

Cardiovascular Disease – Kent JSNA Chapter Update 2013/14

The following is a pdf version of the chapter summary found on the Kent JSNA website.

Introduction
<ul style="list-style-type: none">○ Cardiovascular disease (CVD) is a term we use to cover all those diseases of the arteries that can lead to heart attacks, strokes and other circulatory diseases. CVD kills one in three people in the UK.○ It is the main cause of death and <i>premature</i> death (under 75 years) and is more common in deprived communities – it is the most important contributor to the inequality gap in life expectancy in Kent.
Key issues and gaps
<p>To affectively tackle CVD an integrated approach to commissioning is key. In many areas it is being tackled as part of the prevention dimension of joint integrated commissioning boards.</p> <p>The proactive care work being undertaken by Kent County Council together with its partners is attempting to address the barriers in order to improve the care of people with multiple morbidities and multiple long-term conditions.</p> <p>It is well known that people rarely present with one condition and therefore it is really important for this work to consider the whole system and the care pathways for patients and the public at all levels.</p>
Recommendations for Commissioning
<p>Recommendations can be found in the Kent and Medway Cardiac Strategy 2011 to 2016 and cover:</p> <ol style="list-style-type: none">1. Public Health Commissioning – As part of the prevention and detection of CVD the equitable commissioning of NHS Health Checks is paramount.2. Primary Care Contribution –<ul style="list-style-type: none">● <i>Prevention and Detection</i><ul style="list-style-type: none">○ Ensure monitoring of CVD prevalence at practice level.○ Prioritise smoking cessation, lipid modification and hypertension management.○ Support the NHS Health Check programme.● <i>Arrhythmias</i><ul style="list-style-type: none">○ Practices should undertake validation of their AF registers and work with Medicines Management to carry out medication reviews to optimise prescribing (hyperlink to MM QIPP chapter if available) for anticoagulation.○ Opportunistic screening for AF (in patients over 65). (hyperlink to LTC chapter)○ Manual pulse check prompts should be inserted into all appropriate long term

conditions monitoring templates and be embedded in daily practice particularly for those at high risk.

- *Heart Failure and End of Life Care (EoLC)*
 - Service and care pathway development focusing on latest NICE Guidance Personalised Care Plans, Heart Failure registers development, integrated community teams, identify patients in acute trusts, tele-technology and improved access to EoLC.

3. Acute Care Contribution -

- Cardiac Imaging and Diagnostics - As per NICE Guidance, support the introduction or increase in:
 - Cardiology imaging equipment such as Computer Tomography (CT), Stress Echo and appropriate software.
 - Diagnostic pathways.
 - Agreed local tariffs.
 - Appropriate staffing ie. cardiologist and/or radiologist with specialist interest in the above per acute trust.
 - Local Cardiac Resonance Imaging (CMR) service for the patients of Kent & Medway to reduce referrals into London.
- *Devices*
 - Further analysis is required exploring variation in methods of device implantation including indications, complications, expenditure, etc.
- *Revascularisation and Cardiac Surgery*
 - Review current diagnostic and surgical intervention activity and capacity, and care pathway development.
 - Consider feasibility of new and emerging services and targets such as tertiary cardiology services, primary angioplasty 120 minute call-to-balloon target achieved consistently, High Sensitive Troponin test for chest pain patients presenting to A&E.

4. Integrated Commissioning –

- Improve joint health and social care commissioning arrangements to effectively target high risk, socially disadvantaged patients, apply evidenced based social marketing techniques as well as robust evaluation.

1) Who's at risk and why?

Risk factors for Cardiovascular Disease (CVD) include getting older, being male or a family history of CVD. These are not reversible.

There are multiple risk factors to prevention of CHD. These include:

- high cholesterol,

- excessive salt intake,
- high blood pressure,
- excess weight,
- a high-fat diet,
- smoking,
- diabetes,
- and a sedentary lifestyle

By increasing the awareness of risk factors and tackling them as part of our joint Health & Wellbeing Strategy we should be able to reduce CHD health events and reduce health inequalities.

2) The level of need in the population

CHD is one of Kent's top killers. Cancer, coronary heart disease and stroke are the three leading causes of death, are responsible for more than half of all deaths.

As per previous estimates, CHD prevalence in Kent overall still appears to be increasing in line with national trends, largely due to higher reporting and case finding rates. Thanet district appears to have relatively higher Coronary Heart Disease mortality rates compared to the rest of Kent while Tonbridge and Malling have relatively lower levels.

Latest 2012/13 estimates show admissions for heart failure have shown some increase in Thanet and West Kent CCGs but these have reduced slightly in Canterbury, DGS and South Kent Coast CCGs.

The rates for revascularisation procedures in 2013 show higher proportion of activity being repatriated from London to local centres in Kent and slightly reduced numbers of CABGs alongside increased angioplasties.

Prevalence

Figure 1 shows that Thanet district appears to have relatively higher CHD mortality rates compared to the rest of Kent while Tonbridge and Malling have relatively lower levels.

Deprivation is strongly linked to CHD and lower life expectancy. Analysis of life expectancy across Kent shows that there are stark differences. A significant contributory factor to the mortality rate is people dying prematurely from CVD (Figure 2).

CHD prevalence in Kent is expected to increase in future, in line with England trends (Figure 3).

Figure 1: Directly age standardised mortality ratio due to coronary heart disease 2010-2012 in those aged less than 75

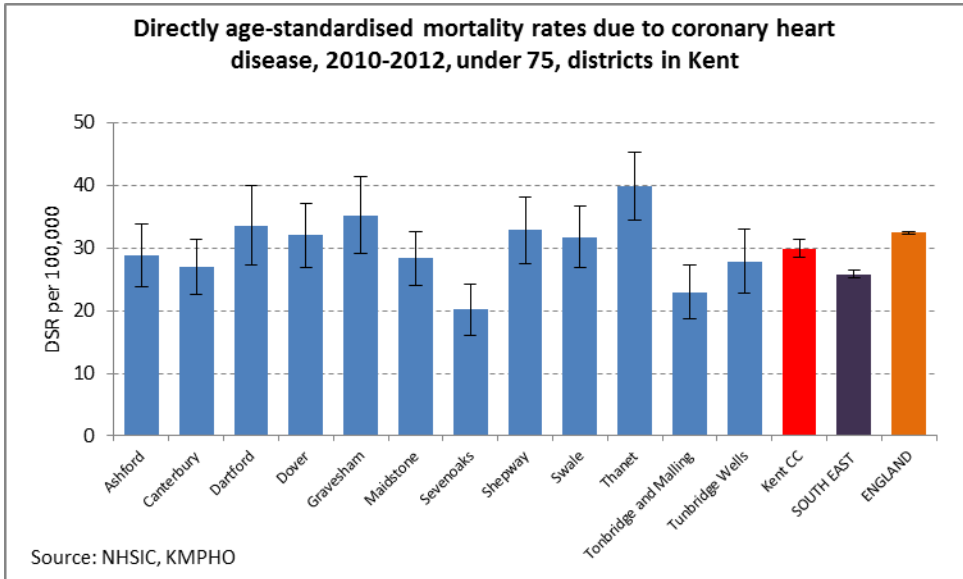


Figure 2: Trends in life expectancy across Kent by deprivation quintile

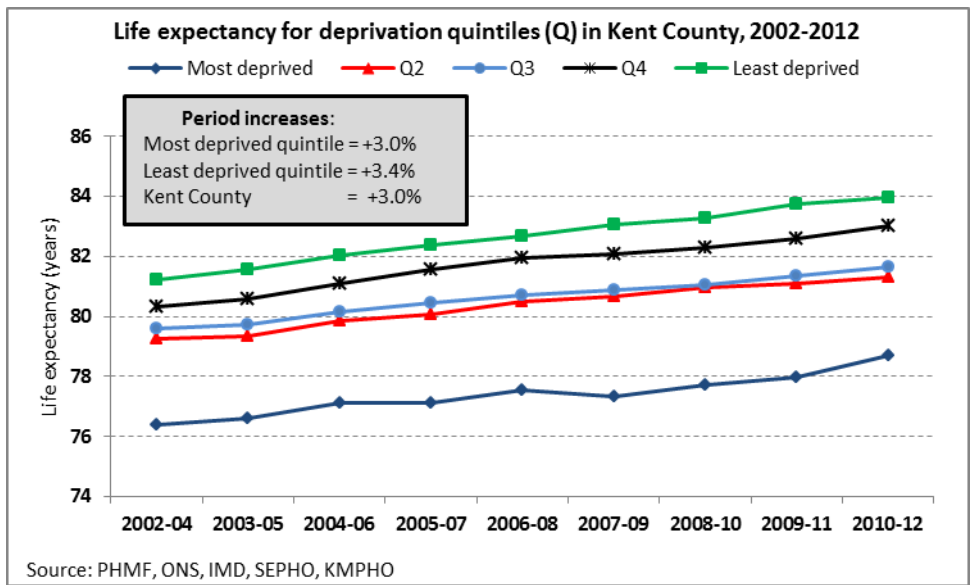
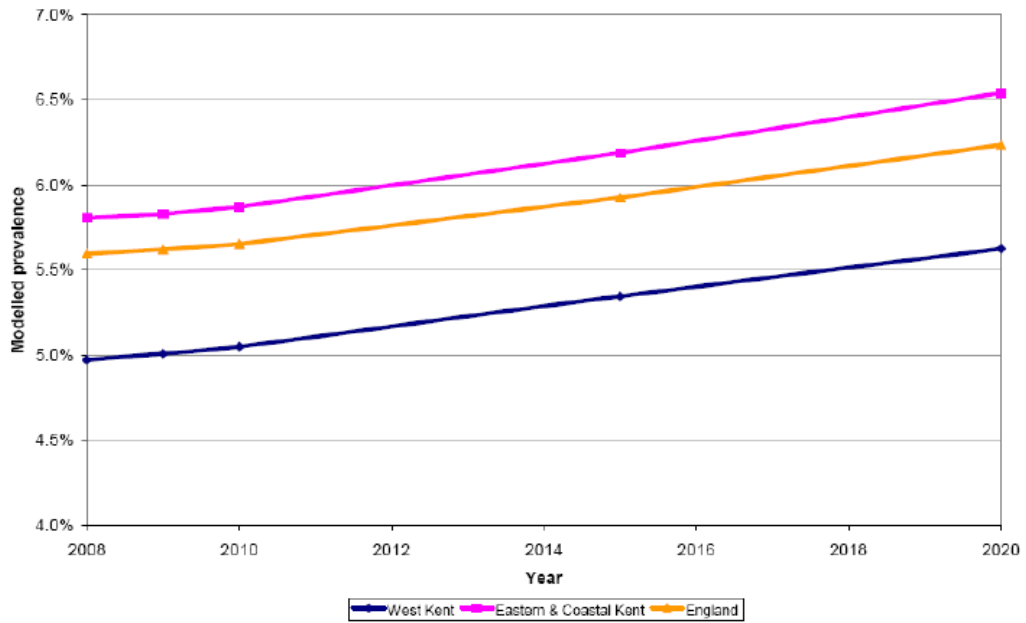


Figure 3: Modelled projections of CHD prevalence in people aged 16+ Kent districts



Source: ERPHO

3) Current services in relation to need – primary care

NHS Health Check programme

The Secretary of State for Health has prioritised reducing premature mortality by focusing on improving prevention and early diagnosis of CVD; the NHS Health Check programme will be a key deliverable in supporting this ambition.

The Department of Health published *Living well for longer: a call to action on avoiding premature mortality* and the *Cardiovascular disease (CVD) outcomes strategy* on 5 March 2013. Both identify the NHS Health Check programme as a vehicle for delivering ambitions.

The *Global burden of disease* report (2013) highlighted the need to reverse the growing trend in the number of people dying prematurely from non-communicable diseases. Since 1990, the number of people dying from ischemic heart disease and diabetes has risen by 30% and a high body-mass has been attributed as the most important cause of premature mortality and disability.

The NHS Health Check programme is a national cardiovascular disease (CVD) risk assessment programme that became a mandated responsibility for the NHS in 2012. This responsibility transferred from the NHS to local authorities, Kent County Council, with Public Health in March 2013.

It is a five year rolling programme that targets people aged between 40 and 74. When full roll out has been achieved people will be invited every five years to attend a NHS HC. There are two parts of the programme that are measured and reported via the Public Health Outcomes Framework, these can be found under points 2.22i and 2.22ii. These indicators represent the total number of patients invited per year and the total number of patients who have taken up the offer and had their NHS HC completed. These are measured against the total 5 year eligible cohort but only 20% of the eligible cohort is expected to be invited and 10% of the eligible population NHS health checked achievement per year.

To enable a structured approach for a five year programme that allows for an equalised number of patients per year, patients are targeted for invitation in the financial year that they will turn a centennial age. (i.e age will end in a '0' or a '5').

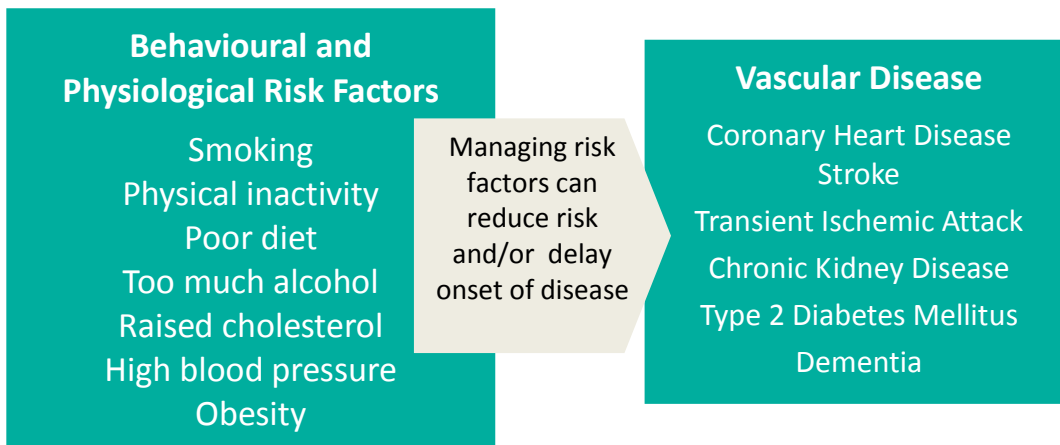
The NHS Health Check assesses an individual's risk of CVD and consists of a face to face individual risk assessment which records the following clinical investigations and patient demographic data, age, gender, ethnicity, family history of CVD, smoking status, point of care cholesterol test, blood pressure, height, weight, BMI, alcohol consumption and associated risk using the Audit C questionnaire and physical activity status using the General Practice Physical Activity questionnaire (GPPAQ). The NHS HC also raises awareness to the risk of vascular dementia for attendees over the age of 65. Patients already diagnosed with any of CVD conditions, have hypertension, are already on a statin medication to control cholesterol or are receiving palliative care are not eligible and are therefore excluded from the invitation process*.

This data is used to calculate a person's risk of CVD using the QRISK2 calculator. An online version of this is available at www.grisk.org. After the NHS HC is completed, all patients receive a tailored report which details further advice or referral required dependent on the results recorded during the check. Patients identified as high risk (>20% QRISK) or who

have out of range clinical results are referred to the GP for further investigation and are removed from the five year rolling programme either due to CVD diagnosis and entry onto the disease register or are reviewed annually so that symptoms of CVD are identified and treated accordingly.

**exclusion of non-eligible patients due to disease status is only possible when the eligible patients GP practice are engaged with the NHS HC programme. Patients of non-engaged practices are asked to self-exclude in the invitation letter.*

The NHS Health Check programme helps to prevent the onset of vascular disease and vascular dementia by supporting changes to and management of behavioural and physiological risk factors (**Figure 4**).



- it is estimated that around 850,000 people are unaware that they have type 2 diabetes; half of all people diagnosed have serious complications
- in more than 90% of cases the first heart attack is related to preventable risk factors

As the number of older people living in England increases and public expenditure becomes more constrained, meeting the need for social care will become more challenging.

The Office for National Statistics (ONS) 2010-based principal population projections for England project that between 2010 and 2022 the number of people aged 65 or over will rise by 27% and the number aged 85 or over will rise by 44%.

Eighty percent of those aged 65 and over will need care in their later years of their life.

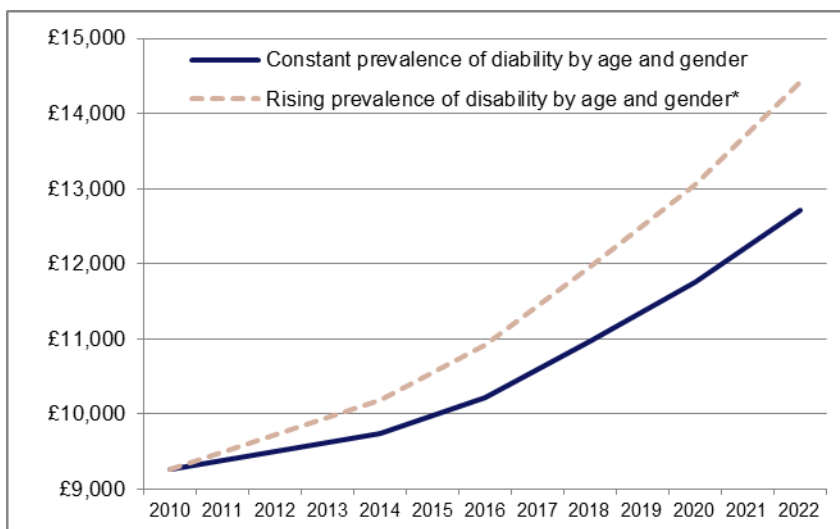
Current trends suggest that the cost of social care and continuing healthcare will continue to rise; reasons include:

- 2% yearly increase in obesity, increasing prevalence of arthritis, stroke, CHD and vascular dementia
- emergence of minority ethnic groups in significant numbers within the older population adds to prevalence of stroke and CHD
- 2% bi-yearly increase in prevalence of arthritis, stroke, CHD and mild dementia from 2012 (moderate/severe dementia from 2016)
- 10% increase in disabling effects of arthritis, stroke and CHD from 2012 and a reduction in mortality of 5% from mild dementia, stroke and CHD from 2016

Personal social services net and continuing health expenditure on over-65s in England under base case (BC) and continued trends assumption (CTA), 2012-2022 **Figure 5.**

Scenario	BC	CTA
Rise in number ≥ 65 years with a moderate or severe disability by 2022	32%	54%
Cost of social and continuing healthcare by 2022	£12.7 billion	£14.4 billion

Figure 6



Based on the 2012/13 eligible population, there are an estimated 456,201 patients who are eligible to receive an NHS Health Check living in Kent. This equates to an annual target of 91,241 patients to be invited once every five years.

The current commission agreement also includes extra funding for out-reach programmes to target hard to reach groups defined by:

- Areas of low uptake - Postcode areas identified using past data
- Areas of deprivation
- Travellers (including those who prefer to be known as Gypsies)
- Migrant Workers
- Individuals within the criminal justice system

- Asylum seekers and refugees
- Black and Minority Ethnic (BME) Groups
- Homeless and insecurely housed people
- People not registered with a GP practice

Between April 2011 and March 2013 there were different commissioning arrangements in place between East and West Kent which compromised the delivery of the health check programme, which led to West Kent not achievement of the Department of Health targets set for 2012/13.

In April 2013, Kent Community Health Trust (KCHT) were commissioned to deliver the NHS Health Check programme across Kent. This included contracting directly with GP and pharmacy providers as well as the out-reach aspects of the programme. KCHT have also contracted GP practices to deliver the initial invitation phase of the NHS HC. There are now only 6 of the 209 practices that are not engaged in the delivery of the programme.

Current services in relation to need Post Acute Care

Cardiac Rehabilitation

Cardiac rehabilitation programmes are divided into 4 phases:

- After hospital admission with CHD
- Early discharge period
- Formal rehabilitation programme
- Long-term maintenance

It is important is that it must be integrated across traditional sector boundaries, including secondary care, primary care, public health, local authorities and community and voluntary organisations and be appropriate to local need and preference.

Figure 7: The current provision of Phase 1-3 cardiac rehabilitation is delivered through the following providers:

Provider	Location	Acute/Community
Maidstone and Tunbridge Wells NHS Trust	Kent and Sussex Hospital	Acute based
Maidstone and Tunbridge Wells NHS Trust	Maidstone Hospital	Acute based
Dartford NHS Trust	Darent Valley Hospital	Acute based
Kent Community Health Trust	Gravesham Community Hospital and various locations in East Kent	Community based Road Recovery
East Kent Hospitals University Foundation Trust	William Harvey Hospital	Acute based

Kent

Phases I and III services in the south of west Kent are delivered by specialist nurses from the acute trust. The service at Maidstone Hospital is offered on the hospital site and available mainly to post Myocardial Infarction (MI) and surgical patients. Some heart failure patients are also offered a cardiac rehab service by the heart failure specialist nurse.

In December 2007 the service from the Kent and Sussex Hospital was devolved to the community and is now delivered in two sports centres by the specialist nurses from the acute trust. This service also concentrates on post MI and surgical patients. Some heart failure patients are also offered cardiac rehabilitation. In the future the service would like to expand to offer cardiac rehab to all cardiology patients and instigate the angina plan.

In East Kent **Phase I** is available for all appropriate patients except those which have been treated at the William Harvey Hospital. The East Kent Community Services Provider conducts an in-reach programme, which means that staff from the community go into the hospitals on a regular basis and find the patients who are suitable for **Phase I** cardiac rehabilitation.

Phase II and III – In the east of Kent there is a broad based service offering exercise, lifestyle advice as well as counselling. The service is offered to post MI and surgical patients including PCI patients, as well as stable angina and stable heart failure. It is a community based programme delivered in community leisure centres and as well as a home based programme. All patients are offered the choice of a home or community based service.

There is a limited **Phase II** provision in the West of Kent.

In addition to the core cardiac rehabilitation programme which is offered, other initiatives have also been put in place, including:-

- Cognitive behavioural therapy (CBT) for obese patients - staff have had training on CBT for managing weight loss, and there is a specialist who runs weight loss clinics.
- Expansion of home based exercise programme - this is now one of the cardiac rehab menu options.
- Chair based classes run within the group exercise programme.
- Structured walks – a walking programme is run when capacity allows and there is the demand.
- Increased dietetic and pharmacist input.
- Counselling support for ICD patients -these patients can access any element of rehab if they are referred.

Heart Failure services

Kent Community Health is expected to tackle the historically differing models of care across West and East Kent. West Kent has a similar geographical and population size to East Kent but fewer specialist nurses. The subsequent nurse: patient ratio is less. The nature of Heart Failure means that the patient pathway must include a Multi Disciplinary Team [MDT] meeting so that all professionals, clinicians and specialists involved in their care can communicate and ensure that the best package of care is delivered. MDTs are not as embedded in West Kent as they are in Medway and East Kent.

4) Evidence of what works

Past experience has shown that GP engagement for the invitation side of the programme is crucial for delivery of the programme.

This is due to IG rules and regulations that limit access to data which is imperative to identify the eligible population for invitation.

The recent transition of responsibility from the NHS to LAs has also added to this IG issue which is a national problem.

The national team are working towards a solution but have advised that LAs seek their own legal advice and apply for an agreement under the Section 251 legal clause. EB currently in discussions with KCC legal department.

Department of Health (2013) *Improving cardiovascular disease outcomes strategy*

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/217118/9387-2900853-CVD-Outcomes_web1.pdf

National Institute for Health and Care Excellence (NICE)

PH25 prevention of cardiovascular disease: guidance Published 22/06/2010

Medicines Evidence Commentary : Primary prevention of cardiovascular disease: do the right people get treatment with statins? Published 30/09/2013

CMG45 Integrated commissioning for the prevention of cardiovascular disease
Published 29/04/2012

WHO

Prevention of cardiovascular disease : guide for assessment and management of cardiovascular risk Published 01/08/2007

American Heart Association

ACCF/AHA guideline for assessment of cardiovascular risk in asymptomatic adults
Published 21/12/2010

Cochrane Database of Systematic Reviews

Statins for the primary prevention of cardiovascular disease Published 31/01/2013

5) Unmet needs and service gaps

Key unmet needs and service gaps includes:

- Engagement of all GP practices in the provision of NHS health checks
- Planned increase in the availability of Cardiac CT, MPS, CT Calcium scoring and Stress echo in order to comply with NICE guidance CG95 (Chest Pain of Rapid Onset)
- Validation of AF registers and opportunistic case finding
- Reduction in variation in device implantation rates
- Agree heart failure pathway across Kent.
- Improve CHD detection and treatment in Kent prisons
- Increase the numbers of cardiology physiologists

There is no evidence that the quality assurance (QA) side of the programme is being achieved. This includes QA for the actual delivery of the programme and also applies to the POCT machines in use across Kent.

Key issues and gaps

The programme started in Kent in 2011. Between April 2011- March 2013 the programme was commissioned differently for East and West Kent.

East Kent

East Kent had a three phase roll out process and contracted directly with providers using a Locally Enhanced Service agreement.

The first phase engaged GP practices as the main provider for both the invitation and the actual check. GP practices are ideal as the providers of this programme due to their existing qualified workforce and also because of the need to identify patients who are eligible to

receive their invite. No other provider has this detail available. 98/112 practices delivered the programme in its entirety for their patients.

The second phase of the roll out identified alternative providers of the NHS HC for the patients of the non-engaged GP practices. Identified local community Pharmacies who were enrolled/accredited on the Healthy Living Pharmacy programme were approached and offered delivery of the programme for those patients belonging to the non-engaged GP practices.

The third phase of roll out was to target areas of low uptake and identified deprivation however due to the transition of the commissioned programme from the NHS to LA this phase was not realised in East Kent during 2012/13.

East Kent achieved the DH set targets for invitation and take up for 2012/13.

West Kent

West Kent commissioned Kent Community Health Trust (KCHT) to deliver the programme in its entirety to the eligible population within west Kent.

West Kent initiated a number of alternative providers to deliver the programme to the general population and also to outreach communities. This compromised take up of the delivery of the programme from GP providers who were unwilling to agree to deliver the programme or work with the commissioned provider to identify eligible patients. This led to non-achievement of the DH set targets for 2012/13.

From April 2013, KCHT were commissioned to deliver the NHS HC programme across Kent. This included contracting directly with GP and Pharmacy providers as well as the out-reach aspect of the programme. It was suggested that the approach made by east Kent was adopted for west Kent.

KCHT have also contracted directly with GP practices to deliver the invitation part only of the NHS HC. There are now only 6/209 practices that are not engaged in the delivery of the programme.

It is expected that DH set targets will be achieved in 2013/14.

KCHT have set up a number of out-reach programmes These include HMP Swaleside and there is currently work being undertaken to include the other Kent HMP sites.

Denne construction have also been targeted.

Revascularisation and surgical activity

In 2005 the Network developed a revascularisation strategy, which set out plans to the decrease the number of Coronary Heart Bypasses (CABG) required, and increase the number of Angioplasties or Percutaneous Coronary Interventions (PCIs), in line with national trends and guidance.

The strategy also detailed plans to repatriate activity from London so that increasing numbers of angiograms and PCIs are carried out in Kent and Medway rather than London. Angiography activity is being repatriated to Kent and Medway centres and overall activity levels have increased. PCI activity is also being repatriated to local centres, with local centres now undertaking the largest proportion of the work.

However over the last five years, activity has not occurred as originally planned, with the

number of CABG decreasing, but at a lesser than expected rate. The number of PCIs has increased over the years, but in 2008-09 levelled out at a lower than expected level. Figures 8, 9 and 10 illustrate the change in activity over this period for the above mentioned three procedures.

Figure 8: Number and location of angiograms/PCI procedures for Kent residents 2004/05 to 2012/13

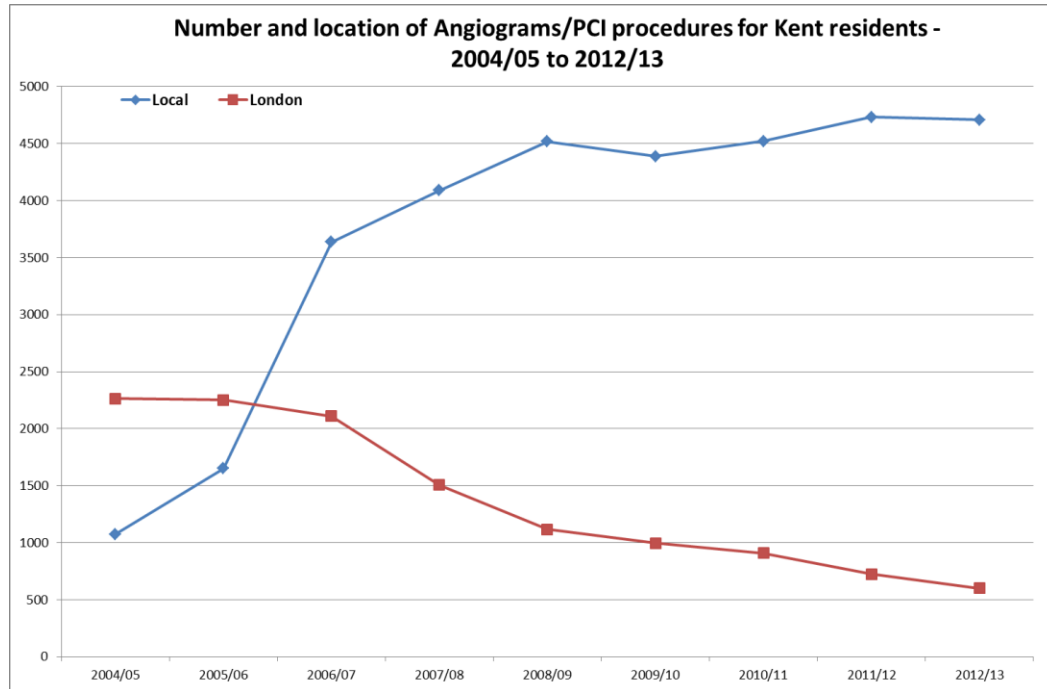


Figure 9: Number of PCI/CABG procedures carried out on Kent residents each year 2007/08 to 2012/13.

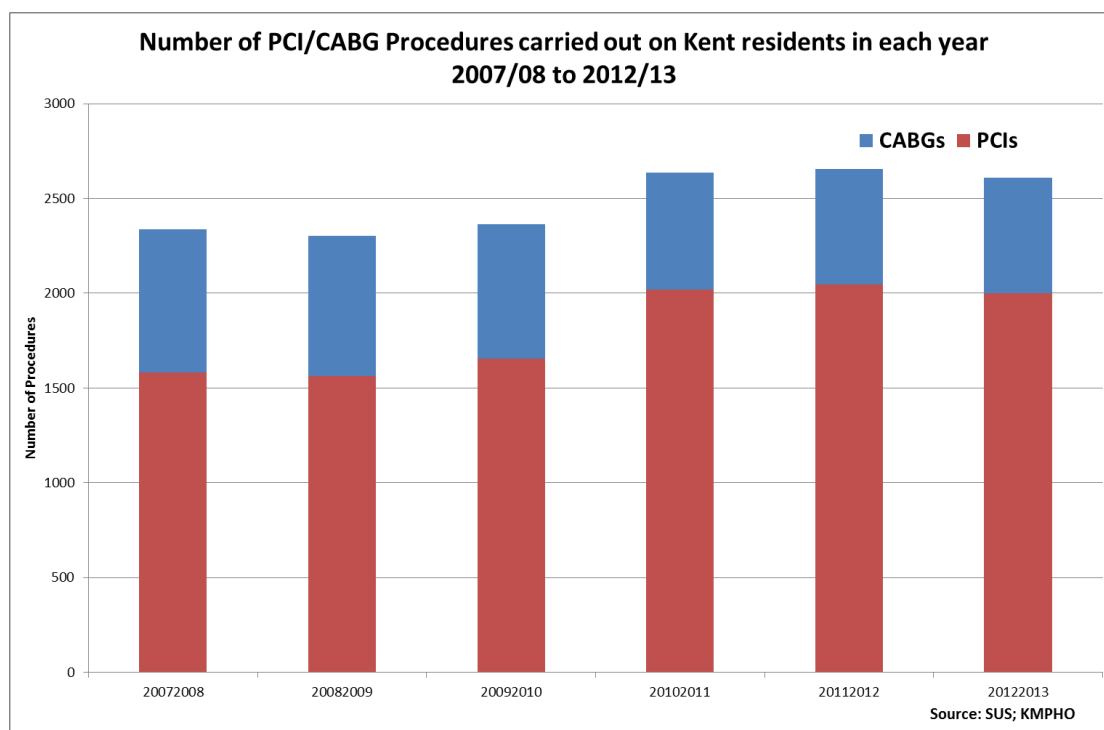


Figure 10: Kent providers of PCI – Year on year data

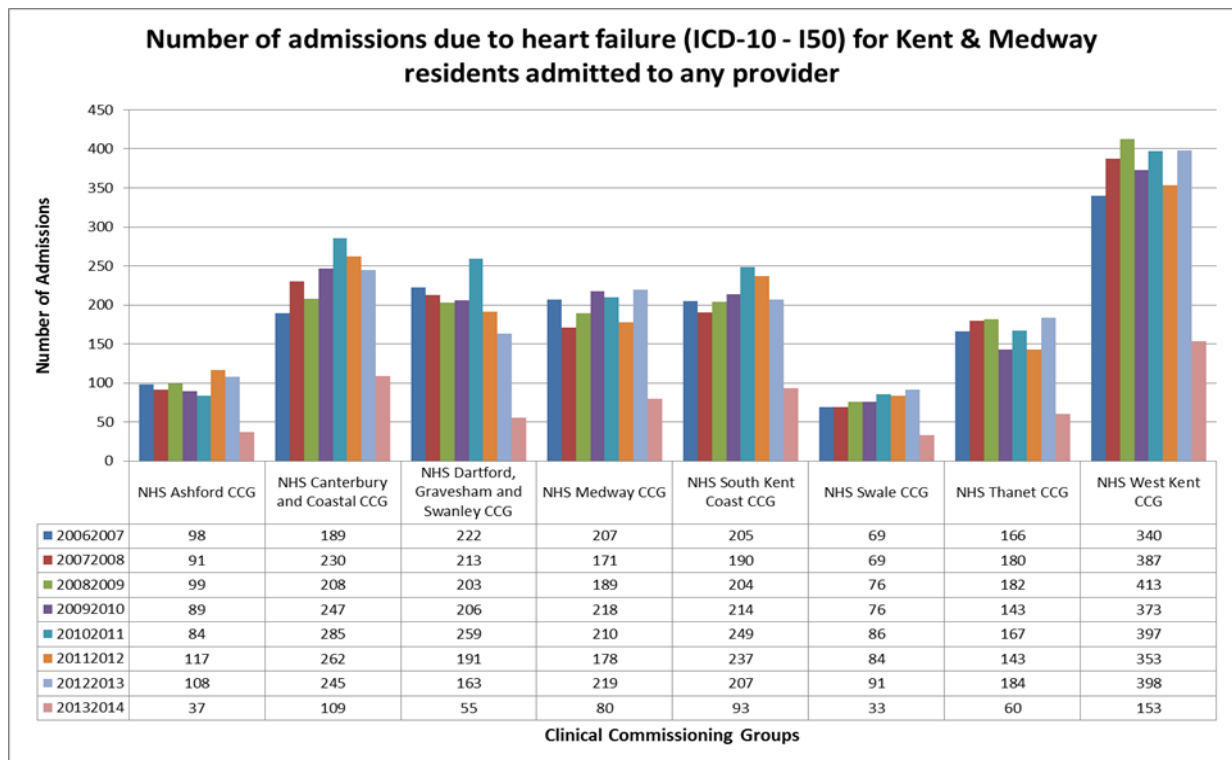
Kent providers of PCI – Year on year data							
Hospital Trust	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
East Kent Hospitals University Foundation Trust	253	380	299	371	912	893	877
Maidstone & Tunbridge Wells Trust	3	1	80	244	255	297	279
Dartford & Gravesham Trust	2		136	149	127	255	189
Medway Foundation Trust				122	191	157	157

Heart Failure

There is considerable variation in the prevalence of heart failure across Kent. Some of this may be legitimate local variation secondary to public health differences but such a wide variation would suggest considerable differences in referral for or access to diagnostics.

2009/10 QOF prevalence for heart failure in Kent & Medway is broadly similar in all CCG areas. Individual practices range from 0% up to 1.7% but the prevalence for Kent is 0.6% which compares favourably to the national 0.7%

Figure 11: Latest estimates show admissions for Heart Failure have shown some increases in Medway, Thanet and West Kent CCGs but reduced slightly in Canterbury, DGS and South Kent Coast CCGs.



Source: Secondary Uses Service (SUS)

6) Projected service use and outcomes in 3-5 years and 5-10 years

The Department of Health has re-modelled revascularisation rates up to 2015 using three activity rates (low, medium, high) based around

- a) needs,
- b) existing trends (UK and Europe),
- c) professional bodies recommendations.

The three intervention rates modelled were: 1300, 1400 and 1700 per million population by the year 2015. The actual population needs for revascularisation, when adjusted for age and deprivation varies across Kent and Medway, so this needs to be described in detail particularly in line with the new and emerging GPCC boundaries in Kent.

7) Engagement

This section has been intentionally left blank.

8) Recommendations for needs assessment work

These include:

- Cardiac Rehabilitation
- ICD device numbers and selection
- CHD needs as part of prison health needs assessments
- Possibly work around Familial hypercholesterolemia
- Benchmark intervention rates by CCG boundaries

Key contacts

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References

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