

# Cardiovascular disease profile - Kidney disease

Protecting and improving the nation's health

June 2017

#### **NHS Crawley CCG**

## **Background**

This chapter of the cardiovascular disease profiles focuses on kidney disease and is produced by the National Cardiovascular Intelligence Network (NCVIN). The profiles are available for each clinical commissioning group (CCG) in England. Each profile is made up of four chapters which look at coronary heart disease (CHD), diabetes, kidney disease and stroke. This profile compares the CCG with data for England, a group of similar CCGs and the Sussex and East Surrey Sustainability and Transformation Partnership (STP).

Key facts	Local	Comparator CCGs	STP	England
Observed prevalence of CKD (per cent)	4.6	4.2	4.5	4.1
Estimated prevalence of CKD (per cent)	5.4	6.0	7.1	6.1
Patients diagnosed with CKD whom the last blood pressure reading is 140/85 or less (per cent)*	73.5	74.7	72.2	74.4
Number of people receiving RRT	85	-	1,435	49,842
Proportion of people receiving RRT with transplants	41.2	52.6	51.7	52.4
The acceptance rate onto RRT	108.6	107.5	97.7	107.9

## **Key information**

In 2015/16 there were 4.644 people aged 18 years and over who had been diagnosed with chronic kidney disease (CKD) in NHS Crawley CCG. This represents 4.6% of the registered population aged 18 and over.

In the CCG the CKD QOF clinical indicator achievement varied at practice level in 2014/15. The indicators were removed from QOF in 2015/16.

The acceptance rate onto Renal Replacement Therapy (RRT) in NHS Crawley CCG is 108.6 per million population compared to an England rate of 107.9

There were 85 NHS Crawley CCG residents receiving RRT in 2014. The number of residents receiving RRT between 2009 and 2014 has increased by 7.6%.

In NHS Crawley CCG in 2014 the percentage of people receiving RRT who have had a renal transplant was 41.2%, a further 10.6% received home dialysis and 48.2% received hospital dialysis.

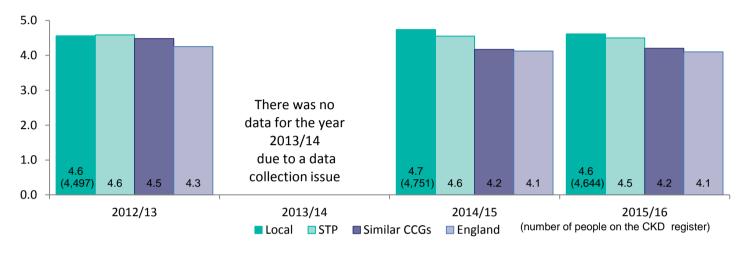
<sup>\*</sup> Data from 2014/15

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#### **Prevalence**

Prevalence is the number of people in a given population with a particular condition at a point in time. CKD is classified into six stages based on glomerular filtration rate (roughly a percentage of kidney function) and three levels of proteinuria (protein in the urine). This profile describes the prevalence and management of moderate to severe CKD (i.e. CKD stages G3–G5 as defined by the NICE). Stage 3 CKD can be sub classified into 3a and 3b with stage 3b experiencing a higher risk of CVD and end stage renal disease (ESRD) than those in 3a.

#### Chronic kidney disease prevalence, 2012/16 (per cent)



Source: Quality and Outcomes Framework (QOF), 2015/16, Copyright © 2017, Re-used with the permission of NHS Digital. All rights reserved.

Patients diagnosed with CKD benefit from early treatment which can reduce mortality and slow progressive decline in kidney function. Diagnosis also highlights patients at risk of greater harm due to medication side effects and acute kidney injury.

The diagnosed (observed) CKD in NHS Crawley CCG is 4.6%. The estimate of total levels of CKD (diagnosed and undiagnosed) in the population is 5.4%. In England the estimated prevalence of CKD varies by gender with an estimated prevalence of 4.7% in men and 7.4% in women. Prevalence increases with age, in people aged 64 and under the estimated prevalence is 1.9%, this increases to 32.7% in people aged 75 and over.

Source: Prevalence estimates, 2011 CKD Prevalence model, G.Aitken, University of Southampton based on the Health Survey for England 2009 and 2010

#### Variation by general practice of chronic kidney disease prevalence, 2015/16 (per cent)



Practice level prevalence values with the practice identified can be found at https://fingertips.phe.org.uk/profile/cardiovascular

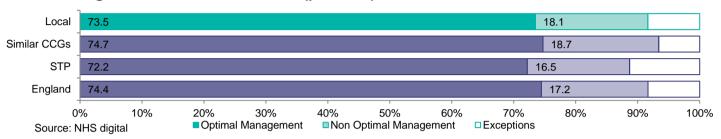
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#### Care processes and treatment indicators 2014/15 and 2015/16

In 2014/15 there were three QOF CKD treatment indicators which described the management of CKD in primary care. The graph below shows the achievement of CKD002 in 2014/15, the last year when the indicator was a mandated or incentivised QOF indicator.

The percentage of patients on the CKD register in whom the last blood pressure reading is 140/85 mmHg or less, CKD002, 2014/15 (per cent)



From April 2015 the management of patients on the CKD register is no-longer contained in the QOF, but treatment of hypertension remains the single most important means to decrease overall cardiovascular risk in CKD, and to reduce the chance of progression to ESRD. Data on blood pressure readings in people on the CKD register is still submitted from approximately 79% of GP practices across England. In NHS Crawley CCG 1 of 12 practices submitted data on blood pressure in 2015/16. For practices submitting data in this CCG the percentage of patients with CKD who achieved the BP management target in the preceding 12 months was 61.4% compared with a national figure for all submitting practices data in 2015/16 of 67.1%. As the CKD indicators are no longer in QOF, there is a different data collection mechanism now in place, this means that the 2014/15 and 2015/16 treatment figures are not directly comparable.

Source: INLIQ 2015/16 - www.content.digital.nhs.uk/catalogue/PUB22004/INLIQ\_1516\_XLS.xlsx

#### **Acute Kidney Injury (AKI)**

Acute Kidney Injury (AKI) is the preferred term for acute renal failure. It is a condition where there is a rapid reduction in kidney function over hours or days. It is estimated that in the UK up to 100,000 deaths each year in hospital are associated with AKI. Think Kidneys is a national programme led by the UK Renal Registry in partnership with NHS Improvement and is the NHS campaign to improve the care of people at risk of, or with AKI. Despite AKI representing a significant cause of preventable patient harm, the exact incidence of AKI in the NHS is unclear. For that reason biochemistry laboratories have been mandated since April 2015 to submit data on AKI to the UK Renal Registry. The following table shows the 3 geographically closest labs to the CCG, and whether they are routinely submitting this data over the 12 calendar months of 2016. Data on rates of AKI will become available in due course.

#### Submission of AKI data by local laboratories 2016/17



Source: www.thinkkidneys.nhs.uk/aki/aki-data/ Data downloaded from UKRR on 25th May 2017

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#### Preparation for Renal Replacement Therapy (RRT)

It is clinically advantageous for people with ESRD to be referred to kidney services early to allow consideration of treatment options and for complications such as anaemia to be managed. Renal Association guidelines recommend a minimum of 90 days preparation time, in practice longer is often needed for sometimes complicated decision making. There is no national collection of data on patients with advanced CKD not receiving RRT (although this is now beginning). Current measures of preparation and quality are based on patient characteristics at start of RRT. The measures presented give an overview of the features of good preparation but are not an exhaustive list and they give no measure of non-dialysis supportive care (sometimes called "conservative kidney care" or "conservative management"). This important group of people choosing not to have RRT are often complex to care for well as they are commonly frail, and have multiple other medical problems. For some CCGs the number of patients is low or the data incomplete and information on late presentation, pre emptive transplant, home based dialysis and definitive access has been suppressed.

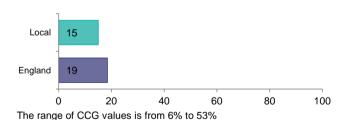
#### Provision of services 2009 - 2014

	Local	Comparator CCGs	STP	England
RRT acceptance rate (per million population), 2009 to 2014	108.6	107.5	97.7	107.9
Ratio of observed / expected number of people accepted onto RRT, 2009 to 2014	1.2	1.0	0.8	1.0

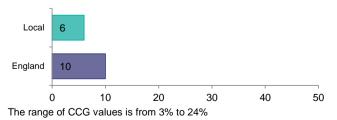
Acceptance rates reflect the number of patients commencing RRT. Acceptance and prevalence rates vary between different CCGs. This is due to a number of different reasons reflecting the demography of the local population and demand for and supply of RRT services within local areas.

The number of people who opt not to have RRT (currently not measured nationally) is another important reason for variation in RRT acceptance rates.

# RRT patients presenting late (less than 90 days before RRT), 2013 and 2014 combined (per cent)



# Pre emptive and early transplant (per cent starting RRT with working transplant at 90 days), 2009 to 2014



Source: UKRR 2014.

Patients need to be assessed by a renal service if they are going to benefit from high quality predialysis care, so high rates of "late-presentation" are a missed opportunity.

The ASSIST-CKD is a program that monitors people's kidney function over time, which has the potential to reduce late presentation.

www.assist-ckd.org

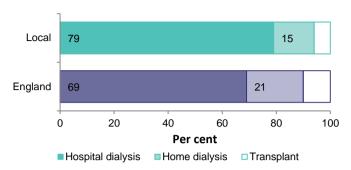
For patients who are suitable a kidney transplant offers the potential for better quality of life, lower mortality and overall is less expensive than dialysis.

The Kidney Quality Improvement Partnership are focusing on "Transplant First" as an early win. www.thinkkidneys.nhs.uk/kquip

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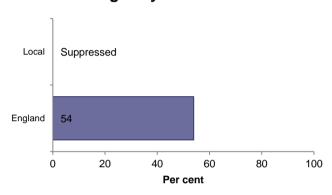
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#### Renal replacement therapy modality at 90 days, 2009 to 2014



This measure of the type of treatment people are having at the beginning of RRT is a surrogate for the priority a renal service gives to dialysis education and choice. The "optimum" numbers choosing transplantation or home therapies is unknown, but a service with very low proportions may not have the best possible pre-dialysis pathway.

#### Patients starting dialysis with definitive access (AVF, AVG or PD catheter), 2013 and 2014



In general evidence from international comparisons suggest lower mortality for patients who have dialysis using an AVF (arm operation) in comparison with a catheter (tube in the neck). A small number of specialist centres have contradictory local data on outcomes. In the main a high proportion who start dialysis with optimum dialysis access is another surrogate of high performing pre-dialysis care.

The range of CCG values is from 16% to 86%

Source: UKRR 2014. The interpretation and reporting of these data are the responsibility of NCVIN and should not be seen as an official policy or interpretation of the UKRR or Renal Association.

#### The Transforming Participation in Chronic Kidney Disease (CKD) programme

NHS England and the UK Renal Registry are undertaking a programme to ensure that people with kidney disease are placed at the centre of their own care. This programme is called the Transforming Participation in Chronic Kidney Disease (CKD) programme and details can be found on the Think Kidneys website.

A measurement workstream is developing and testing methods for collecting information from patients in the renal units that are involved in the programme. The information gathered will provide a picture of how actively involved patients are in managing their kidney disease, and how this affects their quality of life.

An online service called Patientview is available for people with kidney disease (and in some areas inflammatory bowel disease and diabetes mellitus). Patientview lets people monitor their results, manage their condition and communicate with their care team. The system is now available in more than 90% of UK renal units. More details about Patientview can be found at <a href="https://www.patientview.org">www.patientview.org</a>

#### **Patient reported outcomes**

In 2016 the UK renal registry in conjunction with the British Kidney Patient Association circulated a Patient Reported Experience Measure to the 52 renal units in England. 8,800 surveys were returned from 41 centres. The results will be available by renal centre later this year from <a href="https://www.thinkkidneys.nhs.uk/ckd">www.thinkkidneys.nhs.uk/ckd</a> along with a commentary on the overall findings.

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#### End stage renal disease (ESRD)

This section summarises some indicators of service use and the care delivered to the CCG by kidney centres. The data is taken from the UK Renal Registry (UKRR). People within the CCG may attend different kidney centres and these and other indicators are available at kidney centre level from the UKRR website www.renalreg.com. Variability between these kidney centre indicators can reflect different patterns of service provision, for example, transplant centres or differences in the populations or the geographical areas served by the centres. Data should be interpreted with local knowledge in mind. Nationally the number of people receiving RRT continues to rise despite little change in the number of new people starting RRT. This is generally explained by a gradual national decline in mortality which is no different between centres once adjusted for case-mix.

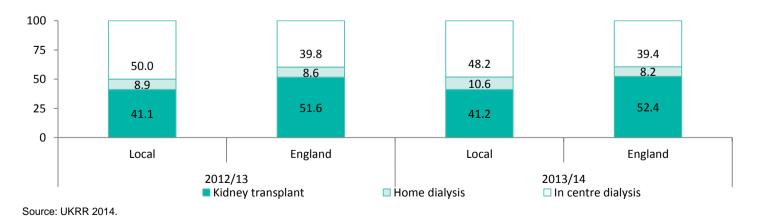
#### Provision of services 2014

	Local	Comparator CCGs	STP	England
Number of people receiving RRT, 2014	85	-	1,435	49,842
Change in number of people receiving RRT, 2009 to 2014 (per cent)	7.6	24.2	20.1	20.9
Proportion of dialysis patients receiving home dialysis (home HD and PD combined) (per cent), 2014	18.0	18.2	22.8	17.3

#### Proportion of people on RRT by treatment modality

Although a person's initial choice of the type of RRT is important – so is the availability of the range of treatment choices (including home therapies and renal transplantation) to those already receiving RRT. Supporting patients doing home therapies in particular is crucial if they are to continue with the treatment long-term. The proportions of people having each type of treatment, viewed alongside the proportions of people choosing each treatment initially gives an broad indication of ongoing access to choice, and also patient support to remain independent.

#### RRT by treatment modality type (transplant, hospital dialysis, home dialysis), 2012 - 2014 (per cent)



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