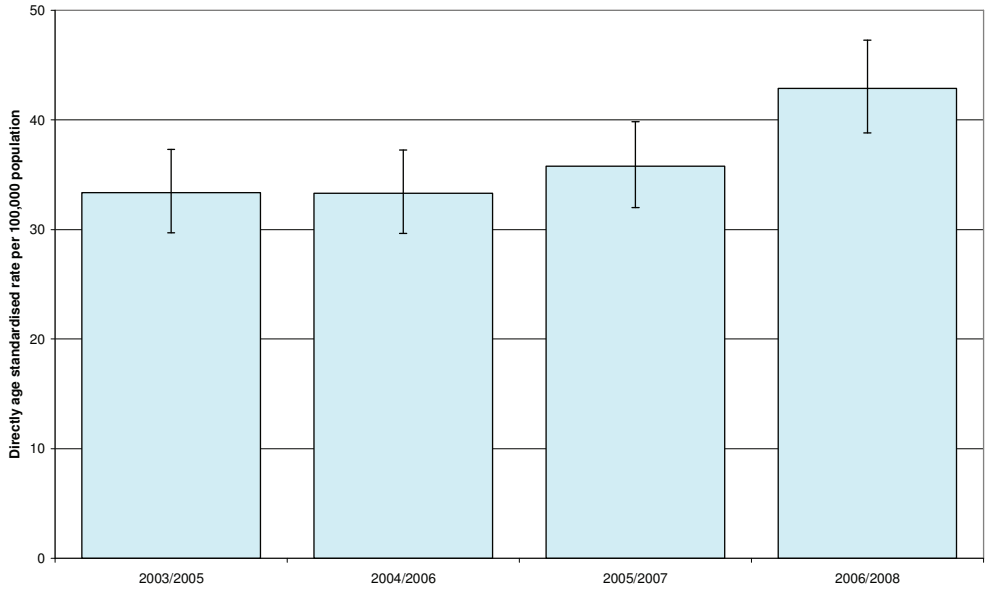
Figure 33: Directly age standardised mortality rates per 100,000 from diabetes (underlying cause of death), three year averages, 2003/05 to 2006/08, all ages, NHS Medway and comparators



Source: National Centre for Health Outcomes Development, 2009

However people with diabetes frequently die from the cardiovascular complications of the disease, rather than diabetes itself. Figure 34 shows mortality rates where diabetes was mentioned on any part of the death certificate as opposed to being identified as the underlying cause of death. This shows a significant increase since 2004/05, which is consistent with the increased prevalence of diabetes. These data are only available for Medway.

Figure 34: Directly age standardised mortality rates per 100,000 from any mention of diabetes, three year averages, 2003/05 to 2006/08, all ages, NHS Medway

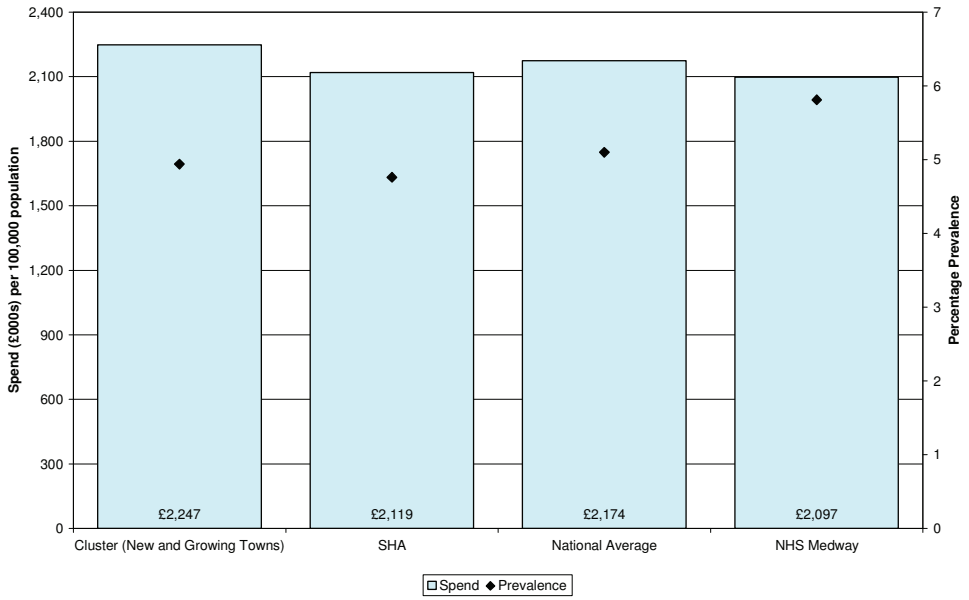


Source: Primary Care Mortality Database & Office for National Statistics © Crown Copyright resident population estimates, 2003-2008

Programme spend in 2008/09

In 2008/09 Medway spent £2,096,749 per 100,000 population on diabetes and ranked 81st out of the 152 PCTs in England for this spend. Figure 35 shows spend compared with the prevalence of diabetes. Spend for diabetes is lower than the SHA and national average despite Medway having a higher prevalence of diabetes. Figure 36 shows that Medway has the highest prevalence of diabetes within the cluster but the 5th highest spend on diabetes.

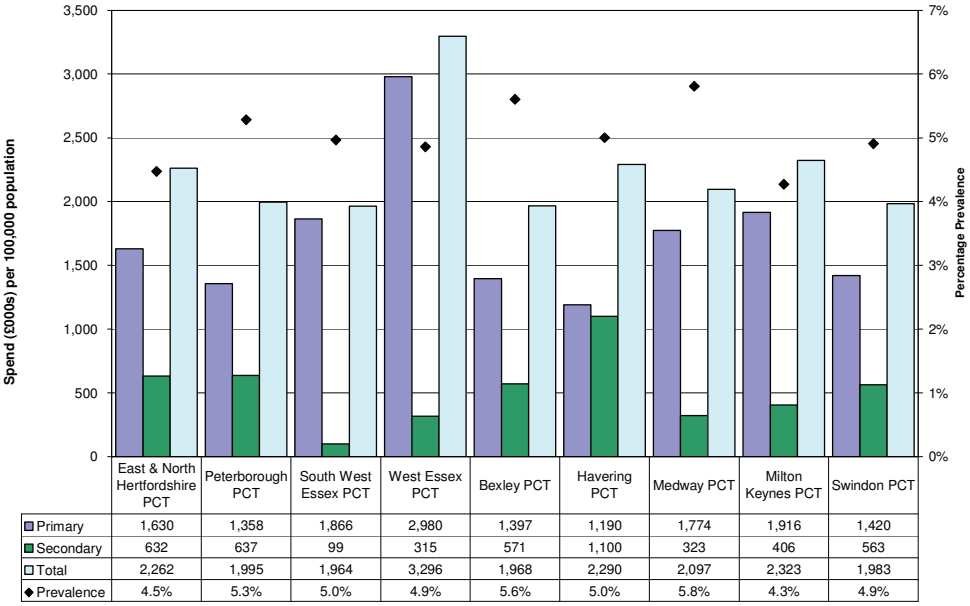
Figure 35: Spend per 100,000 population and prevalence, Medway and comparators, 2008/09: 04a Diabetes



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010 and QOF, 2009

Figure 36 also illustrates that with the exception of Havering PCT, all PCTs within the cluster spend much more in primary care than secondary care.

Figure 36: Spend per 100,000 population diabetes, Medway, primary and secondary split, 2008/09, compared with PCTs new and growing towns cluster group, and diabetes prevalence 2008/09



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	1,630	1,358	1,866	2,980	1,397	1,190	1,774	1,916	1,420
Secondary	632	637	99	315	571	1,100	323	406	563
Total	2,262	1,995	1,964	3,296	1,968	2,290	2,097	2,323	1,983
Prevalence	4.5%	5.3%	5.0%	4.9%	5.6%	5.0%	5.8%	4.3%	4.9%

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010 and QOF, 2009

Primary Care

Individuals with a diagnosis of diabetes require ongoing support to manage their condition, much of which, certainly for those with Type 2 diabetes, can be via their GP practice and other community based services. A measure of the success of these services is the percentage of people with diabetes who have controlled blood glucose levels.

In 2008/09, 66.5% of people recorded on diabetic registers in Medway, had a blood glucose level sufficiently low to be defined as controlled, which was statistically significantly lower than the South East Coast SHA average (68%) but is not statistically significantly different to the national level (66%). In 2008/09 within the new and growing towns cluster of PCTs, the range for this QOF indicator was 54.1% to 70.1%.

Blood pressure control is also important in the management of diabetes. The QOF data show that 80.6% of people recorded on diabetic registers in Medway in 2008/09 had a blood pressure reading of 145/185 mmHg or less. The range within the cluster was 77% to 81.3%.

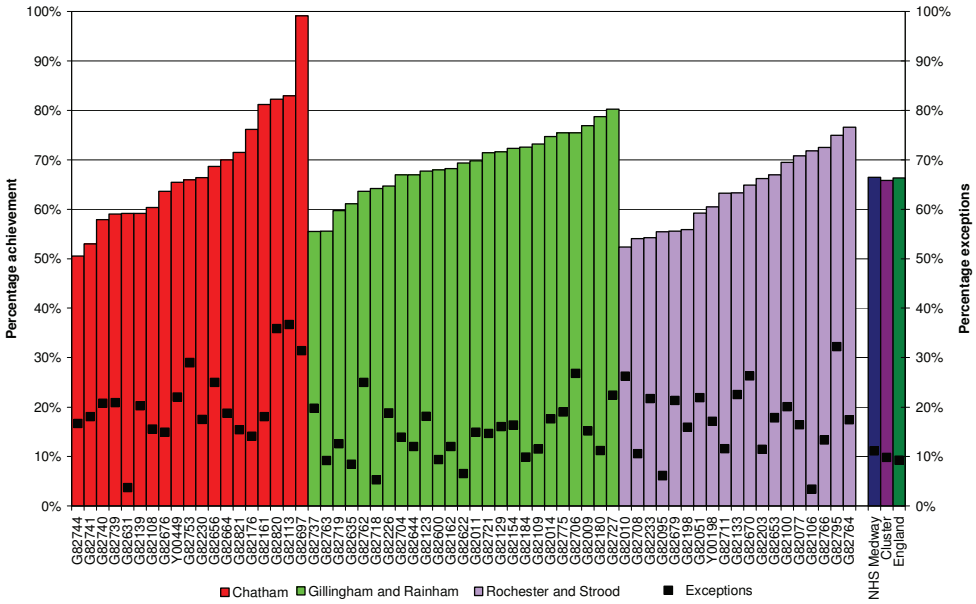
One of the potential complications caused by diabetes is diabetic retinopathy, which occurs when the blood vessels at the back of the eye become damaged. Poor blood glucose control increases the risks of developing complications including retinopathy which continues to be the most common cause of blindness in adults of working age in the UK.[19] By 31st December 2007, all PCTs were required to offer annual retinopathy screening to 100% of their registered diabetic population aged 12 years and over.

According to 2008/09 QOF data, 91% of the diabetic population (aged 17 and over) registered with Medway practices were recorded as being screened for diabetic retinopathy in the preceding 15 months. The range of the cluster was from 87.4% to 93.3%.

In 2008/09, 99.9% of people with diabetes aged 12 and over, identified by practices, were offered digital retinopathy screening within the preceding 12 months by the Medway NHS Foundation Trust.[20] However in the second quarter of 2009/10, only 91% of non-excluded patients (aged 12 and over) were offered screening in the preceding 12 months, with an uptake of 79% (national figures were 96.4% and 75.5% respectively). This has risen to 94.4% in the third quarter of 2009/10. However as screening is of proven effectiveness and the target is 100% being offered, further action is required to ensure that screening is offered to all people with diabetes, that they are fully aware of the benefits and uptake is maximised.

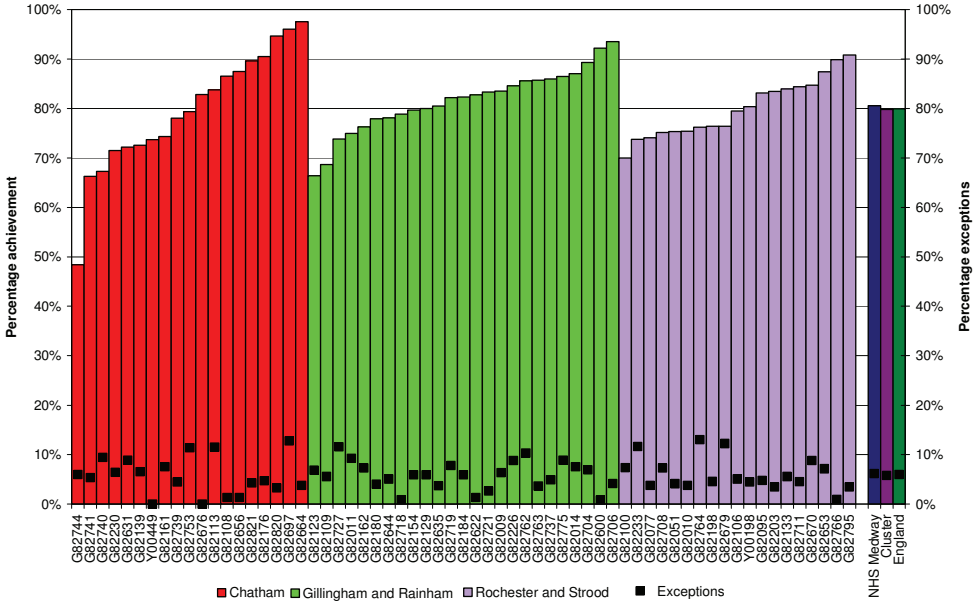
The following figures demonstrate that there is considerable variation amongst Medway practices in some of the key QOF clinical indicators for diabetes (Figures 37 to 41). In these figures practice are shown allocated to their appropriate practice based commissioning (PBC) locality. The black squares show the percentage of patients who have been recorded as exceptions in that this information does not need to be recorded for them under the conditions of the QOF.

Figure 37: The percentage of patients with diabetes in whom the last HbA1c is 7.5 or less within the previous 15 months by practice and PBC locality (QOF indicator DM 20), 2008/09



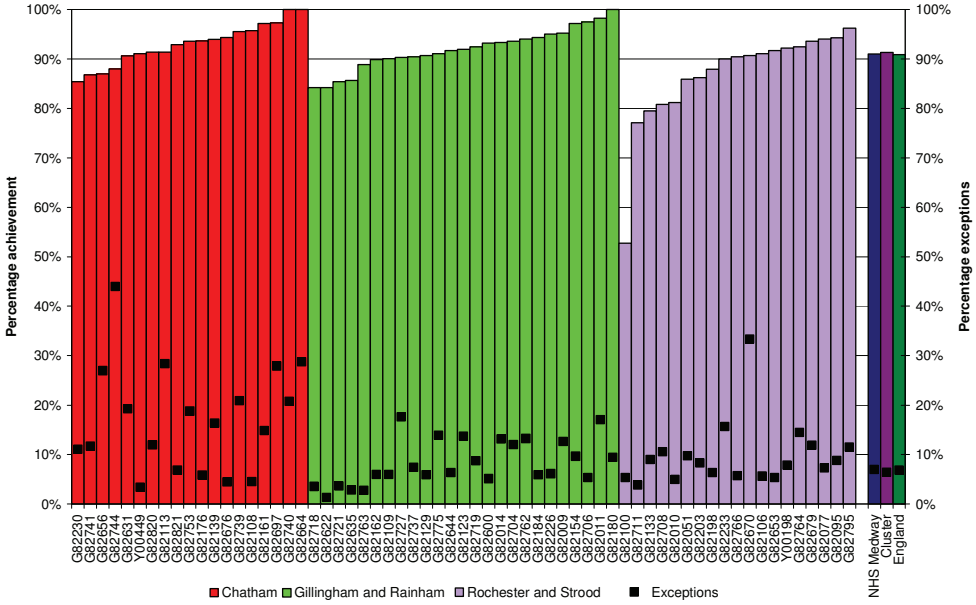
Source: QOF, 2009

Figure 38 The percentage of patients with diabetes in whom the last BP reading is 145/85 or less within the previous 15 months by practice and PBC locality (QOF indicator DM 12), 2008/09



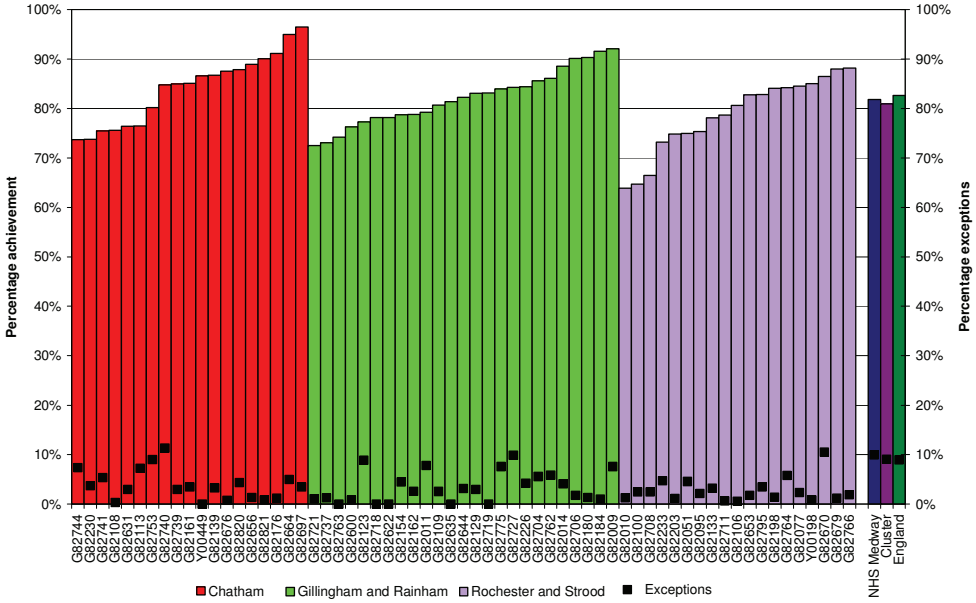
Source: QOF, 2009

Figure 39: The percentage of patients with diabetes who have a record of retinal screening in the previous 15 months by practice and PBC locality (QOF indicator DM 21), 2008/09



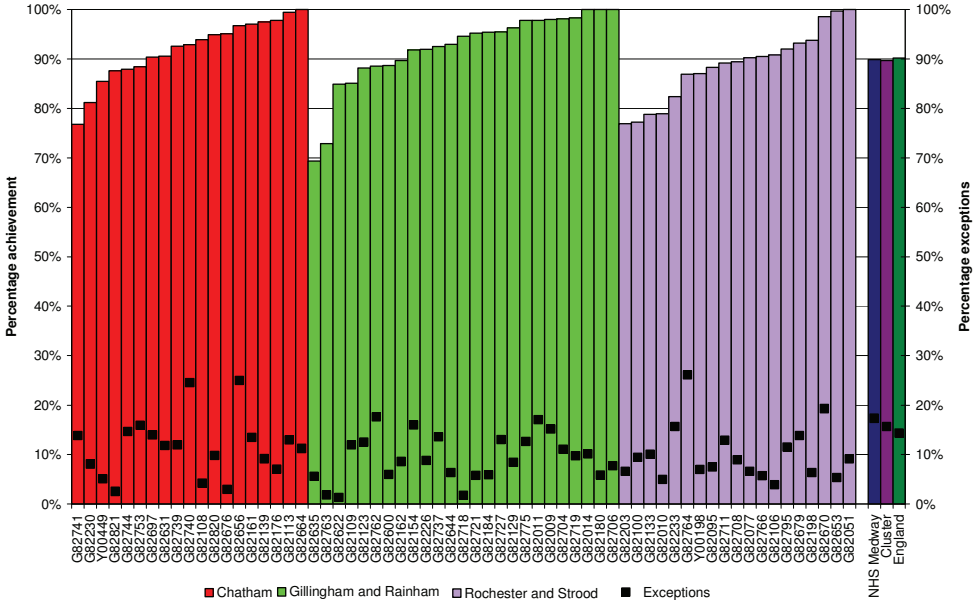
Source: QOF, 2009

Figure 40: The percentage of patients with diabetes whose last measured total cholesterol within the previous 15 months was 5mmol/l or less, by practice and PBC locality (QOF indicator DM 17), 2008/09



Source: QOF, 2009

Figure 41: The percentage of patients with diabetes who have had seasonal flu immunisation in the preceding 1 September to 31 March, by practice and PBC locality (QOF indicator DM 18), 2008/09

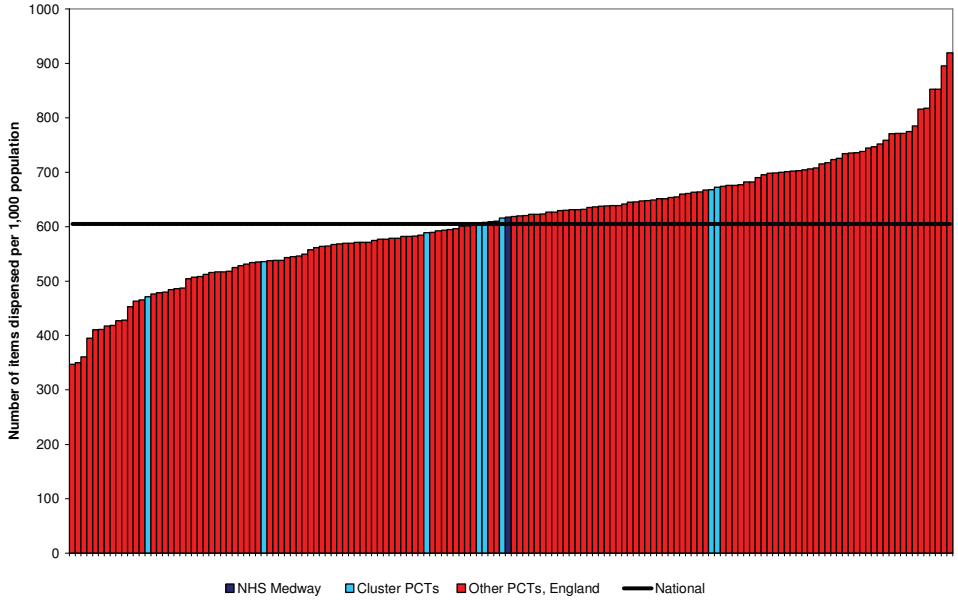


Source: QOF, 2009

Primary Care Prescribing

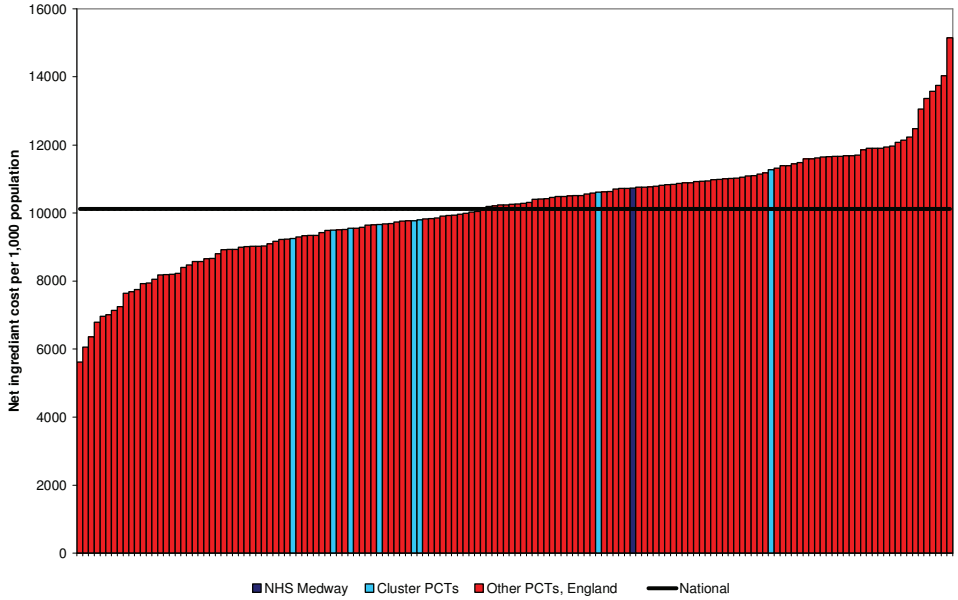
Figures 42 and 43 show information on primary care prescribing for this programme budgeting subcategory. The rate of items dispensed per 1,000 population in Medway is similar to the national average but the net cost per item is slightly higher than the national average and is high within the cluster.

Figure 42: Number of items dispensed per 1,000 population for diabetes, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 43: Net ingredient cost per 1,000 population for diabetes, all PCTs, England, 2008/09



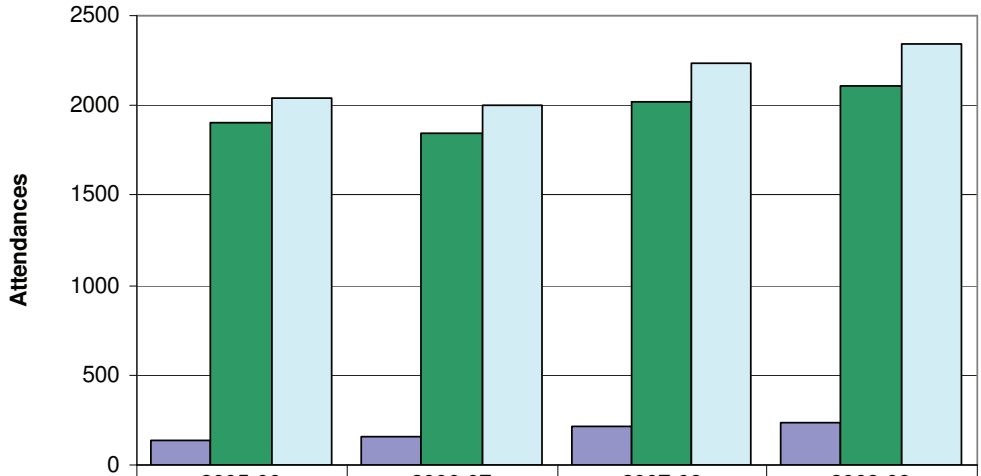
Source: NHS Comparators, 2009

Secondary Care

Outpatient Attendances

Figure 44 shows information for outpatient attendance where the primary diagnosis was diabetes and the attendance was coded as diabetic medicine. No benchmarking data are available for outpatient attendances but Figure 44 shows that the number of first and follow up appointments within secondary care has risen since 2006/07, which is consistent with increased prevalence. It may be possible for this to be reversed by increasing skills within primary care.

Figure 44: Diabetic medicine outpatient attendances, 2005/06 to 2008/09, NHS Medway



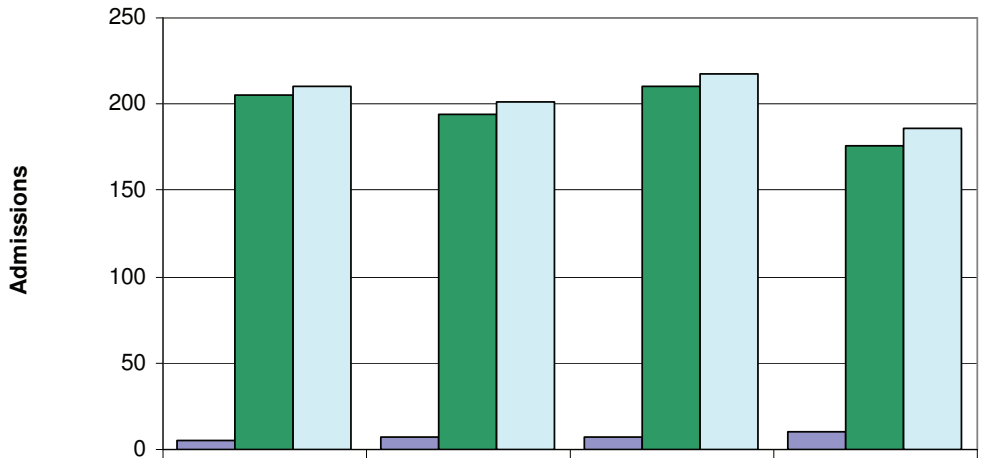
	2005-06	2006-07	2007-08	2008-09
First	133	159	211	237
Follow Up	1909	1846	2026	2106
Total	2042	2005	2237	2343

Source: Health Informatics Service Business Intelligence system (HISbi), 2010

Admissions

Figure 45 shows that the vast majority of inpatient episodes for diabetes are non elective (which are mainly emergency) admissions.

Figure 45: Diabetic admissions, by type 2005/06 to 2008/09. NHS Medway

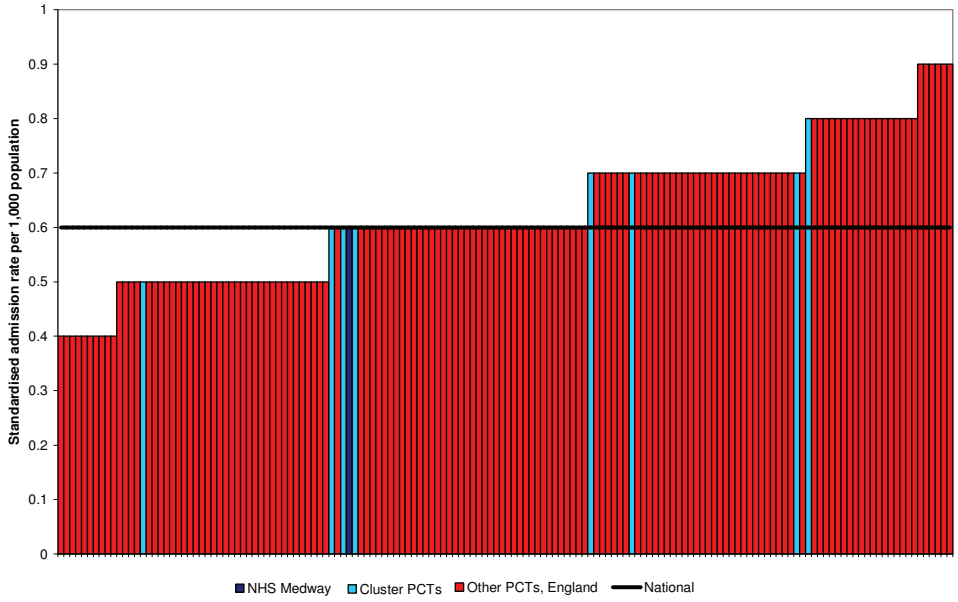


	2005-06	2006-07	2007-08	2008-09
Elective	5	7	7	10
Non Elective	205	194	210	176
Total	210	201	217	186

Source: Health Informatics Service Business Intelligence system (HISbi), 2010

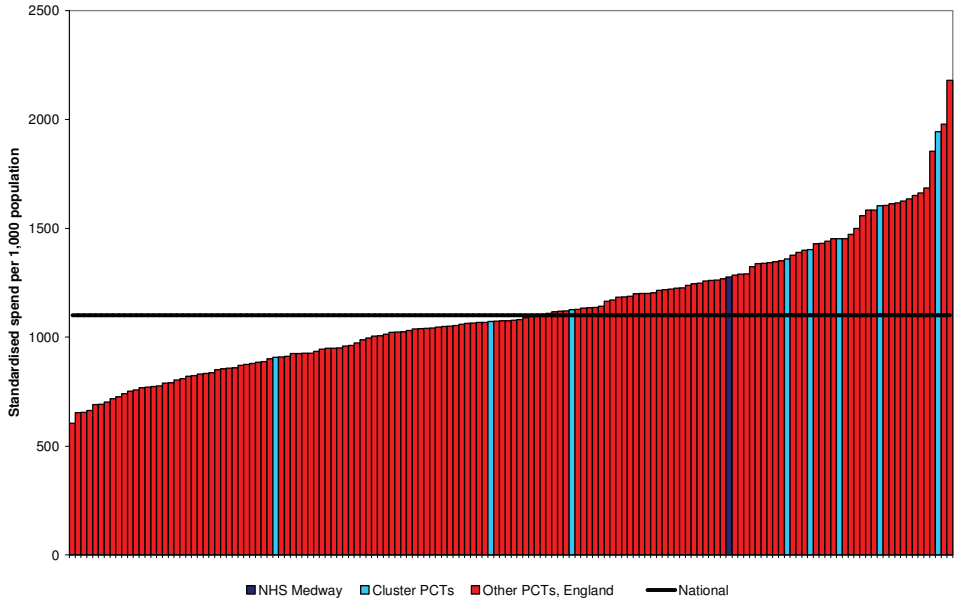
Figures 46 and 47 illustrate that in Medway in 2008/09 the rate for all emergency admissions related to diabetes was at the national level and Medway was not an outlier within the cluster. The spend for these emergency admissions was above the national average.

Figure 46: Emergency admissions per 1,000 population for diabetes, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 47: Spend per 1,000 population, emergency admissions for diabetes, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Conclusions

The population of Medway is ageing, with the proportion of the population made up of older age groups set to increase. This will mean that the proportion of the population at increased risk of diabetes is also set to increase over time. The increasing prevalence of obesity will also increase the prevalence of diabetes.

Prevalence of diabetes is high in Medway at 5.8%, compared to 5.1% nationally. There was an increase of over 1000 newly recorded diabetics in Medway between 2007/08 and 2008/09.

Management of diabetes locally as measured by control of blood glucose and blood pressure is towards the upper end of the cluster range indicating better than average control in 2008/09.

Although in 2008/09, 99.94 % of eligible people with diabetes were offered retinopathy screening, the recent decrease is concerning.

Investment in diabetes is low compared to other similar areas. In 2008/09 Medway spent £150,676 per 100,000 population less than the cluster group average on diabetes.

Next Steps

- The large increase in the prevalence of diabetes locally suggests more work needs to be done on prevention of diabetes. This will be particularly important as the proportion of the population in the older age groups increases. Investments in services that improve diet and increase physical activity are likely to have a positive impact on reducing diabetes prevalence in the long run through a reduction in levels of obesity.

- There is considerable variation amongst Medway practices in some of the key clinical indicators which needs further investigation.

- A review of the diabetic retinopathy screening programme is required, with a view to not only increasing the percentage of patients offered screening but also increasing the uptake of this service.

Chapter 5: Mental health disorders

Background

The mental health disorders category (05) encompasses a number of sub-categories. These are:

- **Organic mental disorders** (05b) – this subcategory includes those disorders which, as a result of disease or injury, lead to dysfunction. The majority of conditions in this group are types of dementia.
- **Psychotic disorders** (05c) – the disorders which feature in this sub-category are those which distort an individual's perception of reality caused by disturbances in their thinking and perceptions. The main diagnoses falling under this category are schizophrenia and bi-polar affective disorder.
- **Other mental health disorders** (05x) – this subcategory includes a diverse set of mental health disorders which affect large numbers of people including common mental disorders, personality disorders, eating disorders and post traumatic stress disorder. This section will discuss the most prevalent set of conditions, common mental disorders. These encompass a number of conditions including anxiety and depression.
- **Child and adolescent mental health disorders** (05d)
- **Substance misuse** – (05a)[g]

The services and interventions provided to people with mental health disorders depend on the type of condition, severity and the other needs of the patient. People with mental health disorders may access a range of interventions across primary and secondary care. Aims of services provided include lessening and eradicating symptoms, enabling people to cope with their condition and providing longer term treatment and support.

Risk factors

Table 15 presents some of the key factors.

[g] Not included in this report.

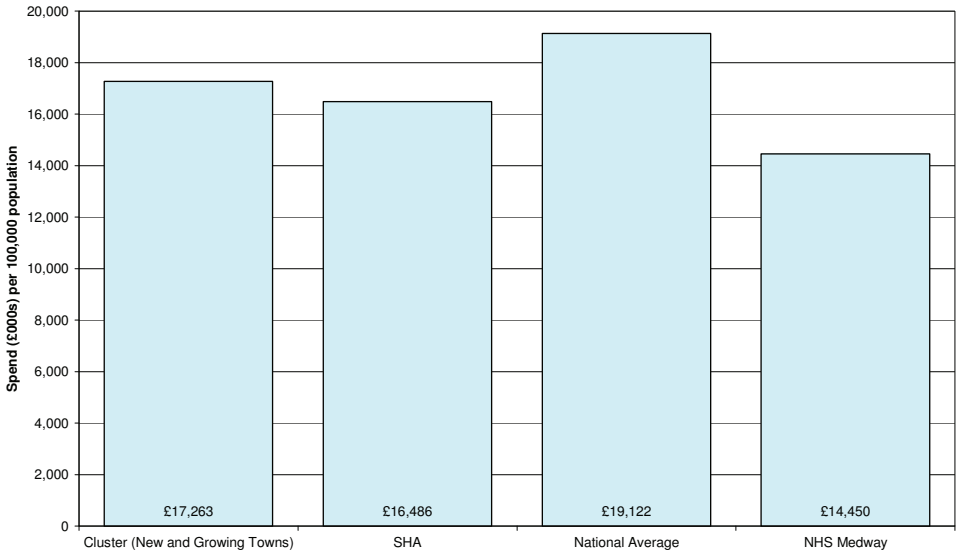
Table 15: Risk factors for mental health disorders

Risk Factor	Dementia	Psychotic Disorder	Common Mental Disorders (CMD)
Age	The risk of developing dementia increases with age.[21]	The highest prevalence has been found in the 35 to 44 year old age group.[22]	People aged over 75 have been found to be the least likely to have CMD.[23]
Sex	Rates of dementia have been found to be higher in women.[21]	A slightly higher prevalence has been identified in women.[22]	Women have been found to be more likely to have CMD than men.[23]
Ethnicity	There is little information about ethnicity and dementia. However people from an Indian, Bangladeshi, Pakistani, Sri Lankan or African-Caribbean background have a higher risk of developing vascular dementia as a result of the higher prevalence of diabetes and coronary heart disease in the populations.[24]	The highest prevalence has been found in Black Caribbean and Black African populations. The reasons for this are thought to be a complex interaction of social and environmental factors and service attitudes.[22]	There has been found little difference in rates of CMD across the majority of ethnic groups. However rates of CMD have been found to be higher amongst South Asian women.[23]
Deprivation	A number of the lifestyle factors and conditions associated with dementia such as smoking and atherosclerosis are more prevalent in people from deprived backgrounds.[24]	People with the lowest levels of income are more likely to have a psychotic disorder than those with the highest levels of income.[22]	People with the lowest levels of income are more likely to have CMD than those with the highest levels of income.[23]
Employment	-	Levels of unemployment are high in people with psychotic disorders. This can be a contributing factor to psychosis or as a result of not being able to sustain working.[22]	Job insecurity and unemployment are linked to higher levels of CMD.[25]
Housing and homelessness	-	Levels of psychosis are higher in people who are homeless and it is thought that being homeless can trigger psychotic episodes.[26]	Overcrowded housing and homelessness have been linked to CMD.[27]
Substance misuse	People who drink large amounts of alcohol over a long period of time have an increased risk of developing dementia.[24]	Illegal drugs are linked with the development of psychotic disorders, particularly cannabis.[28]	Alcohol misuse has been found to increase the risk of depression.[28]

All mental health disorders

Overall in 2008/09 spend on mental health was £14,450,465 per 100,000 population, the second highest spend of all the 23 programmes (the highest is the other category). Nationally Medway ranks 146th out of the 152 PCTs in England for spend on mental health disorders. Medway spends less per 100,000 than the cluster sub group average, the host SHA and the national average.

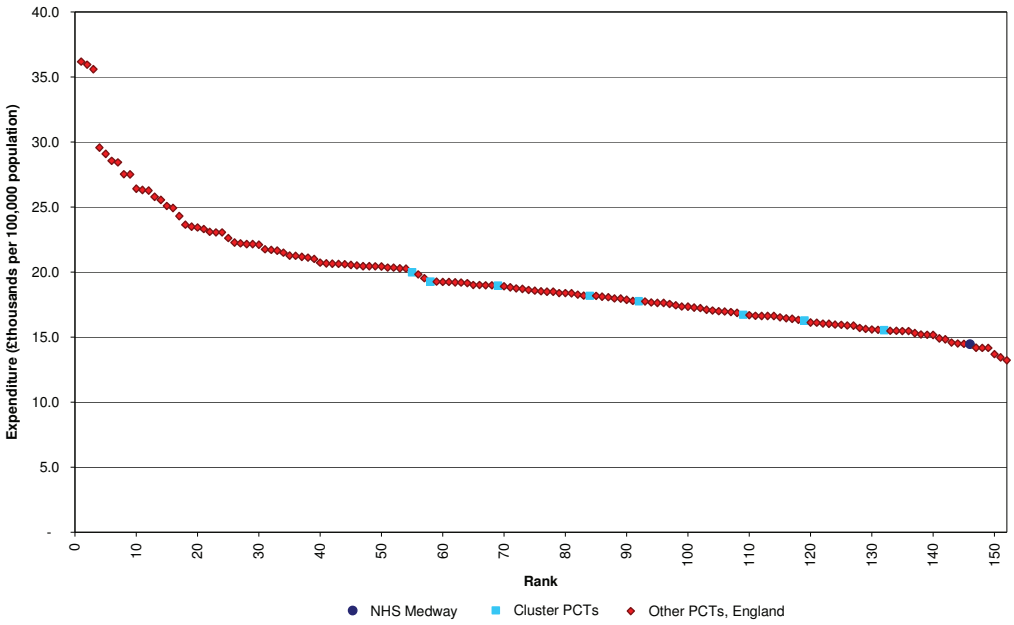
Figure 48: Spend per 100,000 population, Medway and comparators, 2008/09: 05 mental health disorders



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 49 presents the national ranking of Medway against all other PCTs in the country for spending on mental health problems with the other PCTs in the cluster highlighted.

Figure 49: Spend in £000s per 100,000 weighted population, mental health disorders, all PCTs, England,2008/09



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Table 16 presents the spend for the constituent sub programmes and their ranking compared to the other 152 PCTs. The largest spending programme is the 'other' mental health disorders category. As would be expected considering the overall ranking, all of the sub-categories are ranked as comparative low spending. Only child and adolescent mental health disorders would feature in the top 50% of spending of all PCTs. The categories of organic mental disorders and psychotic disorders have the lowest ranks.

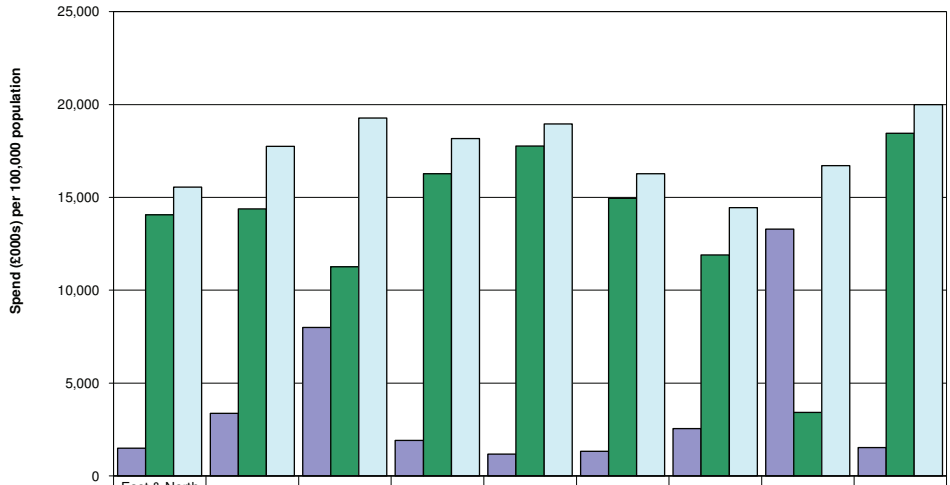
Table 16: Spend per 100,000 population mental health disorders, NHS Medway, 2008/09

Category or subcategory	Spend per 100,000 population	PCT ranking out of 152 (1 is the highest spending PCT)
05 Mental Health Disorders	**£14,450,465**	**146**
05a Substance Misuse	£1,461,486	93
05b Organic Mental Disorders	£627,216	103
05c Psychotic Disorders	£924,151	101
05d Child and Adolescent Mental Health Disorders	£1,479,899	51
05x Other Mental Health Disorders	£9,957,712	83

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 50 shows that in Medway the spend on mental health disorders is lower than every other PCT in the ONS cluster group. Medway, in common with all but Milton Keynes, spends more in secondary care than primary care.

Figure 50: Spend per 100,000 population mental health disorders, Medway, primary and secondary split 2008/09 compared with PCTs new and growing towns cluster group



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	1,491	3,363	8,005	1,910	1,181	1,319	2,543	13,301	1,537
Secondary	14,056	14,390	11,265	16,270	17,776	14,953	11,907	3,422	18,454
Total	15,547	17,753	19,270	18,179	18,957	16,272	14,450	16,723	19,991

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Mortality

Mental health disorders have been associated with an increased risk of suicide. It has been estimated that 90% of people who die as a result of suicide had one or more mental health disorders. Therefore, the rate of suicides in an area is used as an indicator of the overall performance of mental health services. The rationale is that if mental health services are engaging with those people with a need for services and providing effective services, the rate of suicides will be lower.

In Medway the directly standardised rate of mortality from suicide for 2006/08 is 6.02 per 100,000 population. The rate in Medway is higher than the cluster average (5.07), SHA (5.61) and national average (5.69).[9] Medway's rate is not statistically significantly higher than the other rates, therefore the differences may not be true difference and are as a result of chance. This rate is achieved although the levels of spend are lower in Medway than the other areas.

Admissions

Figure 51 shows that Medway has a higher rate of emergency admissions to general hospital care, due to mental health, than the national level. This is the second highest rate in the cluster. It should be noted that the actual number of emergency admissions to general hospital care are low, in Medway there were 27 in 2008/09. The rate of elective admissions is lower, in the same time period there was only 1 in Medway. The majority of admissions for mental health, both emergency and elective, will be to specialist mental health units. The rates of admissions to specialist mental healthcare for Medway and its comparators are not publicly available.

Figure 51: Emergency admissions per 1,000 population, mental health disorders, all PCTs, England, 2008/09

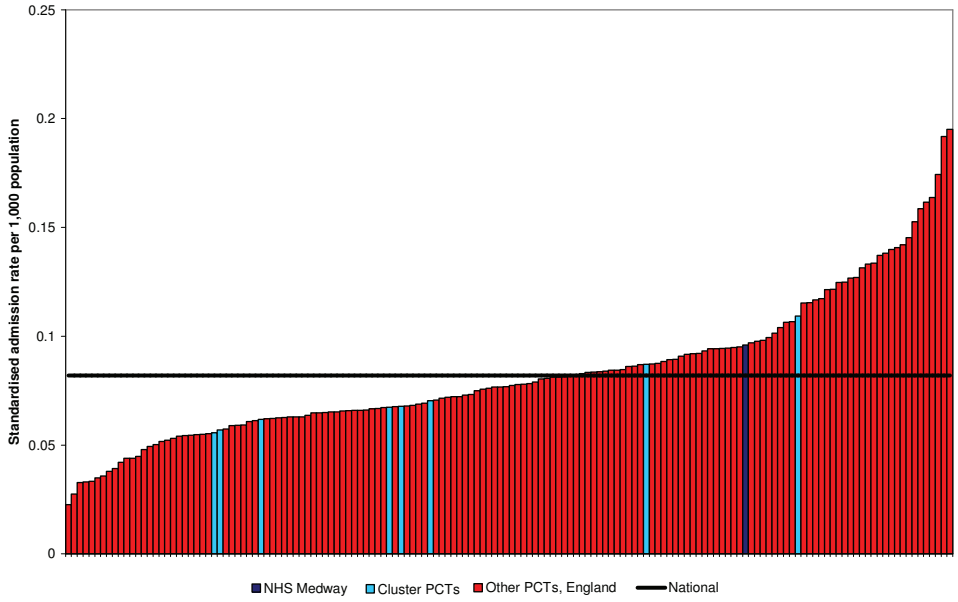
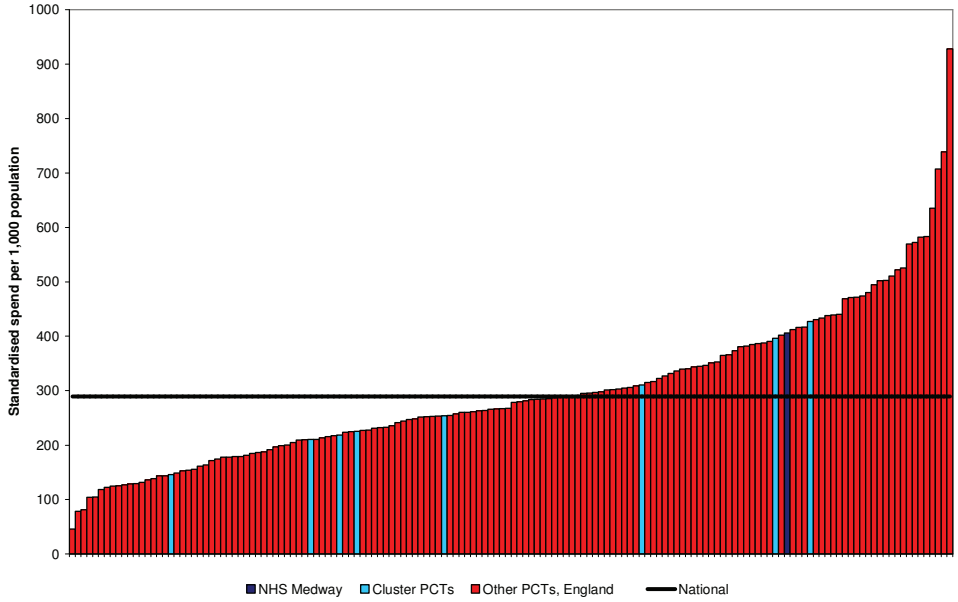


Figure 52 shows that Medway has a higher spend per 1,000 population for emergency admissions to general hospital care due to mental health than the national level and as would be expected reflects the pattern of rates of admissions seen in Figure 50.

Figure 52: Spend per 1,000 population on emergency admissions, mental health disorders, all PCTs, England, 2008/09



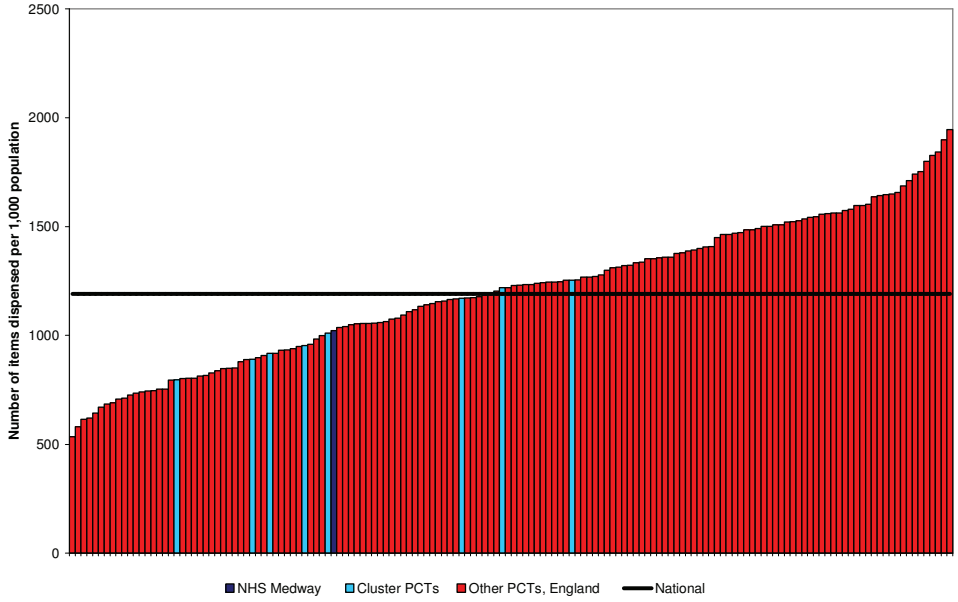
Source: NHS comparators, 2009

Another indicator used to measure the effectiveness of local services is considering the percentage of people under adult mental health specialties who are on an enhanced care programme approach (CPA) who receive follow up (face to face or phone) within 7 days of being discharged from hospital. The aim of follow up is to reduce risk of self harm, social exclusion and to improve care pathways. The percentage of people in Medway who are receiving this follow up is 90%. This is similar to the cluster average (91%), SHA (89%) and national average (93%), despite the lower level of spend in Medway.

Primary care prescribing

Figure 53 shows that in Medway there are fewer items prescribed per 1,000 population than the national average. This includes drugs prescribed for the range of mental health conditions including anti-psychotics, anti-depressants and drugs for dementia. Medway sits in the middle of its comparator PCTs in terms of rates of prescribing items.

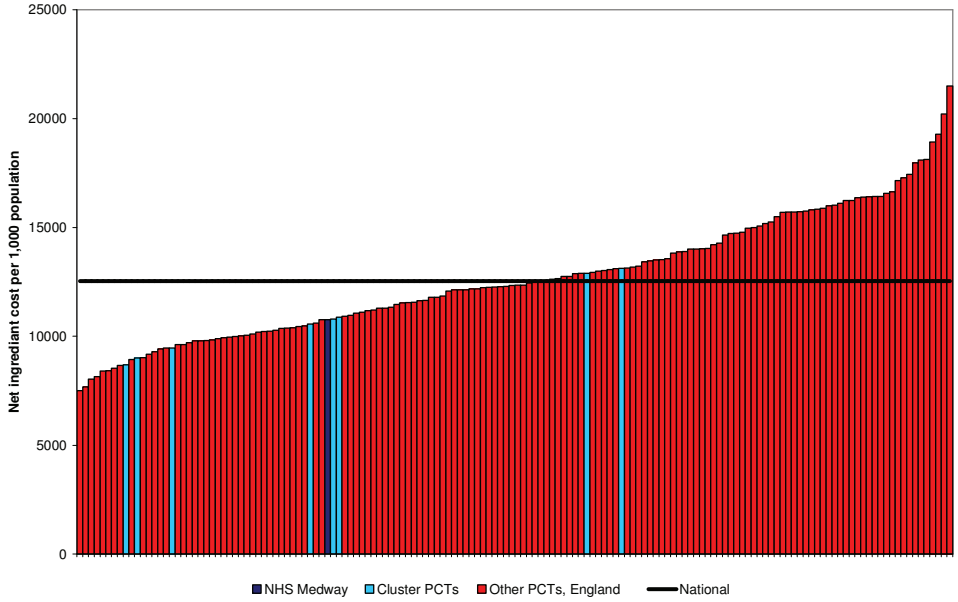
Figure 53: Number of items dispensed per 1,000 population, mental health disorders, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Figure 54 shows that Medway stays in a similar position relative to other PCTs for net ingredient cost per 1,000 population compared to items prescribed per 1,000 population. This suggests that particularly expensive or inexpensive drugs are not prescribed in Medway at high rates.

Figure 54: Net ingredient cost per 1,000 population, mental health disorders, all PCTs, England, 2008/09



Source: NHS comparators, 2009

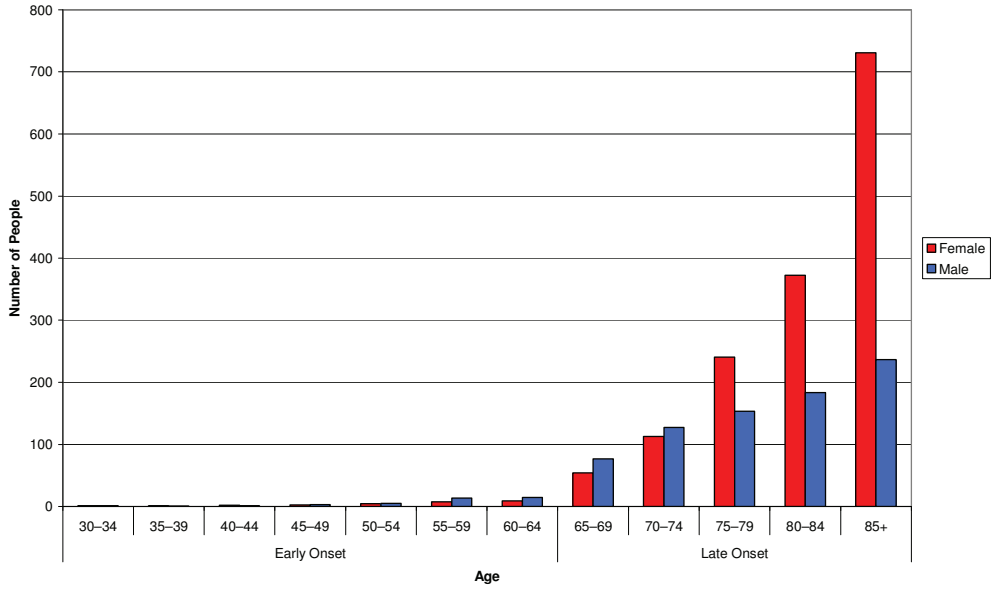
Organic mental health disorders

This section will focus on dementia. Dementia is an important condition on which to focus as the numbers of people with the disease are projected to increase over the next 20 years and because per person it costs more than all other mental health conditions.[29] Dementia is caused by chemical and structural changes in the brain which result in symptoms including a decline in communication and reasoning skills and memory. Dementia is a progressive disease and over time people gradually lose the skills that are required for them to carry out daily activities.[21] There are different types of dementia, including Alzheimer's disease and vascular dementia.

Prevalence

Using the estimates from the Dementia UK[21] publication with Medway's population estimates for 2008,[30] this suggests there are a total of 2,352 people in Medway with dementia. Of these, sixty-four people under the age of 65 are estimated to have early onset dementia. Figure 55 presents the estimated numbers of people by age and sex, clearly showing the increasing prevalence of the disease with age and that the disease is more prevalent in women (65% of the estimated disease in the population) reflecting increased risk in women and their longer life expectancy.

Figure 55: Estimated number of people with dementia in Medway, 2008



Source: Dementia UK, 2007[21]; ONS, 2009[30]

A recent report[31] produced by the Health Economics Research Trust at the University of Oxford for the Alzheimer's Research Trust has used higher prevalence estimates for dementia than those used by Dementia UK. The

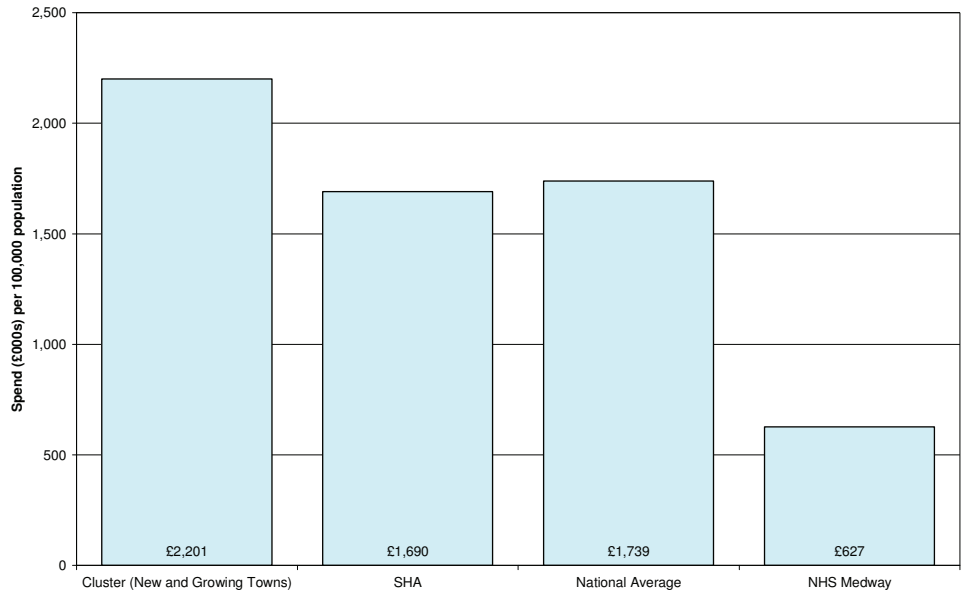
Dementia UK estimates have been used in this report to allow ease of comparison with other national estimates.

At the end of 2008/09, 946 people, which represents 0.34% of people registered with a GP in Medway, were recorded as being diagnosed with dementia. This is less than half the number of people expected by the prevalence estimates. Some people will be at the early stages of the disease and will not be diagnosed; other people may be at a later stage but may not have received a formal diagnosis. There are a range of prevalence levels recorded in Medway at practice level, from 0.04% to 3.6%, with the median prevalence at 0.24%. This is likely to reflect to a large extent the differences in age profiles between practices. The prevalence in Medway Practices is lower than in the South East Coast SHA area (0.47%), and England as a whole (0.43%).[32] This may be because Medway has a younger age profile than the SHA and England. There are limitations when using QOF as a measure of the level of disease in the community as prevalence may be underestimated because cases have not been diagnosed or recorded with the correct codes.

Programme spend in 2008/09

In 2008/09 Medway ranked 103rd out of 152 PCTs in England, spending £627,216 per 100,000 population on organic mental disorders. Figure 56 shows the spend was considerably less than all comparators.

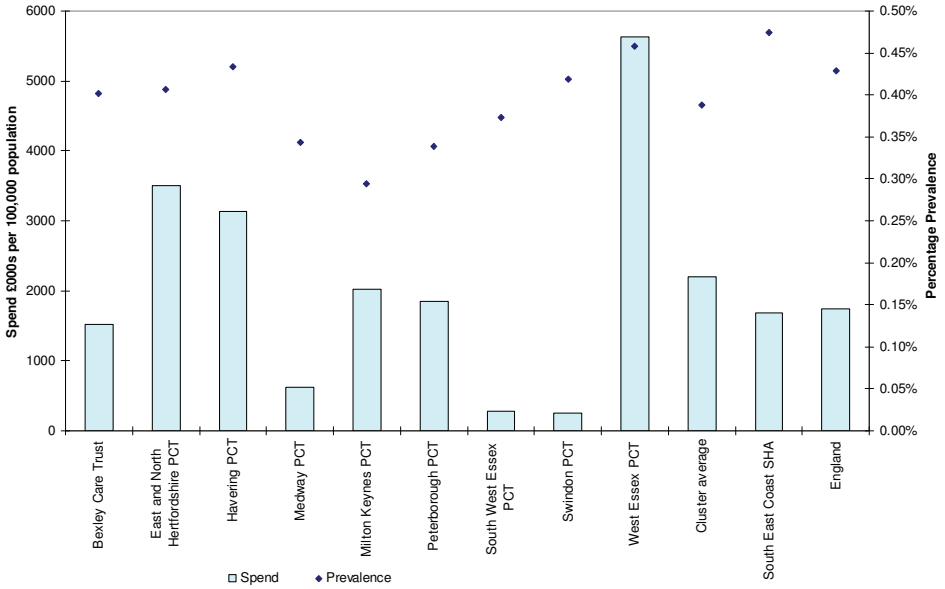
Figure 56: Expenditure per 100,000 population, Medway and comparator areas, 2008/09: 05b organic mental health disorders



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 57 shows spend on organic mental disorders compared to prevalence of dementia. Medway had a lower prevalence and expenditure than the cluster average, SHA average and England and that there was a wide variation in spend between PCTs which does not seem to relate to prevalence of dementia. Other PCTs with a similar prevalence (Peterborough and Milton Keynes) have a higher level of expenditure. As the recorded QOF prevalence used here is lower than we would expect using national prevalence estimates, this may need to be explored further.

Figure 57: Prevalence of dementia in cluster, SHA and England and expenditure per 100,000 people: 05b organic mental disorders, 2008/09



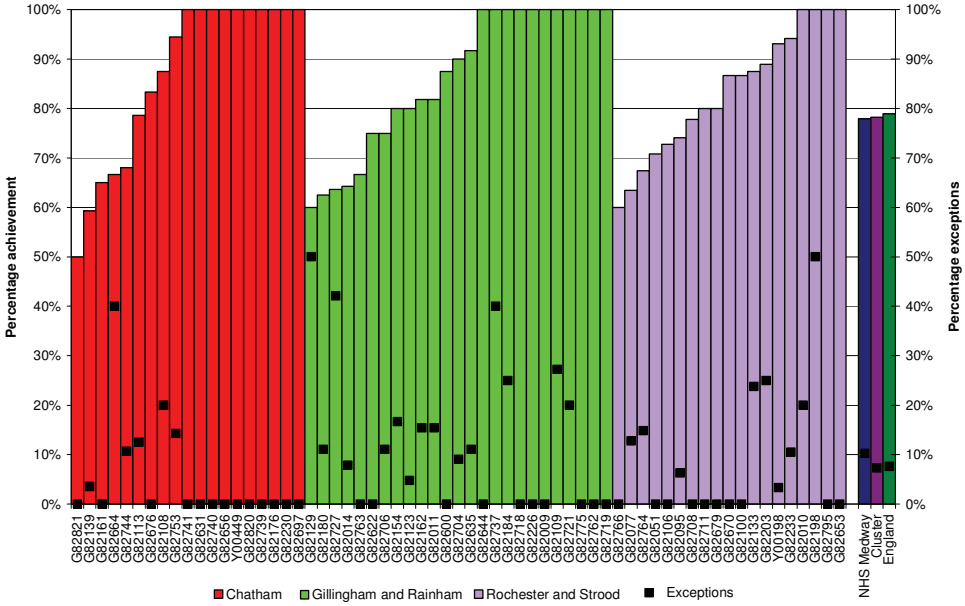
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; QOF, 2009

Primary care

Of those people on general practice registers, Figure 57 gives an indication of the quality of care they are receiving. The overall percentage of people in Medway with dementia who have had their care reviewed in the previous 15 months is similar to that recorded in the cluster and England as a whole. The level of exceptions recorded is also similar.

Figure 58 shows significant variation between practices in Medway in the proportion of people who have had their care reviewed from 50% of the register to 100%. The lowest levels of achievement were in the Rochester and Strood area. There are also significant variations in exception reporting, this ranges from 0% to 50%. The variation in achievement and exception reporting should be explored to assess the potential variation in quality of care that people are receiving.

Figure 58: The percentage of patients diagnosed with dementia whose care has been reviewed in the previous 15 months by practice and PBC locality (QOF indicator DEM 2), 2008/09



Source: QOF, 2009

Psychotic disorders

Prevalence

Estimates of prevalence for mental health conditions are available from the National Psychiatric Morbidity Survey (NPMS).[22] This is a national survey which aims to identify the prevalence of a number of mental health conditions in private households. The most recent survey took place in 2007 and covered 16 year olds and over. There are limitations associated with the results[h], however, the figures below provide a reasonable estimate of the numbers of people with the conditions in Medway.

The NPMS estimates that 0.4% of the population had had a psychotic disorder in the last year (0.5% of women and 0.3% of men). Using these sex specific estimates, with the 2008 mid year estimates[30] for people aged 15 and above it is estimated that a total of 794 people in Medway had a psychotic disorder in the last year, 547 women and 247 men.

[h] There are a number of limitations, these include that it may not capture all the people with a mental health condition as people have to choose to take part in the survey, and therefore make the numbers of people with a condition look smaller than they actually are. Certain groups of the population also may be more likely to complete the survey than others, potentially giving the appearance that rates of mental health issues are greater in these groups.

These estimates could be lower than the true number of people with these disorders, as the size of the sample used in the survey, together with low prevalence, resulted in some age-sex groups having a 0% prevalence estimate.

However, two other sources suggest that the prevalence of psychotic disorders may be slightly lower than found nationally.

The MINI2K index was developed to help explain differences in admission rates for severe and enduring mental health conditions. The index suggests that there is 6% less than average expected admissions for psychotic disorders in Medway.[33] Another index, the Local Index of Need (LIN) uses a number of factors to predict the relative need for mental health services; using this model Medway is given an index of -24.81 whereas England is 0, indicating that there could be lower levels in Medway.[34]

It is therefore difficult to assess how accurate the prevalence estimates are.

Mental health QOF registers include those people in the practice who have a diagnosis of schizophrenia, bipolar affective disorder or other psychoses. In 2008/09 the prevalence of psychoses on GP's mental health registers in Medway was 0.51% (1,417 people - the third lowest prevalence of any PCT in the country), compared to 0.69% in South East Coast SHA and 0.75% in England as a whole. Within Medway there is variation in prevalence between GP practices from 0.15% and 2.33%, with a median prevalence of 0.45%.[32] There are limitations to the accuracy of QOF based estimates which can lead to it providing an underestimation, because of under identification and missing codes.

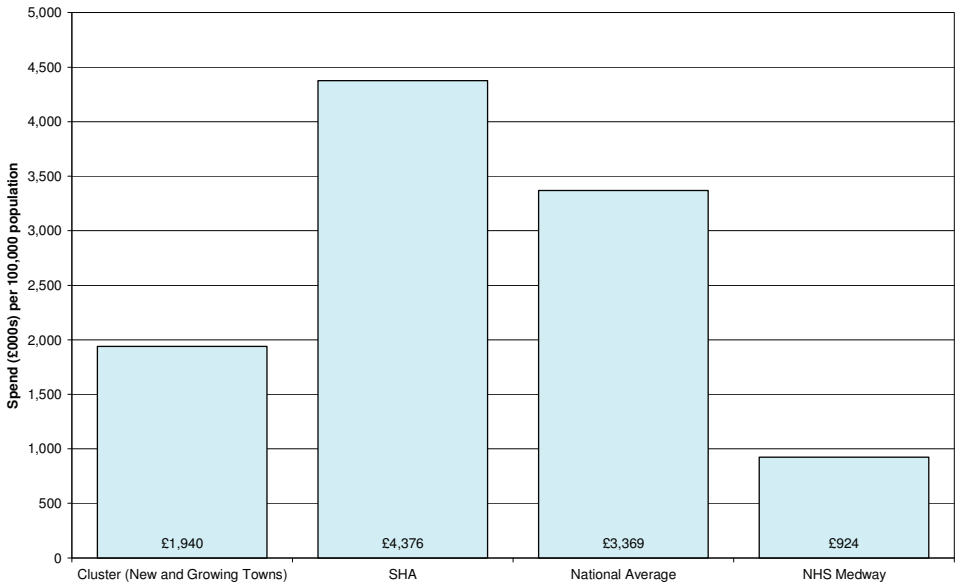
The QOF prevalence is higher than those found in the NPMS estimates. This is likely to be as a result of the way the NPMS estimates classify people with mental health disorders. The NPMS estimates the prevalence according to those people who are thought to have had a psychotic disorder in the last year. The GP registers will include people who may not qualify as having a psychotic disorder in the last year, but are still receiving mental healthcare relating to their previous mental health problems or have a history of the disorders.

Programme spend in 2008/09

In 2008/09 the psychotic disorders subcategory spend in Medway was £924,151 per 100,000 population, ranking 101st out of the 152 PCTs in England.

Medway spends less per 100,000 than the cluster average, the host SHA and the national average. Figure 59 shows that the cluster average spend is more than twice that of Medway and the SHA and national averages are over three times more. The level of expenditure should be further explored.

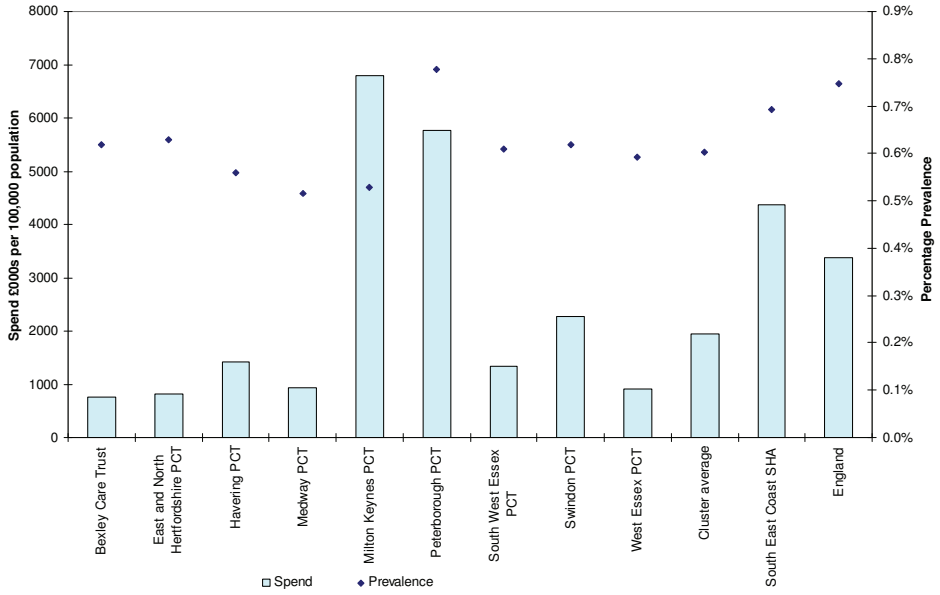
Figure 59: Expenditure per 100,000 population, Medway and comparators, 2008/09: 05c Psychotic disorders



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 60 shows that using QOF data, Medway has a lower recorded prevalence of psychotic disorders than the cluster average, the SHA and England and a substantially lower spend. The cluster average expenditure is likely to be skewed by Milton Keynes and Peterborough PCTs, which spend nearly three times as much on psychosis than the next highest spending PCT in the cluster. Medway has the lowest prevalence in the cluster, and the fourth lowest level of expenditure. The recorded prevalence should be further explored.

Figure 60: Prevalence of psychoses in cluster, SHA and England and expenditure per 100,000 people for psychoses 2008/09



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; QOF, 2009

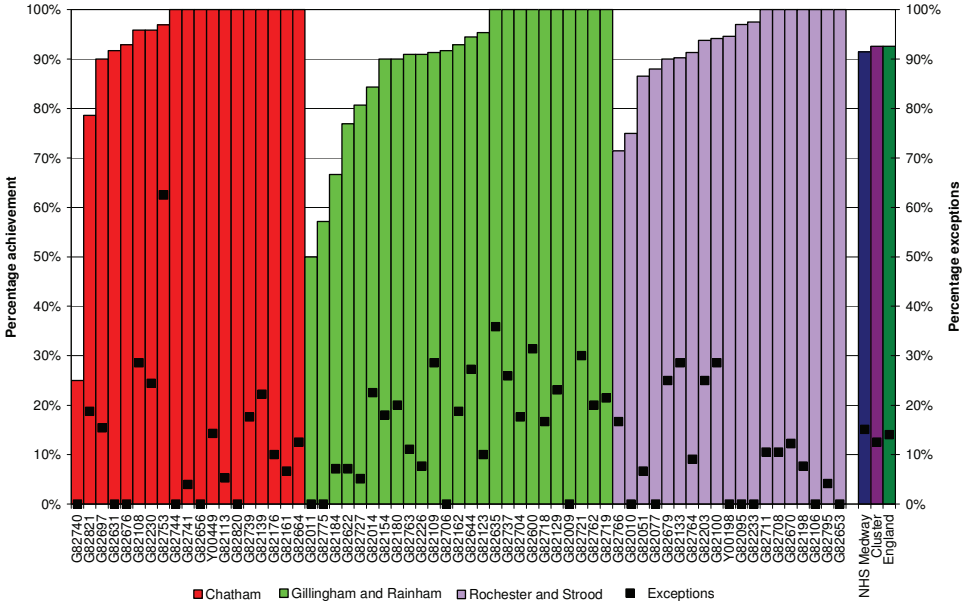
Primary care

For those people on general practice registers Figures 61 to 63 give an indication of the quality of care they are receiving.

Figure 61 shows the percentage of people in Medway with schizophrenia, bipolar affective disorder or other psychoses who have been reviewed in the previous 15 months. The review should include as a minimum routine health promotion and prevention advice appropriate to their age, gender and health status. The proportion of people in Medway who received a review is similar to that recorded in the cluster and England as a whole. The level of exceptions recorded is also similar.

There is significant variation between practices in Medway in the proportion of people who have had their care reviewed, ranging from 25% to 100%. There are also significant variations in exception reporting, which ranges from 0% to over 60%. The variation in achievement and exception reporting should be explored to assess the potential variation in quality of care that people are receiving.

Figure 61: The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses with a review recorded in the preceding 15 months, by practice and PBC locality (QOF indicator MH 9), 2008/09

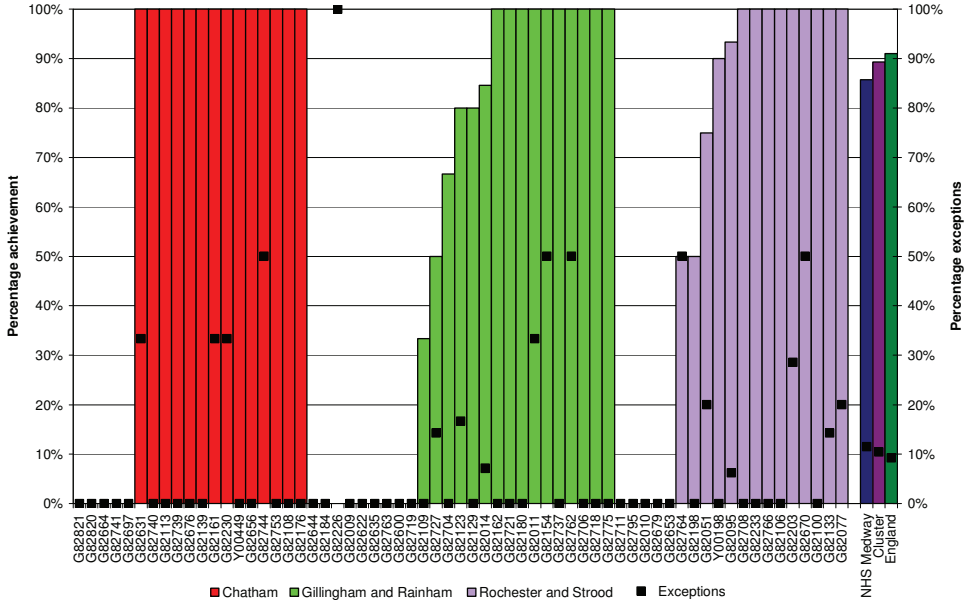


Source: QOF, 2009

Figure 62 shows that in Medway the proportion of people on lithium therapy with a record of lithium in levels in the therapeutic range within the previous 6 months is slightly lower than for the cluster average and England as a whole. The levels of exceptions are slightly higher.

As before, there is variation in practice achievements ranging from 22% to 100%. There is also variation by practice in exception reporting, this ranges from 0% to 100%. The numbers of people on practice registers who are in receipt of lithium are small, which means large variations may only represent 1 or 2 people. However, the variation in achievement and exception reporting should still be explored.

Figure 62: The percentage of patients on lithium therapy with a record of lithium levels in the therapeutic range within the previous 6 months, by practice and PBC locality (QOF indicator MH 5), 2008/09

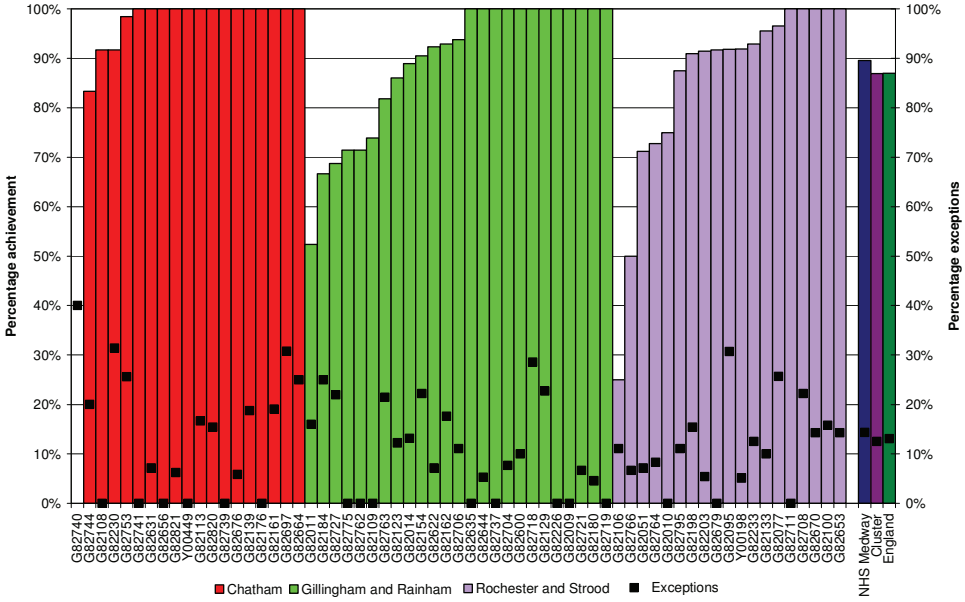


Source: QOF, 2009

Figure 63 shows that the proportion of people in Medway who have a comprehensive care plan documented in the records agreed between individuals, their family and/or carers as appropriate is slightly higher than for the cluster average and England as a whole. The levels of exceptions are also slightly higher.

As before there is variation between practice achievements ranging from 0% to 100%. There is also variation in exception reporting, which ranges from 0% to 40%. In some cases, where the achievement and exceptions are recorded as 0%, there are no patients in the practice who are recorded as receiving lithium therapy. The variations should be explored to ensure a consistent quality of care.

Figure 63: The percentage of patients on the register who have a comprehensive care plan documented in the records agreed between individuals, their family and/or carers as appropriate, by practice and PBC locality (QOF indicator MH 6), 2008/09



Source: QOF, 2009

Other mental health disorders

This category covers a wide range of diagnoses. This section will concentrate on the major group of diagnoses in this broad grouping, common mental health problems. These are conditions which do not normally affect cognition or insight but cause emotional distress and interfere with daily function. These types of disorder are comprised of different types of depression and anxiety.[23]

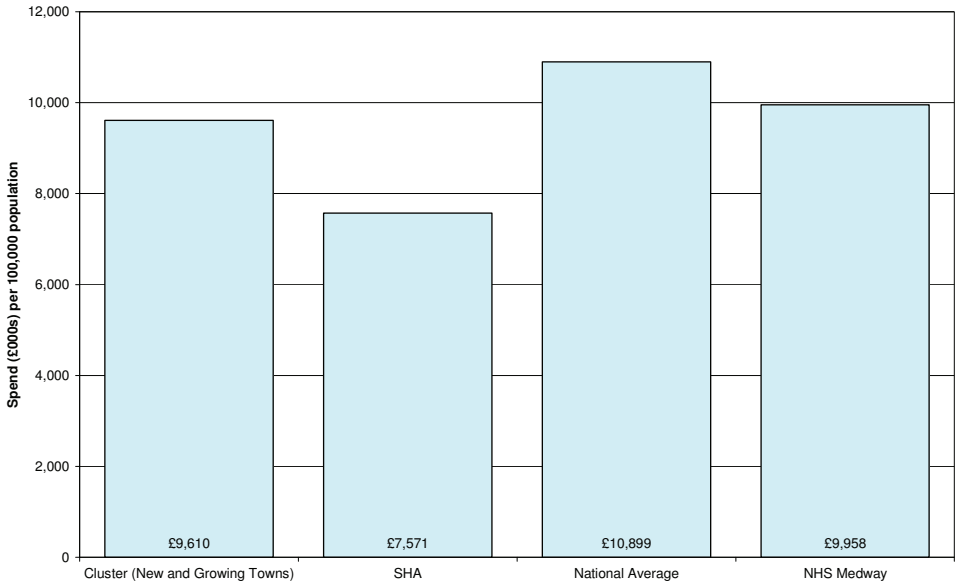
Prevalence

If the age sex specific estimates for the prevalence of any common mental health problems from the NPMS[23] are applied to the mid 2008 population estimates,[30] a total of 33,619 people in Medway had a common mental health problem in the last week. The NPMS index estimates that the prevalence of common mental health disorders in Medway is similar to the national average. This index uses the profile of risk factors at local authority level to estimate whether more or less cases of common mental health disorders would be expected in population than the national average.[35]

Programme spend in 2008/09

In 2008/09, the other mental disorders subcategory spend in Medway was £9,957,712 per 100,000 population, ranking 83rd out of the 152 PCTs in England. Medway spends less per 100,000 population than the national average but more than the SHA and the cluster averages.

Figure 64: Spend per 100,000 population, Medway and comparators, 2008/09: 05x other mental health disorders



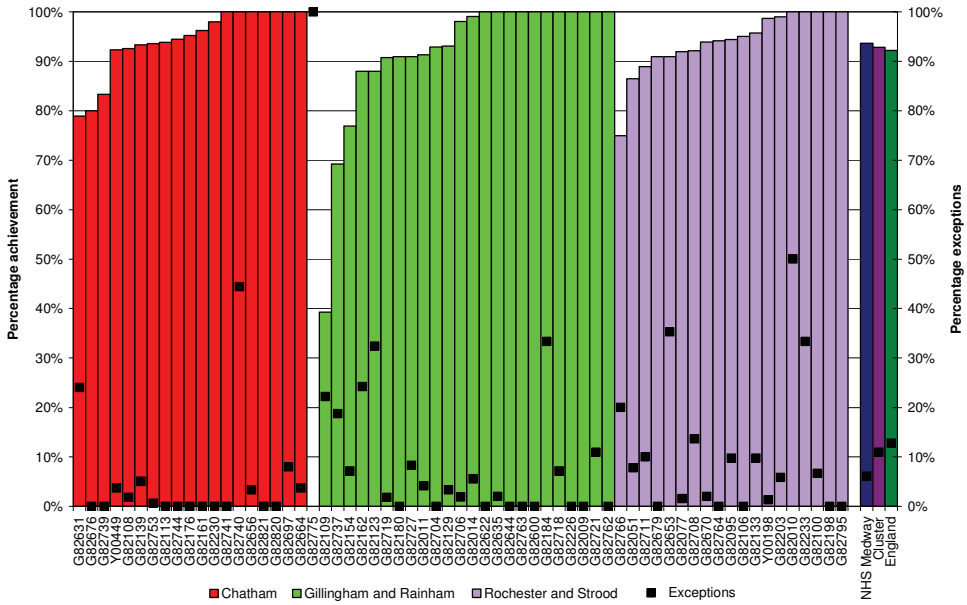
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Primary care

The proportion of people in Medway with a new diagnosis of depression that had an assessment of severity at the outset of treatment using a validated assessment tool is similar in Medway to the cluster average and England as a whole. The level of associated exceptions is lower in Medway than its comparators.

There is some variation in achievement by practice, from 40% to 100%. There is also variation with the level of exception reporting, varying from 0% to 100%. This again suggests there should be exploration of variation in achievement by practice to ensure consistency of the quality of care.

Figure 65: In those patients with a new diagnosis of depression, recorded between the preceding 1 April to 31 March, the percentage of patients who have had an assessment of severity at the outset of treatment using an assessment tool validated for use in primary care, by practice and PBC locality (QOF indicator DEP 2), 2008/09



Source: QOF, 2009

Health inequalities

The risk factors described at the beginning of the chapter highlight that mental health disorders contribute to health inequalities, with people from deprived areas and from certain ethnic groups more likely to suffer a range of conditions.

People with mental health disorders are also subject to significant health inequalities. They have higher rates of physical illness and premature mortality. People with severe mental illness have higher rates of diabetes, cardiovascular disease and respiratory diseases than the rest of the population. They also die on average 10 years earlier than the general population.[36] There are a number of reasons for this; people with severe mental illness are likely to have less healthy lifestyles, they have side effects from antipsychotics, may seek help less, are less able to communicate symptoms and may have their physical issues overshadowed by the mental health condition.

Conclusions

In 2008/09 mental health disorders category (including CAHMS and substance misuse) cost £14,450,465 per 100,000 population, the second highest spend of all the 23 programmes. Medway is a comparatively low spender compared to other PCTs; it ranks 146th out of the 152 PCTs. Further analysis should be undertaken to understand in more detail where the money is spent.

The largest spending subcategory is the other mental health disorders category. As would be expected considering the overall ranking, all of the sub-categories are ranked as comparatively low spending, only child and adolescent mental health disorders would feature in the top 50% of spending of all PCTs. Psychotic disorders and organic mental disorders have the lowest ranks comparatively.

Medway has a low recorded QOF prevalence for psychotic disorders (the third lowest in the country) and dementia compared to national PCT comparators. The evidence suggests that there is under recording.

The spending on emergency admissions and prescribing rates in Medway are higher than comparator PCTs, despite having a lower recorded QOF prevalence and spend levels.

The quality measures for mental health disorders in the QOF show significant variation between practices for achievement and exception reporting.

Next steps

- The low recorded QOF prevalence in general practice across Medway for dementia and psychosis should be investigated. The prevalence within similar PCTs and studies which estimate the prevalence of mental health suggest that the figures should be higher.

- There should be a further exploration and action taken to address the variations in QOF exception reporting and achievement between practices.

- The spend on mental health should be further analysed to identify whether investment levels are appropriate.

Child and adolescent mental health disorders

Background

Mental health disorders in children and young people are classified into:

- Emotional disorders
- Conduct disorders
- Hyperkinetic problems
- Other disorders including autistic spectrum disorders and the less common disorders of
    - Eating disorders
    - Tic disorders
    - Selective mutism

However, within programme budgeting the subcategory of child and adolescent mental health disorders (05d) excludes hyperkinetic problems and autistic spectrum disorders (which are within 06x - a subcategory of problems of learning disability), and eating disorders (which are within 05x - other mental health disorders).

The child and adolescent health disorders programme budgeting subcategory therefore only contains information related to emotional disorders, conduct disorders and the much less common tic and selective mutism disorders.

Risk factors

Two national surveys in 1999[37] and 2004[38] examined the mental health of children and young people aged 5 upwards who lived in private households, and identified factors associated with increased risk of mental health disorders. Taking only emotional disorders and conduct disorders, the 2004 survey demonstrated the influence of:

- Age - young people aged 11-16 are more likely to have both types of mental disorders than younger children
- Gender – more girls have emotional disorders than boys, whereas more boys than girls have conduct disorders
- Presence of a specific physical or developmental disorder - having an additional disorder e.g. coordination or speech and language difficulties increases the risk of both emotional and conduct disorders
- Family structure - living with a lone parent is a risk factor for both disorders - experience of parents' separation almost doubles the risk of emotional disorders and conduct disorders. Living in a reconstituted family (i.e. with step siblings) is a risk factor for generalised anxiety disorder (one type of emotional disorder) and for conduct disorder

- Family size - living in a household with 3 or more children increases the risk of emotional disorder and living in a household of 4 or more children increases the risk of conduct disorders
- Parental education and mental health – having a parent with no educational qualifications almost doubles the risk of both types of disorder and having a parent with indication of an emotional disorder themselves more than doubles it (although it may be that the child's problem has increased the risk within the parent)
- Lower family income - a risk factor for both types of disorder

The survey also showed that smoking, drinking, drug use and recorded self-harm were all more common in both types of disorder.

Prevalence

Prevalence information from the 2004 national survey for all 4 categories of mental health disorders in children and young people is shown below.

Table 17: Prevalence of mental disorders in Great Britain, 2004[38]

	5 to 10 Years			11 to 16 Years			All Children		
	Boys	**Girls**	**All**	**Boys**	**Girls**	**All**	**Boys**	**Girls**	**All**
Emotional disorders	2.2	2.5	2.4	4	6.1	5	3.1	4.3	3.7
Conduct disorders	6.9	2.8	4.9	8.1	5.1	6.6	7.5	3.9	5.8
Hyperkinetic disorders	2.7	0.4	1.6	2.4	0.4	1.4	2.6	0.4	1.5
Less common disorders	2.2	0.4	1.3	1.6	1.1	1.4	1.9	0.8	1.3
Any Disorder	**10.2**	**5.1**	**7.7**	**12.6**	**10.3**	**11.5**	**11.4**	**7.8**	**9.6**

Source: Office for National Statistics © Crown Copyright, 2004

In this national survey, 27% of those with an emotional disorder and 35% of those with a conduct disorder had another clinically recognised mental health disorder. Of those with emotional disorders, 24% had a conduct disorder, while the additional disorders in those with conduct disorders were evenly split between emotional disorders and hyperkinetic disorders.

When the national estimates are applied to the Medway population the number of children and young people aged 5 to 16 years having any disorder is 4,149 (60% boys compared to 40% girls), with 1,615 having emotional disorders and 2,493 having conduct disorders.

The actual prevalence within Medway is likely to be higher than this as it is known that the prevalence in Looked After Children (LAC) is greater (45% in 5 - 17 year olds.).[39] As of 31st March 2009, there were 588 LAC residing in Medway (278 for whom Medway Council did not hold legal responsibility). Similarly there are other groups of children who are particularly vulnerable to developing mental health disorders such as children with special education

needs (5,100 in Medway), young offenders (159 under community supervision and 80 within Cookham Wood Young Offenders Institution) and young carers (750).[40]

Local data[40] reveal that there is an unusually high number of children with autistic spectrum disorder (ASD) in Medway (784 as opposed to the estimate of 377) but this condition is not captured within this subcategory of programme budgeting.

Incidence

An indication of incidence is available from a survey[41] which was carried out 3 years after the 2004 survey. It showed that of those who did not have a disorder originally, just over 3% had developed an emotional disorder and almost 3% had developed a conduct disorder three years later.

Mortality

During the period 2005 to 2007 there were a total of 4 deaths due to intentional self harm (suicide) in those aged under 24 years of age.

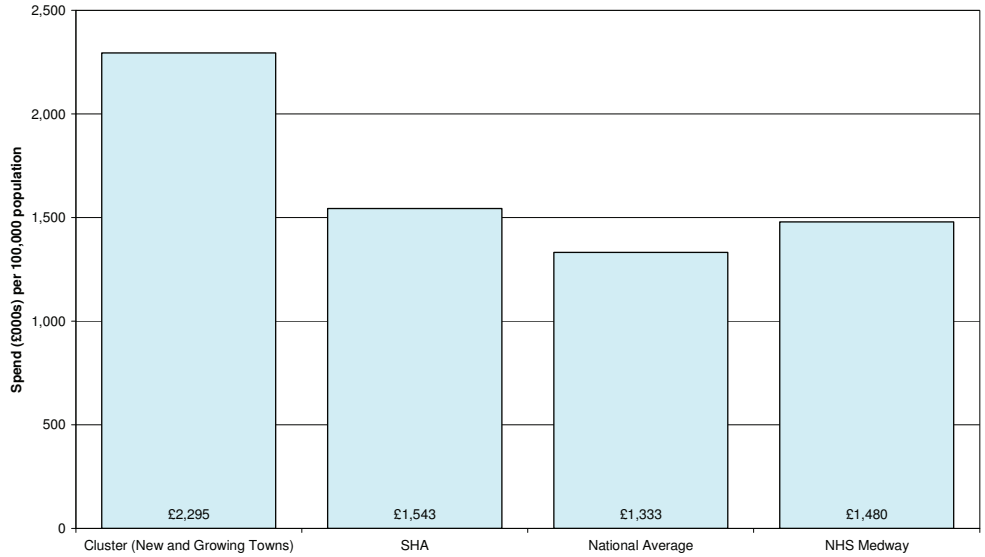
Programme spend in 2008/09

Programme budgeting data do not give a full picture of spend on child and adolescent mental health services (CAMHS) as they do not include all the main categories of mental health disorders in children. Also spending on these services locally is shared between Medway Council and NHS Medway in a way that may not be standard across the country.

Within these caveats, in 2008/09 Medway spent £1,479,899 per 100,000 population on child and adolescent mental health disorders and ranked 51st out of the 152 PCTs in England for this spend. Figure 65 shows that for the conditions within this category of programme budgeting, spend is lower in Medway than the cluster and SHA averages, but higher than the national average.

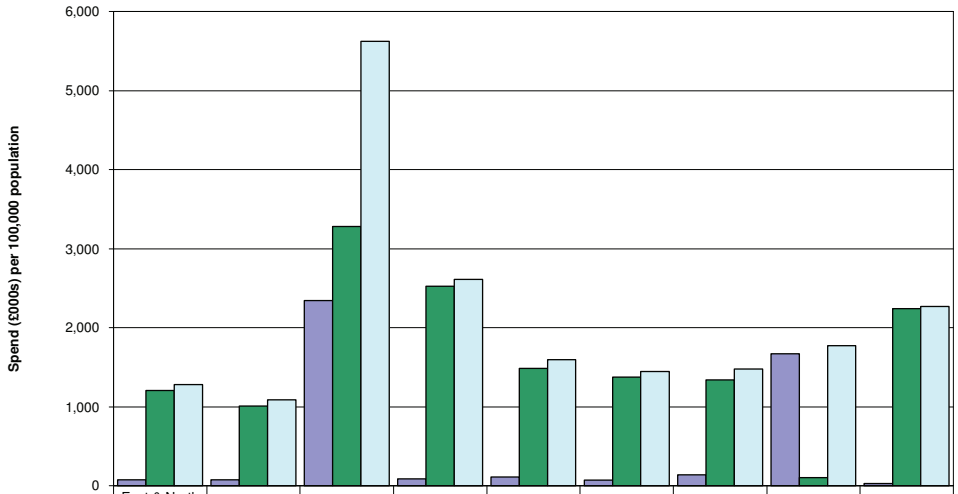
Figure 66 shows that South West Essex has a far higher spend than other cluster PCTs and that in Medway and all other cluster PCTs apart from Milton Keynes the spend is largely within secondary care.

Figure 65: Spend per 100,000 population, Medway and comparators, 2008/09: 05d Child and adolescent mental health



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 66: Spend per 100,000 population, child and adolescent mental health, Medway, primary care and secondary care split, 2008/2009, compared with PCTs in new and growing towns cluster group



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	77	78	2,343	86	111	73	140	1,671	26
Secondary	1,204	1,009	3,281	2,527	1,486	1,374	1,340	103	2,244
Total	1,281	1,087	5,624	2,614	1,597	1,447	1,480	1,774	2,271

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Morbidity

Services for mental health disorders in children and adolescents are aligned to the four tier CAMHS framework.

Box 1: The four-tiered CAMHS framework

Tier 1: Services provided by practitioners working in universal services (such as GPs, health visitors, teachers and youth workers), who are not necessarily mental health specialists. They offer general advice and treatment for less severe problems, promote mental health, aid early identification of problems and refer to more specialist services.

Tier 2: Services provided by specialists working in community and primary care settings in a uni-disciplinary way (such as primary mental health workers, psychologists and paediatric clinics). They offer consultation to families and other practitioners, outreach to identify severe/complex needs, and assessments and training to practitioners at Tier 1 to support service delivery.

Tier 3: Services usually provided by a multi-disciplinary team or service working in a community mental health clinic, child psychiatry outpatient service or community settings. They offer a specialised service for those with more severe, complex and persistent disorders.

Tier 4: Services for children and young people with the most serious problems. These include day units, highly specialised outpatient teams and inpatient units, which usually serve more than one area**.**

CAMHS services offer advice and treatment for all four types of mental health disorders in children and adolescents not just those included within the CAMHS programme budgeting subcategory. In Medway, Tiers 3 and 4 are funded completely by the NHS Medway, while Medway Council largely funds Tier 2 services.

There are relatively little data concerning activity in Tier 3 and 4, but in 2008/09 in Tier 3, there were 303 first contacts and 4,862 follow up attendances, including 153 assessments for self-harm (the rate for self harm assessment was considerably higher than that for the West Kent population and this is being investigated).

During 2008/09 there were 28 inpatient admissions for 24 young people aged between 12 and 17 and registered with a Medway GP. The average age on admission (mean) was 14 years 9 months; 71% were female and 29% male. Length of stay ranged from 5 to 182 days with a mean length of stay of 47 days, and a median length of stay of 20 days. In terms of presenting problem, the majority of young people were admitted due to self-harm, depression with associated suicidal thoughts and eating disorders. Of those young people admitted across Kent and Medway, 25% had a learning disability or difficulty.[42]

Health inequalities

The Office for National Statistics (ONS) prevalence surveys[37,38,39] illustrate that some children and young people are more at risk of mental disorders than others. This may be due to factors within the child, family, social environment or a combination of these. However these surveys excluded children who were looked after by local authorities. Some of the risk factors for mental health disorders may be the very factors that result in children being taken into care (e.g. family dysfunction, parental illness), which makes this group of children at particular risk and in need of services.

Conclusions

Programme budgeting is not a good tool for benchmarking overall spend within CAMHS as subcategory 05d excludes hyperkinetic problems and autistic spectrum disorders, (the latter being particularly prevalent in Medway) – and does not take account of joint funding with the local authority which may vary between PCTs. However within these caveats, spend in Medway was below the cluster and SHA average in 2008/09. In 2009/10 there has been an increase in funding.

Next steps

The following are being planned in Medway:

- Clinical pathways to ensure that service users receive the most appropriate care from the most appropriate service following the introduction of a single point of entry for referral in September 2009.

- Investigation of the block contract for Tier 3 services in terms of the types of problems seen and the treatment provided.

- Re tendering of the Tier 4 service.

Chapter 6: Problems of learning disability

The World Health Organisation[43] defines learning disabilities as a condition with four key dimensions:

- a state of arrested or incomplete development of mind
- significant impairment of intellectual functioning
- significant impairment of adaptive/social functioning
- that the impairments and difficulties are present from childhood

This means that the individual will have difficulties in learning new things and in understanding. Social tasks also present difficulties, such as communication and awareness.[44]

A second diagnostic group (disorders of psychological development) is also included in the programme budgeting category for conditions of learning disabilities. These have three common features:[43]

- onset invariably during infancy or childhood
- impairment or delay in development of functions that are strongly related to biological maturation of the central nervous system
- a steady course without remissions and relapses. In most cases, the functions affected include language, visuo-spatial skills, and motor coordination

The severity of impairment varies widely, and terms such as mild, moderate, and severe, have been used to define the different levels. These levels have been defined by measuring intelligence. However, Department of Health policy is focused on providing health and care services according to individual needs rather than diagnostic labels, as not everyone with a learning disability will require health and care services.[45]

The healthcare services that people with learning disabilities receive aim to ensure that they can live as independently and as full a life as possible. This can include care from their GPs, community nursing support, specialist therapists, psychiatry, psychology and residential care.

Causes and risk factors

In approximately 30% of severe and the majority of mild disabilities a cause cannot be identified. Identified causes of learning disabilities include:

- Genetic – The majority of cases of severe learning disabilities in the UK are due to genetic factors. Examples of genetic causes of learning disabilities are Down's Syndrome and X-linked disorder.

- Infections – Infections can cause learning disabilities in the antenatal (such as rubella and HIV) and postnatal period (including meningitis and whooping cough).

- Environmental – Environmental factors also can have an impact in the antenatal (such as alcohol or drug intake of the mother, and nutritional deficiencies), and the postnatal period (including injury during birth and in childhood).

- Other factors - Low birth weight is associated with increased prevalence of learning disabilities; this is most strongly associated with babies born weighing less than 1,000 grams.

Overall, there is no significant evidence that socio-economic class increases the incidence of severe levels of learning disabilities, although there is an effect on cognitive development.[46] However, across all age groups, levels of learning disabilities are higher in areas of greater deprivation. This is thought to be a result of residential homes being sited in these areas and because people with learning disabilities have a greater reliance on benefits and these areas provide more affordable living environments.

There is also evidence of a higher prevalence of learning disabilities, notably at the more severe end of the spectrum, among younger people belonging to South Asian minority ethnic groups, particularly Pakistani and Bangladeshi communities.[47]

Prevalence

Models have been developed to estimate the number of people with learning disabilities in a population. Overall, it has been estimated that 2.27% of population have learning disabilities, 2.64% of men and 1.79% of women.[48] Table 18 presents the estimated figures according to levels of severity using relevant prevalence estimates and the mid 2008 population estimates.[30]

Table 18: Estimated numbers of people in Medway with learning disabilities according to severity

Level of severity[i]	Estimated number in Medway (2008) aged 18 and over
Any learning disability[48]	4,589
Moderate or severe learning disability - likely to be in contact with services[48]	983
Severe learning disabilities - likely to be in contact with services[49]	236 (ages 18-64)
Profound and multiple learning disabilities - will be in contact with health and care services[50]	79

Learning disabilities is one of the general practice QOF registers. The register should include all people over the age of 18 with a learning disability[j]. However, in Medway the registers are comprised of those people who have had their needs assessed by social care services and are eligible to receive services. This is likely to be the case with the registers in other PCT areas. Therefore, the registers in the main only represent those people with higher needs and not all people with learning disabilities.

In 2008/09, there were 620 people on Medway general practice learning disability registers, a prevalence of 0.29% of the registered population aged 18 and above. The prevalence between GP practices varies from 0.04% to 1.26%, the median is 0.27%. This is lower than expected from the estimates above even for those who are likely to be in contact with services for their learning disabilities. The prevalence in Medway is lower than in SEC SHA and England as a whole (0.4%).

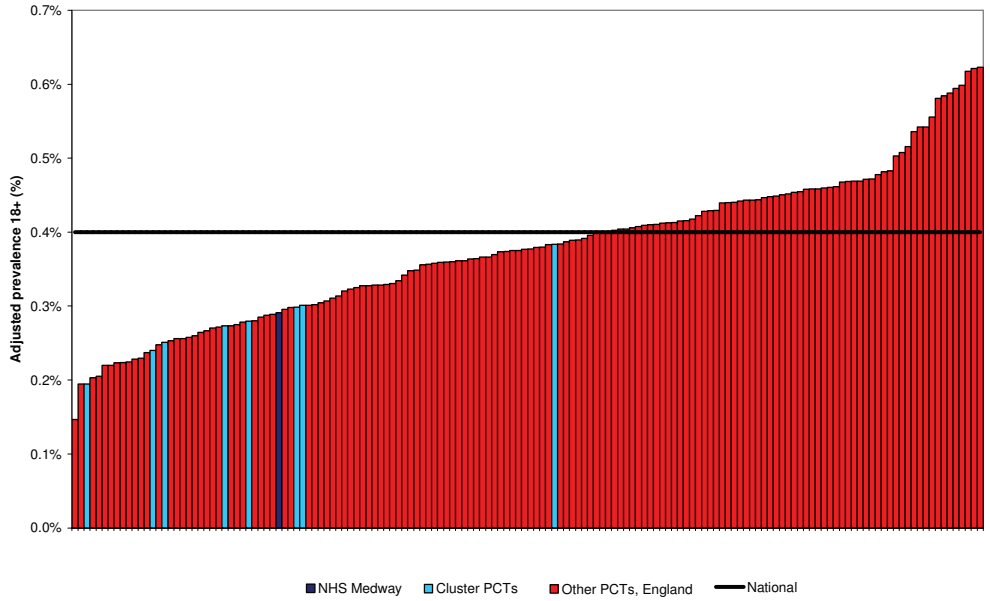
Figure 67 shows that Medway has a similar prevalence to a number of the other PCTs in the cluster.

[i] There will be an overlap between categories, e.g. the moderate or severe learning disability estimate will include those with severe learning disabilities and profound and multiple learning disabilities.

[j] This uses the definition from the DH White Paper Valuing People as the presence of:

- a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence); with
- a reduced ability to cope independently (impaired social functioning);
- which started before adulthood (18 years), with a lasting effect on development.

Figure 67: Recorded prevalence of learning disability, population aged 18 and over, all PCTs, England, 2008/09



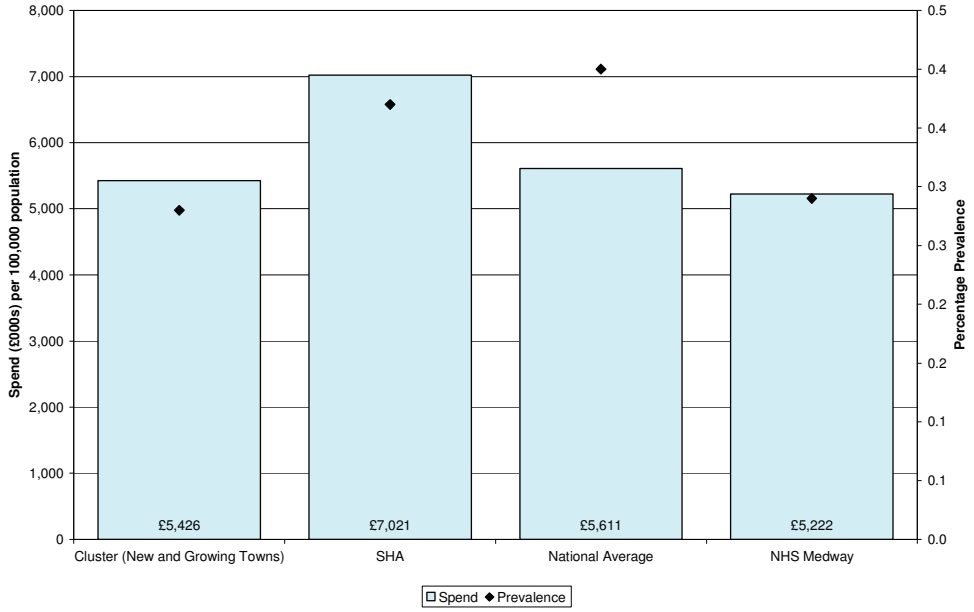
Source: QOF, 2009

Programme spend in 2008/09

In 2008/09 the problems of learning disabilities programme spend in Medway was £5,222,342 per 100,000 population. Medway ranks 82nd out of the 152 PCTs in England for spend on problems of learning disabilities.

Figure 68 shows Medway and comparators spend compared to QOF prevalence. Medway spends less per 100,000 than the cluster sub group average, South East Coast SHA and the national average. However, the level of spend should be treated with caution as it is unlikely to truly represent the actual spend in Medway on health services for people with learning disabilities. This is because of historical arrangements where residential placements and other social care interventions have been funded from PCT budgets. This funding will be removed from PCT budgets in 2010/2011 and given to local authorities. The funding arrangements are likely to differ between PCTs, making comparisons difficult.

Figure 68: Spend per 100,000 population and prevalence, Medway and comparators, 2008/09: 06 Problems of learning disability

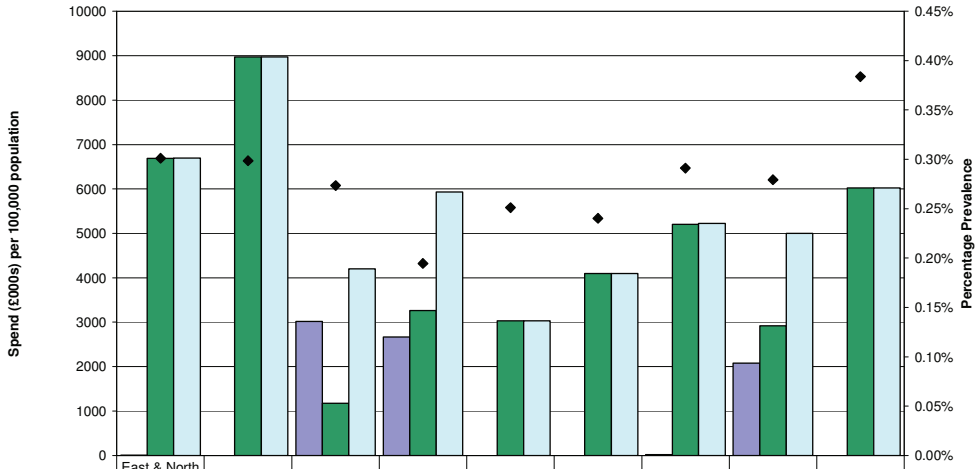


Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 69 suggests no clear relationship in the cluster between the prevalence of learning disabilities and the amount of money spent on the category. This may be in part as a result of historical funding patterns described above. It is therefore not possible to make conclusions about the spend in Medway on the basis of its prevalence benchmarked against other PCTs.

Figure 69 also suggests that there is no clear pattern for spending in primary compared to secondary care. This is likely to reflect the issues noted above and also how individual PCTs classify learning disabilities health services.

Figure 69: Spend per 100,000 population, problems associated with learning disability, Medway, primary and secondary care split 2008/09, compared with PCTs new and growing towns cluster group, and prevalence of learning disabilities, 2008/09



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	4	-	3,020	2,670	0	-	17	2,084	-
Secondary	6,687	8,968	1,179	3,263	3,035	4,098	5,205	2,918	6,021
Total	6,691	8,968	4,199	5,933	3,036	4,098	5,222	5,002	6,021
Prevalence	0.3%	0.3%	0.3%	0.2%	0.3%	0.2%	0.3%	0.3%	0.4%

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Health inequalities

People with learning disabilities are known to be subject to numerous health inequalities. They are more likely to have a range of conditions including high blood pressure, dementia, epilepsy, obesity, coronary heart disease, respiratory disease and mental health problems. They also have a significantly shorter life expectancy; it is estimated that people with learning disabilities are 58 times more likely to die prematurely. Although people with learning disabilities have a greater need for services, they have been found to have poorer access to them.

Conclusions

During 2008/09 the number of people registered with Medway GPs who have a learning disability was 620. These are likely to be those who have needs that are met by social care services. The total number of people with a learning disability is likely to be much higher.

The prevalence of learning disabilities is 0.29% in the registered population aged 18 and over. This is lower than the South East Coast Strategic Health Authority and England as a whole.

The information regarding spend in Medway does not reflect the amount spent on health services for people with learning disabilities because of historical funding arrangements for other services mainly residential placements. This does not make it possible to draw conclusions about Medway's spending or benchmark it against other PCTs who may have different arrangements with their local authority.

Next steps

- Explore the variations in register size by practice.
- Ensure that the inequalities experienced by people with learning disabilities are monitored and tackled through the commissioning cycle.
- Ensure that all people with learning disabilities have their health needs considered in order to reduce inequalities.
- Identify outcome measures jointly with the local authority to measure how services for people with learning disabilities impact on their social function, health and wellbeing.

Chapter 7: Neurological disorders

Background

The neurological programme budgeting category (07) is divided into two subcategories

- Chronic pain (07a)
- Neurological other (07x)

There are many different types of neurological disorders and people may experience onset at any time in their lives. Neurological conditions are the most common cause of serious disability and have a major impact on the need for health and social services.

Pain is perceived via the nervous system but the underlying causes of pain are multiple and include infection, degenerative musculoskeletal problems, trauma and many other disorders. Sometimes the source is unknown.

The neurological disorders subcategory (07x) includes disorders as diverse as complications of rare infections (e.g. Amoebic brain abscess) to more common conditions such as epilepsy, Parkinson's disease and multiple sclerosis.

Risk factors

Risk factors for the many different neurological disorders vary enormously according to the particular disorder. Hereditary factors, gender, age, exposure to chemical influences, problems within the immune system, injury to the brain or nervous system, diabetes, and chemical exposure during foetal development are all risk factors for different neurological disorders.

Incidence and prevalence

Some disorders which clinicians would classify as neurological are attributed to different categories within programme budgeting - e.g. stroke (classified under cerebrovascular disease, 10b) and dementia (under mental health organic disorders, 05c). In Medway there are an estimated 41,580 people living with a neurological condition that has a significant impact on their lives, and about 2,500 newly diagnosed cases each year.[51]

Table 19 shows estimated incidence and prevalence of some common neurological conditions in the UK.

Table 19: Incidence and prevalence of some common neurological conditions in the UK[52] and estimated number of patients within NHS Medway

Condition	Incidence (new cases per year per 100,000 of population)	Prevalence (cases per 100,000 of population)	Estimated number in NHS Medway using national figures (local data shown in brackets)
Cerebral palsy	Not known (n/k)	186	524
Charcot-Marie-Tooth disorder	n/k	40	113
Dystonia	n/k	65	183
Essential tremor	n/k	850	2,396
Epilepsy	24 - 58	430 – 1,000	1,212 – 2,819 (1698)*
Huntington's disease	n/k	13.5	38
Migraine (England)	400	15000	42,290
Motor neuron disease	2	7	20(17)**
Multiple sclerosis	3-7	100-120	282-338(552)***
Muscular dystrophy	n/k	50	141
Parkinson's disease	17	200	564
Spinal cord injury	2	50	141
Spina bifida and congenital hydrocephalous	n/k	24	68
Traumatic brain injury leading to long term problems	175 (requiring admission to hospital)	1200 (with long term problems)	3,383

Source of local data

* QOF, 2009

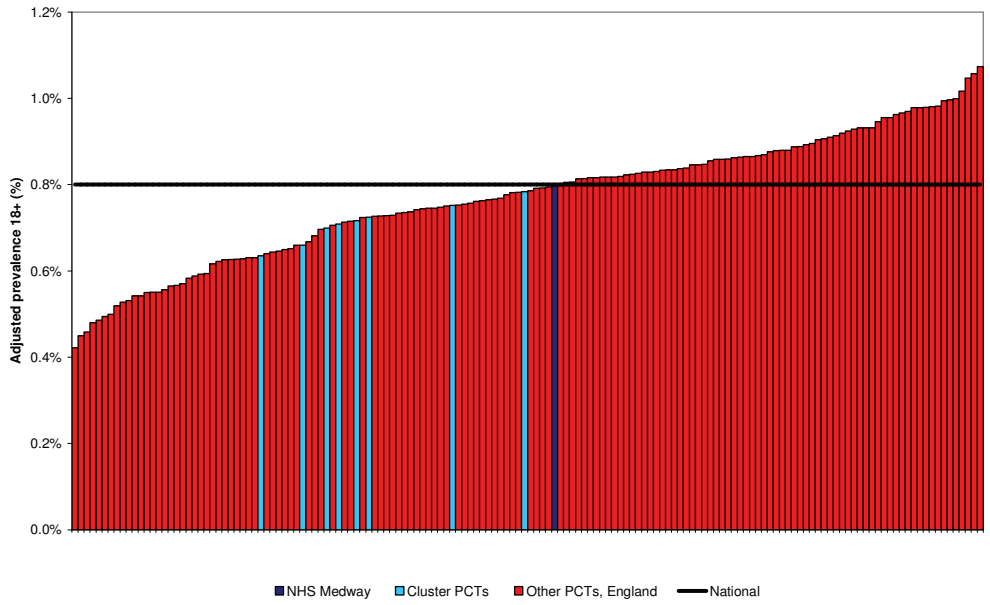
** Medway and Swale motor neuron disease clinical team data (population of Swale ~ 1/3rd of Medway)

*** Audited data from MS specialist nurse for Medway and Swale (represents a 28% observed increase over predicted prevalence of between 360-432 for Medway and Swale)

Epilepsy

The complexity of neurological disorders can be illustrated by consideration of epilepsy. It is now recognised that epilepsy should be viewed as a symptom of an underlying neurological disorder and not as a single disease entity.[53] It is defined as a neurological condition characterised by recurrent epileptic seizures unprovoked by any immediately identifiable cause. The prevalence and treatment of epilepsy are captured within QOF data. In 2008/09, in Medway 1,698 people aged 18 and over were recorded to have epilepsy. The prevalence in Medway is similar to the national average, and the highest in the new and growing towns cluster PCTs (Figure 70).

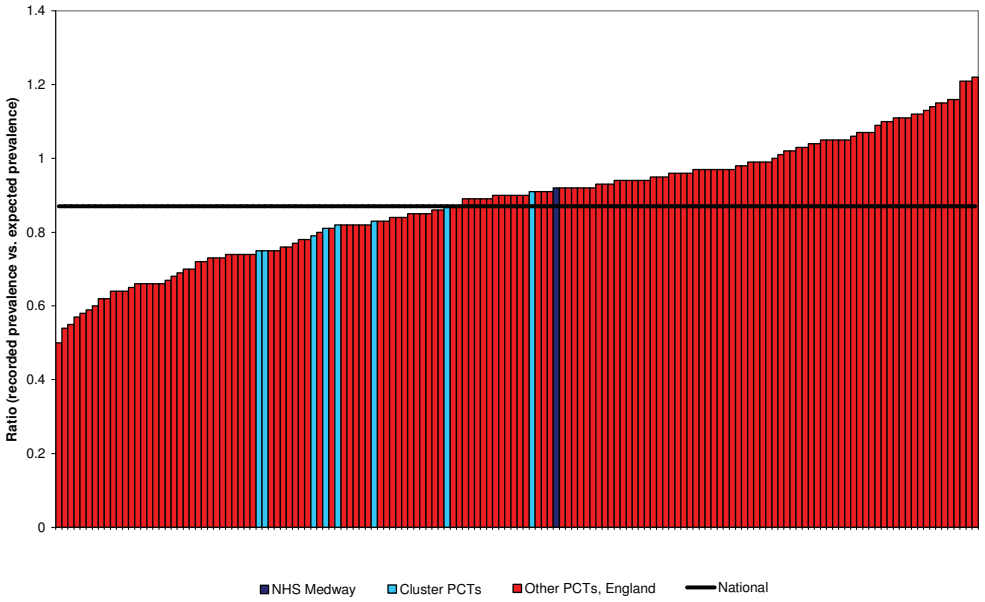
Figure 70: Recorded prevalence of epilepsy, population 18 and over, all PCTs, England 2008/09



Source: QOF, 2009

Work has been undertaken nationally to develop models that estimate the expected prevalence of common disorders.[17] Figure 71 shows the ratio of recorded QOF prevalence compared to expected prevalence for epilepsy using one of these models in 2008/09. A figure < 1 means that fewer cases have been recorded than expected, a number >1 means that more cases than expected have been recorded. In Medway in 2008/09 approximately 90% of the number of expected cases were recorded - a higher ratio than nationally and the highest in the cluster.

Figure 71: Ratio recorded to expected epilepsy prevalence, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

However misdiagnosis rates for epilepsy in the UK have been identified as between 20 – 31%.[54] If a misdiagnosis rate of 25% was occurring currently in Medway, this would equate to approximately 400 people in Medway with a diagnosis of epilepsy and receiving antiepileptic drugs who do not have the condition. A misdiagnosis of epilepsy has a major impact on people's lives, including the side effects of taking antiepileptic medication as well as costs.

Multiple sclerosis (MS)

Multiple sclerosis is the most common disabling neurological condition in young adults, affecting around 100,000 people in the UK.[55] The cause is unknown.[56] It is most often diagnosed in people aged between 20 and 40, and affects three times more females than males.[55] Between 1820 and 3380 new cases of MS are diagnosed each year in England and Wales.[57]

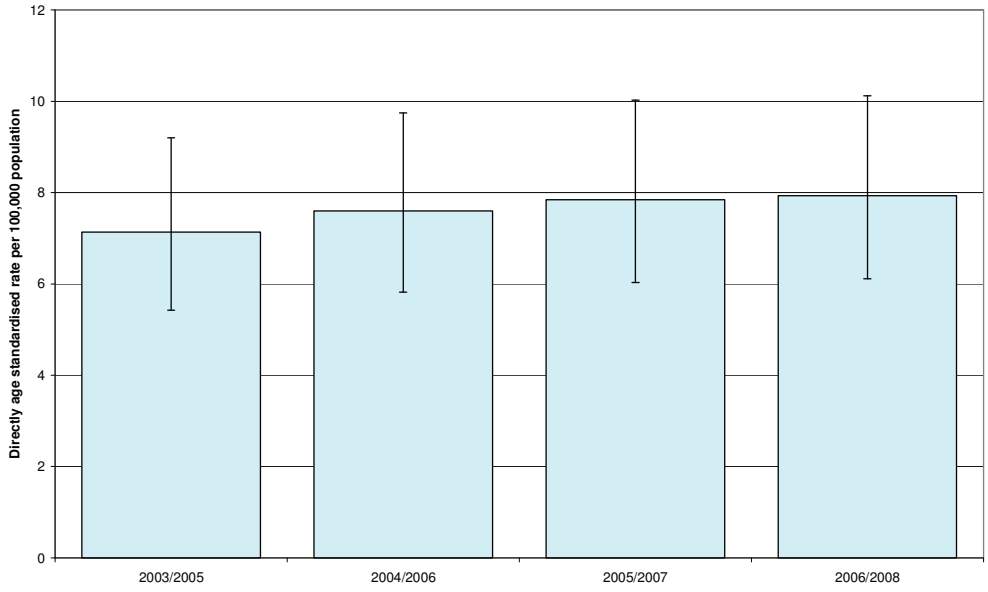
Parkinson's disease

Parkinson's disease is a progressive neurodegenerative condition, caused by the loss of dopamine producing nerve cells in the part of the brain that controls movement. It is estimated that there are 120,000 people with Parkinson's disease across the UK, which equates to 1 in every 500 of the population. The prevalence increases with age and one in 20 will be under the age of 40 when they are diagnosed. If these numbers are extrapolated to Medway this would give approximately 500 people living with Parkinson's disease and 42 new cases diagnosed every year.

Mortality

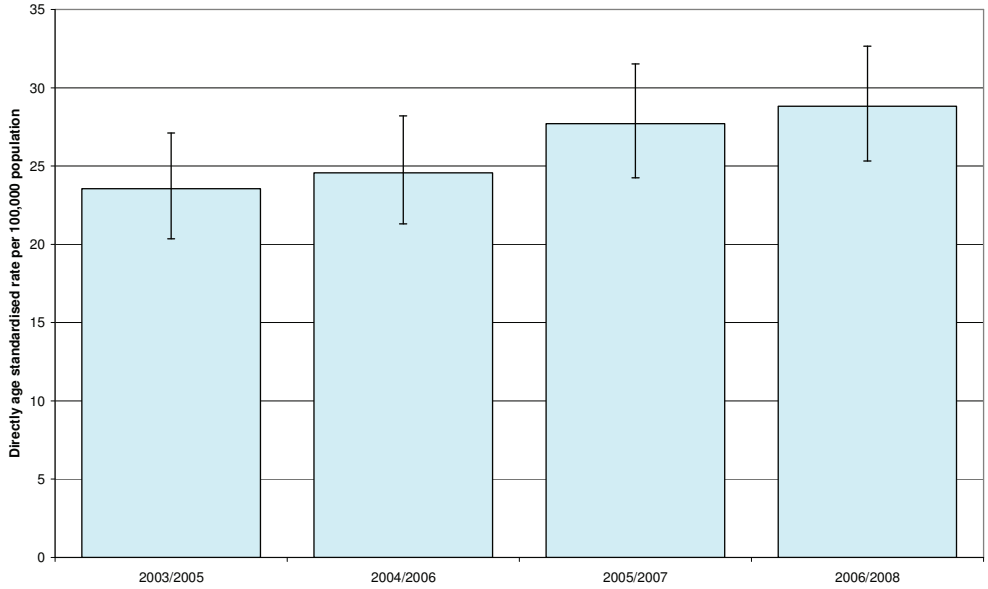
Neurological disorders may be recorded as the underlying cause of death or have contributed towards death and be mentioned on a death certificate. Figures 72 and 73 show that there has been a non significant increase in the standardised mortality rate for all neurological disorders as the underlying cause of death and in terms of mentions on death certificates.

Figure 72: Directly age standardised mortality rates per 100,000 populations from neurological disorders (underlying cause), three year average, 2003/05 to 2006/08, all ages, NHS Medway



Source: Primary care mortality database, 2008

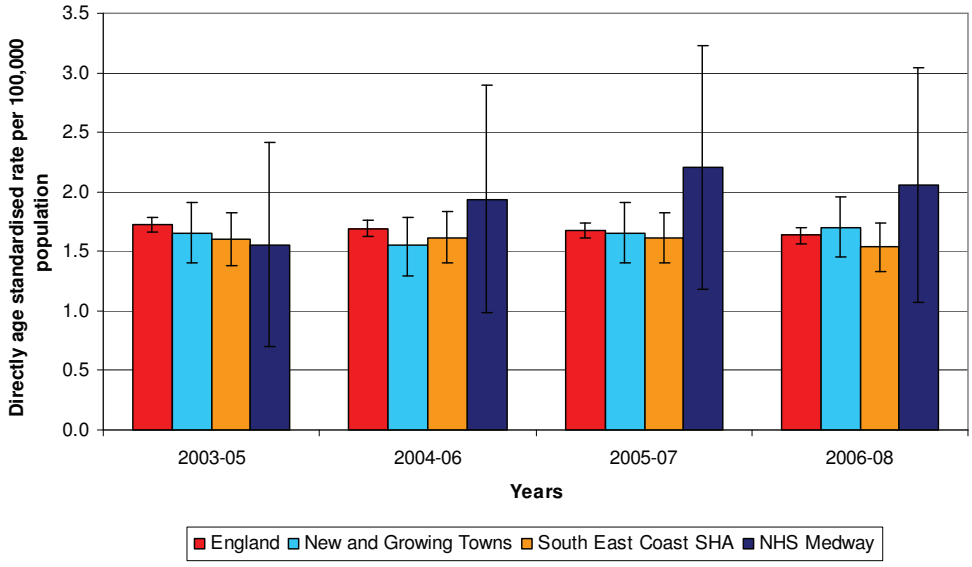
Figure 73: Directly age standardised mortality rates per 100,000 population from neurological disorders (all mentions), three year average, 2003/05 to 2006/08, all ages, NHS Medway



Source: Primary care mortality database, 2008

Figure 74 shows that death rates from epilepsy in Medway are not significantly different from our comparators.

Figure 74: Directly aged standardised mortality rates per 100,000 population from epilepsy (underlying cause), 2003/05 to 2006/08, all ages, NHS Medway and comparators

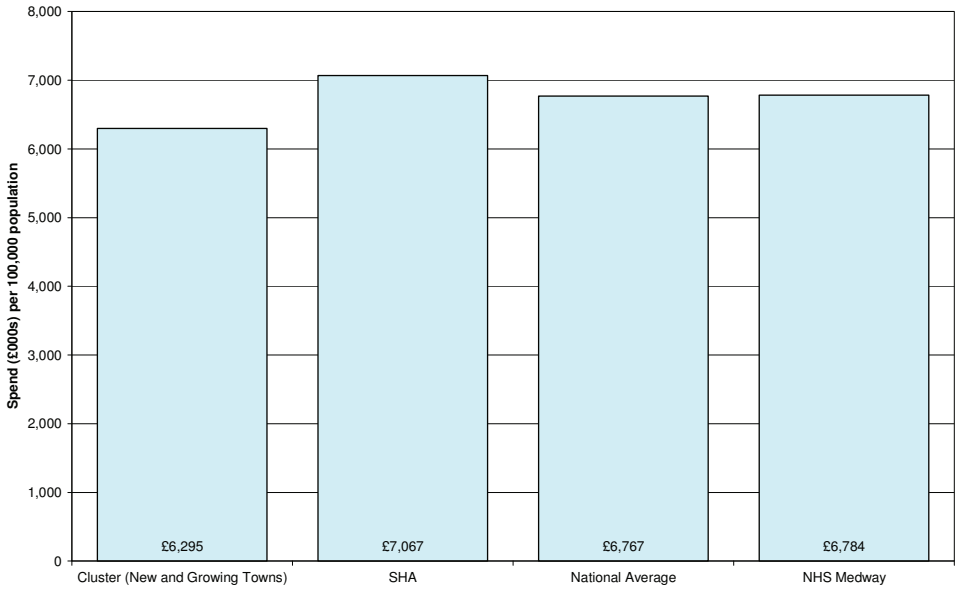


Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Programme spend in 2008/09

In 2008/09, Medway spent £6,783,739 per 100,000 population on neurological disorders, including £ 2,165,642 on chronic pain, and ranked 69th out of the 152 PCTs in England for spend on this programme. Figure 75 shows that Medway spent slightly more per 100,000 population than the cluster group but less than the SHA average.

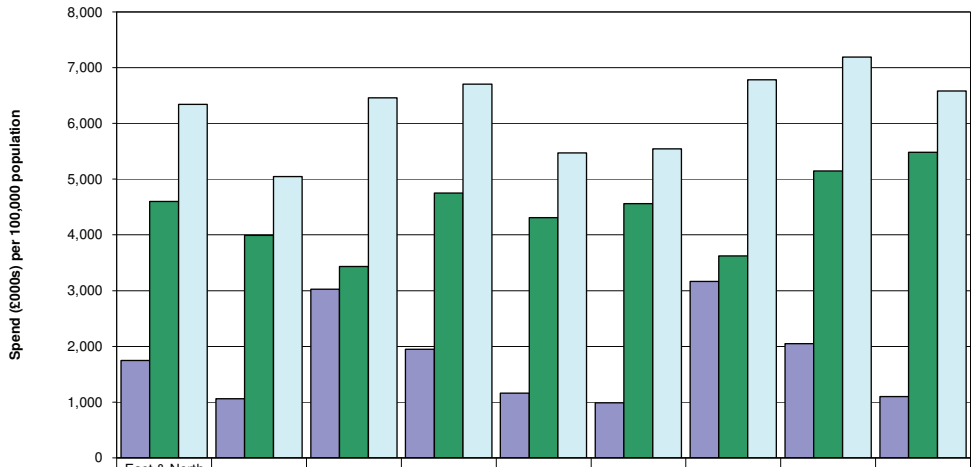
Figure 75: Spend per 100,000 population, Medway and comparators, 2008/09: 07 Neurological disorders



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 76 shows that the proportion of spend in primary care is higher in Medway than in most other PCTs in our cluster.

Figure 76: Spend per 100,000 population, neurological disorders, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing town cluster group



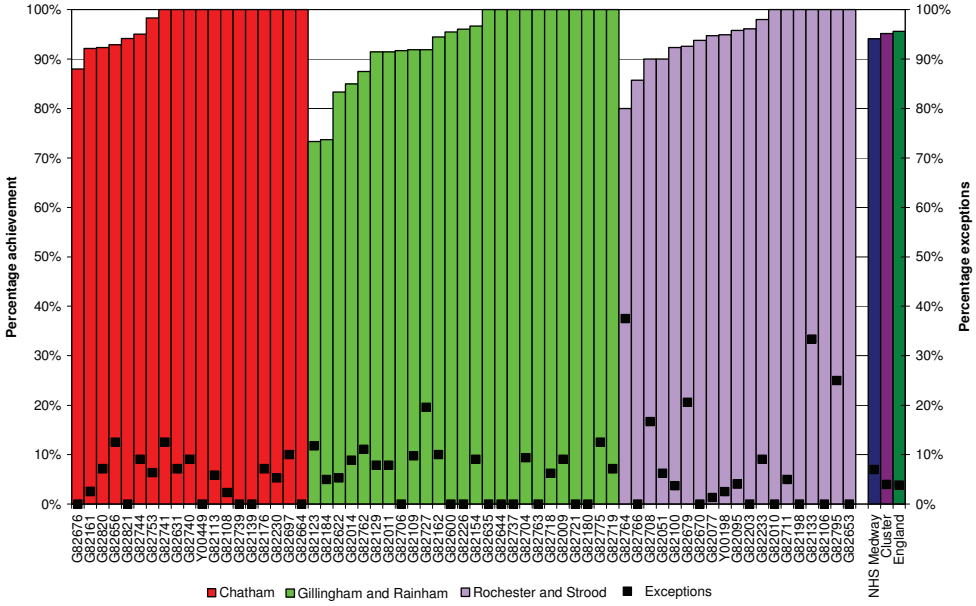
	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	1,743	1,060	3,025	1,951	1,161	985	3,162	2,047	1,100
Secondary	4,601	3,990	3,436	4,753	4,309	4,561	3,622	5,145	5,483
Total	6,344	5,050	6,461	6,704	5,470	5,546	6,784	7,191	6,583

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Primary care

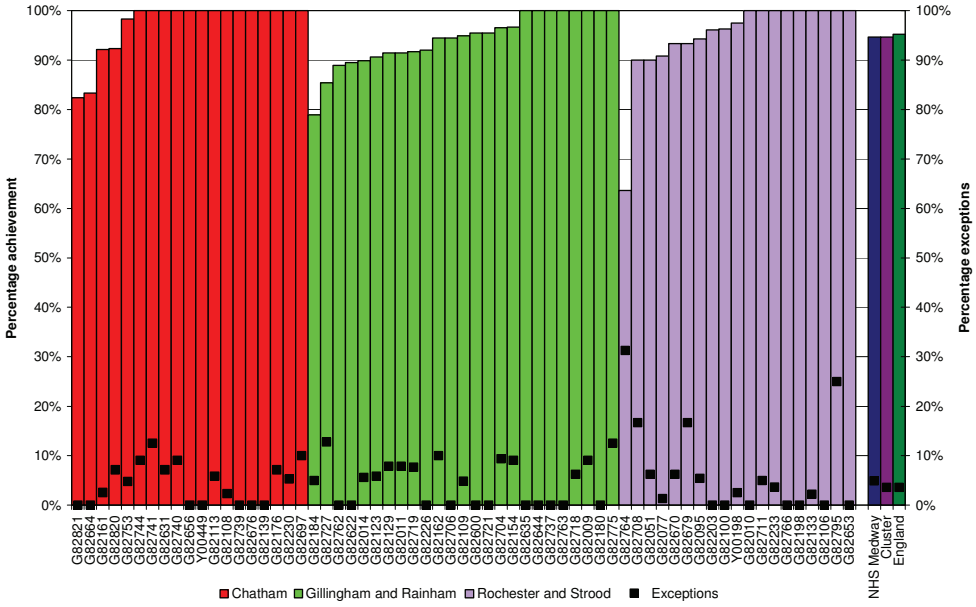
QOF data for 2008/09 show variation across the 63 practices within Medway in the management of epilepsy.

Figure 77: The percentage of patients aged 18 and over on drug treatment for epilepsy who have a record of seizure frequency in the previous 15 months, by practice and PBC locality (QOF indicator Epilepsy 6), 2008/09



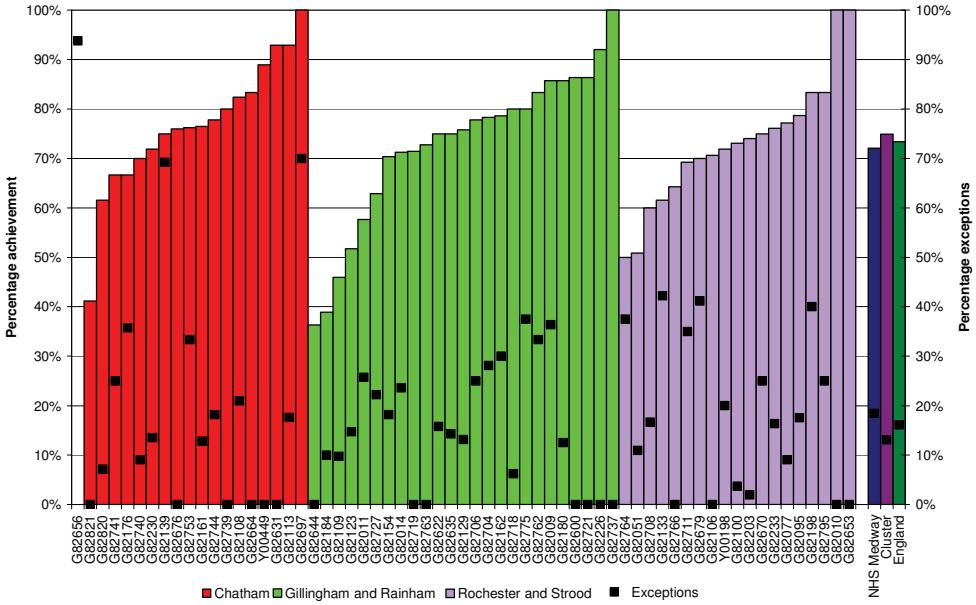
Source: QOF, 2009

Figure 78: The percentage of patients aged 18 and over on drug treatment for epilepsy who have a record of medication review involving the patient and/or carer in the previous 15 months, by practice and PBC locality (QOF indicator Epilepsy 7), 2008/09



Source: QOF, 2009

Figure 79: The percentage of patients aged 18 and over on drug treatment for epilepsy who have been seizure free for the last 12 months recorded in the previous 15 months, by practice and PBC locality (QOF indicator Epilepsy 8), 2008/09

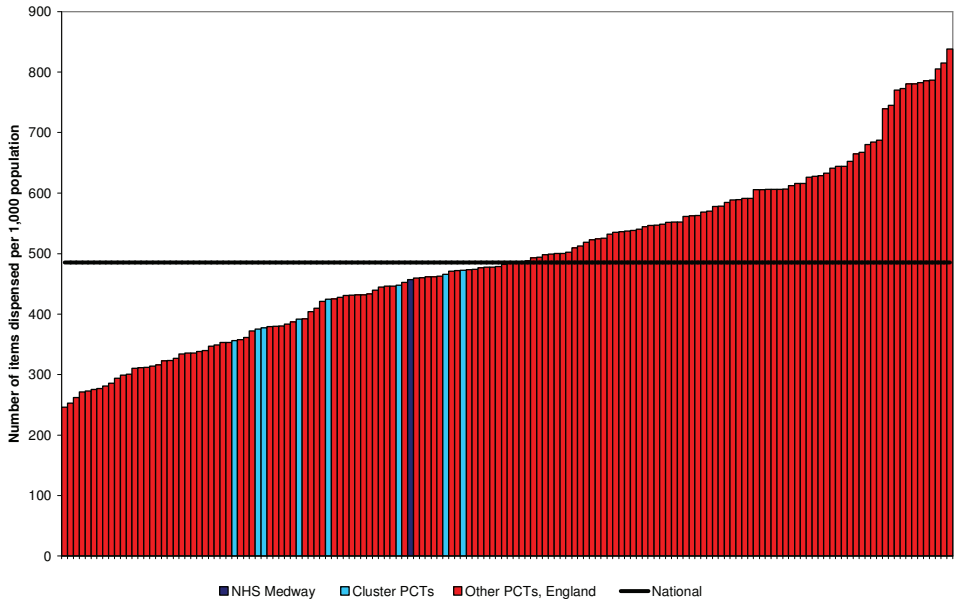


Source: QOF, 2009

Primary care prescribing

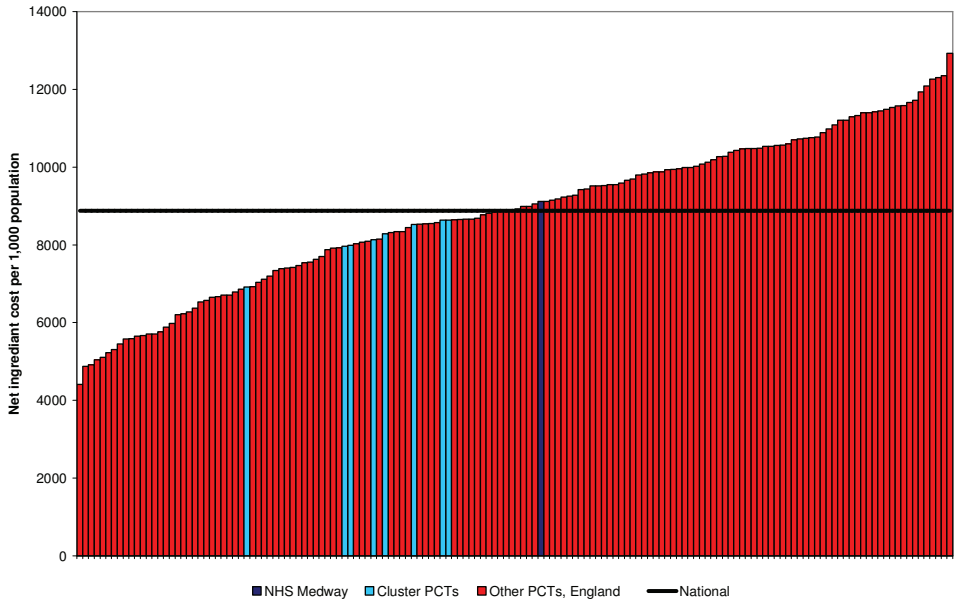
The number of items prescribed in Medway for neurological disorders is slightly below the national average and near the middle of the cluster range, while the net ingredient cost is slightly above the national average and the highest in the cluster.

Figure 80: Number of items dispensed per 1,000 population for neurological problems, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 81: Net ingredient cost per 1,000 population for neurological problems, all PCTs, England, 2008/09



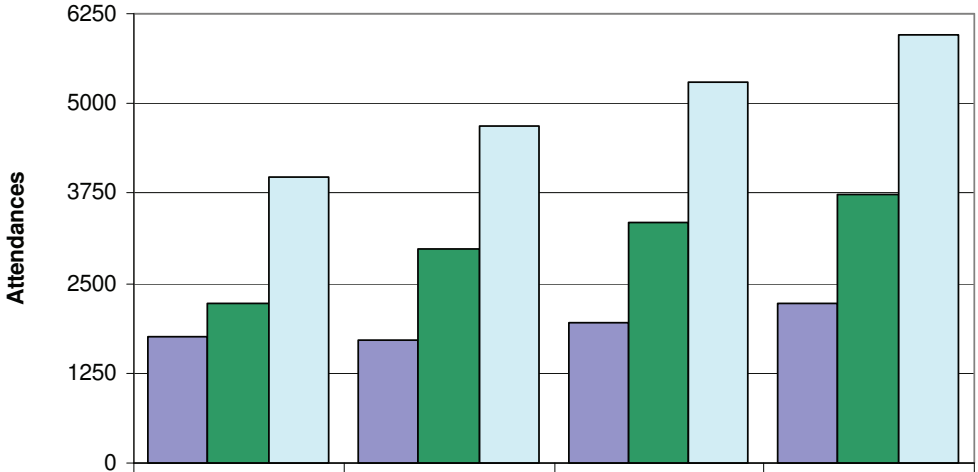
Source: NHS comparators, 2009

Secondary care

Outpatient attendances

Outpatient neurology attendances have increased year on year since 2005/06. This may be as a result of various guidelines issued over recent years which have advocated prompt access to specialist expertise because health outcomes are better.[52] Specialist referral is also advocated because some neurological disorders can present a particular challenge for early identification as they lack clear, simple diagnostic features.[52] This can also help prevent wrong diagnosis in conditions such as epilepsy. The number of follow up appointments has gone up by 68% since 2005/06, whereas first appointments have only gone up by 25%. A number of appointments for neurological disorders may take place in general medical clinics but these cannot be identified.

Figure 82: Neurological outpatient attendances 2005/06 to 2008/09, NHS Medway



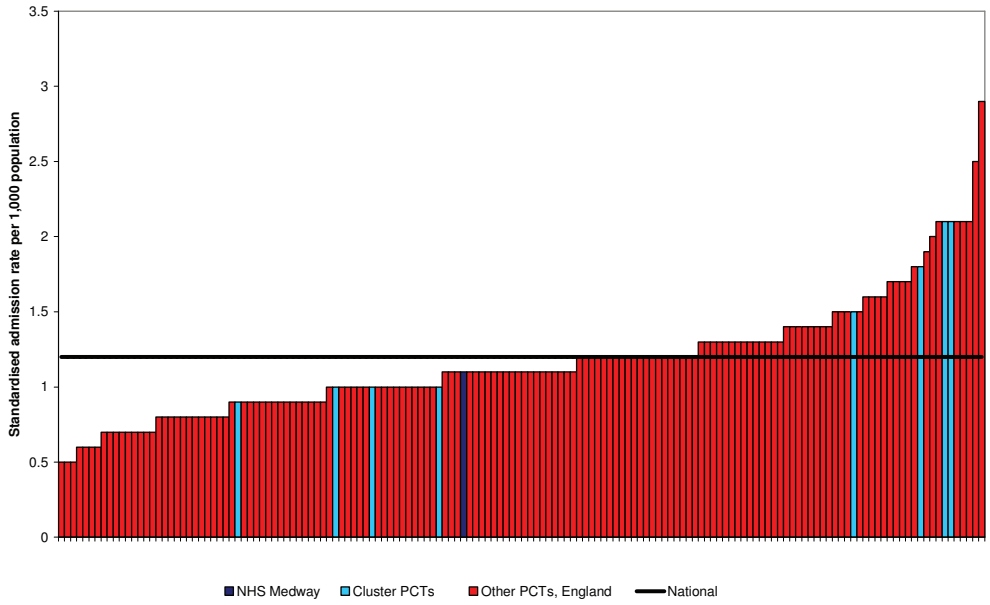
	2005-06	2006-07	2007-08	2008-09
First	1767	1709	1956	2217
Follow Up	2220	2978	3353	3731
Total	3987	4687	5309	5948

Source: Health Informatics Service Business Intelligence system (HISbi), 2009

Figures 83 and 84 show that, while the number of elective admissions were below the national average, the spend per admission was above this. The rate of emergency admissions for neurological problems was much higher than that of elective admissions but was below the national average as was the spend (Figures 85 and 86).

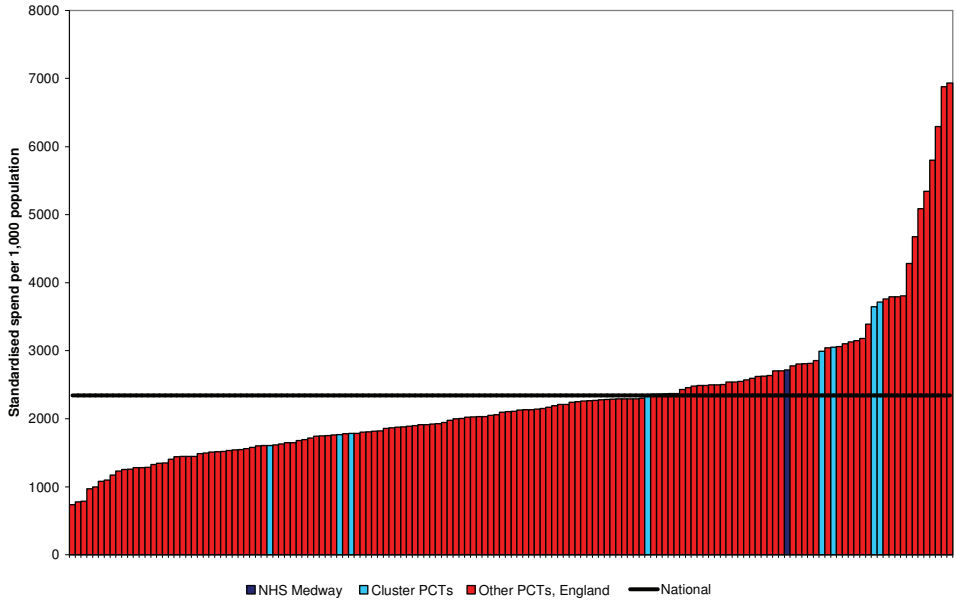
Admissions

Figure 83: Elective admissions per 1,000 population for neurological disorders, all PCTs, England, 2008/09



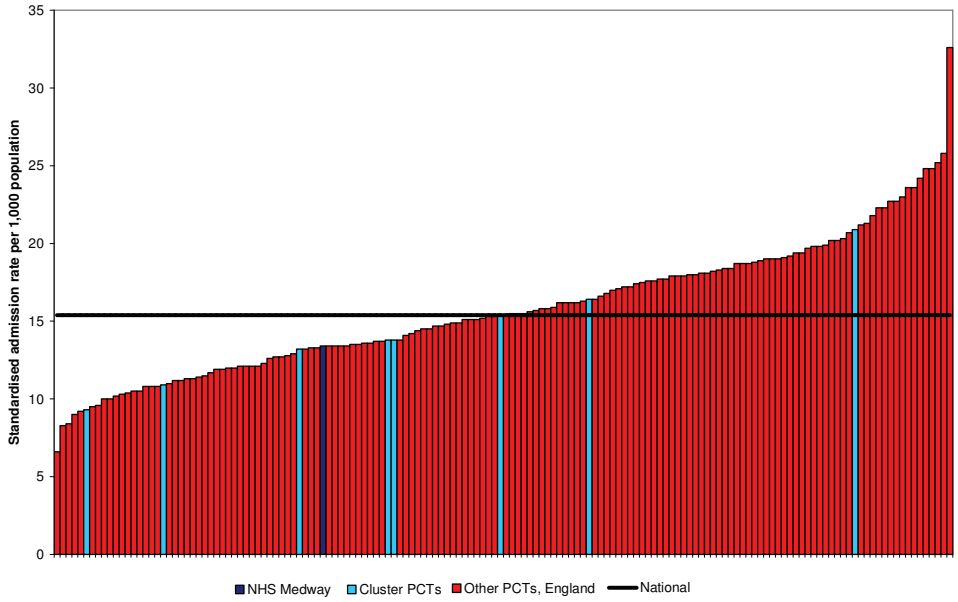
Source: NHS Comparators, 2009

Figure 84: Spend per 1,000 population, elective admissions for neurological disorders, all PCTs, England, 2008/09



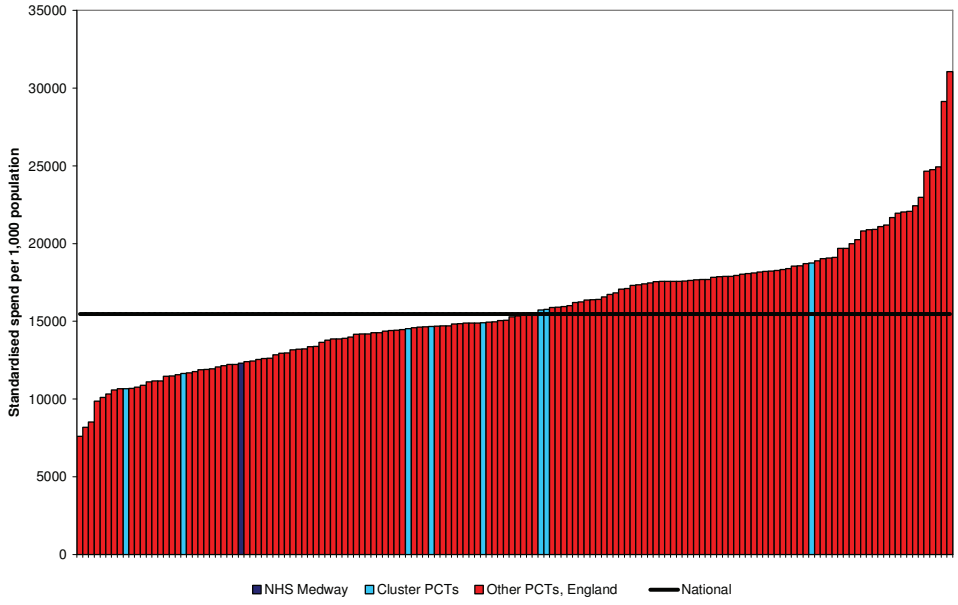
Source: NHS Comparators, 2009

Figure 85: Emergency admissions per 1,000 population for neurological disorders, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Figure 86: Spend per 1,000 population, emergency admissions for neurological disorders, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Conclusions

The cost of neurological disorders in both economic terms and disability is high. In Medway, approximately 55% of healthcare costs are in secondary care.

The number of outpatient attendances has gone up year on year since 2005/06 which may, in part, be in response to national guidelines. However, there has been a disproportionate increase in follow up appointments.

There is considerable variation between practices in Medway in the percentage of adults with epilepsy who are on drug treatment and have had a review of their medication in the previous 15 months.

Next steps

- The variation in the percentage of medication reviews in primary care for people with epilepsy needs to be reduced – all patients should receive this level of care.

- Work to ensure both that neurodisability care is as close to home as possible and that rehabilitation services are distributed according to need is being undertaken by the long term conditions strategic change programme.

Chapter 8: Problems of the circulation

Background

The problems of the circulation category (10) comprises:

- Coronary heart disease (including angina, myocardial infarction and ischaemic heart disease) – subcategory 10a
- Cerebrovascular disease (mainly stroke) - subcategory 10b
- Disorders of rhythm (including heart block and atrial fibrillation) - subcategory 10c
- Other circulation problems (including heart failure) - subcategory 10x

This chapter will focus primarily on coronary heart disease and stroke.

Risk factors

The risk factors for both coronary heart disease (CHD) and cerebrovascular disease (CVD) are similar. They can be divided into unmodifiable and modifiable.

Unmodifiable risk factors are:

- Age - risk increased with age
- Sex - more common in men than women until women reach the menopause
- Family history - genetic predisposition
- Ethnicity - some groups of people from South Asian descent have a CHD risk about 40% greater than the UK white population, while others of Afro-Caribbean descent have a 25 – 50% lower risk.[58]

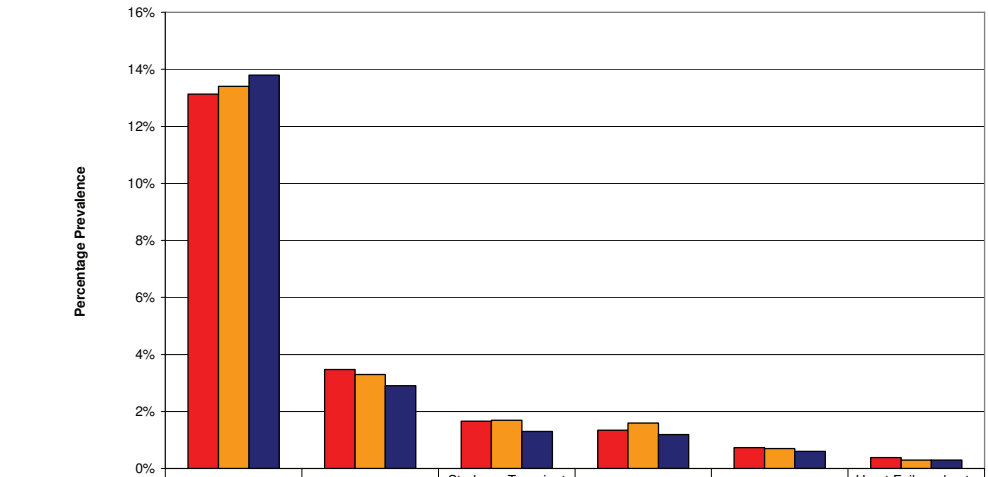
Modifiable risk factors include:[58]

- Smoking
- Hypertension
- Obesity
- Inactivity
- Raised cholesterol
- High triglyceride with low levels of high density lipoproteins
- Excessive alcohol
- Excessive stress
- Raised plasma glucose

Prevalence

The prevalence of several circulatory conditions can be obtained from QOF data, although this does not completely align with the programme budget categories.[k] Figure 87 shows the prevalence of circulatory problems and of hypertension in Medway as a whole and compares this with SEC strategic health authority and England.

Figure 87: Prevalence of circulatory conditions NHS Medway, South East Coast SHA and England, 2008/09



	Hypertension	Coronary Heart Disease	Stroke or Transient Ischaemic Attacks (TIA)	Atrial Fibrillation	Heart Failure	Heart Failure due to Left Ventricular Dysfunction
England	13.1%	3.5%	1.7%	1.3%	0.7%	0.4%
South East Coast SHA	13.4%	3.3%	1.7%	1.6%	0.7%	0.3%
NHS Medway	13.8%	2.9%	1.3%	1.2%	0.6%	0.3%

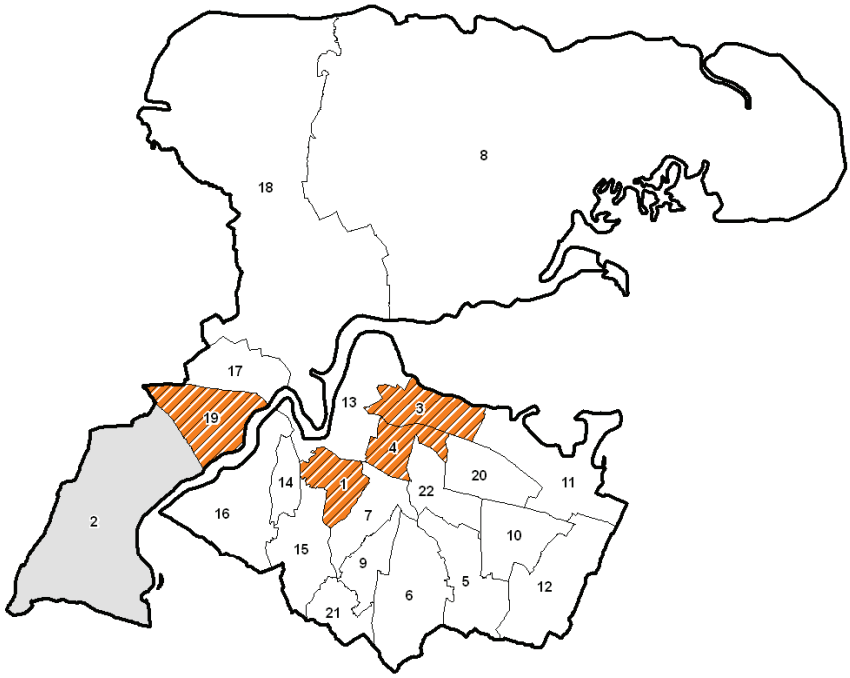
Source: QOF, 2009

Mortality

Map 3 shows that there are four wards within Medway where the mortality rate from circulatory disease in those aged under 75 years is significantly higher than the national average, namely Chatham Central, Gillingham North, Gillingham South and Strood South. These four wards are all in the top five most deprived wards in Medway.[59] Also shown is Cuxton and Halling ward, which has a significantly lower death rate than the national average.

[k] Transient ischaemic attacks, which are sometimes referred to as "mini strokes" and are investigated to prevent a stroke, are within the neurological category of programme budgeting.

Map 3: Directly standardised mortality rates from all circulatory diseases (ICD10 100-199), aged <75 years, three year average 2006/08, Medway wards



DASMR per 100, 000 population - <75s

- Significantly higher mortality rate than National rate
- Within National rate confidence intervals
- Significantly lower mortality rate than National rate

1. Chatham Central
2. Cuxton and Halling
3. Gillingham North
4. Gillingham South
5. Hempstead and Wigmore
6. Lordswood and Capstone
7. Luton and Wayfield
8. Peninsula
9. Princes Park
10. Rainham Central
11. Rainham North
12. Rainham South
13. River
14. Rochester East
15. Rochester South and Horstead
16. Rochester West
17. Strood North
18. Strood Rural
19. Strood South
20. Twydall
21. Walderslade
22. Watling

Sources: ONS Mid Year Population Estimates by Ward 2006, ONS Annual District Deaths Extract 2006-2008, Clinical and Health Outcomes Knowledge Base (nchod)

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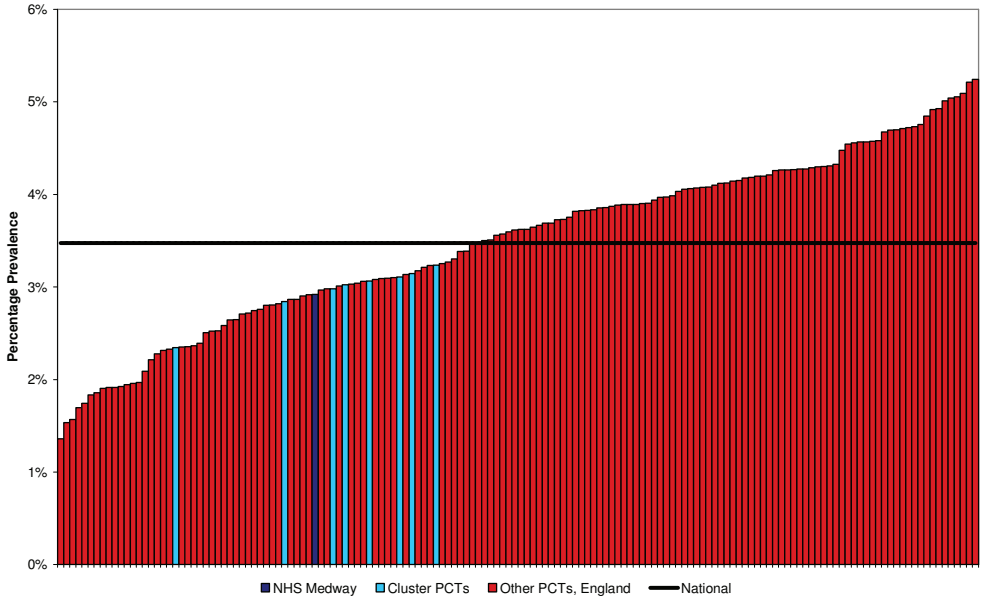
This chapter now gives information firstly on coronary heart disease (CHD) and subsequently on cerebrovascular disease (CVD).

Coronary heart disease (CHD)

Prevalence

From QOF data, in 2008/09 there were 8,033 patients with CHD registered with Medway GP practices (prevalence 2.9%). Figure 88 shows the recorded prevalence in NHS Medway compared to other PCTs in England. The prevalence of recorded CHD in Medway is lower than the national average which may be related to the relatively young population in Medway or may be due to undiagnosed individuals in Medway. The cluster PCTs all have a lower than national prevalence.

Figure 88: Recorded prevalence of coronary heart disease (CHD), all PCTs, England, 2008/09



Source: QOF, 2009

Work has been undertaken nationally by the Association of Public Health Observatories to develop disease prevalence models (DPMs) for common conditions.[17] The model for CHD provides estimates and projections of the prevalence of CHD in people aged 16+ and takes into account age, sex, ethnicity, smoking status and deprivation score. The table below shows estimated and projected prevalence of CHD for all ages.

Table 20: Estimated and projected prevalence of CHD, Medway, 2006/2020

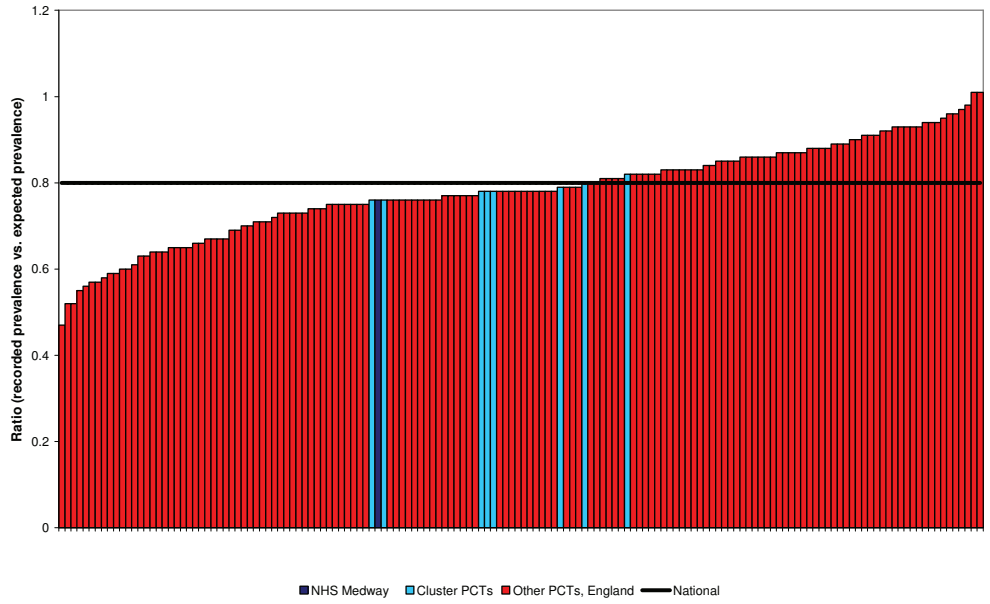
	2006	2009	2010	2015	2020
Number	9,327	9,800	9,888	10,919	11,922
%	3.7%	3.9%	3.9%	4.2%	4.5%

Adjusted for percentage of *total* projected population to align with QOF prevalence (all ages)

Source: Eastern Region Public Health Observatory, 2008

The DPMs have been used by NHS comparators to show the relationship of recorded prevalence from the QOF against that predicted by the model.
Figure 89 shows the ratio of recorded QOF prevalence compared to expected using the model for CHD. A figure < 1 means that fewer cases have been recorded than expected, a number >1 means that more cases than expected have been recorded. In Medway approximately 75% of the expected cases according to the model were recorded in 2008/09.

Figure 89: Ratio of recorded to expected CHD prevalence, all PCTs, England, 2008/09

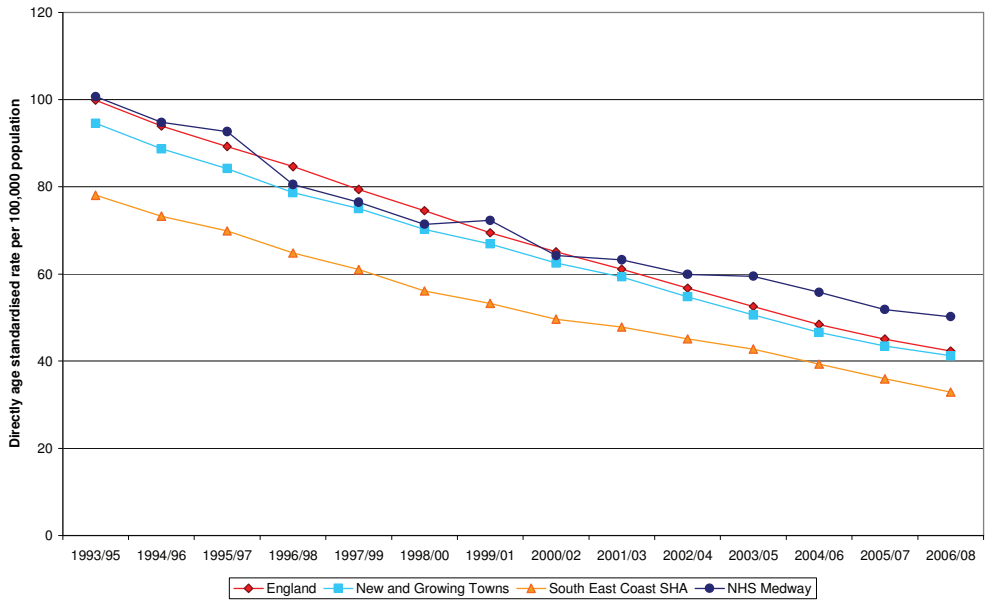


Source: NHS comparators, 2009

Mortality

Figure 90 shows that premature mortality rates from CHD have decreased considerably since 1997 in Medway, South East Coast SHA and England. However, in 2006/2008, mortality from CHD in Medway was significantly higher than in comparators.

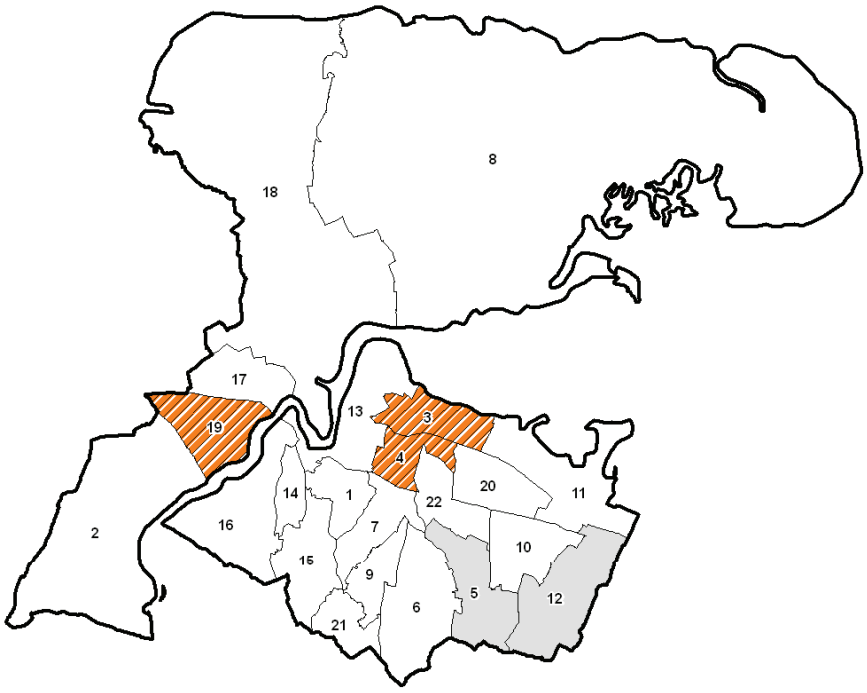
Figure 90: Directly standardised mortality rates from coronary heart disease <75 years, England, new and growing towns cluster, South East Coast SHA and Medway, three year averages, 1993/95 to 2006/08



Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Map 4 shows that some wards within Medway, notably Gillingham North, Gillingham South, and Strood South, have significantly higher mortality rates from CHD than the national rate, and two (Hempstead and Wigmore and Rainham South) have significantly lower rates.

Map 4: Directly age standardised mortality rate for CHD, (ICD10 120-125), aged <75 years, three year average 2006/08, Medway wards



DASMR per 100, 000 population - <75s

- Within National rate confidence intervals
- Significantly higher mortality rate than National rate
- Significantly lower mortality rate than National rate

1. Chatham Central
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3. Gillingham North
4. Gillingham South
5. Hempstead and Wigmore
6. Lordswood and Capstone
7. Luton and Wayfield
8. Peninsula
9. Princes Park
10. Rainham Central
11. Rainham North
12. Rainham South
13. River
14. Rochester East
15. Rochester South and Horstead
16. Rochester West
17. Strood North
18. Strood Rural
19. Strood South
20. Twydall
21. Walderslade
22. Watling

Sources: ONS Mid Year Population Estimates by Ward 2006, ONS Annual District Deaths Extract 2006-2008, Clinical and Health Outcomes Knowledge Base (nchod)

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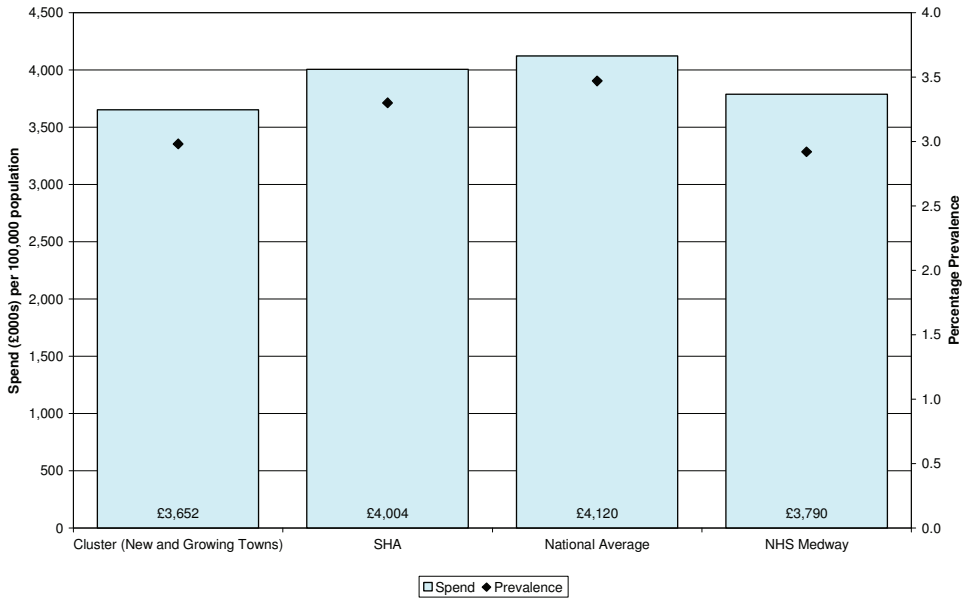
Programme spend in 2008/09

In 2008/09, Medway spent £3,789,555 per 100,000 population on coronary heart disease, placing it 96th out of the 152 PCTs in England for spend on this programme. Figure 91 shows what was spent on CHD compared to the QOF recorded prevalence. In Medway the spend per percentage point prevalence was slightly greater than the cluster average, but lower than the national and SHA averages.

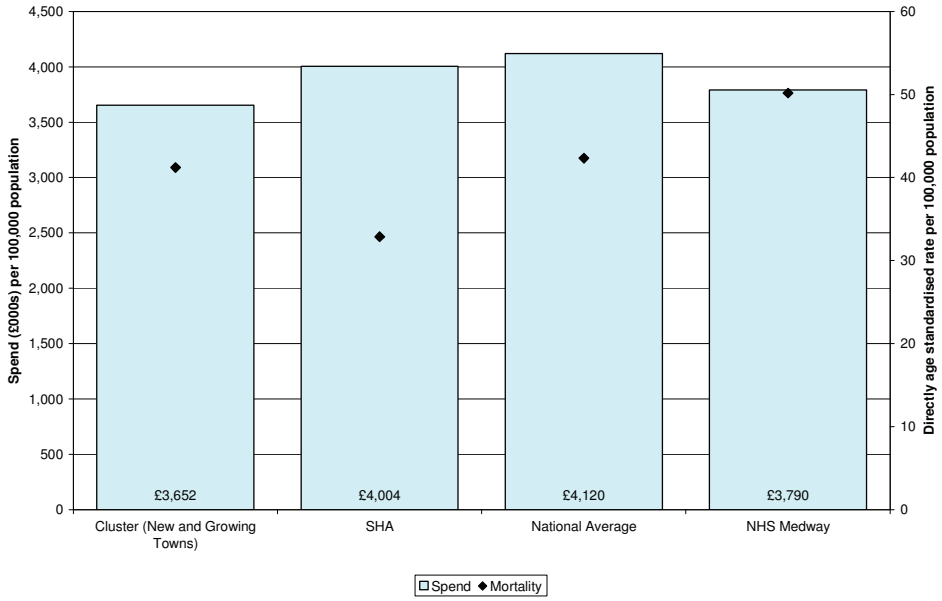
Figure 91: Spend per 100,000 population and prevalence, Medway and comparators, 2008/09: 10a CHD



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; QOF, 2009

Figure 92 shows that in 2008/09, there was a high age standardised mortality rate in Medway despite the relatively high spend compared to prevalence. One explanation for this is that there may be people at risk of CHD who are not being picked up early enough and offered preventative treatment.

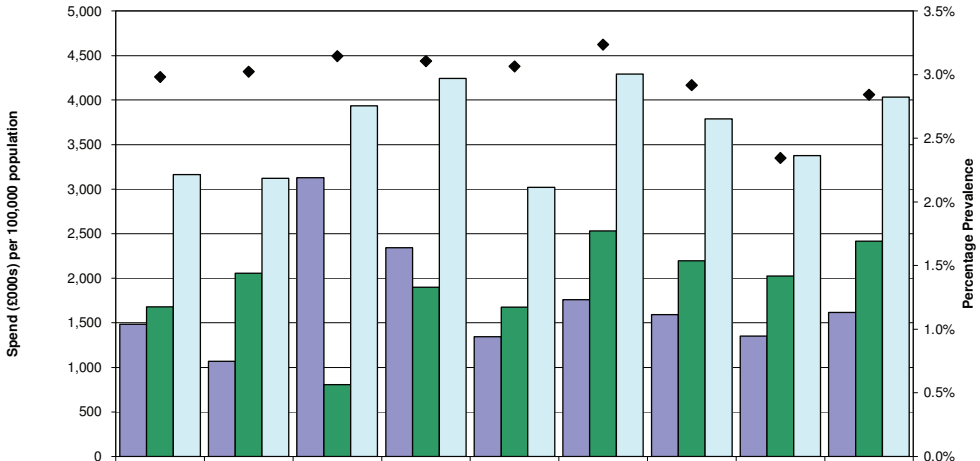
Figure 92: Spend per 100,000 population, Medway and comparators 2008/09, and directly age-standardised mortality rate from CHD, 2006/08 <75s: 10a CHD



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010 The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Figure 93 shows that apart from in the two Essex PCTs, more is spent in secondary care than in primary care in the cluster PCTs.

Figure 93: Spend per 100,000 population on CHD, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing town cluster group, and CHD prevalence, 2008/09



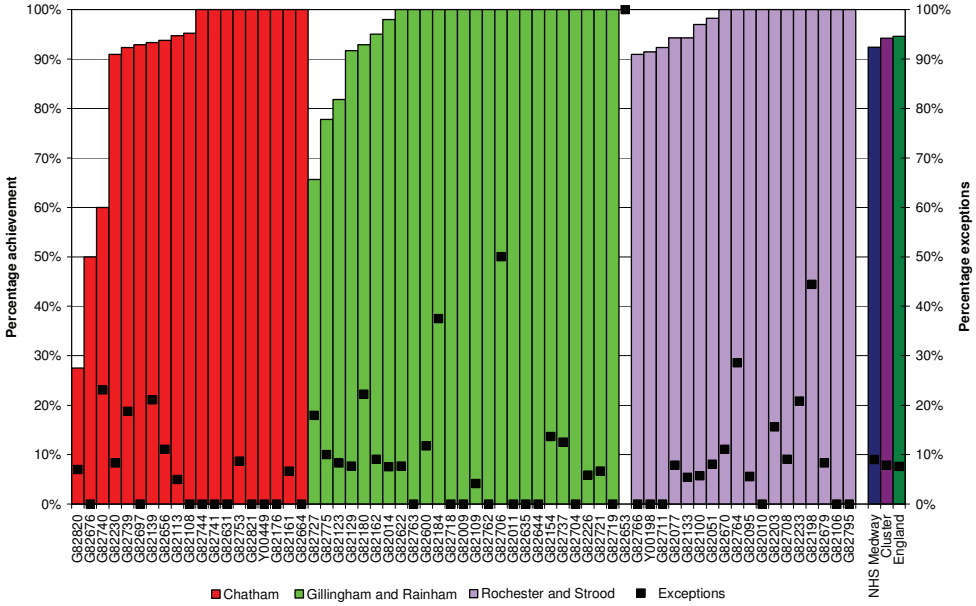
	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	1,484	1,067	3,129	2,344	1,346	1,760	1,594	1,352	1,616
Secondary	1,681	2,058	808	1,899	1,675	2,532	2,195	2,025	2,416
Total	3,165	3,124	3,937	4,242	3,021	4,292	3,790	3,376	4,032
Prevalence	3.0%	3.0%	3.1%	3.1%	3.1%	3.2%	2.9%	2.3%	2.8%

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010 and QOF 2009

Primary care

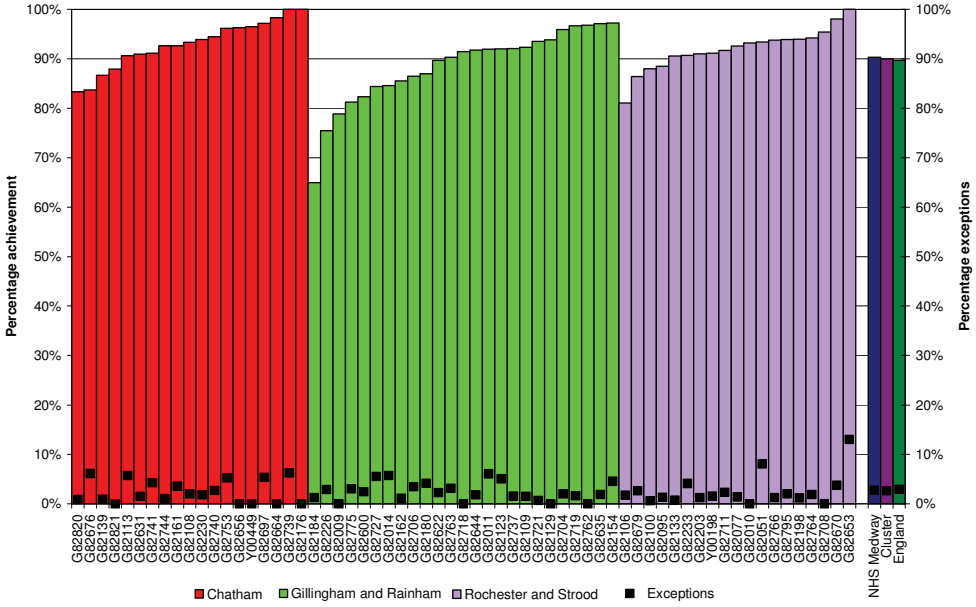
Figures 94 to 98 show some of the QOF clinical indicators for CHD. There is considerable variation amongst Medway practices. Of particular concern is the low percentage of patients with newly diagnosed angina who are referred for exercise testing or a specialist opinion, and the degree of exception reporting for this indicator in some practices. This may be due to small numbers but should be investigated.

Figure 94: The percentage of patients with newly diagnosed angina who have been referred for exercise testing and/or specialist assessment, by practice and PBC locality, Medway (QOF indicator CHD 2), 2008/09



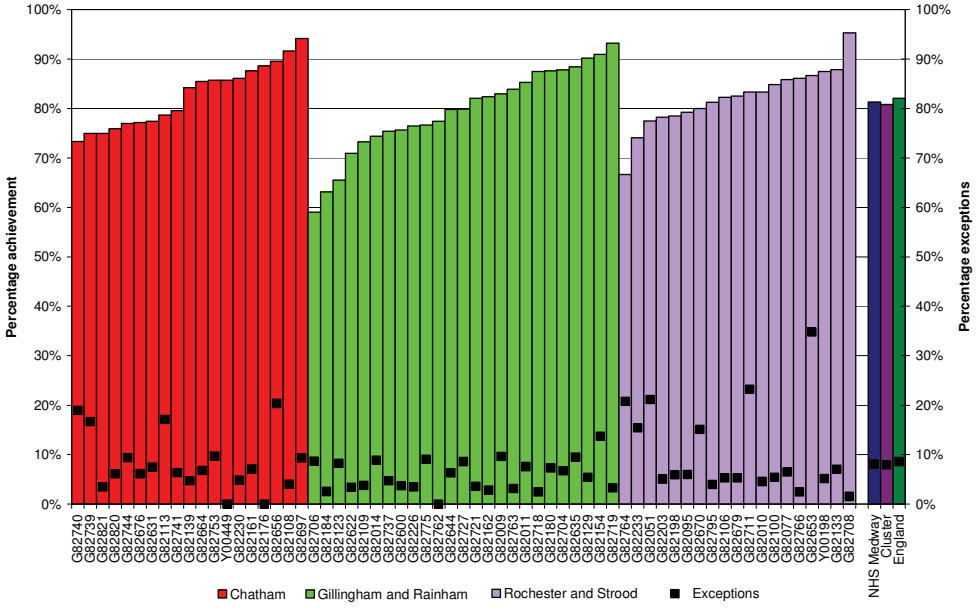
Source: QOF, 2009

Figure 95: The percentage of patients with CHD in whom the last BP reading is 150/90, by practice and PBC locality Medway (QOF indicator CHD 6), 2008/09



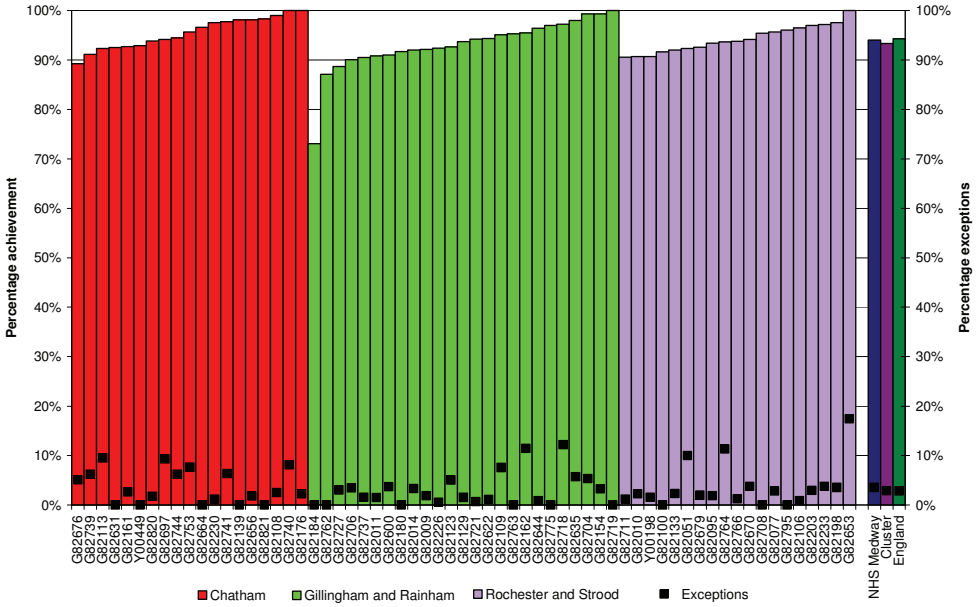
Source: QOF, 2009

Figure 96: The percentage of patients with CHD whose last measured total cholesterol is 5mmol/l or less, by practice and PBC locality in Medway (QOF indicator CHD 8), 2008/09



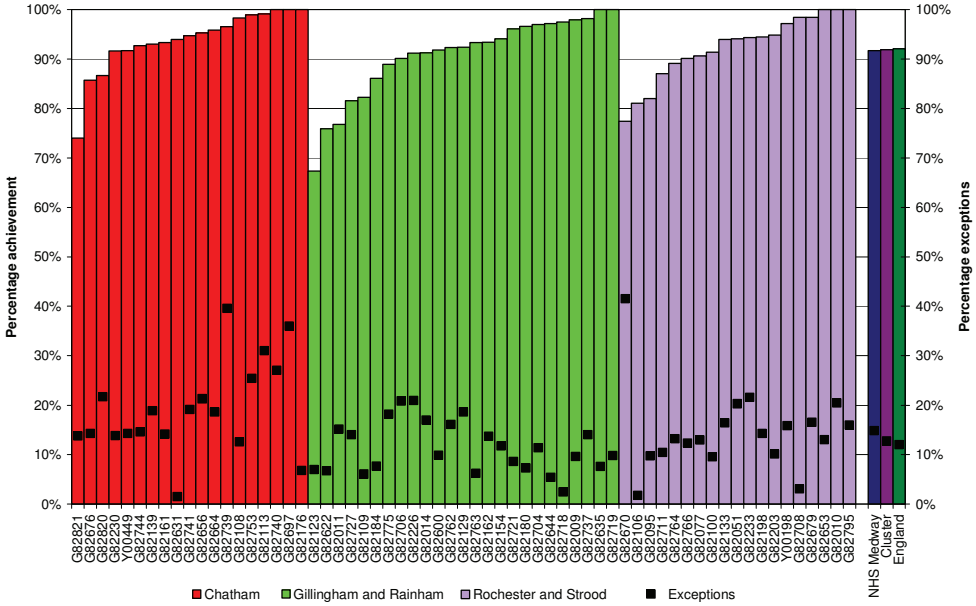
Source: QOF, 2009

Figure 97: The percentage of patients with CHD who have been prescribed aspirin, an alternative anti-platelet therapy or an anticoagulant in the previous 15 months, by practice and PBC locality in Medway (QOF indicator CHD 9), 2008/09



Source: QOF, 2009

Figure 98: The percentage of patients with CHD who have a record of seasonal flu immunisation in the preceding 1 September to 31 March, by practice and PBC locality Medway (QOF indicator CHD 12), 2008/09

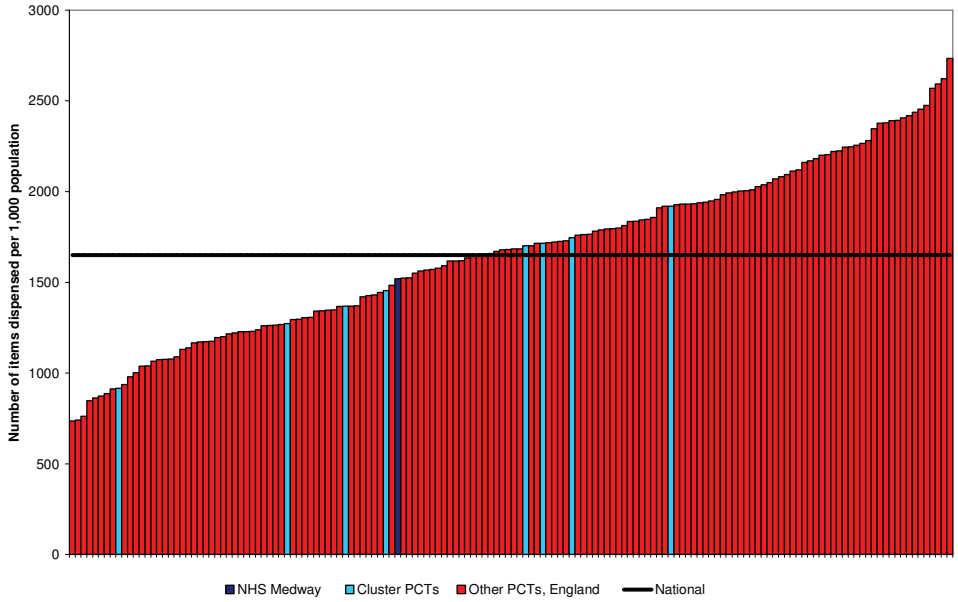


Source: QOF, 2009

Primary care prescribing

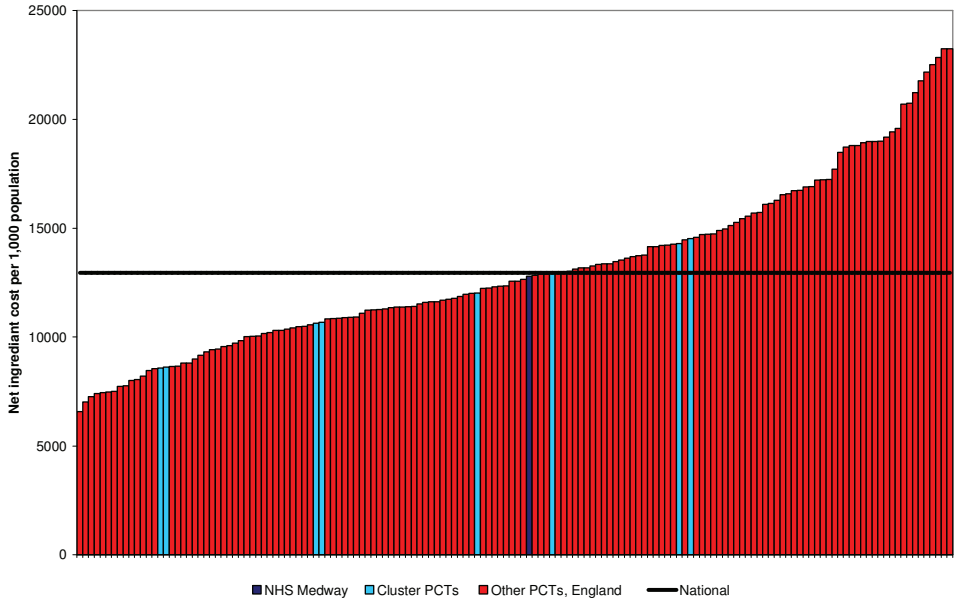
Figures 99 and 100 show information on primary care prescribing for this programme budgeting subcategory. The rate of items dispensed per 1,000 population in Medway is below the national average, the net cost per item is nearer to the national average.

Figure 99: Number of items dispensed per 1,000 population for CHD, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Figure 100: Net ingredient cost per 1,000 population for CHD, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Secondary care

Thrombolysis

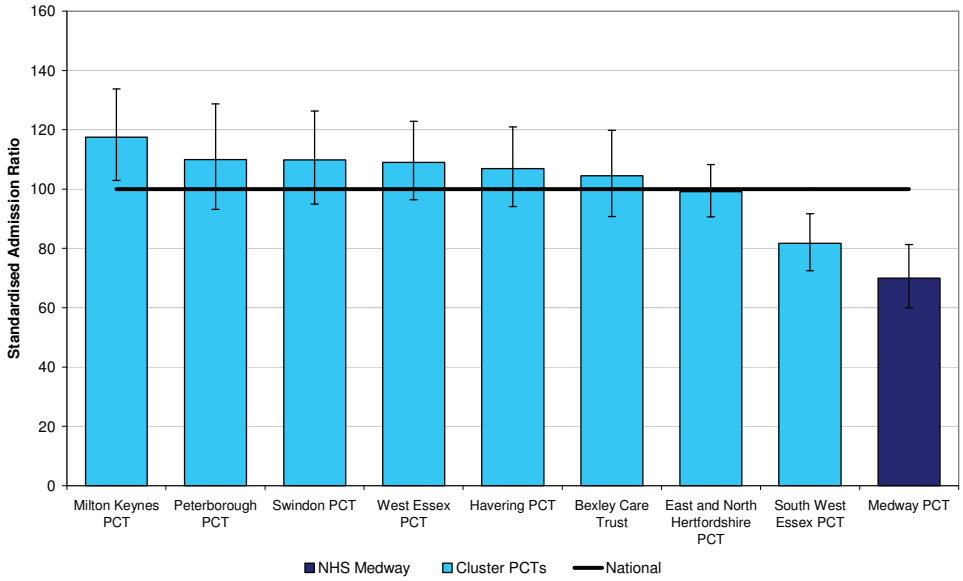
Once a person has had a heart attack, call to needle time is a measure of how quickly they receive potential life saving thrombolysis. Thrombolysis involves breaking up the blood clot causing the heart attack by pharmaceutical or other means. The target for 2008/09 was that 68% of people suffering from a heart attack should receive thrombolysis within 60 minutes of calling for professional help. This requires a rapid response by secondary care and the ambulance service. In 2008/9 the 60 minute target was achieved in 82.76% of cases in Medway.[20]

Coronary revascularisation

Coronary revascularisation describes the treatment of blocked blood vessels in the heart; the two main procedures used are coronary artery bypass grafting (CABG) and percutaneous transluminal coronary angioplasty (PTCA). In general, both procedures aim to restore blood flow to the heart muscle and are used to treat the symptoms of angina, especially in those who are unresponsive to medical therapy. CABG is more suitable for multi-vessel disease; PTCA is less invasive, and is also used as first line emergency treatment for acute heart attacks in some centres. CABG involves grafting blood vessels from elsewhere in the body to the arteries of the heart to bypass any blocked vessels. In PTCA, a balloon is inflated in the artery to squash the plaques that are causing the obstruction. NICE recommends that stents should also be inserted during PTCA as this can reduce the chances of blockages reforming. The target for revascularisation is that patients should wait no longer than three months. This was met in 2008/09 in Medway.[20]

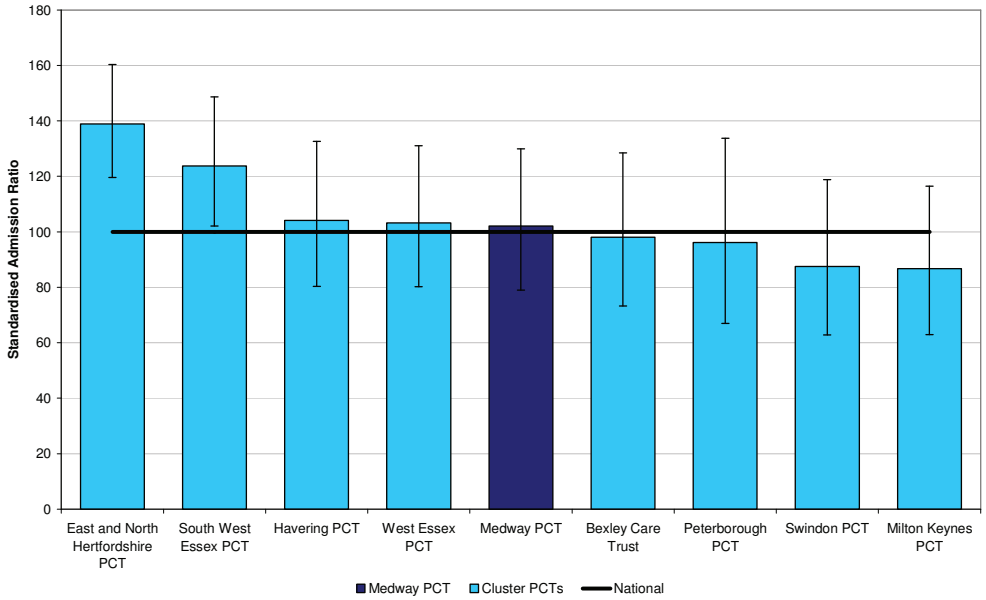
Figures 101 and 102 show that while the standardised admission ratio for CABGs did not differ significantly from the national level, the standardised admission ratio for PTCAs was significantly lower. This suggests that more revascularisations may be required within Medway.

Figure 101: Standardised admission ratios of percutaneous transluminal coronary angioplasties (PTCAs), Medway and new and growing towns cluster group, 2008/09



Source: Dr. Foster Intelligence, 2010

Figure 102: Standardised admission ratios of coronary artery bypass grafts (CABGS), Medway and new and growing towns cluster group, 2008/09

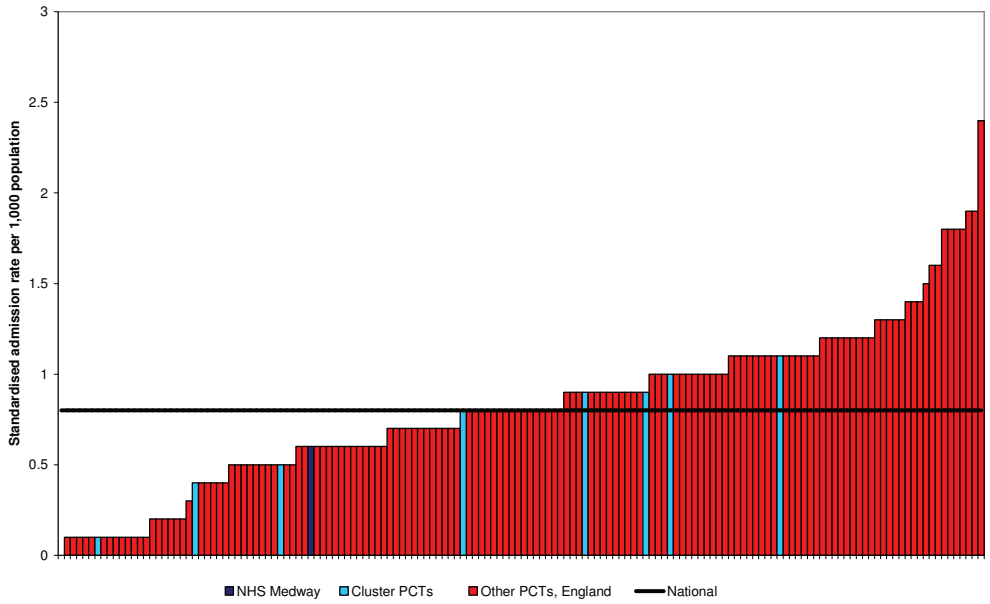


Source: Dr. Foster Intelligence, 2010

Admissions

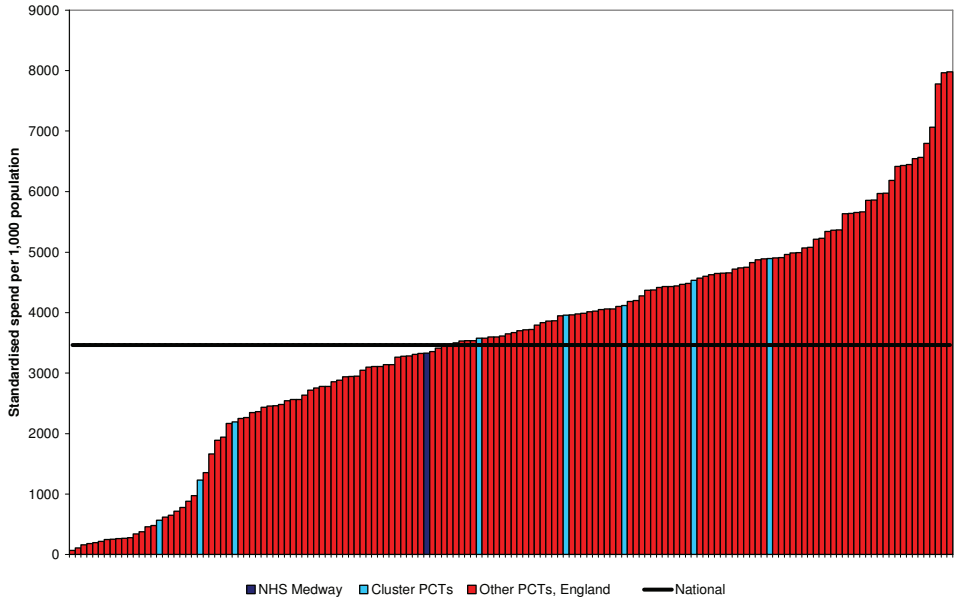
Figures 103 to 106 show that the elective admission rate for CHD was lower than the national average (although spend was almost at the national average) and the emergency admission rate and spend were higher. This suggests again that patients are not being identified, treated and referred early enough for revascularisation so that an emergency admission for an acute cardiac event occurs.

Figure 103: Elective admissions per 1,000 population due to CHD, all PCTs, England, 2008/09



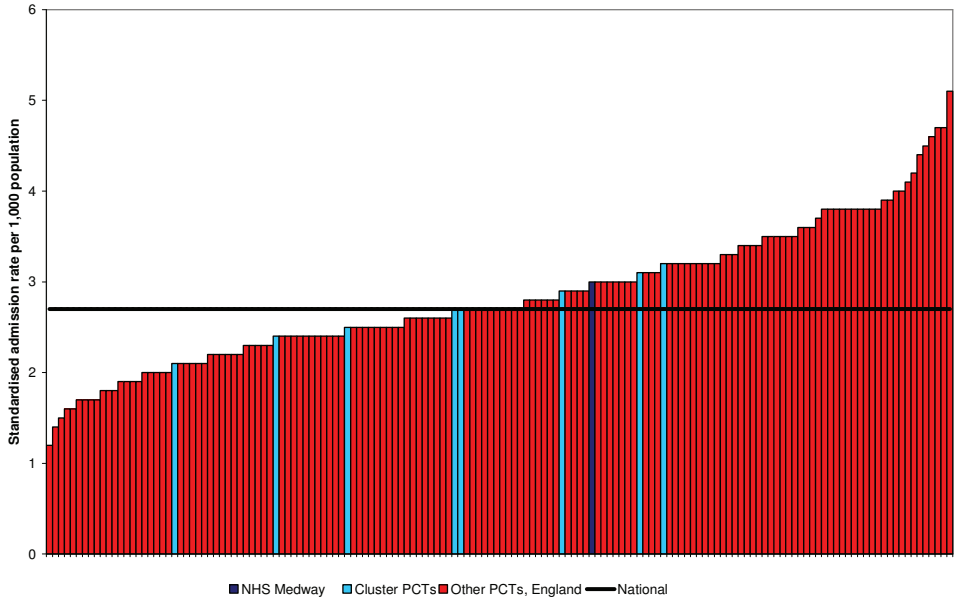
Source: NHS Comparators, 2009

Figure 104: Spend per 1,000 population on elective admissions for CHD, all PCTs, England, 2008/09



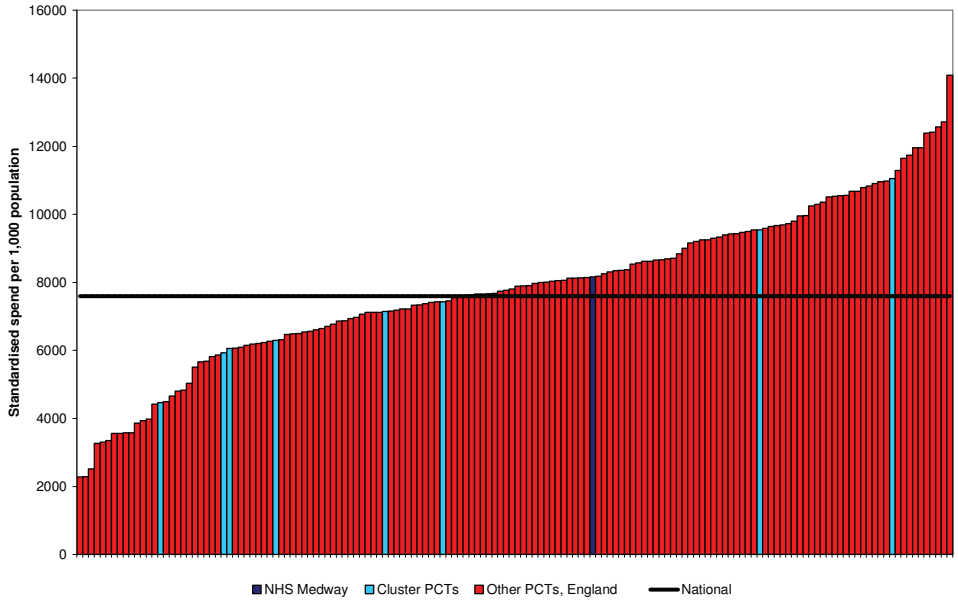
Source: NHS Comparators, 2009

Figure 105: Emergency admissions per 1,000 population for CHD, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 106: Spend per 1,000 population for emergency admissions for CHD, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Conclusions

Smoking, obesity, physical inactivity and excessive alcohol are modifiable risk factors for CHD.

The recorded prevalence of CHD in Medway is lower than the national and cluster average and less than predicted by modelling. This suggests that there are people with CHD within the community who have not yet been identified or had this status recorded.

Mortality from CHD in those under 75 in Medway is significantly higher than the national, cluster and SHA averages and there are particular wards within Medway where this is demonstrated.

There is a high standardised mortality rate from CHD in Medway despite the relatively high spend compared to prevalence. One explanation of this and the admission rate data is that there may be people at risk of CHD who are not being picked up early enough and offered preventative treatment or revascularisation. Thus they first enter the system when a coronary event occurs, with a proportion of them dying.

There is considerable variation in the QOF indicators across NHS Medway. Of particular concern is the low percentage of patients with newly diagnosed angina who are referred for exercise testing or a specialist opinion by some practices.

Next steps

- Prevention of CHD via modifiable risk factors should be continued and there is a case for targeting specific communities.

- The variation in the quality indicators in primary care needs further investigation including the degree of exception reporting.

- NHS Health Checks[l] need to be fully implemented as soon as possible and people at risk offered lifestyle advice and treatment.

[l] The NHS Health Check programme is a universal and systematic programme for everyone between the ages of 40 and 74. It will assess people's risk of heart disease, stroke, kidney disease and Type 2 diabetes and will support people to reduce or manage that risk through individually tailored advice.

Cerebrovascular disease (CVD)

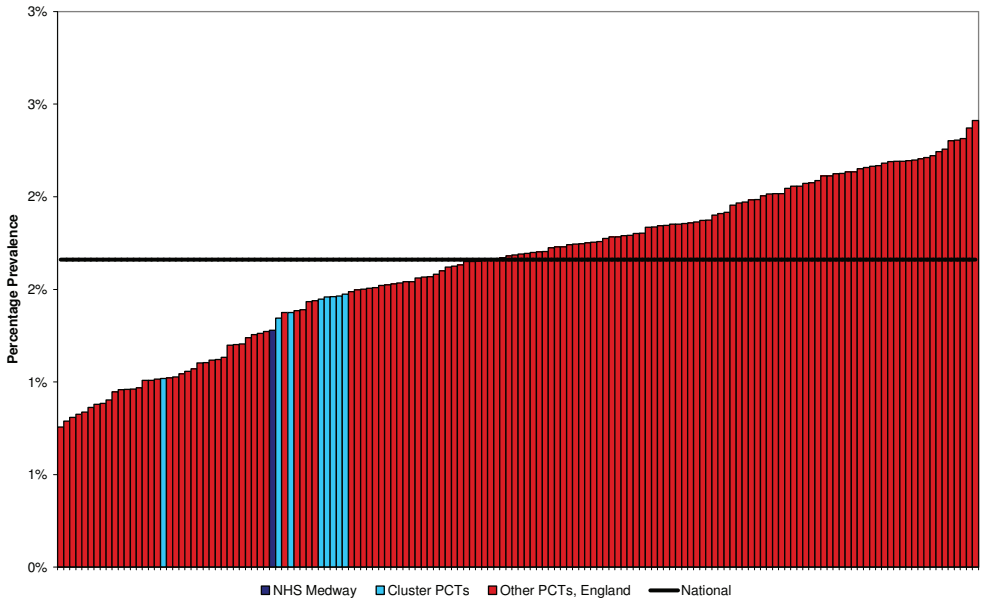
While various forms of stroke make up the majority of cerebrovascular disease as defined by the programme budgeting subcategory cerebrovascular disease (10b), this also includes a small number of other rare cerebrovascular diseases. In addition, while there is a clear clinical link between transient ischaemic attacks (TIAs) and stroke (the former being frequently referred to as 'mini strokes'), within programme budgeting, spend on TIAs is classified within programme budgeting subcategory neurological problems 07x.

Prevalence

QOF data combine prevalence of TIAs and stroke, as the ongoing management of both is similar i.e. lifestyle advice and medication to control blood pressure and cholesterol and reduce risk of reoccurrence. In 2008/09, there were 3,519 patients with a history of stroke or TIA registered with Medway GP practices (prevalence 1.3%).

Figure 107 shows the recorded prevalence of stroke and TIA in Medway is much lower than the national average, which may be related to the relatively young population in Medway. The cluster PCTs all have lower than national prevalence.

Figure 107: Recorded prevalence of stroke and TIA, all PCTs, England, 2008/09



Source: QOF, 2009

The disease prevalence model for stroke[17] takes into account age, sex, smoking status and deprivation score to predict prevalence in those aged 16+. The table below shows estimated and projected prevalence of stroke for all ages.

Table 21: Estimated and projected prevalence of stroke, Medway, 2006/2020

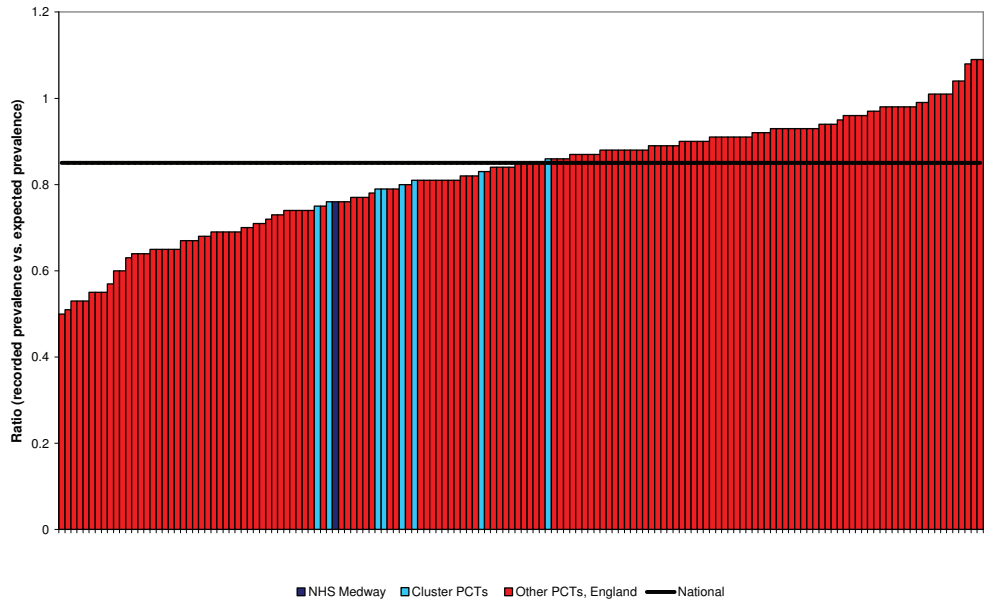
	2006	2009	2010	2015	2020
Number	4,099	4,302	4,341	4,814	5,252
%	1.63%	1.69%	1.70%	1.84%	1.96%

Adjusted for percentage of *total* projected population to align with QOF prevalence (all ages)

Source: Eastern Region Public Health Observatory, 2008

Figure 108 shows the ratio of recorded QOF prevalence compared to expected for stroke and TIA using this model. Approximately 75% of the expected cases are being recorded in Medway.

Figure 108: Ratio recorded to expected prevalence of stroke and TIA, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

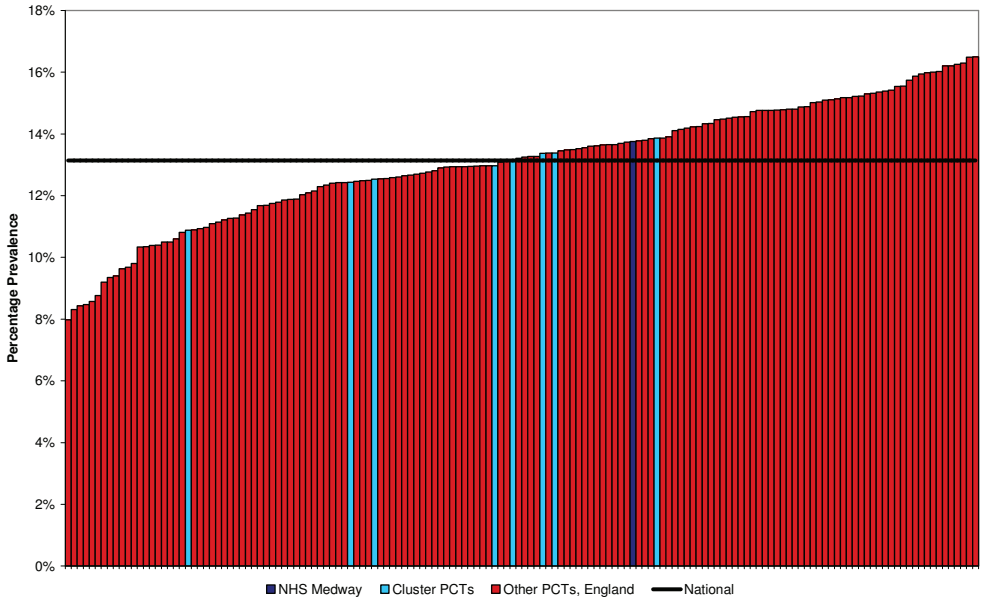
Hypertension

Hypertension is a particularly important risk factor for stroke. Methods of reducing blood pressure include dietary control, reduction of weight, salt restriction, increasing activity levels, smoking cessation, and medication.

From QOF data, in 2007/08 there were 36,217 patients recorded to have hypertension registered with Medway GP practices (prevalence 13.0%). In 2008/09 this increased to 37,885 (prevalence 13.8%).

Figure 109 shows that although the prevalence of stroke and TIA in Medway is below the national average, the prevalence of hypertension is higher. This fits with what is known about rates of obesity, smoking and exercise in Medway (see Chapter 14: Choosing health).

Figure 109: Recorded prevalence of hypertension, all PCTs, England, 2008/09



Source: QOF, 2009

The disease prevalence model[17] for hypertension takes into account age, sex, ethnicity and deprivation score to predict hypertension in those aged 16+. The table below shows estimated and projected prevalence of hypertension for all ages.

Table 22: Estimated and projected prevalence of hypertension, Medway, 2006/2020

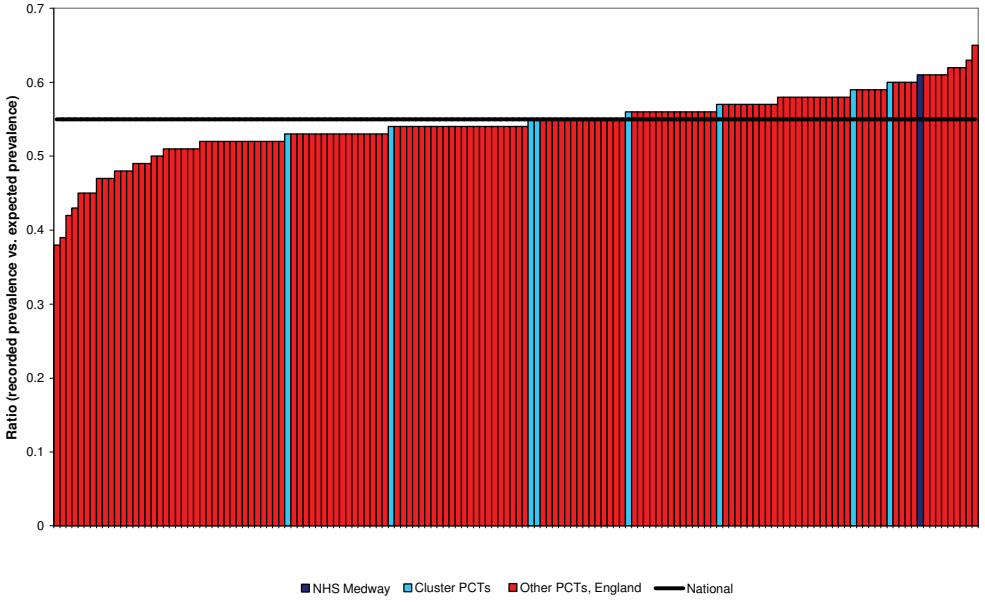
	2006	2009	2010	2015	2020
Number	57,259	59,404	59,771	63,845	67,523
%	22.7%	23.4%	23.4%	24.5%	25.2%

Adjusted for percentage of *total* projected population to align with QOF prevalence (all ages)

Source: Eastern Region Public Health Observatory, 2008

Figure 110 shows this model compared to QOF prevalence in 2008/09. While the ratio in Medway is above that nationally and the highest within the cluster, if the model is correct there is still considerable under recording of hypertension within Medway, with only 60% of cases being recorded.

Figure 110: Ratio of recorded to expected hypertension prevalence, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

This under recording may improve considerably when NHS Health Checks are introduced in 2010.

Mortality

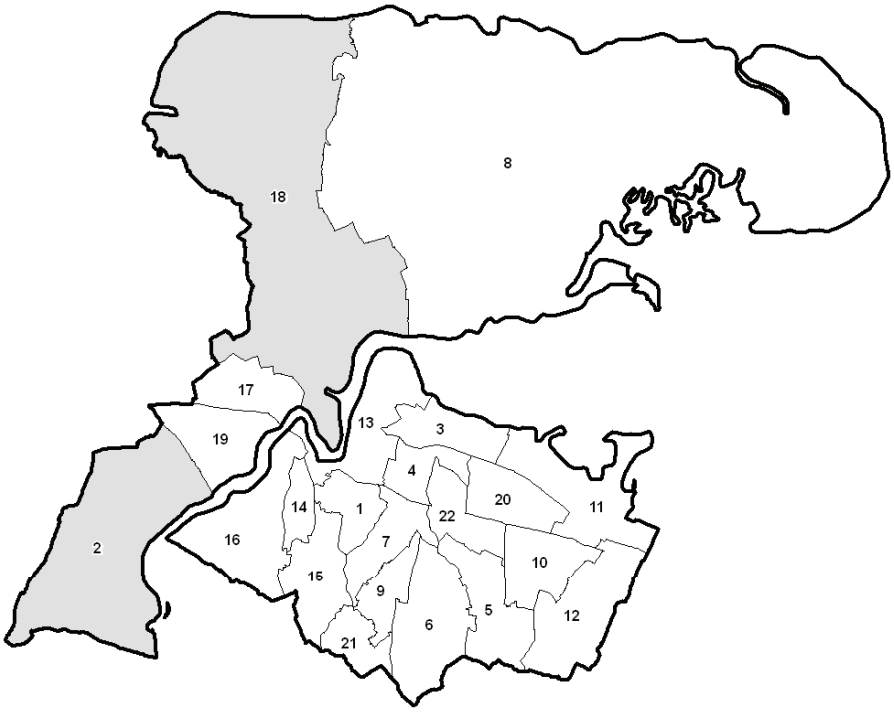
Figure 111 shows that mortality due to stroke in those under 75 years has been decreasing in Medway and our comparators since 1993/95. In 2006/08 there is no significant difference between Medway rates and those of our comparators.

Figure 111: Directly standardised mortality rates per 100,000, from stroke <75 years, England, new and growing towns cluster, South East Coast SHA and Medway, three year averages, 1993/95 to 2006/08

Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Map 5 shows that there no wards in Medway which have a significantly higher mortality rate from stroke than the national rate. Two wards, Cuxton and Halling, and Strood Rural, have rates significantly lower than the national average.

Map 5: Directly age standardised mortality rates for stroke (ICD10 160-169), < 75 years, three year average 2006-08, Medway wards



DASMR per 100, 000 population - <75s

Significantly lower mortality rate than National rate

Within National rate confidence intervals

1. Chatham Central
2. Cuxton and Halling
3. Gillingham North
4. Gillingham South
5. Hempstead and Wigmore
6. Lordswood and Capstone
7. Luton and Wayfield
8. Peninsula
9. Princes Park
10. Rainham Central
11. Rainham North
12. Rainham South
13. River
14. Rochester East
15. Rochester South and Horstead
16. Rochester West
17. Strood North
18. Strood Rural
19. Strood South
20. Twydall
21. Walderslade
22. Watling

Sources: ONS Mid Year Population Estimates by Ward 2006, ONS Annual District Deaths Extract 2006-2008, Clinical and Health Outcomes Knowledge Base (nchod)

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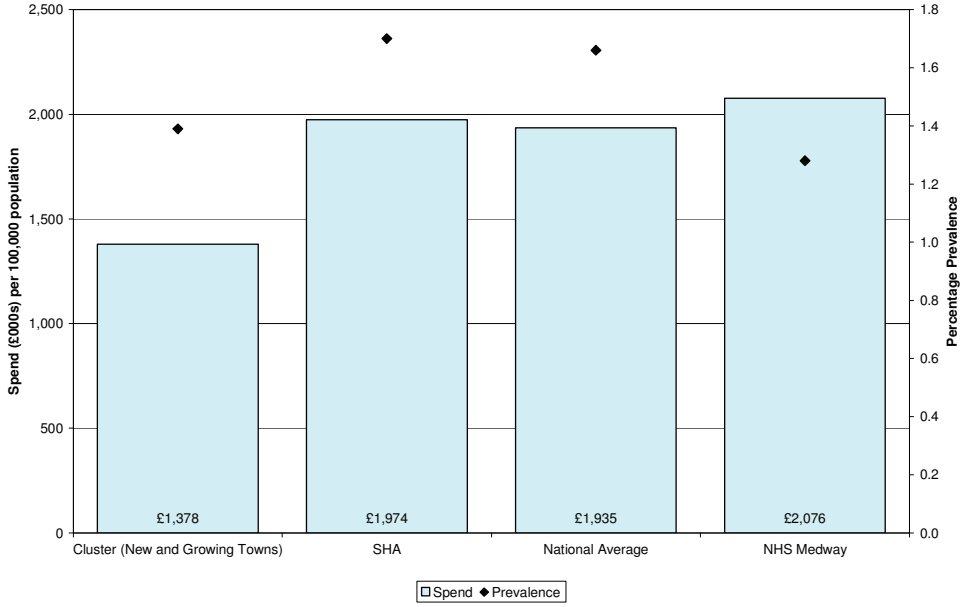
Programme spend in 2008/09

In 2008/09, £2,076,018 per 100,000 was spent on CVD in Medway. Figure 112 shows the spend on CVD compared to the prevalence of stroke or TIA from QOF data. This shows that Medway had a lower prevalence but a higher spend than its cluster group, and a lower prevalence, but slightly higher spend and lower prevalence compared to the SHA and national averages.

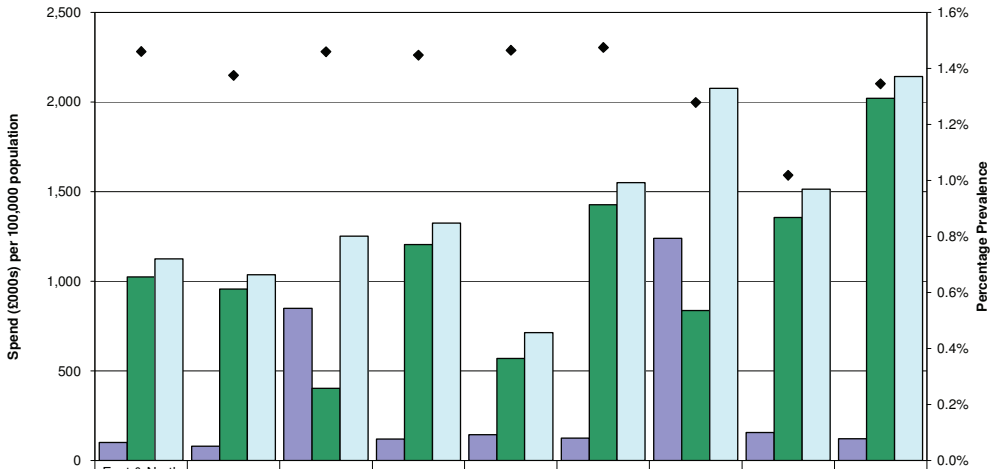
Figure 112: Spend per 100,000 population and prevalence (stroke and TIA) Medway and comparators 2008/09: 10b CVD



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010 and QOF 2009

Figure 113 shows that in contrast to most of the cluster group the majority of spend was in primary care.

Figure 113: Spend per 100,000 population CVD, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing town cluster group, and prevalence of stroke and TIA 2008/09

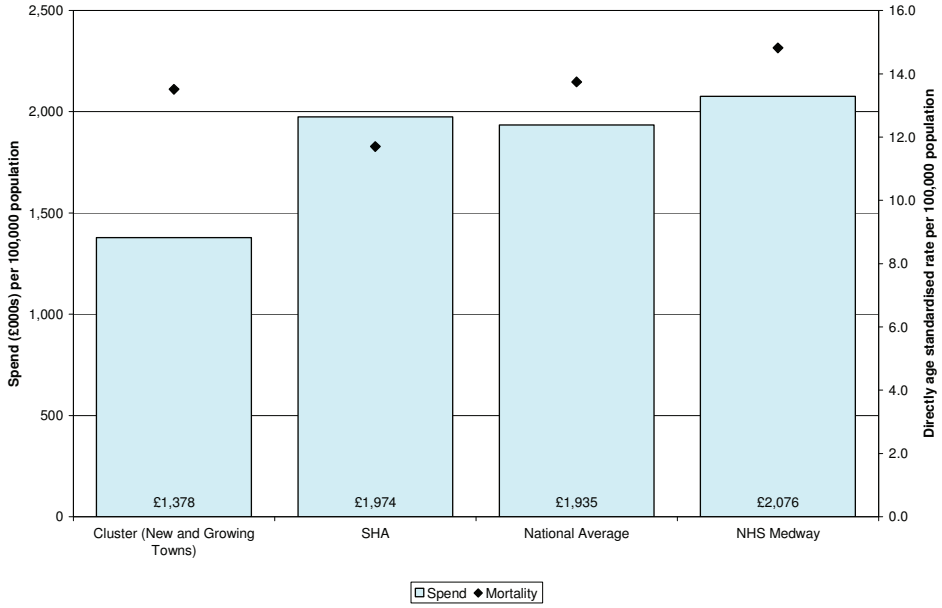


	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	99	80	849	121	143	124	1,239	156	122
Secondary	1,025	956	402	1,204	569	1,426	837	1,356	2,020
Total	1,124	1,036	1,252	1,324	712	1,551	2,076	1,512	2,142
Prevalence	1.5%	1.4%	1.5%	1.4%	1.5%	1.5%	1.3%	1.0%	1.3%

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010 and QOF 2009

Figure 114 shows the spend on all CVD in relationship to directly age standardised mortality rate. While the spend in 2008/09 was considerably higher than the cluster average, the mortality rate for the years 2006/2008 was similar.

Figure 114: Spend per 100,000 population CVD, Medway and comparators 2008/09 and directly age standardised mortality rate from stroke 2006/08 <75 years

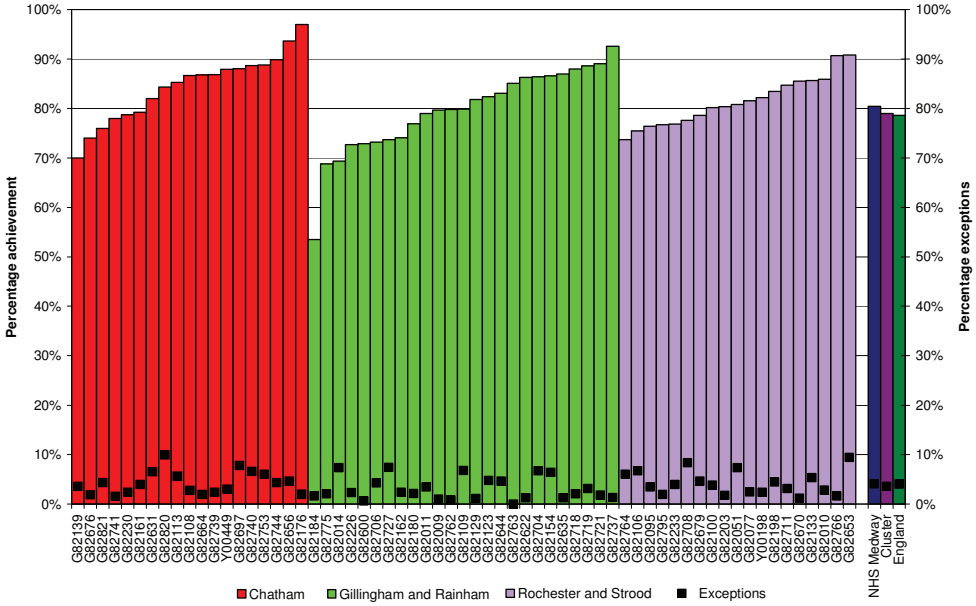


Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Primary care

Figures 115 -120 show some of the QOF clinical indicators for hypertension, and stroke/TIA. Again there is considerable variation amongst Medway practices. The low level of referral for further investigation in some practices merits further consideration.

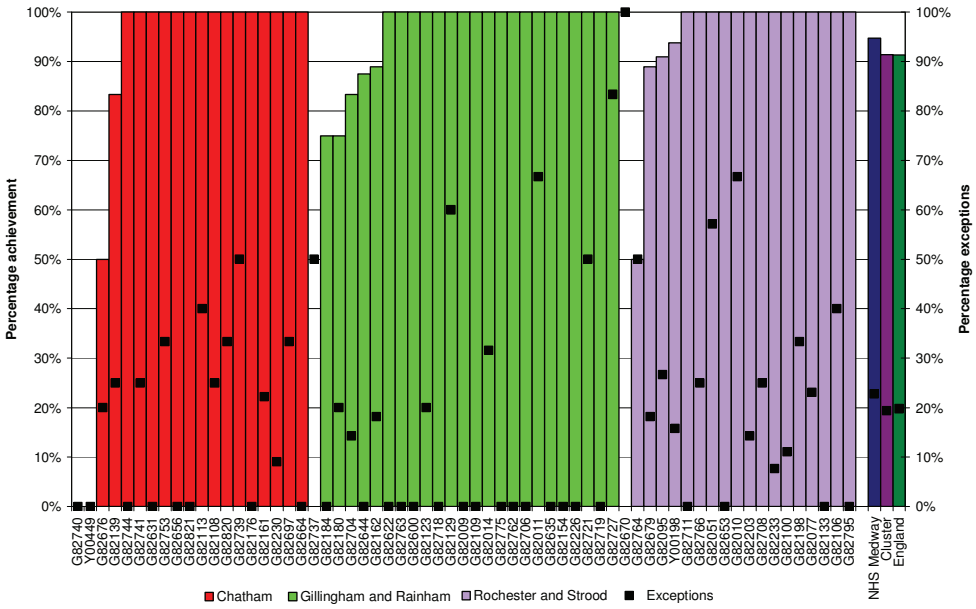
Figure 115: The percentage of patients with hypertension in whom the last blood pressure reading is 150/90, by practice and PBC locality Medway (QOF indicator BP 5), 2008/09



Source: QOF, 2009

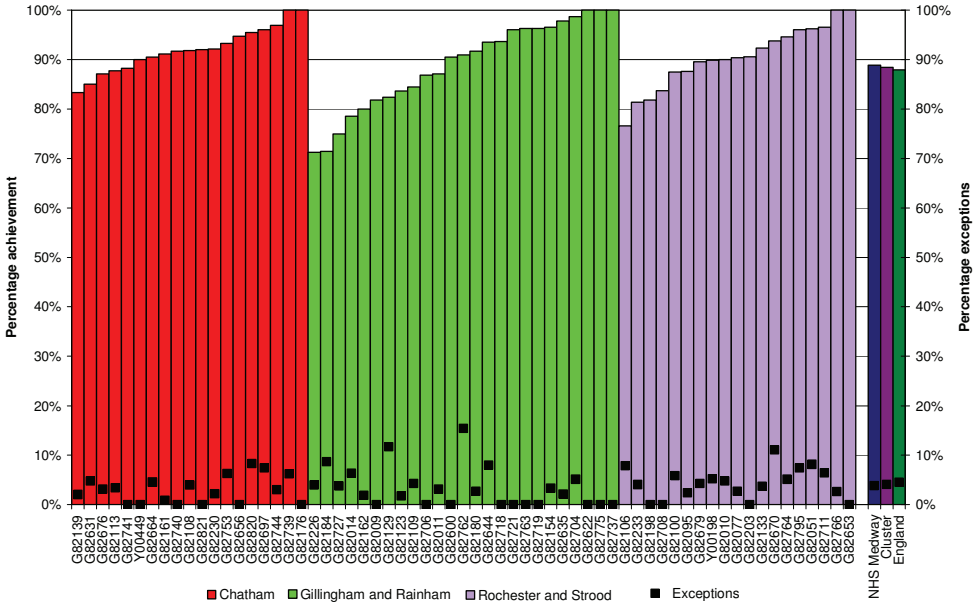
In Figure 116 it can be seen that one practice has a 50% exception level and a 0% achievement level, while another has a 100% exception level and a 0% achievement. Investigation as part of the QOF process would be appropriate but the most likely explanation is that there have been very small numbers of strokes/TIAs in these practices in this particular year.

Figure 116: The percentage of new patients with stroke or TIA who have been referred for further investigation, by practice and PBC locality Medway (QOF indicator Stroke 13), 2008/09



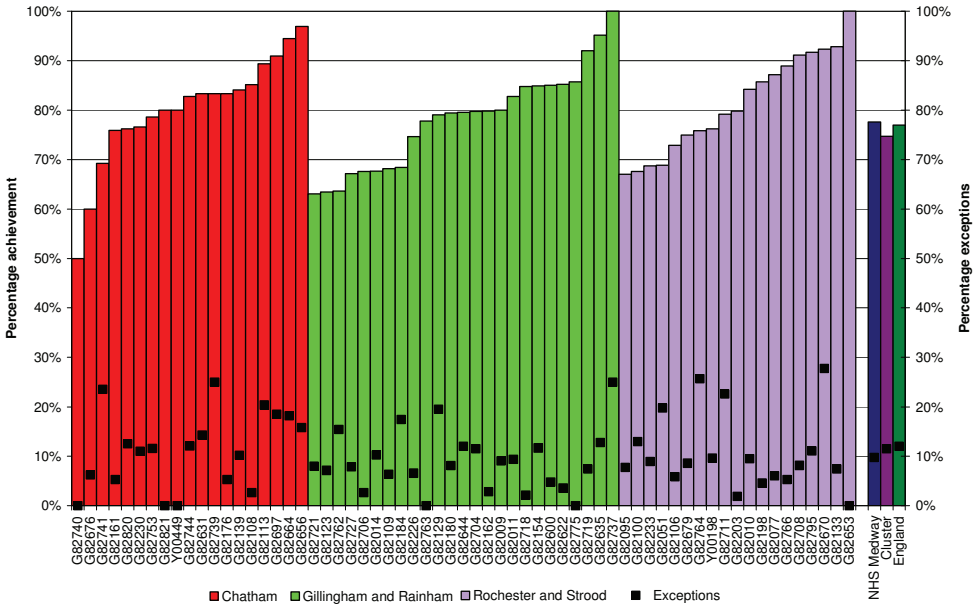
Source: QOF, 2009

Figure 117: The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading is 150/90 or less, by practice and PBC locality in Medway (QOF indicator Stroke 6), 2008/09



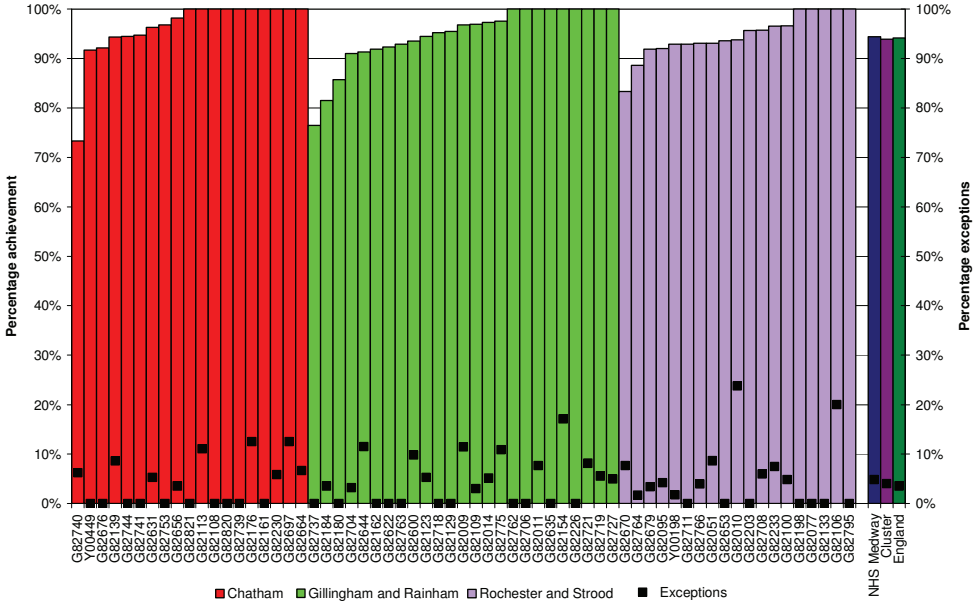
Source: QOF, 2009

Figure 118: The percentage of patients with a history of stroke or TIA whose last measure total cholesterol is 5mmol/l, by practice and PBC locality in Medway (QOF indicator Stroke 8), 2008/09



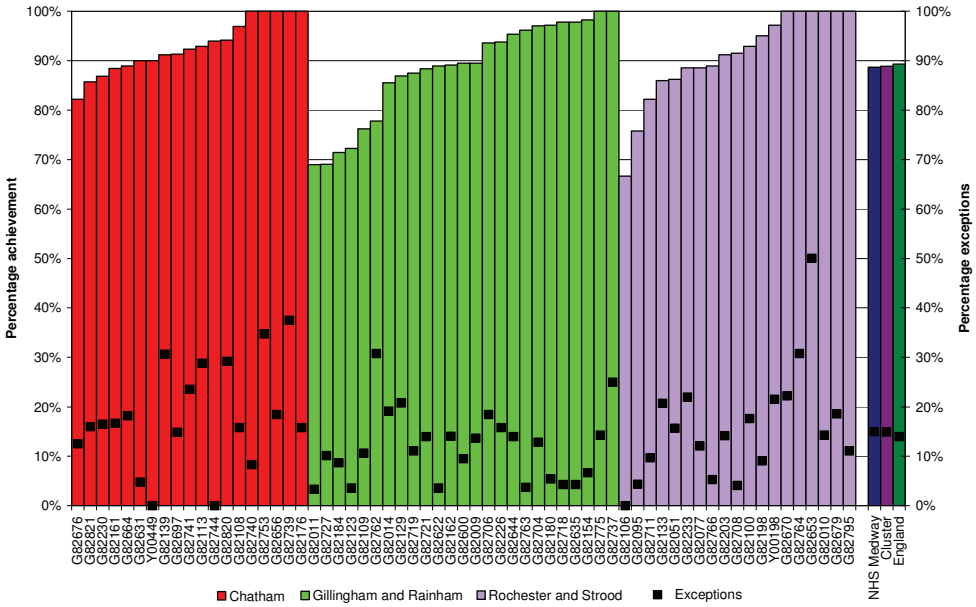
Source: QOF, 2009

Figure 119: The percentage of patients with a history of stroke shown to be non-haemorrhagic, or a history of TIA , who have a record of an anti-platelet agent or an anticoagulant being taken (unless contraindication or side effects), by practice and PBC locality in Medway (QOF indicator Stroke 12), 2008/09



Source: QOF, 2009

Figure 120: The percentage of patients with TIA or stroke who have a record of seasonal flu immunisation in the preceding 1 September to 31 March, by practice and PBC locality in Medway (QOF indicator stroke 10), 2008/09

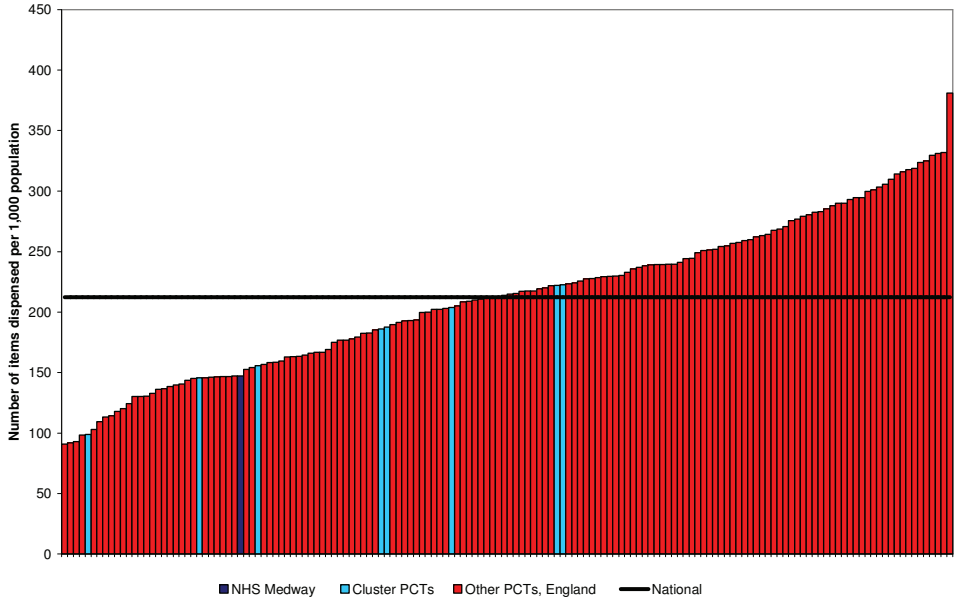


Source: QOF, 2009

Primary care prescribing

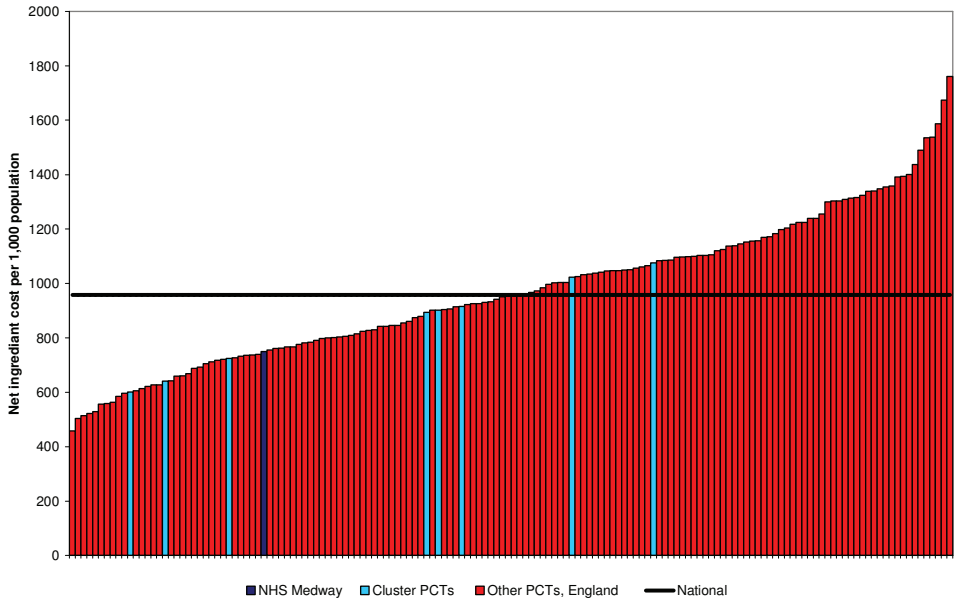
Figures 121 and 122 show information on primary care prescribing for this programme budgeting subcategory. Both the number of items and the costs per item for stroke were lower in Medway compared to the national average - the lower number of items is likely to be due to Medway's younger population.

Figure 121: Number of items dispensed for CVD per 1,000 population, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Figure 122: Net ingredient cost per 1,000 population for CVD, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Secondary care

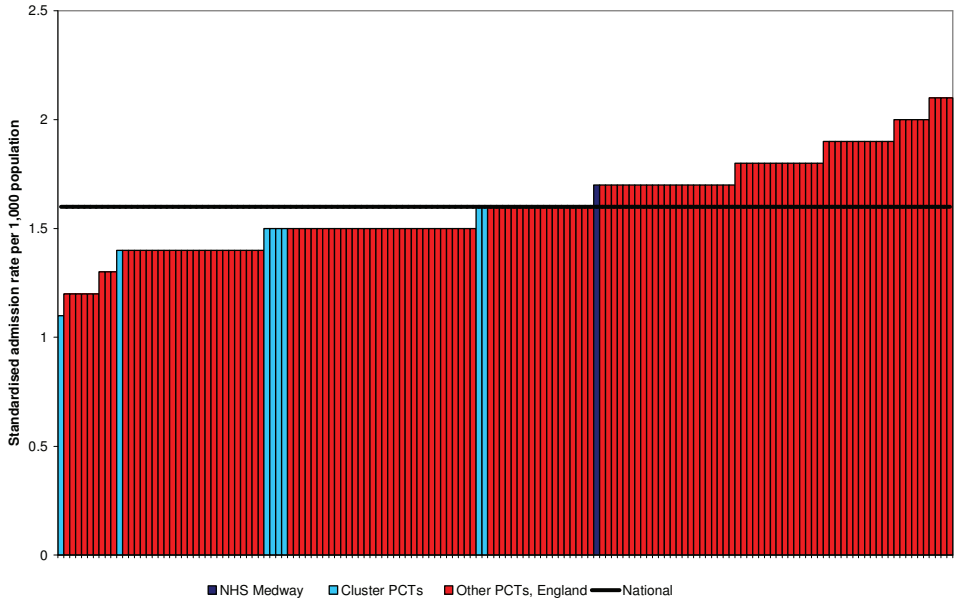
There are two quality targets for stroke / TIA:

- Proportion of people with stroke who spend at least 90% of their time on a stroke unit. The target was 75% in 2008/09 and this was not reached in Medway (69%)
- Proportion of people who have a TIA with a higher risk of stoke who are scanned and treated within 24 hours. The target was 37.5% in 2008/ 09 and this was not reached in Medway (16%)

Emergency Admissions

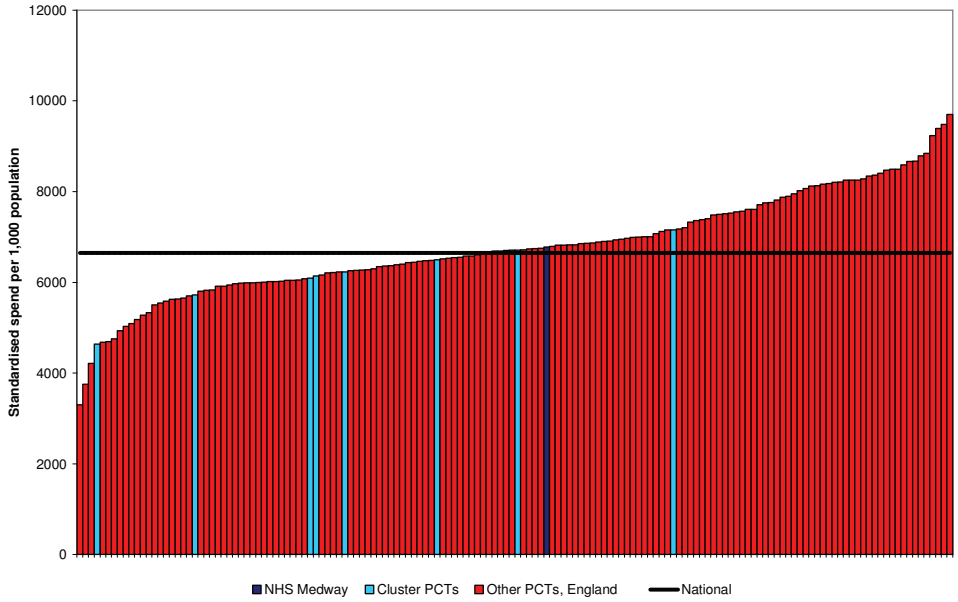
Figures 123 and 124 show the rates of emergency admissions for CVD in 2008/09 and the spend. Medway had an emergency admission rate just above the national average and above other PCTs in the cluster. The spend was at the national rate.

Figure 123: Emergency admissions per 1,000 for CVD, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 124: Spend per 1,000 population on emergency admissions for CVD, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Conclusions

Prevalence of stroke and TIA is relatively low in Medway, probably due to the relatively young population. However, prevalence of hypertension is high compared to the national and cluster average – this is probably driven by high local rates of smoking and obesity. Hypertension is a major risk for stroke as are smoking and obesity so it is important to ensure that preventative services such as smoking cessation and healthy weight continue to be available to ensure that these risk factors do not, in time, result in an increased prevalence of stroke.

Death rates from stroke in those under 75 vary within Medway, with two wards having a significantly lower rate than the national rate. While this may be due to risk factors such as smoking being unequally spread across NHS Medway, there is also variation in management in primary care; in particular, in the percentage of new patients with stroke and TIA referred for further investigation.

While the spend in Medway is above the cluster average the mortality rate is similar. The rate of emergency admissions for stroke is high within the cluster which will result in a higher spend. A significant part of the stroke pathway is provided by community services in Medway which could also be increasing spending levels, as the tariff has not been split resulting in double payment for some services.

TIAs can precede strokes and there is now evidence-based guidance for the prompt management of both strokes and TIAs[60] to ensure that disability and death are minimised in the acute phase and that ongoing care is good – this guidance needs to be adhered to and there are clear areas where this could be prioritised. In particular the proportion of people who have a high risk TIA who are scanned and treated within 24 hours needs to be improved as does access to care in a stroke unit for those who have a stroke.

Next steps

- Implementation of NHS checks to actively seek and advise or treat people who have an increased risk due to hypertension and lifestyle (smoking and obesity).

- Decrease variability in primary care practice, in particular in relation to referral of TIAs and strokes as per NICE guidance.

- Investigate double payment for stroke/TIA care.

- An integrated care pathway for TIAs and stroke including initial management should be considered.

Chapter 9: Problems of the respiratory system

Background

The problems of the respiratory system category (11) comprises:

- Obstructive airways disease - subcategory 11a
- Asthma - subcategory 11b
- Other problems of the respiratory system - subcategory 11x , which includes respiratory infections including respiratory tuberculosis, congenital deformities of the respiratory system, occupational lung diseases and respiratory failure

This chapter will focus primarily on chronic obstructive pulmonary disease (COPD) and asthma; brief discussions on influenza, pandemic swine flu and tuberculosis are also included.

Chronic obstructive pulmonary disease

Background

Chronic obstructive pulmonary disease (COPD) is the name for a collection of lung diseases including chronic bronchitis, emphysema and chronic obstructive airways disease. COPD develops over a number of years, causing the airways to narrow and become permanently damaged. As the condition progresses, breathlessness increases, restricting the ability to undertake normal daily activities. COPD is usually diagnosed in mid life.

Risk factors

The risk factors for COPD can be divided into unmodifiable and modifiable. Modifiable risk factors include:

- Smoking – the single most important factor, responsible for over 80% of COPD cases.[61] Passive smoking is a possible important risk factor.
- Long term occupational exposure to pollutants such as coal dust
- Environmental pollution – e.g. traffic exhaust fumes, sulphur dioxide
- Indoor pollution – this is a more common risk factor in non-industrialised countries e.g. from stoves which are used for indoor cooking

Unmodifiable risk factors include:

- Genetic – an inherited deficiency of the protein alpha antitrypsin increases predisposition to the condition; this accounts for less than 1% of COPD cases

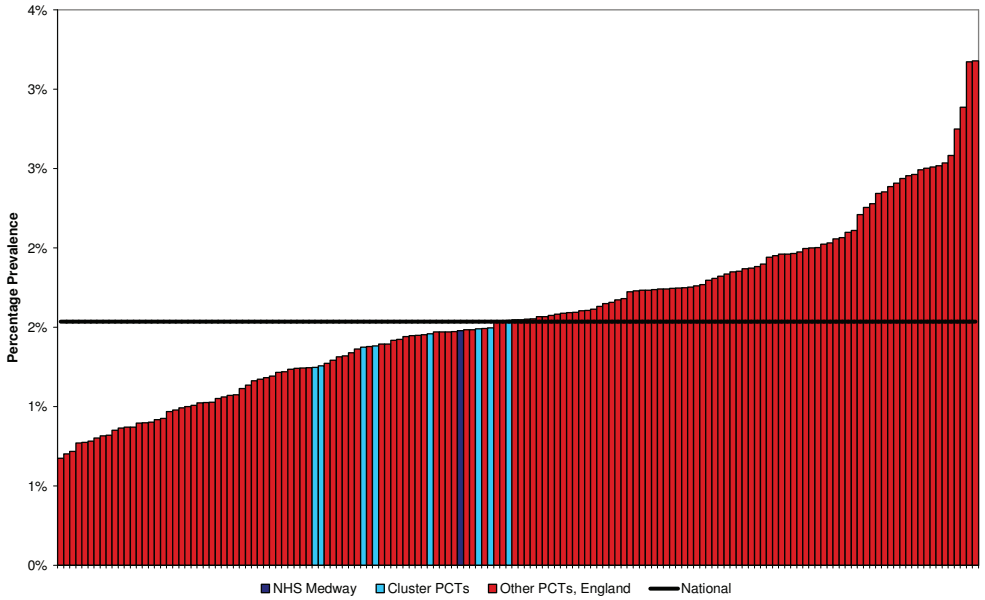
- Sex – COPD is more common in men
- Ethnicity – the condition is more common in Caucasian populations despite higher smoking rates in some ethnic groups. This may be due to an increased genetic predisposition in the Caucasian population.[62]

Prevalence

From QOF data, in 2007/08 there were 3,824 patients with COPD recorded by Medway GP practices (prevalence 1.4%). In 2008/09, there were 4,068 (prevalence 1.5%).

Figure 125 shows recorded 2008/09 prevalence in NHS Medway compared to other PCTs in England. The prevalence in Medway is just below the national average and within the range of the other cluster PCTs.

Figure 125: Recorded prevalence of chronic obstructive pulmonary disease (COPD), all PCTs, England, 2008/09



Source: QOF, 2009

The Association of Public Health Observatories prevalence model[17] for COPD provides estimates and projections of the prevalence of COPD in people aged 16+, taking into account factors which include age, sex, ethnicity, smoking status and deprivation score. The table below shows estimated and projected prevalence of COPD for all ages.

Table 23: Estimated and projected prevalence of COPD, Medway, 2006/2020

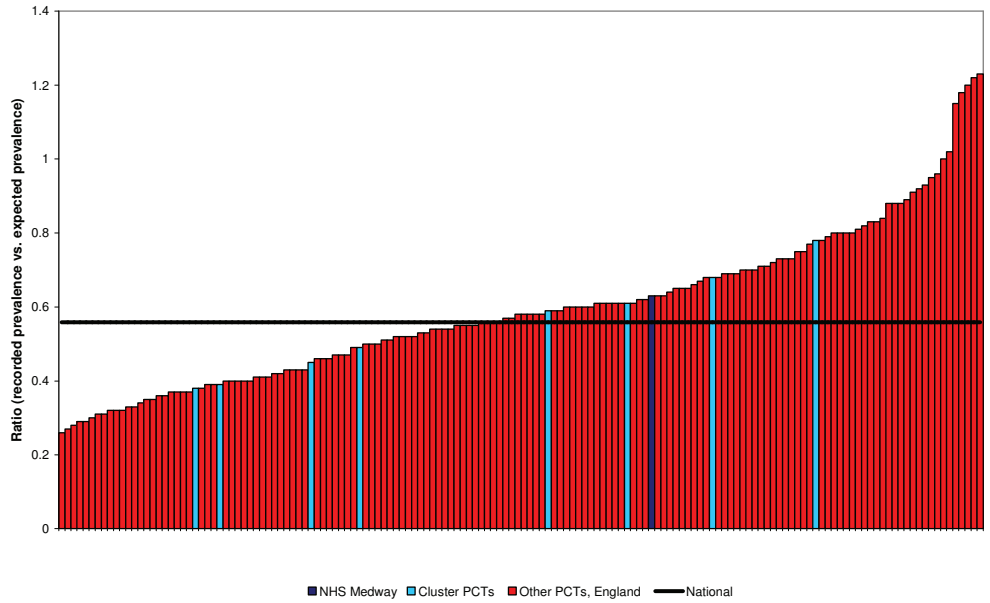
	2006	2009	2010	2015	2020
Number	6,019	6,252	6,291	6,737	7,188
%	2.4%	2.5%	2.5%	2.6%	2.7%

Adjusted for percentage of *total* projected population to align with QOF prevalence (all ages)

Source: Eastern Region Public Health Observatory, 2008

Figure 126 shows the ratio of recorded QOF prevalence compared to expected for COPD using the model. A figure < 1 means that fewer cases have been recorded than expected, a number >1 means that more cases than expected have been recorded. This figure shows that in 2008/09, only 60% of expected cases were recorded in Medway.

Figure 126: Ratio of recorded to expected COPD prevalence, all PCTs, England, 2008/09

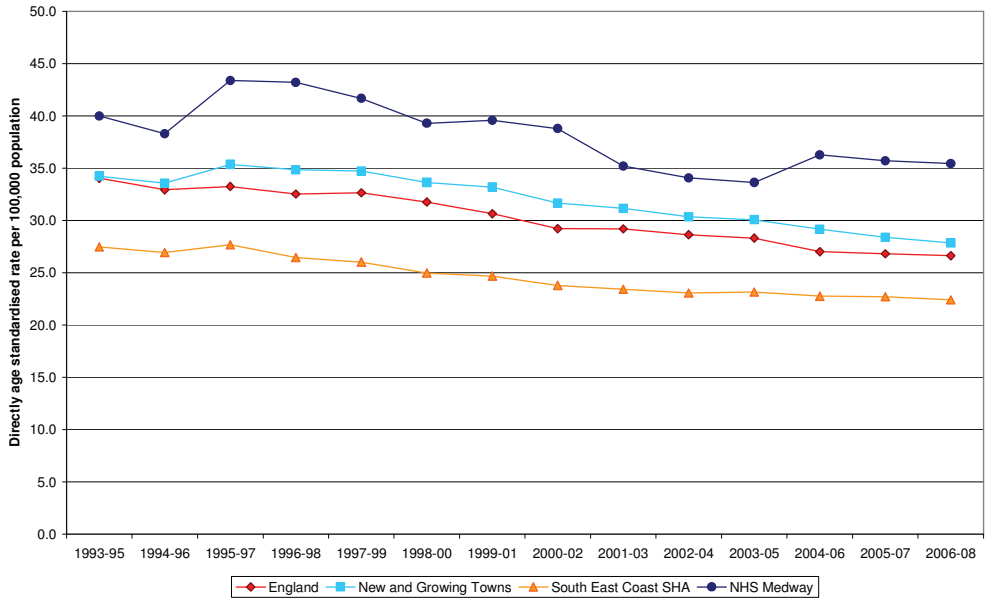


Source: NHS Comparators, 2009

Mortality

Between 2006 and 2008 there were 358 deaths due to COPD in Medway. Mortality rates from COPD are relatively high in Medway (Figure 127). The mortality rate from COPD for Medway was 35 per 100,000 population, which was significantly higher than the national figure of 27 per 100,000 in England as a whole in 2006/08.

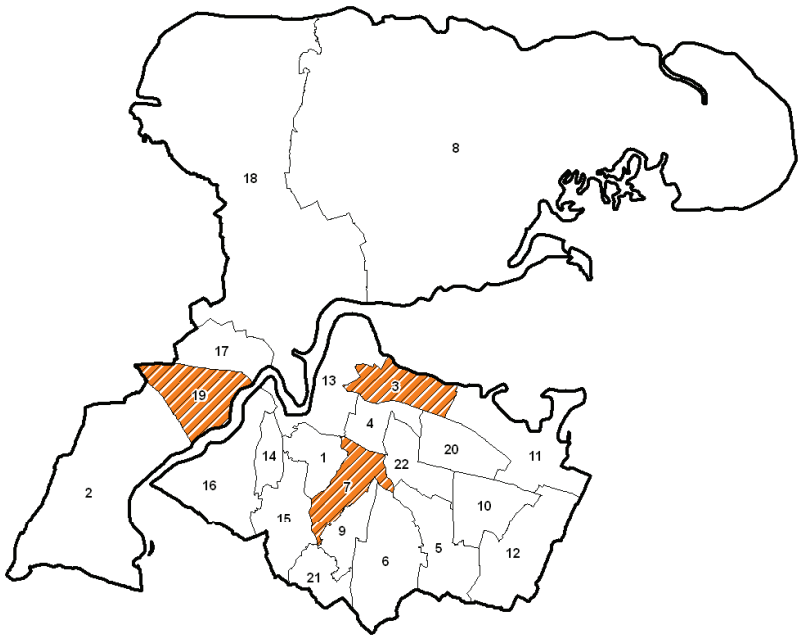
Figure 127: Directly age standardised rates per 100,000 population, COPD mortality, all ages, all persons, three year average, 1993-95 to 2006-08, NHS Medway and comparators



Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

There were three wards within Medway where death rates from COPD in under 75's were significantly higher than the national average (Map 6).

Map 6: Directly age standardised mortality rates for COPD (ICD10 J40-J44), <75 years, three year average, 2006-08, Medway wards



DASMR per 100, 000 population - <75s

Significantly higher mortality rate than National rate

Within National rate confidence intervals

1. Chatham Central
2. Cuxton and Halling
3. Gillingham North
4. Gillingham South
5. Hempstead and Wigmore
6. Lordswood and Capstone
7. Luton and Wayfield
8. Peninsula
9. Princes Park
10. Rainham Central
11. Rainham North
12. Rainham South
13. River
14. Rochester East
15. Rochester South and Horstead
16. Rochester West
17. Strood North
18. Strood Rural
19. Strood South
20. Twydall
21. Walderslade
22. Watling

Sources: ONS Mid Year Population Estimates by Ward 2006, ONS Annual District Deaths Extract 2006-2008, Clinical and Health Outcomes Knowledge Base (nchod)

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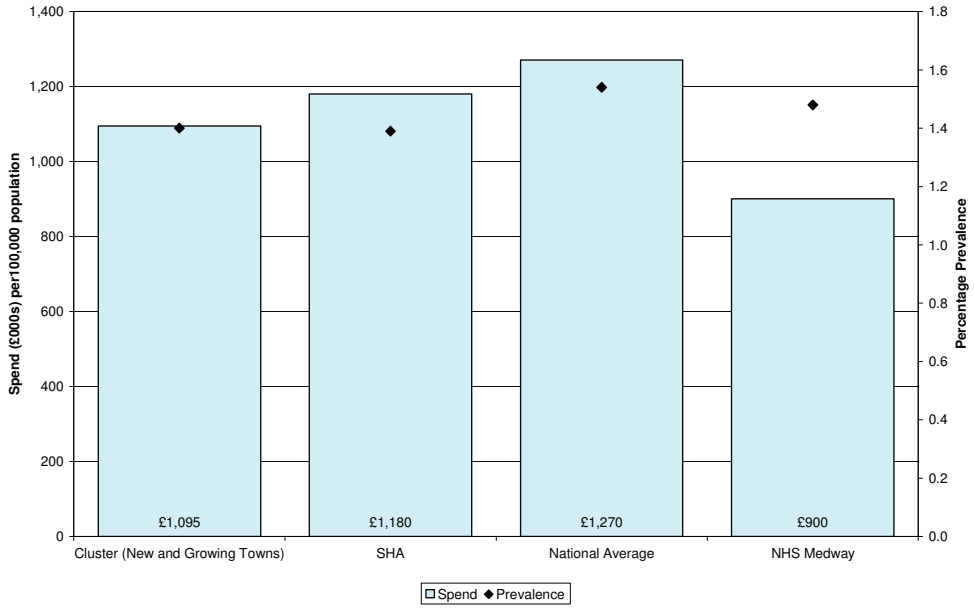
Programme spend in 2008/09

In 2008/09, £900,126 per 100,000 population was spent on COPD. Medway ranked 134th out of 152 PCTs for spend in this category. It can be seen in Figure 128 that compared to the cluster group and SHA, Medway has a relatively low spend for its prevalence.

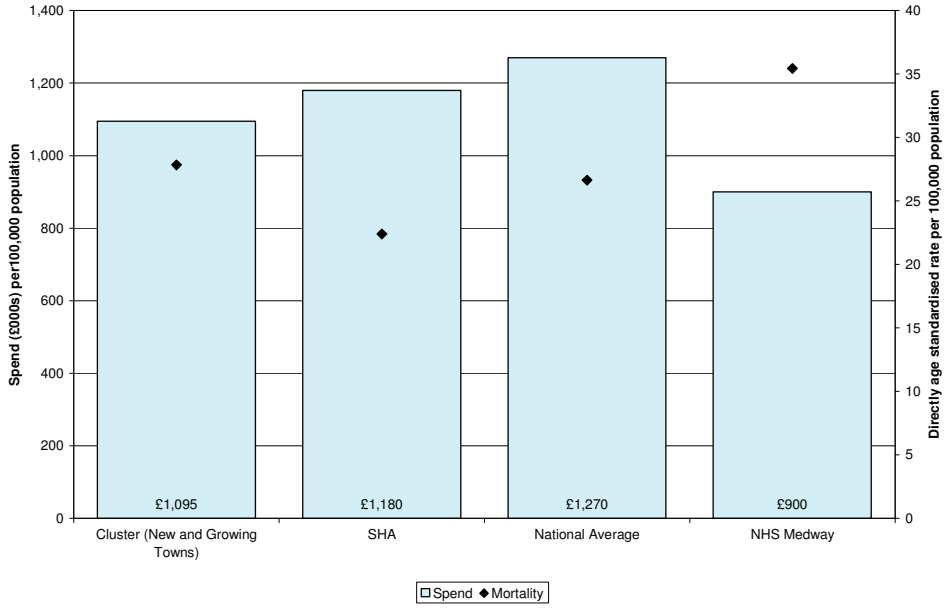
Figure 128: Spend per 100,000 population and prevalence, Medway and comparators, 2008/09: 11a COPD



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010, QOF, 2009

Figure 129 shows that in 2008/09 in Medway, there was a high standardised mortality rate and a relatively low spend compared to the cluster, the SHA and England.

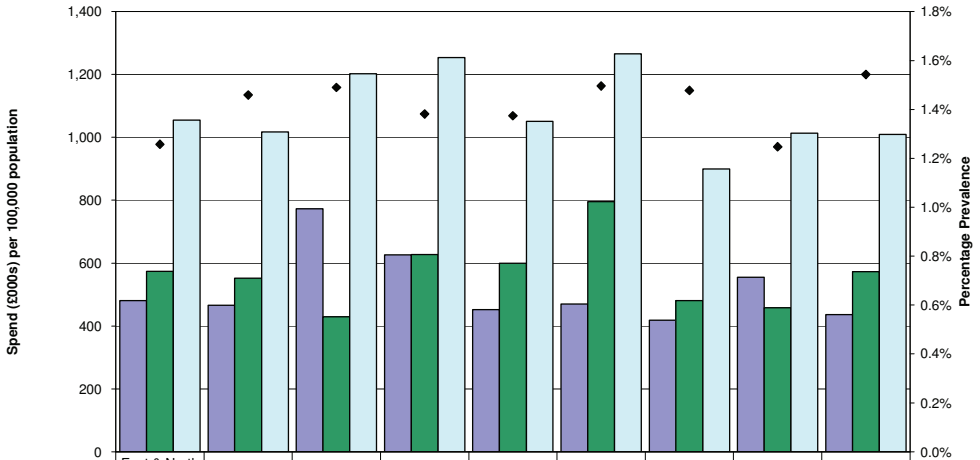
Figure 129: Spend per 100,000 population and directly age standardised mortality rate, Medway and comparators 2008/09: 11a COPD



Source: Department of Health, 2009 and National Centre for Health Outcomes Development, 2009

Figure 130 shows that in 2008/09 spend for COPD in Medway was equally distributed between primary and secondary care. This was generally true for most PCTs within the new and growing towns cluster, with the exception of South West Essex PCT (where the spend is more in primary care) and Havering PCT (where the spend is more in secondary care). This could be an indication of how different services are being delivered to manage COPD.

Figure 130: Spend per 100,000 population COPD, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing town cluster group, and prevalence of COPD 2008/09



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	480	466	773	627	452	470	419	555	437
Secondary	574	552	429	628	599	795	481	458	573
Total	1,055	1,018	1,202	1,254	1,051	1,265	900	1,013	1,010
Prevalence	1.3%	1.5%	1.5%	1.4%	1.4%	1.5%	1.5%	1.2%	1.5%

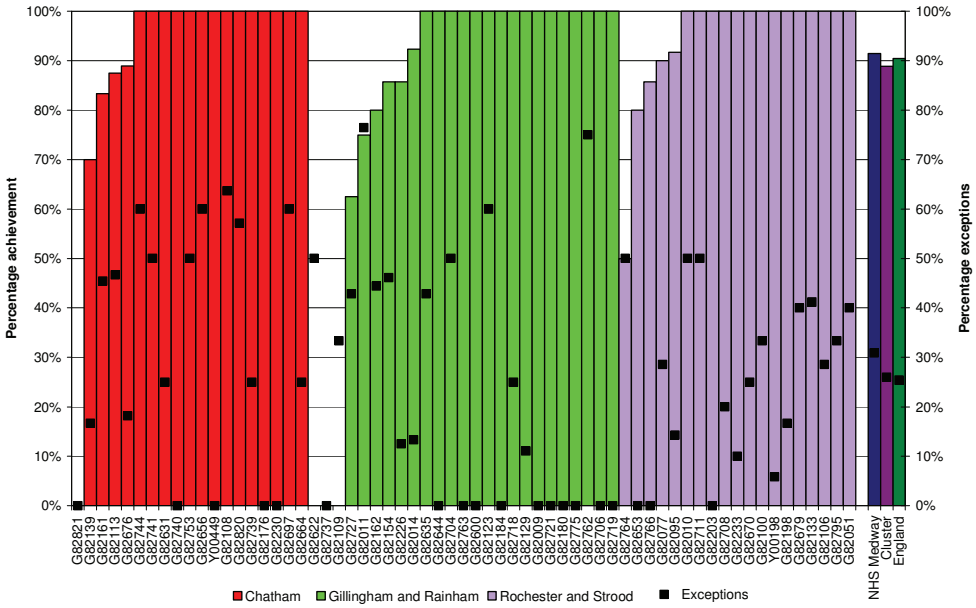
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; QOF 2009

Primary care

QOF data for 2008/09 show considerable variation across the 63 practices within Medway and within Practice Based Commissioning (PBC) groups. Figures 131 to 134 show that there is considerable variation between practices for the following achievements: confirmation of COPD diagnosis by post bronchodilator spirometry, record of the forced expiratory volume breathed out in one second measurement (FEV1), checking of inhaler technique and influenza immunisation. There is also variation in exception reporting. The reasons behind these differences should be explored to assess any variation in the quality of care patients receive.

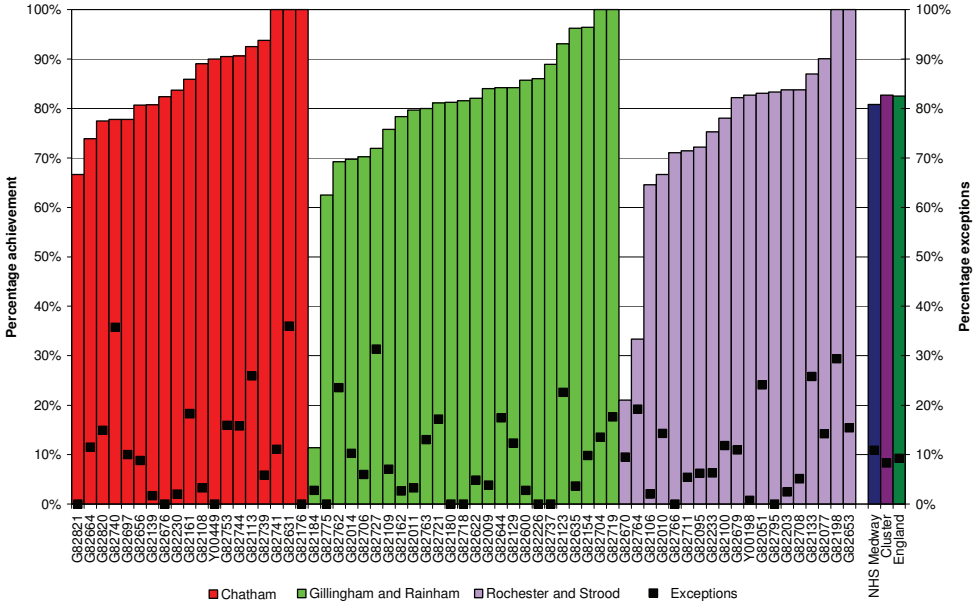
In the Figure 131, it can be seen that several practices have exception reports but 0% achievement scores. This is due to a diagnosis of COPD not being confirmed by post bronchodilator spirometry in any of the patients registered with the condition after accounting for those patients who have been exempted.

Figure 131: The percentage of all patients with COPD diagnosed after 1st April 08 in whom the diagnosis has been confirmed by post bronchodilator spirometry, by practice and PBC locality Medway (QOF indicator COPD 12), 2008/09



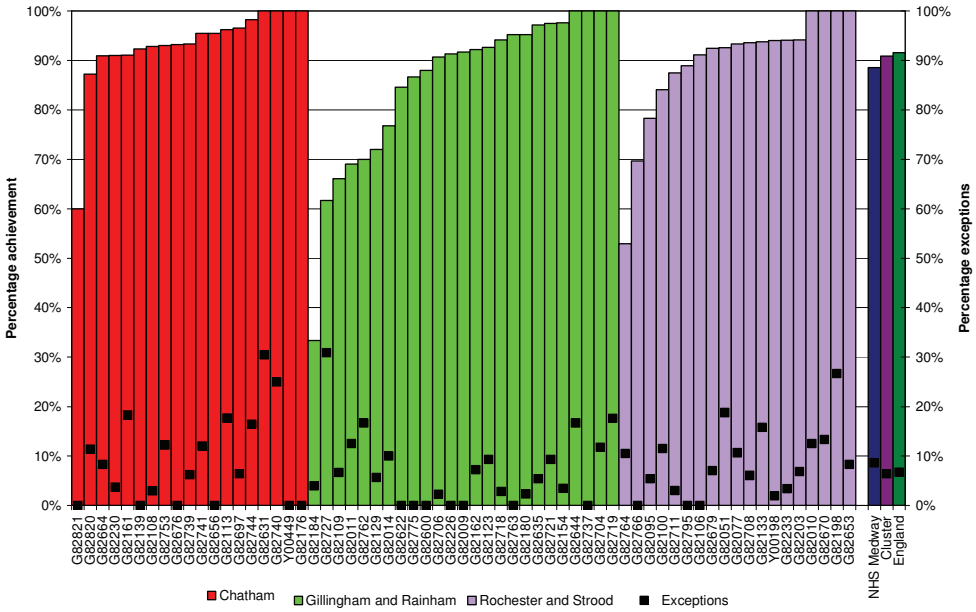
Source: QOF, 2009

Figure 132: The percentage of patients with COPD with a record of FEV1 in the previous 15 months, by practice and PBC locality Medway (QOF indicator COPD 10), 2008/09



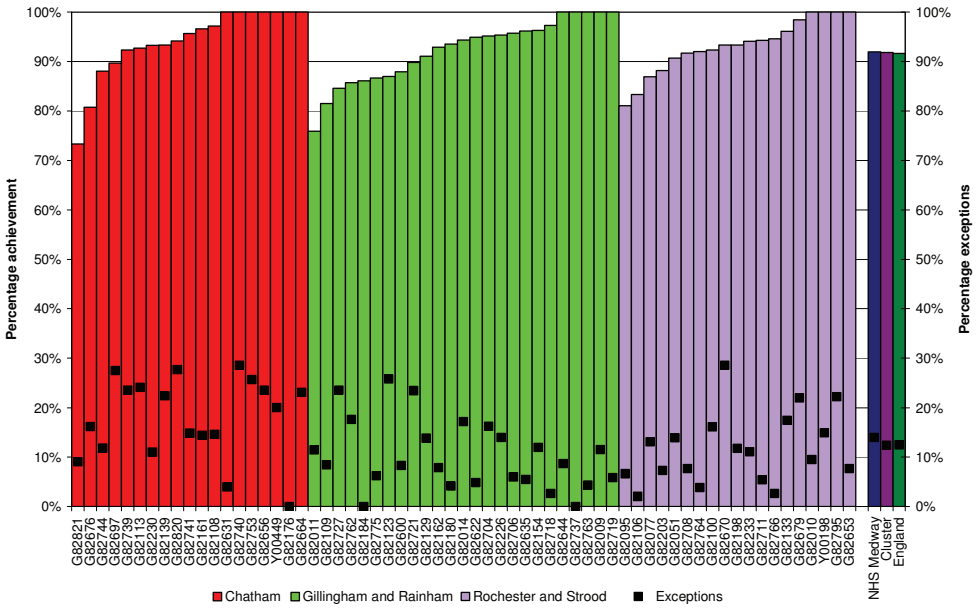
Source: QOF, 2009

Figure 133: The percentage of patients with COPD receiving inhaled treatment in whom there is a record that inhaler technique has been checked in the previous 15 months, by practice and PBC locality Medway (QOF indicator COPD 11), 2008/09



Source: QOF, 2009

Figure 134: The percentage of patients with COPD who have had influenza immunisation in the preceding 1 September to 31 March, by practice and PBC locality Medway (QOF indicator COPD 8), 2008/09



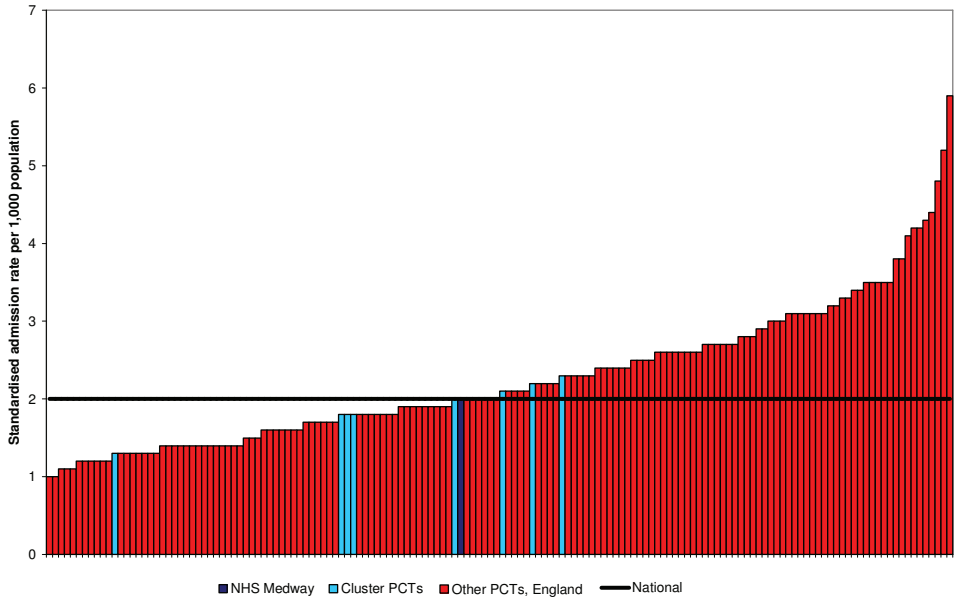
Source: QOF, 2009

Secondary care

Emergency admissions

One measure of the effectiveness of primary care in managing COPD is the emergency hospital admission rate. High levels of emergency admissions may indicate insufficient support for individuals with COPD to manage their condition within the community. In 2007/08 there were 393 admissions due to COPD in Medway and in 2008/09 there were 503. Figure 135 shows the number of emergency admissions from COPD per 1,000 population in Medway for 2008/09. For this period, the rate for Medway was 2.0 emergency admissions per 1,000. This is the same as the rate seen nationally.

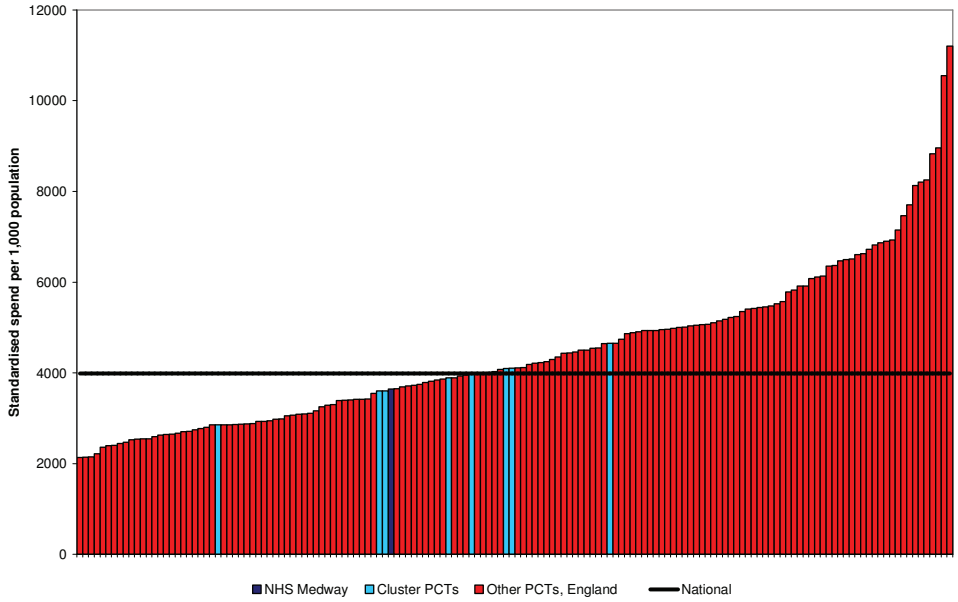
Figure 135: Emergency admissions per 1,000 population for COPD, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

The spend on emergency admissions for COPD per 1,000 population is shown in Figure 136. In 2008/09, £3,642 per 1000 population was spent on COPD emergency admissions in Medway. This compares to a spend of £3,986 per 1000 population in England.

Figure 136: Spend per 1,000 population, emergency admissions for COPD, all PCTs, England, 2008/09

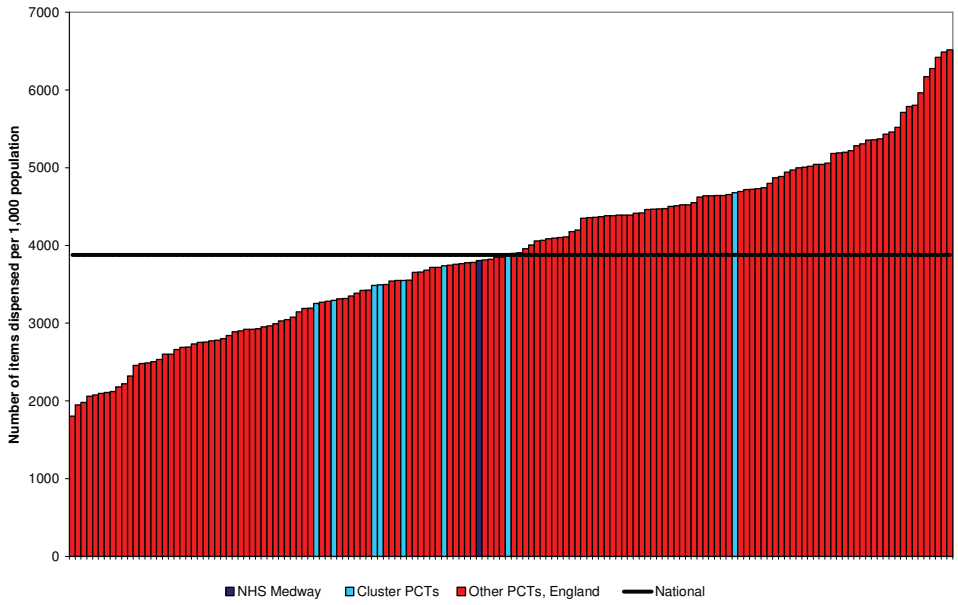


Source: NHS Comparators, 2009

Primary care prescribing

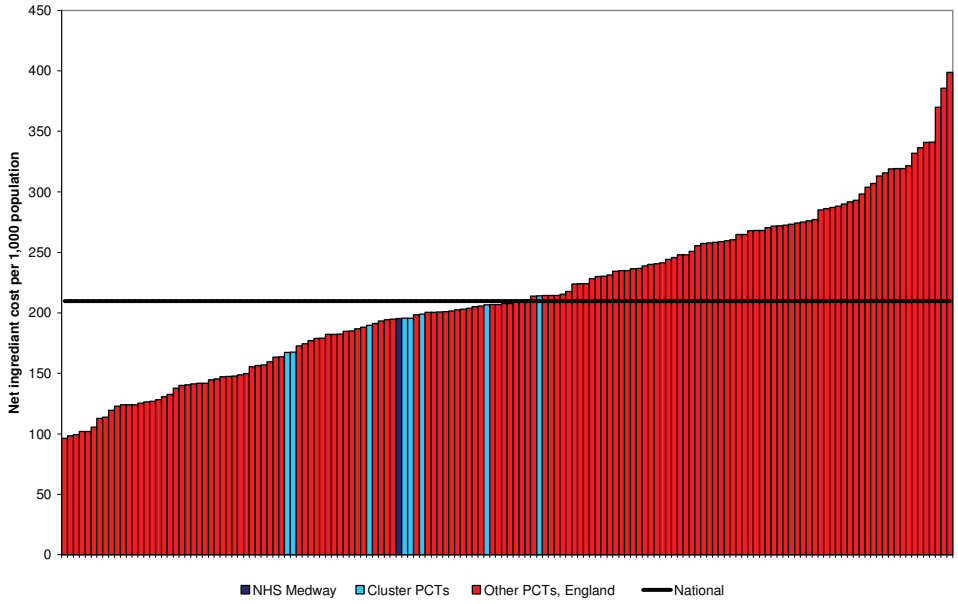
Figures 137 and 138 show that the number of items and the cost per item for COPD in Medway is less than the national average, but in the middle of the cluster range.

Figure 137: Number of items dispensed per 1,000 population COPD, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Figure 138: Net ingredient cost per 1,000 population COPD England, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Asthma

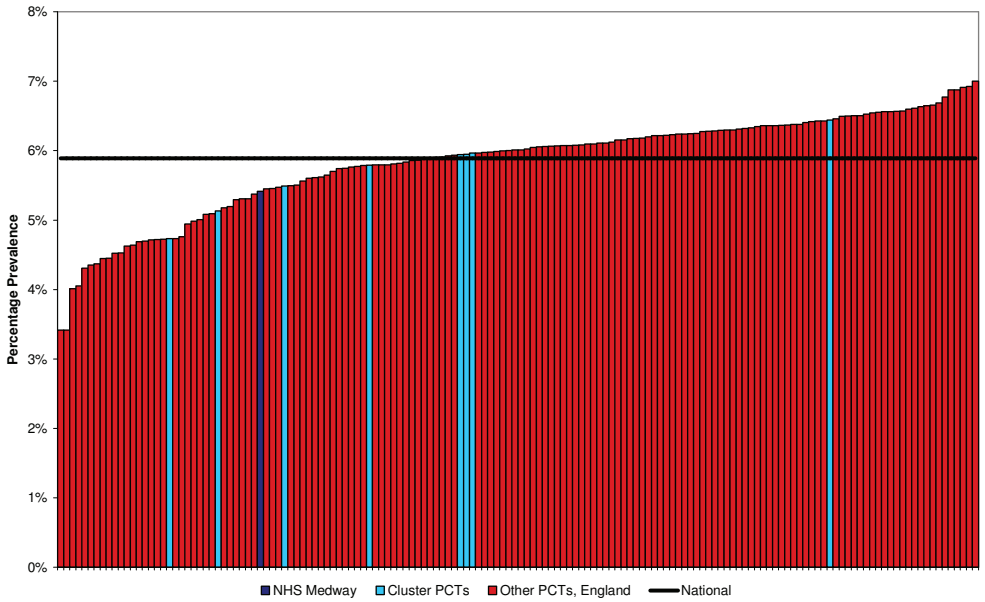
Asthma is characterised by recurrent episodes of wheezing and difficulty in breathing, resulting from reversible inflammation of the airways. Important factors involved in the development of asthma include atopy and airway hypersensitivity. Common triggers that may exacerbate this condition include: allergens (such as pollen), air pollution, cigarette smoke, exercise, upper respiratory infections and exposure to cold air. The condition can affect people of all ages.

Prevalence

In 2007/08 there were 14,510 patients with asthma recorded by Medway GP practices (prevalence 5.2%). In 2008/09, there were 14,901 (prevalence 5.4%). This compares with a prevalence rate of 5.6% in the SHA and 5.9% in England in the same period.

Figure 139 shows that the prevalence in Medway is relatively low compared to other PCTs in England.

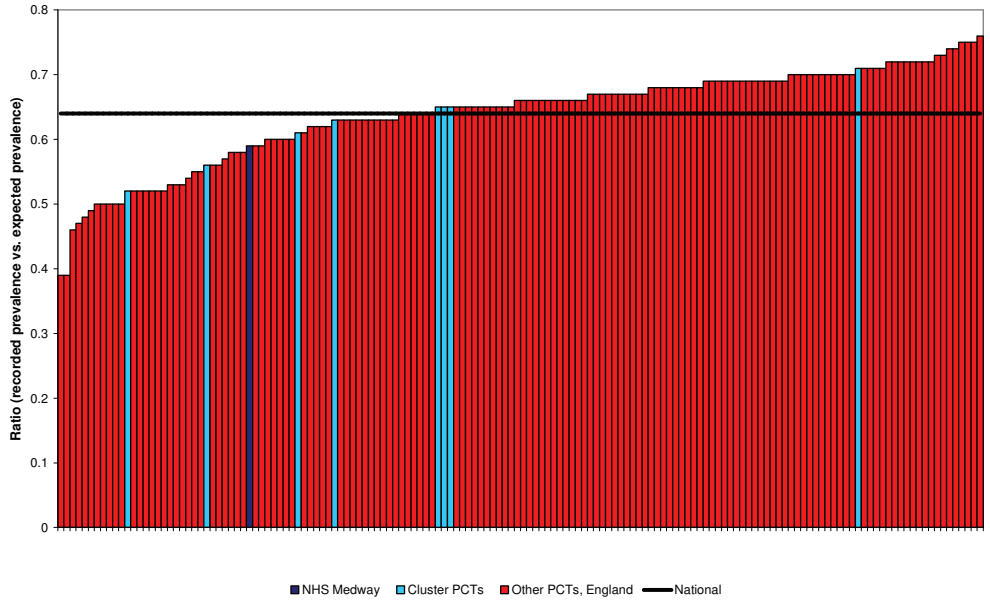
Figure 139: Recorded prevalence of asthma, all PCTs, England, 2008/09



Source: QOF, 2009

A prevalence model for asthma has been produced.[17] Figure 140 shows the ratio of recorded QOF prevalence compared to expected for asthma using this model. A figure < 1 means that fewer cases have been recorded than expected, a number >1 means that more cases than expected have been recorded. This figure shows that in 2008/09, approximately 60% of expected cases were recorded in Medway.

Figure 140: Ratio recorded to expected asthma prevalence, all PCTs, England, 2008/09

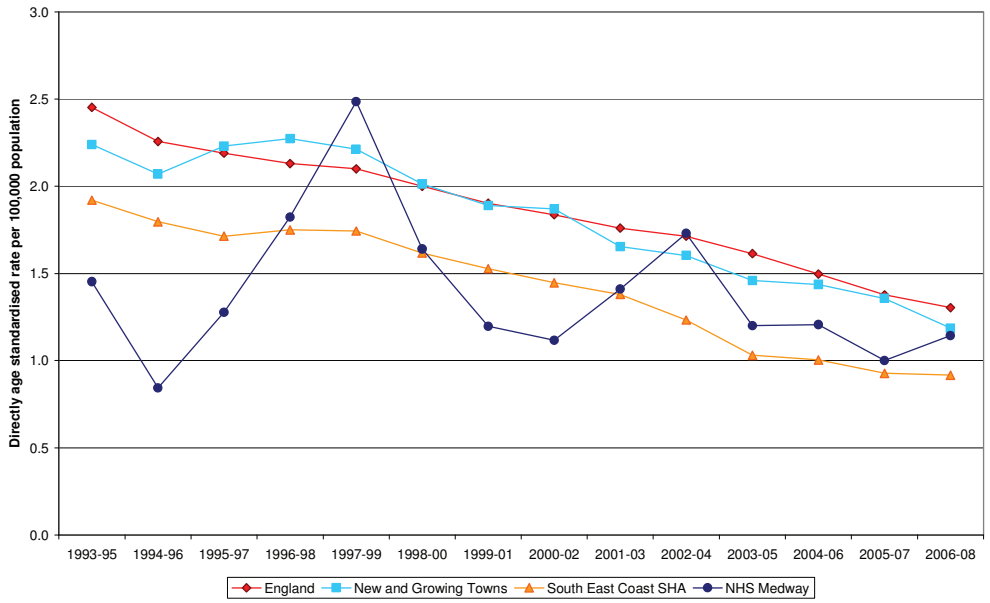


Source: NHS Comparators, 2009

Mortality

Deaths due to asthma are rare. Between 2006 and 2008 there were 11 deaths in Medway due to asthma. Mortality rates among children aged under 16 years are lower in Medway than England at 1 per 100,000 and 1.4 per 100,000 respectively; however this difference is not statistically significant. Three year average asthma mortality rates are shown in Figure 141.

Figure 141: Directly age standardised mortality rates for asthma in Medway, South East Coast SHA, new & growing towns cluster and England, (ICD-10 J45-J46), all persons, 3 year averages from 1993 to 2008

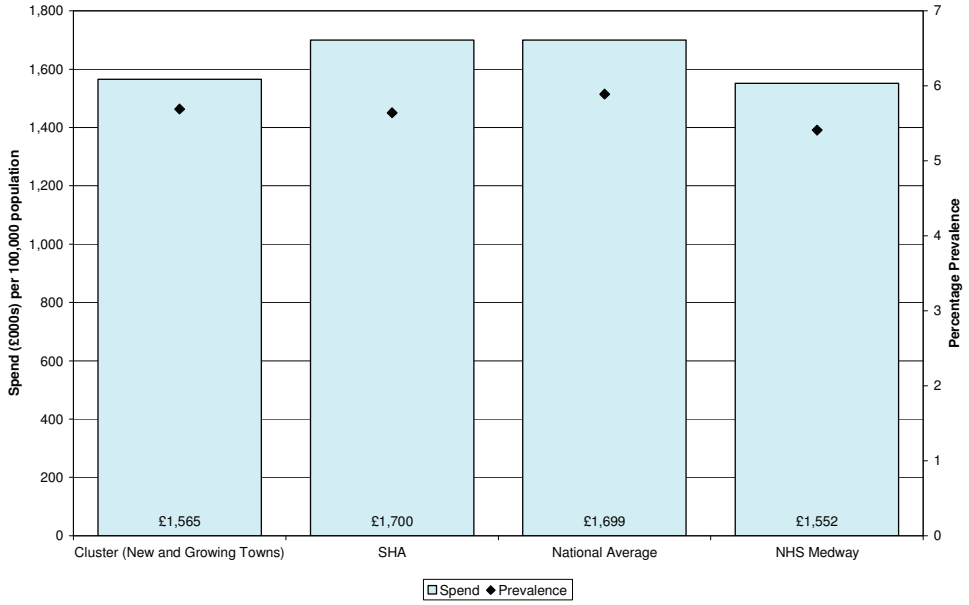


Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Programme spend in 2008/09

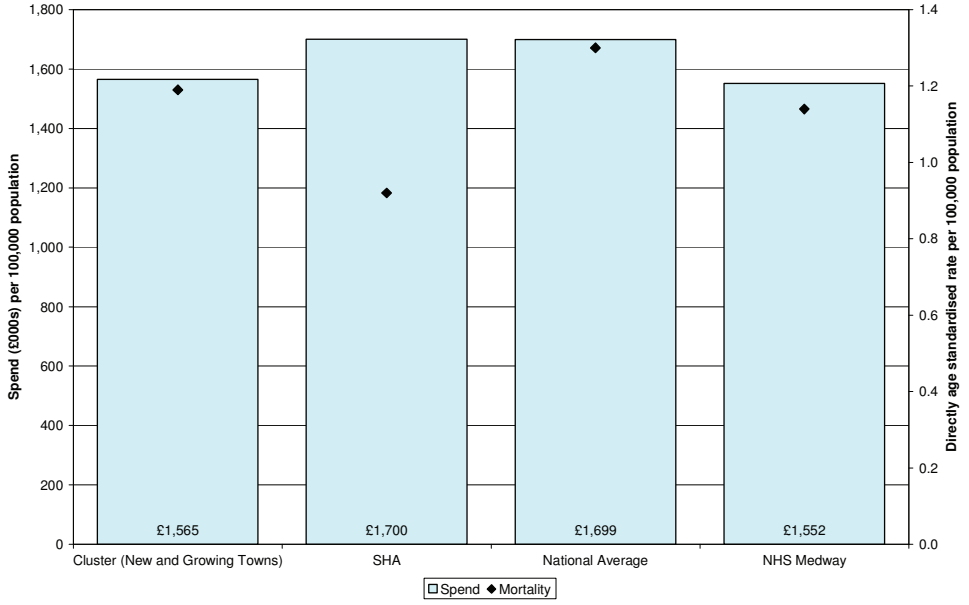
Figure 142 shows the spend for asthma in Medway and its comparators in 2008/09. The spend in Medway was £1,552,000 per 100,000 population. This is lower than that seen for the cluster group, the SHA and national average. The lower spend may be explained by the lower prevalence of asthma in Medway.

Figure 142: Spend per 100,000 population and prevalence, Medway and comparators, 2008/09: 11b Asthma



Source: Programme budgeting, Department of Health, 2009 and QOF 2007/08, 2009

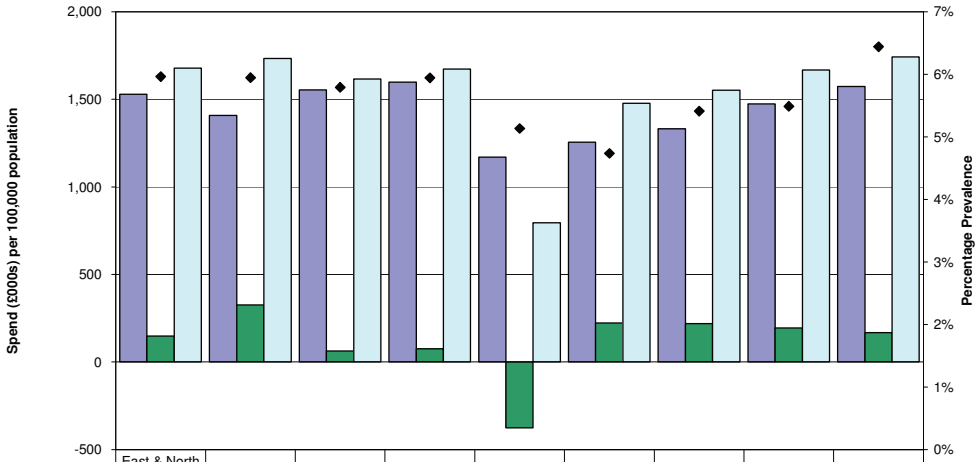
Figure 143: Spend per 100,000 population, Medway and comparators 2008/09 and directly age standardised mortality rate for asthma, all ages, 2006/08



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010, The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Figure 144 shows that in Medway, as in the other PCTs in the cluster, the majority of spend was in primary care.

Figure 144: Spend per 100,000 population asthma, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing town cluster group, and prevalence of asthma 2008/09



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	1,529	1,407	1,553	1,598	1,170	1,254	1,332	1,474	1,574
Secondary	149	327	64	75	-375	223	220	194	169
Total	1,678	1,734	1,617	1,673	795	1,477	1,552	1,668	1,743
Prevalence	6.0%	5.9%	5.8%	5.9%	5.1%	4.7%	5.4%	5.5%	6.4%

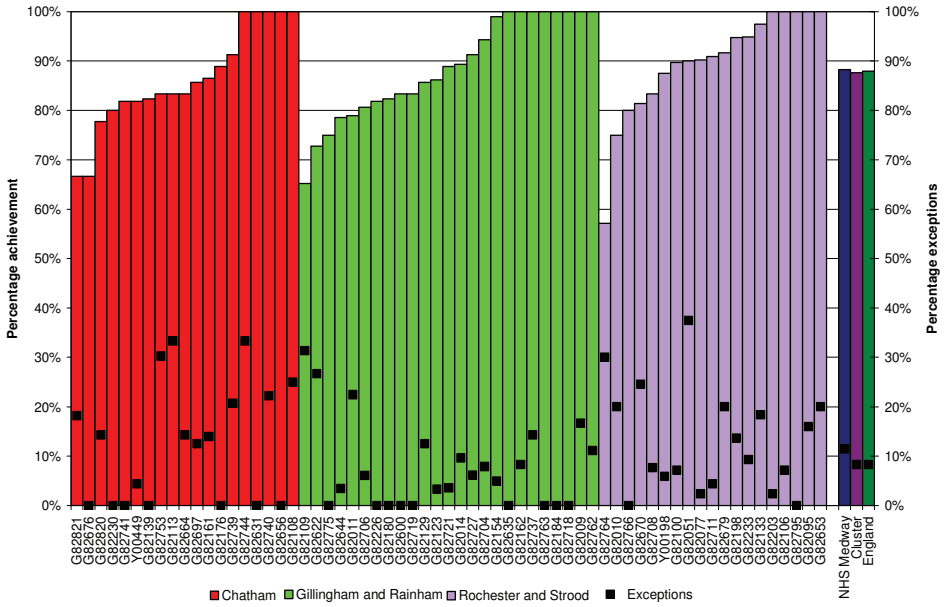
* Negative value for Bexley PCT is due to a data error

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; QOF, 2009

Primary care

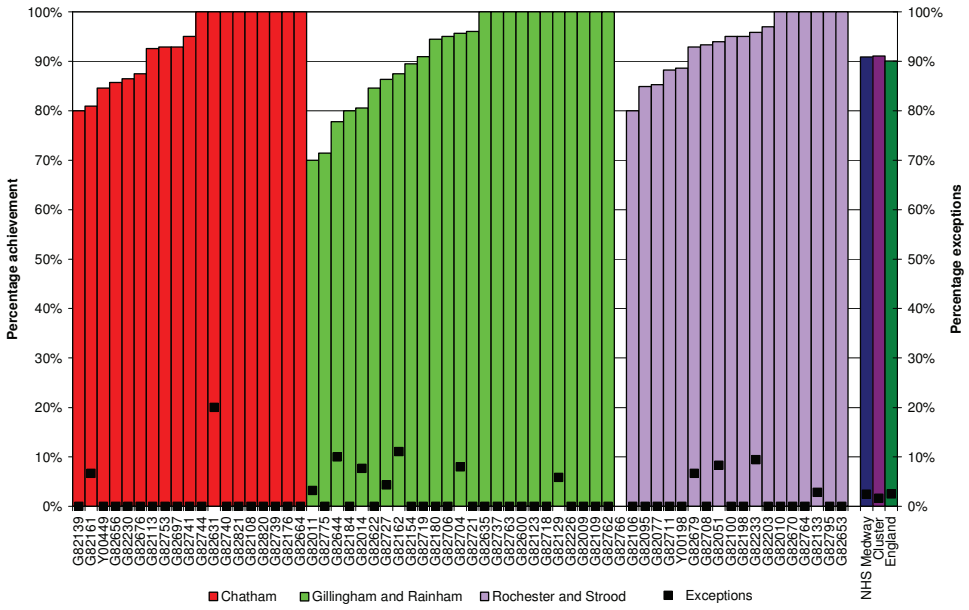
QOF data for 2008/09 show considerable variation between practices within Medway in both achievements and exception reporting for areas such as record of smoking status and asthma review which should be explored.

Figure 145: The percentage of patients aged eight and over diagnosed as having asthma from 1 April 2006 with measures of variability or reversibility, by practice and PBC locality, Medway (QOF indicator asthma 8), 2008/09



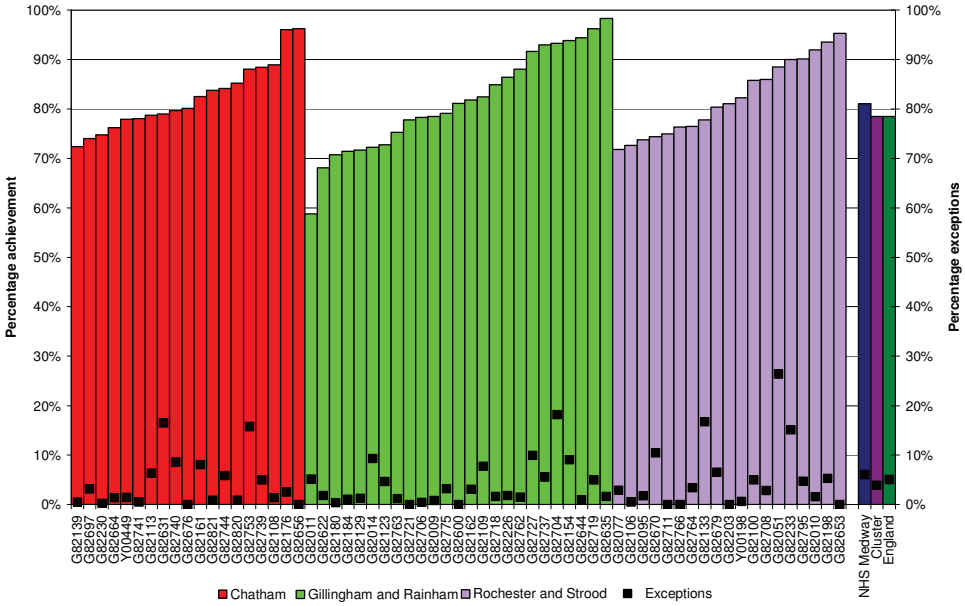
Source: QOF, 2009

Figure 146: The percentage of patients with asthma between the ages of 14 and 19 in whom there is a record of smoking status in the previous 15 months, by practice and PBC locality, Medway (QOF indicator asthma 3), 2008/09



Source: QOF, 2009

Figure 147: The percentage of patients with asthma who have had an asthma review in the previous 15 months, by practice and PBC locality, Medway (QOF indicator asthma 6), 2008/09



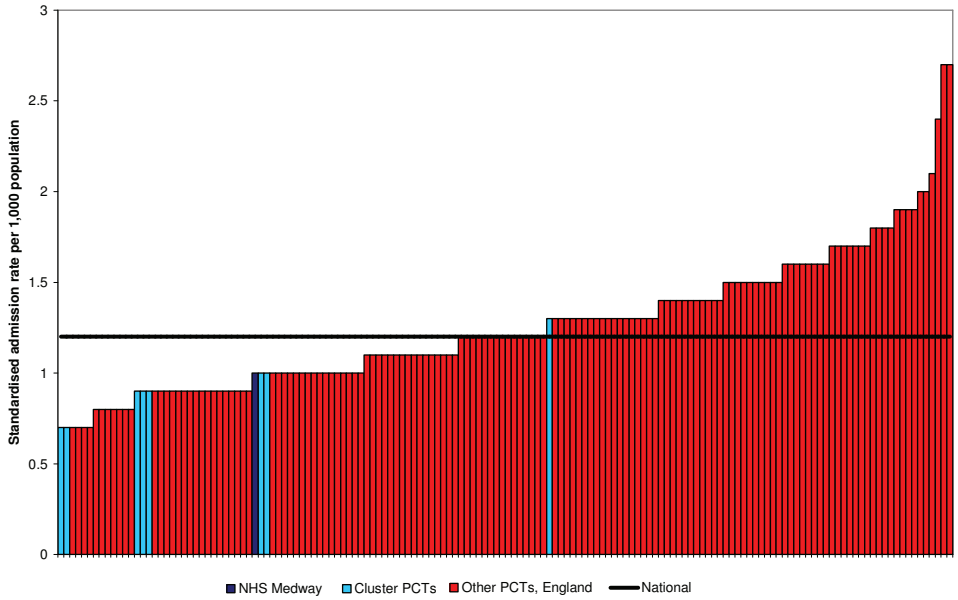
Source: QOF, 2009

Secondary care

Emergency Admissions

Figure 148 shows the admission rates for asthma per 1,000 population in 2008 for all PCTs in England. Medway has a rate of 1.0 per 1,000 population, compared to a rate of 1.2 per 1,000 population nationally.

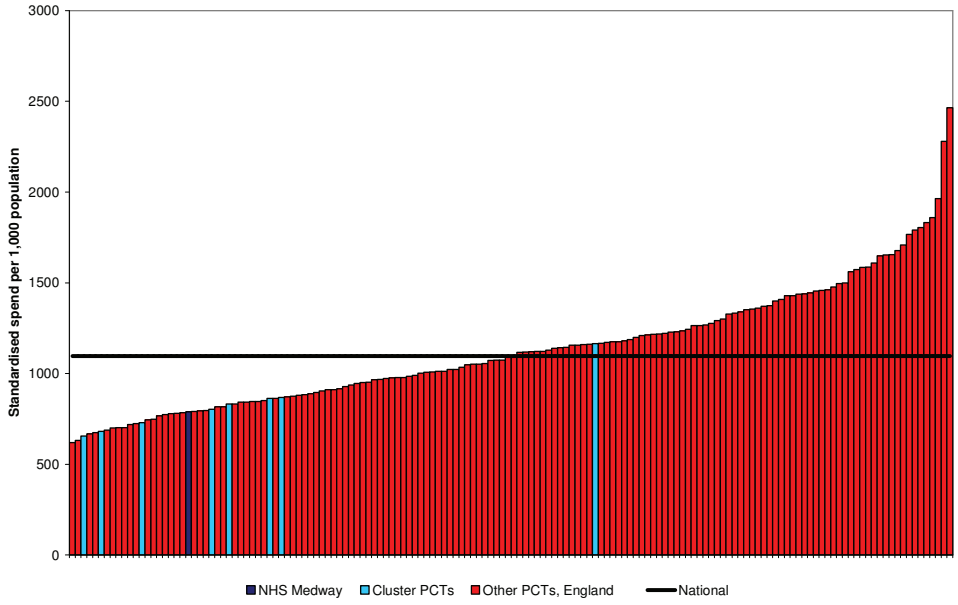
Figure 148: Emergency admissions per 1,000 population for asthma, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

£789 per 1000 population was spent on emergency admissions for asthma (Figure 149). This is lower than the national spend of £1,096 per 1,000 population.

Figure 149: Spend on emergency admissions per 1,000 population for asthma, all PCTs, England, 2008/09

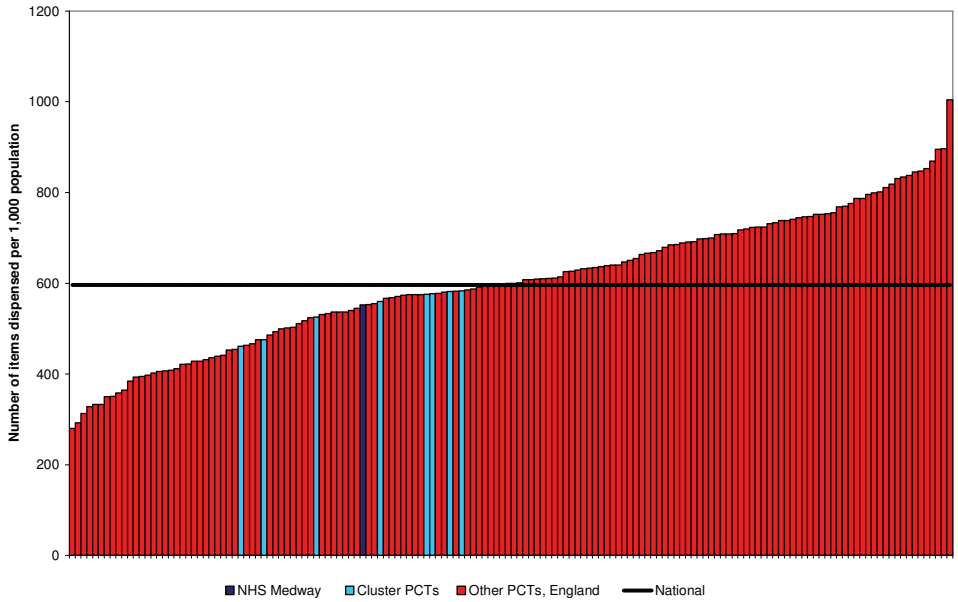


Source: NHS Comparators, 2009

Primary care prescribing

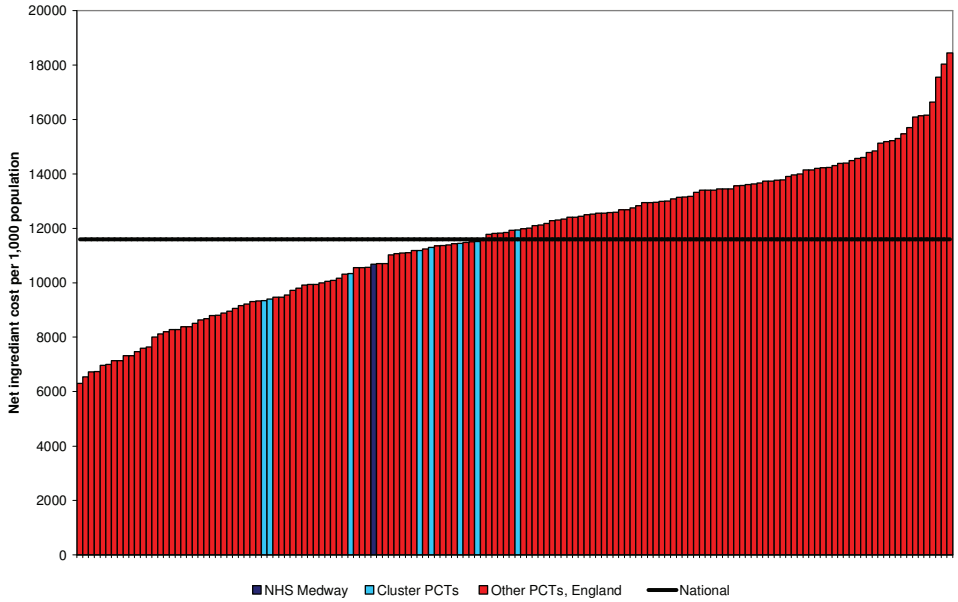
Figures 150 and 151 show that the number of items and the cost per item within Medway for asthma in Medway is less than the national average, but in the middle of the cluster range.

Figure 150: Number of items dispensed per 1,000 population asthma, all PCTs, England, 2008/09



Source: NHS comparators

Figure 151: Net ingredient cost per 1,000 population asthma, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Influenza

Influenza is a highly contagious respiratory illness and contributes to a substantial number of deaths each year in the UK. Those most at risk include older people and those who have other underlying health conditions.

Everyone aged 65 or over and registered with a GP is offered seasonal influenza vaccination each year. Vaccination is also offered to people with underlying health conditions. In 2007/08, 72% of those 65 and over received seasonal flu vaccine. In 2008/09, this increased to 75%, which is in line with the Department of Health's target of 75% uptake.

Pandemic swine flu

Swine flu caused by Influenza A H1N1 reached pandemic proportions in July 2009. Transmission of the disease occurs in the same way as seasonal flu. Most recorded cases have been mild but can be severe in a small minority of cases. As of April 2010, there have been 359 confirmed deaths in England from swine flu.[63] 30% of deaths occurred in those who had no (or only mild) prior illness. Furthermore, many of the deaths occurred in the younger age groups, in contrast to the seasonal flu pattern. An immunisation programme for priority groups and frontline healthcare and social care staff commenced in Medway and elsewhere in November 2009.

Tuberculosis

Tuberculosis (TB) usually causes disease in the lungs, but can also affect other parts of the body. Only the pulmonary form of TB is infectious and transmission usually requires prolonged close contact with an infectious case. TB is curable with a combination of specific antibiotics.

The average number of TB cases between 2006/2008 in Medway was relatively low at an average of 19 cases per year (equivalent to a rate of 7 per 100,000 population). PCTs with an incidence of greater than 40 per 100,000 are considered to have a high incidence of TB.[64] The rate for the South East Region for 2008 was 8.6 per 100,000 and 15.5 for England.

Conclusions

The prevalence rate of COPD (1.5%) in Medway is within the range of the other cluster PCTs and is slightly below the national average.

However, mortality rates due to COPD are higher in Medway than nationally in 2005-07 (36 compared to 27 per 100,000 nationally).

Medway has a relatively high mortality rate and low spend for COPD compared to the cluster, SHA and England.

The spend for COPD is equally distributed between primary and secondary care in Medway, and the emergency admissions rate is the same as that seen nationally.

The prevalence of asthma in Medway was 5.4% in 2008/09. The spend per 100,000 population on asthma is lower than that of the SHA and England, which reflects its lower prevalence.

The majority of spend for asthma is within primary care, which is the pattern seen for most of the cluster PCTs.

The incidence of TB in Medway is low.

Next steps

- Reducing the prevalence of smoking locally will be a key factor in reducing the prevalence of respiratory illness locally. A tobacco control plan is being developed.

- More work is required to support local GPs to identify patients with COPD to ensure they can access the information and services they require to manage their condition.

- In order to reduce the levels of emergency admissions due to COPD, services delivered in primary care to manage COPD in the community should be reviewed to identify whether they meet local needs.

Chapter 10: Dental problems

Background

The dental problems programme covers conditions related to the jaws, teeth and gums, the most common of which are tooth decay and gum disease, and their consequences such as toothache and tooth loss, and misalignment of teeth.

Routine treatment under this programme is usually delivered through primary care dental services such as general dental practices and community dental clinics, with more complex treatment delivered in the secondary care setting.

This programme is primarily concerned with preventing the onset of tooth decay and gum disease, relieving dental pain, preventing the loss of teeth, and rehabilitation to restore functions of the mouth such as eating, speaking and smiling. A key priority of this programme has been to ensure that primary care dental services are available, and efforts are made to promote uptake of these services.

This chapter focuses on the risk factors associated with the more common 'dental problems', describes their distribution locally and nationally, highlights their impact on social functioning, and reviews the spend on these problems.

Risk factors

The more common dental problems are largely preventable. Sustainable oral health improvements and reduction in inequalities may be achieved by cont the risk factors for these dental problems. Exposure to these risk factors is determined by individual biological factors and behaviours, which in turn is determined by the socio-economic environment as well as public policies**.**

High sugar diet

The frequent and high consumption of sugars is the major cause of tooth decay. Soft drinks, confectionery and biscuits are the main sources of sugars in the diet. The majority of the English population consumes more sugar than the recommended 60g per day.[65]

In addition to tooth decay, sugar consumption is also a risk factor that is common to obesity in children.[66] Data on sugar consumption in Medway are not available, but data on obesity suggest that amongst the 67 local authorities in the South East, Medway has the 6th highest proportion of people that are obese (25.3%).[59]

Poor oral hygiene

When teeth and gums are not brushed regularly and dental plaque accumulates, bacterial growth can occur, leading to inflammation of the gums. If the oral hygiene is not improved then the inflammation will persist and eventually destroy the periodontal and bone tissues supporting the teeth leading to tooth mobility and eventually loss. Oral hygiene practices are best learnt in early childhood as part of body hygiene and cleanliness.

Inadequate exposure to fluoride

Since the 1970s, fluoride has been added to most toothpastes and this is the main reason for the improvement in oral health seen in the UK and Europe. The effectiveness of fluoride, including topical fluoride varnish in preventing tooth decay has been widely documented.[67]

Effective twice-daily tooth brushing has the additional benefit of improving periodontal health. In areas with high levels of tooth decay, water fluoridation is an effective and safe public health measure to reduce tooth decay and more beneficial than the use of just fluoride toothpaste alone.

Tobacco use

Tobacco use, especially smoking, is a risk factor for gum disease as well as oral cancer. Although less harmful than smoking, the chewing of tobacco products, common in some Asian communities, is also associated with an increased risk of oral cancer. So too is chewing betel with tobacco. Tobacco use is also linked to a range of other health problems such as coronary heart diseases and lung cancer, and reduces the success rates of dental treatments such as implant surgery.

Given the scope that tobacco use poses as a public health problem and its impact on oral health, resources such as dental personnel should be utilised to tackle this problem. Collaborative working between the dental team and stop smoking specialists ensures that stop smoking advice and referrals to specialist counsellors are provided by the primary care dental team.

Alcohol consumption

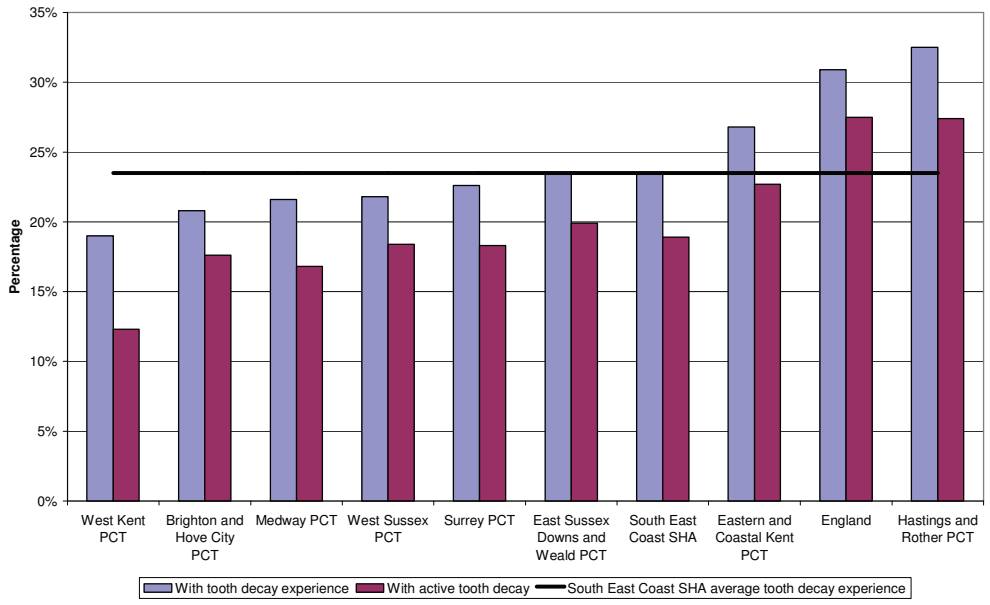
Excessive alcohol consumption, particularly spirits, is a further risk factor for oral cancer, especially when combined with smoking and a poor diet.

Prevalence

The usual indicators for dental problems are tooth decay in 5-year-olds, and tooth decay and gum disease in adults aged 16 years and older.

Data on tooth decay in five-year-olds are collected through national surveys coordinated by the British Association for the Study of Community Dentistry (BASCD). The latest available data were collected during the 2007-08 school year from samples drawn from PCT population bases and collated for the whole of England. Of the 229 (7.6%) Medway five-year-olds examined, 21.6% were estimated to have at least one decayed, missing or filled deciduous (or milk) tooth (dmft), compared to 30.9% for English five-year-olds (Figure 151). For the first time, positive consent was sought for dental examination, resulting in lower participation from those from lower socio-economic backgrounds. Therefore comparison with previous survey results would not be appropriate.

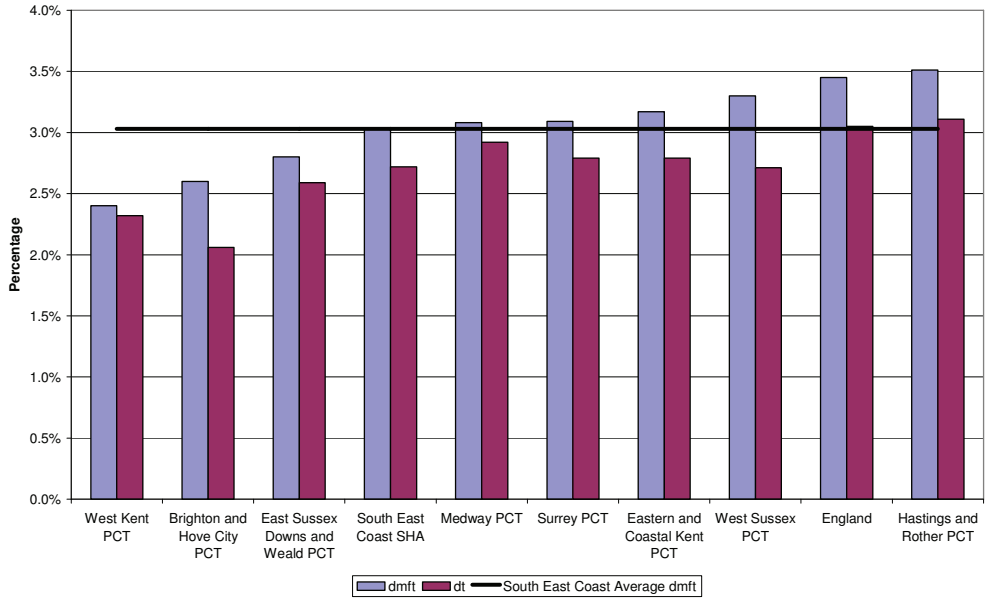
Figure 152: Proportions of five-year-olds who had experience of tooth decay and active decay in Medway, South East Coast SHA and England, 2007/08



Source: BASCD National Surveys 2007-08.

While most children have healthy teeth, those with experience of tooth decay have on average three dmft (Figure 153). Amongst five-year-olds, most of the dental disease is found in one fifth of the population.

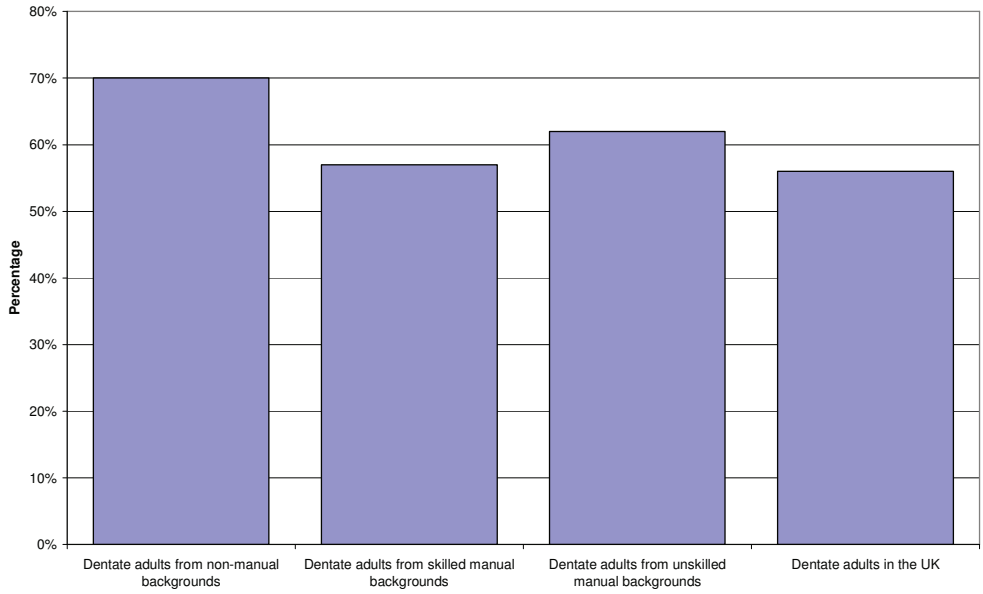
Figure 153: Mean number of decayed, missing or filled teeth (dmft) and mean number of decayed teeth (dt) amongst those with experience of tooth decay in Medway, 2007/08



Source: BASCD National Surveys 2007/08.

The UK Adult Dental Health Survey (ADHS), carried out every ten years, profiles the oral health of the adult population. In 1998, when the survey was last carried out, 56% of dentate adults were estimated to have at least one decayed or unsound tooth (Figure 154). 42% were estimated to have mild gum disease in which the gums have lost 4 to 6mm of attachment to the tooth, and 8% moderate to severe gum disease in which the gums have lost over 6mm of attachment to the tooth.

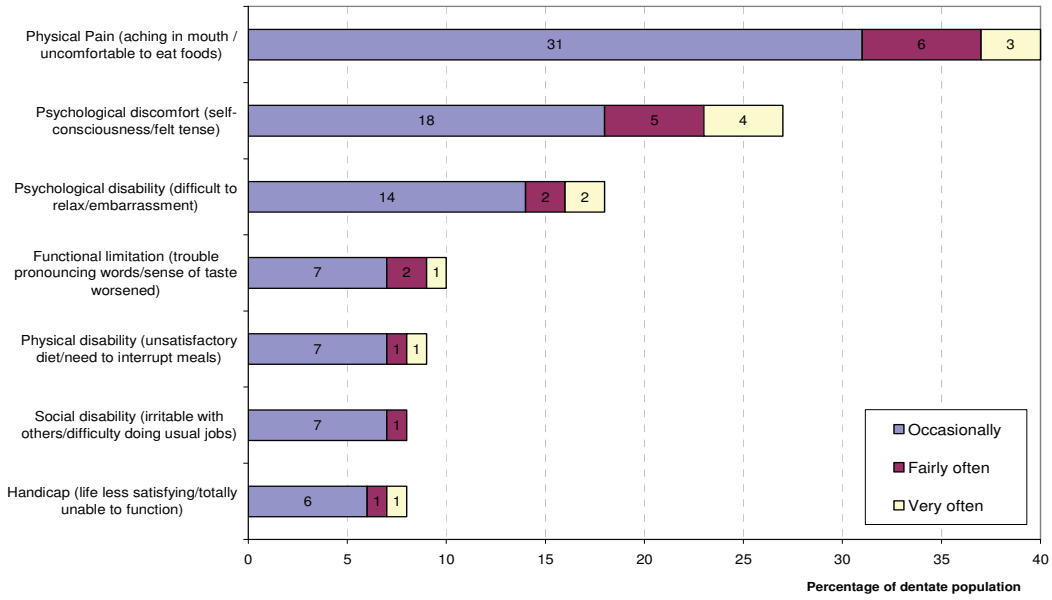
Figure 154: Proportion of dentate adults with at least one decayed or unsound tooth: a comparison by socio-economic backgrounds, 1988



Source: UK Adult Dental Health Survey 1998

The impact of 'dental problems' on social functioning was assessed in the 1998 ADHS using the Oral Health Impact Profile (OHIP). This questionnaire contains 14 questions that ask about feeling physical pain through to feeling socially handicapped because of a condition related to the mouth. In the UK in 1998, some 40% of dentate adults recorded having painful aching in the mouth or discomfort on eating (Figure 155).

Figure 155: Frequency of experience of types of impact by dentate adults in the UK in 1998



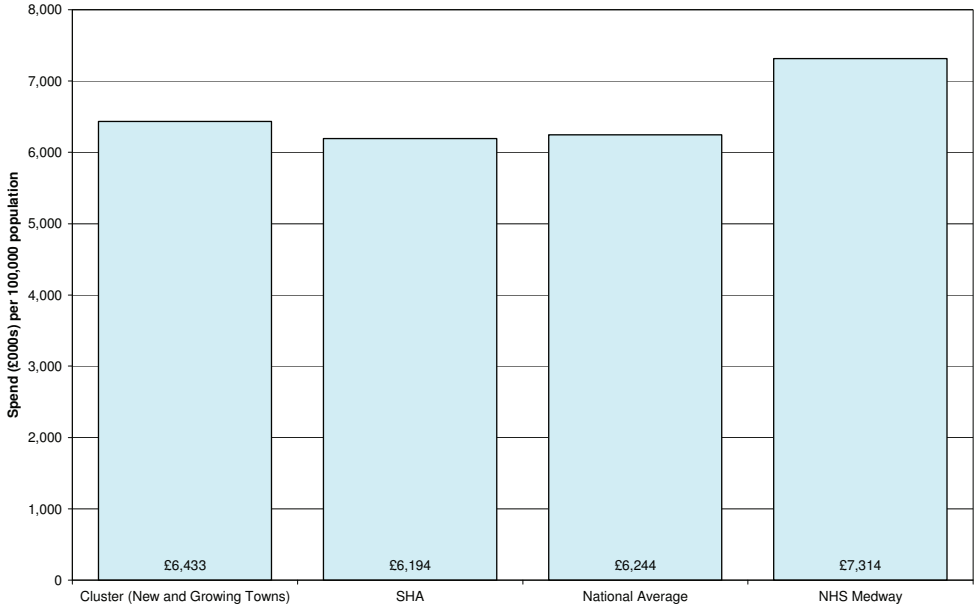
Source: Nuttall et al., 2001[68]

Programme spend in 2008/09

The dental problems programme cost £7,314,000 per 100,000 population in 2008/09 (Figure 156), of which £6,977,000 (95.4%) was spent on primary care and £336,000 (4.6%) was spent on secondary care dental services.

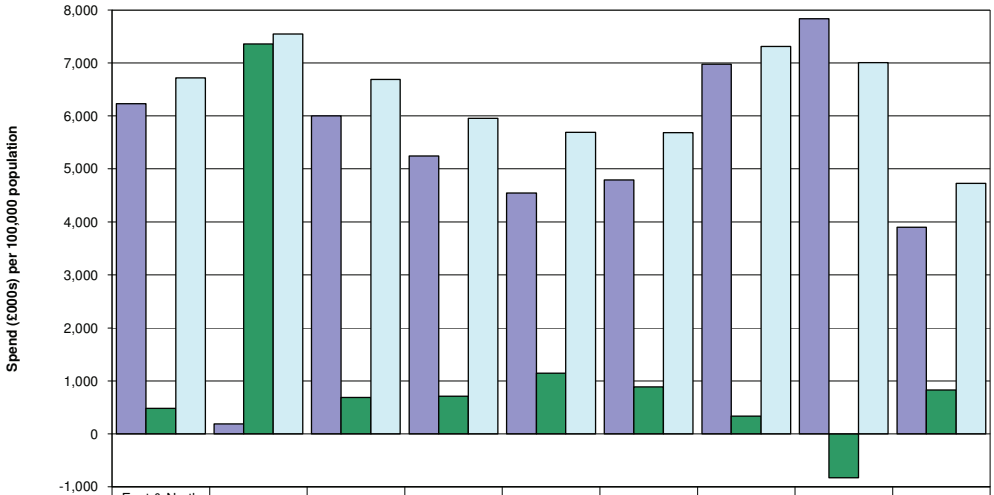
Out of 23 programmes, it ranked 7th highest on the NHS Medway spend table. Nationally NHS Medway ranked 25th out of 152 PCTs in England for spend on dental problems, spending more per 100,000 population than the cluster, host SHA and national averages. This spend included primary care dental services for non-Medway residents who were treated in Medway, such as oral surgery procedures provided under sedation by two Medway dental practices, orthodontic treatment, emergency dental service, and special needs dental care by the Medway Salaried Dental Service. Consequently, the spend per 100,000 population in Medway (£7,314,000) is higher than neighbouring West Kent (£4,763,000) and Eastern and Coastal Kent (£5,808,000). However, the budget allocated for primary dental care is based on historical activity and spend, irrespective of where patients resided.

Figure 156: Spend per 100,000 population, Medway and comparator areas, 2008/09: 12 Dental problems



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 157: Spend per 100,000 population dental problems, Medway, primary care and secondary care split, 2008/09, compared with PCTs in new and growing towns cluster group



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	6,233	187	6,004	5,242	4,544	4,794	6,977	7,833	3,901
Secondary	485	7,363	685	711	1,147	889	336	-827	828
Total	6,718	7,550	6,688	5,954	5,692	5,682	7,314	7,006	4,729

* Negative value for Milton Keynes PCT is due to a data error

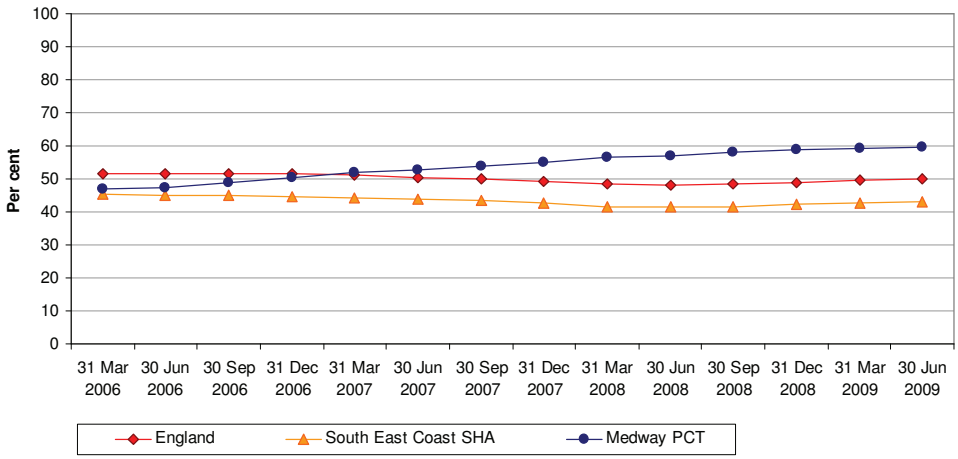
Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Primary care dental services

Access to primary care dental services is measured by the number of unique patients seen within a PCT in the previous 24 months as a proportion of the PCT's population. Patient seen information is based on the number of unique patients for whom activity reports have been received by the NHS Dental Services Division within the latest 24 month period (orthodontic patients are included). Patients have been identified by using surname, first initial, gender and date of birth. Each unique patient ID is normally assigned to the dental contract (and therefore PCT) against which the most recent activity report for routine treatment was recorded in the 24 month period.

In the 24-month period ending 30 June 2009, 115,081 adults or 60% of the Medway adult population were seen by an NHS primary care dentist in Medway, an increase from 46% in March 2006. In comparison, 50% of adults in England were treated in the 24-month period ending 30 June 2009, a decrease from 52% in March 2006 (Figure 158).

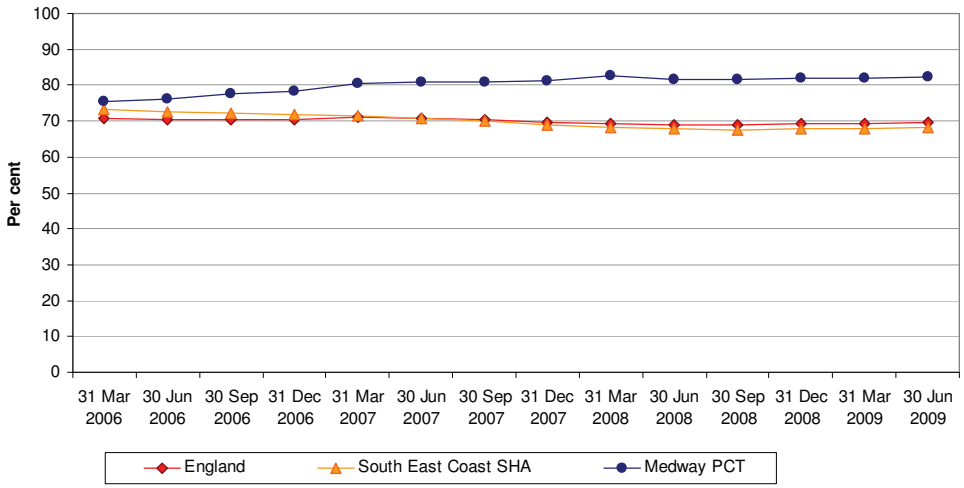
Figure 158: Adult patients seen by Medway dentists as a percentage of the population



Source: Information Centre for Health and Social Care, 2010

The proportion of child patents seen in the 24 months ending 30 June 2009 by an NHS dentist in Medway represented 80% of the Medway child population (Figure 159), an increase from 75% in March 2006. In comparison, a relatively stable proportion of 70% were seen in England since March 2006.

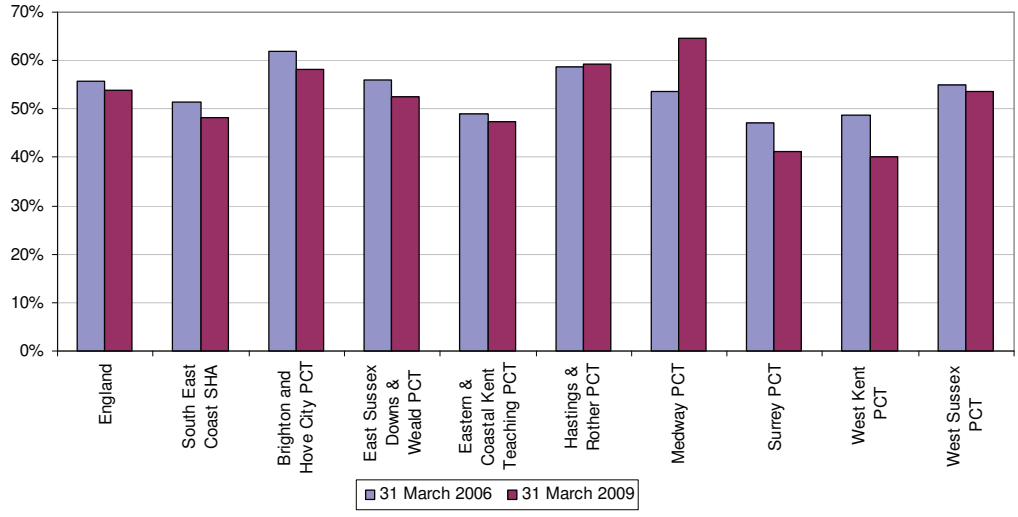
Figure 159: Child patients seen by NHS dentists as a percentage of the population



Source: Information Centre for Health and Social Care, 2010

NHS Medway has one of the highest dental access rates in England, and the highest in South East Coast. However, since patients can choose where they receive their dental care the access measure also includes non-Medway residents treated in Medway. Based on patients flow reports for the year April 2008 to March 2009, 43,342 non-Medway residents were treated in Medway whereas 8,278 Medway residents were treated in neighbouring PCTs. It should therefore be noted that the true proportion of Medway residents accessing NHS dentistry in the previous 24 months may be lower than that officially recorded.

Figure 160: Dental access: comparison with neighbouring PCTs



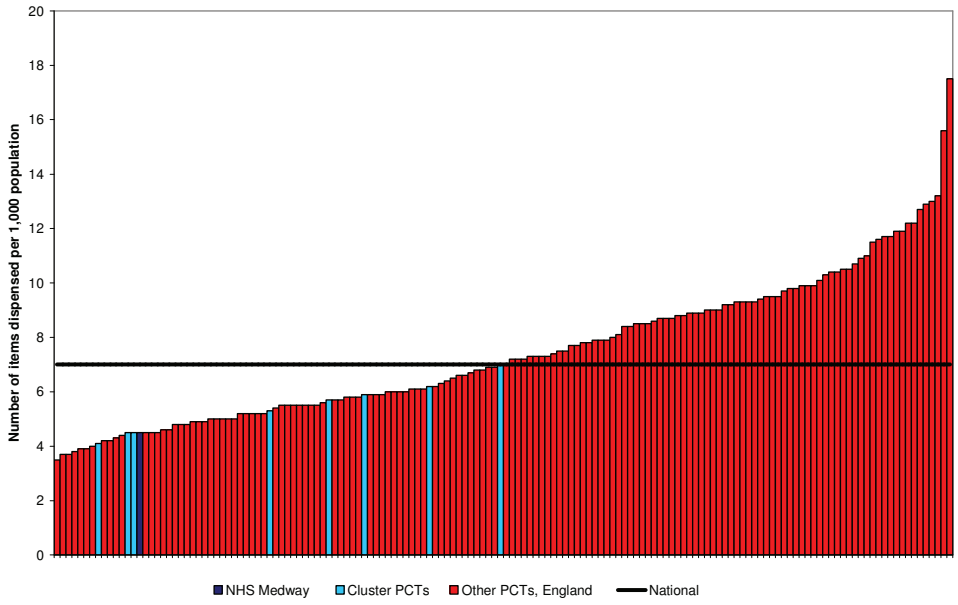
Source: Information Centre for Health and Social Care, 2010

Primary care prescribing

In 2008/09 dentists in NHS Medway issued 24,508 prescription items, an equivalent of 89 items per 1000 Medway population, at a cost of £52,000. Of these, over 84% were for treating infections, with amoxicillin being the most commonly prescribed, followed by metronidazole and erythromycin. Drugs acting on the oropharynx such as mouthwashes, gargles and dentifrices, and drugs for oral ulceration and inflammation were the next most commonly dispensed dental prescription items.

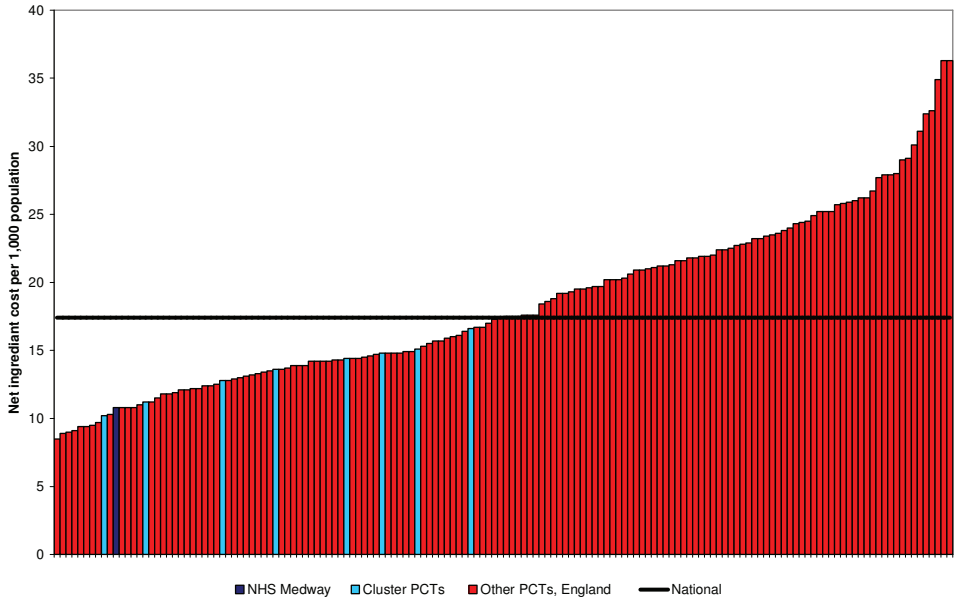
In addition general practices prescribed around 1250 dental items such as mouth washes or fluoride preparations, an equivalent of 4.5 items per 1000 population (Figure 161) at a net ingredient cost of £10.80 per 1000 population (Figure 162).

Figure 161: Number of items dispensed per 1,000 population dental problems all PCTs, England, 2008/09



Source: NHS comparators,2009

Figure 162: Net ingredient cost per 1,000 population dental problems, all PCTs, England, 2008/09



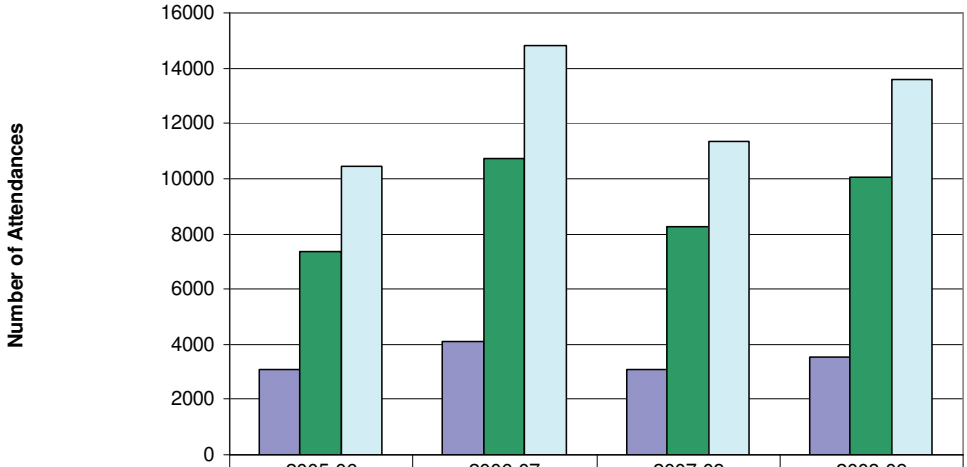
Source: NHS Comparators, 2009

Secondary care

Outpatients

In 2008/09, 13,608 outpatient attendances were made for treatment of dental problems requiring oral surgery, orthodontics, restorative dentistry, maxillo-facial surgery and oral hygiene (for patients with learning disabilities). The majority of outpatient attendances were recorded for Medway NHS Foundation Trust, Queen Victoria Hospital NHS Foundation Trust and Guy's and St Thomas' NHS Foundation Trust.

Figure 163: Oral surgery outpatient activity (including oral Surgery, orthodontics, restorative dentistry, maxillo-facial surgery and oral hygiene) 2005/06 to 2008/09



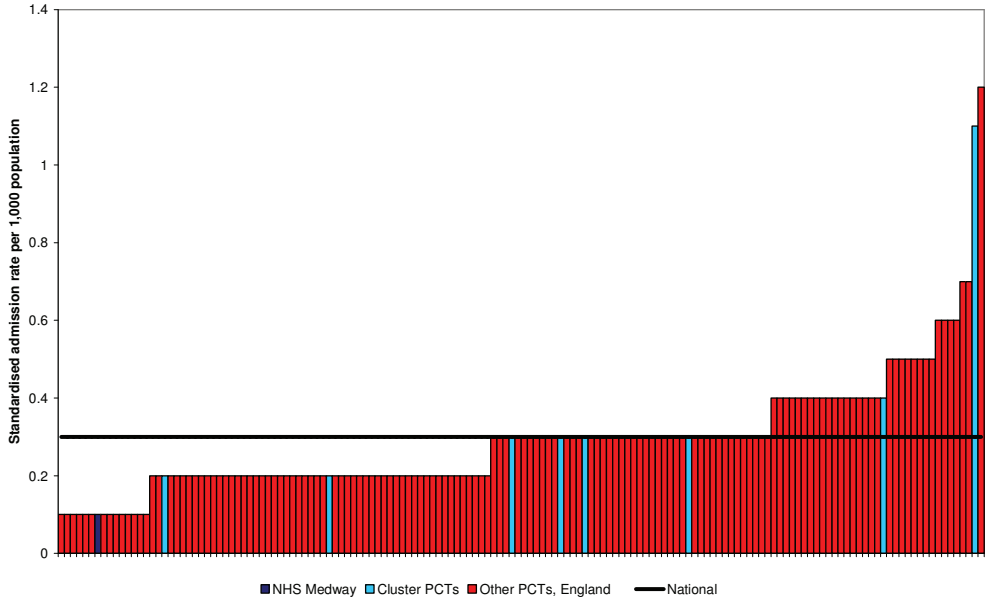
	2005-06	2006-07	2007-08	2008-09
First	3107	4110	3077	3556
Follow Up	7358	10701	8260	10052
Total Attendances	10465	14811	11337	13608

Source: Health Informatics Service Business Intelligence system (HISbi), 2010

Admissions

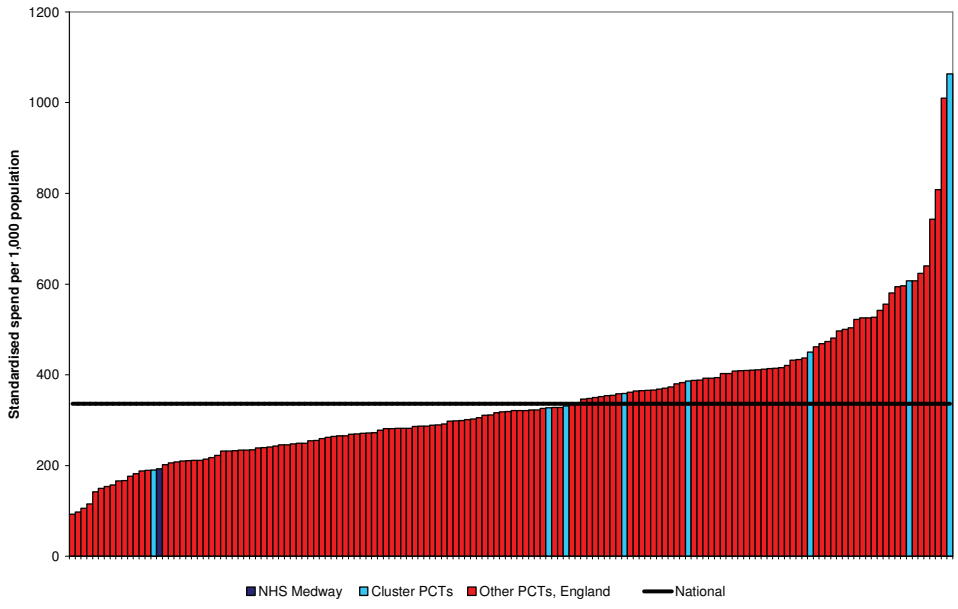
The elective admission rate (excludes day cases) for dental problems during 2008/09 was one of the lowest in England.

Figure 164: Elective admissions per 1,000 population dental problems, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 165: Spend per 1,000 population elective admissions dental problems, all PCTs, England, 2008/09

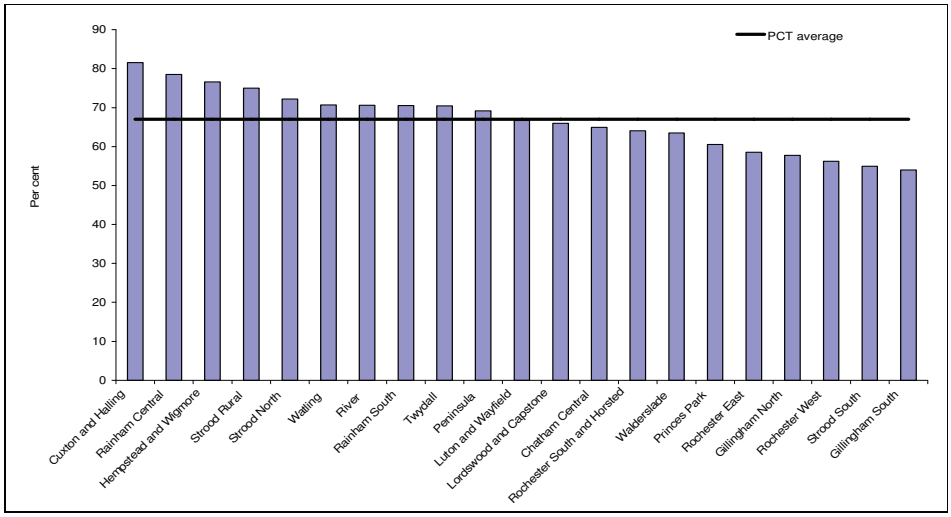


Source: NHS Comparators, 2009

Health inequalities

The association between oral health and area deprivation has been widely documented[69,70] with those in the more deprived areas experiencing poorer oral health. Within Medway data on caries in five-year-olds collected during the 2005-06 school year demonstrate an unequal distribution (Figure 166), with less deprived wards having higher proportions of children without tooth decay.[71]

Figure 166: Proportion of year one schoolchildren without tooth decay experience by ward, 2005/06



Source: NHS Medway Salaried Dental Service

Conclusions

Five-year-olds in Medway enjoy better oral health when compared to the average for the South East Coast SHA and to England. However, the distribution of oral health is unequal, with children in more deprived wards more likely to experience tooth decay. There are relatively more people accessing primary care dental services when compared to the South East Coast SHA and to England. Dental spend in Medway is relatively high when compared to the cluster, host SHA and national averages as it includes treatment of non-residents. Some 28% of this programme's budget is spent on care in secondary care settings, including outpatients. This suggests some scope for developing some of this care in the primary care settings.

Next steps

- Since the common dental diseases are preventable, emphasis should be placed on further developing the oral health promotion services in order to reduce oral health inequalities. Emphasis should also be placed on re-orientating primary care dental services to focus on prevention.

- Access to dental services for those in lower socio-economic backgrounds should be a priority.

- Development of dentists with special interests or consultant-led specialist services in the primary care setting should ensure better access to specialist care.

Chapter 11: Renal problems

Background

The programme budgeting subcategory renal problems (17b) is within the problems of the genito urinary system programme budgeting category. It covers a range of conditions including congenital malformations, renal stones, acute and chronic renal failure and dependence on renal dialysis. The focus of this chapter will be chronic kidney disease.

Chronic kidney disease (CKD) describes abnormal kidney function and/or structure.[72] It is common, frequently goes unrecognised and often exists together with other conditions (e.g., cardiovascular disease and diabetes). When advanced, it also carries a higher risk of mortality.[72] The risk of developing CKD increases with increasing age, and some conditions that coexist with CKD become more severe as kidney dysfunction advances. CKD develops over time and results in the kidneys being progressively less able to remove toxins, waste products and fluids from the body.

CKD can progress to established renal failure in a small but significant percentage of people and eventually to end-stage renal failure (ESRF). In many cases, there is no effective method of reversing the underlying disease process and treatment is aimed at slowing disease progression and at reducing the development of complications.

CKD is usually asymptomatic. But it is detectable, and tests for detecting CKD are both simple and freely available. There is evidence that treatment can prevent or delay the progression of CKD, reduce or prevent the development of complications and reduce the risk of cardiovascular disease. However, because of a lack of specific symptoms people with CKD are often not diagnosed, or are diagnosed late when CKD is at an advanced stage.

Management of chronic renal failure includes regular monitoring of renal function and ensuring that other conditions which can cause it to progress are limited as much as possible e.g. by cont hypertension. Of those with relatively advanced disease, 30% are referred late to nephrology clinics, increasing morbidity and mortality.[72]

Risk factors

Risk factors for chronic kidney disease can be divided into those that are modifiable and unmodifiable.

Unmodifiable risk factors include:

- Age – renal function deteriorates with age
- Ethnicity – e.g. CKD due to diabetic nephropathy is more common in the Asian population as the prevalence of diabetes is higher in this population
- Family history – particularly if there is a family history of advanced CKD or hereditary kidney disease
- Congenital abnormalities

Modifiable risk factors include:

- Hypertension – chronic high blood pressure leads to damage of the renal blood vessels
- Diabetes – diabetes is the commonest cause of chronic renal failure in developed countries[73]
- Cardiovascular disease
- Multisystem disease with potential renal involvement e.g. systemic lupus erythematous. There is inflammation and damage to the glomeruli of the kidneys (glomrulonephritis), which interferes with kidney function

Dialysis and renal transplantation

Haemodialysis is the most widely used method for managing end-stage renal failure. The patient's blood is shunted through a dialysis machine to remove waste and excess water before it is returned to the patient's circulation. In peritoneal dialysis, the patient's peritoneum is used as a filter across which fluid and electrolytes are exchanged with dialysis fluid.

Renal transplantation is regarded as the gold standard for renal replacement therapy. Common complications of renal transplantation include graft rejection, clots and opportunistic infections.

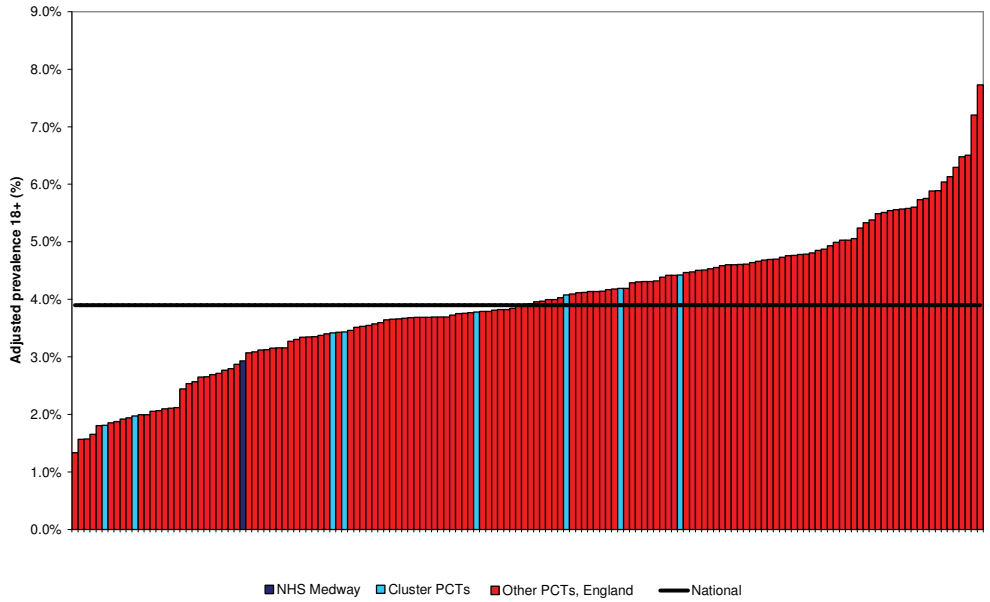
Prevalence

From QOF data, in 2007/08 there were 5,370 patients with CKD registered with Medway GP practices (prevalence 1.9%). This compares with a prevalence of 3.0% in the South East Coast SHA and 2.9% in England in 2007/08.

In 2008/09, the number of patients aged 18 and over with CKD increased to 6,240 (prevalence 2.9%) in Medway. There were similar increases seen in

the SHA (149,718 patients, prevalence 4.2%) and England (1,739,443 patients, prevalence 4.1%). The prevalence of CKD in Medway remains lower than that seen in the South East Coast SHA and England.

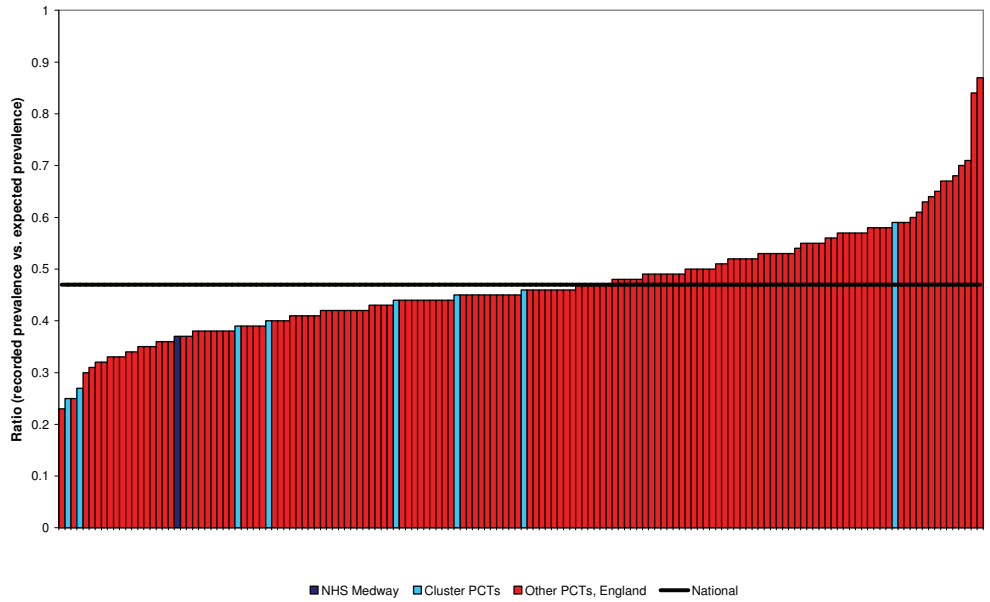
Figure 167: Recorded prevalence of stage 3–5 chronic kidney disease (CKD), population aged 18 and over, all PCTs, England, 2008/09



Source: NHS comparators, 2009

A prevalence model for CKD has been developed.[17] Figure 168 shows the ratio of recorded QOF prevalence to expected for CKD using this model. A figure < 1 means that fewer cases have been recorded than expected, a number >1 means that more cases than expected have been recorded.

Figure 168: Ratio recorded to expected prevalence chronic kidney disease, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Using this methodology in Medway, approximately 37% of the expected cases were recorded. This under recording may improve considerably when NHS Health Checks are introduced in 2010.

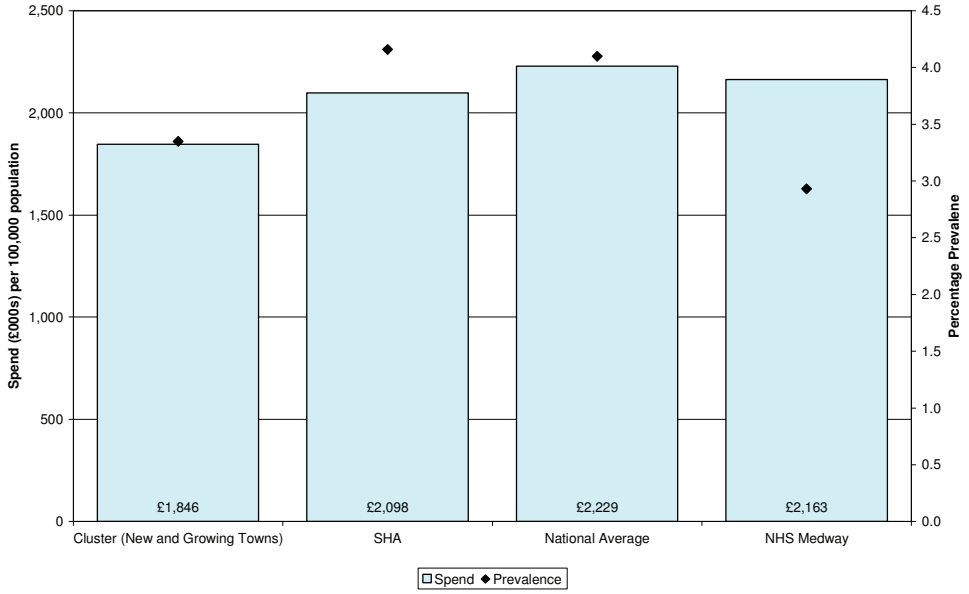
Mortality

The mortality from CKD in Medway is relatively low. In 2005-07, 20 deaths from CKD were recorded for Medway. The age standardised mortality rate from CKD in Medway for this period was 2.05 per 100,000 population. This compares with a mortality rate of 1.32 and 1.62 per 100,000 population for the same period in the SHA and England respectively.[9]

Programme spend in 2008/09

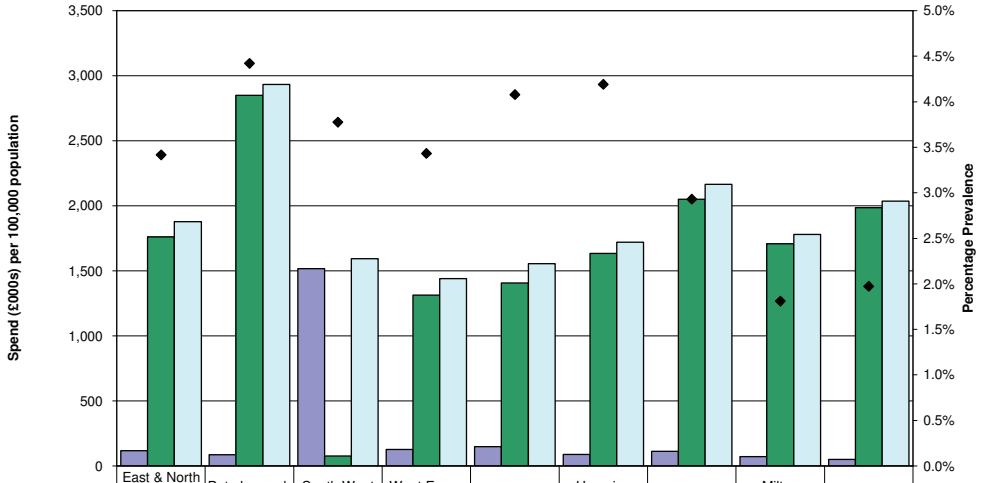
In 2008/09, £2,163,140 per 100,000 population was spent in Medway on the renal problems subcategory. Medway ranks 69th out of the 152 PCTs for spend in this subcategory. Although the prevalence of CKD is lower in Medway than the SHA and the national average, the spend per 100,000 population in Medway is at a similar level to these areas (Figure 169). Furthermore, the spend in Medway per 100,000 population is higher than that of the cluster group average.

Figure 169: Spend per 100,000 population and prevalence (chronic kidney disease), Medway and comparators, 2008/09: 17b renal problems



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010, QOF, 2009

Figure 170: Spend per 100,000 population renal problems, Medway, primary care and secondary care split 2008/09, compared with PCTs in new and growing town cluster group and prevalence of chronic kidney disease, 2008/09.



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	117	86	1,517	126	148	87	113	71	51
Secondary	1,761	2,848	77	1,314	1,407	1,633	2,050	1,709	1,985
Total	1,878	2,934	1,593	1,440	1,555	1,720	2,163	1,780	2,037
Prevalence	3.4%	4.4%	3.8%	3.4%	4.1%	4.2%	2.9%	1.8%	2.0%

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010; QOF, 2009

Figure 170 shows the spend for the programme between primary and secondary care for Medway and the cluster PCTs. In Medway, the majority of spend is within secondary care. This is the case with all the cluster PCTs except for South West Essex PCT. It is of note that Medway has the third lowest prevalence, and yet the second highest spend when compared to the cluster PCTs.

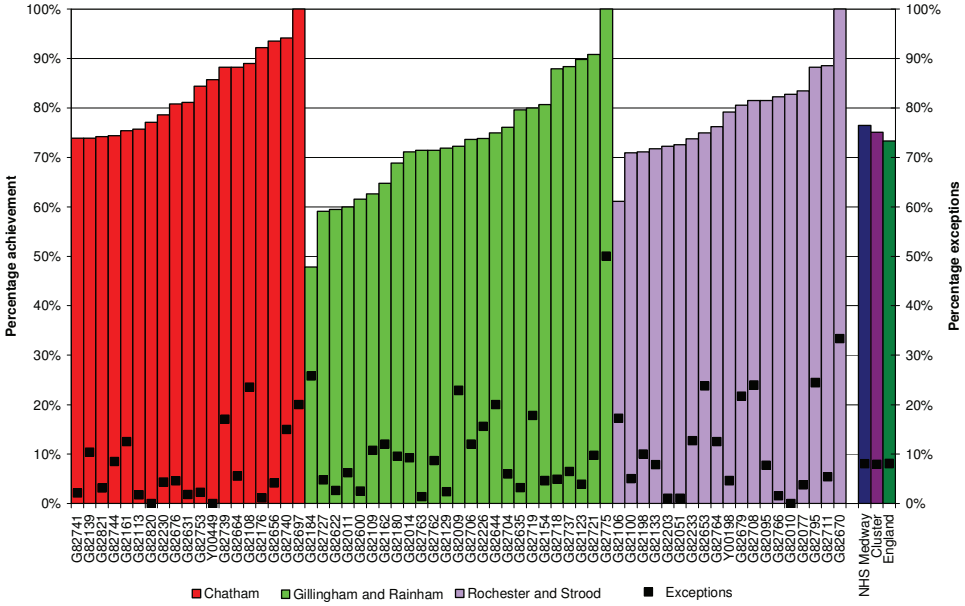
The main providers for Medway of services relating to renal dialysis and transplantation include Guy's and St Thomas' NHS Foundation Trust and East Kent Hospitals University NHS Foundation Trust (EKHUT). In 2008/09, the total amount spent on renal dialysis was £2,262,536 of which £2,181,270 was through EKHUT.[74] The total number of patients from Medway on renal replacement therapy (RRT) during this period was 116. Of these patients, 89 were on haemodialysis and 27 on peritoneal dialysis (26 adults and one child). The RRT prevalence rate in Medway is 457 per million population. This is lower than the rate in England of 736 per million population described in the latest published data from the UK renal registry in 2007. Unfortunately, data for the SHA and cluster groups are not available for comparison for this period.

Primary Care

QOF data for 2008/09 shows considerable variation across the 63 practices within Medway.

Figure 171 shows variation between practices in the percentage of patients with CKD in whom the last BP reading is less than 150/90 ranging from 48% to 100%. Variations in exception reporting range from 0% to 50%.

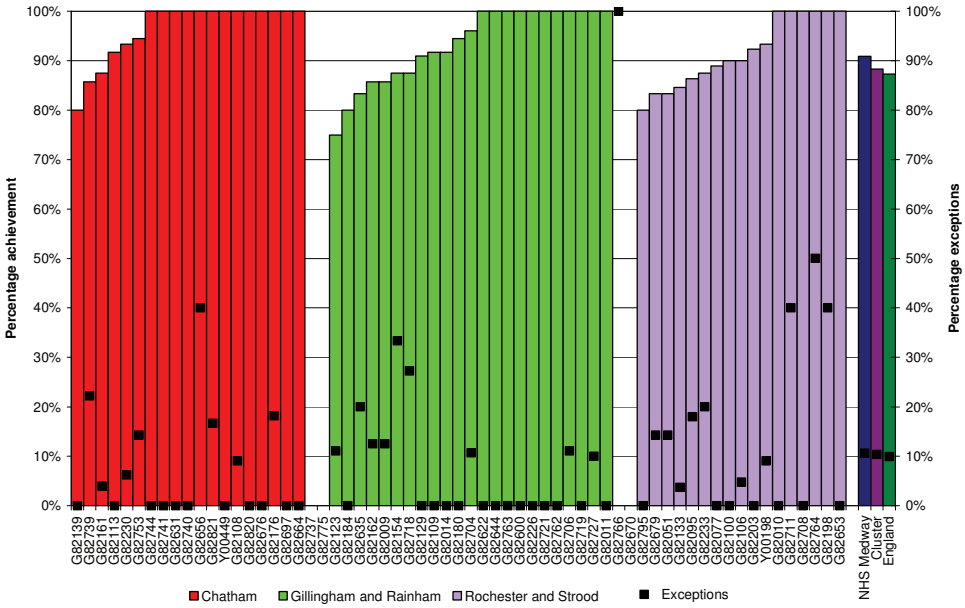
Figure 171: The percentage of patients with CKD in whom the last BP reading is 140/85 by practice and PBC locality Medway (QOF indicator CKD 3), 2008/09



Source: QOF, 2009

There is variation between practices in the percentage of patients with CKD with hypertension and proteinuria treated with angiotensin converting enzyme inhibitor(ACE-1) or angiotensin receptor blocker (ARB) medication. This ranges from 75% to 100%. Variations in exception reporting between practices range from 0% to 100%.

Figure 172: The percentage of patients on the CKD register with hypertension and proteinuria who are treated with angiotensin converting enzyme inhibitor (ACE-1) or angiotensin receptor blocker (ARB) – unless a contraindication or side effects are recorded) (QOF indicator CKD 5), 2008/09



Source: QOF, 2009

Conclusions

CKD is a common condition which, when advanced, carries a higher risk of mortality. The risk of developing CKD increases with age; therefore, strategies to detect and manage the condition will become increasingly important in the future due to an ageing population.

The CKD prevalence rate was lower in Medway compared to the South East Coast SHA, and England in 2007/08 and 2008/09. However, the prevalence rate of CKD has risen from 2006/07 to 2008/09 in Medway. This increase is in line with national trends.

The spend on renal problems in 2008/09 was £2,163,140 per 100,000 population in Medway. This is lower than the spend seen nationally but is higher than the cluster group and host SHA average, despite Medway's lower prevalence. Most of the spend in Medway is in secondary care. When compared to the cluster PCTs, Medway has a relatively high level of spend which does not reflect its lower prevalence. The reason for this is unclear.

A significant proportion of the spend relates to renal dialysis.

The quality measures for chronic renal disease in the QOF show considerable variation between practices for both achievement and exception reporting.

Next Steps

- To investigate the reasons behind the variation between practices for QOF achievement and exception reporting.

- Implementation of the NHS Health Check programme will help to increase detection of CKD. Earlier identification and treatment of the condition will have an important role in delaying progression and in reducing the development of complications.

Chapter 12: Maternity and reproductive health

Background

The maternity and reproductive health category (18) covers:

- Services for pregnant women and those giving birth
- Infertility services delivered to men and women
- Contraceptive services and termination of pregnancy

Births in Medway

Population estimates for 2008 indicate there were around 53,100 women of childbearing age (15-44 years) residing in Medway. This represented 20.9% of the total population, a slightly higher proportion of the total population than was seen nationally, where 20.5% were aged 15-44 years.

In 2008, there were a total of 3,419 live births in Medway. The general fertility rate[m] for Medway was 64.5 per 1,000 females aged 15 to 44, slightly higher than that for England (63.9 per 1,000). In line with national trends, general fertility rates in Medway have been rising over recent years. The total period fertility rate[n] was consistently higher than the England rate until 2008 when it was the same as the national rate of 1.97.

Table 24: Total period fertility rate, Medway, and England 2003 - 2008

	2003	2004	2005	2006	2007	2008
NHS Medway	1.82	1.90	1.85	1.92	1.98	1.97
England	1.73	1.78	1.80	1.86	1.91	1.97

Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

A maternal death is defined as 'the death of a woman while pregnant or within 42 days of termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes'. No maternal deaths were recorded in Medway between 2003 and 2007, but one occurred at the end of 2008.

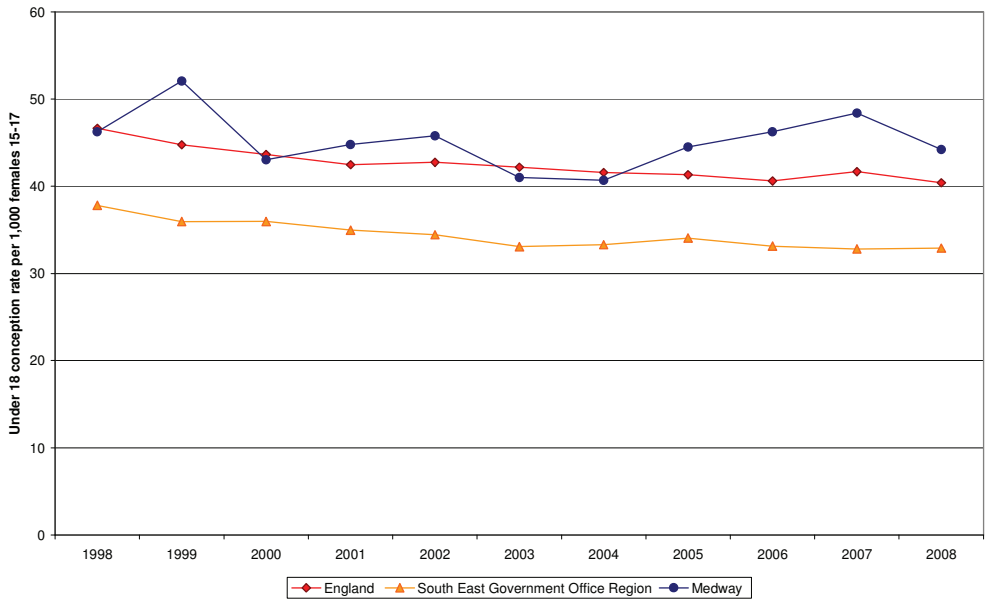
[m] The general fertility rate is the number of live births per 1,000 females of childbearing age
[n] The total period fertility rate is the average number of live – born children per woman which would occur if the current age specific fertility rates applied over the entire 30 years of reproductive life.

Teenage Pregnancy

Teenage pregnancy is strongly associated with the most deprived and socially excluded young people. Difficulties in young people's lives such as poor family relationships, low self-esteem and unhappiness at school also put them at greater risk. Evidence clearly shows that having children at a young age can damage young women's health and well-being and severely limit their education and career prospects. Studies have shown that children born to teenagers are more likely to experience a range of negative outcomes in later life, and are up to three times more likely to become a teenage parent themselves.[75]

The Government's Teenage Pregnancy Strategy published in 1999 set a target of halving the teenage conception rate by 2010 from a baseline of 1998. In 1998 the teenage conception rate in Medway was 46.2 per 1,000. The most recent data show a rate for 2008 of 44.2 per 1,000, a decrease of 4.4% since 1998. This compares with a decrease of 13.3% nationally. In 2008, in Medway, 51% of under 18 conceptions led to a termination of pregnancy.[o] Nationally, 20% of births conceived by woman under 18 are estimated to be to young women who are already mothers, and most of the pregnancies are unplanned.[76]

Figure 173: Trends in teenage conception rates, 1998 to 2008, Medway, South East Government Office Region and England



Source: Department for Children Schools and Families, 2009

[o] Source: Office of Office for National Statistics © Crown Copyright (2009) Under 18 Conception Data

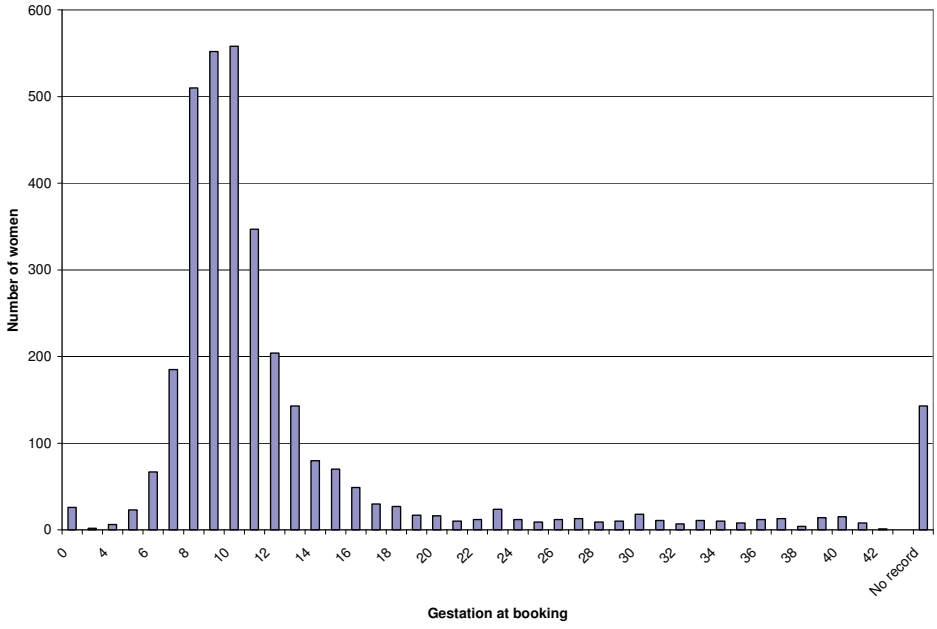
Improving the health of mothers and their babies

Antenatal services provide information and support to all pregnant women and their families to help them prepare for the birth of their child. This includes helping women who need it to access other services such as support to stop smoking. Antenatal services also provide screening for certain health conditions in the mother and child.

The South East Coast SHA has set the target that by 2011, 90% of pregnant women will book with and see a midwife by 12 weeks of gestation to discuss their individual needs and preferences about how to and where to give birth. NICE guidance on antenatal care, published in March 2008[77] recommended that women should ideally book for antenatal care by 10 weeks gestation.

In 2007/08, 75% of women in Medway booked for antenatal care by 12 weeks (Figure 174), and 59% by 10 weeks.

Figure 174: Week of booking for antenatal care, all births 2007/08, Medway NHS Foundation Trust



Source: Acute Trust Maternity Dataset, KMPHO, 2008

A detailed analysis of local data was undertaken on the 2007/08 maternity dataset data and this showed that women are less likely to book by 12 weeks if they are younger, particularly if under 25, or if they live in the most deprived quintile of the authority.

Since this analysis was completed there has been an improvement in the percentage of early bookings and quarter 3 figures for 09/10 show that over 95% of women were recorded as booking by 12 weeks.

Labour and birth

Published in 2007, Maternity Matters[78] outlines four choice guarantees for women and their families in pregnancy:

- Choice of how to access maternity care
- Choice of type of antenatal care
- Choice of place of birth
- Choice of postnatal care

Table 25 shows recent trends in place of birth for Medway resident women. This indicates that in the financial year 2007/08 the majority of births occurred at Medway Maritime Hospital (MMH). There has been a small increase in the percentage of all births that were home births over the past three financial years, from 3.7% to 5.2% of all births. About 5% of Medway residents were supplied maternity services by providers other than Medway NHS Foundation Trust.

Table 25: Percentage of births at home and at Medway Maritime Hospital, Medway resident women 2005/06 to 2007/08

	2005/06	2006/07	2007/08
% of births in MMH	91.2%	90.8%	90.6%
% of births at home	3.7%	4.5%	5.2%

Source: Acute Trust Maternity Dataset, KMPHO, 2008

The in-depth analysis of 2007/08 data indicated that women who are older or who are having their second or third child are currently more likely to give birth at home than younger women having their first child.

Medway NHS Foundation Trust supplies maternity services to the population of Swale in addition to the majority of Medway women and for women booked with this trust, the home delivery rate has fluctuated at just over 5% since 2006.

The majority of Medway women giving birth have a vaginal delivery. In 2007/08, 15% of women giving birth in Medway had an emergency caesarean section, whilst 10% gave birth by elective caesarean. This is comparable with national figures which show 25% of women gave birth by caesarean in 2007/08.[79] More recent data (April 2009 to January 2010) show that the overall caesarean section rate was 27.7% with 16.2% being emergency caesarean for maternity services provided by Medway Foundation Trust.[80]

Contraceptive Services and termination of pregnancy

Nationally roughly three-quarters of people accessing contraceptive services see a GP with the remainder attending specialist community contraception services (family planning clinics). Information on the number of people receiving consultations associated with contraception in GP practice is not routinely available. Family planning services are provided to NHS Medway by Eastern and Coastal Kent NHS Community Services (previously Eastern and Coastal Kent PCT). In 2007/08, 6,828 individuals attended Medway family planning services. Of these, the majority were in the 20-24 year age group and the contraceptive pill was the most commonly provided form of contraception.

Long acting reversible contraceptive (LARC)

Nationally approximately 4 million people use contraception services each year.[81] Despite the widespread use of contraception, unintended pregnancy is common. Contraceptive failure due to inconsistent use of oral contraception and condoms has been recorded to be the main cause of pregnancy among women undergoing termination.

LARC can be defined as any contraceptive method that requires administering less than once per cycle or month, thus reducing the need for user consistency. Included in the category of LARC are the copper intrauterine devices (nonhormonal) and three progestogen-only methods of contraception (intrauterine system, injectables and the implants).

Information on LARC prescribing locally is available via prescriptions from general practices and through family planning clinic returns. GP practices do not routinely report to the PCT or Department of Health regarding prescribing patterns for contraceptives by age, however family planning clinics do. All data presented here by age relates only to contraceptives prescribed through family planning clinics. This data should be interpreted with caution as family planning clinics may not draw their client base from an even mix of the population, making the information less generalisable.

Table 26 shows contraceptive use by age and contraceptive type, based on prescribing at first contact with a family planning clinic. A client may be prescribed more than one method at first contact, e.g. oral contraceptive and condom. Over half of all first contacts received an oral contraceptive and 20% received condoms. Condoms were more likely to be provided for contacts under 18s.

Table 26: Contraceptive type at first contact by age, Medway family planning clinics, 2007/08

Method of Contraception	Age					
	Under 18	18-19	20-24	25-34	35+	Total
Oral Combined	504	422	638	401	139	2104
Oral Progesterone Only	149	83	221	197	255	905
Cap	0	1	1	5	20	27
Intra uterine device (IUD)	2	1	27	110	119	259
Intra uterine system (IUS)	1	1	15	57	115	189
Injectable	28	27	62	68	51	236
Implant	9	9	35	48	20	121
Sheath (Male)	256	60	69	54	121	560
Sheath (Female)	220	56	100	117	135	628
Post Coital	218	62	77	61	21	439
Other	37	27	46	74	107	291
Total number prescriptions to first attenders receiving contraceptives	1424	749	1291	1192	1103	5759

Source: Eastern and Coastal Kent PCT, 2009

Table 27 presents LARC prescribing rates at first contact with family planning by age for Medway and England. Overall LARC accounted for 14% of contraceptives prescribed at first contact, lower than the national average of 21%. Though there are variations in LARC use with age, LARC prescribing in Medway was consistently lower than the national averages for each age group. These differences are particularly notable in the under 18 and 18-19 age groups where prescribing rates were nearly 3 times higher in England.

Table 27: LARC prescribing by age, Medway family planning clinics, 2007-08

Method of Contraception	Age					
	< 18	18-19	20-24	25-34	35+	Total
Medway - All LARC prescriptions at first contact	40	38	139	283	305	805
Medway – LARC as % all methods	2.8%	5.1%	10.8%	23.7%	27.7%	14.0%
England – LARC as a % of all methods	8%	15%	20%	26%	34%	21%

Source: Eastern and Coastal Kent PCT, 2009

In 2007/08, 96% of Medway practices prescribed a LARC contraceptive. A total of 4501 scripts were produced for LARC accounting for a total of 4604 items, as some scripts contain more than one item. It is not possible to relate this level of prescribing to numbers of women receiving LARC as a woman may use more than one item within the year. However applied to the Medway female population aged 15 to 44, this level of prescribing is equivalent to 86 items per 1,000 women.

Data for England show that in 2007/08 there were 1,011,325 LARC items prescribed during the year. This equates to a rate of 95.9 items per 1,000 women aged 15 to 44, a rate of approximately 10 per 1,000 higher than seen in Medway. Since 2007/08 there has been action to encourage use of LARC within Medway as part of the teenage pregnancy strategy.

Termination of pregnancy

In 2008, 1,057 abortions were performed for Medway residents. The abortion rate in Medway is significantly higher than that seen in England and across the South East Coast SHA.

Table 28: Abortion rates per 1,000 female population aged 15-44, and by specific age groups, Medway, South East Coast SHA and England, 2008

	Rate per 1,000 resident female population 15-44 yrs	Age					
		<18	18-19	20-24	25-29	30-34	35+
NHS Medway	19.9	19.9	44.0	35.3	27.6	17.7	7.2
South East Coast SHA	15.9	16.6	32.6	29.4	21.7	14.1	6.7
England	17.7	19.1	33.4	31.0	23.7	16.0	6.8

Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Infertility services

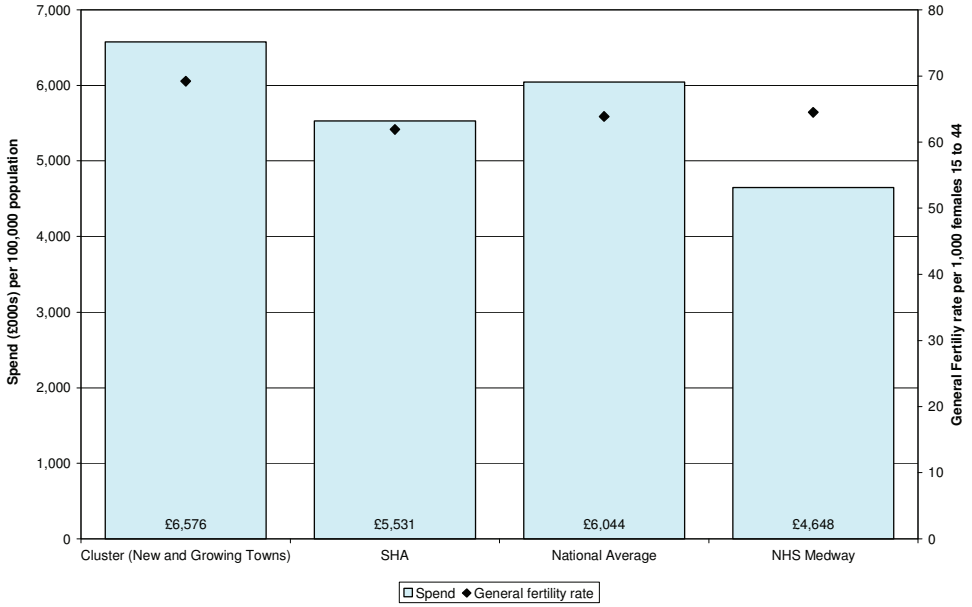
These include high cost assisted conception services. In 2008 following publication of NICE guidance, the South East Coast Health Policy Support Unit undertook a review of the availability of services for assisted conception treatment across SEC SHA and developed a policy for adoption across SEC SHA. It was recorded that NHS Medway spent £89,160 on assisted conception treatment in 07/08 and that in order to provide eligible couples the agreed level of provision across SEC, a further £279,000 would be required in 2009/10.[82]

Programme spend in 2008/09

In 2008/09 the maternal and reproductive health programme spend was £4,647,774 per 100,000 population. Nationally Medway ranks 113th out of 152 PCTs in England for spend on this programme and the spend per 100,000 population is less than the cluster average, SHA average and national average.

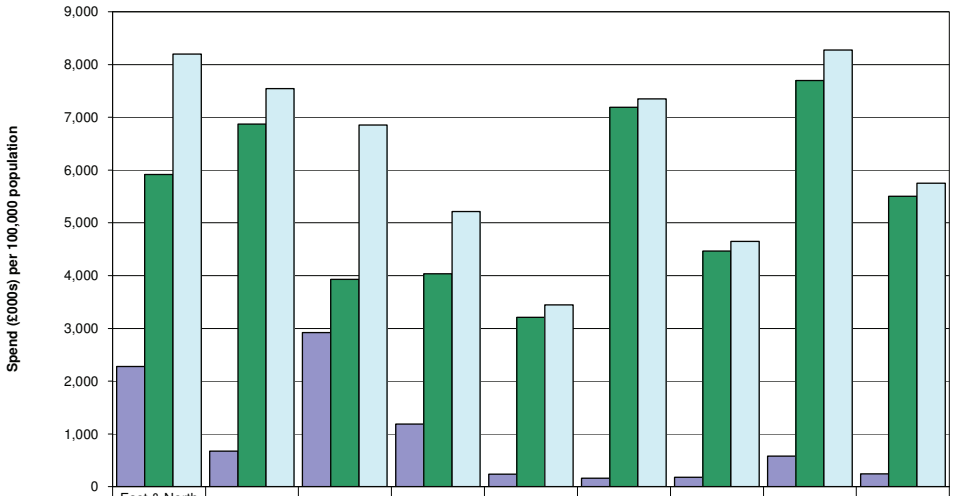
Figure 175 compares the total spend on this category with the general fertility rate for Medway and comparators. Spend in Medway is relatively low using this indicator. Figure 176 shows that the majority of the spend is on secondary care services for all of the cluster PCTs.

Figure 175: Spend per 100,000 population, Medway and comparators, 2008/09 and general fertility rate 2008: 18 maternity and reproductive health



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010, The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Figure 176: Spend per 100,000 population, maternity and reproductive health, Medway, primary and secondary care split 2008/09, compared with PCTs in new and growing towns cluster group



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	2,278	675	2,923	1,184	237	162	180	577	244
Secondary	5,921	6,874	3,933	4,032	3,209	7,188	4,468	7,699	5,506
Total	8,199	7,549	6,856	5,217	3,446	7,351	4,648	8,276	5,750

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

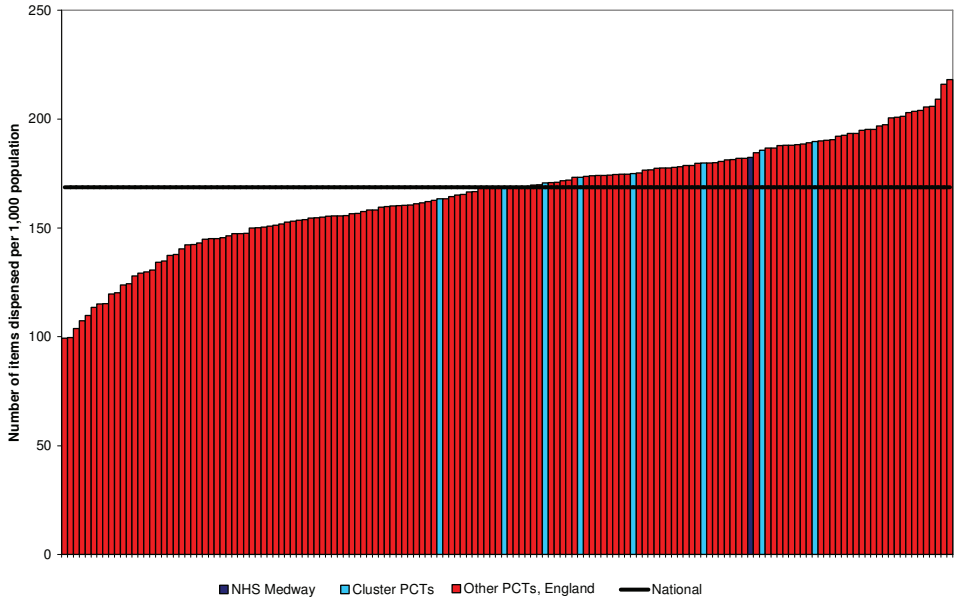
Primary care

There are no QOF clinical indicators relevant to this category of programme budgeting.

Primary care prescribing

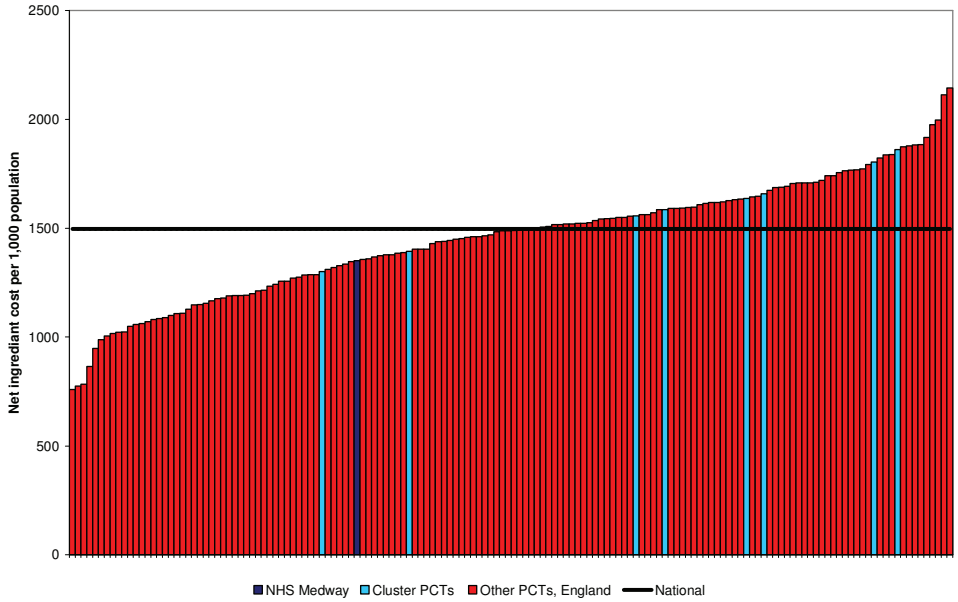
Figures 177 and 178 show that the number of items prescribed is higher than the national average but spend per item is lower than the national average.

Figure 177: Number of items prescribed maternity and reproductive health, all PCTS, England, 2008/09



Source: NHS Comparators, 2009

Figure 178: Net ingredient cost per 1,000 population maternity and reproductive health, all PCTS, England, 2008/09



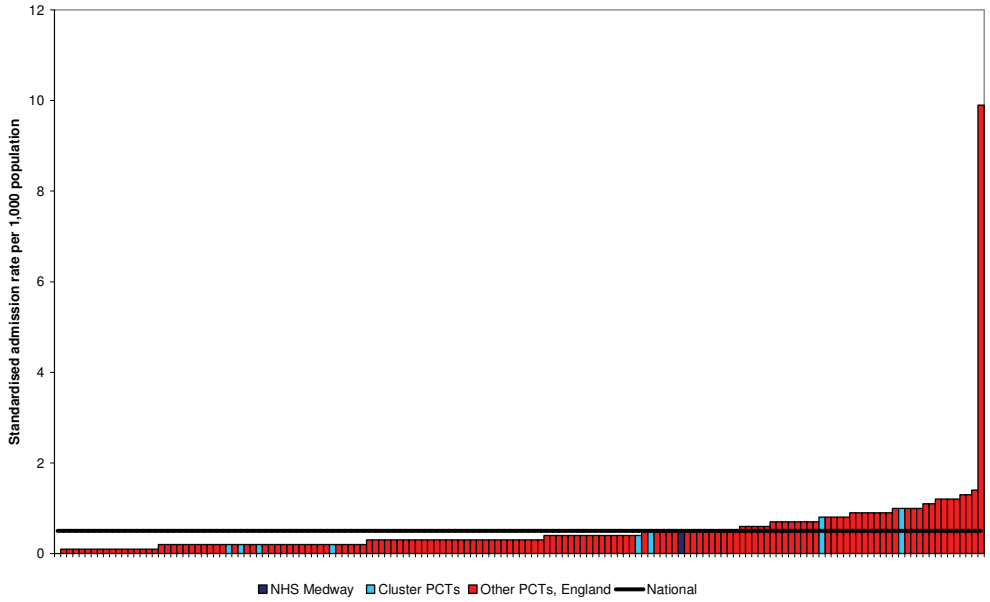
Source: NHS Comparators, 2009

Secondary care

Admissions

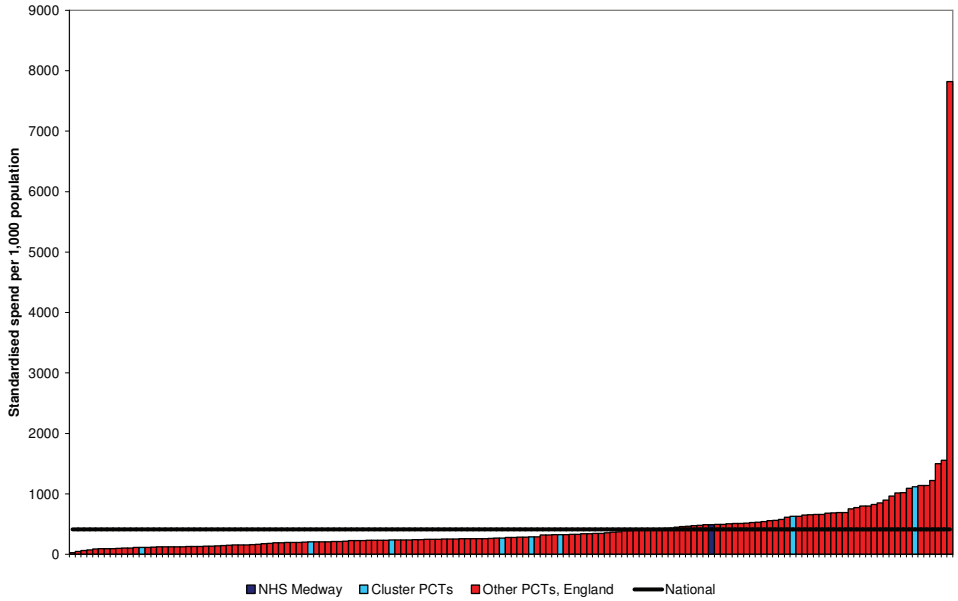
Figures 179 and 180 show that the rate of elective admissions for this programme budgeting category is low for the majority of PCTs. The rate and spend in Medway is approximately the national average.

Figure 179: Elective admissions per 1,000 population for maternity and reproductive health, all PCTS, England, 2008/09



Source: NHS Comparators ,2009

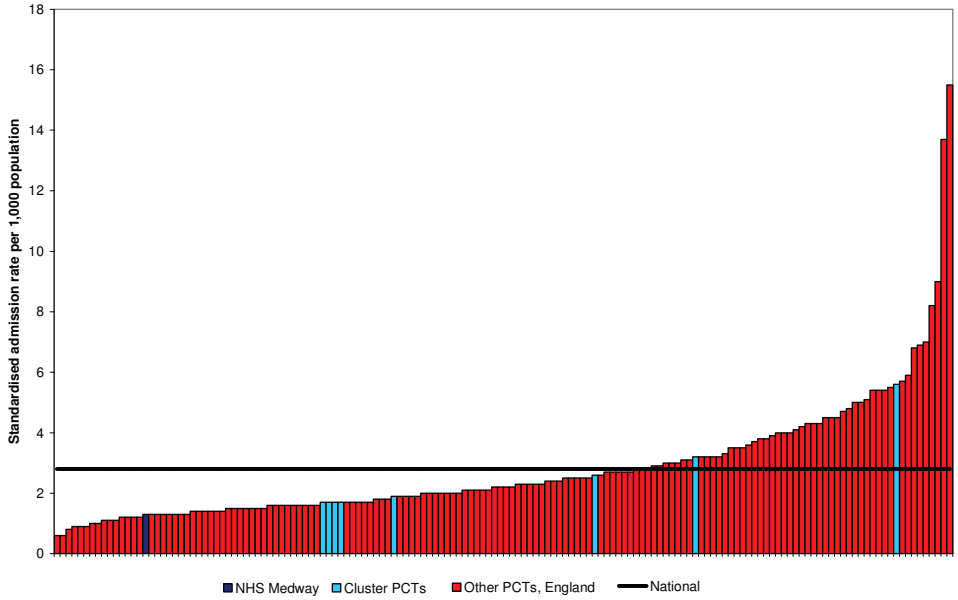
Figure 180: Elective spend per 1,000 population for maternity and reproductive health, all PCTS, England, 2008/09



Source: NHS Comparators, 2009

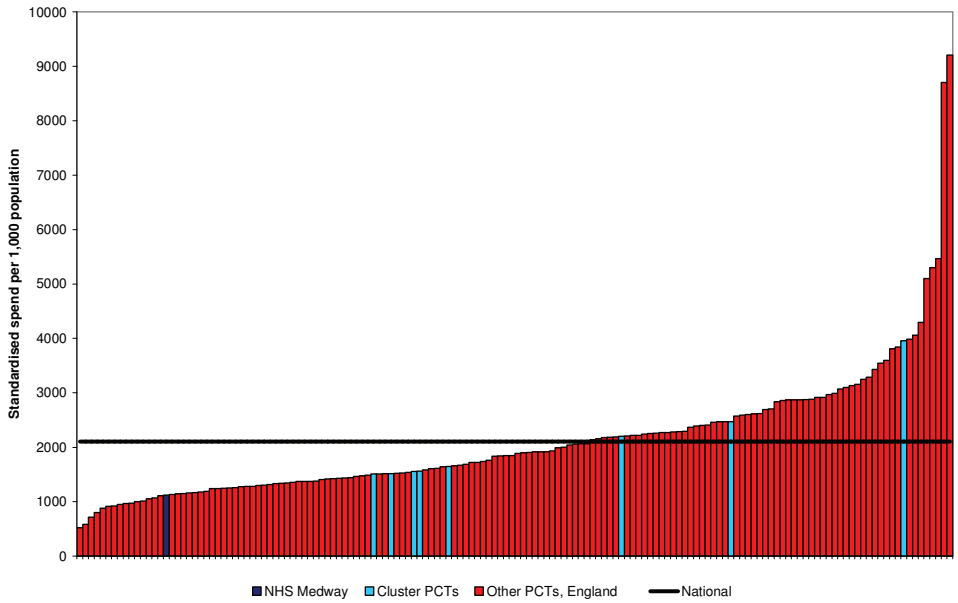
Figures 181 and 182 show that the rate of emergency admissions was also low in Medway with corresponding low spend.

Figure 181: Emergency admissions per 1,000 population for maternity and reproductive health, all PCTS, England, 2008/09



Source: NHS Comparators, 2009

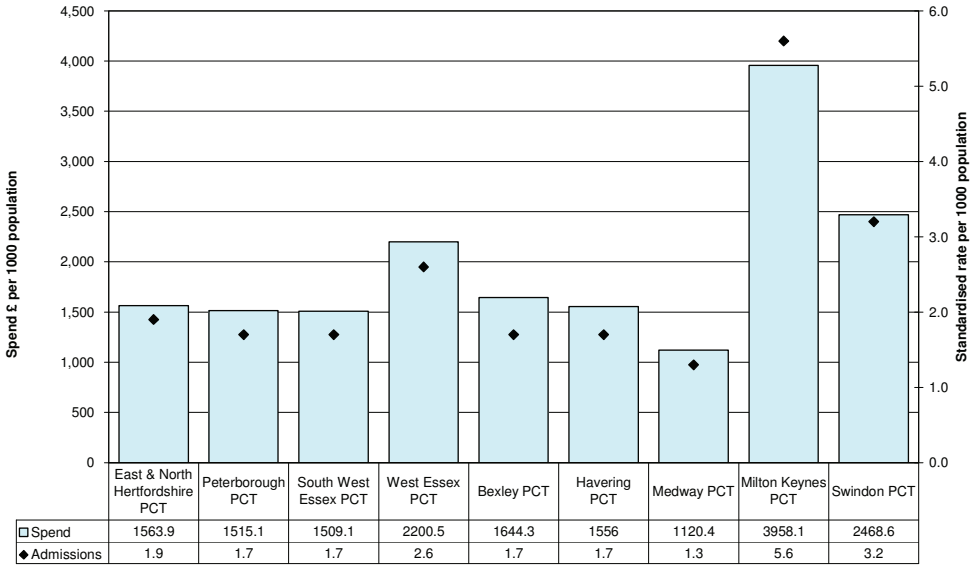
Figure 182: Spend per 1,000 population emergency admissions for maternity and reproductive health, all PCTS, England, 2008/09



Source: NHS Comparators, 2009

Figure 183 shows similar information for the new and growing town cluster.

Figure 183: 2008/09 maternity & reproductive health emergency admissions per 1000 population - spend vs. admissions



	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
□ Spend	1563.9	1515.1	1509.1	2200.5	1644.3	1556	1120.4	3958.1	2468.6
◆ Admissions	1.9	1.7	1.7	2.6	1.7	1.7	1.3	5.6	3.2

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010, NHS comparators, 2009

Conclusions

This category of programme budgeting contains treatment for a large number of different conditions related to fertility.

Several indicators suggest that the spend for maternity services should be at least at the national average e.g. the proportion of Medway's population that is of child bearing age is higher than the national average, and fertility indicators are at or above the national figure. In addition the teenage conception rate in Medway is higher than the national average and abortion rates in Medway are higher than the national and regional averages.

While it is known that more needs to be spent on assisted conception treatment, this is only in the region of £279,000, so why the spend is so low needs further investigation.

Next steps

- It is vital to continue to work towards driving a reduction in the under 18-conception rate. The Medway teenage pregnancy strategy focuses on equipping young people with the knowledge and skills they require to make safe, informed choices including offering support for parents. Ongoing work also includes targeting young people at risk of teenage pregnancy, delivering a robust media and communication strategy and providing young-person friendly contraceptive and sexual health service.

- Medway NHS Foundation Trust is recruiting additional midwifery staff to increase levels of support available to women during labour and reviewing workforce levels and skill mix to ensure that women are well supported throughout their pregnancies.

- A midwifery led birthing unit is to open within Medway NHS Foundation Trust (at Medway Maritime Hospital) to offer women greater choice in place of birth.

- Current provision of postnatal care is being reviewed to ensure women receive sufficient support in the postnatal period.

- The spend on this category needs investigation.

Chapter 13: Conditions of neonates

Background

The condition of neonates category covers care given to babies before, during and shortly after birth. This care may be supplied by neonatal medicine units, maternity units and neonatal units.

Neonatal units supply services for babies who require extra support post delivery. There are 3 levels of unit:

- Level 1 units provide special care
- Level 2 provide high dependency care
- Level 3 provide the whole range of neonatal care

All hospitals providing any level of neonatal care should be part of a managed clinical network so that babies can be rapidly transferred to a unit that provides what they need. The Oliver Fisher Unit at Medway NHS Foundation Trust is a Level 3 neonatal unit with 8 transitional care cots, 12 special care cots, 4 high dependency cots and 8 intensive care cots. In 2007/08, 219 babies born at Medway NHS Foundation Trust were admitted to the neonatal unit, this represents 5.1% of all live births at this hospital.

Neonatal care is aimed at preventing disability and death and many babies now survive who would not have survived previously because of developments in medical care. Deaths at this stage of life are usually considered in a number of different time periods:[83]

- **Still births** are deaths after 24 or more weeks of completed gestation - death may occur in utero or during labour.
- **Perinatal deaths** are deaths from the 24th week of gestation up to six completed days of life (i.e. include still births)
- **Early neonatal deaths** are deaths between birth and 6 completed days of life.
- **Late neonatal deaths** are deaths from 7 – 27 completed days of life.
- **Neonatal deaths** are deaths in the first 27 completed days of life.
- **Post neonatal deaths** are deaths at 28 days but under one year of life.
- **Infant deaths** are deaths between birth and under one year of life.

Although the above definitions are very useful when it comes to epidemiology, in terms of programme budgeting the boundaries may not be so clear e.g. if a baby requires neonatal care after 28 days of life that is best provided by a neonatal unit this continues within the unit. Very premature or sick babies may spend months in a neonatal unit rather than a paediatric ward.

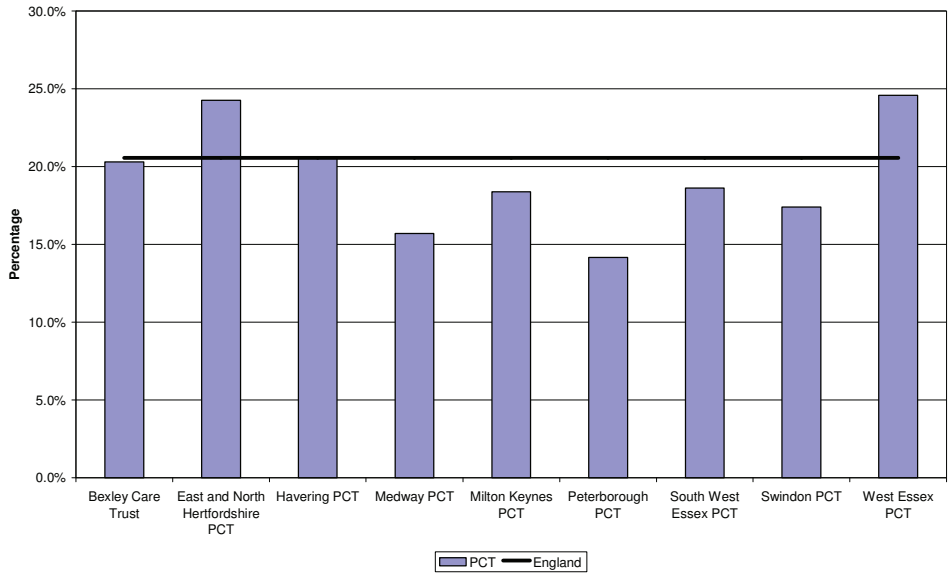
Risk factors

By definition risk factors that are associated with neonatal deaths also contribute to infant deaths. Confidential enquires into still births and neonatal deaths have been undertaken in the UK for many years and from these and research studies, there is considerable knowledge concerning the risk factors, but some of these are acknowledged to be very inter-related. They can be classified into maternal factors, child factors and the environment which includes the availability of healthcare services.

Maternal age

Mothers who are over 35 years are at increased risk of stillbirth and neonatal death compared to younger mothers, with the magnitude of the risk increasing from 40 years of age onwards. Maternal age less than 20 years has also been found to be associated with increased risk of neonatal death, although this may be partially explained by higher levels of deprivation and an increased risk for preterm delivery in these women.[84] Medway has high teenage pregnancy rates (see Chapter 12: Maternal and reproductive health), with 7.7% of all births among women aged under 19 years. Infant mortality rates are 60% higher for teenage mothers than mothers aged 20-39.[85] In 2007, 15% of all births in Medway were to mothers aged 35 or over.

Figure 184: Percentage of births to women aged 35 and over, 2007, new and growing towns cluster



Source: The Compendium of Clinical and Health Indicators © Crown Copyright, 2009

Maternal body mass index (BMI)

Maternal pre-pregnancy BMI is a risk factor for stillbirths and neonatal deaths for women who are underweight (BMI less than 18.5), overweight (BMI 25–29.9), obese (BMI 30-34.9), and very obese (BMI greater than or equal to 35) compared to normal weight (BMI 18.5-24.9).[84]

Maternal ethnicity

Non-white ethnicity has been associated with increased risk of stillbirth and neonatal death in the UK, the USA, and in Europe. Ethnicity is likely to be associated with other risk factors such as deprivation and should not be regarded as an independent variable.[84]

Mother's country of birth

Infant mortality rates are higher among babies born to mothers who were themselves born outside the UK in west and central Africa, the Caribbean or Pakistan. The proportion of births in Medway among women from these areas has increased slightly in recent years. In 2006, 9% of all births to Medway resident women were to women who were born in Africa, the Caribbean or Asia.[86]

Maternal social deprivation

Maternal social deprivation is associated with an increased risk of stillbirth and neonatal death. In 2007, nationally stillbirth and neonatal mortality rates for women in the most deprived population quintile were approximately two times higher than for women resident in the least deprived areas.[84]

Antenatal care: booking by 12 weeks gestation

The national target for England is for all pregnant women to access maternity care at around 6-8 weeks of pregnancy and book for antenatal care by 10-12 weeks – this reflects the NICE Antenatal Care guideline that antenatal booking should ideally occur by 10 weeks. In 2007, the Confidential Enquiry into Maternal and Child Health, (CEMACH), found that 49% of women who had a stillbirth and 52% of women who experienced a neonatal death booked by 12 weeks' gestation compared to 71% of women in the general maternity population booking. This suggests that booking for maternity care after 12 weeks may be more common in women who subsequently have a stillbirth or neonatal death; this may be related to issues such as maternal social deprivation and poor access to health services.[84]

Marital status

Nationally, infant mortality rates are higher in infants born outside marriage. In Medway in 2007, 49% of live births were outside of marriage, compared to 44% in England and Wales as a whole.[86]

Gestational age/prematurity

The risk of stillbirth, perinatal and neonatal death varies by gestational age for England, with babies born at less than 37 weeks gestation having an increased risk of mortality compared to term babies. In 2007, 66% of stillbirths and 74% of neonatal deaths in England, Wales and Northern Ireland were born preterm (67% and 77% respectively in 2006).[84] The causes of prematurity are complex and in many premature births are unidentifiable. However risk factors include smoking, maternal pre-eclampsia[p] (the risk of which itself is increased by obesity), cervical incompetence, multiple births, infections, a previous preterm delivery, low BMI and domestic violence. Preterm births are often low birth weight births, this being a risk factor in itself (see below). Preterm birth accounts for nearly half of neonatal mortality in England, Wales and Northern Ireland.[84]

Birth weight

Low birth weight is defined by the World Health Organisation as weight at birth of less than 2,500 grams and very low birth weight as weight at birth less than 1,500 grams. Low birth weight can be the result of prematurity or foetal growth retardation within the womb. Preterm birth, low birth weight and small-for-gestational age (SGA) births are all recognised as contributors to stillbirth and neonatal death. More recently, population-based studies in the US have shown that large babies, especially those with a birth weight greater than 4500 grams, also have a higher risk of stillbirth and neonatal death.[84]

In 2007, babies with very low birth weight (less than 1500 grams) had a neonatal mortality rate of 164.4 per 1,000 live births. For low birth weight babies (less than 2500 grams), the neonatal mortality rate was 32.5 per 1,000 live births compared to 0.8 per 1,000 live births in babies with a birth weight of greater than or equal to 2500 grams. This is similar to findings in 2006.[84]

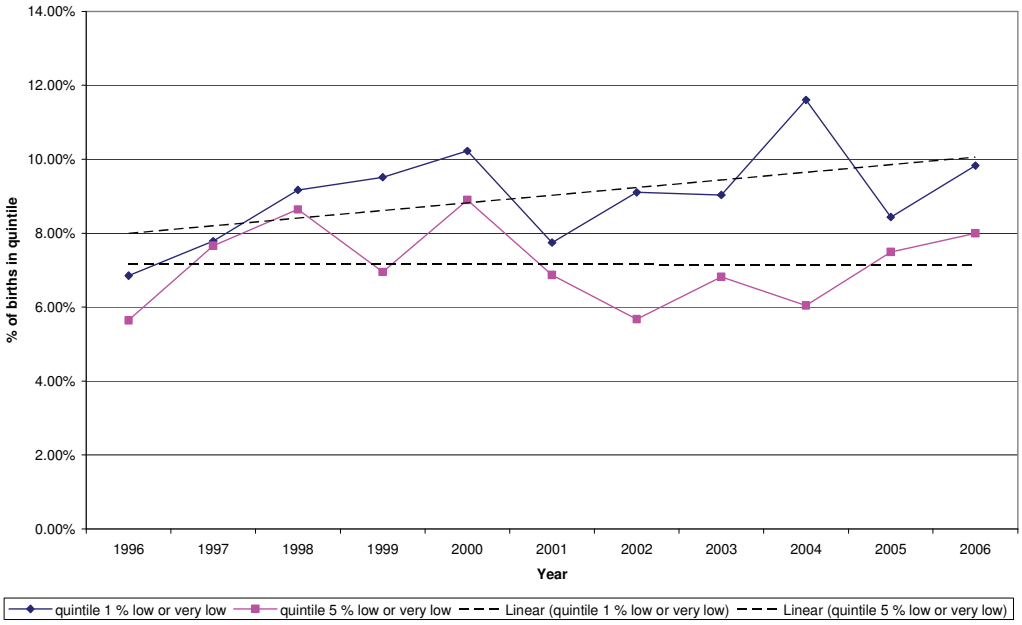
Low birth weight is also associated with inhibited growth and cognitive development, and chronic diseases later in life.[87]

Low birth weight births are more common in women from lower socio-economic groups. The chart below shows trends in the percentage of low and very low birth weight births to mothers living in the most deprived areas of Medway (quintile 1) compared to in the least deprived (quintile 5) and also

[p] A condition due to a problem with the placenta which can cause the baby not to grow adequately and affect the mother's health, requiring early induction of labour.

highlights that the proportion of births that are low or very low birthweight in quintile 1 is increasing.

Figure 185: Percentage of all births defined as low or very low birthweight, most and least deprived quintiles in Medway, 1996 to 2006



Source: Medway NHS Foundation Trust Maternity Dataset, received from KMPHO, 2008

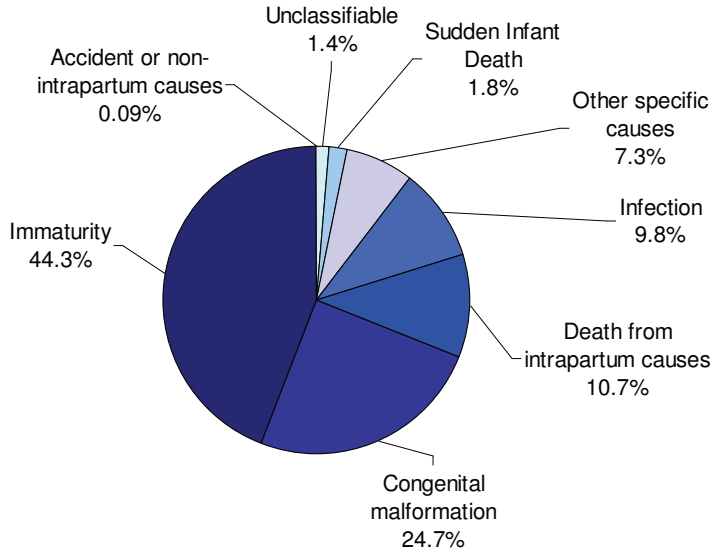
Smoking

Smoking in pregnancy has significant health consequences. Babies of woman who smoke during pregnancy are more likely to be born prematurely, have twice the risk of being low birthweight and are up to three times more likely to die from SUDI (sudden unexpected death in infancy).[85] In 2008/09, 19.33% of women in Medway were smokers at time of delivery.[20]

Causes of neonatal deaths

Figure 186 shows the most common causes of neonatal deaths.[84] The most frequent cause was immaturity (prematurity).

Figure 186: Percentage distribution of causes of neonatal deaths in England, Wales and Northern Ireland. 2007

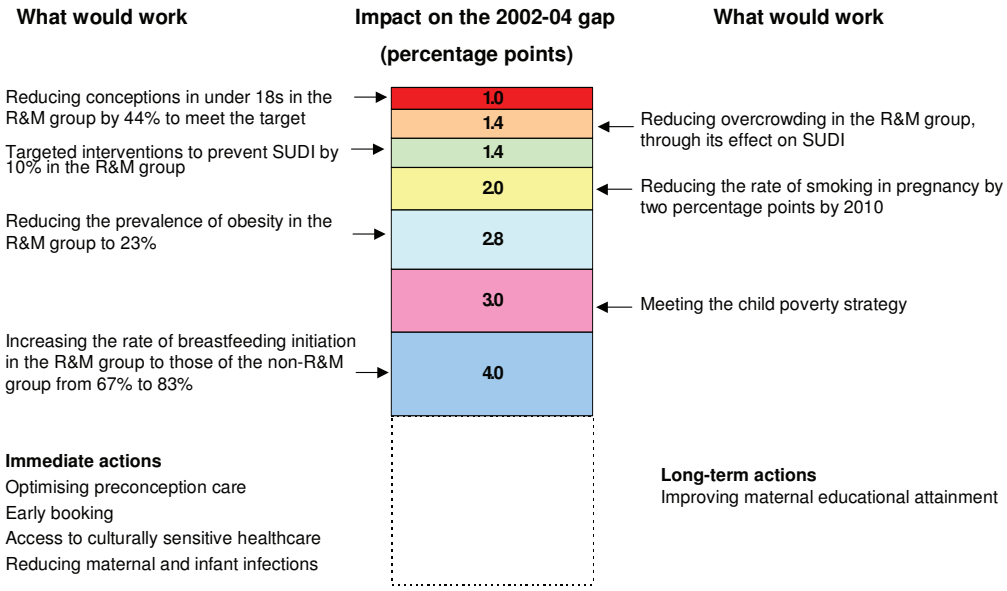


Source: CEMACH, Perinatal Mortality 2007

Prevention of infant deaths

Figure 187 shows identifiable actions which can reduce infant mortality rates by targeting modifiable risk factors. This has been produced by Department of Health's Infant Mortality National Support Team to support achievement of the national infant mortality reduction target and is based on national data i.e. is not specific to Medway.

Figure 187: Identifiable actions to reduce the 2002 – 2004 gap in infant mortality[88]



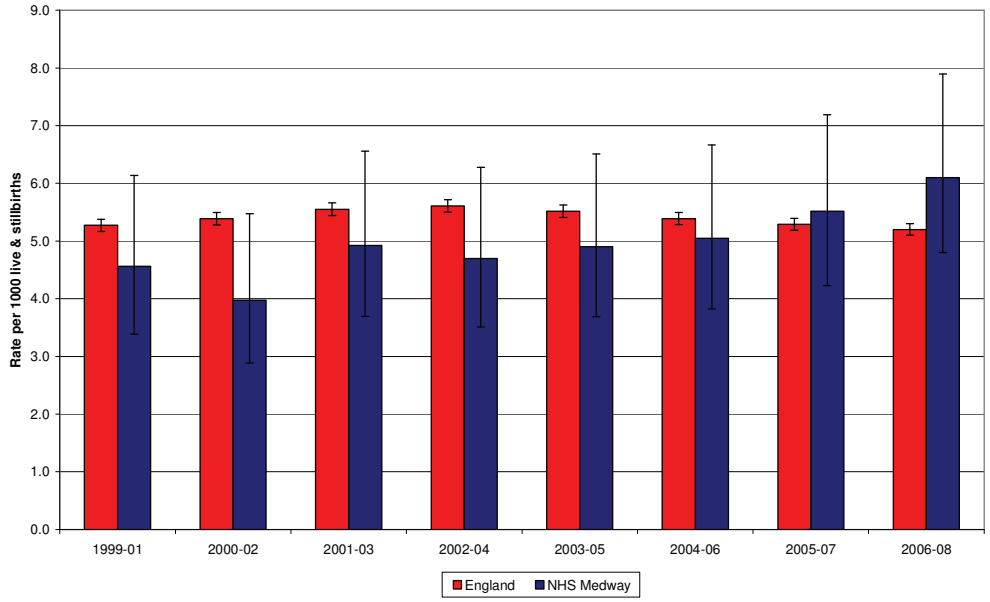
R & M: Routine and Manual groups (socioeconomic groupings)
SUDI: Sudden unexpected deaths in infancy

Source: Department of Health, 2010

Mortality

The still birth rate in Medway for 2006/08 was 6.1 per 1,000 total births. This was higher than the three year average rates for England (5.2 per 1,000 births) but not statistically different.

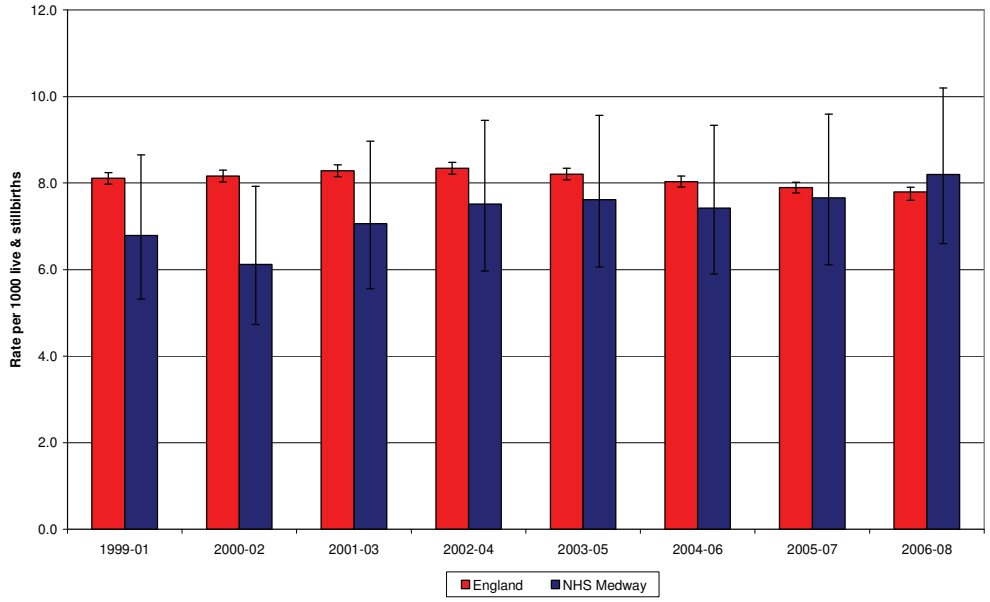
Figure 188: Stillbirth rates per 1,000 live and stillbirths, Medway and England, three year averages, 1999 to 2008



Source: Office for National Statistics © Crown Copyright, Vital Statistics 1999-2008

The perinatal mortality rate in Medway for 2006/08 was 8.2 per 1,000 total births. This was slightly higher than the three year average rate for England (7.8 per 1,000 births) again this difference was not significant.

Figure 189: Perinatal mortality rate per 1,000 live and stillbirths in Medway and England, three year averages, 1999 to 2008



Source: Office for National Statistics © Crown Copyright, Vital Statistics 1999-2008

Deaths in infancy are relatively rare events. Tables 29 and 30 show the annual number of neonatal and infant deaths in Medway since 1998 and the annual rates compared to England. The majority of deaths in the first year of life occur within the first 28 days, so a reduction in neonatal deaths will hugely affect infant mortality.

Table 29: Neonatal mortality rates per 1,000 live births, NHS Medway and England 1998 to 2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Medway number	15	9	10	5	13	14	14	7	10	10	9
Medway rate	4.8	2.8	3.2	1.7	4.2	4.5	4.4	2.2	3.1	3.0	2.6
England rate	3.8	3.9	3.9	3.6	3.6	3.6	3.5	3.4	3.5	3.3	3.2

Source: Office for National Statistics © Crown Copyright, Vital Statistics 1998-2008

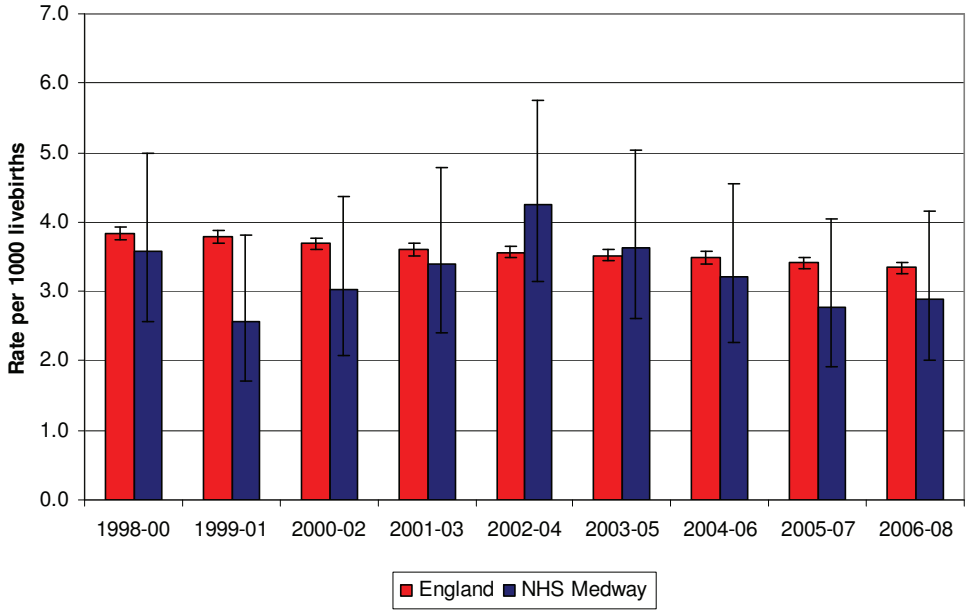
Table 30: Infant mortality rates per 1,000 live births, NHS Medway and England 1998 to 2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Medway number	18	16	16	9	25	21	24	10	13	15	12
Medway rate	5.7	4.9	4.8	3.0	8.0	6.7	7.6	3.2	4.0	4.5	3.5
England rate	5.6	5.7	5.6	5.4	5.3	5.3	5.1	5.0	5.0	4.8	4.7

Source: Office for National Statistics © Crown Copyright, Vital Statistics 1998-2008

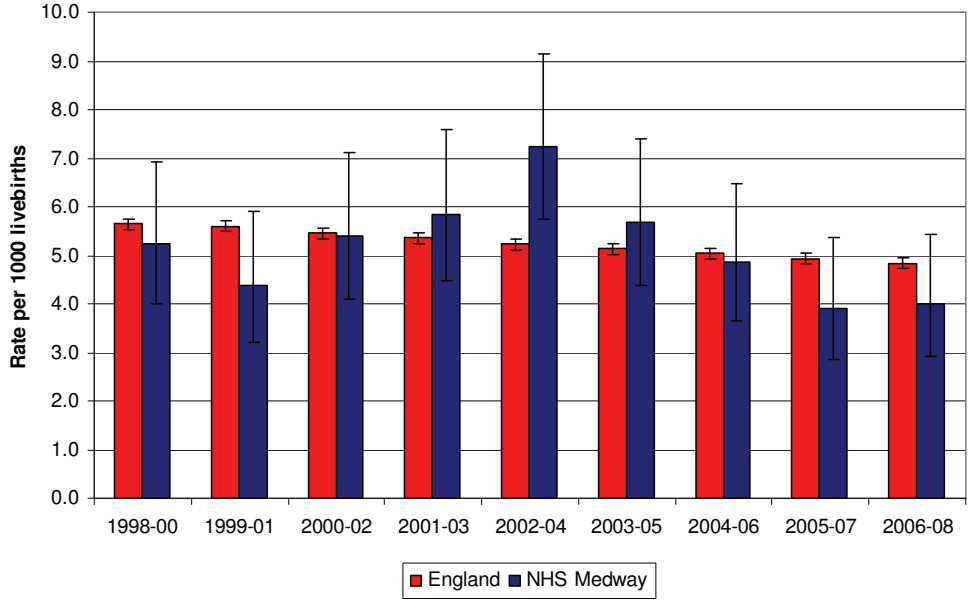
Figures 190 and 191 show neonatal and infant mortality rates in the same format as stillbirth rates and perinatal mortality rates are shown in Figures 188 and 189. Figure 191 shows that in the period 2002/2004, the infant mortality rate in Medway was significantly higher than in England.

Figure 190: Neonatal mortality rates per 1,000 live births in Medway and England, three year averages, 1998 to 2008



Source: Office for National Statistics © Crown Copyright, Vital Statistics 1999-2008

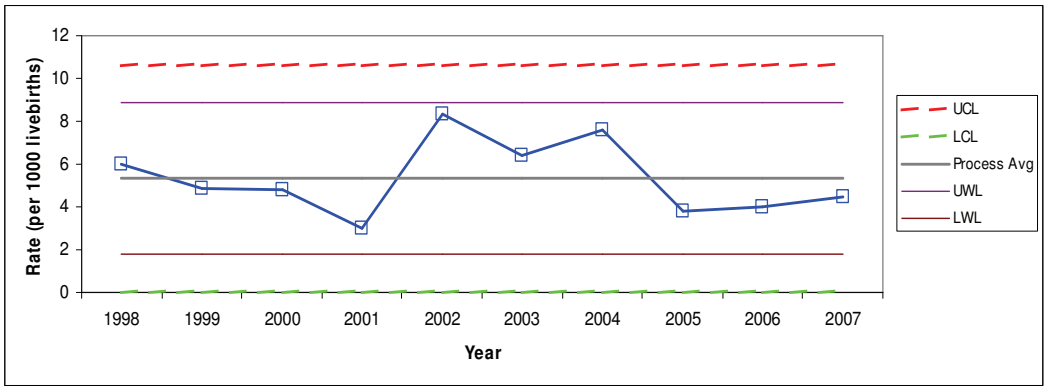
Figure 191: Infant mortality rates per 1,000 live births in Medway and England, three year averages, 1998 to 2008



Source: Office for National Statistics © Crown Copyright, Vital Statistics 1999-2008

When a statistical process control chart was constructed to investigate this (Figure 192), the annual rate infant mortality rate was within both the control levels (UCL and LCL) and warning levels (UWL and LCL) so the high rates in 2002/04 appear to be due to random variation.[q] However Medway was visited by the Infant Mortality National Support Team in October 2009 and support is being offered for the next year.

Figure 192: Variation in infant mortality rate, Medway, 1998 to 2007



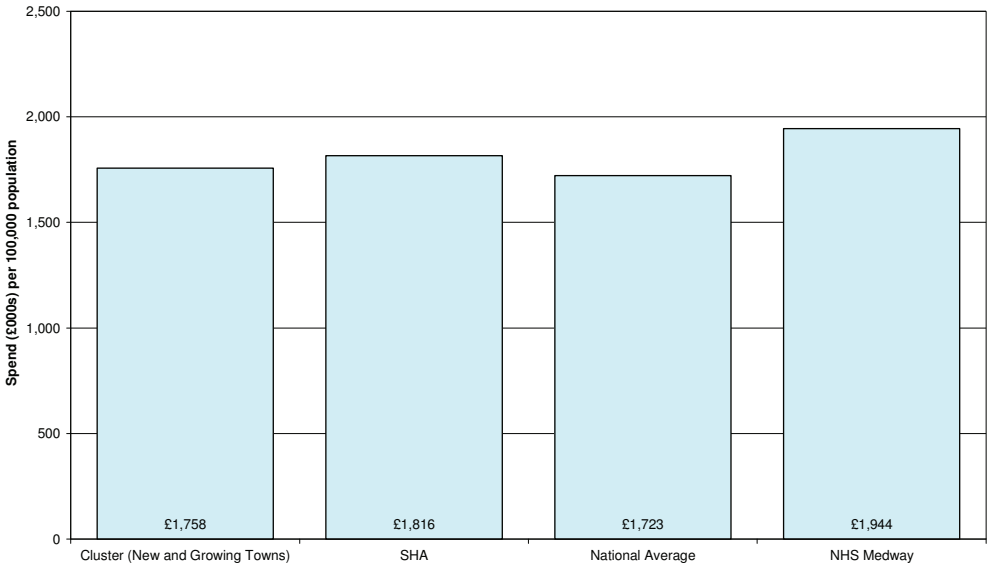
[q] **Run rules** are rules that are used to indicate out-of-statistical control situations warning limits are:
- a point lying beyond the control limits
- 2 consecutive points lying beyond the warning limits
- 7 or more consecutive points lying on one side of the mean
- 5 or 6 consecutive points going in the same direction (indicates a trend)

Most rules governing SPC charts are directed at sets of data with more observations (normally a minimum of 15) than in this chart, but none of the data points lie outside the warning/control limits so the high rates seen in the years 2002-2004 do appear to due to random variation.

Programme spend

Spend in Medway in 2008/09 was £1,943,578 per 100,000 population for conditions of neonates (ranked 48th) in 2008/09. This is higher than the levels of spend seen on average across the cluster group, SHA and England.

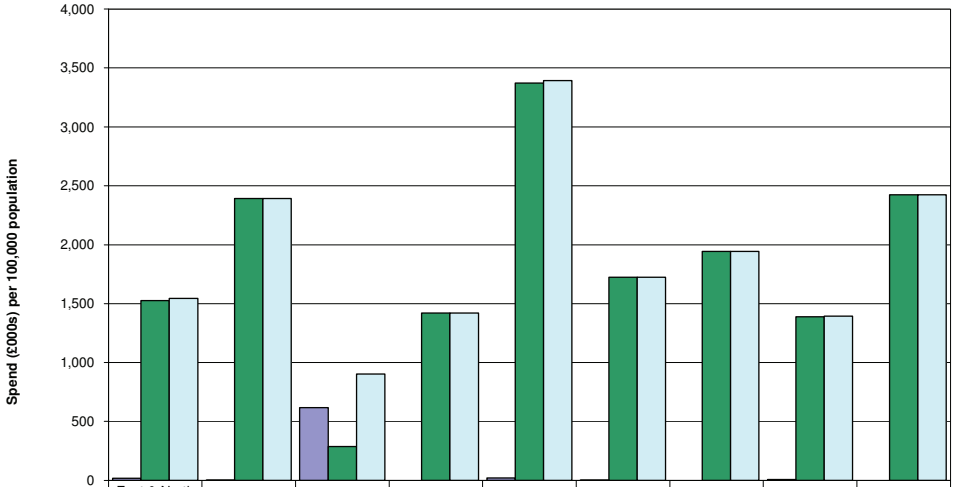
Figure 193: Spend per 100,000 population, Medway and comparators 2008/09: 19 Conditions of neonates



Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Figure 194 shows that spend in Medway, as in the majority of the cluster PCTs, was almost entirely within secondary care.

Figure 194: Spend per 100,000 population conditions of neonates, neonatal conditions, Medway, primary and secondary care split 2008/09, compared with PCTs in new and growing towns cluster group



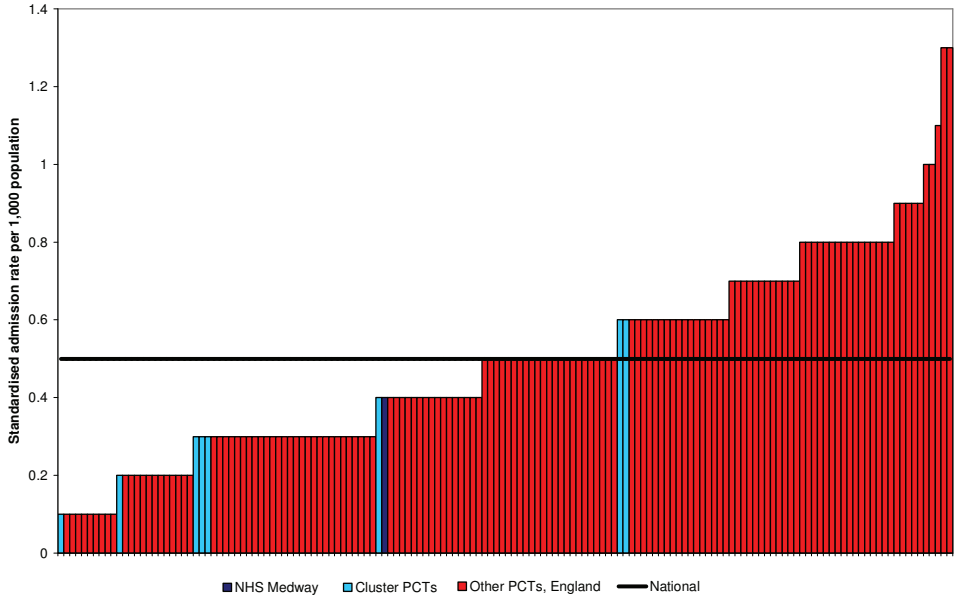
	East & North Hertfordshire PCT	Peterborough PCT	South West Essex PCT	West Essex PCT	Bexley PCT	Havering PCT	Medway PCT	Milton Keynes PCT	Swindon PCT
Primary	18	2	616	-	20	2	-	5	-
Secondary	1,527	2,391	286	1,420	3,373	1,722	1,944	1,388	2,424
Total	1,545	2,392	902	1,420	3,393	1,724	1,944	1,393	2,424

Source: Department of Health Programme Budgeting Toolkit v 1.0, 2010

Admissions

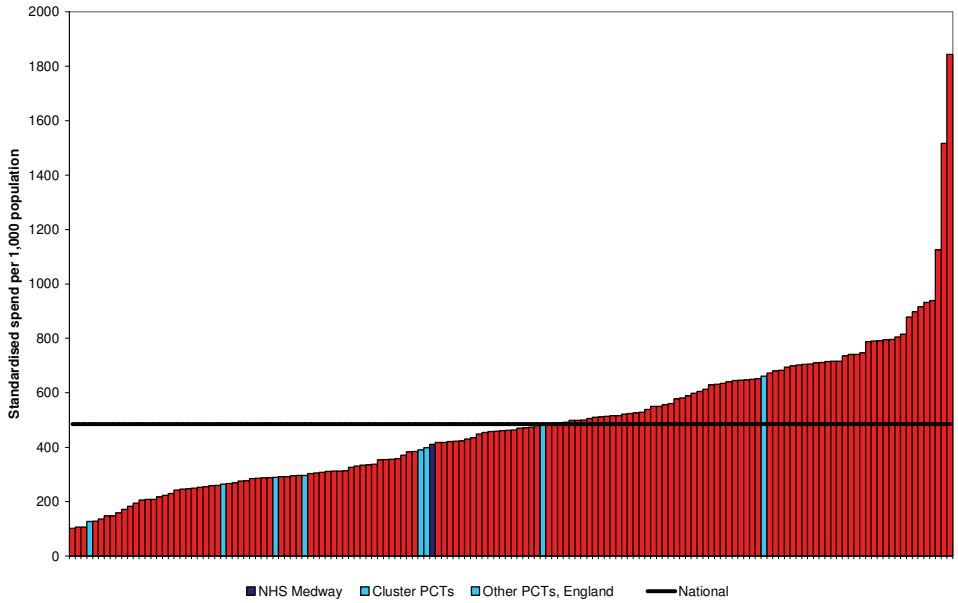
The rate of emergency admissions is low in all PCTS and Medway shows a rate and spend below the national average.

Figure 195: Emergency admissions per 1,000 population conditions of neonates, all PCTs, England, 2008/09



Source: NHS Comparators, 2009

Figure 196: Spend per 1,000 population, emergency admissions conditions of neonates, all PCTs, England, 2008/09



Source: NHS comparators, 2009

Conclusions

Prematurity, which is closely linked to low birthweight, is a major cause of neonatal death and need for neonatal care. Within Medway rates of smoking, obesity and teenage pregnancy are comparatively high and all of these increase the risk of prematurity.

There is evidence that the proportion of low and very low birthweight births occurring in Medway among women from the most deprived quintile of the authority is increasing and rates of smoking, obesity and teenage pregnancy are generally increased in areas of deprivation.

Spend on neonatal conditions is higher than the national, cluster and SHA averages but this is likely to be because of the risk factors driving rates of prematurity and low birthweight.

Next steps

- Bearing in mind the relationship between the need for neonatal care and teenage conceptions it is important to provide high quality specialist services for pregnant teenagers and their families, including the provision of specialist midwifery and health visiting care. Currently this is delivered via the Supporting Young Parents Integrated Team[r] and the Family Nurse Partnership.[s]

- Accessibility of services to support women in the most deprived quintile wards to have higher birthweight babies should be reviewed to ensure services such as Stop Smoking and Healthy Start[t] are easily accessed and utilised.

[r] The Supporting Young Parents Integrated Team including midwives, health visitors and Connexions personal advisers who provide multi-agency support to young parents and parents to be under 18 years old, addressing health inequalities.

[s] The Family Nurse Partnership is to provide intensive support for 100 first time mothers under 20 over the next three years using a evidence based programme which has been shown to significantly improve long term outcomes for families.

[t] Health Start has replaced the Welfare Food Scheme in the UK. Vouchers are provided which can be used to buy fruit and vegetable as well as milk and infant formula. Pregnant women and families with children under 4 years who are on low incomes and receive certain specified benefits are eligible. All pregnant women under 18 qualify whether or not they are on benefits.

Chapter 14: Choosing health

Background

This chapter will focus on some of the main areas of health improvement which were identified in the Choosing Health white paper.[89]

- Smoking
- Obesity and physical activity
- Alcohol
- Sexual health: focus on chlamydia screening and teenage pregnancy
- Mental health promotion: focus on wellbeing at work

Over recent years there has been considerable research into the impact of lifestyle choices on health. The scale of this impact was well illustrated by the Wanless report in 2002.[90] Essentially in order to be able to manage future demand for, and the cost of health services, the lifestyle choices of a significant proportion of the population will need to change. There is a growing body of research into the cost-effectiveness of public health interventions which could facilitate this change.

As yet, there is little specific programme budgeting information available to compare costs of preventative interventions between different areas or against related diseases. Other information sources have been used to present the available evidence on cost effectiveness of health improvement interventions to provide information on priorities for investment.

Information on lifestyle factors shows that Medway is significantly worse than the national and regional averages with respect to physical activity, obesity, smoking and eating healthily. This is reflected in the mortality data which show that Medway is significantly worse than both the national and regional averages for life expectancy in both men and women and early deaths from smoking and heart disease.

The rest of this chapter will highlight the economic costs of not improving health choices in the areas listed above and present the available evidence for cost-effectiveness of interventions. Much of this evidence will be presented in Quality Adjusted Life Years (QALYs).

Box 2: Quality Adjusted Life Years (QALYS)

A quality adjusted life year is a way of combining quality of life with length of life. One QALY is equivalent to one year in full health. The cost per QALY gained is therefore the cost of achieving one extra year of full health. It's calculation is based on the following formula:

$$\text{Cost per QALY gained} = \frac{\text{Incremental cost of intervention}}{\text{QALYs gained}}$$

$$\text{Net cost per QALY gained} = \frac{\text{Incremental cost of intervention} - \text{cost savings}}{\text{QALYs gained}}$$

Source: Health England, 2009[96]

Smoking

Smoking remains the main cause of preventable morbidity and premature death in England, leading to an estimated 83,900 deaths in 2008.[91] It is a primary reason for the gap in healthy life expectancy between rich and poor. Among men, smoking is responsible for over half the excess risk of premature death between the social classes.[92] The smoking prevalence rate for adults in Medway at 31.4% is estimated to be the highest of all local authorities in the South East.[93] It ranges from 36.4% in Gillingham North, the most deprived ward, to 16.4% in Hempstead and Wigmore, the least deprived ward. This compares with a national prevalence rate of 24% for the same time period.[93]

Economic costs

Smoking is estimated to cost the health service in the UK over £5 billion per year.[94] On a pro-rata basis, smoking related costs for the NHS in Medway would be in excess of £4 million per year. This estimate does not include other costs to government, such as payment of sickness or invalidity benefits. Nor does it include the costs to industry or to individuals who smoke. As Medway has a high smoking prevalence, the costs in Medway are likely to be higher than those estimated on a pro rata basis.

Cost effectiveness of interventions

NICE guidance states that many smoking cessation interventions are highly cost-effective. These include behavioural counselling, group counselling, pharmacotherapy, brief interventions and a combination of means.[95]

A recent Health England report[96] also highlighted the cost effectiveness of four smoking interventions. Results were given in cost and net costs per QALY. Some were national interventions and some were local. All net costs represented cost savings in the long term to the healthcare sector per QALY gained. A Public Health Interventions Cost Effectiveness Database has also been produced by Health England which identifies cost effective smoking interventions. A summary of this evidence of the cost effectiveness of smoking related interventions is set out in the tables below. QALY gain and cost saving are estimated to occur in the long run (five or more years after intervention). All interventions in Table 31 lead to a reduction in the number of smokers, less co-morbidity and more QALYs compared with no intervention. All interventions with the exception of Brief Advice (BA) plus self help materials plus nicotine replacement therapy (NRT) result in lower costs than no intervention. NICE has recorded interventions with a low cost and a low cessation rate and a higher cost and high cessation rate as dominating 'no intervention'.[95]

Table 31: Cost effectiveness of preventative smoking interventions

Compared to 'no intervention'	Effectiveness	Duration of intervention	Inc. cost	Inc. QALY	ICER
'BA'	3%	Three minutes of a GPs time.	-£12	0.01	Dominant
'BA plus self-help material'	4%	Four minutes of a GPs time; self-help material.	-£26	0.02	Dominant
'BA plus self help material plus NRT'	6%	Seven minutes of a GPs time; self-help material; NRT.	£36	0.04	£984
'BA plus self-help material plus NRT plus specialist clinic'	15%	Four minutes of a GPs time; self-help material; NRT; clinic costs.	-£115	0.12	Dominant
'LIC and bupropion'	24%	8 weeks of bupropion; self-help material; 5-10min scripted call.	-£312	0.19	Dominant
'MIC and bupropion'	31%	8 weeks of bupropion; self-help material, five calls with smoking specialist.	-£414	0.26	Dominant
'NP-GC'	21%	NRT for five weeks, five group visits.	-£196	0.17	Dominant
'NP-IC'	16%	NRT for five weeks, five clinic visits.	-£156	0.12	Dominant
'NP-NC'	12%	NRT for five weeks.	-£134	0.09	Dominant
'NP-PC'	24%	NRT for five weeks, five pharmacist consultations.	-£132	0.20	Dominant
'NP-PCBP'	35%	NRT for five weeks, five pharmacist, consultations, five behavioural clinic visits.	-£222	0.30	Dominant

BA = Brief Advice, NRT = Nicotine Replacement Therapy, LIC= Less intensive Counselling, MIC = More intensive counselling, NP = Nicotine patch, GC = Group counselling IC = individual counselling ICER = Incremental Cost Effectiveness Ratios

Source: NICE, 2007[95]

Table 32: Cost-effectiveness of smoking prevention interventions

Intervention	Cost per QALY gained	Net cost per QALY gained
Increase tax by 5% on cigarettes	£0	-£5,267
National mass media campaigns	£288	-£3,320
Brief interventions delivered in GP practices	£1,151	-£2,169
Nicotine replacement therapy	£2,388	-£993

Source: Health England, 2009[96]

An example of current return on investment calculation for a primary care trust is outlined below.[97]

Table 33: Example of a return on investment calculation for smoking interventions for a PCT

Smoking Interventions	Total investment after 5 years	Best case net saving after 5 years
• Expand current services to target deprived and hard-to-reach communities • Increase home visits to support pregnant women in their quit attempts and further develop support through midwifery services • Promote tobacco control policies in public places and workplaces, including a smoke free NHS	£305,000	£1,248,000

Source: Bernstein, Cosford and Williams 2009[97]

Services in Medway

The Stop Smoking service in Medway is delivered in a variety of settings. Medway's Vital Signs target for 2008/9 was to help 1,165 people quit at four weeks. The service achieved 1,679 four week quitters. The LAA target was to help 576 people successfully quit per 100,000 population aged 16 and over. Medway achieved 839 quitters per 100,000 (England average 813). Since 2006 the service has seen a 25% increase on the number of people successfully quitting at four weeks year on year. In 2008/9 the service achieved a 53% success rate of smokers who accessed the service quitting compared to an England average of 50%.

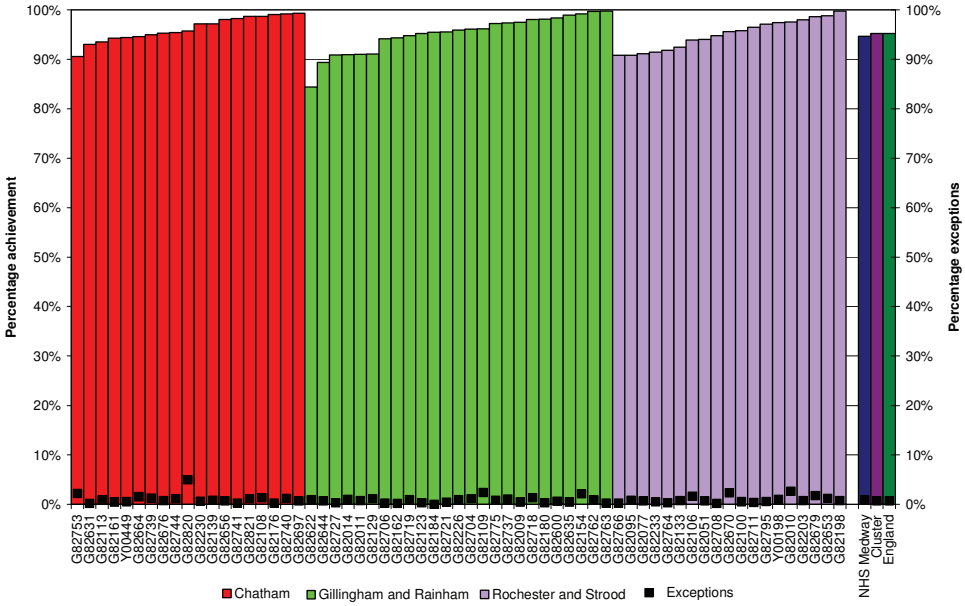
Table 34: Medway Stop Smoking Service outcomes per setting 2008/9

Setting	Clients	Quit	Success rate
Community Group	784	493	63%
GP Practice	1089	522	48%
Pharmacy	614	320	52%
Drop in Clinics	288	133	46%
Hospital/Medical Team	127	70	55%
Military	98	67	68%
Workplace	52	28	54%
Phone Support	44	22	50%
Prison	31	15	48%
GP Group	9	5	56%
Dentist	7	3	43%
Family/Couple Group	1	1	100%
TOTALS	**3144**	**1679**	**53%**

Source: Medway Stop Smoking Service

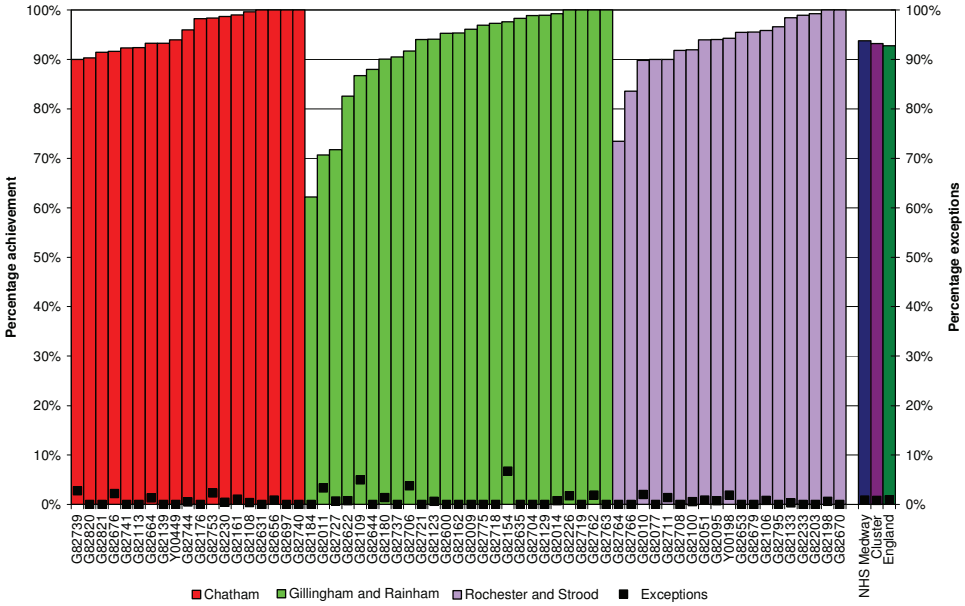
QOF data show that in Medway, the smoking status of 5% of people with one or more defined long term conditions is not recorded (Figure 197). Of those who are recorded as smokers, 94% have a record of being given smoking cessation advice however, at practice level the range is 62 to 100%.

Figure 197: Patients (%) with any or any combination of the following conditions: coronary heart disease, stroke, TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses whose notes record smoking status in the previous 15 months, by practice and PBC locality, Medway (QOF indicator smoking 3) 2008/09



Source: QOF, 2009

Figure 198: Patients (%) with any or any combination of the following conditions: coronary heart disease, stroke, TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses who smoke, whose notes contain a record that smoking cessation advice or referral to a specialist service, where available, has been offered within the previous 15 months, by practice and PBC locality, Medway (QOF indicator smoking 4) 2008/09



Source: QOF, 2009

Cost of service

On average the estimated cost in Medway per person for provision of the service is £168. The cost per successful quitter is £315.

Next steps

- Further work should be done to estimate the cost-effectiveness of delivery of the service in different settings and ensure maximum cost effectiveness.

- Most investment in smoking cessation interventions will represent savings in the longer term so this should be considered a clear priority for investment.

Obesity and physical activity

The prevention and treatment of obesity and the promotion of physical activity are central public health policy goals. Both improving dietary behaviours and increasing physical activity are important in reducing obesity.

Compared to the rest of the South East, the synthetic estimates of diet and obesity give a poor picture of Medway. Of the 67 local authorities in the South East, Medway has the sixth highest percentage (25.3%) of people that are obese and the third lowest percentage (21.8%) of adults that consume five or more fruits or vegetables a day.[93]

Economic costs

The costs of obesity are growing significantly. As well as personal and social costs such as mortality, morbidity and social exclusion there are significant health, social care and wider economy costs associated with the treatment of obesity and its consequences. The House of Commons Health Select Committee estimated that the total annual cost of obesity and overweight for England in 2002 was nearly £7 billion. £1 billion of this is attributable to health services costs alone. The total includes direct costs of treatment, the cost of dependence on benefits, indirect costs such as loss of earnings and reduced productivity. On a pro-rata basis, this would equate to a total cost of approximately £34.5 million for Medway per year, with £5 million being spent on NHS costs. If current trends continue, these numbers will increase considerably. The Foresight report estimates that by 2050 the NHS costs alone attributable to overweight and obesity would be £9.7 billion.[98] Further work done by the Department of Health in 2010 used this data to estimate local annual costs based on 2007 figures and has identified the total costs attributable to rising BMI levels in Medway as £69.6 million.[99]

The table below shows the estimated national costs of elevated BMI (£billion) from 2001-2050.

Table 35: Estimated costs of elevated BMI (£billion) from 2001/05

	2001	2007	2015	2025	2050
Extra NHS costs of elevated BMI predicted by the micro-simulation model	0	2.2	4.1	6.3	7.7
% of all overweight who are obese	33%	40%	48%	52%	66%
Predicted extra NHS costs of obesity alone	0	1.3	2.9	4.3	6.1
NHS costs of obesity alone	1.0	2.3	3.9	5.3	7.1
NHS costs of elevated BMI	2.0	4.2	6.4	8.3	9.7
Total wider costs of elevated BMI	7.0	15.8	27.0	37.2	49.9

Source: Foresight Report, 2007[98]

Cost effectiveness

The current evidence available for the cost effectiveness of obesity prevention and treatment programmes is outlined in Table 36 and shows that a range of interventions are cost effective and well below the current NICE threshold of £20,000-30,000 per QALY. National mass media campaigns and brief GP interventions to promote physical activity give a net saving overall.

Table 36: Cost-effectiveness of preventative health interventions for obesity (Cost per QALY gained)

Intervention	Cost per QALY gained	Net cost per QALY gained
National mass media campaigns	£100	-£3290
Brief GP interventions to promote physical activity	£20	-£2151
School based education	£1813	£599
Diet (23 group sessions with a dietician of 1 hour each)	£174	Not given
Behavioural treatment (14-90 minutes contact with a clinical psychologist.)	£4370	Not given
Physical activity (19 contacts of 1 hour with an unspecified health professional)	£9971	Not given

Source: Health England, 2009[96]; NICE, 2006[100]

In addition a study in the US evaluated four weight loss strategies: diet only; diet and pharmacotherapy; diet and exercise; and a combination of diet, exercise and behaviour modification.[101] The combination of diet, exercise and behaviour modification was the most effective strategy. It resulted in an incremental cost of $12,640 per additional QALY gained when compared with routine care alone. The authors concluded that a multidisciplinary weight loss programme consisting of diet, exercise and behaviour modification for overweight and obese women may be cost-effective.

With respect to interventions on physical activity and the environment, NICE guidance states interventions involving the walking and cycling infrastructure could help people to avoid long-term chronic diseases, leading to incremental cost-effectiveness ratios (ICERs) of approximately £130–£25,000 per quality of life year (QALY). When additional, short-term improvements in wellbeing are taken into account, ICER estimates range from £90–£9400.[102]

As with smoking, an example of current return on investment calculation for a primary care trust for an obesity intervention is outlined below.[97]

Table 37: Example of a return on investment calculation for locally enhanced services in primary care for obesity for a PCT

Obesity Interventions	Total investment after 5 years	Best case net saving after 5 years
• Implement locally enhanced services in primary care to target all patients with a body mass index (BMI) of over 30 or 28 with other health problems in order to - record BMI and offer advice and support for weight management - provide motivational support for behaviour change, and - follow up patients	£1,984,000	£2,183,000

Source: Bernstein, Cosford and Williams, 2009[97]

Services in Medway

Medway has a number of programmes in place to tackle obesity.

For children these include MEND 7-13 and MEND 2-4. MEND stands for (M)ind, (E)xercise, (N)utrition….(D)o it! It combines all the elements known to be effective in treating and preventing overweight or obesity in children. These include family involvement, practical nutrition education, increasing physical activity and behavioural change. MEND is a community, family based programme for overweight and obese children aged between 7-13 years and their families. MEND 2-4 is a healthy lifestyle programme for families with 2-4 year olds with no weight criteria.

For adults there is a weight management scheme, Tipping the Balance, which is a community-based clinic designed to:

- help patients work towards a healthy weight
- encourage healthy eating and physical activity
- boost the patient's self esteem and confidence

Tipping the Balance has successfully helped the majority of referred patients to change their health-related behaviour and improve their health outcomes. In the first nine months of the service operating, 50% of patients had lost 5-10% of their initial BMI. The mean weight loss as a percentage of original weight over the same period was 7%.

By reducing their weight by 5 -10%, obese individuals significantly reduce their blood pressure and the risk of developing Type 2 diabetes and coronary heart disease.[103]

Table 38: Health benefits of 10% weight loss

Condition	Health Benefit of 10% Weight Loss
Mortality	• 20-25% decrease in overall mortality • 30-40% fall in diabetes related deaths • 40-50% fall in obesity related cancer deaths
Diabetes	• Up to 50% fall in fasting blood glucose • Over 50% reduction in risk of developing diabetes
Lipids	• 10% fall in total cholesterol • 15% fall in LDL • 30% fall in triglycerides • 8% increase in HDL
Blood pressure	• 10mmHg fall in diastolic and systolic pressures

Source: Department of Health, 2008[103]

In addition, other activities include developing volunteer led walks, an exercise referral scheme, workplace health programmes, supporting delivery of public health interventions in children's centres and supporting breastfeeding.

Costs of services

There is no benchmarking information to compare with costs of local services. MEND 7-13 and MEND 2-4 cost £160 per participant per course.

Next steps

- Further work could be done to cost and evaluate local services in order to increase efficiency.

- Investment in obesity interventions highlighted above is either cost saving or well within the NICE guidelines for effective intervention £25,000-£30,000 per QALY. Investment in this should be prioritised to reflect cost effective interventions.

Alcohol

The physical and mental health consequences of alcohol misuse can be devastating for affected individuals and their families, but the socio-economic cost of alcohol is equally important.

Alcohol leads to a range of public health problems. Acute conditions, such as alcoholic poisoning, violence and accidents as well as the more chronic effects, such as pancreatitis, chronic liver disease and stomach cancer all lead to reduced health and wellbeing and at worst, loss of life. Alcohol affects all of society, from the burden on the NHS in terms of hospital admission and treatment in primary care, the economic burden due to loss of employment and reduced capacity to work, through to other negative effects of alcohol on the social and behavioural welfare of communities.

Alcohol indicators are either entirely related to alcohol (alcohol-specific) or are influenced in part by alcohol (alcohol-attributable). Thus, all cases of alcoholic liver disease, mental/behavioural disorders due to alcohol and alcoholic poisoning are alcohol-specific. However, accidents, assaults, road traffic accidents, certain cancers, heart disease, and spontaneous abortion can be attributed to alcohol for a proportion of cases. In those aged less than 35 years, deaths are most likely to occur from the acute consequences of alcohol consumption, in particular, intentional self-harm and road traffic accidents. Beyond the age of 35, liver cirrhosis, malignant neoplasm of the oesophagus and breast, and hypertensive diseases are the most common causes of death attributable to alcohol.

Excessive alcohol consumption is associated with between 15,000 and 22,000 premature deaths annually. In 2007 the total number of deaths that were directly attributable to alcohol in England and Wales represented an increase of 19% since 2001.[104] For men, the rate of death due to alcohol increased from 9.1 per 100,000 population in 1991 to 18.7 in 2008. For women, the rate increased from 5.0 to 8.7 deaths per 100,000 over the same period, a rise of around 80%.[104] In Medway, alcohol specific mortality for women has increased significantly since 2004 on par with regional and national levels. Male specific mortalities also follow national trends and are significantly higher than for women.

Box 3: The World Health Organisation (WHO) classifications for problem drinking.

- ***Hazardous drinking*** refers to alcohol use that increases the risk of harmful consequences of any kind to the user.
- ***Harmful drinking*** refers to alcohol use that causes damage to health, either physical or mental.
- ***Mild or moderate dependency*** describes drinking which is characterised by increased tolerance and withdrawal and impaired control over drinking, though probably not at the stage of drinking to abolish or alleviate profound withdrawal symptoms.
- ***Binge drinking*** is defined as drinking at least twice the daily recommended amount in a single drinking session, and the risks concerned can be related to crime and disorder as well as directly to the person's health.
- ***Severe dependence*** describes chronic and damaging alcohol use and often involves abnormal tolerance and profound withdrawal symptoms (on occasions life-threatening).

Table 39 shows an estimate of the number of problem drinkers in Medway from a 2009 local report,[105] based on an adult population of 199,700.

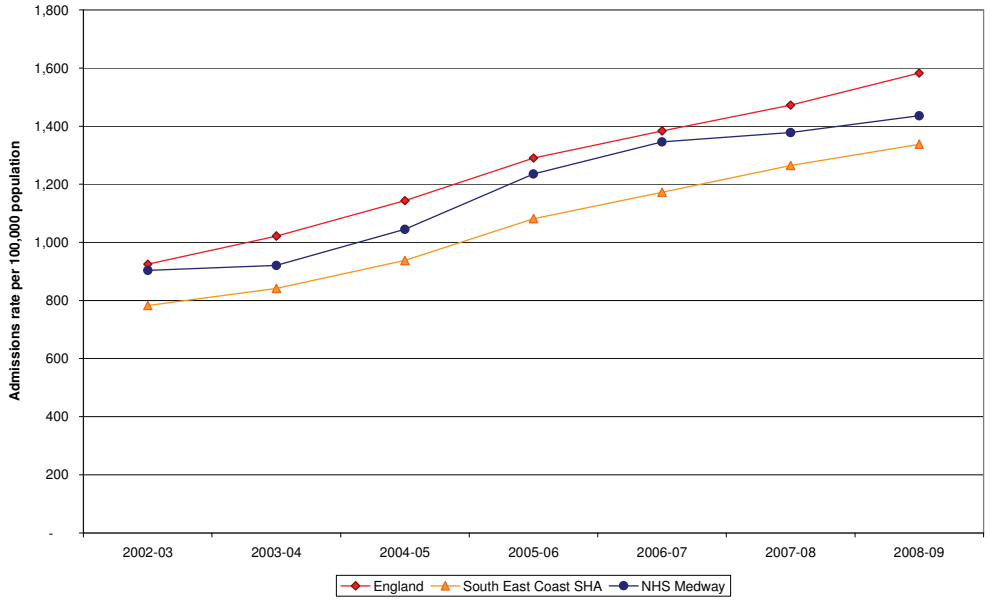
Table 39: Estimate of the number of problem drinkers in the adult population of Medway, 2009

	Percentage of adult population	Estimated numbers of 'problem' drinkers
Harmful drinkers	5.2	10,384
Hazardous drinkers	19.3	38,542
Binge drinkers	16.1	32,151
Dependent drinkers	5.9	11,782
Moderate dependence	0.4	799
Severe dependence	0.1	200

Source: Report on the Maidstone and Medway Community Alcohol Pilot Service - MMCAPS[105]

Alcohol-related hospital admissions have more than doubled in the last 10 years nationally. Medway's alcohol related hospital admissions for 2007/08 are lower than the England average but higher than the regional average.

Figure 199: Comparative rates of alcohol admissions to hospital 2002/03 to 2008/09



Source: North West Public Health Observatory, Local Alcohol Profiles for England, 2009

Economic costs

Alcohol misuse is estimated to cost the UK wider economy £20 billion per year (The National Alcohol Strategy).[106] This equates to in excess of £82 million in Medway per year.

If work done in other areas on the cost of alcohol related admissions is used to provide a percentage estimate for Medway, the estimated cost would be £1.28 million per year. This work has not included the costs associated with Accident & Emergency (A&E) attendance and estimates suggest that 35% of these attendances are alcohol-related. Furthermore neither the costs for community alcohol services, general practice and outpatients nor the wider social costs of alcohol misuse such as family breakdown and domestic violence have been included.

Reducing alcohol consumption in Medway could lead to a large reduction in the number of hospital admissions for the conditions outlined in this report. This would lead to substantial cost savings for the PCT and significant health and socio-economic benefits for the Medway population.

Cost Effectiveness

Table 40: Cost-effectiveness of preventative health interventions for alcohol (Cost per QALY gained)

Intervention	Cost per QALY gained	Net cost per QALY gained
Increase tax on alcohol by 5%	£0%	-£5,267
Brief interventions delivered in GP practices	£4,507	-£750

Source Health England 2009[96]

As with smoking, an example of current return on investment calculation for a primary care trust for alcohol services in primary care is outlined below.[97]

Table 41: Example of a return on investment calculation for alcohol services in primary care for obesity for a PCT

Alcohol Interventions	Total investment after 5 years	Best case net saving after 5 years
• Provide screening of patients in primary care and appropriate advice for those with excessive drinking levels • Provide brief interventions and facilitate behaviour change in those drinking at hazardous levels • Refer to specialist treatment services as appropriate	£812,000	£3,349,000

Source: Bernstein, Cosford and Williams 2009[97]

Services in Medway

In Medway, treatment for alcohol misuse and dependence is provided by Kent and Medway NHS and Social Care Partnership Trust, a service providing community alcohol detoxification and key working, and Equinox, which provides a counselling service including floating support provided by Supporting People. Bridge House (located in Dartford) provide beds for in-patient detoxification services (one bed commissioned for alcohol dependent clients in Medway). The substance misuse treatment services in Medway (Kent Council for Addiction (KCA), Turning Point and CRI) provide some alcohol support as part of a poly-substance misuse provision. KCA were commissioned to provide an Alcohol Treatment Requirement (ATR) pilot in November 2008. A Maidstone and Medway Community Alcohol Pilot Service (MMCAPS) was commissioned in 2007 providing a full range of tier 3 services for problem drinkers and carers including assisted community detoxification, some tier 2 (advice and information and brief interventions) and access to tier 4 (inpatient detoxification).

Young People can access alcohol treatment through KCA Young People Services at the Sunlight centre (Gillingham). KCA work with all forms of illegal substance misuse though a significant proportion of their clients are alcohol specific.

Cost of services

NHS Medway has contributed approximately £450,000 to alcohol specific treatment services in 2009/10 and may invest a similar amount in 2010/11. The PCT funds a bed within the inpatient detoxification unit which is also available to drug users.

Regional comparisons on alcohol spend do not currently exist. The ANARP (Alcohol Needs Assessment Research) project estimates national spend to be £217 million compared to £400 million for drugs.

Next Steps

There is a need to focus on work that enables early detection and helps prevent the onset of alcohol related harm. Specifically the evidence for the effectiveness of alcohol screening and interventions within A&E shows that heavy drinkers who receive brief interventions in primary care or hospital are twice as likely to moderate their drinking.

The Medway Alcohol Strategy includes the following key recommendations:

- Training for primary healthcare staff for screening and delivering brief interventions opportunistically for harmful drinkers.
- Identify the opportunities for delivering brief interventions in A&E, primary care and other settings e.g. Police Station, Youth Services.
- Evaluate evidence and identify gaps in data to inform local commissioning of appropriate treatment for adults (brief interventions and structured psycho social counselling).
- Review and where appropriate implement recommendations of MMCAPS and ATR pilot evaluations.
- Identify the best model for prescribing options.
- Develop system for identifying and treating hazardous drinkers within criminal justice system.

Sexual health: Chlamydia screening

Chlamydia is the most commonly diagnosed sexually transmitted bacterial infection in the UK and numbers of diagnoses have been increasing year on year. The infection is often symptomless, left untreated it can lead to pelvic inflammatory disease (PID) and infertility in women. Chlamydia is preventable, with the key primary prevention methods of safe sexual practices and the use of condoms promoted as part of sexual health and teenage pregnancy prevention strategies.

In 2003 the Department of Health launched the National Chlamydia Screening Programme (NCSP) which is overseen by a national team within the Health Protection Agency and delivered locally by the 152 Primary Care Trusts (PCTs) in England. The programme aims to identify, treat and control the infection in young people aged under 25. This programme was started as an opportunistic screening programme rather than having a call and recall system as used for other screening programmes.

Cost effectiveness

Several systematic reviews have been carried out regarding the cost effectiveness of Chlamydia screening. The majority of the published studies suggest it is a cost effective intervention with screening paying for itself within four to five years. However almost all these studies have been based on static models of effect which do not take into account issues of re-infection and levels of partner notification.

Four studies using dynamic models that attempt to take the effects of re-infection and partner notification into account were identified,[107,108, 109, 110] two of which were carried out as part of the Chlamydia Screening Studies (ClaSS) project after the implementation of screening in England.

Adams et al considered the cost effectiveness of the English programme specifically. This study predicted that in the absence of a screening programme, assuming a pelvic inflammatory disease (PID) progression probability of 10% there were on average 1392 major outcomes e.g. cases of PID and 65 QALYs lost over 10 years.[108] Following modelling of a range of possible screening strategies it was concluded that none of the proposed strategies were cost saving. NICE appraisal guidelines suggest interventions with a cost per QALY greater than between £20,000 and £30,000 would be unlikely to be accepted on cost effectiveness grounds. The study concluded that the current NCSP strategy compared with no screening would meet these cost effectiveness criteria, with a cost per QALY of £27,000 when PID progression is 10%.

The study also concluded that the current screening strategy could be made more cost effective if acceptability of the test were increased as the overall cost of the programme is affected by those that do not take up the screen as well as those that do and are subsequently treated. Increasing levels of partner notification also have the potential to increase cost effectiveness. This is because these two factors add little additional cost but could bring about greater benefits from the programme overall.

The 2009 National Audit Office report for the House of Commons Committee of Public Accounts[111] concluded that so far the programme had not demonstrated value for money and the freedom given to local PCTs to develop their own programmes had meant that there had been much duplication of effort across the country. The report stated that in order to achieve a significant impact on the prevalence of chlamydia, annual testing of 26-43% of the target population of young people with robust contact tracing and treating of partners is required. Nationally in 2008/9 the average cost per test delivered under the programme was £56 with wide variability across the country indicating that efficiency gains could be made. The National Audit Office estimated that as the programme developed this could be reduced to £33 per test.

Table 42: Cost-effectiveness of Chlamydia screening (cost per QALY gained)

Intervention	Cost per QALY gained	Net cost per QALY gained
Opportunistic Chlamydia screening in antenatal, abortion, colposcopy and family planning clinics.	£892	£370

Source: Health England, 2009[96]

Medway chlamydia screening programme

Following its launch nationally in 2003, the programme was rolled out in three phases. NHS Medway was part of phase three and in 2006, in conjunction with West Kent PCT, commissioned Kent Health Protection Agency to deliver the programme. In October 2009 NHS Medway de-commissioned the service and transferred the staff to the Public Health Directorate.

In 2007 chlamydia screening became a PCT Vital Signs indicator with a phased target commencing in 2007/08 with 15% of the population aged between 15 and 25 to be screened, increasing to 17% in 2008/09, 25% in 2009/10 and finally 35% in 2010/11.

Whilst NHS Medway has not yet achieved the national target, there has been a year on year increase. In 2007/08, 4.8% were screened, in 2008/09 14.9% and unpublished data at the end of quarter three 2009/10 indicated if current uptake continues approximately 23.5% of the population will have been screened by the end of 2009/10.

In 2008 a web site (www.whatsinyourpants.co.uk) for young people in Medway and West Kent to access information and request a postal test was established. This investment allowed a subsequent 'mail out' in 2009 to invite young people to request a postal kit. This increased the number screened in 2008/09 by 1500.

A Local Enhanced Service (LES) was agreed with general practices and pharmacies in 2009. This has encouraged primary care staff to offer screening with a tariff attached for each result generated. Pharmacies received an additional payment for every young person who receives treatment.

Chlamydia screening has always been available through Contraceptive and Sexual Health services (CASH) but the introduction of a Chlamydia audit card to the notes increased the awareness of staff and the number of young people offered screening. The transfer of staff to NHS Medway has increased local capacity to support primary care and CASH and in addition outreach services have been developed which enable attendances at university events, integration with the Student Health Service and joint working with Youth Service campaigns.

Locally Medway is achieving the programme's quality assurance standards for treatment of positive clients and for partner notification.

It has been difficult to assess costs per test for Medway for the last year as the local programme has undergone significant change. Estimated costs based on achieving the 25% target work out at £19 per test (not including lab costs and consumables which are included in the laboratory block contract). This cost decreases as the number of screens increases. A screen generated by primary care services costs an additional £10 due to the LES payment. However, it will be important in the next year to assess full costs per test in order to ensure that the programme meets national efficiency standards.

Next Steps

In order to ensure that the programme is cost effective

- The local programme needs to achieve between 26-43% coverage of the target age group.

- The national programme standards for treatment of positive clients (95%) and partner notification (three attempts) needs to be maintained.

- The average cost per test (including all costs) should not be more than £33.

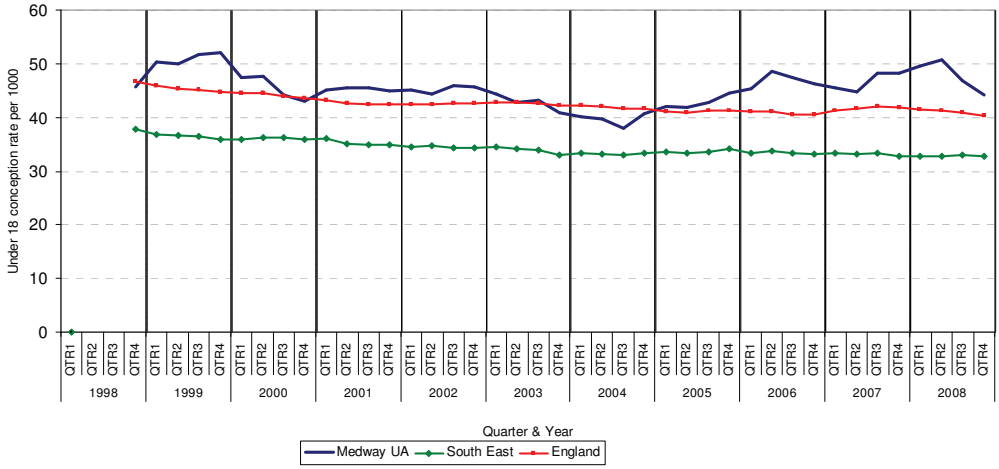
Teenage pregnancy

Reducing teenage conceptions is a key priority within Medway. The reasons for tackling teenage pregnancy and supporting teenage mothers and young fathers are well documented and include health and wider inequalities issues.[112,113] Babies born to teenage mothers have a 60% higher infant mortality rate and a 63% increased risk of being born into poverty compared to babies born to older mothers.[114] Children born to teenage mothers do less well at school and disengage early from learning sometimes well before they have finished compulsory education. Daughters of teenage mothers are twice as likely as daughters born to older mothers to become teenage mothers themselves. Similar disadvantages affect young fathers.[113]

Teenage pregnancy in Medway

The UK has the highest under-18 conception rate in Western Europe. Rates in Medway are above average nationally and regionally, although the difference with the national figure is not statistically significant. The latest data for 2008 show a decrease in rate from the 1998 baseline of 4.4%. Medway's teenage pregnancy target is for a 50% reduction by 2010.

Figure 200: Quarterly teenage conception rates per 1,000 girls aged 15 to 17, 1998 to 2008



Source: Office for National Statistics © Crown Copyright, 2010

In 2008 there were 238 under 18 conceptions. A reduction of 115 conceptions per annum is required to reach the target rate of 23.1 conceptions per 1,000 population of females aged 15 – 17 years.

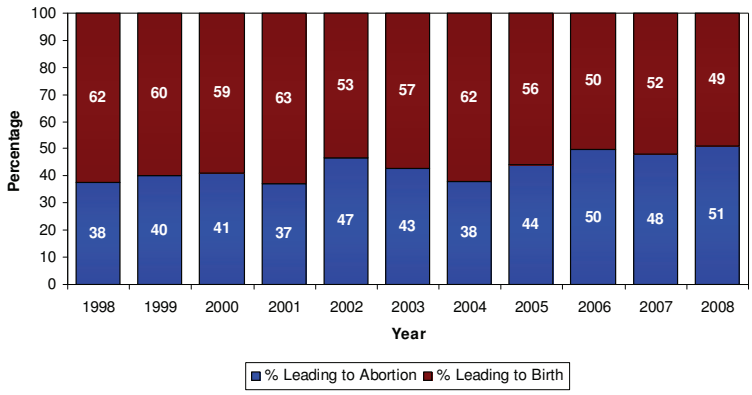
Table 43: Teenage pregnancy conception rates

Medway Towns UA	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Target Number 2010*	Reduction required 2010*
U18 conception numbers	212	249	215	232	236	213	218	240	248	258	238	**123**	**115**
% Leading to abortion	38%	40%	41%	37%	47%	43%	38%	44%	50%	48%	51%		

Source: Office for National Statistics © Crown Copyright, 2010

In terms of outcomes, the figure below indicates that 51% of under 18 conceptions lead to a termination of pregnancy in 2008.

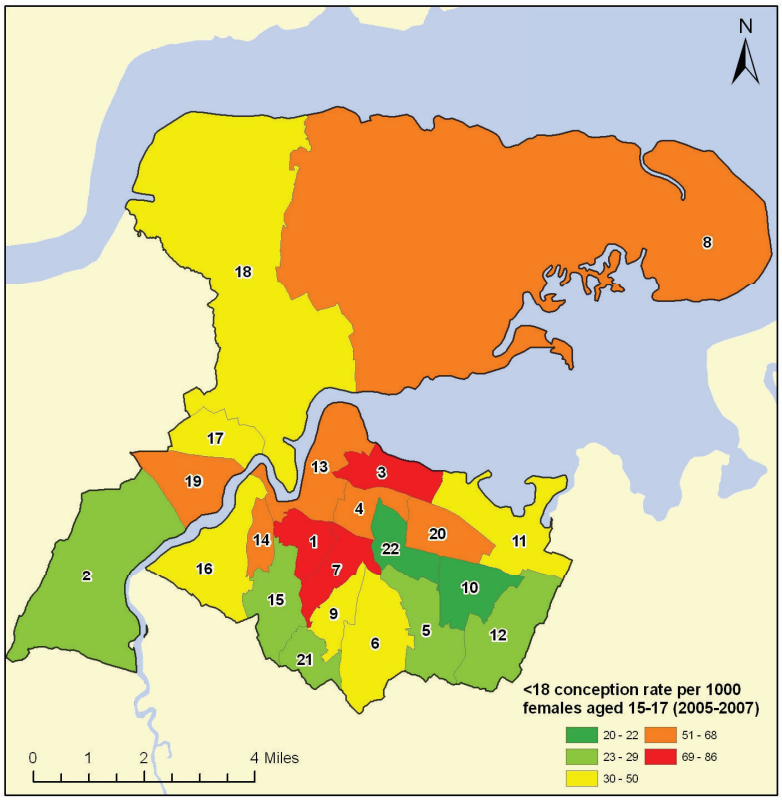
Figure 201: Under 18 conception trend by outcome, 1998 to 2008



Source: Medway Teenage Pregnancy Board Report, March 2010

Under 18 conception rates vary considerably across the wards in Medway (Map 7). Generally, teenage conception rates correlate with social deprivation. The three wards with the highest teenage pregnancy rates in Medway are Chatham Central, Gillingham North and Luton and Wayfield.

Map 7: Teenage conception rates (per 1000 females aged 15 - 17) by Medway wards, 2005/07



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Source: Office for National Statistics

	Ward	Rate		Ward	Rate
1	Chatham Central	74.9	12	Rainham South	24.8
2	Cuxton and Halling	24.6	13	River	53.1
3	Gillingham North	73.8	14	Rochester East	65.8
4	Gillingham South	65.5	15	Rochester South and Horsted	27.6
5	Hempstead and Wigmore	23.7	16	Rochester West	40.8
6	Lordswood and Capstone	30.9	17	Strood North	50.5
7	Luton and Wayfield	73.1	18	Strood Rural	31.3
8	Peninsula	51.5	19	Strood South	58.9
9	Princes Park	32.0	20	Twydall	56.9
10	Rainham Central	22.3	21	Walderslade	27.4
11	Rainham North	30.2	22	Watling	20.3

Economic costs of teenage pregnancy

There is a strong economic argument for investing in measures to reduce teenage pregnancy as it places significant burdens on the NHS and wider public services. The cost of teenage pregnancy to the NHS nationally is estimated to be £63m a year.[115]

Cost effectiveness of teenage pregnancy programmes

It is difficult to establish the cost effectiveness of interventions aimed at reducing teenage pregnancy due to the complexity of the problem, where a wide variety of outcomes are achieved over a long period of time. There is however, good evidence to indicate that effective contraceptive services are highly cost effective in preventing teenage pregnancy.[115]

There is also evidence to suggest that school based group education for increasing condom use and reducing rates of sexually transmitted infections and pregnancy is cost effective with a cost and net cost per QALY gained of £5970 and £4965 respectively.[96] Information however, on other interventions is limited.

Easy access to contraceptive services was found to be the single most important factor to reducing teenage pregnancy rates.[113] This finding is supported by research in the United States, which found that 86 per cent of the recent decline in US teenage pregnancy rates is the result of improved contraceptive use.[116]

Not all conceptions to under-18 year olds are planned. As shown in Figure 201, 51% of pregnancies to under 18 year olds will result in a termination of pregnancy. In 2008 11% of terminations to under 19 year olds were repeat terminations as shown in Table 44.

Table 44: Abortions to under 19 year olds in Medway, 2006 to 2008

	2006	2007	2008
No previous abortions	156	173	146
One or more previous abortions	13	22	18
Percentage of repeat abortions	7.7	11.3	11.0
Total under 19 abortions	169	195	164

Source: Teenage Pregnancy Unit, 2009

In 2005, NICE published guidance on the effective and appropriate use of Long Acting Reversible Contraceptives (LARC). This demonstrated that for 1 year of use, two LARC methods, the IUD and the injectable method, were more cost effective than both Combined Oral Contraceptive (COC) and male condom. For periods of contraceptive use equal to 2 years and above, all LARC methods are more cost effective than COC and the male condom. The NICE guidelines concluded that increasing the uptake of LARC methods will

reduce the number of unintended pregnancies that occur, estimating that if 7% of women switched from the contraceptive pill to LARC methods the NHS could save around £100 million nationally through reducing unintended pregnancies.

Next Steps

- Given the health and social inequalities associated with teenage pregnancy it is important to continue to work towards achieving a reduction in the under 18-conception rate in Medway.

- A key priority for The Medway Teenage Pregnancy Strategy is to equip young people with the knowledge and skills they require to make safe, informed choices regarding their sexual health, including supporting parents and carers. Significant emphasis will be applied to targeting preventative strategies at young people at risk of teenage pregnancy and commissioning young-person friendly contraceptive and sexual health services.

Mental health promotion: focus on wellbeing at work

Mental health accounted for more disability adjusted life years lost per year than any other health condition in the UK and the figures for 2004 show that 20% of the total burden of disease was attributable to mental illness (including suicide), compared with 16.2% for cardiovascular disease and 15.6% for cancer.[117]

At any one time just over 20% of working age women and 17% of working age men are affected by depression or anxiety, 5% of men and 3% of women are diagnosed with a personality disorder and over 0.4% have a psychotic disorder such as schizophrenia or bipolar affective disorders.[117] Poor mental health is a key factor that underpins many physical health problems and acts as a driver for much health risk behaviour including smoking, substance misuse and obesity.

There are many important aspects to the promotion of mental health and wellbeing. These include promoting protective factors such as a supportive and respectful community as well as social and life skills including parenting skills and resilience. This report is unable to consider them all in detail. We have chosen here to focus as an example on promoting wellbeing at work as one example of a cost effective intervention for improving mental health and wellbeing.

Costs of mental illness

Recent estimate indicate that the wider costs of mental health problems is estimated to cost the country £77 billion a year, mainly due to people with stress related and mental health problems being unable to work[117]. Work stress is responsible for 30% of staff sickness in the NHS, costing the service over £300m each year.[118]

Cost effectiveness of interventions to promote mental health and wellbeing

There is now considerable evidence for the effectiveness of promoting wellbeing at work. The paragraphs below are taken from the NICE guidance on work and wellbeing produced in 2008 and illustrate one example of a cost-effective intervention to promote wellbeing in the workplace.[119]

Wellbeing programmes at work

In 2006, 175 million working days were lost to sickness absence, costing the economy £13.4 billion.[120] On average, sickness absence costs employers 8.4 working days per employee per year.[119] Physical activity programmes at work have been found to reduce absenteeism by up to 20%; physically active workers take 27% fewer sick days.[119] In an organisation employing 100 people at an average cost of £12.5 per hour, the following quantifiable gain could be released by implementing this.

Table 45: Savings released from a reduction in sickness absence as a result of physical activity programmes in an organisation employing 100 people

Average no. of days sickness absence	Total no. of days sickness absence	Hours per day	Total annual cost £	% reduction in sickness absence	Total annual savings £
8.4	840	7.5	79,065	20%	**-15,813**

Source: NICE 2009[119]

Employee satisfaction and staff retention

High staff turnover is very expensive. The average recruitment cost per employee is £7,750 (taking into account supply cover for the vacancy and any additional training that the new recruit may need). Average annual turnover among employees in the UK is 18.1%.[119] Well-designed 'wellness' programmes can increase employee job satisfaction and reduce staff turnover by between 10 and 25%.

Table 46: Savings released from a reduction in employee turnover as a result of well designed wellbeing programmes in organisations employing 100 people

No of leavers in 12 months	% employee turnover	Cost per leaver £	Total annual cost £	% reduction in employee turnover	Total annual savings £
18	18.10%	7,750	140,275	10%	**-14,028**
				Total quantifiable benefits	**-29,841**

Source: NICE, 2009

Costs for a reasonable Wellbeing programme comprising a health champion, discounted gym membership, lunchtime walks, social events, team days, pedometers, activity classes, and active travel plans were estimated as around £18,900 which led to a total saving of £10,941 per 100 employees.

Next steps

- This provides one example of an intervention which could be implemented across Medway. If employers implemented this guidance, this could lead to increased productivity and decreased costs for both public and private sector employers.

- A Workplace Health Co-ordinator has been employed by NHS Medway to promote healthy workplaces in Medway and will be able to support both private and public sector employers in this.

Glossary

Age standardised rate
A rate (e.g. mortality rate) that has been adjusted for age to enable comparisons to be made between populations with different age structures.

New and growing towns cluster
A cluster is a group of geographical areas which share similar population characteristics, allowing for more appropriate comparisons to be made. The information is derived from ONS census data. Medway is one of the 9 PCTs in the New and Growing Towns Cluster used in this report.

Confidence interval
A range of values used to quantify the degree of uncertainty around a point estimate of a value such as a prevalence rate. A 95% confidence interval implies that 95 times out of 100, the interval will include the true underlying value.

Crude rate
Describes the number of specific events (e.g. deaths) over a specified period of time divided by the total population.

Directly age standardised mortality rate
The mortality rate is expressed in terms of the overall rate that would occur in a standard population age structure if it experienced the age-specific rates of the observed population.

Elective admission
This is where the decision to admit a patient can be separated in time from the actual admission. Elective admissions may be recorded as a waiting list, booked admission or planned admission.

Emergency admission
An admission is classed as an emergency admission when the decision to admit a patient is at short notice because of clinical need and could not be delayed to a later date.

Exception reporting
A process within the Quality and Outcomes Framework whereby practices are not penalised if a target is not achieved. Examples of approved criteria for exception reporting include: medication which cannot be prescribed due to a contraindication or side effect, patients who have been recorded as refusing to attend review despite 3 or more invitations in the last 12 months and informed dissent to treatment.

Incidence
The number of new cases of a condition in a population within a specified time period

Index of multiple deprivation
A measure of multiple deprivation based on seven domains: income deprivation, employment deprivation, health deprivation and disability, education skills and training deprivation, barriers to housing and services, living environment deprivation, and crime.

NHS Comparators
NHS comparators is a website for health professionals which provides information about health service activity and costs allowing comparisons at a local, regional and national level.

NHS Health Check programme
A national vascular risk management programme run in primary care. The checks involve the recording of basic information such as height, weight, smoking status and blood pressure and blood tests measuring cholesterol. They are offered to all those aged 40-74 every 5 years for an assessment of their risk of developing vascular disease (heart disease, stroke, diabetes and kidney disease) followed by appropriate interventions to reduce risk.

Non elective admissions
Non-elective admissions consist of emergency admissions, maternity admissions, births and non-urgent transfers from other hospitals.

Prevalence
The proportion of a population who have the condition at a particular point in time.

Prevalence rate
The total number of individuals who have a condition divided by the population at risk of having the condition at this point in time.

Quality Outcomes Framework (QOF)
The QOF is an annual reward and incentive programme for all general practices in England. It has four main components which are referred to as domains (clinical, organisational, patient care experience, additional services). Each domain comprises measures of achievement, or indicators, against which practices score points according to their level of achievement.

Screening
The process of identifying people who may be at increased risk of a disease/condition. Earlier identification allows for further tests or treatment to reduce the risk of developing the condition or its complications.

Standardised admission ratio
The number of observed admissions divided by the number of expected admissions multiplied by 100.

Statistically significant
Description of a result that is unlikely to have occurred by chance. In this report, this is where the 95% confidence intervals between the data of interest do not overlap.

Strategic change programme (SCP)
The NHS Medway SCP focuses on delivering strategic improvement in services to improve population health. There are 16 groups within the programme.

Ward
Areas in the UK which have been divided for the purposes of administration and elections.

Unified weighted population (UWP)
The UWP is used to calculate PCT allocations and is a modified registered population. It is worked out using the weighted capitation formula. Instead of simply sharing out the NHS budget on a per capita basis, the formula accounts for factors such as ethnicity and measures of socio-economic deprivation to estimate the actual costs of providing health care for different populations.

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