thurrock.gov.uk

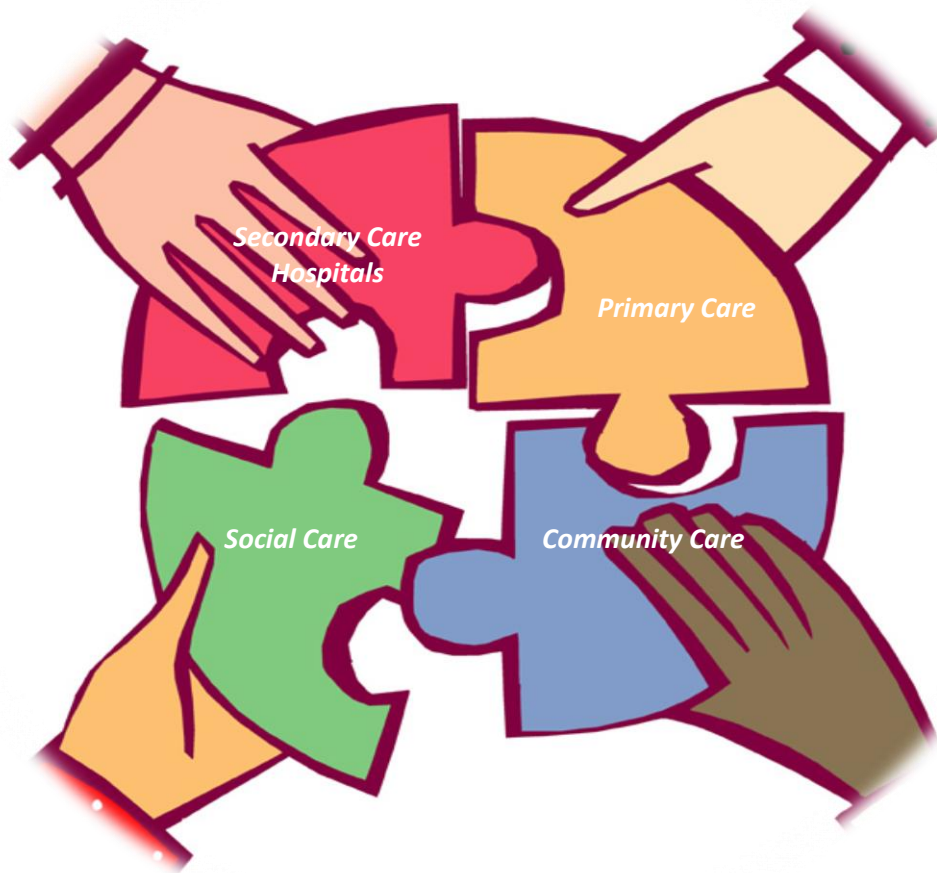**Annual Report of The Director of Public Health: 2016**

A Sustainable Health and Social Care System for Thurrock

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FOREWORD

This is my first Annual Report as Director of Public Health for Thurrock. In it my team and I have tried to critically analyse the problem of financial and operational sustainability of our local health and care system from the bottom up. The report concentrates largely on the early diagnosis and management of long term conditions within the community and makes a series of recommendations about how we can improve the quality of such services.

When the NHS was founded in 1948, 48% of the population died before the age of 65. By 2011, that figure had fallen to 14% and continues to fall. In England, average life expectancy at aged 65 is now 21 years for women and 19 years for men. However although we are living longer lives, we are not living healthier lives and as our population ages is does so with increasing likelihood of living with complex co-morbidities, disability and frailty. 70% of health and adult social care budgets are spent is on people with living long term health conditions and most people over 75 live with two or more long term conditions.

The Health and Social Care system both nationally and locally is under increasing pressure. Whilst spending on the NHS has been ring-fenced and increased in real-terms, local government including public health have faced significant reductions in our budgets. Against this there is backdrop of an exponential increase in demand for services both from an ageing, chronically ill population, and through the increasing expectations of individuals. In order to prevent the system from becoming unsustainable, both health and social care will need to work in radically different ways than we have in the past. In 2003, the then Chancellor of the Exchequer commissioned Derek Wanless to investigate the long term financial sustainability of the NHS. The 'Wanless Report' concluded that unless the health service and population that rely on it embrace the prevention agenda, the entire system would become financially unsustainable by 2025. Regrettably his recommendations were largely ignored and his predictions are beginning to come true. Today the collective deficit of the three hospitals in our local Sustainability and Transformation (STP) local area amounts to approximately £110M Thurrock Council has between an £18-22B deficit that we need to close within the next four years, a significant proportion of which is down to a year on year growth in demand on our social care services.

In my view, our best hope of solving this issue is for health and local government, in partnership with the communities we serve to embrace and embed the prevention agenda. This requires a fundamental shift from reactive health and care services that wait for serious ill health events such as cancer, heart attacks, strokes and respiratory disease to occur and then provide the necessary treatment and care, to proactive services that seek opportunities to intervene at the earliest possible stage and in order to empower individuals and communities to stay healthier for longer.   It requires a shift in thinking from 'doing to' to 'doing with' and it involves holistic integration of what are often currently fragmented services around the individual. Too many of our population end up in the most expensive part of the system – as hospital inpatients, suffering serious and preventable health events as a result of their long term conditions; conditions that if managed more effectively in the community could have allowed them to remain well and independent.

It is my firm belief that it is only by significantly ramping up level and quality of the prevention agenda in Primary, Community and social care will we be able to secure the long term financial and operational future of our local NHS and Social Care services that so many of our population depend on.

Ian Wake
Director of Public Health

ACKNOWLEDGEMENTS

INTRODUCTION

As a population, we are living longer but not necessarily healthier lives. The rate of growth in the population aged 65+ locally is increasing at a rate that far exceeds that of the general population.   Whilst that fact that we are living longer is good news, we are not necessarily living healthier lives. The second chart on the right shows that as we age more and more of us are living with increasing numbers of long term conditions.

These two charts demonstrate clearly the single biggest challenge facing our local health and social care system. Demand for health and social care services is predicted to rise significantly as we age, whilst at the same time there will be fewer working age people that can be taxed to pay for this increased demand.

Currently approximately 70% of all health and people with long term conditions. As such, understanding both the factors that impact on development of long term conditions and the most effective mechanisms for embedding their effective clinical management into our local health and social care system, is absolutely essential in maintaining public health, reducing the growth in demand through emergency hospital admissions and adult social care packages and ensuring that our local health and social care economy remains financially and operationally sustainable.

The main causes of the life expectancy gap between Thurrock and England are cancer, circulatory and respiratory disease. A large proportion of these conditions are either preventable or capable of being managed with effective clinical intervention, if diagnosed early enough and treated well. Long term condition diagnosis and management varies within Thurrock, leading to significant health inequalities between different populations.

This report aims to demonstrate:

-   The current state of demand on the local health and care system
-   Practice-level variation in outcomes, and an indication of patterns
-   A revised Primary Care staffing model which could address demand
-   Key influences on non-elective admissions and inappropriate A&E attendances
-   Some estimates of future activity if no changes are made to provision
-   What is cost-effective in terms of prevention / shifting demand
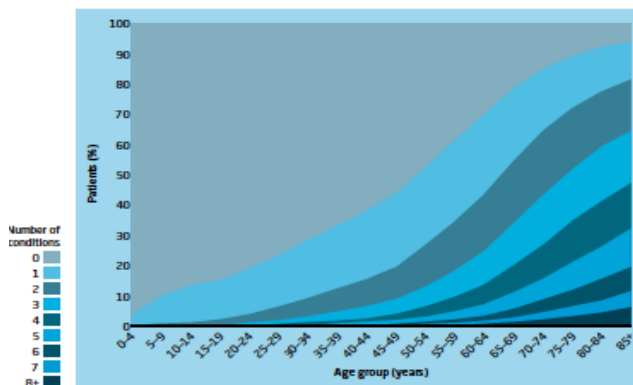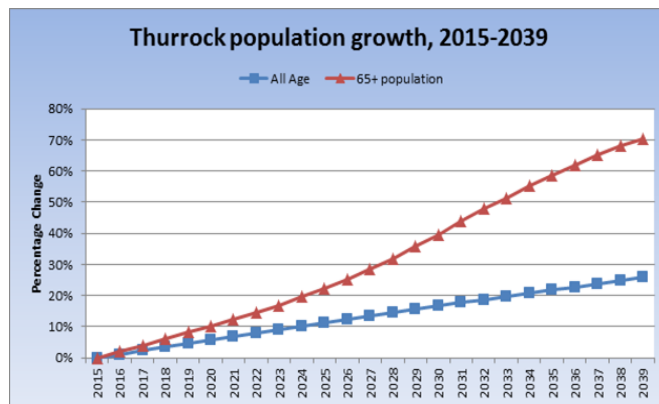
SUMMARY OF RECOMMENDATIONS

PRIMARY CARE

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Improve the clinical management of patients with Stroke/TIA, in order to reduce their risk of them experiencing further strokes	- Ensure that all patients on stroke TIA registers have their blood pressure measured in the previous 12 months and controlled to 150/90mmHg or less. In 2014/15 there were **337** patients on GP practice stroke/TIA registers with uncontrolled blood pressure.	The new Healthcare PH Programme Managers should work with GP practices to assist them to identify patients who have not received the three clinical interventions detailed in the previous column, by producing and publishing SystmOne reports if necessary.
	- Ensure that all patients with a previous non-haemorrhagic stroke or history of TIA, have been prescribed an anti-coagulate or anti-platelet agent, unless there is a clinical contra-indication In 2014/15 there were **106** patients on stroke/TIA register that should have been offered anti-coagulant or anti-platelet medication and were not.	Practices should call all identified patients in for urgent review and offer the intervention or exception report them Out of 2502 patients on GP practice stroke registers, a total of 586 clinical interventions recommended as best practice by NICE in order to manage their condition were failed to be provided by the GP practice or NHS Community provider even after patients who had been 'exception reported' were discounted. This is extremely concerning as it suggests that such patients are being put a unnecessary risks of further strokes, with potentially catastrophic effects for them personally, and unnecessary financial pressure through secondary health care and adult social care costs that could be avoided. This warrants further urgent investigation and action.
	- Ensure that all patients on the GP practice stroke/TIA register have been offered and are encouraged to have an influenza vaccination - In 2014/15 there were **106** patients on stroke/TIA register that should have been offered anti-coagulant or anti-platelet medication and were not.	The following GP practices perform worst in delivering Stroke LTC management compared to their peers in Thurrock and support towards them should be prioritised: - Dr. Mukhopadhay - Aveley MC - Pear Tree Surgery - Chadwell MC - Sai MC - Neera MC - Dr. Yassin - St. Clements HC - Acorns Surgery - Ash Tree Surgery - Dr. Masson -
Improved clinical management of patients with Hypertension (high blood pressure) in order to prevent more serious Cardio-Vascular events.	- Increase the percentage of patients diagnosed with hypertension that have their blood pressure controlled to 150/90 mmHg. In 2014/15 there were **3899** patients with Thurrock with a diagnosis of blood pressure above this level	The new Healthcare PH Programme Managers should work with GP practices to assist them to identify patients with uncontrolled blood pressure by producing and publishing SystmOne Public Health should undertake a deep dive in the issue of Hypertension and assess clinical/ prescribing behaviour of GP practices against NICE Guidelines CG127, making recommendations to share best practice where appropriate. GP practices should urgently review all patients with uncontrolled hypertension. A metric on the management of hypertension should be included on the LTC GP practice scorecard to encourage sharing of best

Required Outcome	Mechanisms to achieve the outcome	Recommendations
		practice between local GP practices and clinicians
Improve the clinical management of patients diagnosed with CHD in order to prevent further serious Cardio-Vascular events.	- Ensure the maximum possible number of patients diagnosed with CHD their blood pressure controlled to a level at 150/90mmHG or less. In 2014/15, **423 patients with CHD had uncontrolled blood pressure, nor had been execption reported.**	Implement all previous recommendations on all clinical management of patients with hypertension
	- Ensure that all patients with CHD have been offered and encouraged to take an anti-coagulant or anti-platelet therapy in the previous 12 months,. In 2014/15, **this did not occur in 304 patients** - Ensure that all patients a history of Myocardial Infarction are treated with an ACE-1, ARB (if ACEC-I intolerant), aspirin or an alternative anti-platelet therapy. In 2014/15, **this did not occur in 2-patients**	The new Healthcare PH Programme Managers should work with GP practices to assist them to identify these cohorts of patients, if necessary by creating and publishing SystmOne reports. **GP practices should urgently invite these cohorts of patients in for clinical review** **The following GP practices perform the most poorly in terms of their long term clinical management of patients with CHD. Public Health should prioritise support for them:** - Dr. Suntharalingham - Dr. Mukhopadhay - Aveley MC - Chadwell MC - Medic House - Pear Tree Surgery - Balfour MC - Ash Tree Surgery
Improve the Clinical Management of patients diagnosed with Atrial Fibrillation in order to prevent more serious Cardio-Vascular Events, particularly strokes.	- Ensure that all patients diagnosed with AF are regularly assessed for stroke risk using a CHAD2 score assessment tool	Ensure that all patients diagnosed with AF are regularly assessed for stroke risk using a CHAD2 score assessment tool
	- Ensure that all patients with a CHAD2 score of 1 are treated with an anti-platelet or anti-coagulation therapy, and that those with a CHAD2 score greater than one are treated with an anti-coagulation therapy.	GP practices to urgent identify and review all patients with AF who require anti-coagulation or anti-platelet medication and have not been prescribed it, nor exception reported. In 2014/15, this **738 patients in 2014/15 putting them at unnecessarily very high risk of a stroke and is wholly unacceptable clinical practice.** Treatment with appropriate anti-coagulation of AF patients with a CHAD2 score>1 to be added to the LTC Management Scorecard and monitored closely through by the Thurrock Health and Wellbeing Board and CCG Clinical Executive/Board. From 2014/15 QOF data, the following GP practices' performance falls within the bottom quartile of performance in the clinical management of patients with AF across England, and may require immediate support to improve: - Dr. Mukhopadhay - Dr. Headon - Dr. Masson - Medic House - St. Clements Health Centre - Balfour MC - Aveley Medical Centre - Primecare MC - Hassengate MC - Acorns SURG
Improved Clinical Management of Respiratory Conditions by Primary and	- Improve the monitoring of disease progression of patients with COPD and asthma such	- GP practices to review all patients with COPD at least once per annum and record an FEV1 score

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Community Healthcare Services in order to prevent or delay disease progression and avoid acute exacerbations	that appropriate clinical interventions can be provided when necessary	- GP practices to review all patients with asthma annually, including an assessment of asthma control using the 3 RCP questions. **In 2014/15, this intervention was not carried out for 2295 patients with asthma.** - GP practices and/or NELFT Community Respiratory Team to measure and record oxygen saturation value annually for all patients with an MRC score of 3 or greater.
	- Reduce the risk of influenza in patients with COPD	- Increase influenza vaccination coverage uptake in this cohort of patients through proactive invitation by GP practices and wider communications and media work by Public Health.
	- Improve clinical management of COPD within the community by ensuring appropriate referral and management of those patients with more serious COPD progression to the NELFT Community Respiratory Team	- Fewer than 20% of patients with COPD and an MRC score of 3+ are referred to the NELFT Community Respiratory Team., nor receive a referral to Pulmonary Rehabilitation. Both of these interventions have been shown to reduce exacerbations of COPD and improve patient outcomes. From April to December 2015 **1,075 patients with COPD who were eligible for Pulmonary Rehabilitation were not referred.** This requires urgent further investigation to ascertain reasons for low referral rates and increase these. -
	- Promote 'self-care' in patients with COPD	There is a strong evidence base that patients with respiratory disease who undertake structured education programmes in terms of 'self-care' have significantly better outcomes. Public Health should work with our local CVS, Healthwatch and PPGs or more widely with the third sector to integrate referral of patients to existing community support groups into care clinical care pathways, and to assist such groups to develop patient education programmes.
Improved Clinical Management of Diabetes by Primary and Community Healthcare Services in order to prevent or delay disease progression and avoid acute exacerbations	Ensure that all patients diagnosed with diabetes that are not exception reported, receive the 10 clinical interventions recommended by NICE within Primary and/or community care. (see table 16)	12,563 NICE recommended clinical interventions that were failed to be carried out by GP practices in 2015/16 in relation to patients with diabetes registered to their practices. If patients that were excepted reported are excluded because (for example they failed to attend the practice or refused the intervention), then GP practice and community health care staff failed to deliver 23% of all clinical interventions recommended by NICE for patients with diabetes. This is extremely concerning and requires urgent review to prevent both avoidable further ill-health and unnecessary cost caused by emergency hospital admissions. Healthcare Public Health Programme Managers should assist GP practices to identify and call for review, patients with diabetes who are not receiving all recommended interventions, by producing and publishing SystmOne reports. Variation between GP practices on the 10 clinical indicators relating to diabetes clinical management in Primary Care is so concerning that it is recommended at Public Health undertake a Diabetes 'Deep Dive" to further investigate the reasons for the current situation and make more detailed recommendations for improvement. Deep Dive to be brought back to the Thurrock Health and Wellbeing Board and NHS CCG Clinical Executive Group/Board for further discussion once complete.
	Promote 'self-care' in patients with diabetes	The NELFT structured education course offered to those newly diagnosed with type 2 diabetes is called SWEET (South West Essex Education and Training) Basics. There is a strong evidence base in terms of better outcomes for patients with diabetes that undergo patient education and NELFT report, a larger HbA1c reduction in patients undergoing this course. The Healthcare PH Programme Managers should work with NELFT, Healthwatch and GP practices to encourage further uptake of this course amongst patients.

ACCIDENT AND EMERGENCY ATTENDANCE

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Reduction of A&E attendances from patients that do not require emergency acute care	Divert patients triaged as requiring no investigation or treatment or minor investigation and treatment into more appropriate community and Primary Care settings	- Investigate commissioning/provider strategy at Mid Essex CCG to ascertain why rates of A&E usage from this population is so significantly lower than other areas in the STP foot print
		- Significantly increase Primary / Community Care Capacity in Thurrock including better skills mix of staff with GP surgeries, improved diagnostics as set out in section *** of this report - Expedite building of the four Integrated Healthy Living Centres for Purfleet, Tilbury, Grays and Corringham
		- Improve front door triage at A&E at Basildon Hospital to assess and deflect patients with minor conditions from being able to accessing A&E services
		- Undertake further analyses of the interface between A&E and the Essex Ambulance Service with a view to understanding and recommending appropriate actions to prevent inappropriate A&E conveyances by ambulance.

EMERGENCY HOSPITIAL ADMISSIONS

Outcome required to prevent one emergency admission for COPD	Mechanisms to achieve the outcome	Recommendations
Prevent 333 people from developing COPD	- Reduce smoking prevalence within the adult population	- Develop and implement a new Tobacco Control Strategy for Thurrock, as set out in Objective E1 of the Thurrock Health and Wellbeing Strategy, 2016-2021
Prevent 33 people from developing asthma	- As above - Improve Air Quality in Thurrock	- As above - Develop and implement a new Air Quality Improvement Strategy for Thurrock as set out in Objective B4 of the Thurrock Health and Wellbeing Strategy 2016-2021
Improve availability of appointments by 0.00014 percentage points	- Reduce levels of under-doctoring in Thurrock - Increase the skill mix of staff within GP practices in order to make them more efficient	- Implement new models of GP practice workforce within Thurrock as set out in ***, and drawing on current local innovative approaches of best practice such as the current model of Primary Care adopted by College Health. - Build four new Integrated Healthy Living Centres, as set out in the JSNA Needs Assessment
Reduce the prevalence of smoking in patients with COPD by 0.009 percentage points	- Targeted intensive stop smoking professional support at those patients with COPD who wish to quit	- Embed smoking cessation training within NELFT community Respiratory Team and ensure that they are commissioned to deliver outcomes against prevalence - Implement procurement of the new Integrated Healthy Lifestyles Provider which will be targeted to focus stop smoking support including e-cigarettes at patients newly diagnosed with LTCs who are most motivated to quit smoking.

Outcome required to prevent one emergency admission for stroke	Mechanisms to achieve the outcome	Recommendations
Prevent 20 people from becoming hypertensive	- Reduce obesity prevalence within the adult population - Increase physical activity within the adult population - Reduce smoking prevalence within the adult population	- Implement a whole systems approach to obesity prevention in Thurrock. - Re-procure an integrated healthy lifestyles service - Commission a programme of smoking prevention in schools - Re-commission an integrated drug and alcohol treatment programme and improve referral pathways into it from other

Outcome required to prevent one emergency admission for stroke	Mechanisms to achieve the outcome	Recommendations
	- Reduce the levels of sodium in the diets of the adult population - Reduce the percentage of adults who drink alcohol at harmful levels and identify and treat those who are alcohol dependent - Reduce levels of stress within the adult population	services - Commission an Alcohol Nurse Liaison Service at Basildon Hospital - Ensure strong referral pathways into the new IAPT 'recovery college' from a range of council front line staff - Strengthen programmes such as Local Area Coordination, Stronger Together and Living Well in Thurrock - Increase uptake of NHS Health Checks
Prevent two people from developing AF	As above	As above
Detect and treat an additional 0.015% of the expected hypertensive population	- Embed the systematic checking of blood pressure into all front line services and the third sector - Increase knowledge of the dangers of high blood pressure within the population	- Increase the uptake of NHS Health Checks - Commission an NHS Senior Health Checks Programme - Increase uptake of opportunistic blood pressure checks in Primary and Community Care - Embed blood pressure checking into the work of wider front line service staff e.g. housing, and within third sector community organisations
Assess and treat an additional three patients with AF and a CHADS score of >1	- Systematic CHAD2 scoring and prescription of anti-coagulation medication at GP practice level where necessary	- Include this measure on the Primary Care LTC Management Scorecard - Develop SystmOne reports to assist GP practices to identify patients requiring review. - Systematically monitor GP practices on performance against this measure
Support five patients with Hypertension to keep their Blood Pressure under 150/90	- Improve access to Primary Care, and clinical management of Hypertension within it.	- Implement a Hypertension Deep Dive / Prescribing Review to check compliance of GP practice prescribing behaviour and management of Hypertension to NICE Hypertension Clinical Guidance CG127 - Include this measure on the Primary Care LTC Management Score card - Produce SystmOne Reports that assist GP practices to identify patients who require review - Encourage sharing of best clinical practice between high and low performing GP practices.

Outcome required to prevent one emergency CHD or Heart Failure	Mechanisms to achieve the outcome	Recommendations
Prevent one person from developing hypertension	- Reduce obesity prevalence within the adult population - Increase physical activity within the adult population - Reduce smoking prevalence within the adult population - Reduce the levels of sodium in the diets of the adult population - Reduce the percentage of adults who drink alcohol at harmful levels and identify and treat those who are alcohol dependent - Reduce levels of stress within the adult population	- Implement a whole systems approach to obesity prevention in Thurrock. - Re-procure an integrated healthy lifestyles service - Commission a programme of smoking prevention in schools - Re-commission an integrated drug and alcohol treatment programme and improve referral pathways into it from other services - Commission an Alcohol Nurse Liaison Service at Basildon Hospital - Ensure strong referral pathways into the new IAPT 'recovery college' from a range of council front line staff - Strengthen programmes such as Local Area Coordination, Stronger Together and Living Well in Thurrock - Increase uptake of NHS Health Checks
Prevent two people from Heart Failure	As above plus: - Reduce the prevalence of people with high cholesterol in the adult population	As above - Implement Hypertension Casefinding and Clinical Management Recommendations as set out in table *** on page ***

Outcome Required	Mechanisms to achieve the outcome	Recommendations
	- Reduce the prevalence of high blood pressure within the population	
Improve availability of appointments so that 0.05% more people rate it as good or excellent	- Reduce levels of under-doctoring in Thurrock - Increase the skill mix of staff within GP practices in order to make them more efficient	- Implement new models of GP practice workforce within Thurrock as set out in ***, and drawing on current local innovative approaches of best practice such as the current model of Primary Care adopted by College Health. - Build four new Integrated Healthy Living Centres, as set out in the JSNA Needs Assment
Treat 63 patients who have HF with LVD with ACE or ARB	- Systematic review of all patients on GP Practice QOF Heart Failure Registers against current NICE Prescribing Guidelines for Heart Failure (CG108)	- Undertake Deep Dive into Heart Failure Clinical Management and Prescribing practice within Primary Care and implement recommendations. - Include this measure on the Primary Care LTC Management Scorecard - Develop SystmOne reports to assist GP practices to identify patients requiring review. - Systematically monitor GP practices on performance against this measure -
Support five patients with Hypertension to keep their Blood Pressure under 150/90	- Improve access to Primary Care, and clinical management of Hypertension within it.	- Implement a Hypertension Deep Dive / Prescribing Review to check compliance of GP practice prescribing behaviour and management of Hypertension to NICE Hypertension Clinical Guidance CG127 - Include this measure on the Primary Care LTC Management Score card - Produce SystmOne Reports that assist GP practices to identify patients who require review - Encourage sharing of best clinical practice between high and low performing GP practices.

Outcome Required	Mechanisms to achieve the outcome	Recommendations

Further Reduce Unplanned (Emergency) Hospital Admissions for Ambulatory Care Sensitive (ACS) Conditions	- Improve the quality of clinical management of ASC within GP practices and community health services	- Urgent further investigation in (including clinical audit if necessary) is undertaken at the following GP practices locally, that have unplanned care admissions for ACSCs that are significantly greater than the Thurrock mean, to ascertain the causes and implement solutions to ameliorate these:
		  - Purfleet Care Centre
		  - Thurrock Health Centre
		  - Chadwell Medical Centre
		  - Dr. Devaraja

		- The new Public Healthcare Programme Managers work with local GP practices and the CCG's Primary Care Development Team to undertake a deep dive at practice level, triangulating the ACSC admissions by group (Figure 27), with the DSR admission rate for ACSCs. (Figure 26) to develop an action plan to address this at practice level. - The results of the above deep dive inform the Primary Care LTC Scorecard Indicators - The new Public Health Programme Managers work with local GP practices to encourage sharing of best practice with regard to the Clinical Management of ACSCs

DELAYED TRANSFERS OF CARE

Outcome Required	Mechanisms to achieve the outcome	Recommendations
Reduce / Eliminate Delayed Transfers of Care Locally	- Improve access to non-acute NHS care	- The reasons behind coding of this category remain unclear, as local evidence suggests that there is currently an over-capacity of intermediate care beds in Thurrock. As such, delays in accessing Continuing Health Care (CHC) may account for coding of DToCs of this sort. Public Health should undertake further work with NHS Thurrock CCG and Basildon Hospital to ascertain and address the factors that are driving this issue
	- Complete assessments in a more timely fashion	- The reasons behind the coding of this category also remain unclear and again may relate to delays in assessment for CHC. This warrants further investigation by Public Health in conjunction with NHS Thurrock CCG. - NHS Thurrock CCG should continue to implement its 'Discharge to Assessment" programme
	- Improve capacity of residential and nursing home placements locally	- Current capacity of residential and nursing home provision is currently inadequate and remains a challenge that requires a 'system wide' solution including STP funding. Feasibility of the following possible solutions are being investigated and should be piloted - A rapid discharge service that would place social care resource in the hospital to begin planning discharge almost from the point of admission - The development of a comprehensive step down facility probably at Collins House site in Corringham. This would deliver capacity for discharge to assess and intermediate/rehab to enable people who are doctor fit to be discharged for ongoing support pre return to home. Thurrock Council has the ability to fund capital costs to enable the council to build the facility on the proviso of commitment from the NHS of additional revenue funding to support the care costs. - The economics of providing nursing care mean that very large homes (at least 80 beds) are required for providers to make a profit, yet in quality of care terms this size of home is very problematic. It is vital that the local Health and Social Care system collectively seeks to fix home care in a sustainable way, and develop alternatives such as the Collins House project (as this will free up some beds that are being used for step down care). Our local system also needs to incentivise the development of small, probably specialist (dementia, autism etc.) residential and nursing care homes.
	- Reduce demand for residential and nursing care home placements	- The local Health and Social System (and STP must) redirect resource towards prevention through initiatives described within this report in order to keep older people as healthy and independent for as long as possible. It is not financially or operationally sustainable simply continue to increase the supply of nursing and residential care.

REFERRAL TO TREATMENT

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Improvement in the efficiency of Referral to Treatment Elective Care Pathways to reduce unnecessary waiting times for patients	- Increase understanding of patient flows from Primary Care referral, through diagnostics to treatment with priority given to the poorest performing care pathways as identified in tables 31 and 33, and the highest volume diagnostic tests as identified in tables 34 and figure 53	- Public Health to work with NHS Thurrock CCG and Basildon Hospital to undertake a 'Deep Dive' on the efficiency and cost effectiveness of elective care and access to diagnostics. - Further analysis of BTUH workforce data to unpick whether that has an impact on the delayed transfers of care or the specific categories of diagnostic test/RTT pathways that have the longest waiting times - - Deeper triangulation of outpatient clinic data to primary care long term condition management data to understand if quality of primary care has any impact on outpatient activity through use of the Integrated Data Solution Software Package (as set out in the Thurrock Health and Wellbeing Strategy 2016-2021), once procured.
	- Investigate the feasibility and cost effectiveness of moving some diagnostic tests from secondary to community/primary care settings	- Improve front door triage at A&E at Basildon Hospital to assess and deflect patients with minor conditions from being able to accessing A&E services - Undertake further analyses of the interface between A&E and the Essex Ambulance Service with a view to understanding and recommending appropriate actions to prevent inappropriate A&E conveyances by ambulance.

ADULT SOCIAL CARE

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Reduce demand for new Community ASC packages	- Ensure that the Living Well In Thurrock programme of prevention and early intervention is targeted at the most effective populations	- Direct prevention and early intervention programmes at the population aged 60 plus - Prioritise additional prevention and early intervention programme activity in Grays Thurrock, Stifford Clays, Standford East and Corringham and Chadwell St. Mary wards to maximise impact
	- Increase understanding of the fundamental local drivers of ASC need in Thurrock	- Undertake further analyses to ascertain why the older population of Grays Thurrock, Stifford Clays and Grays Riverside have a significantly greater need for ASC compared to older people living in other parts of the borough. - Undertake further analyses to ascertain why older people registered to Santa Maria Medical Centre, Dr. Yasin's Practice, Chadwell St. Mary MC and Primecare Medical Centre appear to have a significantly greater need for ASC community care packages when compared to older people registered at other GP practices across the borough - Review the effectiveness of local MSK commissioned health services - Improve recording practice by front line ASC staff on the LAS system wrt underlying reasons why a care package is initiated, clinical conditions of the clients involved and the GP practice that the client is registered to
	- Address under doctoring in GP Practices in Thurrock	- Implement the recommendations as set out in sections 3.9 7.9

Required Outcome	Mechanisms to achieve the outcome	Recommendations
	- Improve community capacity in order to assist older people to remain independent for longer	- Implement (or continue to implement) the programmes set out in section 7.1, 7.3 and 7.8
Reduce the demand for residential care	- Increase the percentage of clients with Learning Disabilities supported within the Community	- Implement the proposed programmes to support clients with LD within the community including *Shared Lives; Medina Road Supported Living* and *Sheltered Housing Support* - Consider further review of the current service model
	- Reduce the number of older people entering residential care	- Implement the Depression Screening Programme as set out in the Thurrock Health and Wellbeing Strategy 2016-21 - Target prevention and early intervention support at clients from their early 70s onwards - Implement the recommendations set out in sections 7.1, 7.3 and 7.8

FINANCIAL OPPORTUNITIES:

Desired Outcome	Interventions	Investor of costs	Recipient of savings	Financial Opportunity
Improve Detection of Hypertension. Detect 5,000 patients over 3 years. Prevent 33 strokes per year.	Hypertension detection programme funded under BCF Long Term Conditions Scorecard	Better Care Funding	NHS Social Care	Savings of: £121K per year (NHS) £230K for 3 years following avoided stroke(Social Care – over 3 years) [section 3.3]
Prevent patients from becoming Hypertensive. Mitigate against the additional 3,694 additional Hypertensive patients we are expected to have by 2021 due to rising levels of Obesity. Prevent 61 strokes per year.	Halt rise of obesity	CCG / Public Health (prevention) /Council	NHS Social Care	Savings of: £222K per year (NHS) £424K for 3 years following avoided stroke(Social Care – over 3 years) [section 3.3]
Improve assessment and treatment with appropriate drug therapies AF patients with a CHADS2 score of 1: 7 patients not exception reported. Prevent 0.86 strokes per year 19 patients who are exception reported. Prevent 2.3 strokes per year.	Long Term Conditions Scorecard Health care Public Health Improvement manager posts	No costs	NHS Social Care	Savings of: £11.5K per year (NHS) £22K for 3 years following avoided stroke(Social Care – over 3 years) [section 3.3]
Improve availability of GP appointments so that 0.01% more people rate it as positive in all practices: Prevent 158 admissions for CHD and HF per year Prevent 58 admissions for respiratory conditions per year	New mixed staffing model Digital services Increase means of self care (community Hubs, pharmacies	CCG / Public Health (prevention)	NHS Social Care	CHD HF Savings of: £729K per year (to NHS - £4,614 per admission) Respiratory Savings of: £129,514 (to NHS - £2,233 per admission) £11K for 3 years following avoided admission (Social Care – over 3 years) [section 3.3]
Treat more patients who have HF with LVD with ACE or ARB 9 patients not exception reported. Prevent 0.63 admissions for CHD and HF per year 32 patients who are	Long Term Conditions Scorecard Health care Public Health Improvement manager posts	No Costs	NHS Social Care	Savings of: £2.9K per year (to NHS - £4,614 per admission) Unable to quantify savings for Social Care.

Desired Outcome	Interventions	Investor of costs	Recipient of savings	Financial Opportunity
exception reported. Prevent 2.24 strokes per year.				
Prevention of COPD cases. Prevent 100 cases of COPD and prevent 0.3 hospital admissions per year.	Smoking Prevention Smoking Cessation Obesity Prevention	Public Health (prevention)		Respiratory Savings of: £589 (to NHS - £1,960 per admission)
To avoid 33 emergency admission for respiratory conditions per year Reduce the prevalence of smoking in patients with Long Term Condition patients by 9 percentage points	Smoking Cessation	Public Health (prevention)	NHS Social Care	Savings of: £64K (NHS) £6.3K for 3 years following avoided admission (Social Care – over 3 years) [section 3.3]
Commission an Integrated Falls Prevention Programme for Older People	Falls prevention	Better Care Funding	NHS Social Care	Best case scenario: return on investment of £3.79 per £1 spent
Reduce the number of A&E attendances requiring no investigation or treatment.	Mitigate the impact of closeness and convenience by introducing local services Educate parents through health visitors when to use A&E Consider training parents in first aid/self care Consider an Ambulance Triage	NHS	NHS	Reduce A&E attendances by 294 per year saving the NHS £19K per year
Reduce inappropriate attendances to be in line with Mid Essex	Review Mid Essex triage system and consider application in Thurrock Educate parents through health visitors when to use A&E Consider an Ambulance Triage	NHS	NHS	Reduce A&E attendances by 8,000 per year saving the NHS £900K per year
Increase patients with Long Term Conditions' knowledge on how best to self care	Self-care	Public Health Existing Community Capacity	NHS Social Care	For a cost of £400 per patient, average net saving of £1,800 per patient per year
Social Prescribing	Community management of care	Public Health CVS? CCG?	NHS Social Care	After five years, a return on investment of £3.38 per £1 spent.
Well Homes	Keeping people well at home	Public Health Private Housing Service	NHS Wider society Social Care	Completing 400 assessments a year is calculated to result in £1,676,815 savings [£694,297.10 to NHS]

Desired Outcome	Interventions	Investor of costs	Recipient of savings	Financial Opportunity
Increase early diagnosis of breast cancer in line with the East of England average.	Cancer screening	NHS England / Public Health	NHS Social Care	Improving early diagnosis by 6% could save £58,243 in cancer treatment costs, or a five year total of £314,293.98.
Increase early diagnosis of cervical cancer in line with the East of England average.	Cancer screening	NHS England / Public Health	NHS Social Care	Improving early diagnosis by 6% could save £3,775.20 in cancer treatment costs, or a five year total of £20,386.08.
Increase early diagnosis of bowel cancer in line with the East of England average.	Cancer screening	NHS England / Public Health	NHS Social Care	Improving early diagnosis by 6% is calculated to save £26,374 in cancer treatment costs, or a five year total of £135,717.
Reduce the future number of long term conditions patients who are also obese.	Obesity Prevention	Public Health CCG	NHS Social Care	The additional projected costs of LTC + obese calculated to be: £1,678,680 for stroke acute & rehab care, £987,235.20 for coronary artery bypass grafts in CHD patients, £758,160-£1,053,000 per year in Diabetes inpatient costs and £88,947.90 per year in hypertension management. **These are all on top of their existing LTC management costs.**
Increase uptake of the programme from 56% to 66%.	NHS Health Checks	Public Health	NHS Social Care	The increase in uptake by 10 percentage points would result in 57 additional Quality Adjusted Life Years over the course of a lifetime.
Achieve the target of 500 patients referred onto the service.	National Diabetes Prevention Program	CCG	NHS Social Care	In five years, expected savings are £124,879 per 1,000 patients
Enabling a patient to self-refer to a physiotherapist.	Physiotherapy in Primary Care	CCG	NHS Social Care	Estimated savings of up to £44,959.20 in hip and £76.705.20 in knee osteoarthritis patients.
Maintaining effective cholesterol control in patients with Diabetes and CHD.	Management of hypertensive patients	CCG	NHS Social Care	One year savings from strokes and heart attacks avoided: £85,196 (NHS) One year savings from strokes avoided: £11,895 (Social Care) The above come from treating an additional 493 Diabetes and 241 CHD patients.
Continued investment into the RRAS	Rapid Response Assessment Service	NHS Social Care	NHS Social Care	ASC Packages avoided: £524,081 per week (Social Care) Opportunities not calculated for NHS

LINKS TO EXISTING RELATED LOCAL RESEARCH

There are other documents that have been produced that provide richer sources of information on some of the contents of this report. These include:

- Local Area Coordination 2014 Evaluation
- LARC/Teenage Pregnancy Strategy
- Tilbury and Purfleet Needs Assessments 2016
- Annual Public Health Report 2014 – Older People
- Cancer Deep Dive 2015
- Pharmaceutical Needs Assessment 2014

Future documents will include:

- Whole Systems Obesity Evidence Base and Needs Assessment
- NHS Health Check Health Equity Audit
- Mental Health JSNA

Section 1 Primary and Community Care

1.1 GP shortages and availability of appointments

1.1.1 Introduction

In this section we look at the number of patients registered per FTE GP, availability of appointments and patient satisfaction scores. We believe that these three measures are intertwined indicators which jointly describe the huge challenge we face in Thurrock if we truly want to make improvements in the management of any patient cohorts in order to mitigate impacts to other parts of the system.

It is one thing to show a practice their shortfalls but at the same time we need to acknowledge the constraints under which they can operate and search for ever innovative ways of achieving improvements without increasing the strain on an already stretched primary care workforce. This may include; using current resources very differently; adding additional capacity; relieving the pressure by using alternative resources.

1.1.2 Patients per FTE GP in Thurrock

On average, nationally, there are 1321 registered patients per GP and 2509 per nurse . Figure 1 shows ratio of patients per FTE GP for Thurrock GP practices, together with the England and CCG mean ratios. We know that this number has been increasing over the last few years and that there is a national shortage of GPs. The government have recently announced plans to attract more people into the profession.

Thurrock is the fourth most un-doctored CCG area in England. The mean ratio of patients to FTE GPs in Thurrock is 2110 compared to an England mean of 1321. All but four GP practices have ratios of patients:FTE GPs that are greater than the England mean, with the most under-doctored GP practice having a ratio that is over five times the England mean ratio.

This is one of the most significant challenges facing our local Health and Social Care system and the population it serves. Approximately 70% of all patient interactions with doctors happen in GP surgeries. GPs also act as 'gatekeepers' to elective care and also are responsible providing clinical management of patients with long term conditions through the QOF (Quality Outcomes Framework). If patients are receiving inadequate care because of levels of under-doctoring, it is highly likely that they will end up in more expensive parts of the H&SC system, particularly as A&E attendances or emergency hospital admissions.

Figure 1: National Variation in workforce levels in General Practice, September 2015
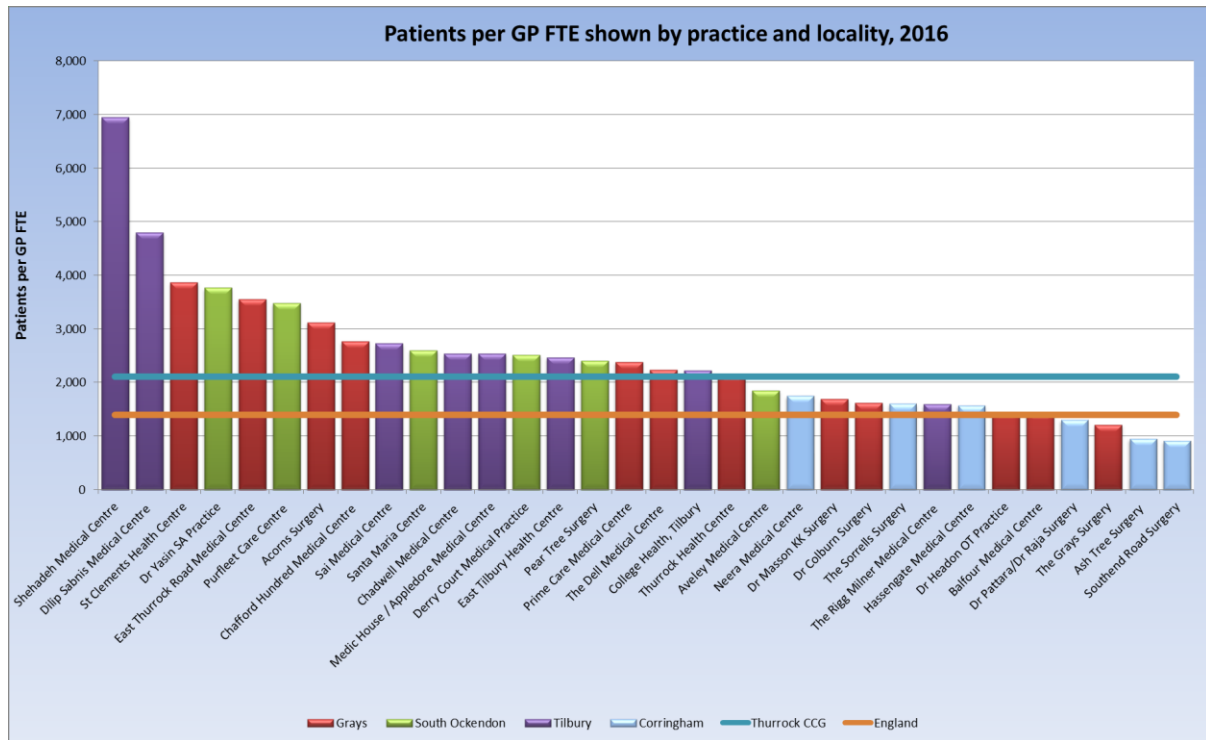
Source: HSCIC

Figure 2: Ratio of Patients to FTE Practice Nurse
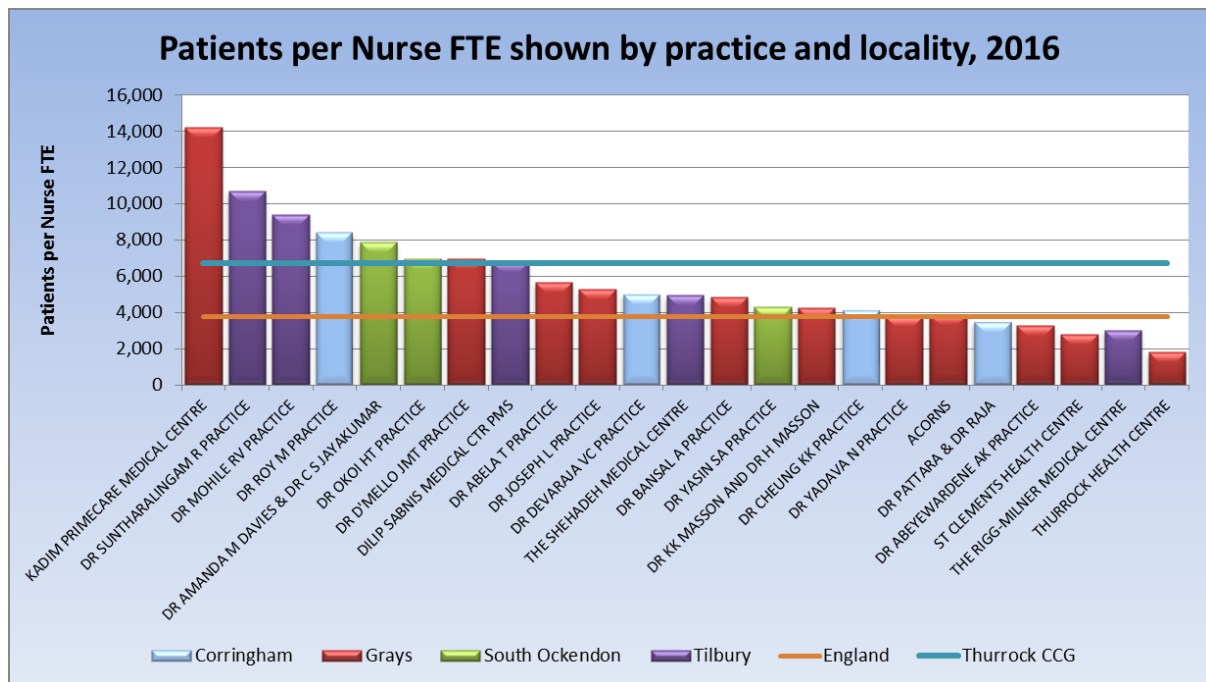
Figure 2 shows the ratio of Patients:FTE Practice Nurses for surgeries in Thurrock (where data is available), together with the England and CCG mean ratios. Like Figure 1, Figure 2shows significant levels of 'under-nursing' within GP practices. All but five GP practices have a ratio of patients: FTE Practice nurse that is greater than the England mean. Practice nurses play a key role in long term condition management of patients, and levels of under-nursing seen locally will inevitably have a negative impact on the clinical

management of patients with long term conditions, again putting them at risk of emergency hospital admissions.

Figure 3 shows the association between levels of under-doctoring at GP practice level and levels of deprivation (as measured by the Index of Multiple Deprivation, 2015) for each GP practice population..

Figure 3: The association between levels of under-doctoring at GP practice level and levels of deprivation (as measured by the Index of Multiple Deprivation, 2015) for each GP practice population
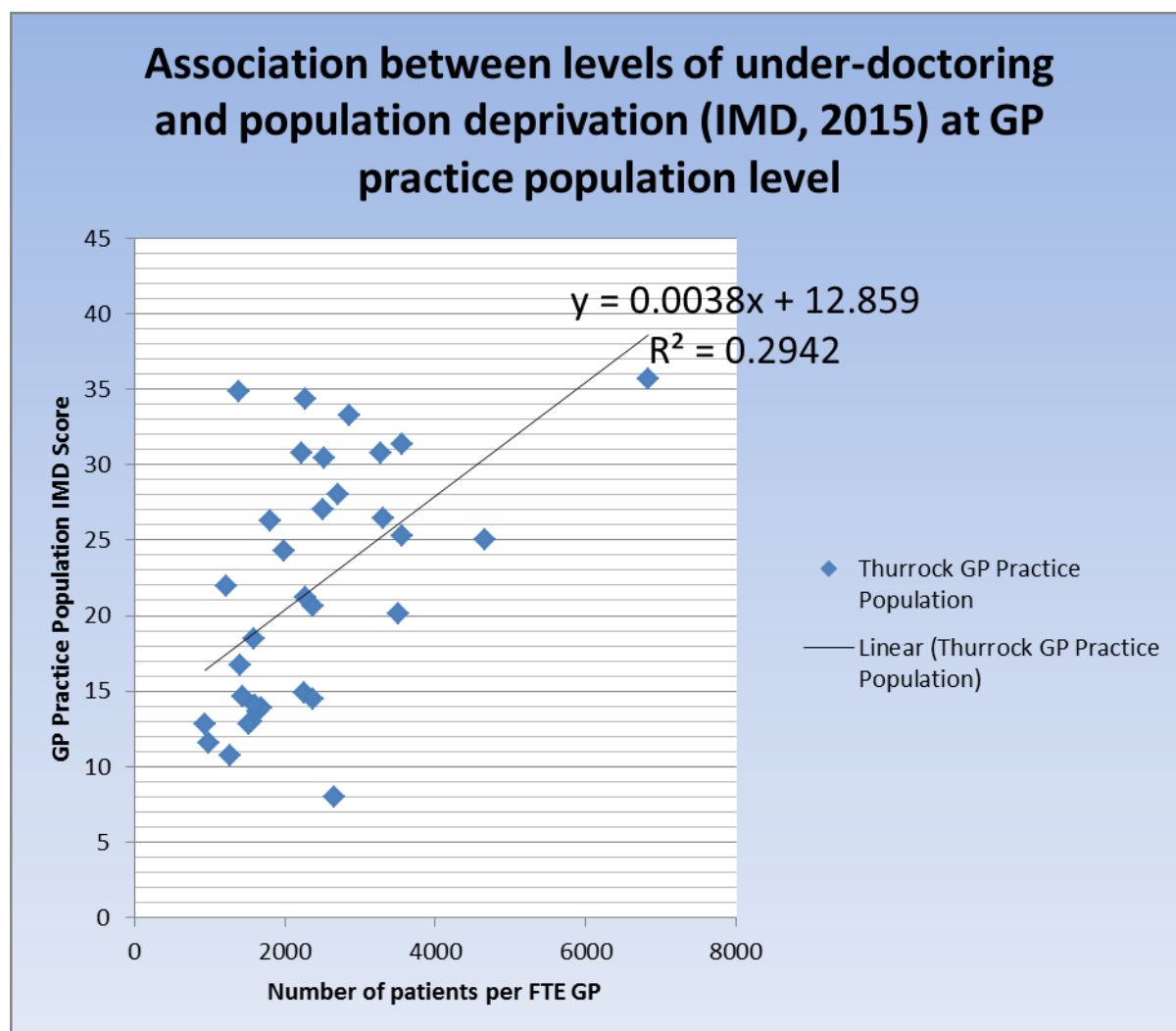
There is a strong positive association between levels of under-doctoring and levels of deprivation. Almost 30% of the variation between the ratio of Patients per FTE GP is associated with levels of deprivation within the GP practice population. This is extremely concerning; as it suggests that the practice populations with the greatest levels of morbidity (strongly associated with deprivation) are registered to the most under-doctored GP practices. As such, Figure Y demonstrates The Inverse Care Law is a significant issue at GP practice level within Thurrock; namely that populations with the greatest health needs are more likely to get the poorest health care.

1.1.3   AVAILABILITY OF GP PRACTICE APPOINTMENTS

Lack of availability appointments in GP practices are a significant positive predictor of emergency hospital admissions for Coronary Heart Disease (CHD) and Heart Failure (HF), and for Respiratory conditions. (See Long Term Condition Models in this report (see sections 3.2 to 3.5). For every one percentage point

increase in the availability of GP appointments (as measured by the question "last time you wanted to see/speak to a GP were you able to?" in the GP patient survey) we estimate a reduction in the average GP practice of 118 emergency admissions for CHD/HF and 60 emergency admissions for respiratory conditions. Workforce capacity clearly has an impact on this. There is a weak association between patients per WTE GP and availability of appointments. Patients per GP explains 5% of the variation in availability of appointments (R^2=0.05, p=0.008). As such there are clearly variables other than the absolute number of patients per FTE GP that are impacting on a GP Practice's ability to provide appointments to patients in a timely manner.

Figure 4 Patients per WTE GP vs availability of appointments in South Essex (extremes removed)
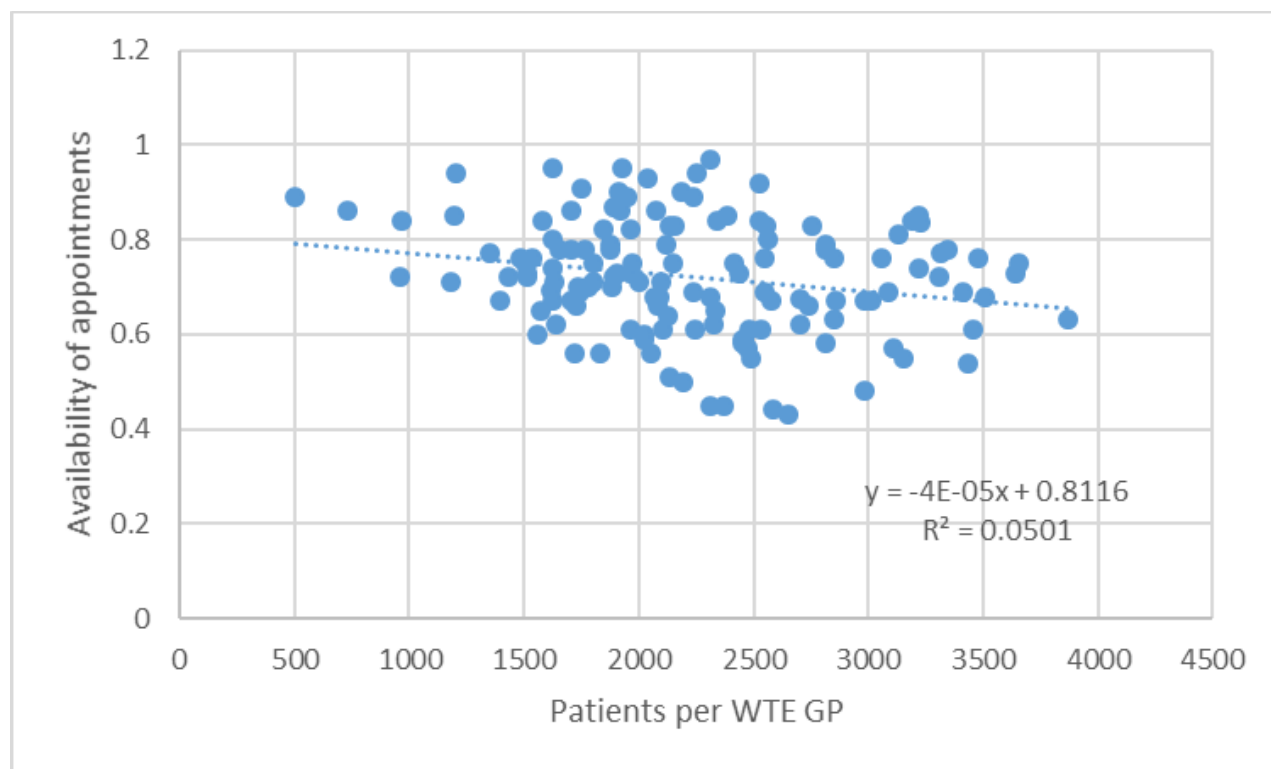
Source: HSCIC and National GP Practice Profiles

1.1.4   SATISFACTION WITH PRIMARY CARE

The GP Patient Survey assesses patients' experience of healthcare including experience of access to surgeries, making appointments, the quality of care received from GP's and practice nurses, satisfaction with opening hours and experience of out-of-hours NHS services, so the NHS can measure how they are doing, whether they are achieving the NHS vision and to continuously improving services for patients and their care. The most recent survey was completed for the time period January - March 2016, and found that 79.8% of Thurrock residents reported a 'very good' or 'fairly good' experience of their GP service. Figure X shows the percentage of patients who responded to the patient survey who rated their Thurrock GP Practice as either 'fairly good' or 'very good', together with the mean ratings for all practices in Thurrock and in England. Overall, patients in Thurrock are less satisfied with their GP practice than the average for England. 11 Thurrock Practices have ratings of fairly or very good that are statistically lower than the England mean, and three – Hassengate Medical Centre, Dr. Abeyewarden and Drs. Pattara & Raja have ratings of fairly or very good that are statistically significantly above the England mean.

However, some care should be exercised in interpreting these figures. Response rates as a percentage of total registered patients in the GP survey are notoriously low, levels of expectation may vary between different practice populations, and a low satisfaction rating should not automatically be interpreted as poor clinical care. For example, a GP practice that strictly refuses to prescribe anti-biotics to patients demanding them when they are not required would be providing a high standard of clinical care on this issue, but may also end up with dissatisfied patients.

Figure 5: Percentage of Patients who rated their experience of their GP practice as "Very Good" or "Goood".
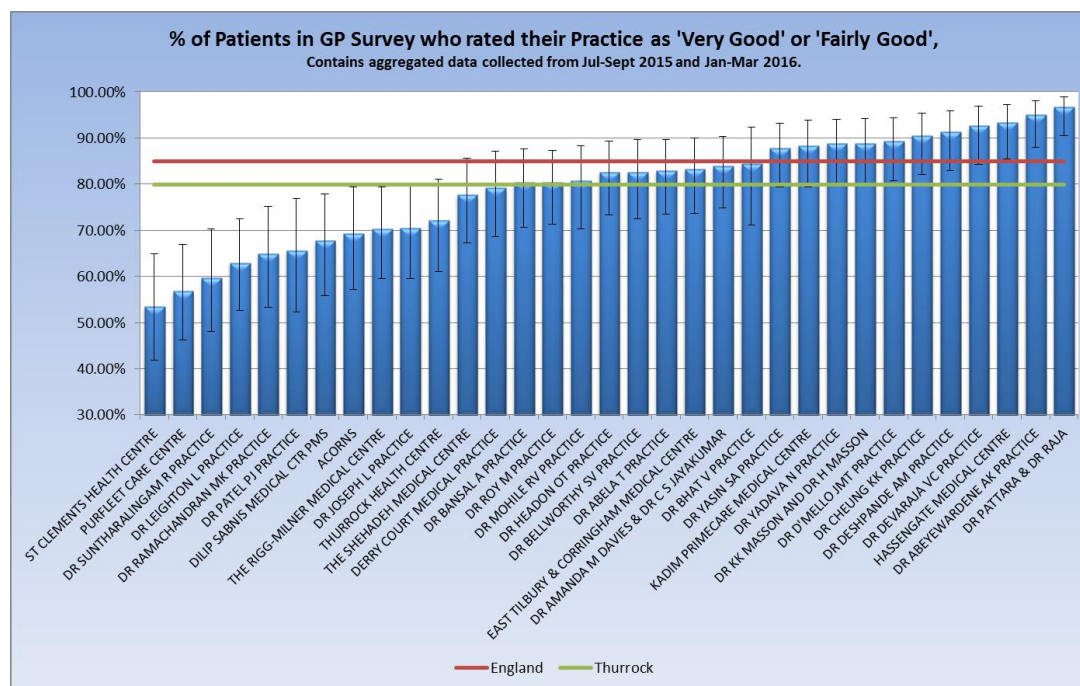
Source: GP Patient Survey

1.2   DIAGNOSIS OF PATIENTS WITH LONG TERM CONDITIONS

1.2.1 DIAGNOSED PREVALENCE OF DISEASE

In 2014/15 there were 54,678 cases of key long term conditions recorded by GPs, of which there were 23,727 hypertension cases, 9,441 asthma cases and 8,185 Diabetes cases [these were the three most common of those presented below]. This can be seen in Figure 6

Figure 6: Number of observed cases for key LTCs in Thurrock, 2014/15

Number of Cases per QOF condition - 2014/15
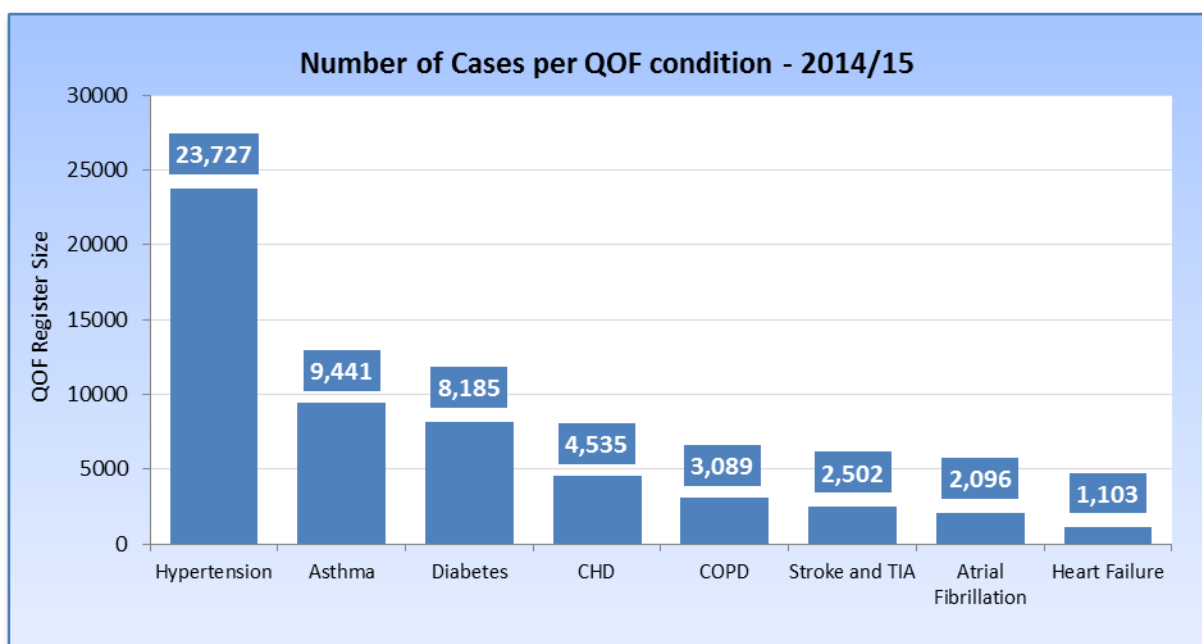
Source: QOF 2014/15

This equates to a hypertension prevalence of 14.1% (England = 13.8%), Asthma prevalence of 5.6% (England = 6.0%) and Diabetes prevalence of 6.3% (England = 6.4%). There is a large variation in the diagnosed prevalence of each LTC between different GP practices; the range for each can be seen in the table below and the eight figures underneath. Those practices that have prevelances of long term conditions ranked in the highest third are shown in red, those with prevalence in the middle third are shown in yellow and those in the lowest third are shown in green. This demonstrates that that practices such as Acorns, Dr Patel, Purfleet Care Centre, St Clements and Thurrock Health Centre consistently have prevalence rates in the lowest third of Thurrock practices, whereas Dr Jones and Dr Suntharalingham have prevalence rates for all conditions in the highest third of Thurrock practices.

Table 1: Practice-level prevalence of key LTCs, 2014/15

Recorded QOF prevalence at GP practice level is a product of two key variables; the underlying prevalence of each long term condition within the GP practice population, and the GP practice's success at identifying and diagnosing the specific disease. As such it can be considered a measure of how much *demand* for long term condition management is faced by the practice, as opposed to absolute levels of clinical *need* within the practice population.

Table 2: Practice-level Diganmosed prevalence of key LTCs, 2014/15

Practice F code	Surgery Name	Asthma	COPD	Diabetes	CHD	Heart Failure	Hypertension	Stroke / TIA
F81110	SUNTHARALINGAM R	7.39%	3.20%	9.69%	5.25%	1.32%	18.79%	1.84%
F81082	DRS JONES & BYRNE	6.62%	2.18%	7.81%	3.99%	0.70%	16.89%	2.42%
F81084	CHADWELL MEDICAL CENTRE	5.76%	2.16%	8.78%	4.76%	1.03%	15.64%	2.44%
F81192	STIFFORD CLAYS SURGERY	6.39%	2.81%	6.00%	3.70%	0.82%	14.81%	1.99%
F81697	DEVARAJA V C & PARTNER	5.78%	2.07%	6.79%	3.43%	0.71%	21.92%	1.95%
F81719	MUKHOPADHYAY SURGERY	5.64%	2.41%	7.40%	2.66%	0.64%	18.85%	1.88%
F81134	PEARTREE W HORNDON SURGERIES	5.62%	3.27%	6.78%	3.12%	0.87%	17.45%	1.61%
F81177	DESHPANDE A M & PARTNER	4.97%	1.69%	7.52%	2.85%	0.79%	21.19%	1.98%
F81206	SHEHADEH MEDICAL CENTRE	6.04%	2.55%	6.91%	2.81%	1.09%	15.44%	1.60%
F81641	KK MASSON AND DR H MASSON	5.02%	1.76%	7.08%	4.33%	0.84%	17.40%	1.58%
F81088	DR M ROY & PARTNERS	6.16%	1.56%	7.25%	4.11%	0.74%	25.51%	1.31%
F81219	DELL MEDICAL CENTRE	6.09%	1.76%	5.95%	3.69%	0.67%	13.29%	2.40%
F81644	CHEUNG K K	5.78%	1.89%	5.54%	3.73%	0.61%	19.17%	2.25%
F81155	BALFOUR MEDICAL CENTRE	4.45%	1.90%	7.29%	2.99%	0.66%	19.92%	2.08%
F81010	AVELEY MEDICAL CENTRE	5.53%	2.45%	6.88%	3.28%	0.70%	14.12%	1.80%
F81652	APPLEDORE AND MEDIC HOUSE	5.59%	1.87%	7.02%	3.00%	0.75%	14.14%	1.39%
F81198	HORNDON-ON-THE-HILL SURGERY	5.58%	1.86%	5.29%	3.06%	1.74%	16.65%	1.94%
F81153	HASSENGATE MEDICAL CENTRE	7.40%	1.68%	6.26%	2.87%	0.59%	13.89%	1.82%
F81632	HEALTH CENTRE DARENTH LANE	5.80%	3.31%	6.56%	2.68%	0.47%	13.83%	1.30%
F81137	ORSETT SURGERY	5.83%	1.32%	5.43%	2.70%	0.67%	13.80%	1.56%
F81691	ETC MEDICAL SERVICES	6.15%	1.11%	6.25%	2.15%	0.58%	14.93%	1.52%
F81669	OKOI H & PARTNER	6.69%	2.33%	5.07%	2.02%	0.82%	10.62%	1.27%
F81698	DILIP SABNIS MEDICAL CENTRE	5.10%	2.06%	6.15%	2.88%	0.50%	14.98%	1.62%
F81623	KADIM PRIMECARE MEDICAL CENTRE	5.67%	1.32%	6.73%	2.81%	0.26%	18.67%	1.19%
F81197	BELLWORTHY S V	4.19%	1.84%	6.98%	1.72%	0.35%	16.77%	0.67%
F81218	JOSEPH L & PARTNER	4.14%	1.48%	6.04%	2.48%	0.57%	13.19%	1.38%
F81211	EAST THURROCK MEDICAL	4.90%	1.66%	6.04%	2.51%	0.58%	12.94%	1.15%
F81113	ABELA T & PARTNERS	5.60%	0.72%	4.58%	1.33%	0.41%	9.89%	0.69%
F81708	DR PATEL PJ PRACTICE	2.37%	1.10%	5.47%	1.55%	0.17%	7.74%	0.72%
Y02807	THURROCK HEALTH CENTRE	4.45%	0.78%	4.08%	0.84%	0.24%	6.37%	0.68%
Y00033	PURFLEET CARE CENTRE	4.09%	1.07%	4.87%	1.16%	0.25%	9.68%	0.49%
Y00999	ST CLEMENTS HEALTH CENTRE	4.56%	0.89%	5.03%	1.24%	0.30%	8.99%	0.49%
F81742	ACORNS MEDICAL CENTRE	3.54%	0.70%	3.23%	0.61%	0.06%	5.63%	0.42%

Source: QOF 2014/15

Figures 7 through 14 show the diagnosed prevalence of the most common Long Term Conditions in Thurrock at GP practice level. There are particularly high levels of variation between diagnosed rates of Atrial Fibrillation, COPD, CHD and Heart Failure. Again this could be due to genunine differences in underlying prevalence of this conditions between different practice populations, are differences been GP practices' ability to identify and diagnose these conditions in their patients.

Figure 7: Diagnosed prevalence of Asthma, 2014/15
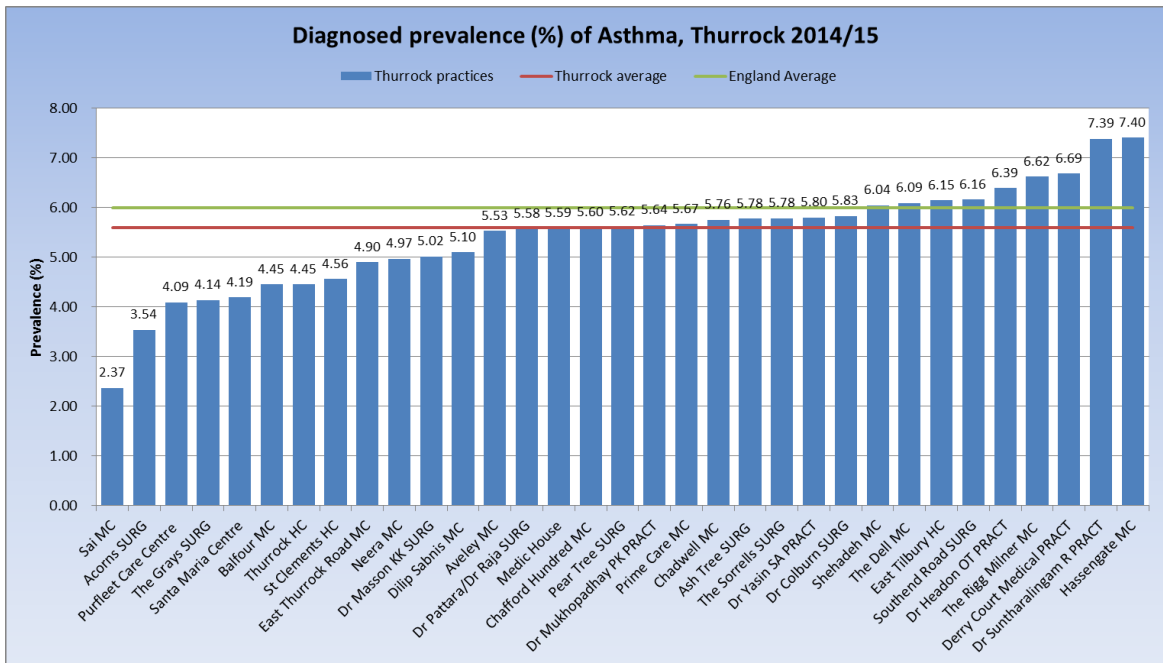
Source: QOF 2014/15

Figure 8: Diagnosed prevalence of COPD, 2014/15
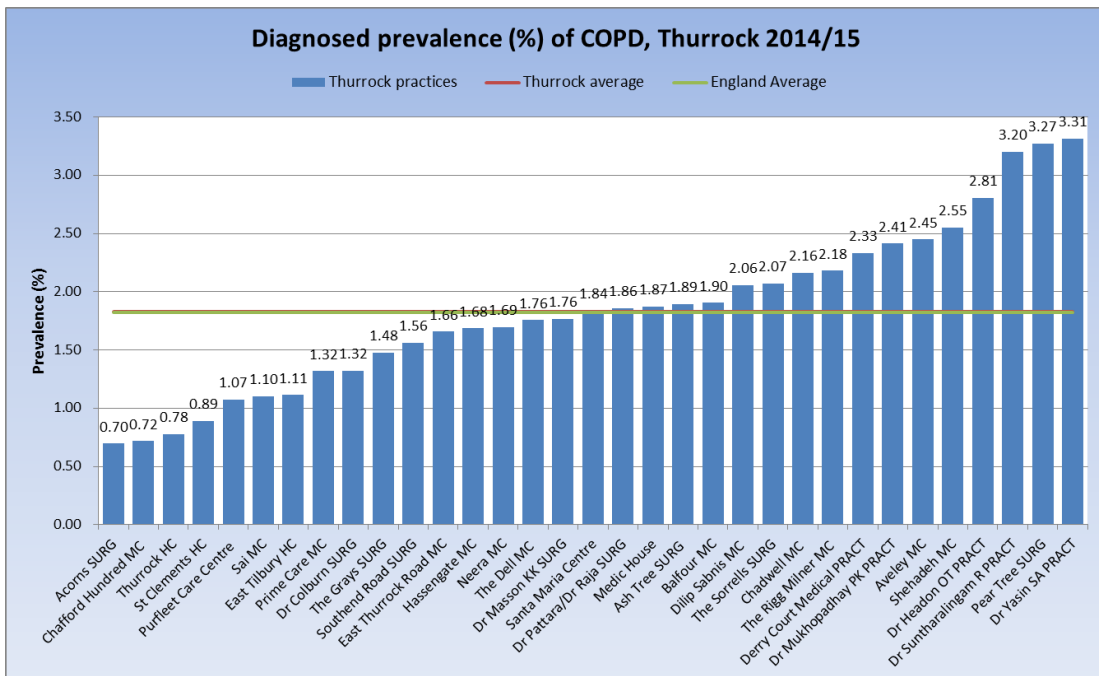
Source: QOF 2014/15

Figure 9: Diagnosed prevalence of Diabetes, 2014/15
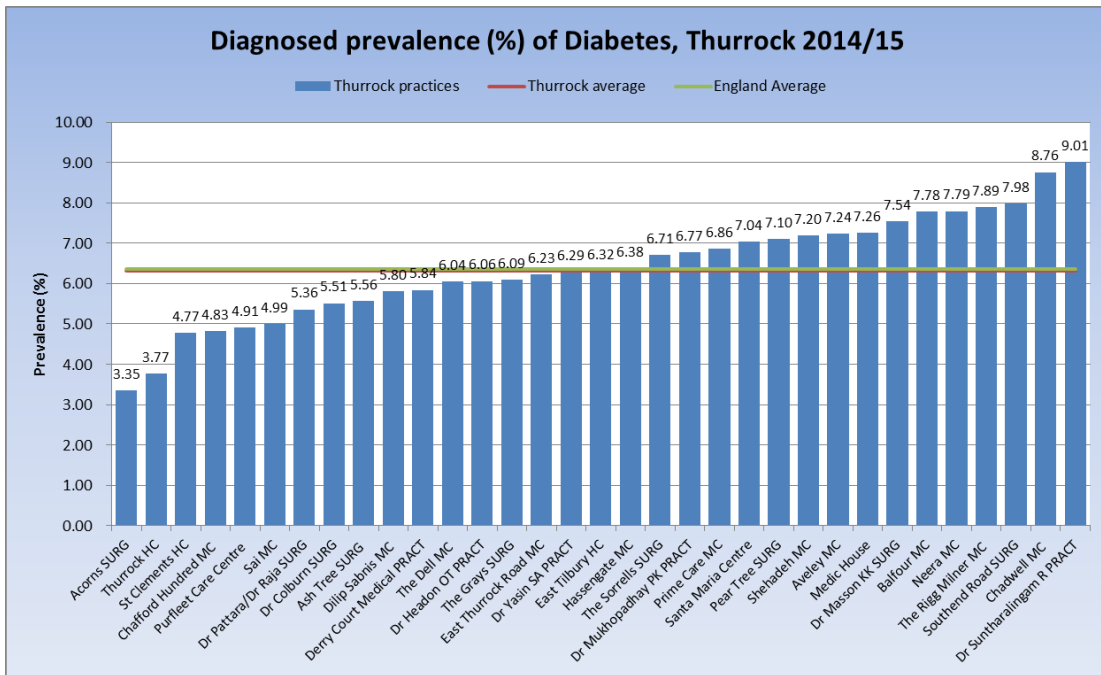
Source: QOF 2014/15

Figure 10: Diagnosed prevalence of Atrial Fibrillation, 2014/15
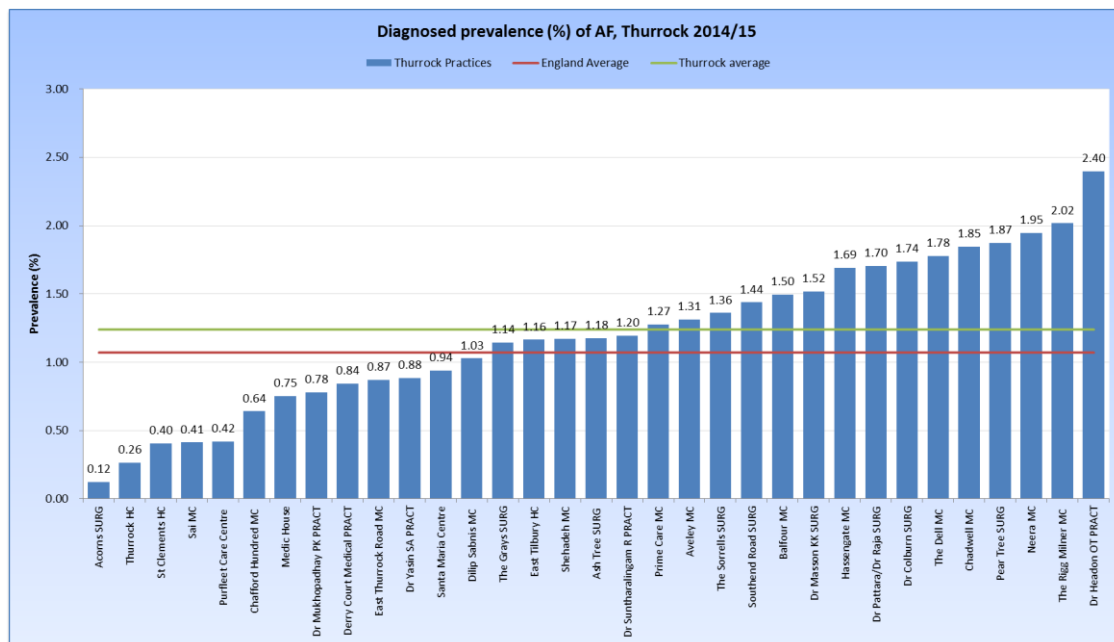
Source: QOF 2014/15

Figure 11: Diagnosed prevalence of CHD, 2014/15
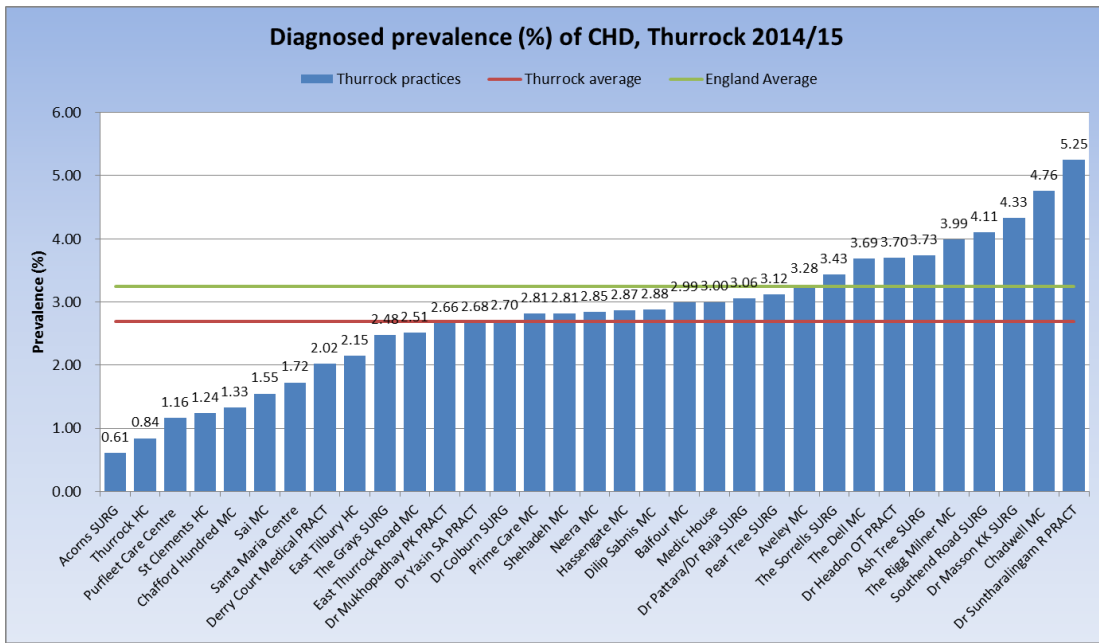
Source: QOF 2014/15

Figure 12: Diagnosed prevalence of Heart Failure, 2014/15
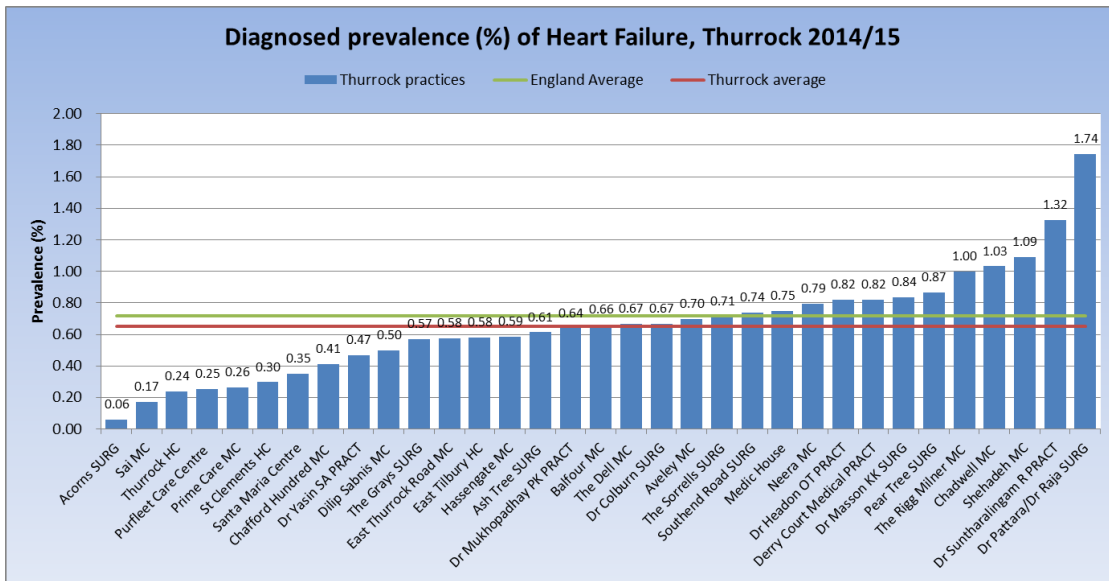
Source: QOF 2014/15

Figure 13: Diagnosed prevalence of Hypertension, 2014/15
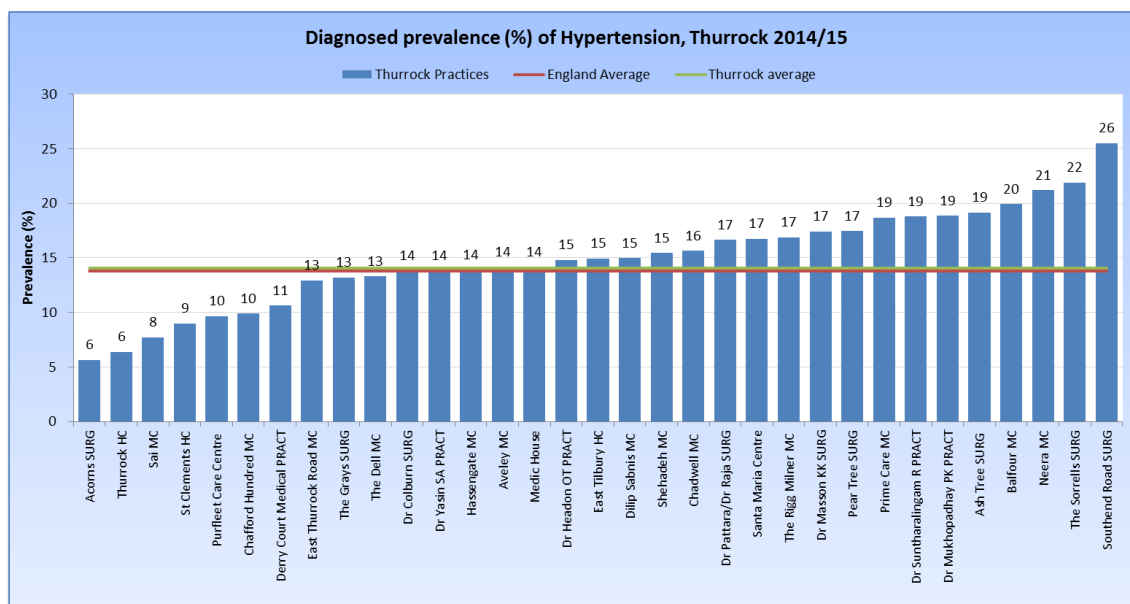
Source: QOF 2014/15

Figure 14: Diagnosed prevalence of Stroke and TIA, 2014/15
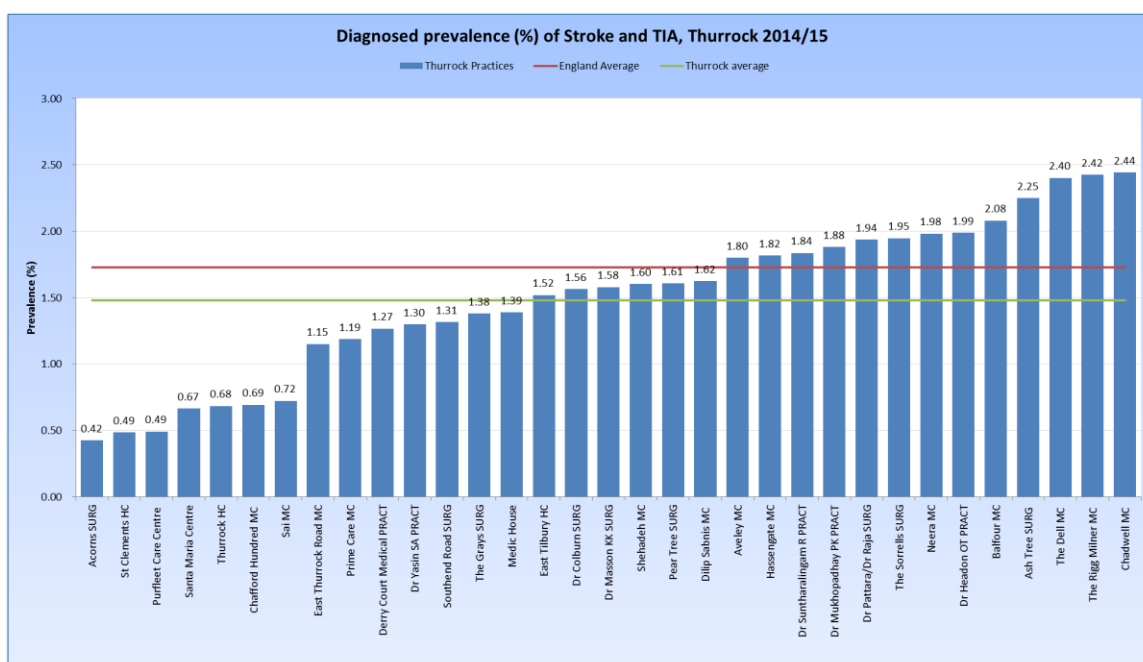
Source: QOF 2014/15

1.2.2 PREVALENCE OF MSK CONDITIONS

According to Arthritis UK's MSK calculator[i] , there are 6,812 people aged 45+ in Thurrock with hip osteoarthritis, and 11,622 with knee osteoarthritis. These equate to prevalences of 11.41% and 19.47% respectively, which are higher than the national averages (10.92% and 18.20%). Thurrock also has higher proportions of people with severe osteoarthritis in both the hip and knee than the national averages. These can be seen below. These figures are important in terms of future system sustainability, as MSK disorders

such as arthritis and osteoporosis have been identified within this report as the most common clinical diagnoses that precede entry of older people into the local Adult Social Care System (see section ***)

Figure 15: Prevalence of osteoarthritis, 2015

Prevalence of Osteoarthritis in Thurrock and England, 2015

■ Thurrock   ■ England

Category	Thurrock	England
Hip (total)	11.41%	10.92%
Hip (severe)	7.49%	6.35%
Knee (total)	19.47%	18.20%
Knee (severe)	6.58%	6.09%
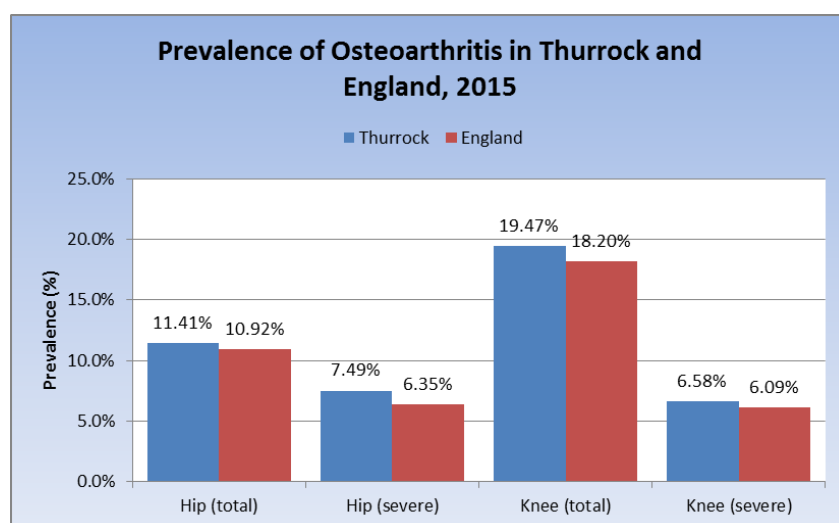
Source: Arthritis UK

Prevalence differs by gender (8.45% of male and 14.21% of females in Thurrock have hip osteoarthritis for example) and by lifestyle factors – low levels of physical activity and high levels of obesity are risk factors for osteoarthritis. The figure below shows prevalence of hip and knee osteoarthritis in Thurrock for those who are sedentary and obese, compared to those who are physically active and a healthy weight. It can be seen that the prevalence of knee osteoarthritis in those leading an active lifestyle and who are a healthy weight is a quarter of the prevalence of those who are sedentary and obese; for hip osteoarthritis, sedentary and obese have a prevalence three times larger than that for high physical activity and healthy weight.

Figure 16: Osteoarthritis in high and low risk groups, 2015

Prevalence of Osteoarthritis in Thurrock in high and low risk groups, 2015

■ Sedentary + Obese   ■ High PA + Healthy Weight

Category	Sedentary + Obese	High PA + Healthy Weight
Hip (total)	19.57%	6.21%
Knee (total)	36.78%	9.09%
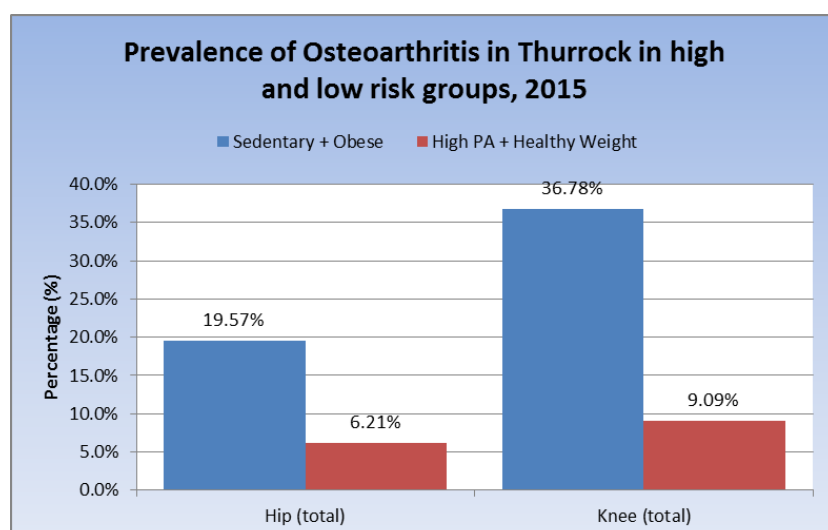
Source: Arthritis UK

The prevalence rates above generate the absolute numbers below:

Table 3: Number of patients with hip and knee osteoarthritis in Thurrock, and proportion with high risk factors

	Hip (total)	Hip (severe)	Knee (total)	Knee (severe)
Number who are sedentary and obese who have osteoarthritis	1,068	514	2,007	1,095
All with osteoarthritis	6,812	4,470	11,622	3,926
% of those with osteoarthritis with high risk factors	15.66%	11.5%	17.3%	27.89%

Source: Arthritis UK

This shows that over a quarter of those with severe knee osteoarthritis also exhibit high lifestyle risk factors.

1.2.3 UNDIAGNOSED PREVALENCE OF DISEASE

It is known that there are a large number of people with long term conditions in Thurrock who have not yet been diagnosed. Identifying patients with long term health conditions who are unaware that they have them is an absolutely key Public Health priority, if we are going to intervene early with excellent clinical management to prevent chronic diseases progressing and patients' health deteriorating. Public Health England has commissioned Imperial College to develop some estimates of expected prevalence of disease at practice level. Statistical models have been developed using relevant factors to determine estimates of the prevalence expected diseases for a number of long term conditions based on specific population demongraphic and other characteristics of different GP practice populations. These *'expected prevalence'* figures include patients that are both diagnosed and known to the practice and undiagnosed and not known nor receiving treatment for their long term condition. Estimates were released in 2011, and revised estimates have been produced for 2016 for Stroke, CHD, Peripheral Artery Disease (PAD), Depression, Chronic Obstructive Pulmonary Disease (COPD) and Hypertension (high blood pressure). Estimates for Diabetes were released at CCG level by the National Cardiovascular Intelligence Network.

The table below shows the observed and expected prevalence for each condition except for PAD, and an estimate of the additional number of patients that are likely to have a condition that is undiagnosed by applying the estimated figure to the Thurrock population. The table does not display the difference for Depression, as this will be presented in a separate Mental Health JSNA document.

Table 4: Observed and Expected Prevalence of key LTCs in Thurrock

Condition	Observed Prevalence	Estimated Prevalence	Additional Number of Undiagnosed Patients based on the estimated prevalence
Stroke (2016)	1.51%	3.70%	3,540*
Hypertension (2016)	14.08%	20.95%	10,983
CHD (2016)	2.78%	7.58%	7,521*
COPD (2016)	1.8%	2.22%	642*
Diabetes (2016)	6.3% (17+)	7.9% (16+)	2,109**

Source: PHE modelled estimates 2016, NCVIN 2016, and QOF 2014/15 [*one practice was missing data so true number will be higher / ** applying the QOF prevalence for 17+ to the 16+ population]

The Diabetes estimated prevalence estimates were published up to 2035, and it can be seen from the below that the estimated prevalence in both Thurrock and England is set to increase in future years. This shows similar results to the modelled projection of Diabetes cases shown in the Obesity prevention section, which estimate that there could be 11,408 total Diabetes cases (including those undiagnosed) by 2026.

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Figure 17: Modelled total Diabetes prevalence to 2035
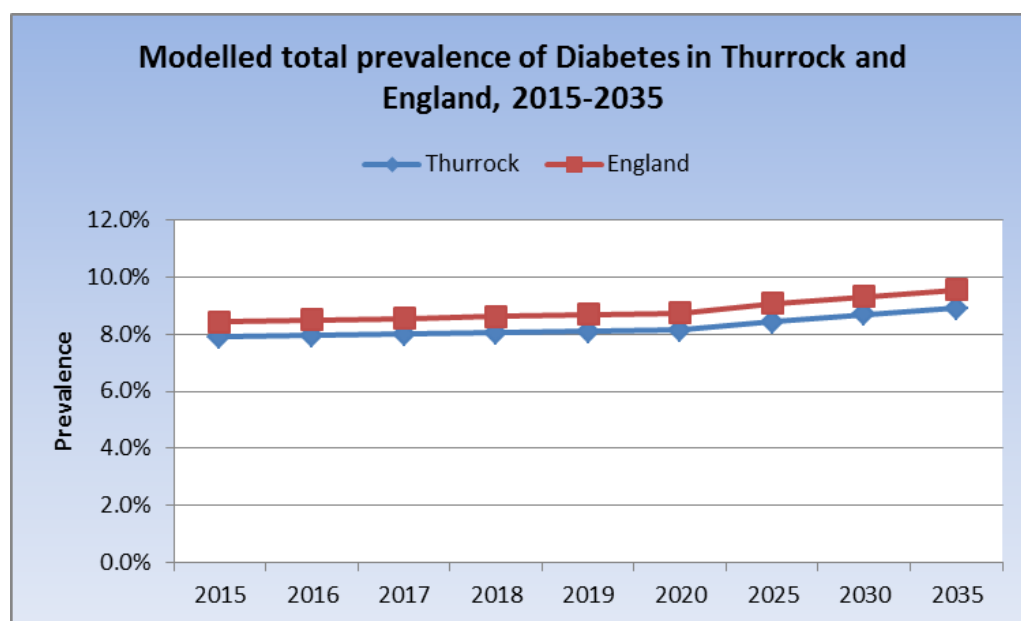
Source: National Cardiovascular Intelligence Network

Analysis of practice-level estimates for stroke, hypertension, CHD, and COPD is presented below; however these are still part way through the quality assurance process, and therefore should not be taken as definite until formal publication by PHE in December 2016.

Figures 18 through 25 show the absolute numbers at GP practice level of diagnosed and un-diagnosed patients with serous long term conditions, and the ratio between those who are have been diagnosed and are receiving clinical management and treatment for their Long Term Condition, and those who have not been diagnosed and will therefore not be receiving treatment. This ratio is also known as the "Completeness of the Disease Register". The first figure shows Stroke patients by GP practice, and it can be seen that, unsurprisingly, the practices with the largest estimated numbers of stroke patients also have large practice populations (Dr Abela, Hassengate and Dr Leighton). However, when looking at the ratio between observed and expected numbers of patients (the second figure below), it is practices such as Acorns (13.05%), St Clements (14.75%) and Purfleet Care Centre (15.06%) which have observed/diagnosed the lowest proportions of patients who are expected to have had a stroke. Their stroke registers can therefore be said to be highly incomplete. The Thurrock ratio of observed: expected patients is 40.37% - meaning that there is a large gap between the diagnosed and likely undiagnosed stroke patients of the borough. It should be noted that the value for Thurrock Health Centre was missing from the original dataset and work is underway to obtain this.

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Figure 18: Diagnosed + Undiagnosed estimates of stroke per practice
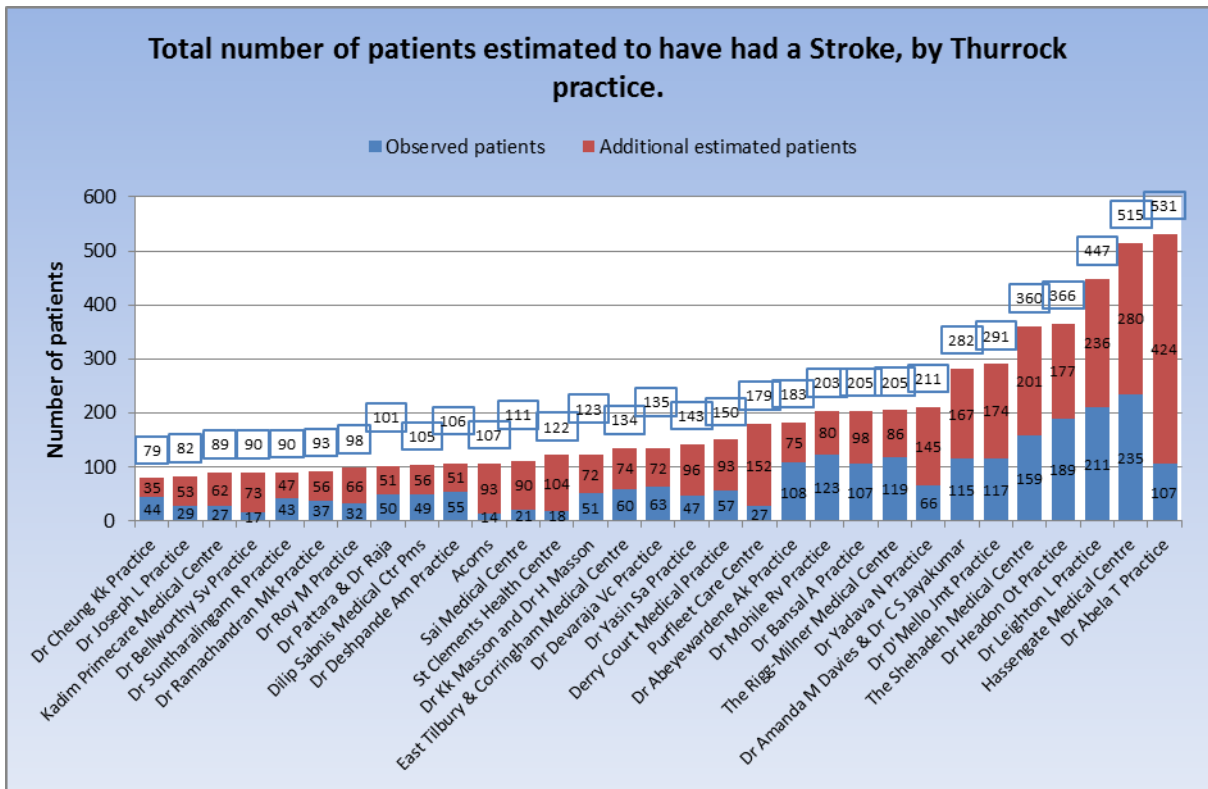
Sources = QOF register 2014/15 and PHE estimates 2016

Figure 19: Ratio of observed: expected cases of stroke by practice
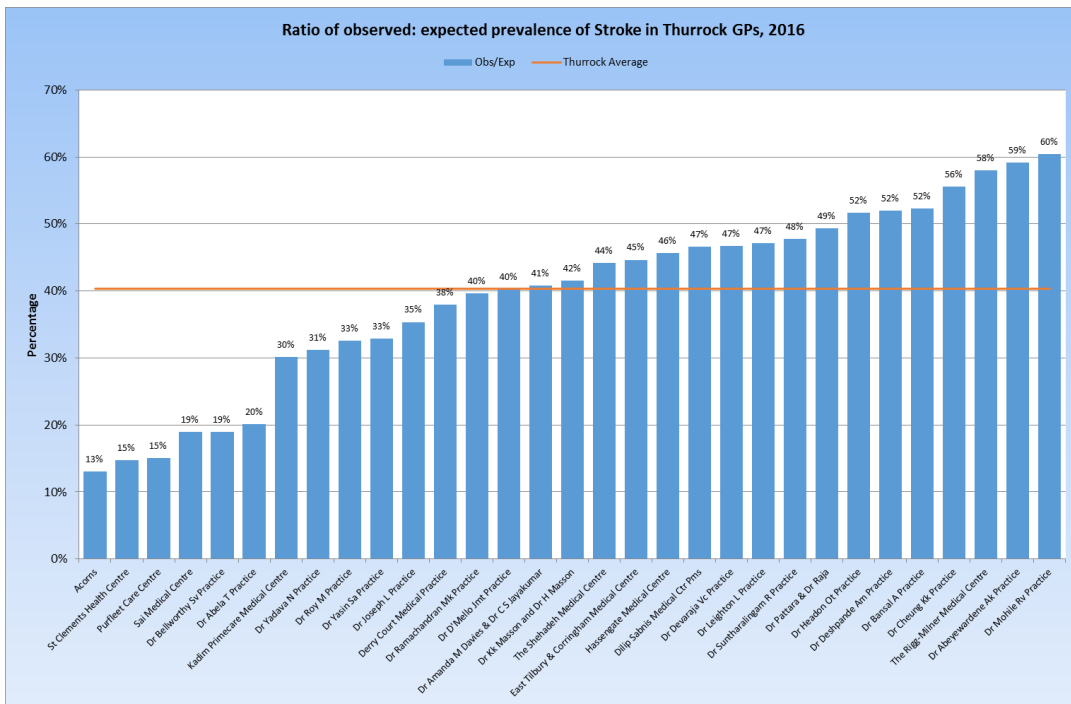
Sources = QOF register 2014/15 and PHE estimates 2016

The next figure shows CHD patients by GP, and it can be seen that, as above, the practices with the largest estimated numbers of CHD patients also have large practice populations (Dr Abela, Hassengate and Dr Leighton). However, when looking at the ratio between observed and expected numbers of patients (second figure below), it is practices such as Acorns (9.3%), St Clements (17.86%) and Purfleet Care Centre (17.04%) which have observed/diagnosed the lowest proportions of expected patients. The Thurrock ratio of observed: expected patients is 36.89% - meaning that there is a large gap between the diagnosed and likely undiagnosed CHD patients of the borough. It should be noted that the value for Thurrock Health Centre was missing from the original dataset and work is underway to obtain this.

Figure 20: Diagnosed + Undiagnosed estimates of CHD per practice
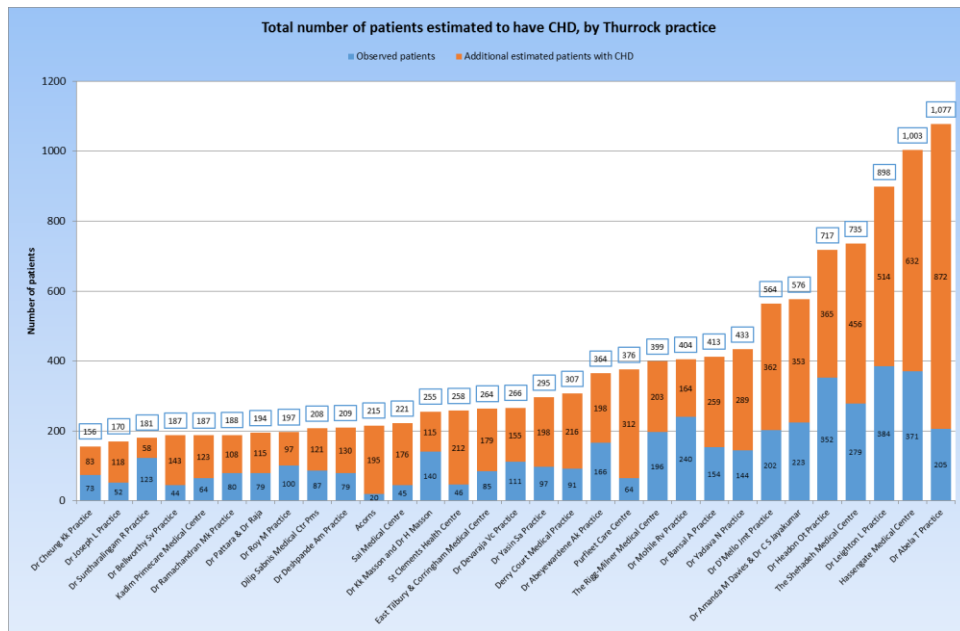
Sources = QOF register 2014/15 and PHE estimates 2016

Figure 21: Ratio of observed: expected cases of CHD by practice
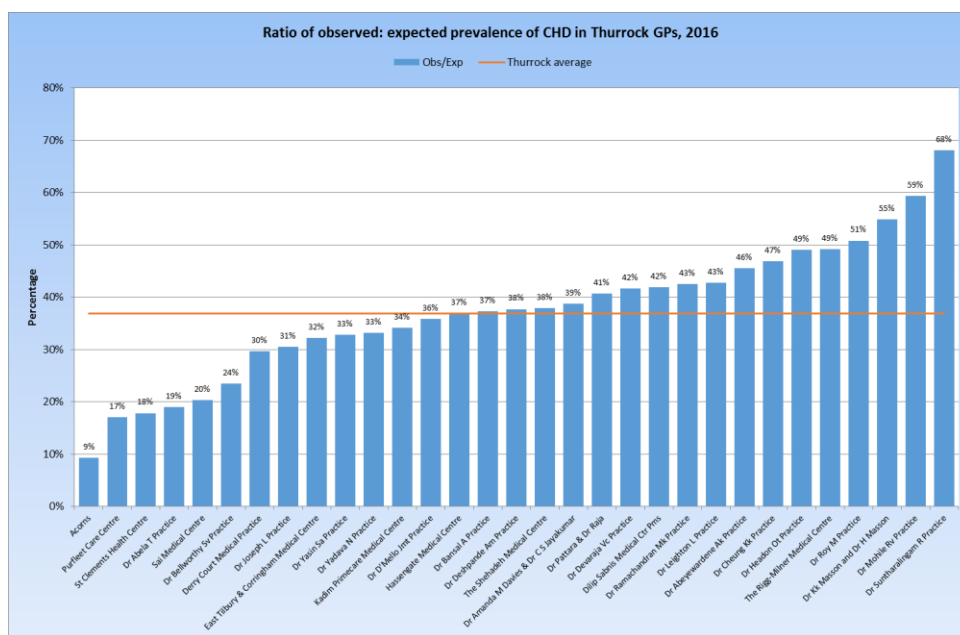
Sources = QOF register 2014/15 and PHE estimates 2016

The next figure shows hypertension patients by GP, and it can be seen that, as above, the practices with the largest estimated numbers of hypertension patients also have large practice populations (Dr Abela, Hassengate and Dr Leighton). However, when looking at the ratio between observed and expected numbers of patients (the second figure below), it is practices such as Acorns (42.03%), Thurrock Health Centre (45.94%) and Dr Abeyewardene (56.22%) which have observed/diagnosed the lowest proportions of expected patients. The Thurrock ratio of observed: expected patients is 68.34% - meaning that there is a large gap between the diagnosed and likely undiagnosed hypertensive patients of the borough.

Figure 22: Diagnosed + Undiagnosed estimates of hypertension per practice
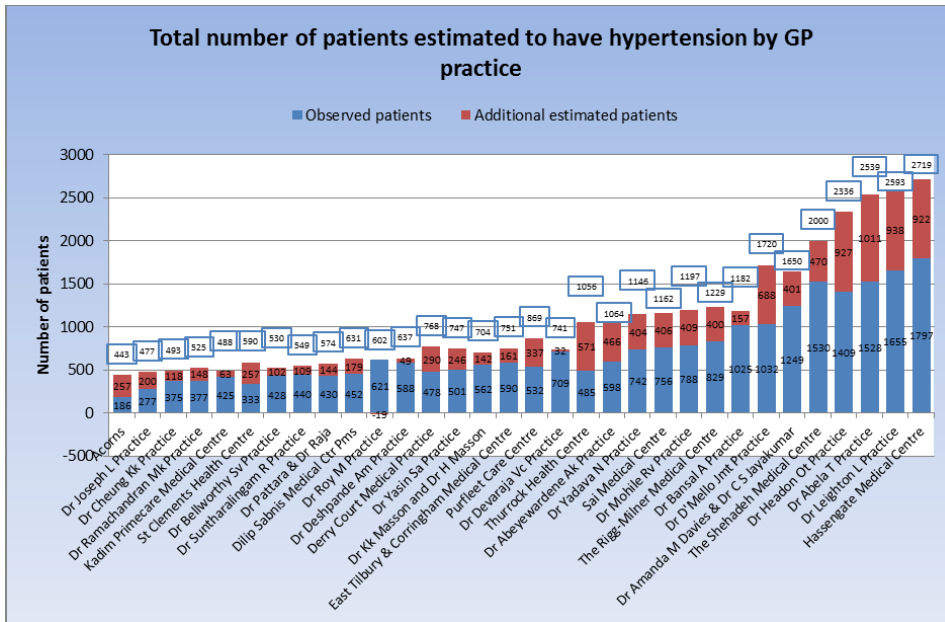
Sources = QOF register 2014/15 and PHE estimates 2016

Figure 23: Ratio of observed: expected cases of hypertension by practice
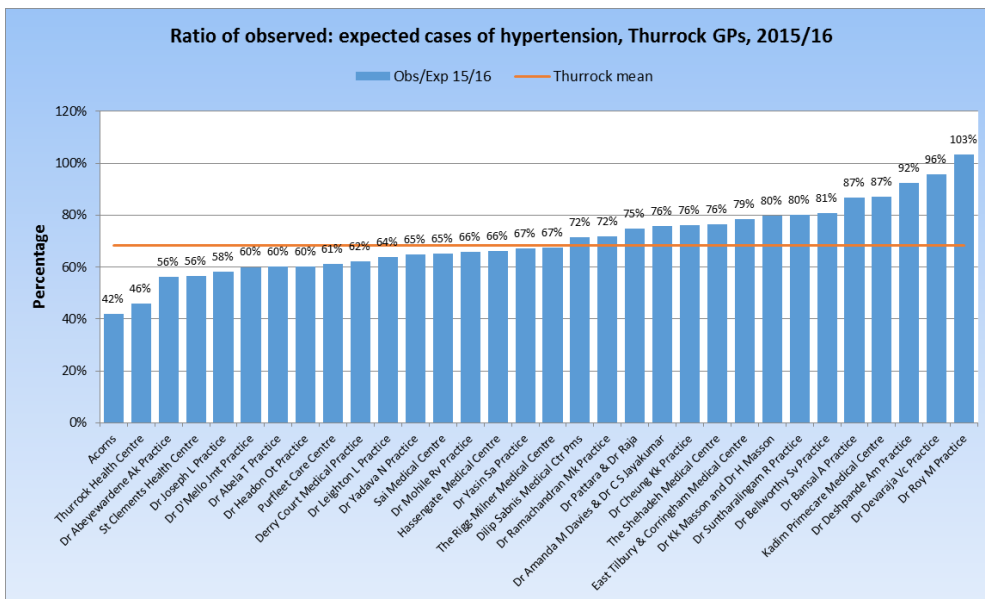
Sources = QOF register 2014/15 and PHE estimates 2016

The next figure shows COPD patients by GP, and it can be seen that, as above, the practices with the largest estimated numbers of hypertension patients also have large practice populations (Dr Headon, Hassengate

and Dr Leighton). However, when looking at the ratio between observed and expected numbers of patients (the second figure below), it is practices such as Dr Roy (49%), Sai Medical Centre (51%) and Dr D'Mello (52%) which have observed/diagnosed the lowest proportions of expected patients. The Thurrock ratio of observed: expected patients is 82.2% - meaning that there is a gap between the diagnosed and likely undiagnosed hypertensive patients of the borough. It is also notable that there are five practices with more diagnosed patients than they are estimated to have – these are Derry Court, Shehadeh Medical Centre, Dr Yasin, Dr Suntharalingham and Dr Davies (Pear Tree).

Figure 24: Diagnosed + Undiagnosed estimates of COPD per practice
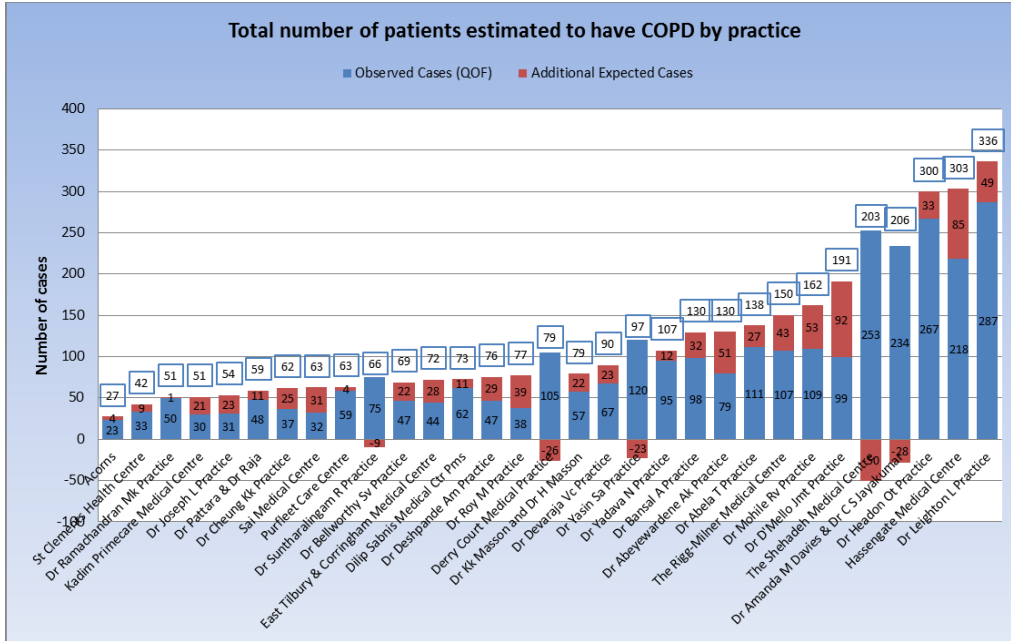
Sources = QOF register 2014/15 and PHE estimates 2016

Figure 25: Ratio of observed: expected cases of COPD by practice
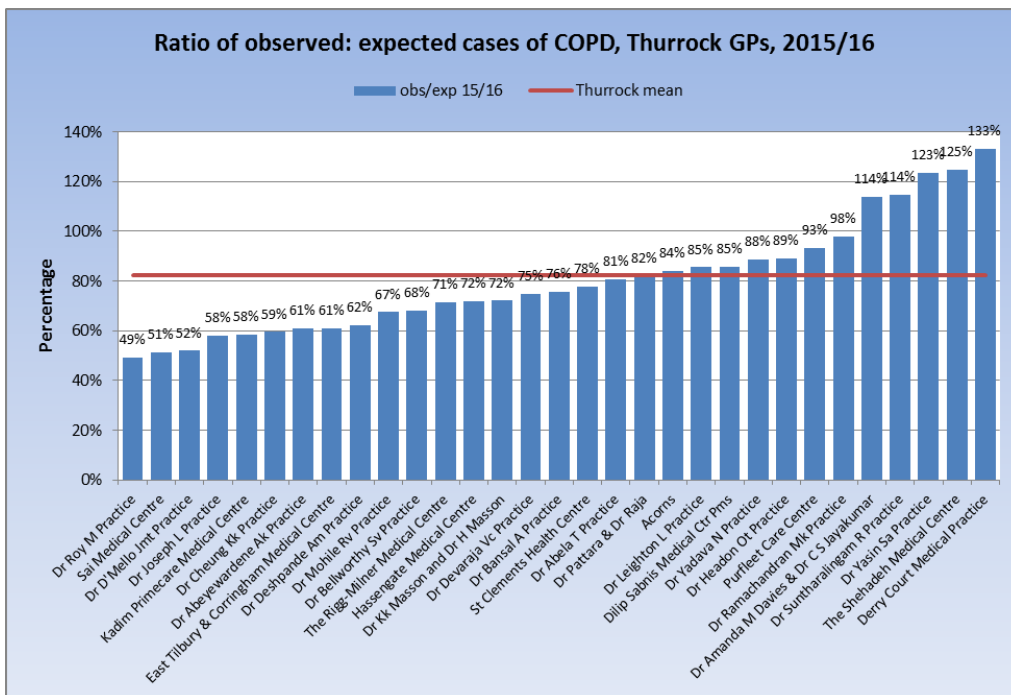
Sources = QOF register 2014/15 and PHE estimates 2016

1.2.4 CONCLUSIONS

Both the sheer number of undiagnosed patients with Long Term Conditions in Thurrock, and the variation between different GP practice's ability to identify, diagnose and treat patients with potentially life-threatening long term conditions is extremely concerning.

We estimate that there are 24,750 patients in Thurrock with either high blood pressure, Atrial Fibrillation, Diabetes, Coronary Heart Disease, Stroke or / TIA, COPD or a combination of two or more of these serous health conditions.   Early identification of patients with these conditions combined with excellent clinical management in Primary and Community Care can in the majority of cases allow them to remain well and slow or halt disease progression. Conversely, failing to intervene places them at significant and avoidable risk of serious adverse health events such as stroke, heart attacks and progression to end stage COPD. It also puts them at much greater risk of entering both hospital and an emergency admission, and our Adult Social Care System or requiring Continuing Health Care.   Such outcomes are terrible for patients/clients and are placing unsustainable financial demand on our local system. It is absolutely vital that we focus resource on 'casefinding' patients with Long Term Conditions and improving the completeness of our disease registers in Primary Care.

1.3 OBESITY

Thurrock has a significantly higher prevalence of obesity and excess weight in adults than the national average. Data from the Active People's Survey 2012-14 indicates that <u>29.7%</u> of adults are obese in Thurrock, compared to 24.0% nationally. Approximately 70.4% of adults are overweight or obese, which is also significantly above the national average of 64.6%.

QOF data from 2014/15 shows the variation in recorded obesity prevalence by practice – it can be seen that prevalence ranges from 3.49% (Dr Joseph) to 21.95% (Dr Bellworthy). The Thurrock mean is 10.9%, which is substantially lower than the value of 29.7% estimated from the APS data. This may be due to a number of factors including recording practices within GPs or sample size in the survey.

Figure 26: Practice-level obesity prevalence, 2014-15
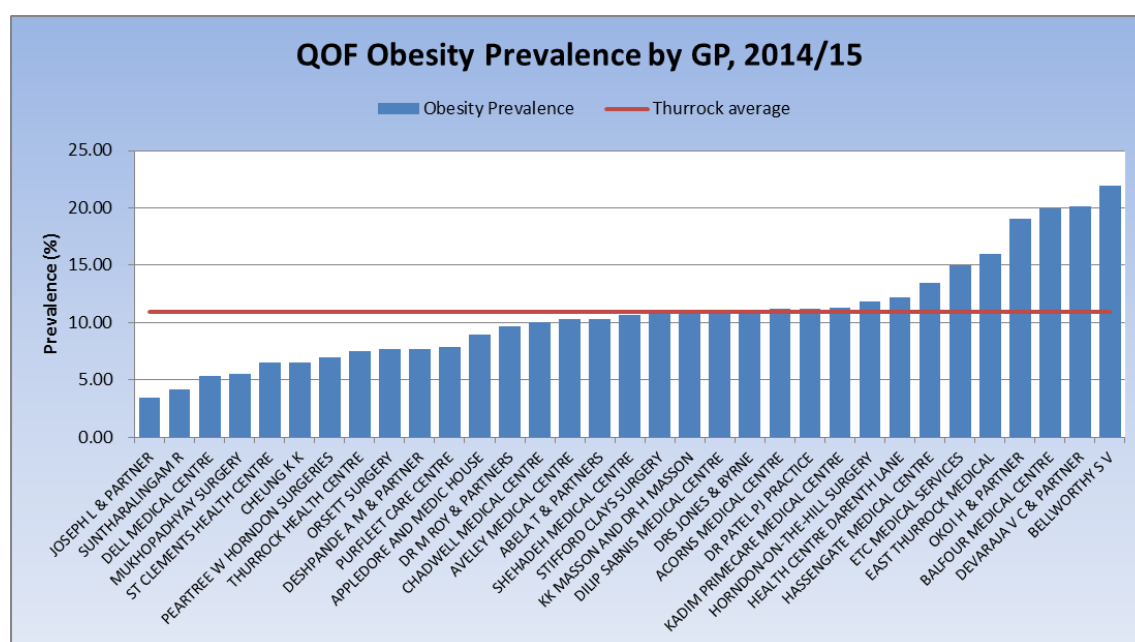
Source: QOF (2014/15)

Reviews of QOF trend data indicate that recorded prevalence of obesity has actually reduced both locally and nationally, with Thurrock seeing a reduction from 13.9% in 2009/10 to 10.9% in 2014/15 in line with the national reduction from 10.5% - 9.0% in the same time period. However reduction in obesity and excess weight are still viewed to be amongst the top priorities for Thurrock due to their wider consequences and impacts.

Childhood obesity is also a priority for Thurrock – the latest draft data for 2015/16 indicates that obesity in both reception and Year 6-aged children will have increased from previous years. Reception obesity is estimated to be 10.5%, whilst Year 6 obesity is estimated to be 23.9%. [Note: This data is experimental data extracted directly from the Thurrock NCMP system and is subject to review by NHS Digital at this stage]

Modelling work undertaken with the support of Norfolk County Council Public Health team estimates that the future number of obese adults in Thurrock could number 49,850 in the next ten years, which is an increase of 32.96% between 2016 and 2026. <u>This is estimated based on no major changes to service provision and factors in population growth.</u>

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Figure 27: Estimated Number of Obese patients in Thurrock, 2014-2026

Projected change in number of Obese patients in Thurrock, projected to 2026.

Year	Number
2014	35,309
2015	36,395
2016	37,494
2017	38,605
2018	39,742
2019	40,913
2020	42,127
2021	43,404
2022	44,677
2023	45,959
2024	47,248
2025	48,539
2026	49,850
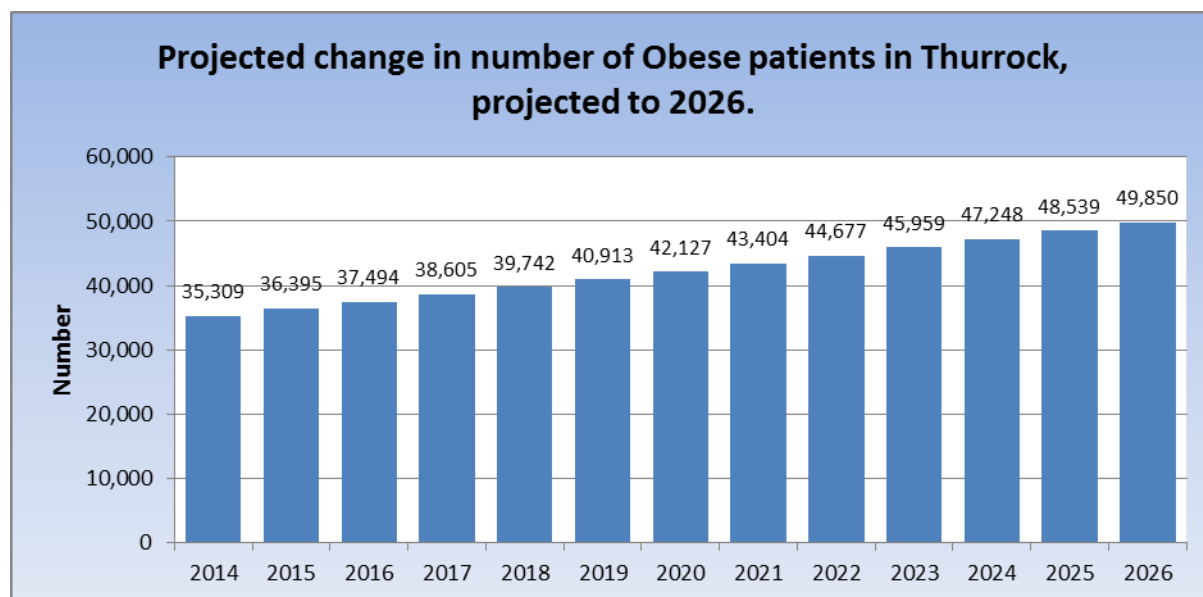
Source: ONS 2014 Population Projections, Foresight Report 2007 and Norfolk County Council

1.4 MANAGEMENT OF PATIENTS WITH LONG TERM CONDITIONS

As noted in the Introduction of this report, spend on patients with long-term conditions accounts for over 70% of the entire NHS budget. Effective management of long term conditions is absolutely vital in order to prevent patients' health, wellbeing and independence from deteriorating and to prevent them being admitted to hospital or requiring social care packages.

The management of Long Term Conditions should be done by patients with support from primary and community care services. Good management of patients' conditions by these three entities will be reflected in the Quality Outcomes Framework (QOF) – especially those which are clinical markers.

QOF records contain quality of care information on how patients who are diagnosed with diseases are treated in primary care. It was set up as an incentive system and GP practices get paid for the percentage of their "diseased population" that they offer certain tests, medication reviews and treatments for. The indicators are based on evidence of good quality care for the conditions.

QOF indicators are evidence and outcome based. The models that we have built predicting non-elective activity based on primary care did not feature many of the QOF indicators. This may be due to three reasons:

1. Generally, across the South of Essex, there is no longer a huge amount of variation in these indicators
2. Although the measures offer better outcomes, these are not necessarily in terms of Hospital admissions
3. The variation is captured by some of the other variables that were included such as availability of appointments (causal pathway) or which CCG a practice belongs to (representing different community services commissioned and so different QOF outcomes at a CCG level).

Analyses have shown (not described here) that availability of appointments is positively correlated with many of the QOF Long Term Condition Indicators indicators in addition to the Non-elective admission outcomes however these associations are not as strong as that between the availability of appointments and the non-elective admission outcomes. We, therefore feel that this is the reason that more of the QOF indicators did not fit into the final models (i.e. in three above variation is captured by other variables that are included).

There has been much debate over recent years whether QOF actually achieves good outcomes for patients in terms of reducing the risk of major events requiring hospitalisation. However a study published in the BMJ this year showed that nationally the introduction of QOF was in fact associated with a decrease in emergency admissions for these incentivised conditions. They also state that:

" Contemporaneous health service changes seem unlikely to have caused the sharp change in the trajectory of incentivised Ambulatory Care Sensitive Conditions (ACSC) admissions immediately after the introduction of the Quality and Outcomes Framework. The decrease seems larger than would be expected from the changes in the process measures that were incentivised, suggesting that the pay for performance scheme may have had impacts on quality of care beyond the directly incentivised activities."[ii]

Figure 28 shows the findings from their research.

Figure 28 Effect of a national primary care pay for performance scheme on emergency hospital admissions for ambulatory care sensitive conditions

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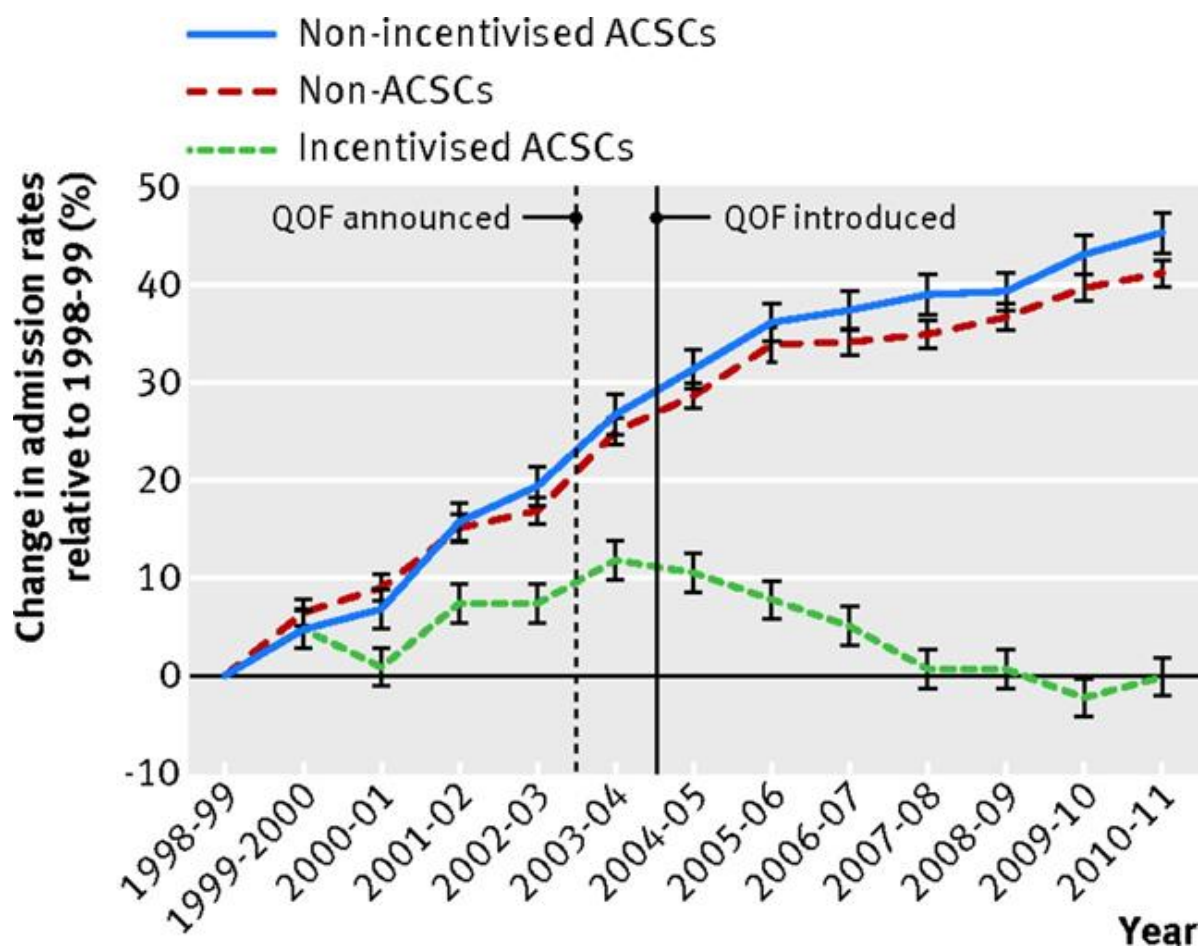
We can therefore use QOF scores as a proxy for measurement for how well patients with Long Term Conditions are being managed overall.

Management of COPD and Diabetes in the community is delivered by NELFT. Patients referred to the COPD service get referred once, and remain on the caseload. Diabetes patients would be referred once but then have a new active referral opened for any episode of care.

A note about interpreting QOF Indicator scores

The authors are aware that many people confuse QOF with the quality of care that practices are offering their patients. While this is an important part of the framework it is not the sole contributor to the over-all score.

The scores represent the management of patients overall, this includes the effectiveness of our community teams (if used), patient compliance and anybody else involved in a patients management.

GP's are able to exception report patients from indicators on clinical grounds or if patients have been invited or offered an intervention and they have declined (3 times for a review or 1 time for a referral or other intervention).

Patients who are neither offered treatment/intervention or exception reported are being failed by our primary and/or community care teams, as such this is a measure of performance.

In this report we are interested in both aspects:

1) Levels of population receiving an intervention or treatment regardless of exception reporting. This is the measure that tells us the possible risks of a clinical event and how these differ across the area.
2) The number of patients who are neither receiving a treatment/ intervention or exception reported. This measure tells us the number of patients who are at risk of a clinical event, due to a failure, by primary care, to offer appropriate care to them.

That is not to say that if practices have low scores due to exception reporting there is nothing that they can do to improve. They can look at different ways of communicating with their patients for example.

A note on interpreting a box and whisker chart

The upper and lower extremities of the chart, known as the whiskers, represent the total range of values. In this case they would be the practice with the lowest and highest percentage of patients receiving an intervention or treatment..

The middle grey box represents the Inter Quartile Range (IQR). The bottom of the grey box is the 25th percentile value and the top of the grey box is the 75th percentile value. In other words, the middle half of all the indicators will fall within this range.

The line across the middle of the box is the median value. In this case it would be the practice that has the median percentage of patients receiving a treatment or intervention.

In this case we can conclude that practices on the lower whiskers are outliers in the sense that they are below the 25th percentile (their performance rates amongst the worst 25% of practices nationally). In some instances we may use the median as a cut off where this is particularly low and we would expect the percentage of patients to be close to 100% across practices.

We have added a marker of the national median onto our charts in order to make comparisons between Thurrock

1.4.1 CLINICAL MANAGEMENT OF STROKE AND TIA

We estimate that there are 5,981 patients with Stroke or TIA in Thurrock, including 3,540 who are not yet diagnosed.

Of those who are diagnosed the QOF tells us about the quality of their care and how well managed their condition is in general. Specifically, for Stroke and TIA it looks at the control of patients' Blood Pressure levels, and treatment with anti-platelet agents or anti-coagulation drugs, reviews for investigation and vaccination from flu. The indicators are aimed at reducing the risk of patients suffering from a CVD event in the future.

Variation across Thurrock is large for all six of the indicators (Figure 29). It is concerning that in half of our practices low numbers of patients who are recently diagnosed are not being referred for further investigation. We would expect this to be close to 100% across all practices.

More than 50% of practices in Thurrock are achieving lower results than the England average for; new patients being referred for further investigation, stroke patients being vaccinated for flu, and anti-platelet or anti- coagulation therapies being given.

The below lists practices for whom the percentage of patients with Stroke or TIA receiving the intervention is in the bottom quartile by the number of indicators for which this is the case. Dr Mukhopadhyay's practice scores in the bottom quartile for all six of the indicators, Aveley Medical Centre for five indicators, Pear Tree Surgery, Chadwell Medical Centre and Sai Medical Centre for four indicators and the others for three, two, or one.

The England average is within the grey boxes for all of the indicators, so practices that we have named as outliers compared to Thurrock are also outliers compared to England averages.

The practices in these lists need to urgently review their management of patients with Stroke or TIA. They need to make an assessment of whether their scores are low due to exception reporting or lack of offers. For example Appendix X shows that of the ten stroke patients in Dr Mukhopadhyay's practice who did not have an influenza vaccination, only 1 was exception reported. (A practice can 'exception report' a patient against the QOF clinical intervention if it is contraindicated (i.e. may cause harm to the patient because of another health condition they have, or because the patient fails to attend at least three requests by the practice for a clinical review). Therefore 90% of those not receiving the intervention were as a result of poor quality rather than patients declining or compliance. For the other indicators, mostly patients were exception reported. For the indicators for which Aveley practice has a low score there is a higher percentage of exception reporting. This suggests that interventions are being offered, but, perhaps not taken up. This could be for a variety of reasons including consent, beliefs, or availability and convenience of appointments offered.

Table 6 below shows the number of people across Thurrock who are not receiving each of the interventions or exception reported. This information is broken down by practice in Appendix X. These patients (especially those from the practices mentioned above) should be identified and reviewed urgently to prevent avoidable further ill health.

Table 5: Practices in the bottom quartile for Stroke indicators, 2014/15

Practices in the Bottom quartile for all 6 Stroke/TIA indicators	Practices in the Bottom quartile for 5 of the 6 Stroke/TIA indicators	Practices in the Bottom quartile for 4 of the 6 Stroke/TIA indicators	Practices in the Bottom quartile for 3 of the 6 Stroke/TIA indicators	Practices in the Bottom quartile for 2 of the 6 Stroke/TIA indicators	Practices in the Bottom quartile for 1 of the 6 Stroke/TIA indicators
Dr Mukhopadhay PK PRA	Aveley MC	Pear Tree SURG Chadwell MC Sai MC	Dr Suntharalingam R PRA Neera MC	Dr Yasin SA PRACT St Clements HC Acorns SURG Ash Tree SURG Dr Masson KK SURG	Dr Pattara/Dr Raja SURG The Grays SURG Purfleet Care Centre Thurrock HC Medic House Balfour MC Dr Colburn SURG

Table 6: Stroke patients not receiving interventions, 2014/15

STIA003: The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		STIA007: The percentage of patients with a stroke shown to be non-haemorrhagic, or a history of TIA, who have a record in the preceding 12 months that an anti-platelet agent, or an anti-coagulant is being taken		STIA008: The percentage of patients with a stroke or TIA (diagnosed on or after 1 April 2014) who have a record of a referral for further investigation between 3 months before or 1 month after the date of the latest recorded stroke or the first TIA		STIA009: The percentage of patients with stroke or TIA who have had influenza immunisation in the preceding 1 August to 31 March	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
58	337	59	106	21	17	568	126

Figure 29: Clinical Management of Stroke and TIA at practice level, 2014/15

Clinical Management of Stroke and TIA (including exceptions) Variance across Thurrock, QOF 2014/15

% Achievement

STIA: BP =150/90

East Tilbury HC, 97%
The Grays SURG, 97%
Southend Road SURG, 94%
Derry Court Medical PRACT, 93%
Acorns SURG, 93%
Shehadeh MC, 92%
Hassengate MC, 92%
Dilip Sabnis MC, 92%
The Sorrells SURG, 90%

England Average; 84%

Dr Suntharalingam R PRACT, 77%
Pear Tree SURG, 76%
Dr Yasin SA PRACT, 74%
Aveley MC, 74%
Chadwell MC, 73%
Sai MC, 71%
Clements HC, 67%
Dr Mukhopadhay PK PRACT, 55%

STIA: Record that an anti-platelet agent or an anti-coagulant is taken

Dilip Sabnis MC, 100%
Prime Care MC, 100%
Santa Maria Centre, 100%
Medic House, 100%
East Tilbury HC, 98%
The Sorrells SURG, 97%
The Rigg Milner MC, 96%
Shehadeh MC, 96%
Dr Colburn SURG, 96%

England Average; 92%

Pear Tree SURG, 84%
Dr Pattara/Dr Raja SURG, 83%
Neera MC, 83%
Aveley MC, 80%
Acorns SURG, 80%
Ash Tree SURG, 79%
Sai MC, 76%
Dr Mukhopadhay PK PRACT, 70%

STIA: New patients referred for further investigation

Dilip Sabnis MC, 100%
Prime Care MC, 100%
Santa Maria Centre, 100%
The Sorrells SURG, 100%
East Thurrock Road MC, 100%
Dr Yasin SA PRACT, 100%
Derry Court Medical PRACT, 100%
Southend Road SURG, 100%
Thurrock HC, 100%
Ash Tree SURG, 100%

England Average; 77%

Dr Mukhopadhay PK PRACT, 10%
The Grays SURG, 0%
Purfleet Care Centre, 0%
Chadwell MC, 0%
Dr Suntharalingam R PRACT, 0%
Neera MC, 0%
Acorns SURG, 0%
Sai MC, 0%

STIA: Influenza immunisation

Prime Care MC, 96%
The Dell MC, 92%
Ash Tree SURG, 86%
The Sorrells SURG, 86%
Sai MC, 86%
East Tilbury HC, 83%
The Grays SURG, 83%
Shehadeh MC, 82%
Purfleet Care Centre, 81%

England Average; 78%

Pear Tree SURG, 64%
Thurrock HC, 63%
Chadwell MC, 63%
Dr Mukhopadhay PK PRACT, 62%
St Clements HC, 61%
Aveley MC, 61%
Dr Yasin SA PRACT, 60%
Dr Masson KK SURG, 59%

PAD: blood pressure reading<=150/90 mmHg

Sai MC, 100%
The Grays SURG, 100%
Purfleet Care Centre, 100%
Southend Road SURG, 100%
Dr Pattara/Dr Raja SURG, 100%
Acorns SURG, 100%
Santa Maria Centre, 100%
Derry Court Medical PRACT, 100%
St Clements HC, 100%
Dr Yasin SA PRACT, 100%

England Average; 86%

Chadwell MC, 75%
Aveley MC, 75%
Dr Masson KK SURG, 71%
Dr Suntharalingam R PRACT, 70%
Neera MC, 62%
Medic House, 50%
Dr Mukhopadhay PK PRACT, 38%

PAD: record of aspirin being taken

Purfleet Care Centre, 100%
Acorns SURG, 100%
St Clements HC, 100%
East Tilbury HC, 100%
Dilip Sabnis MC, 100%
The Dell MC, 96%
The Sorrells SURG, 94%
East Thurrock Road MC, 92%
Shehadeh MC, 92%

England Average; 86%

Pear Tree SURG, 73%
Balfour MC, 73%
Aveley MC, 70%
Dr Colburn SURG, 69%
Sai MC, 67%
Ash Tree SURG, 60%
Dr Mukhopadhay PK PRACT, 57%

1.4.2 CLINICAL MANAGEMENT OF HYPERTENSION

We estimate that there are 33,493 patients with Hypertension in Thurrock, including 10,983 who are not yet diagnosed.

Of those who are diagnosed the QOF tells us about the quality of their care and how well managed their condition is in general. Specifically, for Hypertension it looks at the control of patients' Blood Pressure levels, and treatment with statins for patients with a CVD risk score of 20% or higher. The indicators are aimed at reducing the risk of patients suffering from a CVD event in the future.

The Thurrock Median is in line with the National average score for both of these indicators, meaning that 50% of practices are performing at a lower level than the England average.

Figure 30 shows that the percentage of patients diagnosed with hypertension whose blood pressure is less than 150/90 mmHg varies between practices from 57% in Dr Mukhopadhyay's practice to 90% in East Thurrock Road Medical Centre. The median is a little higher than 80%. All bar one of the eight practices in the lower quartile are named in the list requiring support for stroke and TIA management support. This is particularly concerning as this indicator features in our stroke prevention model. This suggests that patients in these practices are; 1) More likely to have a stroke or TIA event and 2) Less likely to receive quality management of their condition following the event.

The fact that there are practices who are CVD risk assessing patients and then not treating large proportions of patients with a score of more than 20% is concerning on ethical grounds - one should not identify a risk, or disease without the means or intention of treating. This has only happened in a small number of patients (8), all of which are from Dr Masson KK Surgery, Ash Tree Surgery and Medic House. These three practices should recall these patients as a matter of urgency to offer statins.

A further 25 patients have been exception reported. The reasons for these exception reports need further investigation.

We are unable to tell the difference between practices with a zero score due to the absence of any risk assessments and those who are doing risk assessments but not finding anyone with a score of 20% or more.

The England average is within the grey boxes for all of the indicators, so practices that we have named as outliers compared to Thurrock are also outliers compared to England averages.

Below is a list of practices for whom the percentage of patients receiving interventions for hypertension are either in the bottom quartile for the Blood Pressure Indicator or below the median for the statin treatment indicator by the number of indicators for which this is the case. Practices in these lists need to urgently review their management of patients with Hypertension.

Practices scoring low on both indicators include Dr Suntharalingam, Neera Medical Centre, Chadwell Medical Centre, Pear Tree Surgery and Sai Medical Centre. Additionally 14 practices fall below the 25th percentile (for BP) or the median (for new patients needing a review).

Table 7 below shows the number of people across Thurrock who are not receiving each of the interventions. This information is broken down by practice in Appendix X. These patients (especially those from the practices mentioned above) should be identified and reviewed urgently to prevent avoidable further ill health.

Table 7: Hypertensive patients not receiving interventions, 2014/15

HYP006: The percentage of patients with hypertension in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		CVD-PP001: In those patients with a new diagnosis of hypertension aged 30 or over and who have not attained the age of 75, recorded between the preceding 1 April to 31 March (excluding those with pre-existing CHD, diabetes, stroke and/or TIA), who have a recorded CVD risk assessment score (using an assessment tool agreed with the NHS CB) of ≥20% in the preceding 12 months: the percentage who are currently treated with statins	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
536	3899	25	8

Exception reporting is low for the Blood Pressure indicator. However we would expect a higher amount of variation for a bio-clinical marker than we would for a process indicator. Hypertension patients who are failing to manage their BP could be doing so for a variety of reasons.

Figure 30: Clinical Management of Hypertension at practice level, 2014/15

Clinical Management of Hypertension (Including exceptions) Variance across Thurrock, QOF 2014/15
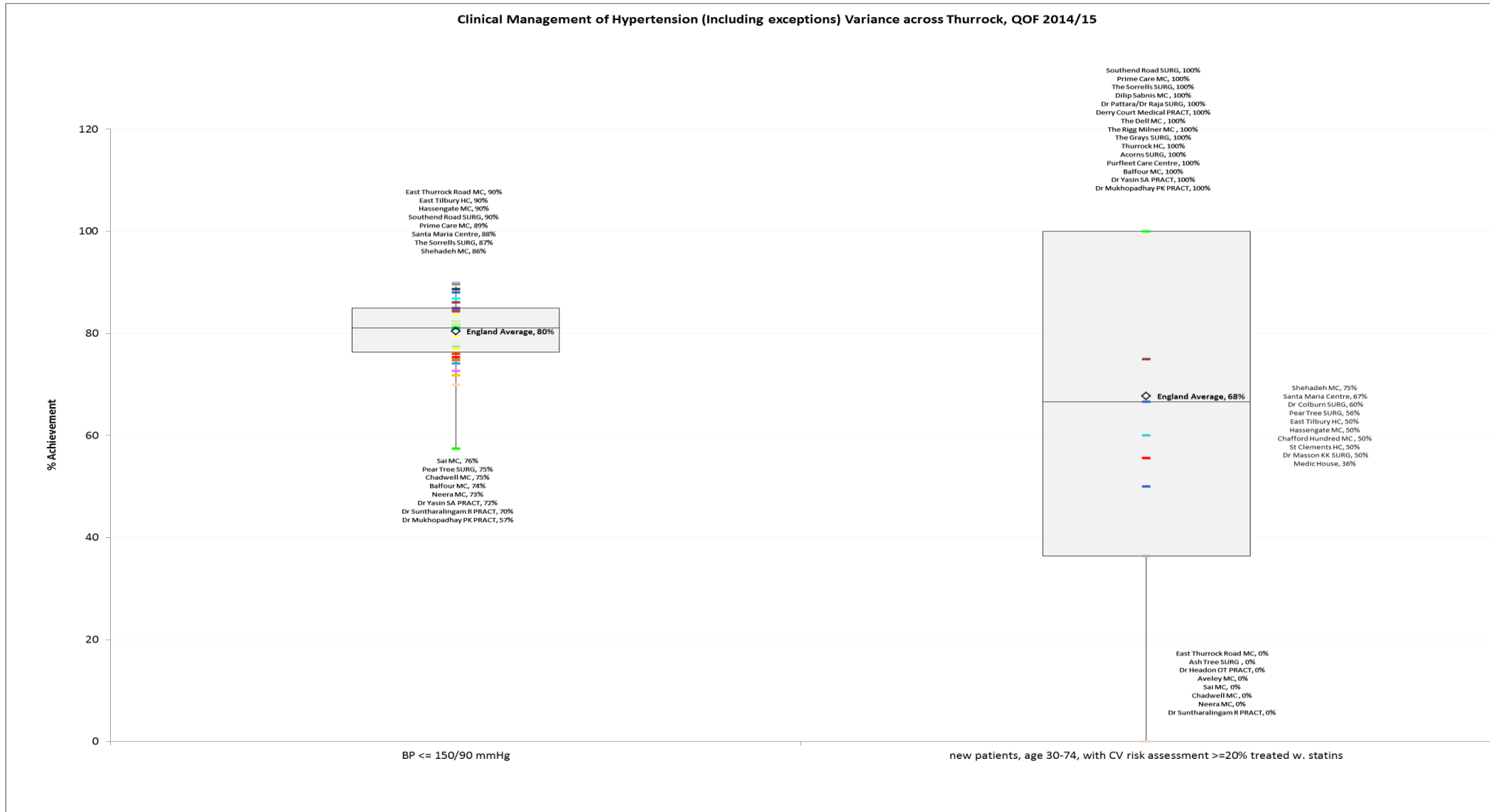
1.4.3 CLINICAL MANAGEMENT OF CHD

We estimate that there are 122,217 patients with CHD in Thurrock, including 7,521 who are not yet diagnosed.

Of those who are diagnosed the QOF tells us about the quality of their care and how well managed their condition is in general. Specifically for CHD it looks at the control of patients' Blood Pressure levels, and treatment with aspirin, API or ACT, and for those with a history of MI treatment with ACE-Inhibitors, as well as flu vaccinations. The indicators are aimed at reducing the risk of patients suffering from a CVD event in the future.

Figure 31 shows the amount of variation in quality of care between practices across Thurrock. A similar picture can be seen here as for Stroke and Hypertension, similar practices are appearing on the bottom tails (lower quartile). The below lists practices for whom the percentage of patients with CHD receiving the intervention is in the bottom quartile by the number of indicators for which this is the case:

Table 8: Practices in the bottom quartile for CHD indicators, 2014/15

Practices in the Bottom quartile for all 4 CHD indicators	Practices in the Bottom quartile for 3 of the 4 CHD	Practices in the Bottom quartile for 2 of the 4 CHD	Practices in the Bottom quartile for 1 of the 4 CHD
Dr Suntharalingam R I Dr Mukhopadhay PK	Aveley MC Practice	Chadwell MC Medic House Pear Tree Surgery Balfour MC Sai MC Ash Tree Surgery	Dr Pattara/Dr Raja Sur Hassengate MC The Grays Surgery East Thurrock Road M Thurrock HC St Clements HC Dr Masson KK Surgery

Dr Suntharalingham's and Dr Mukhopadhyay's practices score in the bottom quartile for all four of the indicators, the Aveley Medical Centre for three of the indicators and the others for one or two of the indicators. Practices in this list need to urgently review their management of patients with CHD.

It is concerning that there are 20 patients who have a history of MI, are not exception reported on medical grounds (such as because of another prescription) or compliance grounds and are not currently being prescribed a Blood Pressure lowering drug. Three of the practices with low levels of treatment of MI patients with ACE or ARB (Blood Pressure lowering treatments) also have low numbers of patients with Blood pressure under control.

It is very concerning that 75% of the practices in Thurrock had flu vaccination levels in their CHD population lower than the average in England. The England average is within the grey boxes for all of the indicators, so practices that we have named as outliers compared to Thurrock are also outliers compared to England averages.

Table 9 below shows the number of persons diagnosed with CHD who are not receiving an appropriate clinical intervention. These patients (especially those from the practices mentioned above) should be identified and reviewed urgently to prevent avoidable further ill health. The figures below are broken down by practice in appendix X.
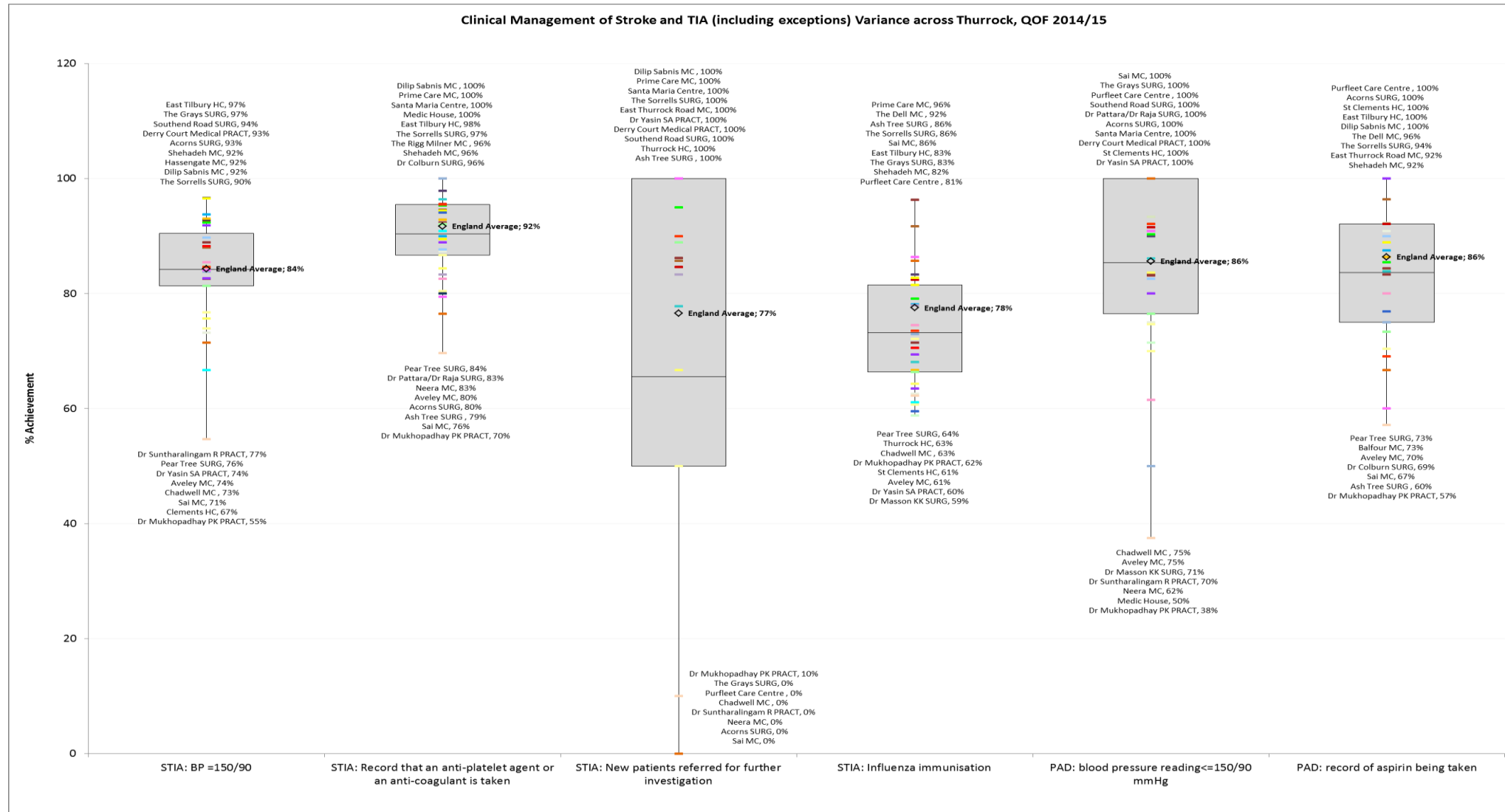
Table 9: CHD patients not receiving interventions, 2014/15

CHD002: The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		CHD005: The percentage of patients with coronary heart disease with a record in the preceding 12 months that aspirin, an alternative anti-platelet therapy, or an anti-coagulant is being taken		CHD006: The percentage of patients with a history of myocardial infarction (on or after 1 April 2011) currently treated with an ACE-I (or ARB if ACE-I intolerant), aspirin or an alternative anti-platelet therapy		CHD007: The percentage of patients w disease who have had influenza imm preceding 1 August to 31	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not recei exce
105	423	145	304	73	20	888	

Figure 31: Clinical Management of CHD at practice level, 2014/15

Clinical Management of CHD (Including Exceptions) Variance across Thurrock, QOF 2014/15
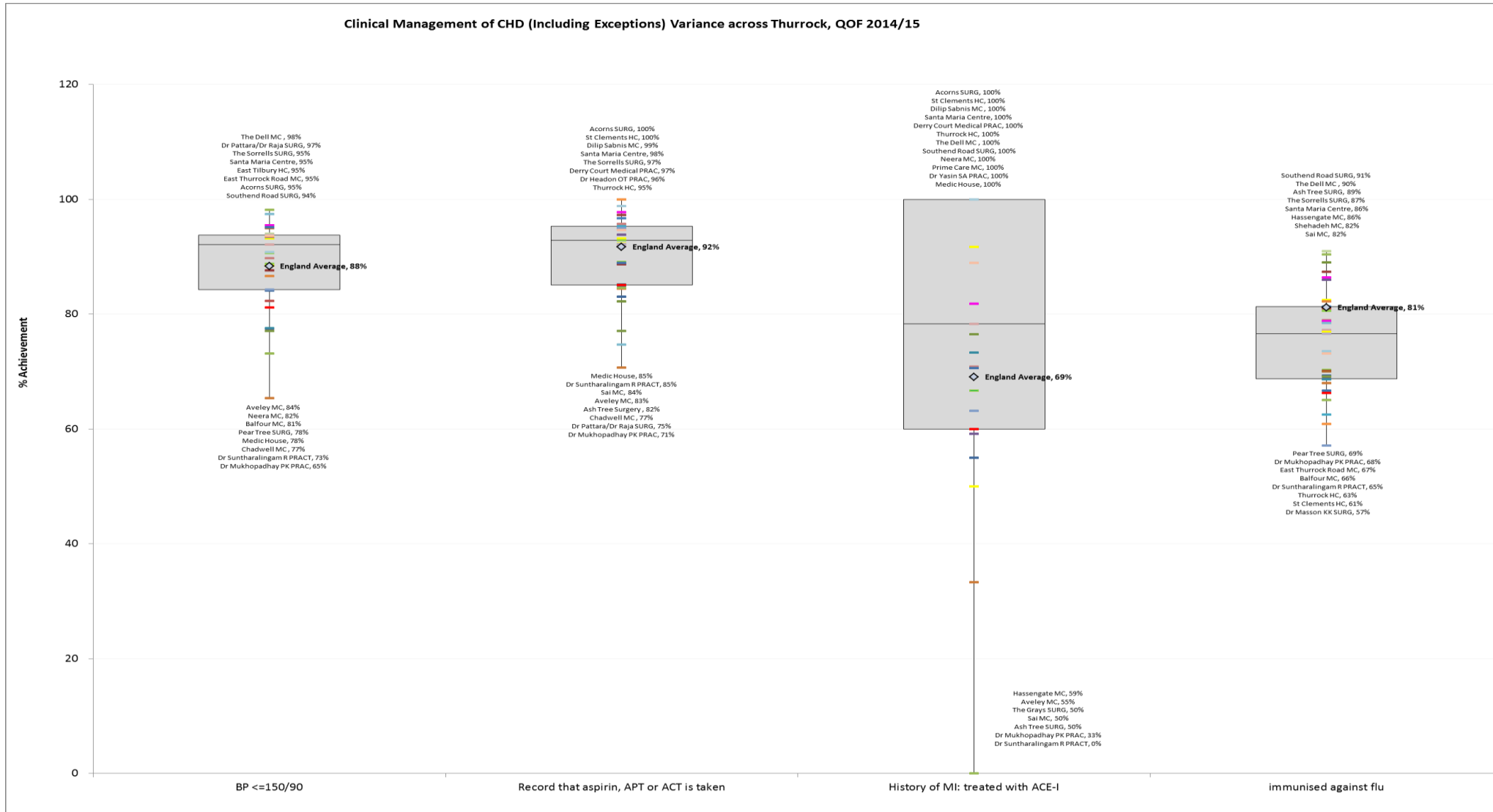
1.4.4 CLINICAL MANAGEMENT OF HEART FAILURE (HF) AND ATRIAL FIBRILLATION (AF)

There are 1,103 patients diagnosed with HF and 2,096 with AF in Thurrock.

Of those who are diagnosed the QOF tells us about the quality of their care and how well managed their condition is in general. Specifically for AF it looks at Anticoagulation and anti-platelet therapy depending upon scores and for HF, having had the diagnosis appropriately confirmed and LVD treated with ACE, ARB and beta-blockers. The indicators are aimed at reducing the risk of patients suffering from a CVD event in the future.

All patients with AF and a CHAD 2 score (a tool that assesses their of their risk of a stroke) of more than one should be treated anti-coagulation therapy unless exception reported. The reality in Thurrock is that there is a variation between practices from 53% to 100%. Similar variation (excluding one practice recording 0%) can be seen for anti-coagulant or anti-platelet therapy for CHADS2 equal to one. (Figure 32)

This is extremely concerning and entirely unacceptable clinical practice. In effect there are 163 patients in Thurrock with a diagnosis of Atrial Fibrillation who have been assessed using the CHADS2 score system to be at high risk of a stroke and in urgent need of treatment with anti-coagulation medication that are not receiving such treatment, nor have been exception reported for reasons of (for example) noncompliance. **As a matter of upmost urgency these patients must be identified, called in for review and offered anti-coagulation medication. They are currently at high and completely unnecessary increased risk of stroke.**

Similar levels of variation can also be seen for patients with HF. (

Figure 32)

The England average is within the grey boxes for most of the indicators, so practices that we have named as outliers compared to Thurrock are also outliers compared to England averages.

The below lists practices for whom the percentage of patients with AF or HF receiving the intervention is in the bottom quartile by the number of indicators for which this is the case:

Table 10: Practices in the bottom quartile for HF and AF indicators, 2014/15

Practices in the Bottom quartile for both AF indicators	Practices in the Bottom quartile for 1 AF indicator	Practices in the Bottom quartile for all 3 HF indicators	Practices in the Bottom quartile for 2 of the 3 HF	Practices in the Bottom quartile for 1 of the 3 HF
Thurrock HC	Dr Headon OT PRACT Dr Masson KK SURG Medic House St Clements HC Balfour MC Aveley MC Prime Care MC Hassengate MC Dr Mukhopadhay PK PRACT Acorns SURG	Sai MC	Neera MC Balfour MC Dr Mukhopadhay PK PRA	Thurrock HC The Grays SURG St Clements HC Dr Suntharalingam R PRA Ash Tree SURG Acorns SURG Dr Pattara/Dr Raja SURG Dr Colburn SURG Dr Yasin SA PRACT Shehadeh MC Dr Masson KK SURG Pear Tree SURG Derry Court Medical PRA Medic House

Table 11 shows the number of patients with AF or HF who are not receiving appropriate clinical interventions. These patients (especially those from the practices mentioned above) should be identified and reviewed urgently to prevent avoidable further ill health. The figures below are broken down by practice in appendix X.

Table 11: AF and HF patients not receiving interventions, 2014/15

AF004: In those patients with atrial fibrillation whose latest record of a CHADS2 score is greater than 1, the percentage of patients who are currently treated with anti-coagulation therapy		AF005: In those patients with atrial fibrillation in whom there is a record of a CHADS2 score of 1, the percentage of patients who are currently treated with anti-coagulation drug therapy or anti-platelet therapy		HF002: The percentage of patients with a diagnosis of heart failure (diagnosed on or after 1 April 2006) which has been confirmed by an echocardiogram or by specialist assessment 3 months before or 12 months after entering on to the register		HF003: In those patients with a current diagnosis of heart failure due to left ventricular systolic dysfunction, the percentage of patients who are currently treated with an ACE-I or ARB		HF004: In those patients with a current diagnosis of heart failure due to left ventricular systolic dysfunction who are currently treated with an ACE-I or ARB, the percentage of patients who are additionally currently treated with a beta-blocker licensed for heart failure	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
148	731	19	7	32	49	15	2	32	-548

Figure 32: Clinical Management of HF and AF at practice level, 2014/15

Clinical Management of HF & AF(including exceptions) Variance across Thurrock, QOF 2014/15
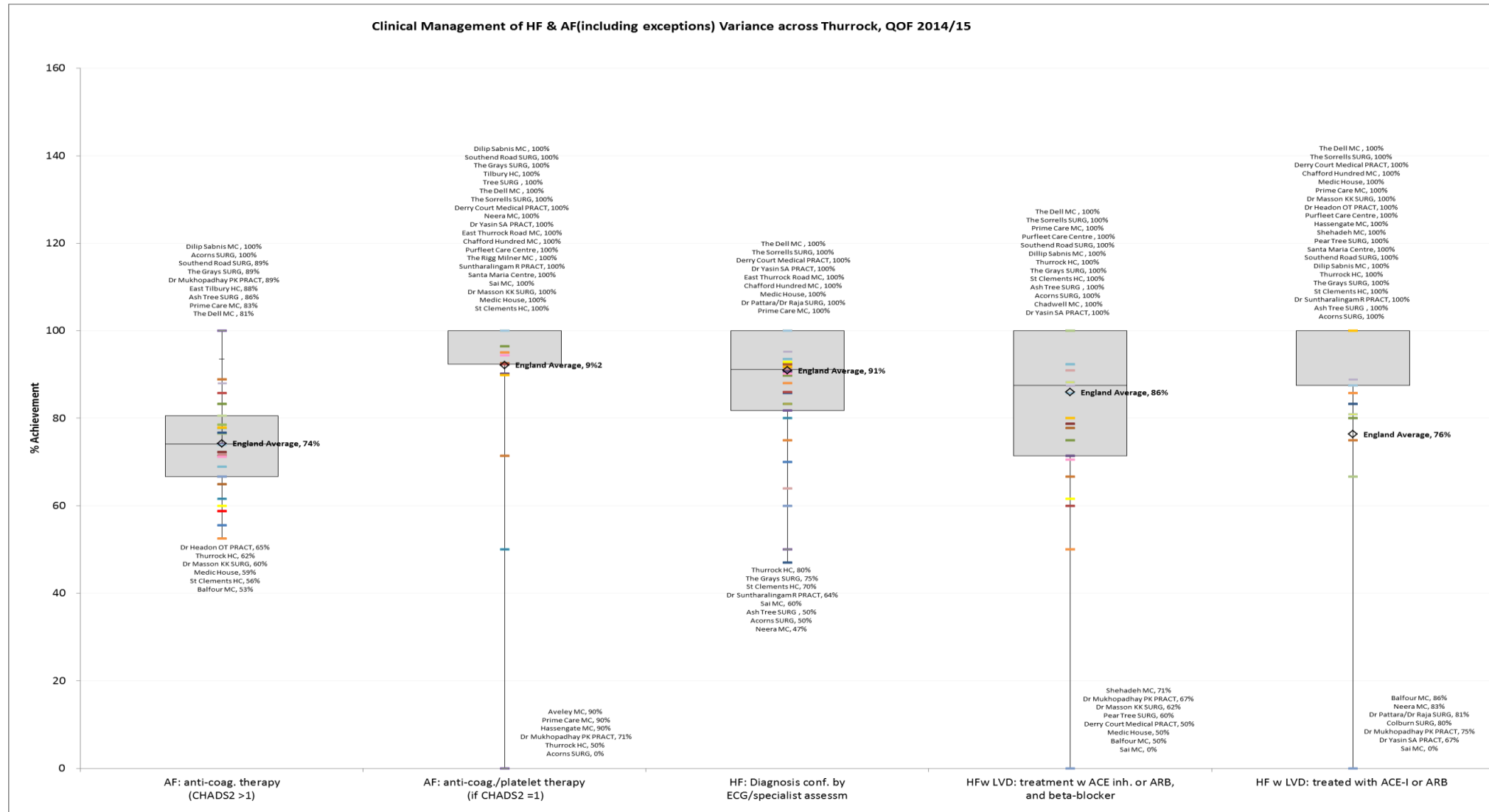
1.4.5   CLINICAL MANAGEMENT OF RESPIRATORY CONDITIONS

We estimate that there are 3,604 patients with COPD in Thurrock, including 642 who are not yet diagnosed. In addition there are 9,441 patients diagnosed with Asthma.

Of those who are diagnosed the QOF tells us about the quality of their care and how well managed their condition is in general. Specifically for COPD it looks at how diagnoses were confirmed, recording of FEV1, records of dyspnoea grade >3 and oxygen saturation and Flu immunisations, and for Asthma, records of reversibility, having a review and having a record of smoking status.

The lists below show which practices are in the lowest quartile for each the COPD indicators by the number of indicators for which this is the case. Dr Suntharalingham appears on all of the lists, Chadwell MC and Chafford Hundred MC and Aveley MC on 3 lists each, and St Clement HC, Balfour MC, Medic House, Neera MC, Sai MC, and Dr Mukhopadhyay Practice all appear on two lists each. These practices should be prioritised for support to improve the number of people for whom an intervention is received.

Variation in the management of COPD is high, it is concerning that 8 practices have levels of COPD review including the MRC dyspnoea scale of less than 74%, three of these practices are below 45%.

The England average is within the grey boxes for all of the indicators, so practices that we have named as outliers compared to Thurrock are also outliers compared to England averages.

There are large numbers of people who are not receiving an intervention or being exception reported. This equates to a failure of the local health system. This needs to be reviewed across Thurrock urgently.

Tble 13 below shows the number of patients who are not receiving a NICE recommended intervention for COPD. A detailed practice level version of the table is shown in appendix X. These patients (especially those from the practices mentioned above) should be identified and reviewed urgently to prevent avoidable further ill health.

The lists below show which practices are in the lowest quartile for each the Asthma indicators by the number of indicators for which this is the case. The Sai and Balfour Medical Centres appear on all of the lists. Practices on these lists should be prioritised for support to improve quality of care.

Table 15 below shows the number of patients who are not receiving a NICE recommended intervention for Asthma. A detailed practice level version of the table is shown in appendix X.   In 2014/15, there were in total 2550 clinical interventions recommended by NICE that were not offered to patients with Asthma in Thurrock. These patients (especially those from the practices mentioned above) should be identified and reviewed urgently to prevent avoidable further ill health and unnecessary unplanned care admission.

There are 2,295 patients in Thurrock who are diagnosed with Asthma but who have not received a review. The percentage of patients receiving a review is 60% or less in eight practices and below 50% in three.

Table 12: Practices in the bottom quartile for COPD indicators, 2014/15

Practices in the Bottom quartile for all 4 COPD indicators	Practices in the Bottom quartile for 3 of the 4 COPD indicators	Practices in the Bottom quartile for 2 of the 4 COPD indicators	Practices in the Bottom quartile for 1 of the 4 COPD indicators
Dr Suntharalingam R PRA	Chadwell MC Aveley MC Chafford Hundred MC	St Clements HC Balfour MC Medic House Neera MC Sai MC Dr Mukhopadhay PK PRA Chadwell MC	The Sorrells SURG The Grays SURG Ash Tree SURG Prime Care MC Dr Yasin SA PRACT Dilip Sabnis MC Acorns SURG

Tble 13: COPD patients not receiving interventions, 2014/15

COPD002: The percentage of patients with COPD (diagnosed on or after 1 April 2011) in whom the diagnosis has been confirmed by post bronchodilator spirometry between 3 months before and 12 months after entering on to the register		COPD004: The percentage of patients with COPD with a record of FEV1 in the preceding 12 months		COPD005: The percentage of patients with COPD and Medical Research Council dyspnoea grade ≥3 at any time in the preceding 12 months, with a record of oxygen saturation value within the preceding 12 months		COPD007: The percentage of patients with COPD who have had influenza immunisation in the preceding 1 August to 31 March	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
166	142	248	392	31	70	578	97

Table 14: Practices in the bottom quartile for Asthma indicators, 2014/15

Practices in the Bottom quartile for all 3 Asthma indicators	Practices in the Bottom quartile for 2 of the 3 Asthma indicators	Practices in the Bottom quartile for 1 of the 3 Asthma indicators
Sai MC Balfour MC	Dr Mukhopadhay PK PRA Dr Suntharalingam R PRA Purfleet Care Centre Neera MC Chadwell MC	The Rigg Milner MC St Clements HC Pear Tree SURG Aveley MC Derry Court Medical PRA(Dr Pattara/Dr Raja SURG Chafford Hundred MC Dr Colburn SURG

Table 15: Asthma patients not receiving interventions, 2014/15

AST002: The percentage of patients aged 8 or over with asthma (diagnosed on or after 1 April 2006), on the register, with measures of variability or reversibility recorded between 3 months before or anytime after diagnosis		AST003: The percentage of patients with asthma, on the register, who have had an asthma review in the preceding 12 months that includes an assessment of asthma control using the 3 RCP questions		AST004: The percentage of patients with asthma aged 14 or over and who have not attained the age of 20, on the register, in whom there is a record of smoking status in the preceding 12 months	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
85	208	372	2295	4	47

Figure 33: Clinical Management of COPD and Asthma at practice level, 2014/15

Clinical Management of Respiratory Patients (including exceptions) Variance across Thurrock, QOF 2014/15
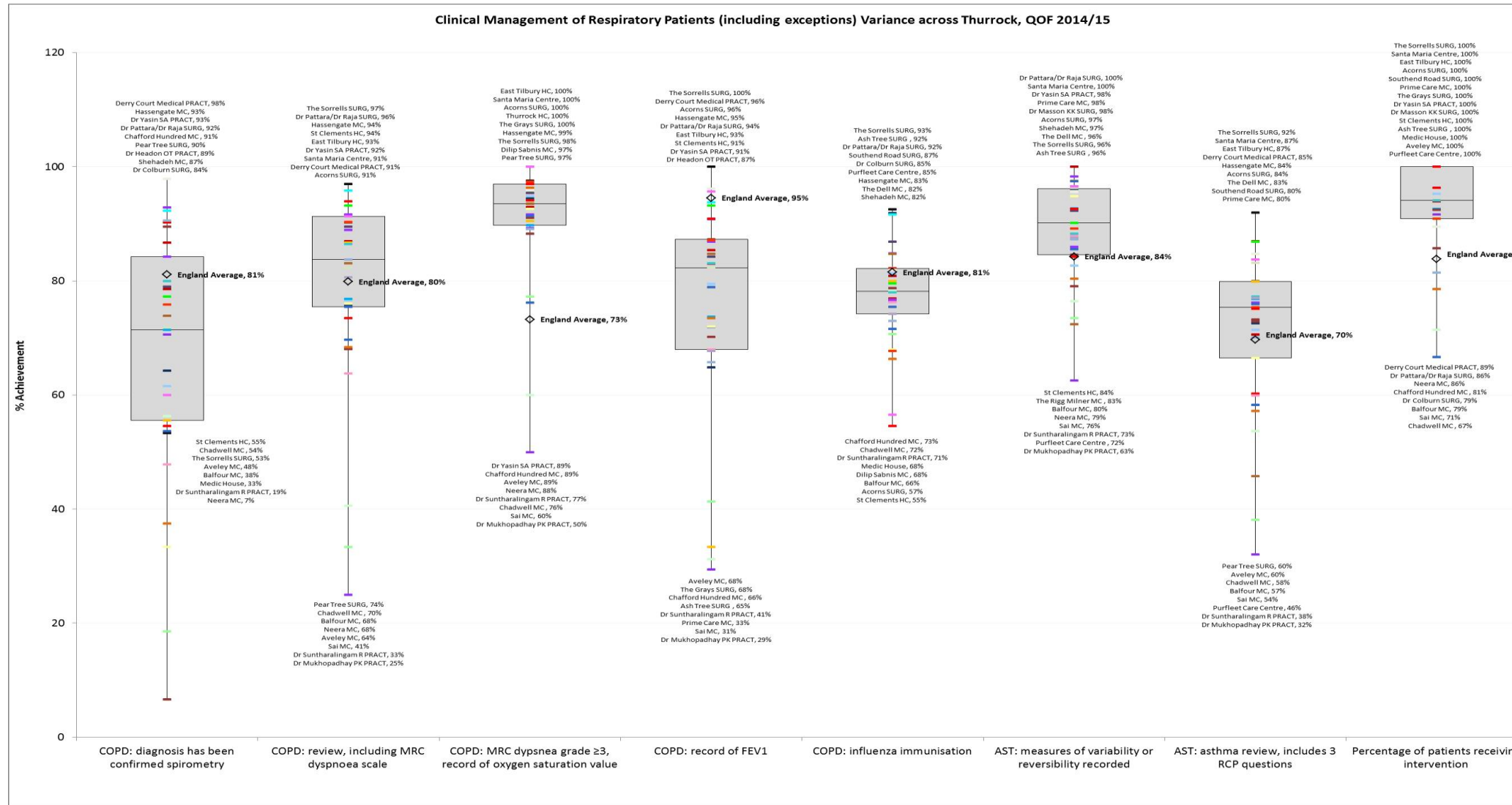
Management of Respiratory Conditions by NHS Community Services

Data for the year 2014/15 indicates that The North East London Foundation Trust (NELFT) received 286 new referrals from Thurrock patients, and discharged 199 patients. The most common reasons for discharge were Death (60.8%), Episode of Care complete (17.09%) and Inappropriate Referral (10.05%).

Variation in referrals to the service by GP is shown below, with referrals shown as a proportion of all patients with a MRC score of ≥3 in the preceding 12 months to enable comparison across practices. It is noted however that not all patients with COPD would need a new referral every year, so variation could be explained in part due to differing numbers of new COPD patients at each practice.

Practice-level analysis shows that Dr Joseph did not refer any patients to the COPD clinic, and even Dr Shehadeh with a relatively large practice list size and number of eligible MRC patients only referred 4, which worked out at 2.26%; whilst Acorns and Dr Roy referred 57.14% and 46.15% of their patients with an eligible MRC score to the COPD service. The Thurrock mean was 17.51%. Dr Khan was excluded from this analysis as he appears to have referred 6 times the number of eligible patients to the service.

Dr's Patel, Colburn, Tresidder and Headon could not be included in this analysis as the denominator came from Systm One, which these practices are not recording on.

Figure 34: Referrals to COPD clinic as a proportion of all those with an eligible MRC score in the preceding 12 months
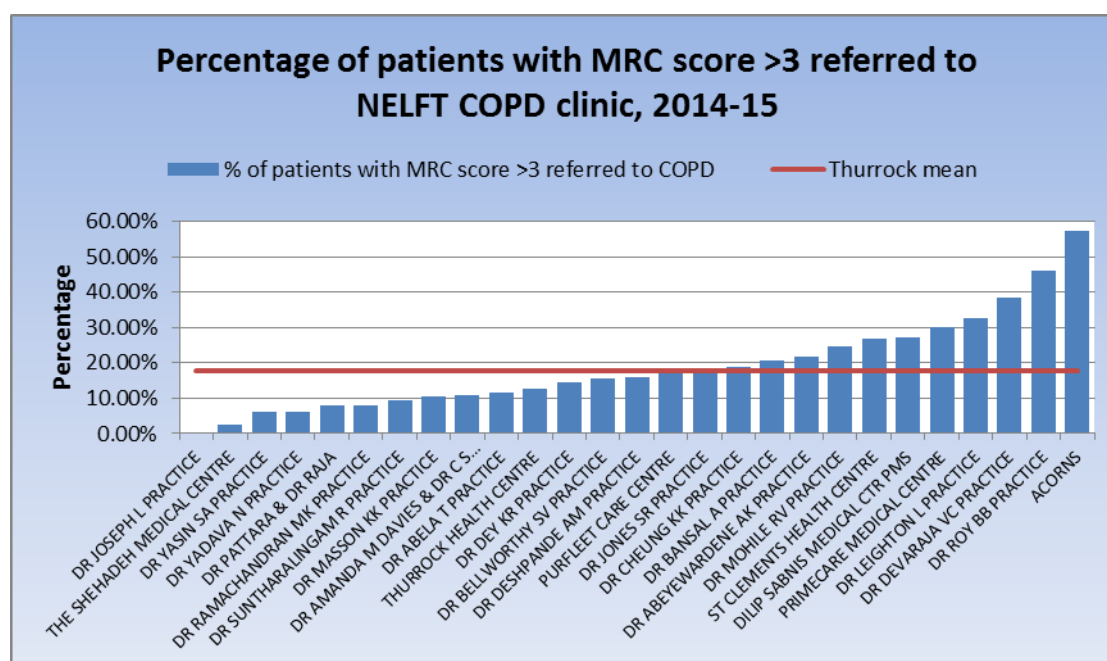
Source: NELFT Performance Team and Systm One

Since April 2015, NELFT have also had responsibility for the Pulmonary Rehabilitation service in Thurrock. Between April-December 2015, there were 340 referrals to this service, and variation by practice is again shown below as a proportion of those with an MRC score of ≥3 in the preceding 12 months. It is noted that this denominator is a proxy for those eligible for the service, as patients must have an MRC score of over 3 to access this service. Whilst the Thurrock proportion is 21.07%, practice referral rates ranged from 3.85% (Dr Bellworthy) to 116.67% (Dr Khan). It is noted that both Dr Khan and Primecare appear to have referred more patients to Pulmonary Rehabilitation than were eligible – this is consistent with Dr Khan's referrals to

the COPD clinic also. Dr's Patel, Colburn, Tresidder and Headon could not be included in this analysis as the denominator came from Systm One, which these practices are not recording on.

Figure 35: Referrals to Pulmonary Rehab as a proportion of all those with an eligible MRC score in the preceding 12 months
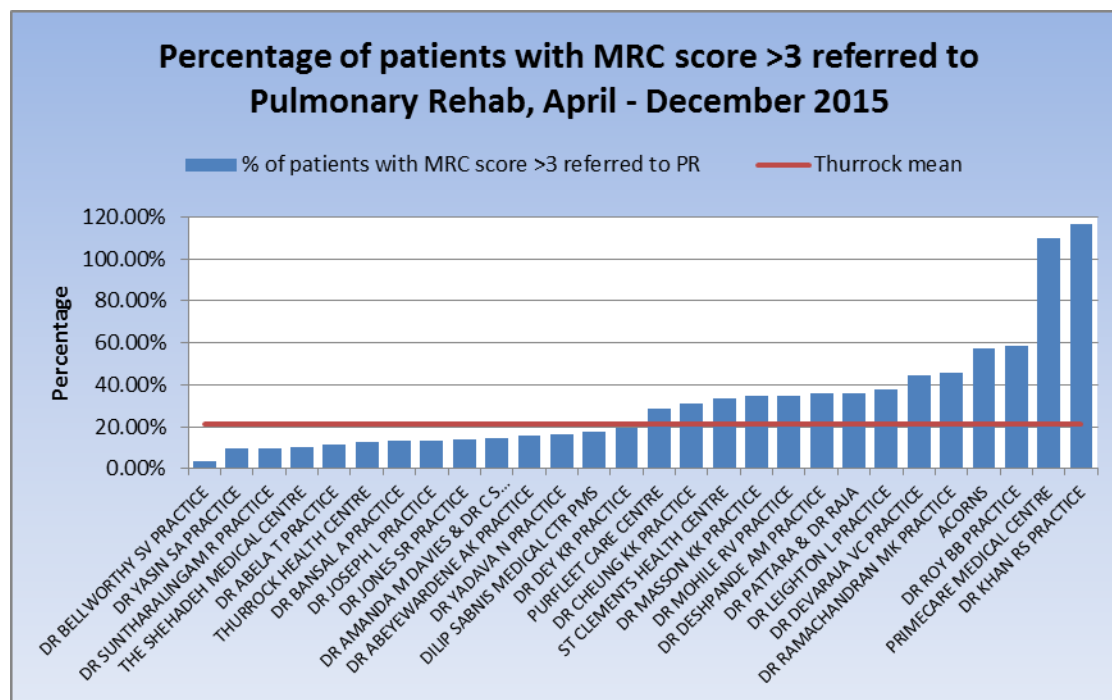
Source: NELFT Performance Team and Systm One

Assuming that all patients with an MRC score ≥3 in the preceding 12 months would have been eligible for Pulmonary Rehab, it is estimated that there were **1,075 patients who were eligible for Pulmonary Rehab but not referred**.

An MRC score is a clinical measure to assess the seriousness of the COPD that an individual patient has. It runs on a scale from 1 to 5 (five being the most serious)..There is a robust evidence base that proactive management of COPD within the community including the referral to Pulmonary Rehabilitation for those patients who have an MRC score of 3 or more is effective at reducing the likelihood to be admitted as an emergency to hospital for COPD, and that their quality of life and a range of clinical biomarkers associated with disease progression can be improved as a result of effective Pulmonary Rehabilitation.

It is therefore extremely concerning that referral rates of patients with COPD with an MRC score of 3+ from GP practices in Thurrock are extremely low in many cases, and that the mean referral rate is only 20% of patients who could benefit.

This requires urgent further investigation and action in order to increase referral rates.

1.4.6 CLINICAL MANAGEMENT OF DIABETES

We estimate that there are 10,413 patients with Diabetes in Thurrock, including 2,109 who are not yet diagnosed.

Of those who are diagnosed the QOF tells us about the quality of their care and how well managed their condition is in general. Specifically, for Diabetes it looks at Blood Pressure and cholesterol levels, treatment if nephropathy or micro-albuminuria, HBA1c levels, Foot examination with risk classification, referrals into structured education and flu vaccinations.

Table 16 shows which practices are in the lowest quartile for Diabetes indicators by the number of indicators for which this is the case.

The variation in the percentage of patients whose HbA1c is within "acceptable" ranges (<=75mmol/mol) is variable across the patch from 53% in Dr Suntharalingham's practice to 90% in Hassengate Medical Centre.

Referrals of newly diagnosed patients into education programmes that will give them the tools to manage their condition and remain as healthy as possible is low. We need to review this across Thurrock.

Table 17 lists all of the NICE recommended clinical interventions that a patient with diabetes should receive if they are receiving excellent clinical management of their condition within the community, and identifies the number of patients who are not receiving each NICE recommended intervention for Diabetes clinical management. A detailed practice level version of the table is shown in appendix X.

In total, there were 12,563 NICE recommended clinical interventions that were failed to be carried out by GP practices in 2015/16 in relation to patients with diabetes registered to their practices. If patients that were excepted reported are excluded because (for example they failed to attend the practice or refused the intervention), then GP practice and community health care staff failed to deliver 23% of all clinical interventions recommended by NICE for patients with diabetes.   This is extremely concerning and requires urgent review to prevent both avoidable further ill-health and unnecessary cost caused by emergency hospital admissions

Table 16: Practices in the bottom quartile for Diabetes indicators, 2014/15

Practices in the Bottom quartile for all 10 Diabetes indicators	Practices in the Bottom quartile for 9 of the 10 Diabetes indicators	Practices in the Bottom quartile for 7 of the 10 Diabetes indicators	Practices in the Bottom quartile for 6 of the 10 Diabetes indicators	Practices in the Bottom quartile for 5 of the 10 Diabetes indicators	Practices in the Bottom quartile for 4 of the 10 Diabetes indicators	Practices in the Bottom quartile for 3 of the 10 Diabetes indicators	Practices in the Bottom quartile for 2 of the 10 Diabetes indicators	Practices in the Bottom quartile for 1 of the 10 Diabetes indicators
Dr Mukhopadhay PK PRA	r Suntharalingham	Chadwell MC	Medic House	Dr Masson KK SURG	Balfour MC Pear Tree SURG Thurrock HC Chafford Hundred MC	Neera MC St Clements HC Sai MC	Purfleet Care Centre Dr Colburn SURG Dr Headon OT PRACT Dr Yasin SA PRACT Dilip Sabnis MC	Aveley MC The Dell MC The Grays SURG Ash Tree SURG Acorns SURG East Thurrock Road MC

Table 17: Patients not receiving Diabetes interventions, 2014/15

| DM002: The percentage of patients with diabetes, on the register, in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		DM003: The percentage of patients with diabetes, on the register, in whom the last blood pressure reading (measured in the preceding 12 months) is 140/80 mmHg or less		DM004: The percentage of patients with diabetes, on the register, whose last measured total cholesterol (measured within the preceding 12 months) is 5 mmol/l or less		DM006: The percentage of patients with diabetes, on the register, with a diagnosis of nephropathy (clinical proteinuria) or micro-albuminuria who are currently treated with an ACE-I (or ARBs)		DM007: The percentage of patients with diabetes, on the register, in whom the last IFCC-HbA1c is 59 mmol/mol or less in the preceding 12 months		DM008: The percentage of patients with diabetes, on the register, in whom the last IFCC-HbA1c is 64 mmol/mol or less in the preceding 12 months	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
235	750	442	1,735	720	1,774	120	280	676	2,562	592	2,020

DM009: The percentage of patients with diabetes, on the register, in whom the last IFCC-HbA1c is 75 mmol/mol or less in the preceding 12 months		DM012: The percentage of patients with diabetes, on the register, with a record of a foot examination and risk classification: 1) low risk (normal sensation, palpable pulses), 2) increased risk (neuropathy or absent pulses), 3) high risk (neuropathy or absent pulses plus deformity or skin changes in previous ulcer) or 4) ulcerated foot within the preceding 12 months		DM014: The percentage of patients newly diagnosed with diabetes, on the register, in the preceding 1 April to 31 March who have a record of being referred to a structured education programme within 9 months after entry on to the diabetes register		DM018: The percentage of patients with diabetes, on the register, who have had influenza immunisation in the preceding 1 August to 31 March	
Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
483	1,304	394	928	144	49	1,797	460

Figure 36: Clinical Management of Diabetes at practice level, 2014/15

Clinical Management of Diabetes Patients (including exceptions) Variance across Thurrock, QOF 2014/15
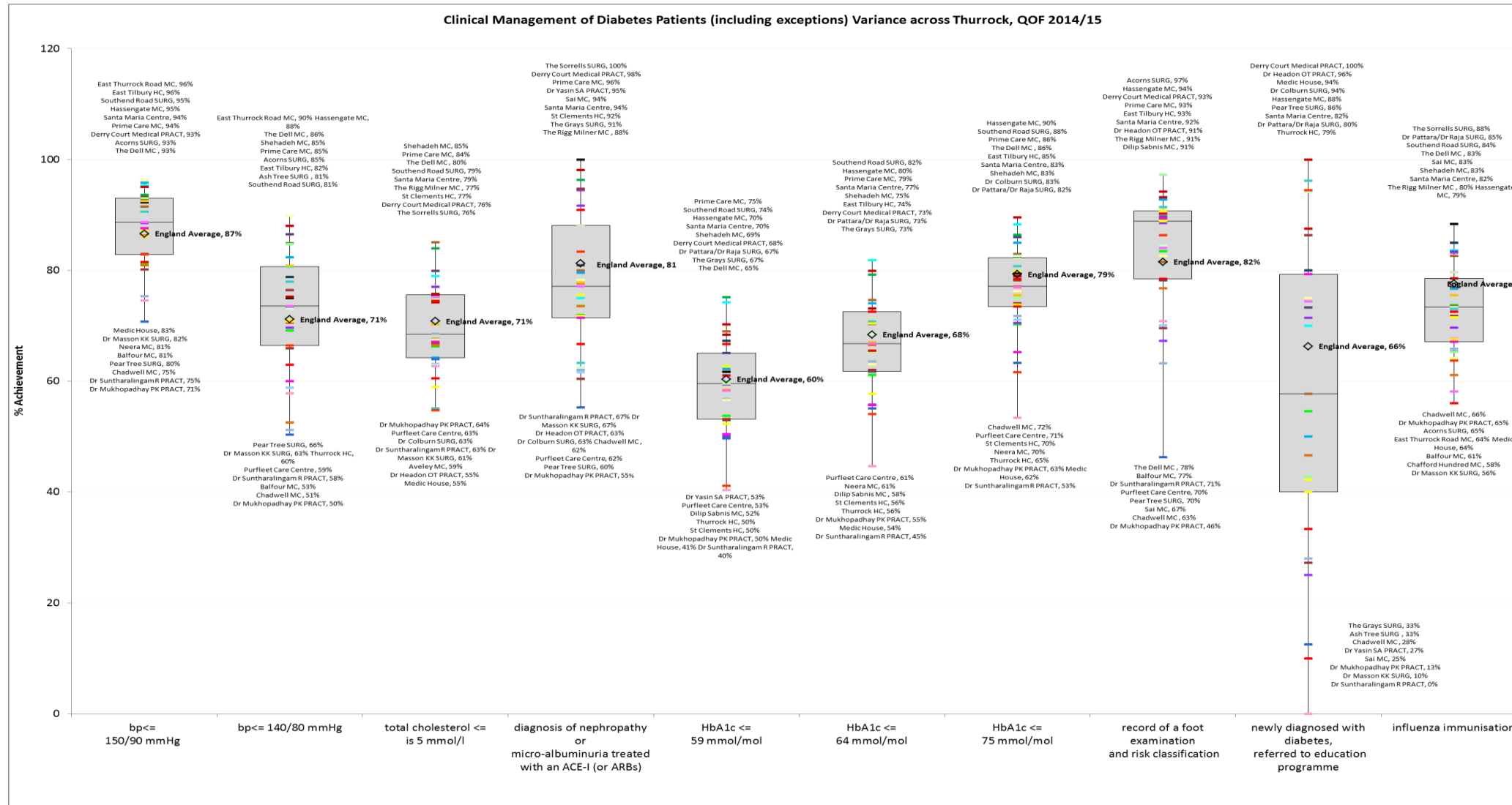
1.4.6.1 CLINICAL MANAGEMENT OF DIABETES BY NHS COMMUNITY SERVICES

Data for the year 2014/15 indicates that NELFT received 653 new referrals from Thurrock patients, and held 1,874 active episodes. Of the 1,567 discharges, the most common reasons were No Contact from Patient (40.4%), Referral back to GP (29.36%) and Completion of Structured Education (10.85%).

The figure below shows variation in the active referrals for episodes of care in 2014/15 as a proportion of those with Diabetes. It can be seen that whilst the Thurrock proportion is 22.90%, the variation ranges from 2.04% in Dr Mukhopadhyay's practice to 44.76% of Thurrock Health Centre. However some caution should be taken with this, as it is unknown whether each referral equates to one patient, so it could be that some patients have more than one episode of care within the year.
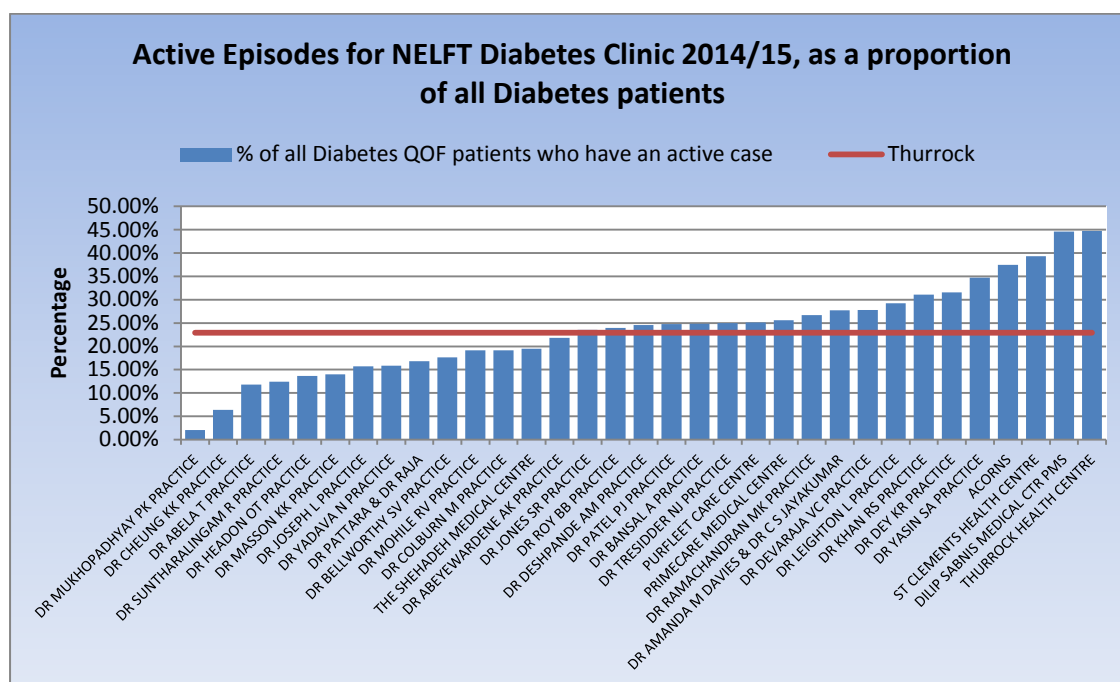
Source: NELFT Performance team

The NELFT structured education course offered to those newly diagnosed with type 2 diabetes is called SWEET (South West Essex Education and Training) Basics. This was previously run as the DESMOND course, but was redesigned in order to reduce costs and be more flexible with the contents and outcomes. NELFT have reported several benefits since the new SWEET Basics course has begun, including increased patients (414 in Jan-June 2016 for SWEET across Thurrock and Basildon and Brentwood, compared to 265 in Jan-June 2015 for DESMOND), a larger HbA1c reduction (9.6% vs 10.7% for SWEET and DESMOND respectively), and a smoother referrals process into their other SWEET Diabetes courses (e.g. their Diabetes Advanced programmes), as well as reduced costs due to the programme being able to use free materials from Diabetes UK and customised handouts.

1.4.7 CLINICAL MANAGEMENT OF MSK CONDITIONS

There are 111 patients on GP registers for Osteoporosis and a further 1131 for rheumatoid arthritis.

For Osteoporosis there are two indicators included on the QOF. The first is regarding the appropriate confirmation of diagnosis using a DEXA scan. It appears that practices are either doing this well or not at all. Most of the practices in Thurrock either score 100% or zero.

The second indicator is regarding the treatment with an appropriate bone sparing agent. Again it appears that those practices who are confirming diagnosis appropriately are generally doing this well (100%) and those who are not confirming are also either not diagnosing the condition at all or not treating it. In either case the following practices should review their diagnosis and/or treatment protocols of patients between 50 and 75 with a fragility fracture:

- Dr Yasin SA PRACT
- Dilip Sabnis MC
- Acorns SURG
- Thurrock HC
- East Thurrock Road MC
- Chadwell MC
- Dr Suntharalingam R PRACT
- Balfour MC
- Ash Tree SURG
- The Sorrells SURG
- Sai MC
- Dr Mukhopadhyay PK PRACT

For patients diagnosed with rheumatoid arthritis there is only one indicator on the QOF, this is that they should have a face to face review every 12 months. There is more variation in this indicator but it is skewed towards the upper end with 75% of our practices scoring 80% or over. However, The Dell Medical Centre, Dr Suntharalingam's practice, Pear Tree Surgery, Purfleet Care Centre, Dr Mukhopadhyay's practice, and the Sai Medical Centre all scored below 70% (69%, 68%, 58%, 53%, 18%, and 0% respectively). Of these only the Purfleet care centre had a high rate of exception reporting (41%), they excepted 7 out of 17 patients with Rheumatoid arthritis. Between them these practices have 53 patients on their registers who have rheumatoid arthritis who did not receive a face to face review and who were not exception reported. 18 of those 53 were from Dr Mukhopadhyay's practice.

Good clinical management of MSK patients is particularly important in Thurrock as MSK conditions, particularly arthritis and osteoporosis have been identified as the most common underlying clinical diagnosis prior to entry into adult social care.

Figure 37: Clinical Management of Osteoporosis at practice level, 2014/15

Clinical Management of Osteoporosis (Including exceptions) Variance across Thurrock, QOF 2014/15
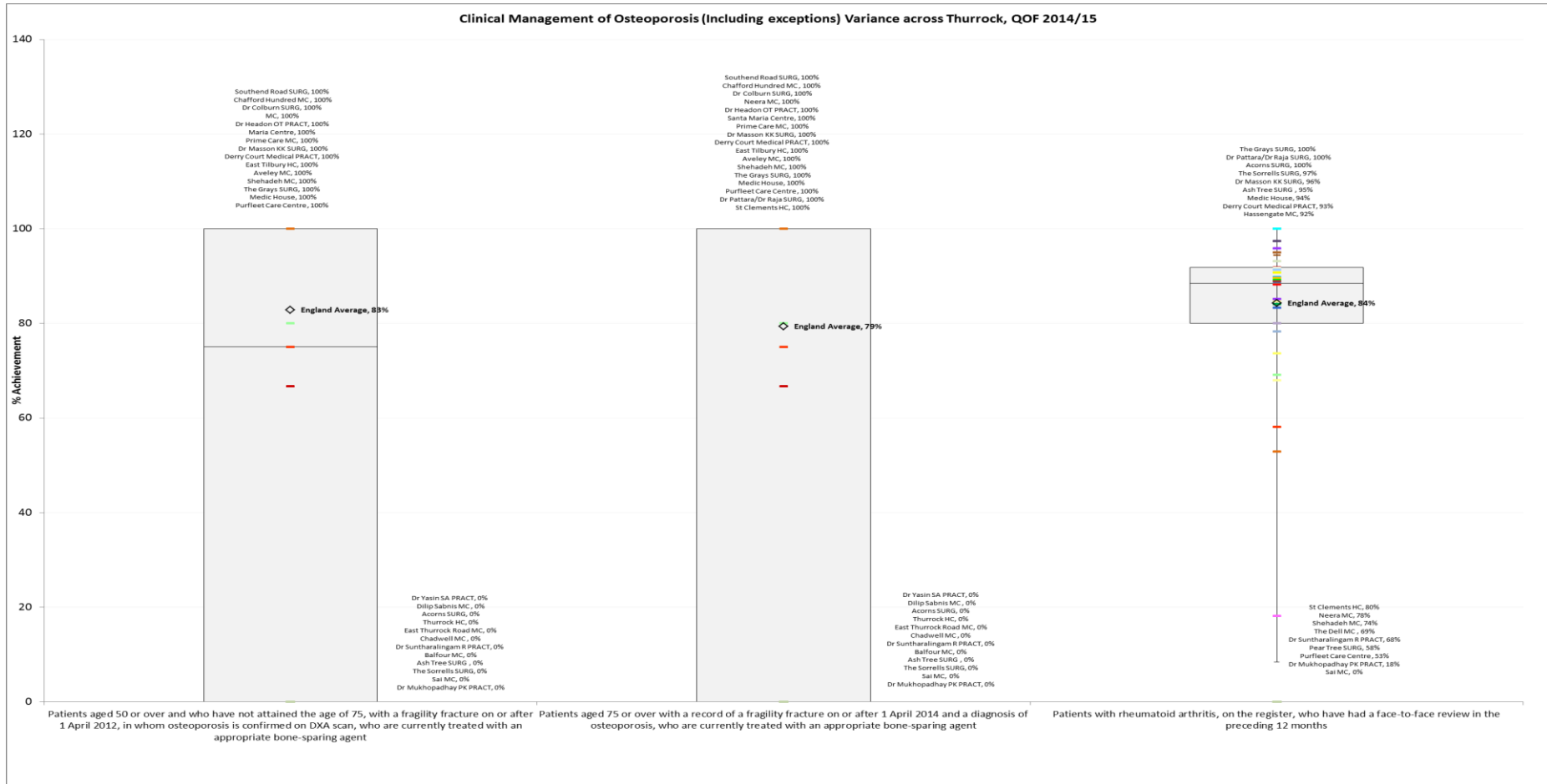
1.5 CONCLUSIONS: OVERALL CLINICAL MANAGEMENT OF LONG TERM CONDITIONS

Below is a list of the worst performing practices overall. We display the number of times each of these practices appears in the lowest quartile out of the 34 QOF indicators displayed above (excluding MSK conditions).

Table 18: Practices appearing in bottom quartile across the most QOF indicators 2014/15

	Number of times appear in bottom quartile (out of 34)
Dr Mukhopadhyay PK PRACT	28
Dr Suntharalingam R PRACT	24
Chadwell MC	20
Sai MC	18
Balfour MC	16
Aveley MC	15
Neera MC	15
Pear Tree SURG	14
Medic House	13
Dr Masson KK SURG	12
St Clements HC	12
Purfleet Care Centre	10

These practices closely correlate to those who the CQC have found to be "poor" or "needs improvement". We would suggest that these are the priority practices that need support to improve either:

1) The quality of care they are offering patients
2) Uptake of interventions by patients.

1.5.1 Review of management of respiratory and Diabetes care across Thurrock

Care of patients with respiratory conditions needs an urgent review. There are too many patients who are not receiving appropriate interventions or being referred to community support, things which could prevent exacerbations and so unplanned care.

1.5.2 Improve referrals to community teams

Feedback from NELFT indicate that for Diabetes, improvements could be made to referral numbers from GPs, as well as better understanding of why some people who are referred don't attend. The data we have shown demonstrates a large amount of variation in referral rates between practices.

There is also variation between practice level referral rates for the COPD team.

1.6 RECOMMENDATIONS: Improving the Overall Clinical Management of Long Term Conditions

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Improve the clinical management of patients with Stroke/TIA, in order to reduce their risk of them experiencing further strokes	- Ensure that all patients on stroke TIA registers have their blood pressure measured in the previous 12 months and controlled to 150/90mmHg or less. In 2014/15 there were **337** patients on GP practice stroke/TIA registers with uncontrolled blood pressure.	The new Healthcare PH Programme Managers should work with GP practices to assist them to identify patients who have not received the three clinical interventions detailed in the previous column, by producing and publishing SystmOne reports if necessary.
	- Ensure that all patients with a previous non-haemorrhagic stroke or history of TIA, have been prescribed an anti-coagulate or anti-platelet agent, unless there is a clinical contra-indication In 2014/15 there were **106** patients on stroke/TIA register that should have been offered anti-coagulant or anti-platelet medication and were not.	Practices should call all identified patients in for urgent review and offer the intervention or exception report them Out of 2502 patients on GP practice stroke registers, a total of 586 clinical interventions recommended as best practice by NICE in order to manage their condition were failed to be provided by the GP practice or NHS Community provider even after patients who had been 'exception reported' were discounted. This is extremely concerning as it suggests that such patients are being put a unnecessary risks of further strokes, with potentially catastrophic effects for them personally, and unnecessary financial pressure through secondary health care and adult social care costs that could be avoided. This warrants further urgent investigation and action.
	- Ensure that all patients on the GP practice stroke/TIA register have been offered and are encouraged to have an influenza vaccination - In 2014/15 there were **106** patients on stroke/TIA register that should have been offered anti-coagulant or anti-platelet medication and were not.	The following GP practices perform worst in delivering Stroke LTC management compared to their peers in Thurrock and support towards them should be prioritised: - Dr. Mukhopadhay - Aveley MC - Pear Tree Surgery - Chadwell MC - Sai MC - Neera MC - Dr. Yassin - St. Clements HC

Required Outcome	Mechanisms to achieve the outcome	Recommendations
		- Acorns Surgery - Ash Tree Surgery - Dr. Masson -
Improved clinical management of patients with Hypertension (high blood pressure) in order to prevent more serious Cardio-Vascular events.	- Increase the percentage of patients diagnosed with hypertension that have their blood pressure controlled to 150/90 mmHg. In 2014/15 there were **3899** patients with Thurrock with a diagnosis of blood pressure above this level	The new Healthcare PH Programme Managers should work with GP practices to assist them to identify patients with uncontrolled blood pressure by producing and publishing SystmOne Public Health should undertake a deep dive in the issue of Hypertension and assess clinical/ prescribing behaviour of GP practices against NICE Guidelines CG127, making recommendations to share best practice where appropriate. GP practices should urgently review all patients with uncontrolled hypertension. A metric on the management of hypertension should be included on the LTC GP practice scorecard to encourage sharing of best practice between local GP practices and clinicians
Improve the clinical management of patients diagnosed with CHD in order to prevent further serious Cardio-Vascular events.	- Ensure the maximum possible number of patients diagnosed with CHD their blood pressure controlled to a level at 150/90mmHG or less. In 2014/15, **423 patients with CHD had uncontrolled blood pressure, nor had been execption reported.**	Implement all previous recommendations on all clinical management of patients with hypertension
	- Ensure that all patients with CHD have been offered and encouraged to take an anti-coagulant or anti-platelet therapy in the previous 12 months,. In 2014/15, **this did not occur in 304 patients** - Ensure that all patients a history of Myocardial Infarction are treated with an ACE-1, ARB (if ACEC-I intolerant), aspirin or an alternative anti-platelet therapy. In 2014/15, **this did not occur in 2-patients**	The new Healthcare PH Programme Managers should work with GP practices to assist them to identify these cohorts of patients, if necessary by creating and publishing SystmOne reports. **GP practices should urgently invite these cohorts of patients in for clinical review** **The following GP practices perform the most poorly in terms of their long term clinical management of patients with CHD. Public Health should prioritise support for them:** - Dr. Suntharalingham - Dr. Mukhopadhay - Aveley MC - Chadwell MC - Medic House - Pear Tree Surgery - Balfour MC - Ash Tree Surgery
Improve the Clinical Management of patients diagnosed with Atrial Fibrillation in order to prevent more serious Cardio-Vascular Events, particularly strokes.	- Ensure that all patients diagnosed with AF are regularly assessed for stroke risk using a CHAD2 score assessment tool	Ensure that all patients diagnosed with AF are regularly assessed for stroke risk using a CHAD2 score assessment tool
	- Ensure that all patients with a CHAD2 score of 1 are treated with an anti-platelet or anti-coagulation therapy, and that those with a CHAD2 score greater than one are treated with an anti-coagulation therapy.	GP practices to urgent identify and review all patients with AF who require anti-coagulation or anti-platelet medication and have not been prescribed it, nor exception reported. In 2014/15, this **738 patients in 2014/15 putting them at unnecessarily very high risk of a stroke and is wholly unacceptable clinical practice.** Treatment with appropriate anti-coagulation of AF patients with a CHAD2 score>1 to be added to the LTC Management Scorecard and monitored closely through by the Thurrock Health and Wellbeing Board and CCG Clinical Executive/Board.

Required Outcome	Mechanisms to achieve the outcome	Recommendations
		From 2014/15 QOF data, the following GP practices' performance falls within the bottom quartile of performance in the clinical management of patients with AF across England, and may require immediate support to improve: - Dr. Mukhopadhay - Dr. Headon - Dr. Masson - Medic House - St. Clements Health Centre - Balfour MC - Aveley Medical Centre - Primecare MC - Hassengate MC - Acorns SURG
Improved Clinical Management of Respiratory Conditions by Primary and Community Healthcare Services in order to prevent or delay disease progression and avoid acute exacerbations	- Improve the monitoring of disease progression of patients with COPD and asthma such that appropriate clinical interventions can be provided when necessary	- GP practices to review all patients with COPD at least once per annum and record an FEV1 score - GP practices to review all patients with asthma annually, including an assessment of asthma control using the 3 RCP questions. **In 2014/15, this intervention was not carried out for 2295 patients with asthma.** - GP practices and/or NELFT Community Respiratory Team to measure and record oxygen saturation value annually for all patients with an MRC score of 3 or greater.
	- Reduce the risk of influenza in patients with COPD	- Increase influenza vaccination coverage uptake in this cohort of patients through proactive invitation by GP practices and wider communications and media work by Public Health.
	- Improve clinical management of COPD within the community by ensuring appropriate referral and management of those patients with more serious COPD progression to the NELFT Community Respiratory Team	- Fewer than 20% of patients with COPD and an MRC score of 3+ are referred to the NELFT Community Respiratory Team., nor receive a referral to Pulmonary Rehabilitation. Both of these interventions have been shown to reduce exacerbations of COPD and improve patient outcomes. From April to December 2015 **1,075 patients with COPD who were eligible for Pulmonary Rehabilitation were not referred.** This requires urgent further investigation to ascertain reasons for low referral rates and increase these. -
	- Promote 'self-care' in patients with COPD	There is a strong evidence base that patients with respiratory disease who undertake structured education programmes in terms of 'self-care' have significantly better outcomes. Public Health should work with our local CVS, Healthwatch and PPGs or more widely with the third sector to integrate referral of patients to existing community support groups into care clinical care pathways, and to assist such groups to develop patient education programmes.
Improved Clinical Management of Diabetes by Primary and Community Healthcare Services in order to prevent or delay disease progression and avoid acute exacerbations	Ensure that all patients diagnosed with diabetes that are not exception reported, receive the 10 clinical interventions recommended by NICE within Primary and/or community care. (see table 16)	12,563 NICE recommended clinical interventions that were failed to be carried out by GP practices in 2015/16 in relation to patients with diabetes registered to their practices. If patients that were excepted reported are excluded because (for example they failed to attend the practice or refused the intervention), then GP practice and community health care staff failed to deliver 23% of all clinical interventions recommended by NICE for patients with diabetes. This is extremely concerning and requires urgent review to prevent both avoidable further ill-health and unnecessary cost caused by emergency hospital admissions. Healthcare Public Health Programme Managers should assist GP practices to identify and call for review, patients with diabetes who are not receiving all recommended interventions, by producing and publishing SystmOne reports.

Required Outcome	Mechanisms to achieve the outcome	Recommendations
		Variation between GP practices on the 10 clinical indicators relating to diabetes clinical management in Primary Care is so concerning that it is recommended at Public Health undertake a Diabetes 'Deep Dive" to further investigate the reasons for the current situation and make more detailed recommendations for improvement. Deep Dive to be brought back to the Thurrock Health and Wellbeing Board and NHS CCG Clinical Executive Group/Board for further discussion once complete.
	Promote 'self-care' in patients with diabetes	The NELFT structured education course offered to those newly diagnosed with type 2 diabetes is called SWEET (South West Essex Education and Training) Basics. There is a strong evidence base in terms of better outcomes for patients with diabetes that undergo patient education and NELFT report, a larger HbA1c reduction in patients undergoing this course. The Healthcare PH Programme Managers should work with NELFT, Healthwatch and GP practices to encourage further uptake of this course amongst patients.

Section 2 A&E ATTENDANCES

2.1 INTRODUCTION

A&E attendances both locally and nationally are increasing at an unsustainable rate, both financially (as it costs more to treat patients with less serious clinical conditions in A&E) than in other community settings, and operationally, as treating with minor illnesses in A&E divert staff resource away from those who are genuine emergencies.

Figure 38shows the exponential growth in numbers of patients attending A&E at Basildon Hospital over the last six years.

Figure 38: Growth in A&E Attendances at Basildon Hospital
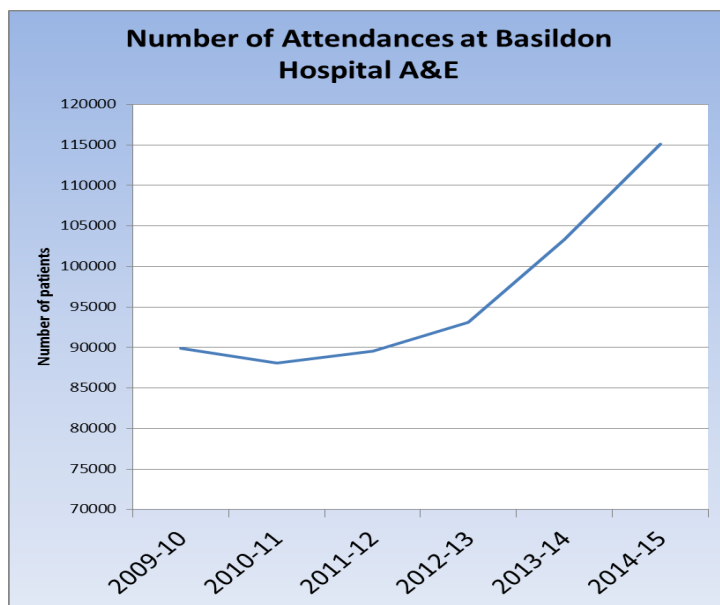
In 2014/15 there were 59,675 A&E attendances for patients registered to Thurrock practices. The total cost of this was almost £6M. (Figure 39)

2.2 INAPPROPRIATE A & E ATTENDANCES

Whilst there are undoubtedly occasions where A&E is the most appropriate place for a patient to access care, this report contends that a significant number of A&E attendances are inappropriate and that A&E is often accessed by patients who have suffered neither an accident, nor have a medical emergency. We have classified two levels of inappropriate attendances. The first are those who received no significant investigation or treatment. We feel that the vast majority of these attendances did not require medical attention at all. The second is those who received low level interventions and/or treatments. (as defined as a 'category 1 investigation with cat 1-2 treatment' or a 'category 2 investigation with category 1 treatment' within Hospital Episode Statistics (HES) data). Examples of a Category 1 investigation include blood tests or urinalysis, and a category 1-2 treatment; a dressing change or ***). Previous analyses has lead us to the conclusion that a significant amount of this activity could be seen and dealt with in a primary care setting if facilities and capacity were available. [Figure 39].

Of the 59,675 attendances in 2014/15 24,424 (41%) fell into the first of these categories. That is that they did not require medical attention at all. These A&E attendances cost a total of £1.6M (an average of £65.62 per attendance). [Figure 39] Almost 2.5% of these (608) used an ambulance to get to A&E.

Of the 59,675 attendances in 2014/15 25,652 (42%) fell into the second of these categories. That is that they could have been seen and treated elsewhere had facilities been available, these cost a total of £2.8M (an average of £111.22 per attendance). [Figure 39]. Incredibly, 27% of these (6,991) used an ambulance to get to A&E.

Figure 39: A&E attendances and costs by category, 2014/15

Number of A&E Attendances and Total Costs, Thurrock - 2014/15
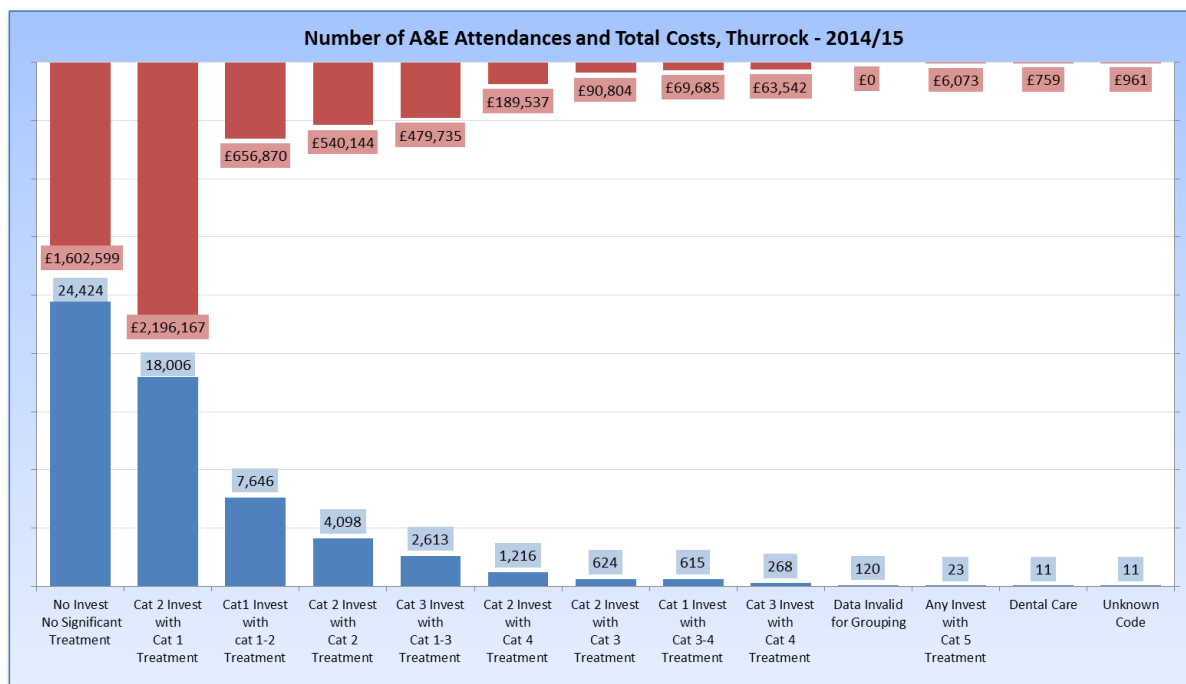
Figure 40 shows that the percentage of ambulance conveyances that are for inappropriate A&E attendances reduces with age. Especially the percentage who do not require medical attention.

Figure 40: A&E Attendances conveyed by ambulance by age group and category, 2014/15

Ambulance Conveyances by Age and HRG Catergory - 2014/15
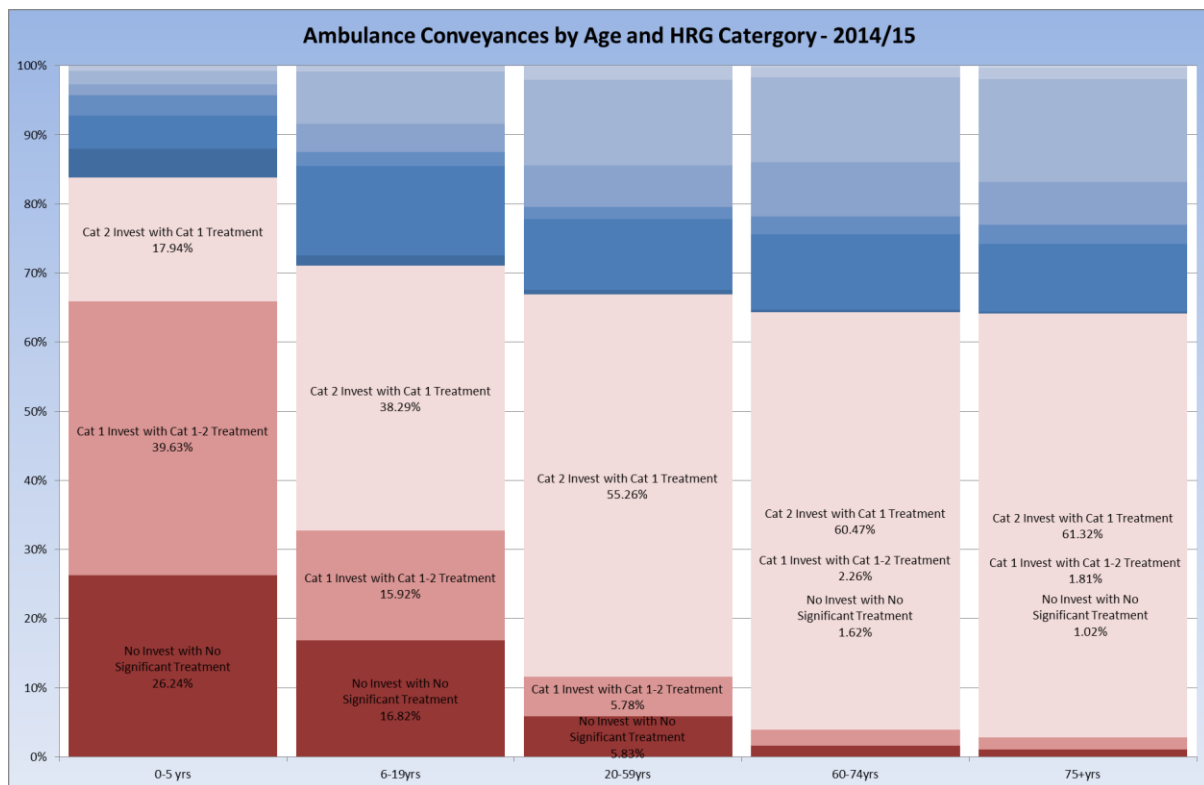
What is interesting is that use of ambulance to convey patients requiring either no investigation nor treatment, or the most minor type of investigation and treatment drops markedly as the patient age increases. Almost 70% of babies/infants aged 0 to 5 conveyed by ambulance to A&E required either no investigation/treatment or the most minor types of investigation/treatment. Conversely, only 2% of those aged 75+ conveyed by ambulance were assessed into these two categories, suggesting that older people are using ambulances in a much more responsible way than parents of babies and toddlers. This in turn suggests that both better triage by ambulance service dispatchers for patients aged 0 to 5 and potentially stronger triage at the door of A&E that deflect patients away from A&E and prevent them using this setting to obtain treatment for non-emergency clinical issues is required. With regard to inappropriate use by (the parents) of patients aged 0 to 5, better use of Health Visitors within the new 0 to 19 care pathway as an education resource for parents in terms of appropriate and inappropriate A&E usage may also be required.

Figure 41 shows the rates of inappropriate attendances by GP practice (2014/15). College health (previously known as Dr Suntharalingams practices and referred to as this throughout the report) had the highest total inappropriate attendance rate, this is closely followed by Medic House, Chadwell Medical Centre and Dilip Medical Centre. Chafford Hundred Medical Centre has the lowest rate. Levels of variation in the two definitions are high. The remainder of this chapter looks at the possible causes for variation in inappropriate attendance through the use of statistical modelling techniques and also at falls as a cause of A&E attendances that could be avoided.

Figure 41: Rate of inappropriate A&E attendances by practice, 2014/15
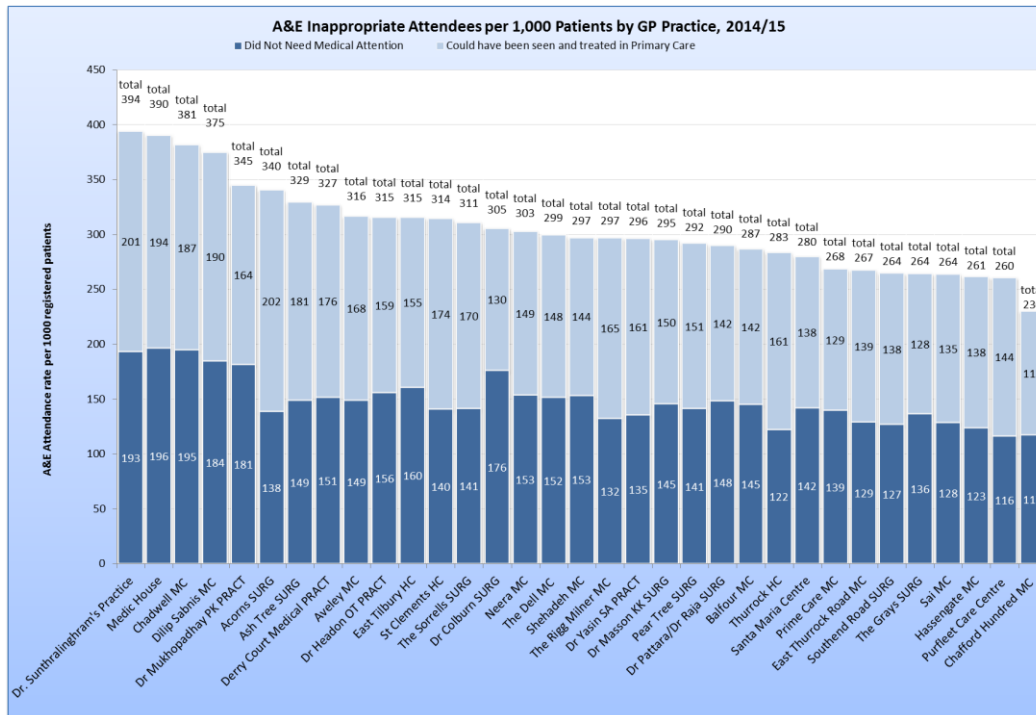
We built two models for this section. For the first the outcome variable was the number of A&E attendances for which no investigation and no significant treatment was given. i.e. most of the attendances didn't really need medical attention at all. The second for those who had a category 1 investigation with a category 1 or 2 treatment or a category 2 investigation with a category 1 treatment. i.e. low levels of medical attention were required and a large proportion of these could have been dealt with in a primary care setting if one were available at the time.

Figure 42 shows all of the variables that were originally hypothesised as having an impact on inappropriate A&E use and (in orange) those that were included in the final model as analyses showed them to be having the largest impacts.

Figure 42: Variables hypothesised to impact on inappropriate A&E attendances
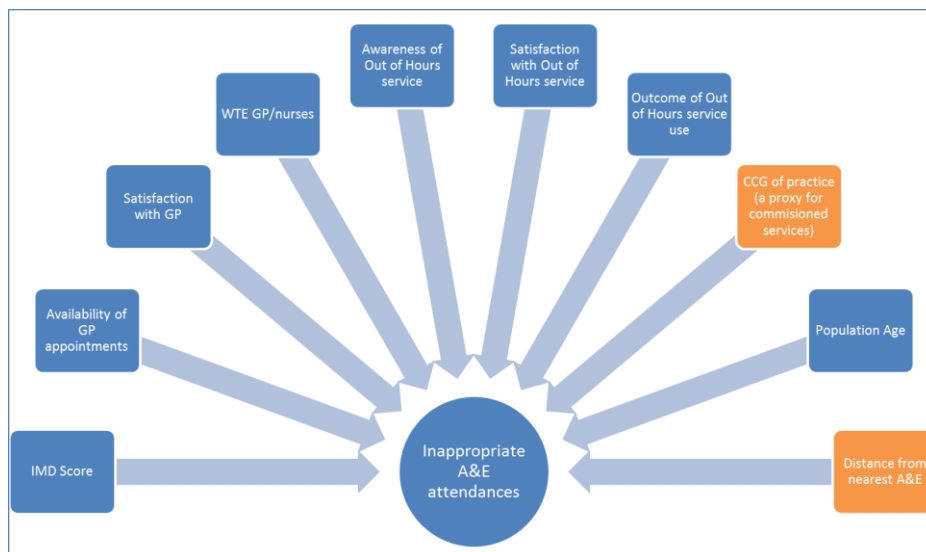
Note – we have no variables looking at opening times of GP practice. Work for the WEL area of London has suggested that this has an impact. We did not have this data available but plan to re-run the models when we do to see if this is having an effect in our area.

Final Models included:

1. Population Size
2. Distance (miles) of practice from nearest A & E department
3. CCG of practice

Table 19: Model 1: A&E attendances receiving no investigation and no significant treatment

Variable	Linear Regression Coefficient	95% CI	Interpretation
Registered Population Size	0.06	(0.05, 0.06)	For each extra person registered at a practice the number of attendances in a 3 year period would be expected to rise by 0.056
Distance of practice from closest A&E department	-6.18	(-8.60, -3.77)	For each additional mile a GP practice is located from A&E (proxy for distance patient has to travel) a reduction of 6 attendances is expected over a 3 year period
_cons	-6.06	(-34.94, 22.83)	In this model this is the average number of attendances if everything else

Table 20: Model 2:A & E attendances receiving low level investigations and/or treatments

Variable	Linear Regression Coefficient	95% CI	Interpretation
Registered Population Size	0.03	(0.03, 0.04)	For each extra person registered at a practice the number of A&E attendances in a 3 year period would be expected to rise by 0.034
NHS Mid Essex CCG	attendances so used as baseline		
NHS Basildon and Brentwood CCG	748.01	(663.46, 832.56)	On average a practice in this CCG has around 748 more attendances in a 3 year period compared to Mid Essex CCG
NHS Castlepoint and Rochford CCG	114.30	(19.80, 208.80)	On average a practice in this CCG has around 114 more attendances in a 3 year period compared to Mid Essex CCG
NHS Southend CCG	162.36	(68.14, 256.58)	On average a practice in this CCG has around 162 more attendances in a 3 year period compared to Mid Essex CCG
NHS Thurrock CCG	2257.24	2,157.30, 2,357.17	On average a practice in this CCG has around 2257 more attendances in a 3 year period compared to Mid Essex CCG
_cons	-449.00	(-536.16, -361.84)	In this model the constant is the average number of attendances over a 3 year period for practices in Mid Essex CCG if everything else were 0.

Model 1 explains 76% of the variation in attendances requiring no investigation and no significant treatment. It suggests that for these attendances, for which a large proportion does not have a need for medical attention, convenience (in the way of closeness) is the largest factor. For every mile further away from A&E there are 6 fewer attendances of this type every 3 years. In Thurrock the closest practice to an A&E department is 3.3 miles away and the furthest away is 13.4 miles away, If these practices were both of an average size we would expect a difference of 20 attendances of this type per year. If we reduced the number of attendances in all practices in Thurrock to be in line with that of the furthest away from A&E (adjusting for practice list size) we would expect 884 fewer attendances of this type number costing £58,000. **Converting this into an annual reduction, this could result in 294 fewer attendances per year with a cost saving of £19,000.**

Model 2 explains 72 % of the variation in attendances requiring category 1 investigation with a category 1 or 2 treatment or a category 2 investigation with a category 1 treatment. i.e. low levels of medical attention were required. Other than population size, the CCG that a practice belongs to is the main predictor of activity of this type. An average practice in Thurrock will have 2257 more attendances of this type over 3 years compared to an average practice in Mid Essex.

CCG is a proxy measure for services that are commissioned at a CCG level or common cultural or environmental factors that may affect practices in that area.

It is an interesting finding that practices in the Mid Essex area have, on average, a much lower number of this type of attendance than Thurrock and Brentwood and Basildon CCG's. The authors are aware of extra-ordinary efforts to deflect patients from A&E in the mid Essex area through the use of a robust triage system.

Reducing the number of these attendances to be in line with those of Mid Essex CCG would lead to a reduction of 24,074 A & E attendances and a cost saving of £2,696,288.

Given the impact of CCG in the model we should consider the use of more sophisticated hierarchical multi-level modelling techniques to re-assess some of the other variables again. Restrictions of time did not allow this for the current report.

A further way of looking at the financial opportunity of A&E inappropriate attendance reduction would be to consider the excess cost of seeing and treating every patient who attended A&E from Thurrock who received no significant medical investigation nor treatment at an average cost of £65.62, and every patient seen and treated for a category 1 investigation and either category 1-2 treatment, at an average cost of £121.22, and comparing the total cost with that of treating them in a Primary Care setting (should future capacity be available), at an average cost of £31.50. Figure 43 demonstrates this.

Figure 43 Financial Opportunity of Shifting Non emergency A&E attendances to Primary Care

Category of A&E attendance	Number of A&E Attendances from Thurrock patients (2014/15)	Average cost of A&E attendance per patient	Total cost of treatment in A&E	Estimated cost of the same treatment in a Primary or Community Care setting at £31.50 per patient	NET Excess cost of treating patients in A&E compared to Primary/Community Care
No investigation and no treatment	24,409	£65.62	£1,601,718.58	£768,883.50	£832,835.08
Cat 1 Investigation with Cat 1-2 treatment	7636	£121.22	£925,635.92	£240,534	£685,101.92
TOTALS					£1,517,937.00

Shifting treatment of patients attending A&E inappropriately to a Primary/Community Care setting would save £1.518M per annum net.

2.3   A&E ATTENDANCES DUE TO FALLS

In 2014/15 there were 947 A&E attendances from patients over the age of 65 for: dislocations, fractures, joint injuries, sprains, contusions and abrasions, and head injuries (Total cost £120,704). 447 of who were brought in by ambulance. 179 of those having an A&E attendance were admitted to hospital and 202 were referred to a fracture clinic.

Dislocations, fractures, joint injuries and sprains were the second most common reason for an A&E attendance in this cohort, forming 12.3% of all attendances (629 attendances), also in the top ten was head injuries (3.5% of all attendances, 193 attendances).

Figure 44: Top 10 A&E diagnoses to patients 65+ - proportion. 2014/15
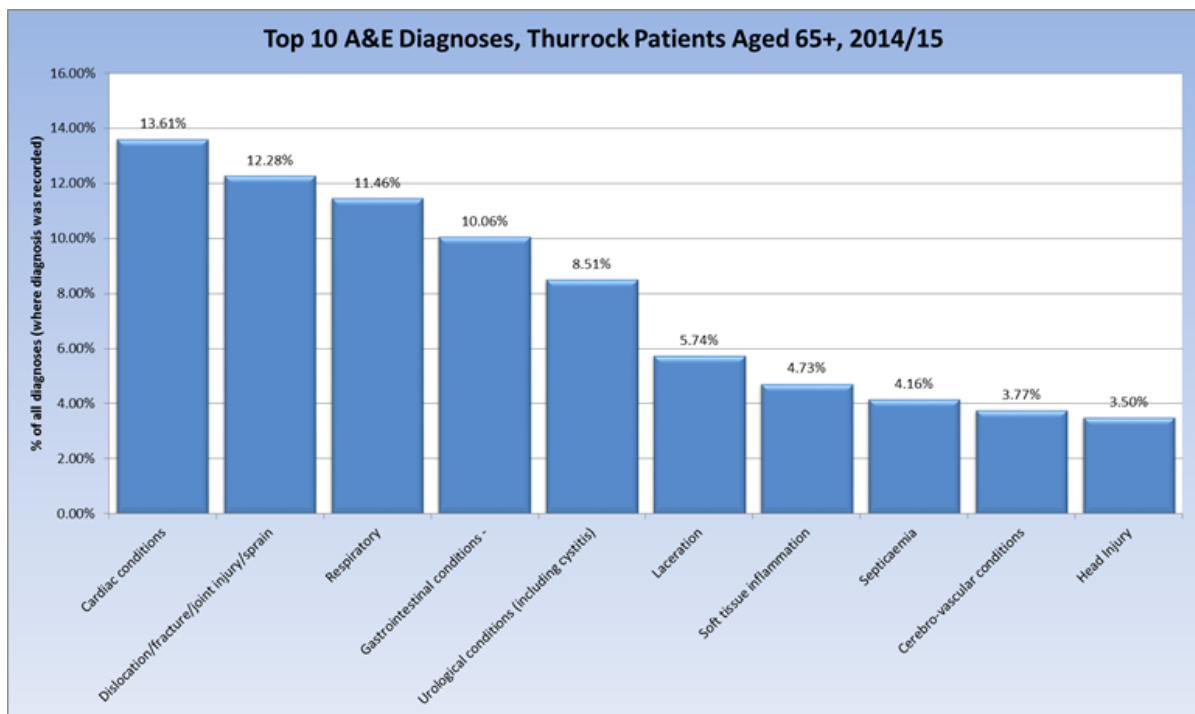
Figure 45: Top 10 A&E diagnoses to patients aged 65+ - number, 2014/15
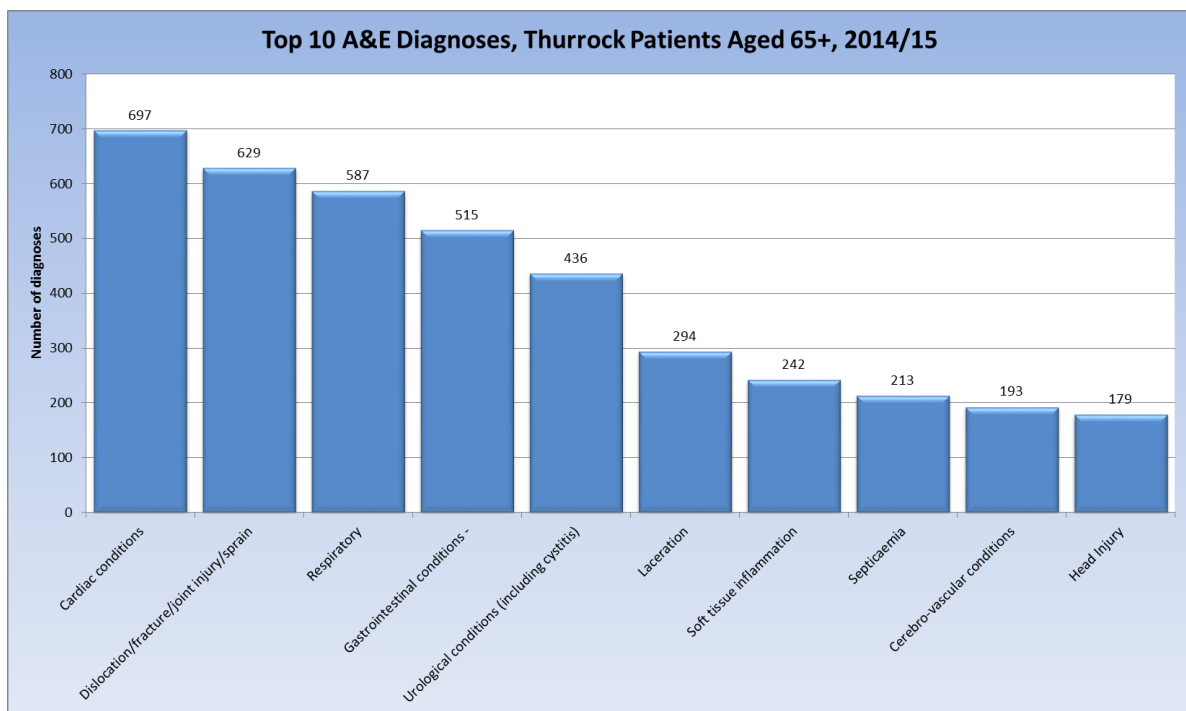
2.4   KEY CONCLUSIONS

- A&E attendances both locally and nationally are increasing at an unsustainable rate, both financially (as it costs more to treat patients with less serious clinical conditions in A&E) than in other community settings, and operationally, as treating with minor illnesses in A&E divert staff resource away from those who are genuine emergencies. A&E attendances from Thurrock patients in 2014/15 cost approximately £6M

- Potentially 83% of attendances at A&E by Thurrock patients could be deemed 'inappropriate' in the sense that they were for conditions that required very minor investigation or treatment. 41% of all patients attending A&E in 2014-15 had conditions that were so minor that they required no investigation nor treatment, yet 27% of these patients called an ambulance to transport them to A&E.

- Ambulances used to convey patients to A&E who were subsequently found to require neither investigation nor treatment were most likely to be used by parents of babies of young children aged 0 to 5. Those aged 75+ that used ambulances to convey them to A&E were almost never found to need no investigation nor treatment.

- Treating the 83% of A&E attendances in the above two categories in Community or Primary Care settings would deliver NET system saving of £1.518M per annum

- Key variables likely to increase inappropriate A&E attendances were living nearer to A&E and not living in the Mid Essex CCG Area

- Reducing inappropriate A&E attendances in our own population to rates experienced within the population of Mid Essex CCG would lead to a reduction of 24,074 A & E attendances and a cost saving of £2,696,288.

2.5 RECOMMENDATIONS – A&E ATTENDANCES

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Reduction of A&E attendances from patients that do not require emergency acute care	Divert patients triaged as requiring no investigation or treatment or minor investigation and treatment into more appropriate community and Primary Care settings	- Investigate commissioning/provider strategy at Mid Essex CCG to ascertain why rates of A&E usage from this population is so significantly lower than other areas in the STP foot print
		- Significantly increase Primary / Community Care Capacity in Thurrock including better skills mix of staff with GP surgeries, improved diagnostics as set out in section *** of this report - Expedite building of the four Integrated Healthy Living Centres for Purfleet, Tilbury, Grays and Corringham
		- Improve front door triage at A&E at Basildon Hospital to assess and deflect patients with minor conditions from being able to accessing A&E services
		- Undertake further analyses of the interface between A&E and the Essex Ambulance Service with a view to understanding and recommending appropriate actions to prevent inappropriate A&E conveyances by ambulance.

Section 3 EMERGENCY HOSPITAL ADMISSIONS

3.1 INTRODUCTION

Chronic diseases are now the most common cause of death and disability in England. More than 15 million people have a long-term condition such as hypertension, depression, asthma, diabetes, coronary heart disease, chronic kidney disease, or other health problem or disability for which there is no cure. Patients with chronic diseases tend to be heavy users of health care resources, accounting for at least 50 per cent of all general practitioner (GP) appointments, 64 per cent of outpatient appointments and 70 per cent of all inpatient bed days (Department of Health 2012a). Special analysis of 'Social Care at the End of Life' project data indicates that an estimated 18 per cent of people with long-term conditions are in receipt of state-funded social care (T Georghiou, personal communication 2013), and a small proportion of those with the most disabling or complex conditions (fewer than 1 per cent of the total) receive NHS Continuing Care support and are currently eligible for personal health budgets (Department of Health 2013).

We hypothesise that inadequate primary care and community health care quality and access is impacting negatively on secondary care activity and social care activity. In this section we explore which elements of primary care have the biggest impact on the secondary healthcare and social care system in order to identify those factors which we should prioritise for change.   We have done this by building a series of regression models. A multiple regression model is a statistical technique that allows us to identify the extent to which a series of possible variables (in this case in Primary Care) are impacting on a specific outcome (in this case an emergency hospital admission for a specific condition). We have built for regression models using GP practice level data to predict

1) Stroke non-elective (emergency) hospital admissions
2) Inappropriate A&E use
3) Respiratory non-elective (emergency) hospital admissions
4) CHD and HF non-elective (emergency) hospital admissions

One further model is planned for Diabetes, however we currently await updated data on the expected prevalence levels for this condition. An update will be issued when this work has been completed.

Some of the factors will be common to multiple models, as such, an excel tool which links the models together to look at the total impact of each factor will be produced following this report. This will enable scenario models to be applied which will allow us to estimate the impacts of change

Detailed statistical methodology will be published within the excel tool.

The variation in all the factors having the largest impact is then explored and evidence from the literature applied to see what we can do to reduce levels of hospital activity.

Long Term Conditions – from
http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/delivering-better-services-for-people-with-long-term-conditions.pdf

3.2 EMERGENCY ADMISSIONS FROM CONDITIONS AMENABLE TO HEALTHCARE

Conditions Amenable to Healthcare, also known as *Ambulatory Care Sensitive (ACS) Conditions* are chronic conditions for which it is possible to prevent acute exacerbations and reduce the need for hospital admission through active management, such as vaccination; better self-management, disease management or case management; or lifestyle interventions. Examples would include COPD, Diabetes and Heart Failure

3.2.1 WHAT IS CURRENTLY HAPPENING?

In 2015/16 there were 3,869 admissions deemed as amenable to healthcare. This was a reduction from the numbers seen in the previous two years (4549 and 3949 in 2013/14 and 2014/15 respectively). When viewing these admissions by GP practice, there is considerable variation. g to their new practice.

Figure 46 shows Admissions Amenable to Healthcare by GP practice, and it can be seen that GP practices such as Purfleet Care Centre, Dr Patel, Thurrock Health Centre and Chadwell Medical Centre have rates of admissions that are significantly above the Thurrock mean. Dr Mukhopadhyay has the lowest rate (1616.4 per 100,000) – however it should be noted that his surgery closed prior to this year starting and this could simply be recording error or a delay in his patients transferring to their new practice.

Figure 46: DSR of Emergency Admissions Amenable to Healthcare by GP
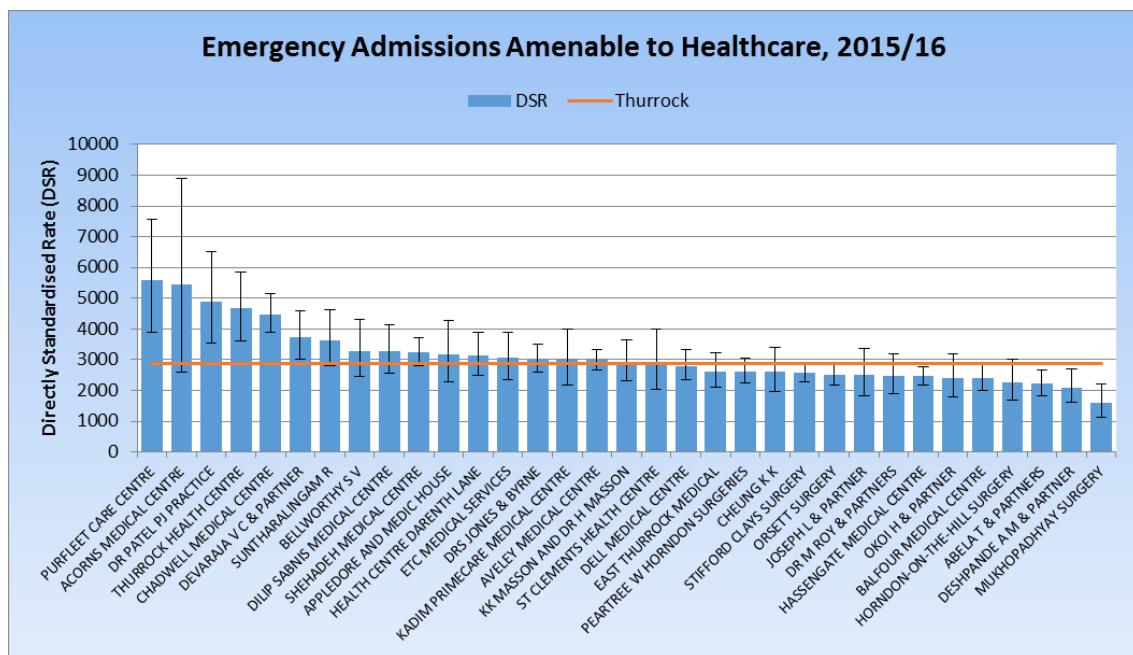
Source: North East London CSU

When viewing the categories of admission, it can be seen that the largest number (577) were due to respiratory conditions, followed by Diabetes Complications (550), Nephritis and UTIs (480) and Vaccine-preventable (472). [The acronym OIS after each category corresponds to the indicator in the national CCG Outcomes Indicator Set, as some are measured under indicator 2.6 (chronic conditions), 2.8 (diabetes complications) and some under indicator 3.1 (acute conditions)]

Figure 47: Number of admissions by condition group, 2015/16

ACS admissions by condition group, 2015/16
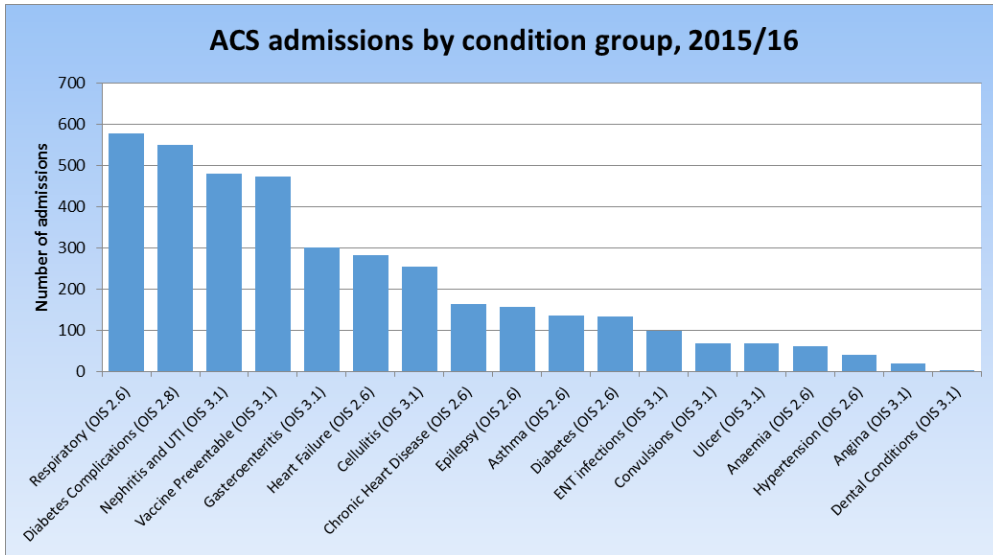
Source: North East London CSU

When analysing the data by age, it showed that the majority of admissions (61.64%) were by those over the age of 65 years. Upon reviewing the proportion of admissions for each condition that were by those aged 65+, it can be seen that whilst 85.11% of heart failure admissions, 79.55% of respiratory admissions and 78.91% of Diabetes complications admissions were to those aged 65+, admissions for conditions such as Diabetes (34.59%) and Hypertension (41.46%) had lower proportions of those aged 65+, meaning that many of these admissions would have been to younger patients.

Figure 48: Proportion of admission to those aged 65+, 2015/16

Proportion of ACS admissions which were 65+, 2015/16 by condition group
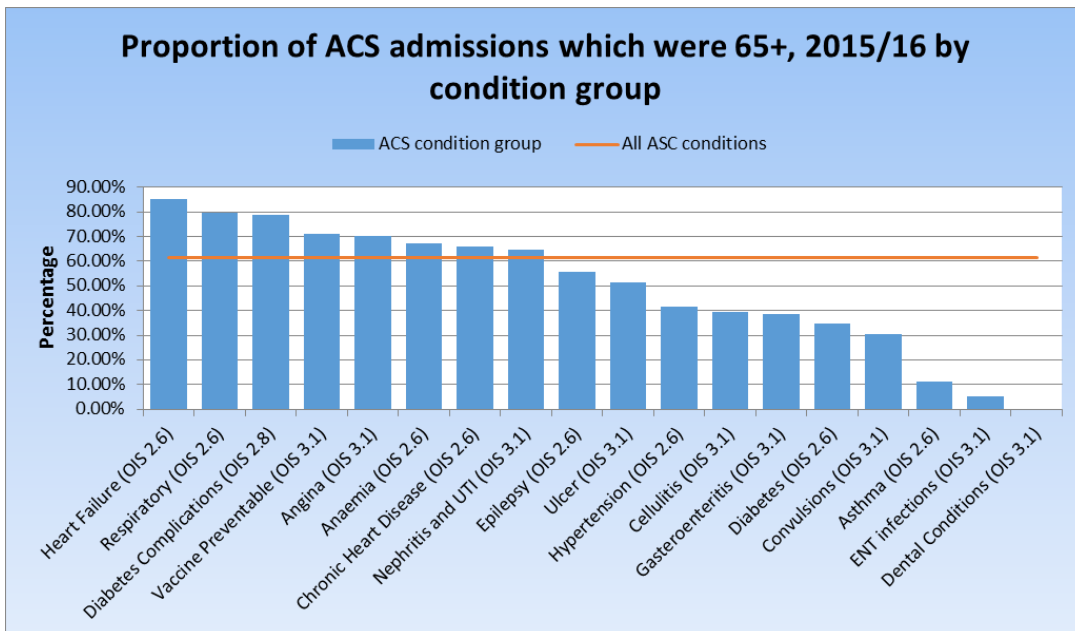
Source: North East London CSU

3.3   PREVENTING RESPIRATORY NON-ELECTIVE ADMISSIONS

Figure 49 shows all of the variables that were originally hypothesised as having an impact of Non-elective admissions for Respiratory conditions and (in orange) those that were included in the final model as analyses showed them to be having the largest impacts.

Final Model included:

1. Expected register sizes for COPD, and Asthma
2. Availability of GP appointments
3. % of patients on a Long Term Condition register recorded as currently smoking
4. Which CCG a practice belongs to (this may be serving as a catch all measure for differences between commissioned community care services and/or other area differences)

We chose to exclude variables looking at the age profile of practices due to these being accounted for by the expected prevalence measures. This would have introduced co-variance in to the model. However, GP practices were weighted within the model using the number of registered patients who are over the age of 17. Other variables were excluded either because uni-variable analyses showed no associations or because they added little in terms of explaining levels of variations to the final model.

The variables included in the final model account for 84% of the variation in the number of non-elective admissions for Respiratory conditions.

Unfortunately we do not currently have access to the community care data for South Essex so these have not currently been modelled. We intend to re-visit this model when the data becomes available.

Figure 49: Hypothesised and Final (Orange) models for levels of Emergency Admissions for Respiratory Conditions

Table 21 Outputs and Interpretations of Final Model for Respiratory Emergency Admissions

Variable	Linear Regression Coefficient	95% CI	Clinical Interpretation	What this means in plain English
Estimated prevalent cases of COPD in practice population	0.00	(0.00, 0.00)	For each additional COPD person 0.003 additional respiratory emergency admissions would be expected over a 3 year period. Or NNT to avoid 1 admissions for COPD is 333.	For every 333 people in Thurrock with COPD (whether diagnosed or undiagnosed), we predicted on will be admitted to hospital because of their COPD, over a three year period.
Estimated prevalent cases of Asthma in practice population	0.05	(0.01, 0.09)	For each additional Asthma person 0.03 additional respiratory emergency admissions would be expected over a 3 year period. Or NNT to avoid 1 admissions for COPD is 33.	For every 33 people with asthma in Thurrock, (either diagnosed or undiagnosed), we preduct that one will be admitted to hospital as a result of their asthma within a three year period.
Availability of GP appointments – Last time you wanted to see or speak to a GP or nurse from your GP surgery, were you able to get an appointment to see or speak to someone? - **Got an Appointment**	-60.21	(-104.11, -16.30)	There are 72 fewer admissions for each 0.011% increase in availability of appointments. Or to avoid 1 admission we need to incease availability by 0.00014 percentage points	Increasing the availability of GP appointments locally will have a dramatic impact on emergency hospital admissions for COPD. For every 1% increase in GP or nurse appointments in Thurrock, we predict that there would be 6545 fewer emergency hospital admissions for COPD over a threee year period
% practice population on a Long Term ConditionRegister who are recorded as current smoker	-55.16	(-160.65, 50.34)	For each percentage point in the number of patients on a LTC register recorded as current smokers an additional 107 respiratory admissions are expected. Or to avoid 1 admission we need to reduce prevelance in LTC patients by 0.009 percentage points.	For each percentage point in the number of patients on a LTC register recorded as current smokers an additional 107 respiratory admissions are expected. Or to avoid 1 admission we need to reduce prevelance in LTC patients by 0.009 percentage points.
NHS Mid Essex CCG	Lowest number of admissions so used as baseline			
NHS Basildon and Brentwood CCG	22.06	(8.51, 35.61)	On average a practice in this CCG has around 29 more admissions in a 3 year period compared to Thurrock CCG	On average a practice in this CCG has around 29 more admissions in a 3 year period compared to Thurrock CCG
NHS Castlepoint and Rochford CCG	29.25	(14.80, 43.70)	On average a practice in this CCG has around 30 more admissions in a 3 year period compared to Thurrock CCG	On average a practice in this CCG has around 30 more admissions in a 3 year period compared to Thurrock CCG
NHS Southend CCG	11.93	(-4.10, 27.97)	On average a practice in this CCG has around 24 more admissions in a 3 year period compared to Thurrock CCG	On average a practice in this CCG has around 24 more admissions in a 3 year period compared to Thurrock CCG
NHS Thurrock CCG	12.99	(-3.34, 29.31)	On average a practice in this CCG has around 16 more admissions in a 3 year period compared to Thurrock CCG	On average a practice in this CCG has around 16 more admissions in a 3 year period compared to Thurrock CCG
_cons	59.70	(17.38, 102.03)	In this model the constant is the average number of admissions over a 3 year period for practices in Mid Essex CCG if everything else were 0.	In this model the constant is the average number of admissions over a 3 year period for practices in Mid Essex CCG if everything else were 0.

Table 21 tells us that to avoid 1 emergency admission for COPD in every 3 year period we can do 1 of the following:

1) Prevent 333 people from developing COPD
2) Prevent 33 people from developing Asthma
3) Improve availability of GP appointments by 0.00014 percentage points
4) Reduce the prevalence of smoking in Long Term Condition patients by 0.009 percentage points

The average cost of a COPD admission to the NHS is £2,233 (NHS England Tariff costs, 2015/16).

3.4 PREVENTING STROKE NON-ELECTIVE (EMERGENCY) HOSPITAL ADMISSIONS

Figure 50 shows all of the variables that were originally hypothesised as possibly having an impact of Non-elective admissions for Stroke and (in orange) those that were included in the final model, as analyses showed them to be having the largest impacts.

The Final Model included:

1. Expected register sizes for AF and Hypertension
2. Ratio of Observed : Expected cases for Hypertension as a measure of detection
3. Deprivation as measured by IMD
4. The number of patients with diagnosed AF and a CHADS score of >1 recorded as being on anti-coagulation or anti-platelet medication
5. The number of patients with diagnosed Hypertension whose last blood pressure measurement (12 months) was < 150/90
6. Which CCG a practice belongs to (this may be serving as a catch all measure for differences between commissioned community care services and/or other area differences)

We chose to exclude variables looking at the age profile of practices due to these being accounted for by the expected prevalence measures. This would have introduced co-linearity in to the model. However, GP practices were weighted within the model using the number of registered patients who are over the age of 50. Other variables were excluded either because uni-variable analyses showed no associations or because they added little in terms of explaining levels of variations to the final model.

The variables included in the final model account for 90% of the variation in the number of non-elective admissions for Stroke.

Figure 50: Hypothesised and Final (Orange) models for levels of Emergency Admissions for Stroke

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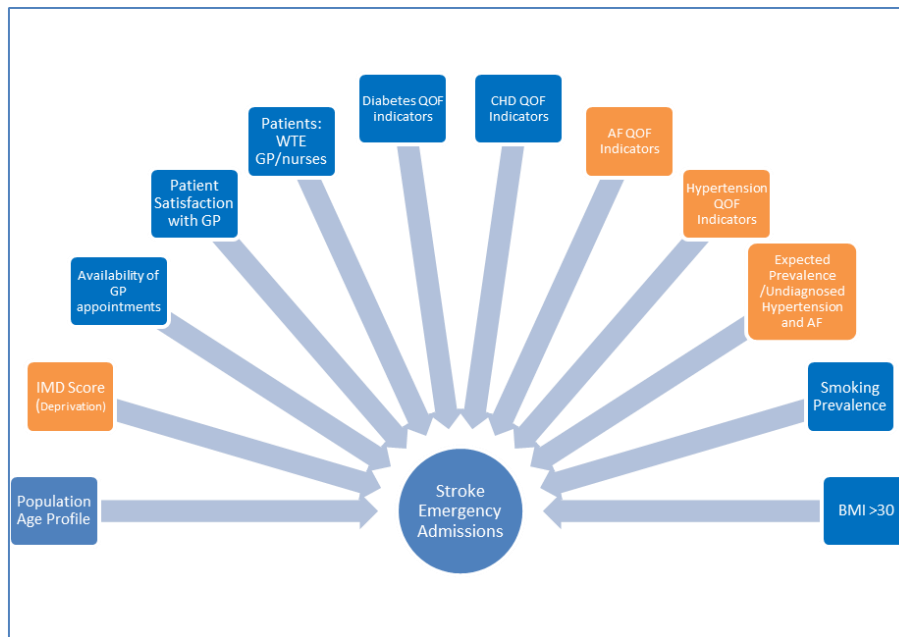
Table 22 Outputs and Interpretations of Final Model for Stroke Emergency Admissions

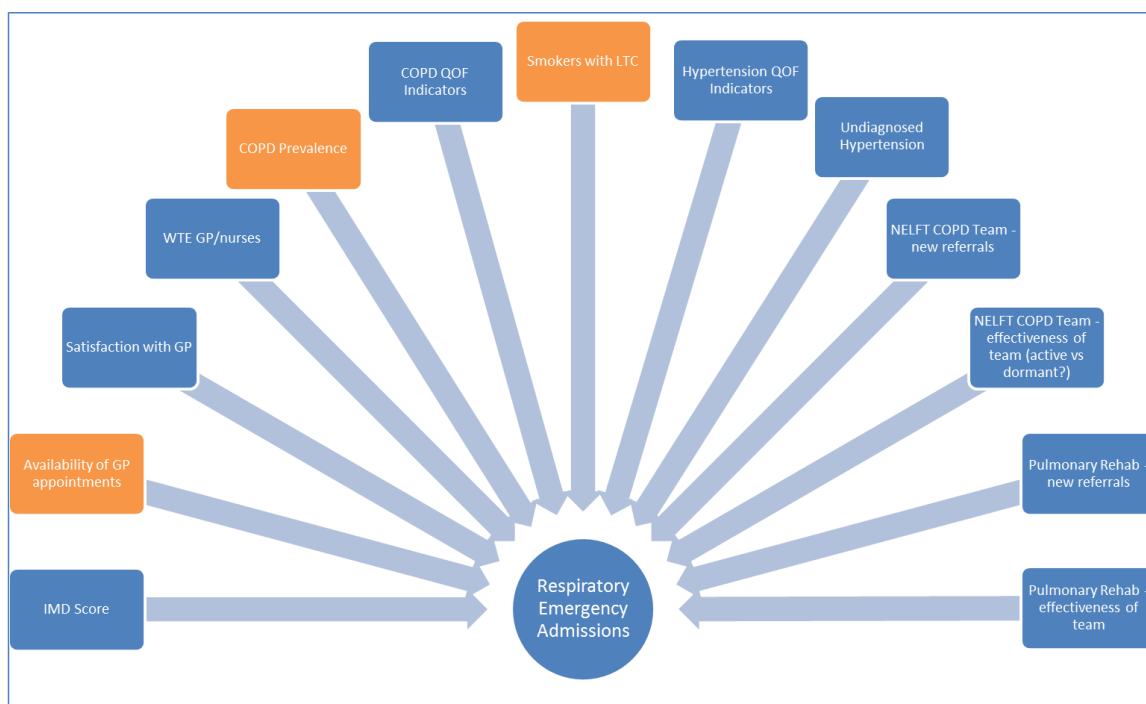| Variable	Linear Regression Coefficient	95% Cis	Clinical Interpretation	What this means in plain English
Estimated prevalent cases of Hypertension in practice population	0.05	(0.03, 0.07)	For each additional Hypertensive person 0.05 additional strokes would be expected over a 3 year period. Or NNT to avoid 1 stroke is 20.	For every 20 patients in a GP pratice that have high blood pressure, we predict one will have a stroke in the next three years. Identifying a treating patients with high blood pressure is therefore a very effective way of preventing strokes.
Estimated prevalent cases of AF in practice population	0.53	(0.25, 0.81)	For each additional AF person 0.53 additional strokes would be expected over a 3 year period. Or NNT to avoid 1 stroke is 2.	For every two patients with Atrial Fibrillation in a GP Practice population, we would expect one to have a stroke in the next three years. Identifying a treating patients with Atrial Fibrillation is therefore a very effective way of preventing strokes.
Ratio of observed to expected Hypertension cases	-64.95	-84.07, -45.83	For each percentage point increase in detection rates 64.95 would be avoided over 3 years. Or to avoid 1 stroke detection rates of Hypertension need to increase by 0.015%	We estimate that there are 34,710 people in Thurrock with high blood pressure, but only 23,727 who have been diagnosed, placed on a GP practice "Hypertension Register" and are receiving treatment from their GP. This means that our Hypertension registers across all GP practices are only 68% complete, and 32% of people in Thurrock with high blood pressure don't know they have it and are not being treated. For every additional 1% we make the Hypertension Registers complete (or find and treat an additional 347 people with high blood pressure) we will prevent 65 strokes over a three year period
Deprivation measured by IMD	0.35	(0.11, 0.59)	For each unit increase in deprivation score we observe an additional 0.35 strokes over 3 years.	Levels of deprivation are a very good proxy indicator for poor health. Deprived populations are more likely to suffer from bad health and die significantly sooner than affluent populations. The IMD (Index of Multiple Deprivation Score) derrived from 33 indicators set across seven domains that give an estimation levels of deprivation faced by a specific population. For every 2.86 increase we see in the IMD score of specific population, we preduct an additional stroke over 3 years.
NHS Mid Essex CCG	admissions so used as baseline			
NHS Basildon and Brentwood CCG	10.98	(6.16, 15.79)	On average a practice in this CCG has around 11 more admissions in a 3 year period compared to Mid Essex CCG	On average a practice in this CCG has around 11 more emergency hospital admissions from stroke patients in a 3 year period compared to Mid Essex CCG
NHS Castlepoint and Rochford CCG	9.26	(3.96, 14.57)	On average a practice in this CCG has around 9 more admissions in a 3 year period compared to Mid Essex CCG	On average a practice in this CCG has around 9 more emergency hospital admissions of stroke patients in a 3 year period compared to Mid Essex CCG
NHS Southend CCG	10.72	(5.07, 16.36)	On average a practice in this CCG has around 11 more admissions in a 3 year period compared to Mid Essex CCG	On average a practice in this CCG has around 11 more emergency hospital admissions of stroke patients in a 3 year period compared to Mid Essex CCG
NHS Thurrock CCG	9.37	(3.42, 15.32)	On average a practice in this CCG has around 9 more admissions in a 3 year period compared to Mid Essex CCG	On average a practice in Thurrock has around 9 more emergency hospital admissions for Strokes in a 3 year period compared to Mid Essex CCG. This means that in Thurrock there would be 297 fewer patients suffering a stroke and being admitted to hospital as a result, if we could reduce our prevelance of high blood pressure and Atrial Fibrillation and diagnose and treat patients with high blood pressure at the same levels as Mid Essex.
AF005: In those patients with atrial fibrillation in whom there is a record of a CHADS2 score of 1, the percentage of patients who are currently treated with anti-coagulation drug therapy or anti-platelet therapy	-0.37	(-0.65, -0.09)	For every patient identified as CHADS>1 and treated with anti-coagulation or anti-platelet medication a reduction of 0.37 strokes over 3 years is expected. Or NNT to avoid 1 stroke is 3.	For every three patients with Atrial Fibrillation who have been assessed as having a high risk of stroke, that we treat with drugs that thin their blood, we would prevent one of them having a stroke in a three year period.
HYP006: The percentage of patients with hypertension in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less	-0.02	(-0.05, 0.00)	For each patient diagnosed with Hypertension whose BP is under 150/90 an average reduction of 0.02 strokes over 3 years would be expected. Or NNT to avoid 1 stroke is 5.	For every five patients with high blood pressure that we treat successfully such that their blood pressure reduces to 150/90mmHg or less, we will prevent one of them having a stroke in the next three years
_cons	30.53	(16.11, 44.96)	In this model the constant is the average number of admissions over a 3 year period for practices in Mid Essex CCG if everything else were 0.	In this model the constant is the average number of admissions over a 3 year period for practices in Mid Essex CCG if everything else were 0.

 tells us that to avoid one emergency admission for a stroke in every 3 year period we can do **ONE** of the following:

1) Prevent 20 people from developing high blood pressure
2) Prevent two people from developing AF
3) Detect and treat an additional 0.015% of the expected hypertensive population (for Thurrock this equates to detecting 0.015% of the additional expected 10,983 undiagnosed patients – i.e. two patients)
4) Assess and treat an additional three patients with AF and a CHADS score of >1
5) Support five patients with Hypertension to keep their Blood Pressure under 150/90

The estimated cost of a stroke to the NHS is £3,644 (£235 for A&E attendance, £737 for ambulance, and £2,672 for the admission). It has also previously been estimated by 2 of the authors that following a stroke a patient has a 15% probability of having a new or increased social care package costing around £18k per year. Therefore, crudely, using an assumption that 15% of people in a care home die each year the saving to Social Care from avoiding 1 stroke is approximately £6,945 over the 3 years following the stroke.

3.5   PREVENTING CHD / HF NON-ELECTIVE (EMERGENCY) HOSPITAL ADMISSIONS

Figure 50 shows all of the variables that were originally hypothesised as having an impact of Non-elective admissions for CHD and Heart Failure and (in orange) those that were included in the final model as analyses showed them to be having the largest impacts.

Final Model included:

1. Expected register sizes for HF, and Hypertension
2. Satisfaction with the availability of GP appointments
3. Deprivation as measured by IMD
4. The number of patients with HF due to LVD with a record of ACE or ARB treatment
5. Which CCG a practice belongs to (this may be serving as a catch all measure for differences between commissioned community care services and/or other area differences)

We chose to exclude variables looking at the age profile of practices due to these being accounted for by the expected prevalence measures. This would have introduced co-linearity in to the model. However, GP practices were weighted within the model using the number of registered patients who are over the age of 50. Other variables were excluded either because uni-variable analyses showed no associations or because they added little in terms of explaining levels of variations to the final model.

The variables included in the final model account for 94% of the variation in the number of non-elective admissions for CHD and Heart Failure.

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Figure 51: Hypothesised and Final (Orange) models for levels of Emergency Admissions for CHD and Heart Failure
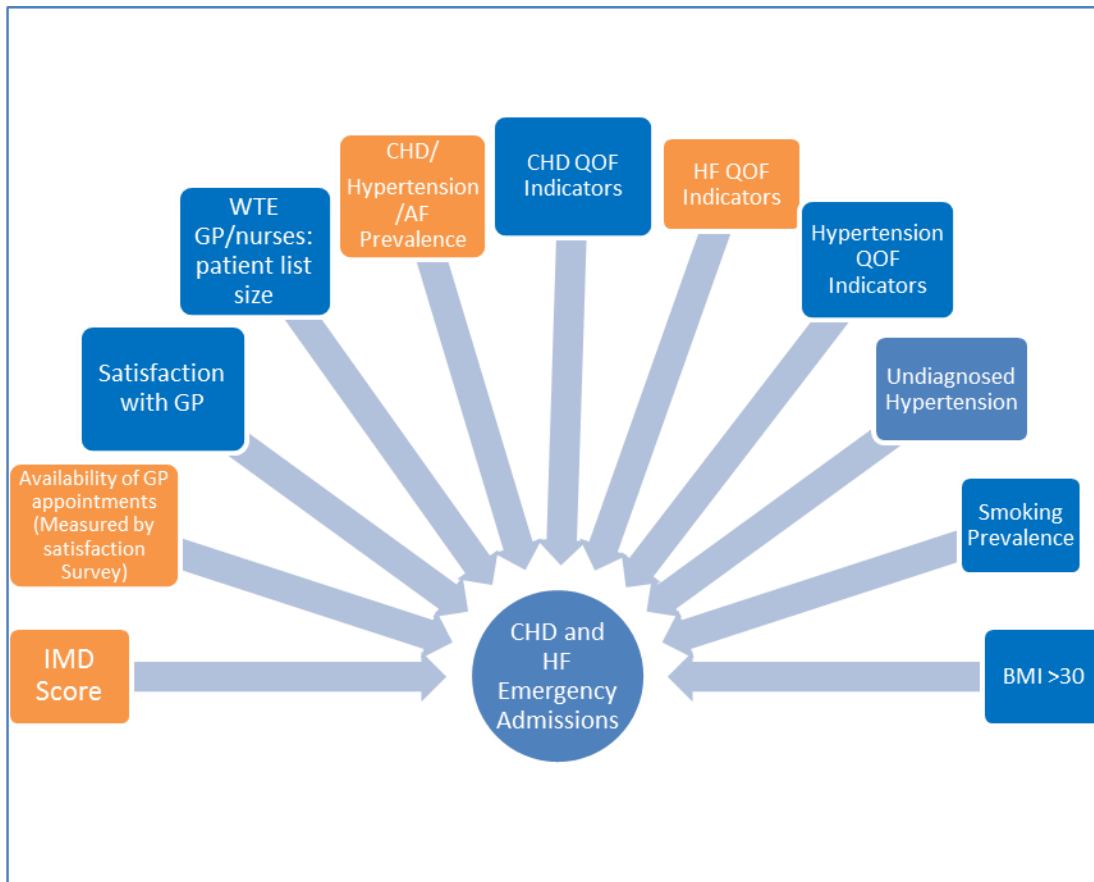
Table 23 Outputs and Interpretations of Final Model for CHD HF Emergency Admissions

Variable	Linear Regression Coefficient	95% CI	Interpretation	What this means in plain English
Estimated prevalent cases of CHD in practice population	0.63	(0.56, 0.71)	For each additional CHD person 0.63 additional CHD/HF emergency admissions would be expected over a 3 year period. Or NNT to avoid 2 admissions for CHD is approx 3.	For every three additional people (diagnosed and undiagnosed) who have Coronary Heart Disease within a practice population, we would expect just under two to have a hospital admission for either Heart Disease or Heart Failure over a three year period
Diagnosed Heart Failure Patients (number of)	1.84	(0.05, 3.63)	For each additional diagnosed HF person 1.84 additional CHD/HF emergency admissions would be expected over a 3 year period. Or NNT to avoid 2 admissions for CHD is approx 1.	For every additional diagnosis of Heart Failure that we make within a GP practice population, over a three year period we would expect just under two emergency hospital admissions for heart failure or coronary heart disease
Availability of GP appointments – Last time you wanted to see or speak to a GP or nurse from your GP surgery, were you able to get an appointment to see or speak to someone? - **Got an Appointment**	-108.93	(-208.71, -9.14)	There are 109 fewer admissions for each 1% increase in availability of appointments. Or to avoid 2 admissions we need to increase availability by 0.018 percentage points	For every 1% increase in availablility of timely access to a GP or nurse appointment (as measured by the GP patient survey), we would expect to avoid 109 emergency hospital admissions for heart failure of coronary heart disease over a three year period
NHS Thurrock CCG		Lowest number of admissions so used as baseline		Thurrock GP practices have on average the lowest rate of CHD and HF emergency hospital admissions compared to practices in other south and Mid Essex localities
NHS Basildon and Brentwood CCG	14.77	(-24.07, 53.61)	On average a practice in this CCG has around 15 more admissions in a 3 year period compared to Thurrock CCG	On average a GP practice in Basildon and Brentwood CCG has around 15 more emergency hospital admissions from CHD or HF patients in a 3 year period compared to Thurrock CCG
NHS Castlepoint and Rochford CCG	108.60	(66.40, 150.81)	On average a practice in this CCG has around 109 more admissions in a 3 year period compared to Thurrock CCG	On average a GP practice in Castlepoint and Rochford CCG has around 109 more emergency hospital admissions from CHD or HF patients in a 3 year period compared to Thurrock CCG
NHS Mid Essex CCG	34.57	(-3.61, 72.76)	On average a practice in this CCG has around 35 more admissions in a 3 year period compared to Thurrock CCG	On average a GP practice in Mid Essex CCG has around 35 more emergency hospital admissions from CHD or HF patients in a 3 year period compared to Thurrock CCG
NHS Southend CCG	119.23	(76.04, 162.43)	On average a practice in this CCG has around 119 more admissions in a 3 year period compared to Thurrock CCG	On average a GP practice in Southend-on-Sea CCG has around 119 more emergency hospital admissions from CHD or HF patients in a 3 year period compared to Thurrock CCG
Deprivation measured by IMD	2.03	(0.55, 3.50)	For each unit increase in deprivation score we observe an additional 2 admissions for CHD/HF over 3 years.	Levels of deprivation are a very good proxy indicator for poor health. Deprivated populations are more likely to suffer from bad health and die significantly sooner than affluent populations. The IMD (Index of Multiple Deprivation Score) derrived from 33 indicators set across seven domains that give an estimation levels of deprivation faced by a specific population. For every 1 point increase we see in the IMD score of specific population, we preduct an additional 2 emergency hospital admissions for CHD or HF over a three year period
HF003: In those patients with a current diagnosis of heart failure due to left ventricular systolic dysfunction, the percentage of patients who are currently treated with an ACE-I or ARB	-0.21	(-2.11, 1.69)	For each patient diagnosed with HF with LVD recorded as treated with ACE or ARB an average reduction of 0.21 admissions over 3 years would be expected. Or NNT to avoid 2 admissions is 10.	For every 10 patients diagnosed with Heart Failure that we treat with classes of drug that help lower blood pressure known as an Angiotensin-converting-enzyme or ACE Inhibitors and Angiotensin II Receptor Blockers or ARBs, we would expect to prevent to emergency hospital admissions as a result of Heart Failure
_cons	-51.36	-146.18, 43.47	In this model the constant is the average number of admissions over a 3 year period for practices in Thurrock CCG if everything else were 0.	We have used rates of emergency admissions for Heart Failure and CHD in Thurrock as a baseline from which to compare other areas, as Thurrock's rates are the lowest.

Table 23 tells us that to avoid 2 emergency admissions for a CHD/HF event in every 3 year period we can do 1 of the following:

1) Prevent 3 cases of CHD
2) Prevent 1 case of HF
3) Make improvements to availability of GP appointments as such that an improvement of 0.018 percentage points can be observed on the survey. The current number of appointments with a GP (excluding locums) or nurse available per day is 5,581. A proposed mixed staffing model would increase this daily appointment number to 7,761, seeing an increase of 2,186 appointments. This is further detailed elsewhere in the report.
4) Treat 10 patients who have HF with LVD with ACE or ARB

The average cost of a CVD admission to the NHS around £4,614[iii] (NICE 2010). Avoiding 2 admissions would then save £9 K.

Unfortunately we cannot currently estimate savings for Social Care. Table 26 shows some of the possible mechanisms to achieve the above four outcomes and recommendations to achieve them.

3.6 PREVENTING DIABETES NON-ELECTIVE (EMERGENCY) HOSPITAL ADMISSIONS

Unfortunately, at the time of writing, expected prevalence of Diabetes at GP practice level is not available. We plan to re-visit this model as soon as is possible.

Early analyses have shown, however, that in addition to the expected number of patients with diabetes, many of the QOF indicators for quality of care, IMD score and satisfaction with availability of appointments will be important predictors of the number of admissions.

Figure 52 shows the hypothesised model that we intend to work on at a later date.

Figure 52 Hypothesised models for levels of Emergency Admissions for Diabetes
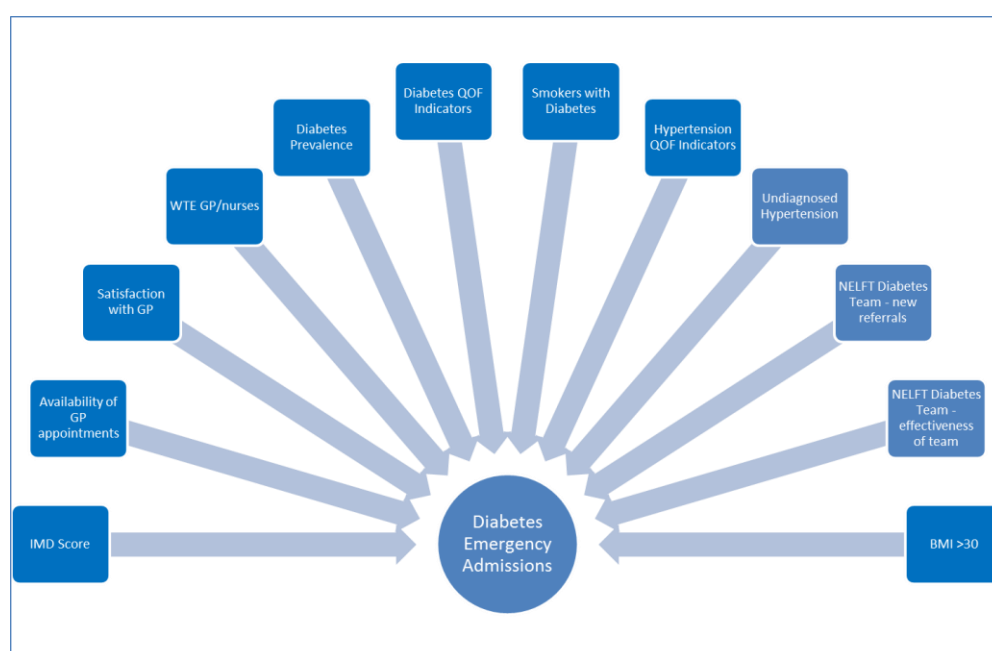
3.7 NON-ELECTIVE ADMISSIONS DUE TO FALLS

In 2014/15 there were 772 non-elective admissions for causes we consider most likely to be falls related.

These cost the CCG a total of £2,592,267.

3.7.1 HIP FRACTURES DUE TO FALLS

In 2014/15 there were 132 hip fractures[1] , 95% of which we expect are due to a fall (125). It is expected that around half of these would never return to their former level of independence and 20% would enter a care home.[2]

The total NHS cost of treating a fracture is around £3000. Therefore to approximate cost to the NHS of treating 125 emergency hospital admissions due to falls per annum is £375,000 .

The average cost per client per annum for Adult Social Care Residential Care package in Thurrock is £16,125. Assuming only 10% clients in Thurrock self-fund, the annual cost to Thurrock Adult Social Care budgets of Hip Fractures due to is approximately £363,000 per annum

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[1] Fingertips
[2] NICE

3.8   SUMMARY: PREVENTING EMERGENCY HOSPITAL ADMISSIONS

Conditions Amenable to Healthcare, also known as *Ambulatory Care Sensitive (ACS) Conditions* are chronic conditions for which it is possible to prevent acute exacerbations and reduce the need for hospital admission through active management, such as vaccination; better self-management, disease management or case management; or lifestyle interventions. Examples would include COPD, Diabetes and Heart Failure.

Failure to reduce the number of ASC admissions, particularly in those aged 65+ will result in a series of negative outcomes for the sustainability of our local Health and Social Care System:

- Increased secondary care use – higher cost
- An increased use of ambulance activity
- A negative impact to workforce – could lead to increased staff sickness due to stress? Or higher turnover/increased reliance on agency staff could mean reduced continuity of care
- Unnecessary delayed transfers of care
- Impact on A&E – some patients who should be admitted earlier may face delays if more amenable admissions are bed-blocking...
- A possible increase in ASC packages
- Unnecessary deaths

In 2015/16 there were 3,869 admissions deemed as amenable to healthcare, but there is significant variation between emergency hospital rates for ACSs between different GP practices. Purfleet Care Centre, the Sai Medical Centre, Thurrock Health Centre, Chadwell Medical Centre, Dr. Devaraja and Partner and Dr. Sunthralingram's practice all had hospital admission rates for ASCs significantly greater than the mean for Thurrock, even after differences in age structure between their practice populations were controlled for.

When viewing the categories of admission for ACSs, it can be seen that the largest number were due to respiratory conditions, diabetes, Nephritis and UTIs and Vaccine-preventable conditions.

Patients aged 65+ are most likely to be admitted to hospital for an ACS condition.

We have built four multiple regression statistical models for Respiratory Conditions, Stroke, Hypertension and Coronary Heart Disease/Heart Failure, that identify the key variables that increase the likelihood of emergency hospital admissions for these conditions, and quantify the impact of each variable.

Addressing these variables (the underlying causes that are most likely to lead to an emergency hospital admission for respiratory conditions, strokes, high blood pressure and CHD/HF will reduce unnecessary hospital admissions, improve public health and save money.

3.9   RECOMMENDATIONS: REDUCING EMERGENCY HOSPITAL ADMISSIONS

Table 24 Recommendations to prevent COPD admissions

Outcome required to prevent one emergency admission for COPD	Mechanisms to achieve the outcome	Recommendations
Prevent 333 people from developing COPD	- Reduce smoking prevalence within the adult population	- Develop and implement a new Tobacco Control Strategy for Thurrock, as set out in Objective E1 of the Thurrock Health and Wellbeing Strategy, 2016-2021
Prevent 33 people from developing asthma	- As above - Improve Air Quality in Thurrock	- As above - Develop and implement a new Air Quality Improvement Strategy for Thurrock as set out in Objective B4 of the Thurrock Health and Wellbeing Strategy 2016-2021
Improve availability of appointments by 0.00014 percentage points	- Reduce levels of under-doctoring in Thurrock - Increase the skill mix of staff within GP practices in order to make them more efficient	- Implement new models of GP practice workforce within Thurrock as set out in ***, and drawing on current local innovative approaches of best practice such as the current model of Primary Care adopted by College Health. - Build four new Integrated Healthy Living Centres, as set out in the JSNA Needs Assessment
Reduce the prevalence of smoking in patients with COPD by 0.009 percentage points	- Targeted intensive stop smoking professional support at those patients with COPD who wish to quit	- Embed smoking cessation training within NELFT community Respiratory Team and ensure that they are commissioned to deliver outcomes against prevalence - Implement procurement of the new Integrated Healthy Lifestyles Provider which will be targeted to focus stop smoking support including e-cigarettes at patients newly diagnosed with LTCs who are most motivated to quit smoking.

Table 25: Recommendations to prevent Stroke admissions

Outcome required to prevent one emergency admission for stroke	Mechanisms to achieve the outcome	Recommendations
Prevent 20 people from becoming hypertensive	- Reduce obesity prevalence within the adult population - Increase physical activity within the adult population - Reduce smoking prevalence within the adult population - Reduce the levels of sodium in the diets of the adult population - Reduce the percentage of adults who drink alcohol at harmful levels and identify and treat those who are alcohol dependent - Reduce levels of stress within the adult population	- Implement a whole systems approach to obesity prevention in Thurrock. - Re-procure an integrated healthy lifestyles service - Commission a programme of smoking prevention in schools - Re-commission an integrated drug and alcohol treatment programme and improve referral pathways into it from other services - Commission an Alcohol Nurse Liaison Service at Basildon Hospital - Ensure strong referral pathways into the new IAPT 'recovery college' from a range of council front line staff - Strengthen programmes such as Local Area Coordination, Stronger Together and Living Well in Thurrock - Increase uptake of NHS Health Checks
Prevent two people from developing AF	As above	As above
Detect and treat an additional 0.015% of the expected hypertensive population	- Embed the systematic checking of blood pressure into all front line services and the third sector - Increase knowledge of the dangers of high blood pressure within the population	- Increase the uptake of NHS Health Checks - Commission an NHS Senior Health Checks Programme - Increase uptake of opportunistic blood pressure checks in Primary and Community Care - Embed blood pressure checking into the work of wider front line service staff e.g. housing, and within third sector community organisations

Outcome required to prevent one emergency admission for stroke	Mechanisms to achieve the outcome	Recommendations
Assess and treat an additional three patients with AF and a CHADS score of >1	- Systematic CHAD2 scoring and prescription of anti-coagulation medication at GP practice level where necessary	- Include this measure on the Primary Care LTC Management Scorecard - Develop SystmOne reports to assist GP practices to identify patients requiring review. - Systematically monitor GP practices on performance against this measure
Support five patients with Hypertension to keep their Blood Pressure under 150/90	- Improve access to Primary Care, and clinical management of Hypertension within it.	- Implement a Hypertension Deep Dive / Prescribing Review to check compliance of GP practice prescribing behaviour and management of Hypertension to NICE Hypertension Clinical Guidance CG127 - Include this measure on the Primary Care LTC Management Score card - Produce SystmOne Reports that assist GP practices to identify patients who require review - Encourage sharing of best clinical practice between high and low performing GP practices.

Table 26: Recommendations to Prevent Stroke Emergency Admissions

Outcome required to prevent one emergency CHD or Heart Failure	Mechanisms to achieve the outcome	Recommendations
Prevent one person from developing hypertension	- Reduce obesity prevalence within the adult population - Increase physical activity within the adult population - Reduce smoking prevalence within the adult population - Reduce the levels of sodium in the diets of the adult population - Reduce the percentage of adults who drink alcohol at harmful levels and identify and treat those who are alcohol dependent - Reduce levels of stress within the adult population	- Implement a whole systems approach to obesity prevention in Thurrock. - Re-procure an integrated healthy lifestyles service - Commission a programme of smoking prevention in schools - Re-commission an integrated drug and alcohol treatment programme and improve referral pathways into it from other services - Commission an Alcohol Nurse Liaison Service at Basildon Hospital - Ensure strong referral pathways into the new IAPT 'recovery college' from a range of council front line staff - Strengthen programmes such as Local Area Coordination, Stronger Together and Living Well in Thurrock - Increase uptake of NHS Health Checks
Prevent two people from Heart Failure	As above plus: - Reduce the prevalence of people with high cholesterol in the adult population - Reduce the prevalence of high blood pressure within the population	As above - Implement Hypertension Casefinding and Clinical Management Recommendations as set out in table *** on page ***
Improve availability of appointments so that 0.05% more people rate it as good or excellent	- Reduce levels of under-doctoring in Thurrock - Increase the skill mix of staff within GP practices in order to make them more efficient	- Implement new models of GP practice workforce within Thurrock as set out in ***, and drawing on current local innovative approaches of best practice such as the current model of Primary Care adopted by College Health. - Build four new Integrated Healthy Living Centres, as set out in the JSNA Needs Assment
Treat 63 patients who have HF with LVD with ACE or ARB	- Systematic review of all patients on GP Practice QOF Heart Failure Registers against current NICE Prescribing Guidelines for Heart Failure (CG108)	- Undertake Deep Dive into Heart Failure Clinical Management and Prescribing practice within Primary Care and implement recommendations. - Include this measure on the Primary Care LTC Management Scorecard - Develop SystmOne reports to assist GP practices to identify patients requiring review. - Systematically monitor GP practices on performance against this measure -

| Support five patients with Hypertension to keep their Blood Pressure under 150/90 | - Improve access to Primary Care, and clinical management of Hypertension within it. | - Implement a Hypertension Deep Dive / Prescribing Review to check compliance of GP practice prescribing behaviour and management of Hypertension to NICE Hypertension Clinical Guidance CG127
- Include this measure on the Primary Care LTC Management Score card
- Produce SystmOne Reports that assist GP practices to identify patients who require review
- Encourage sharing of best clinical practice between high and low performing GP practices. |

Table 27: Recommendations to prevent ACS admissions

Outcome Required	Mechanisms to achieve the outcome	Recommendations

Further Reduce Unplanned (Emergency) Hospital Admissions for Ambulatory Care Sensitive (ACS) Conditions	- Improve the quality of clinical management of ASC within GP practices and community health services	- Urgent further investigation in (including clinical audit if necessary) is undertaken at the following GP practices locally, that have unplanned care admissions for ACSCs that are significantly greater than the Thurrock mean, to ascertain the causes and implement solutions to ameliorate these:
		  - Purfleet Care Centre
		  - Thurrock Health Centre
		  - Chadwell Medical Centre
		  - Dr. Devaraja

		- The new Public Healthcare Programme Managers work with local GP practices and the CCG's Primary Care Development Team to undertake a deep dive at practice level, triangulating the ACSC admissions by group (Figure 27), with the DSR admission rate for ACSCs. (Figure 26) to develop an action plan to address this at practice level. - The results of the above deep dive inform the Primary Care LTC Scorecard Indicators - The new Public Health Programme Managers work with local GP practices to encourage sharing of best practice with regard to the Clinical Management of ACSCs

Section 4   Delayed Transfers of Care

4.1   Introduction

A 'delayed transfer of care' occurs when an adult inpatient in hospital is ready to go home or move to a less acute stage of care but is prevented from doing so. Sometimes referred to in the media as 'bed-blocking', delayed transfers of care are a problem for the NHS as they reduce the number of beds available to other patients who need them, as well as causing unnecessarily long stays in hospital for patients.

Delayed transfers of care are a significant concern to frontline staff. Once a patient is well enough to leave hospital, staff want to treat other patients with greater needs.

There are also financial consequences. There is a wasted investment in unnecessary care for every day that a patient is kept in hospital longer than necessary. These patients don't need intensive treatment or the same amount of equipment or medicine as before, but they still cost the hospital staff time and space that should be used for something else. Delayed transfers of care are consistently one of the top three concerns expressed by NHS finance directors.

Understanding the cause of these delays both directly and indirectly can help unblock them and prevent them from happening in the future.

4.2   What is currently happening?

In 2015/16, there were 1,844 days of delayed transfers of care for Thurrock residents. Whilst this has fluctuated throughout the year, there has been a slight general increase since April 2015. The figure below depicts the number of days categorised into acute and non-acute care based on the care the patient was receiving (acute care generally being shorter term, often in response to an emergency or short term illness, and non-acute being non-emergency – such as an outpatients clinic) – whilst there are some months with a higher number of days due to acute, and others with a higher number of days due to non-acute, the total proportional split for the year is 53.52% acute and 46.48% non-acute. The total number of days per month ranged from 94 (June) to 261 (October).

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Figure 53: Monthly delayed days by care type, 2015/16
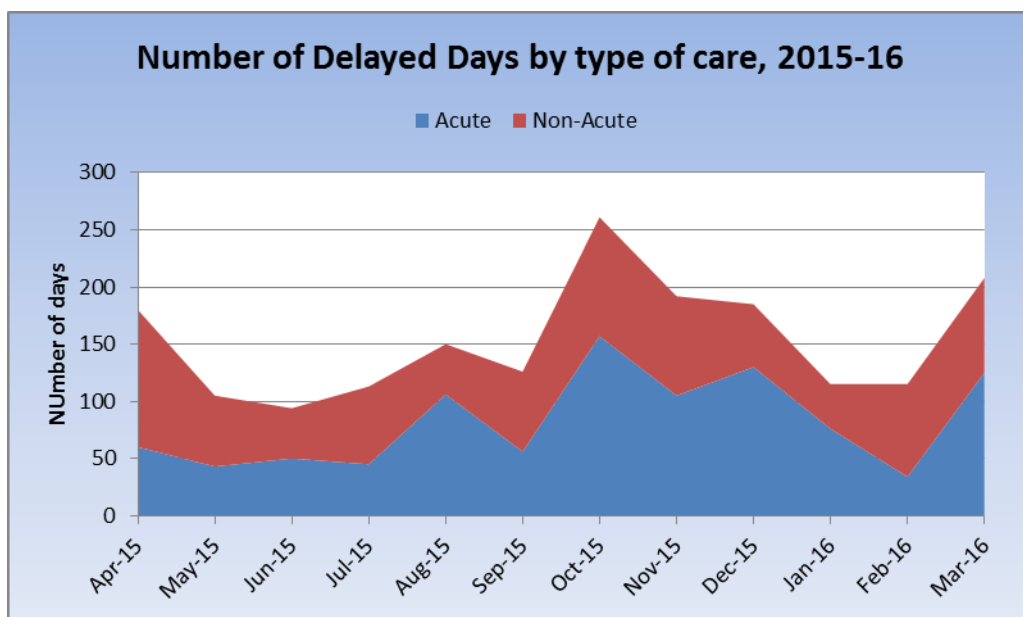
Source: NHS England

Of the 1,844 Delayed Days in Thurrock, 1,373 of these were the responsibility of the NHS (74.46%) – e.g. if a district nurse was required as part of the discharge package, but they were not in place upon the point of discharge, this would be the responsibility of the NHS. 419 were the responsibility of Social Care (22.72%) – e.g. awaiting a nursing home placement, and 52 (2.82%) the responsibility of both organisations. Whilst at the start of the year, almost all Delayed Days were due to the NHS, this proportion reduced throughout the year – this can be seen in the figure below.

Figure 54: Delayed days by responsible organisation, 2015/16
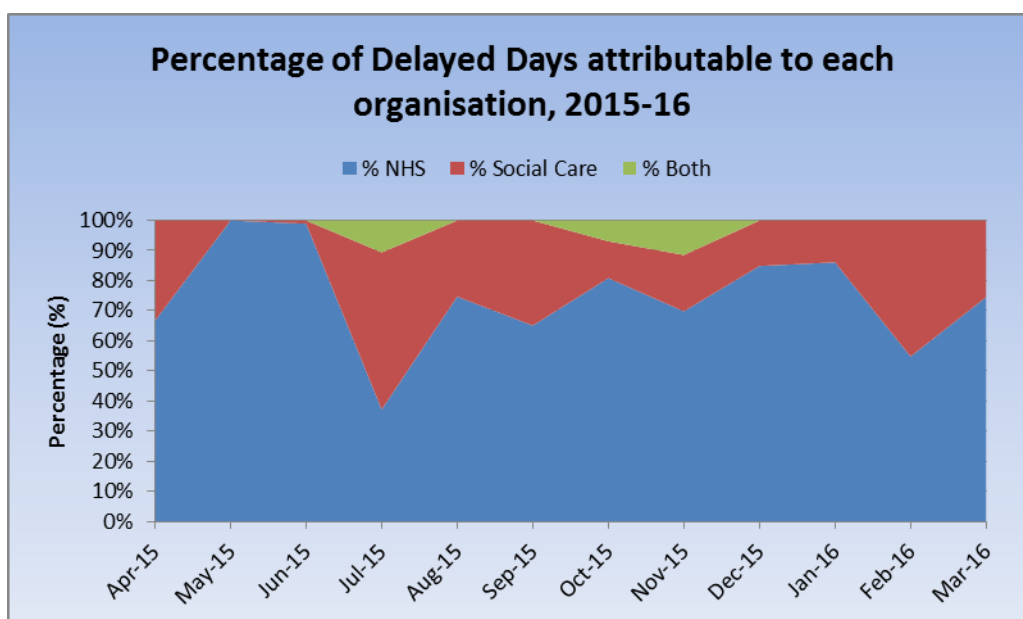
Source: NHS England

Delayed transfers of care are measured as indicators within the Adult Social Care Outcomes Framework, enabling benchmarking of Thurrock rates against the national average. In 2015/16, the average daily rates of delayed transfers of care were lower in Thurrock than England for the total rate and those delays due to social care or both social care and NHS. (Thurrock's rate in total was 5.0 per 100,000 compared to the England average of 12.3 per 100,000, and for social care and both delays it was 1.2 per 100,000 compared to the England average of 4.8 per 100,000.)

Figure 55: Daily Rate of delayed transfers of care, 2015/16
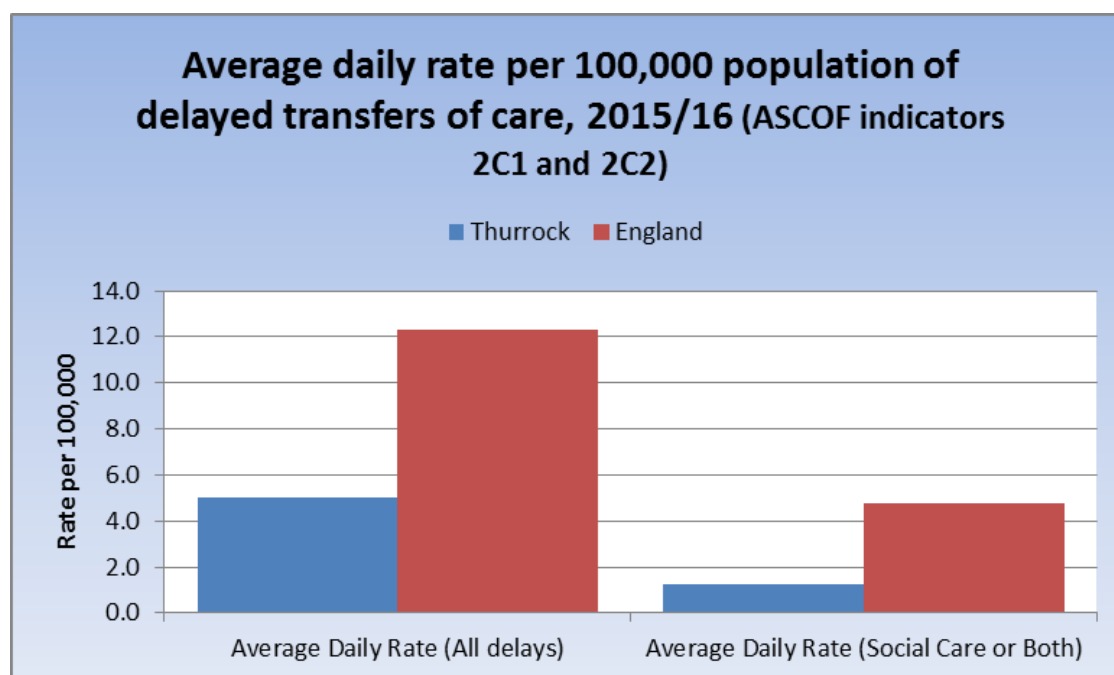
Source: Adult Social Care Outcomes Framework

When investigating the reasons behind the Delayed Days in Thurrock, the most common reason was that patients were awaiting further NHS non-acute care – this accounted for 614 (33.3%) of the total Delayed Days. The second most common reason was delays to due to completion of an assessment (410, 22.23%), with patient/family choice and availability of nursing or residential home placements the next most common reasons.

Table 28: Delayed days and reason, 2015/16

Reason for delay	Number of Delayed Days	Proportion of all Delayed Days
Waiting further NHS non-acute care	614	33.30%
Completion of assessment	410	22.23%
Patient or family choice	213	11.55%
Awaiting nursing home placement or availability	172	9.33%
Awaiting residential home placement or availability	134	7.27%
Public funding	119	6.45%
Awaiting community equipment and adaptions	78	4.23%
Disputes	69	3.74%
Awaiting care package in own home	35	1.90%
Housing - Patients not covered by NHS and Community Care Act	0	0.00%
All Reasons	1,844	100.00%

Source: NHS England

4.3 SUMMARY: DELAYED TRANSFERS OF CARE

A 'delayed transfer of care' occurs when an adult inpatient in hospital is ready to go home or move to a less acute stage of care but is prevented from doing so. Sometimes referred to in the media as 'bed-blocking', delayed transfers of care are a problem for the NHS as they reduce the number of beds available to other patients who need them, as well as causing unnecessarily long stays in hospital for patients.

Delayed transfers of care have both negative operational and financial consequences to our local Health and Social Care system.

In 2015/16, there were 1,844 days of delayed transfers of care for Thurrock residents. Whilst this has fluctuated throughout the year, there has been a slight general increase since April 2015

Of the 1,844 Delayed Days in Thurrock, 1,373 (74.46%) of these were coded as the responsibility of the NHS and 419 (22.72%) were the responsibility of Social Care.

The top four reasons coded by NHS England for local Delayed Transfer of Care incidents were "Delays in waiting for further NHS non-acute care", "Delays in Completion of Assessments", "Patient or family choice" and "Waits for nursing/residential care places"

Thurrock Council is working closely with NHS Thurrock CCG on a range of measures to ameliorate the problems that are leading to Delayed Transfers of Care. However an STP system wide response is required which will include better pooling of NHS and Social Care resources.

4.4 RECOMMENDATIONS: DELAYED TRANSFERS OF CARE

The most common reasons for Delayed Transfer of Care warrant further investigation, most particularly access to and capacity of NHS non acute care, increasing speed of assessment completion, and nursing and residential home placement capacity locally.

Outcome Required	Mechanisms to achieve the outcome	Recommendations
Reduce / Eliminate Delayed Transfers of Care Locally	- Improve access to non-acute NHS care	- The reasons behind coding of this category remain unclear, as local evidence suggests that there is currently an over-capacity of intermediate care beds in Thurrock. As such, delays in accessing Continuing Health Care (CHC) may account for coding of DToCs of this sort. Public Health should undertake further work with NHS Thurrock CCG and Basildon Hospital to ascertain and address the factors that are driving this issue
	- Complete assessments in a more timely fashion	- The reasons behind the coding of this category also remain unclear and again may relate to delays in assessment for CHC. This warrants further investigation by Public Health in conjunction with NHS Thurrock CCG. - NHS Thurrock CCG should continue to implement its 'Discharge to Assessment" programme
	- Improve capacity of residential and nursing home placements locally	- Current capacity of residential and nursing home provision is currently inadequate and remains a challenge that requires a 'system wide' solution including STP funding. Feasibility of the following possible solutions are being investigated and should be piloted - A rapid discharge service that would place social care resource in the hospital to begin planning discharge almost from the point of admission - The development of a comprehensive step down facility probably at Collins House site in Corringham. This would deliver capacity for discharge to assess and intermediate/rehab to enable people who are doctor fit to be discharged for ongoing support pre return to home. Thurrock Council has the ability to fund capital costs to enable the council to build the facility on the proviso of commitment from the NHS of additional revenue funding to support the care costs. - The economics of providing nursing care mean that very large homes (at least 80 beds) are required for providers to make a profit, yet in quality of care terms this size of home is very problematic. It is vital that the local Health and Social Care system collectively seeks to fix home care in a sustainable way, and develop alternatives such as the Collins House project (as this will free up some beds that are being used for step down care). Our local system also needs to incentivise the development of small, probably specialist (dementia, autism etc.) residential and nursing care homes.
	- Reduce demand for residential and nursing care home placements	- The local Health and Social System (and STP must) redirect resource towards prevention through initiatives described within this report in order to keep older people as healthy and independent for as long as possible. It is not financially or operationally sustainable simply continue to increase the supply of nursing and residential care.

Section 5   REFERRAL TO TREATMENT (RTT) CARE PATHWAYS (RTT)

5.1   INTRODUCTION

A patient is placed on a 'referral to treatment pathway' by their GP when it is believed that they need non-emergency secondary healthcare (provided by hospitals). This is also known as 'elective' healthcare.   The NHS constitution sets at a number of standards that patients should expect from an RTT. These include that NHS Consultant led treatment should commence within a maximum of 18 weeks from GP referral for non-urgent conditions; and a patient with suspected cancer should be seen within a maximum of two weeks by a cancer specialist.

5.2   WHAT IS CURRENTLY HAPPENING?

Thurrock CCG-level data from 2015/16 showed that there were 8,808 RTT pathways completed which resulted in an inpatient or day case admission, and 31,642 RTT pathways completed that did not result in an admission (e.g. the patient may have accessed care in an outpatient setting). The two tables below show the numbers and proportions of pathways per treatment function – it can be seen for those admitted, the categories with the highest proportion of pathways were General Surgery (18.28%), Trauma & Orthopaedics (15.97%) and Ophthalmology (15.91%); whilst for those not admitted, the categories with the highest proportion of pathways were Other (19.02%), General Surgery (12.30%) and Ophthalmology (9.41%). It should be clarified that one pathway does not necessarily mean one patient – as one patient could be on more than one pathway.

Table 29: RTT pathways for those admitted by treatment function, 2015/16

Treatment Function	Total number of pathways	Proportion of all pathways (%)
General Surgery	1610	18.28%
Trauma & Orthopaedics	1407	15.97%
Ophthalmology	1401	15.91%
Other	852	9.67%
Gynaecology	733	8.32%
Gastroenterology	625	7.10%
Urology	584	6.63%
ENT	571	6.48%
Cardiology	358	4.06%
Plastic Surgery	350	3.97%
Rheumatology	182	2.07%
Cardiothoracic Surgery	68	0.77%
Thoracic Medicine	27	0.31%
Neurology	23	0.26%
Neurosurgery	12	0.14%
General Medicine	3	0.03%
Dermatology	2	0.02%
Oral Surgery	0	0.00%
Geriatric Medicine	0	0.00%
Total	8808	100.00%

Source: NHS England

Table 30: RTT pathways for those not admitted by treatment function, 2015/16

Treatment Function	Total number of pathways	Proportion of all pathways (%)
Other	6018	19.02%
General Surgery	3893	12.30%
Ophthalmology	2979	9.41%
ENT	2708	8.56%
Dermatology	2480	7.84%
Gynaecology	2349	7.42%
Trauma & Orthopaedics	2288	7.23%
Cardiology	1581	5.00%
Urology	1359	4.29%
Neurology	1196	3.78%
Gastroenterology	1134	3.58%
Geriatric Medicine	1029	3.25%
Rheumatology	902	2.85%
Thoracic Medicine	826	2.61%
General Medicine	500	1.58%
Plastic Surgery	369	1.17%
Neurosurgery	15	0.05%
Cardiothoracic Surgery	15	0.05%
Oral Surgery	1	0.00%
Total	31642	100.00%

Source: NHS England

5.2.1 WAITING TIMES

The average waiting time between referral and treatment differs per specialty for those admitted and not admitted. In Thurrock the average RTT waiting time across all treatment functions for those admitted was 11.66 weeks and 6.86 weeks for those not admitted. The figure below depicts the average waiting times for each treatment function, and it can be seen that for those admitted, the Ophthalmology (16.10 weeks), ENT (14.75 weeks), Gynaecology (14.69 weeks) and Trauma & Orthopaedics (13.75 weeks) had the highest average waiting times across 2015/16; whilst Gastroenterology had the lowest (5.33 weeks). [Average waiting times were not available for a number of treatment functions due to small numbers of pathways]. For those not admitted, the treatment functions with the largest average waiting times were Gastroenterology (10.86 weeks), Neurology (10.83 weeks), ENT (10.43 weeks) and Trauma & Orthopaedics (9.07 weeks). Geriatric Medicine and General Medicine had the lowest average waiting times, with 5.11 and 5.05 weeks respectively.

Figure 56: Average waiting times by function, 2015/16
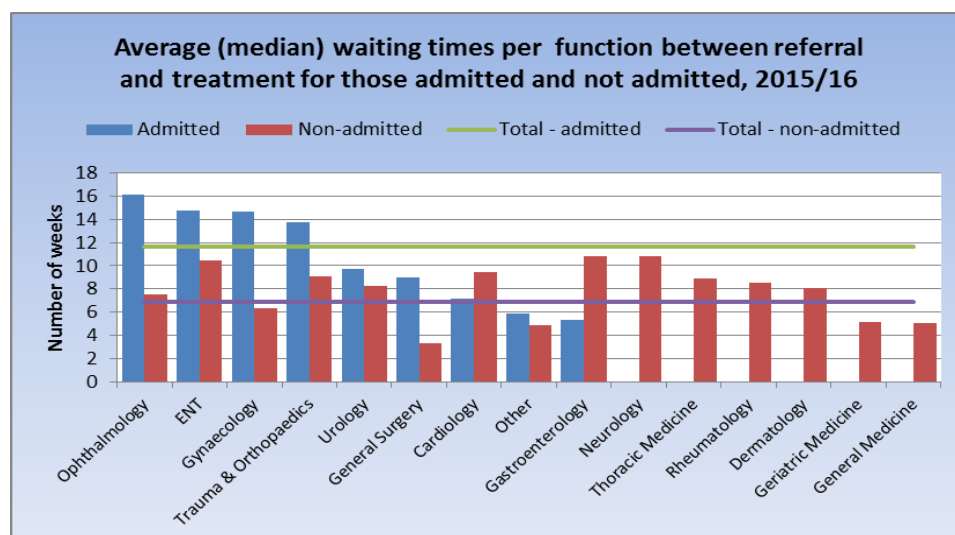
Source: NHS England

As mentioned earlier in the document, the national standard is for the majority of pathways to be completed within 18 weeks of referral. Figure 57 below shows each treatment function by its proportion of pathways that were completed by the national standard for admitted patients, and it can be seen that whilst 100% of rheumatology pathways were completed by the standard, functions such as Trauma & Orthopaedics (71.43%), Gynaecology (71.71%), Neurology (72.2%) and ENT (72.87%) all had low proportions of pathways completed by 18 weeks. Across all treatment functions, 80.89% of Thurrock pathways were completed in 18 weeks for admitted patients, compared to 84.61% nationally.

Figure 57: Pathways completed within 18 weeks by treatment function – admitted patients
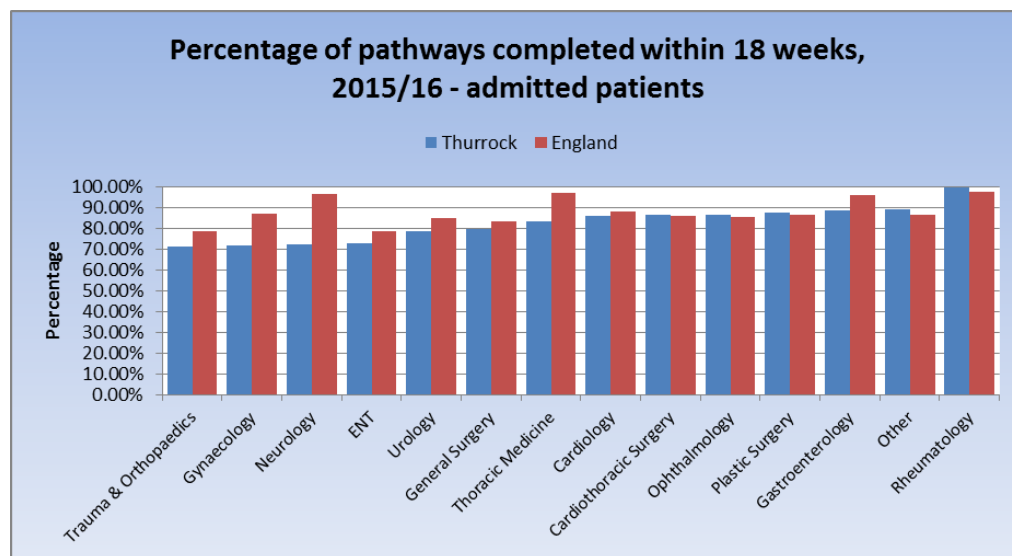
Source: NHS England

For those not admitted, there was a higher total proportion completed by the 18 week standard – 90.51% in Thurrock across all functions compared to 93.87% nationally. As with the above, Trauma & Orthopaedics (78.1%) and ENT (85.76%) were amongst the functions with the lowest proportions completed, with Gastroenterology (83.39%) also having a low proportion.

Figure 58: Pathways completed within 18 weeks by treatment function – non-admitted patients
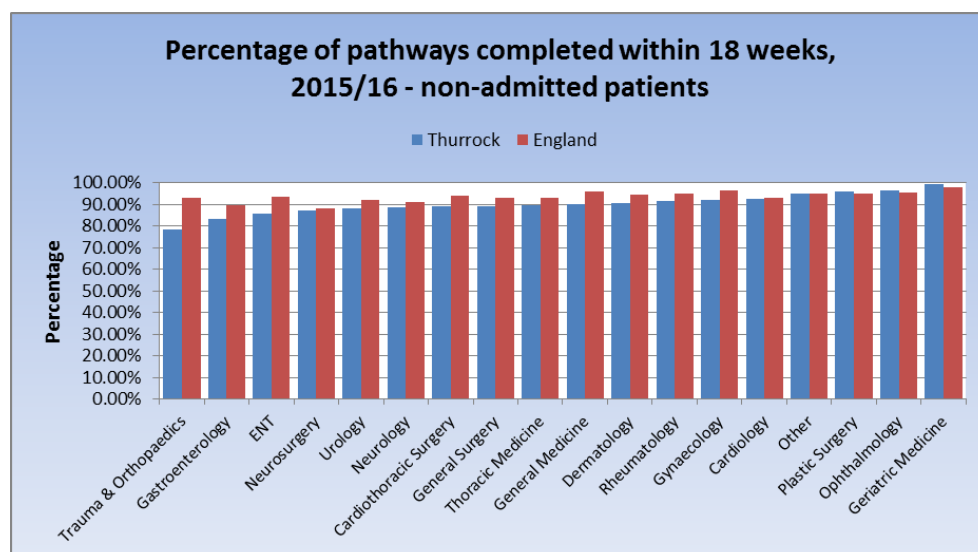
Source: NHS England

Whilst the above data shows the median waiting times and the proportion completed by 18 weeks for each function, this does not reflect those who waited the longest periods of time for treatment. For those admitted, whilst 95% of all pathways were completed by 30 weeks (with 50% completed by 11.66 weeks as shown above), this still meant that 5% - 440, took over 30 weeks to complete. The functions with the largest numbers of pathways affected were General Surgery (81), Trauma & Orthopaedics (70) and Ophthalmology (70), which is relative to the larger numbers of patients in each treatment function. The function likely to have the longest wait between referral and treatment is Trauma & Orthopaedics, with a number of pathways waiting longer than 35 weeks and a comparatively high average wait (13.75 weeks). This however could be expected if there are excess demands on those requiring emergency treatment which might take precedence.

Table 31: RTT time for the longest-waiting 5% by treatment function - admissions, 2015/16

Treatment Function	RTT time for the longest-waiting 5%
General Surgery	81 Pathways were completed beyond 29 weeks.
Trauma & Orthopaedics	70 Pathways were completed beyond 35 weeks.
Ophthalmology	70 Pathways were completed beyond 21 weeks.
Other	43 Pathways were completed beyond 25 weeks.
Gynaecology	37 Pathways were completed beyond 29 weeks.
Gastroenterology	31 Pathways were completed beyond 22 weeks.
Urology	29 Pathways were completed beyond 32 weeks.
ENT	29 Pathways were completed beyond 33 weeks.
Cardiology	18 Pathways were completed beyond 28 weeks.
Total	440 Pathways were completed beyond 30 weeks.

Source: NHS England

For those not admitted, the longest-waiting 5% of patients (1582) waited over 24 weeks for completion of treatment. The largest numbers corresponded to the functions of Other (301), General Surgery (195) and Ophthalmology (149), which again have the largest numbers of patients. As above, the function likely to have the longest wait between referral and treatment is Trauma & Orthopaedics, with a number of pathways waiting longer than 33 weeks and a comparatively high average wait (9.07 weeks). This however could be expected if there are excess demands on those requiring admission or emergency treatment which might take precedence.

Table 32: RTT time for the longest-waiting 5% by treatment function - non-admissions, 2015/16

Treatment Function	RTT time for the longest-waiting 5%
Other	301 Pathways were completed beyond 19 weeks.
General Surgery	195 Pathways were completed beyond 25 weeks.
Ophthalmology	149 Pathways were completed beyond 17 weeks.
ENT	135 Pathways were completed beyond 27 weeks.
Dermatology	124 Pathways were completed beyond 23 weeks.
Gynaecology	117 Pathways were completed beyond 21 weeks.
Trauma & Orthopaedics	114 Pathways were completed beyond 33 weeks.
Cardiology	79 Pathways were completed beyond 19 weeks.
Urology	68 Pathways were completed beyond 25 weeks.
Neurology	60 Pathways were completed beyond 25 weeks.
Gastroenterology	57 Pathways were completed beyond 25 weeks.
Geriatric Medicine	51 Pathways were completed beyond 10 weeks.
Rheumatology	45 Pathways were completed beyond 20 weeks.
Thoracic Medicine	41 Pathways were completed beyond 24 weeks.
General Medicine	25 Pathways were completed beyond 24 weeks.
Total	1582 Pathways were completed beyond 24 weeks.

Source: NHS England

One explanation for some delays to the pathways could result from the "ban" on consultant to consultant referrals. For example, in a 12 month period, 350 patients were referred to Gastroenterology, only to be referred back to their GP, who then made another referral to either Gastroenterology or Gynaecology within 60 days, let alone commencement of treatment. Apart from the delay in care, this also has an added impact on GP appointment and administration time. Further work could take place to investigate pathways where this might be an issue.

5.3 DIAGNOSTIC TESTS

As RTT waiting times measure the patients' full waiting time from GP Referral to Treatment, some part of which may include a diagnostic test, ensuring patients receive their diagnostic test within 6 weeks is vital to ensuring the delivery of the RTT waiting times standard of 18 weeks.

In 2015/16, there were 61,584 diagnostic tests carried out for Thurrock patients across 15 key procedure types. The most common tests were *Non-Obstetric Ultrasound* and *CT scans* which accounted for 29.85% and 29.75% of the diagnostic activity respectively. A breakdown can be seen in the table below.

Table 33: Diagnostic tests by test type, 2015/16

Diagnostic Test Name	Total Activity	% Of All Activity
Non-Obstetric Ultrasound	18381	29.85%
CT	18321	29.75%
MRI	9124	14.82%
Audiology Assessments	4337	7.04%
Echocardiography	3772	6.12%
Colonoscopy	1543	2.51%
Gastroscopy	1507	2.45%
Dexa Scan	1312	2.13%
Sleep Studies	1052	1.71%
Cystoscopy	1033	1.68%
Flexi Sigmoidoscopy	520	0.84%
Peripheral Neurophys	357	0.58%
Urodynamics	267	0.43%
Barium Enema	56	0.09%
Electrophysiology	2	0.00%
Total	61584	

Source: NHS England

The table above covers all tests, whether they were planned (i.e. patients who had a test booked and completed as part of a regular schedule), unscheduled (i.e. those occurring following an emergency admission or in A&E) or waiting list tests (i.e. those for patients on a waiting list for a test). Unscheduled activity accounted for 1.72% of all diagnostic activity, and below it can be seen that 38.00% of this was due to *CT scans* (402 tests), with the next two most common being Non-*Obstetric Ultrasounds* (269 tests) and *Gastroscopies* (128 tests).

Table 34: Unscheduled diagnostic tests by test type, 2015/16

Diagnostic Test Name	Total Unscheduled Activity	% Of All Unscheduled Activity
CT	402	38.00%
Non-Obstetric Ultrasound	269	25.43%
Gastroscopy	128	12.10%
Echocardiography	96	9.07%
MRI	70	6.62%
Flexi Sigmoidoscopy	56	5.29%
Colonoscopy	16	1.51%
Barium Enema	8	0.76%
Cystoscopy	8	0.76%
Dexa Scan	4	0.38%
Sleep Studies	1	0.09%
Audiology Assessments	0	0.00%
Electrophysiology	0	0.00%
Peripheral Neurophys	0	0.00%
Urodynamics	0	0.00%
Total	1058	

Source: NHS England

In 2015/16, 1.5% of Thurrock's diagnostic tests took place more than six weeks after the referral took place, which was below the England average of 3.5% and above the target figure of 1%. The figure below depicts the six week tests broken down by test type, and it can be seen that 8.8% of *Peripheral Neurophysiology* tests in Thurrock took place after 6 weeks, compared to 3.2% nationally. However relating this back to the activity data above, there was a relatively low number of tests in this category (357) and none were unscheduled, meaning the waiting time could not be attributed to a higher demand from emergency activity. *Urodynamics*, *Colonoscopy* and *Gastroscopy* were the next highest categories in Thurrock and high in England also.

Figure 59: Diagnostic tests occurring 6+ weeks post-referral by test type, 2015/16
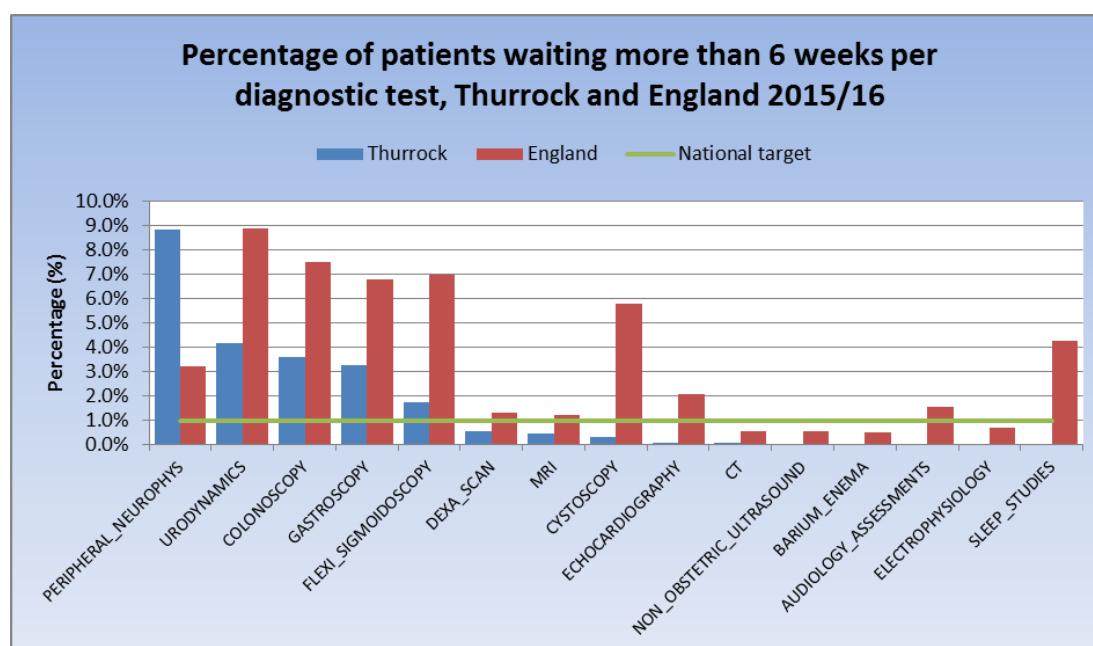
Source: NHS England

5.4   WHAT ARE THE OPPORTUNITIES?

Of the above test types, it is estimated that at least non-obstetric ultrasounds could take place in primary care if the appropriate resources were available. A limitation of the above data is that it is not clear where all of the tests happened – i.e. whether in a primary care or hospital setting. For this purpose, it is assumed that these occurred in an elective hospital setting, with an average cost of £1,646 per test. Excluding the unscheduled activity, there were 18,112 non-obstetric ultrasounds, meaning this could have cost as much as £29,812,352 in 2015/16. Comparatively speaking, the cost of undertaking these in primary care would be the cost of a machine (£18,000-£25,000 perhaps[iv]) and then an appointment cost (£36 per appointment). So doing these in primary care could have cost only £652,032 plus however many machines were purchased.

5.5   WHAT ARE THE POTENTIAL IMPACTS TO OTHER PARTS OF THE HEALTH AND SOCIAL CARE SYSTEM?

From the level of data presented in this section, we are unable to clarify accurately the impact of that delays in diagnostics or RTT pathways are having on the overall sustainability either operationally or financially on our local Health and Social Care System. However, these data do pose the following questions that warrant further investigation:

- Do the specialities with highest RTT median waits end up with more A&E attendances (hypothesising that if people are not seen and treated, then they are more likely to have an exacerbation?)
- Do the specialties with highest RTT median waits relate to any primary care quality or workforce issues?
- Are delays to diagnostics and treatment causing unnecessary deterioration in patients' clinical conditions, that in turn is placing unnecessary increased demand on Adult Social Care?
- Any particular delays for diagnostic procedures impacting on the RTT delays.
- Are patients being forced to access A&E for diagnostics because they were delayed in getting them as an elective procedure?
- Given that the "Payment by Results" tariff system has now largely been abolished and secondary hospital care is being commissioned on block contract, could the system be made more efficient if the ban on "Consultant to Consultant" referrals imposed by CCGs was lifted?

5.6 SUMMARY – REFERRAL TO TREATMENT CARE PATHWAYS

A patient is placed on a 'referral to treatment pathway' by their GP when it is believed that they need non-emergency hospital treatment. The NHS constitution sets at a number of waiting time standards for this kind of care. These include that NHS Consultant led treatment should commence within a maximum of 18 weeks from GP referral for non-urgent conditions; a patient with suspected cancer should be seen within a maximum of two weeks by a cancer specialist; and no more than 1% of patients should wait more than six weeks for a diagnostic test.

The most common RTT pathways in Thurrock that result in a Hospital Admission are for General Surgery; Trauma and Orthopaedics; and Ophthalmology.

The average RTT waiting time across all treatment functions for those admitted was 11.66 weeks and 6.86 weeks for those not admitted in 2015/16 but there is wide variation in waiting times between different pathways. For those patients who are admitted to hospital, Ophthalmology, ENT, Gynaecology and Trauma/Orthopaedics have median waiting times above the Thurrock average. For patients not admitted to hospital, Gastroenterology, Neurology and ENT have the longest median waiting times.

Thurrock performs poorly on the 18 week waiting time target compared to England on a number of care pathways. For Trauma & Orthopaedics, Gynaecology, Neurology and ENT approximately only out of every 10 patients who are referred commence treatment within 18 weeks.

Too many patients in Thurrock on RTT pathways are waiting too long for diagnostic tests. Significantly more than 1% of all patients requiring Peripheral-Neurophys, Urodynamics, Colonoscopy Garstroscopy and Flexi-Sigmoidoscopy waited more than six weeks to access these diagnostic procedures.

There may be opportunities to increase cost efficiency in the system by moving some diagnostic tests into the community.

Further investigation is required to ascertain the causes of delays in accessing diagnostics and within RTT pathways and what impacts these may be having on on other parts of the Health and Social Care system locally.

5.7   RECOMMENDATIONS – REFERRAL TO TREATMENT

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Improvement in the efficiency of Referral to Treatment Elective Care Pathways to reduce unnecessary waiting times for patients	- Increase understanding of patient flows from Primary Care referral, through diagnostics to treatment with priority given to the poorest performing care pathways as identified in tables 31 and 33, and the highest volume diagnostic tests as identified in tables 34 and figure 53	- Public Health to work with NHS Thurrock CCG and Basildon Hospital to undertake a 'Deep Dive' on the efficiency and cost effectiveness of elective care and access to diagnostics.
		- Further analysis of BTUH workforce data to unpick whether that has an impact on the delayed transfers of care or the specific categories of diagnostic test/RTT pathways that have the longest waiting times -
		- Deeper triangulation of outpatient clinic data to primary care long term condition management data to understand if quality of primary care has any impact on outpatient activity through use of the Integrated Data Solution Software Package (as set out in the Thurrock Health and Wellbeing Strategy 2016-2021), once procured.
	- Investigate the feasibility and cost effectiveness of moving some diagnostic tests from secondary to community/primary care settings	- Improve front door triage at A&E at Basildon Hospital to assess and deflect patients with minor conditions from being able to accessing A&E services
		- Undertake further analyses of the interface between A&E and the Essex Ambulance Service with a view to understanding and recommending appropriate actions to prevent inappropriate A&E conveyances by ambulance.

Section 6 ADULT SOCIAL CARE

6.1 INTRODUCTION

The adult social care system offers help, care and support to people with a wide range of needs arising from disability, illness or other life situations. It helps people to live as independently as possible, protects people from harm in vulnerable situations, balances risks with rights and offers essential help at times of crisis.

Support is offered in people's own homes, residential and nursing homes or other community settings. Unlike NHS care, most of these services involve an assessment of the individual's 'eligible' needs and financial resources (means-testing).

Local authorities have important statutory duties, but nationally, more than 90 per cent of actual support is provided by a diverse range of more than 19,000 independent organisations, ranging from big corporate chains to small family-run businesses, charities and social enterprises.

The success story of longer lifespans means there are many more people with care and support needs arising from a mixture of physical health and mental health conditions including dementia and frailty in old age. However, like other parts of the health service, increasing demand and the complexity of that demand is placing strain on Adult Social Care services both nationally and locally.

In this section we examine Adult Social Care provision in Thurrock and explore its relationship with other parts of the health service and wider community locally.

6.2 WHO IS USING ADULT SOCIAL CARE (ASC)?

6.2.1 AGE OF CLIENTS ACCESSING ADULT SOCIAL CARE

Figure 60 shows the number of ASC packages/services provided by age for community, residential, nursing, carers services and total number of services.

There is a reasonably sharp decline in numbers of services in all categories for clients aged 18 through to 21 drop off in number of packages/services provided from age 18 (168 packages down to 80 packages, 52.4% reduction). The reasons for this are unclear although one possible explanation may be differences in criteria for awarding social care packages between the Council's Adult Social Care and Children's Social Care functions.

Total number of ASC packages provided start to rise steeply to clients aged from their late 60s and very steeply for clients aged in their late 70s, peaking for clients aged in their late 80s.

Numbers of community care packages start to rise for clients aged in their late 60s onwards, and the rate of increase rises significantly for clients aged from 80 to 90. Residential care demand increases sharply for clients aged 80 plus.

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This graph would suggest that prevention and early intervention programmes to reduce the number of community packages needs to be targeted at the population in early 60s onwards, and those aiming to prevent entry into residential care need to be targeted at the population from their early 70s onwards.

Figure 60: The Number of ASC Packages/Services Provided by Age Receipient in 2014-15 and 2015-16
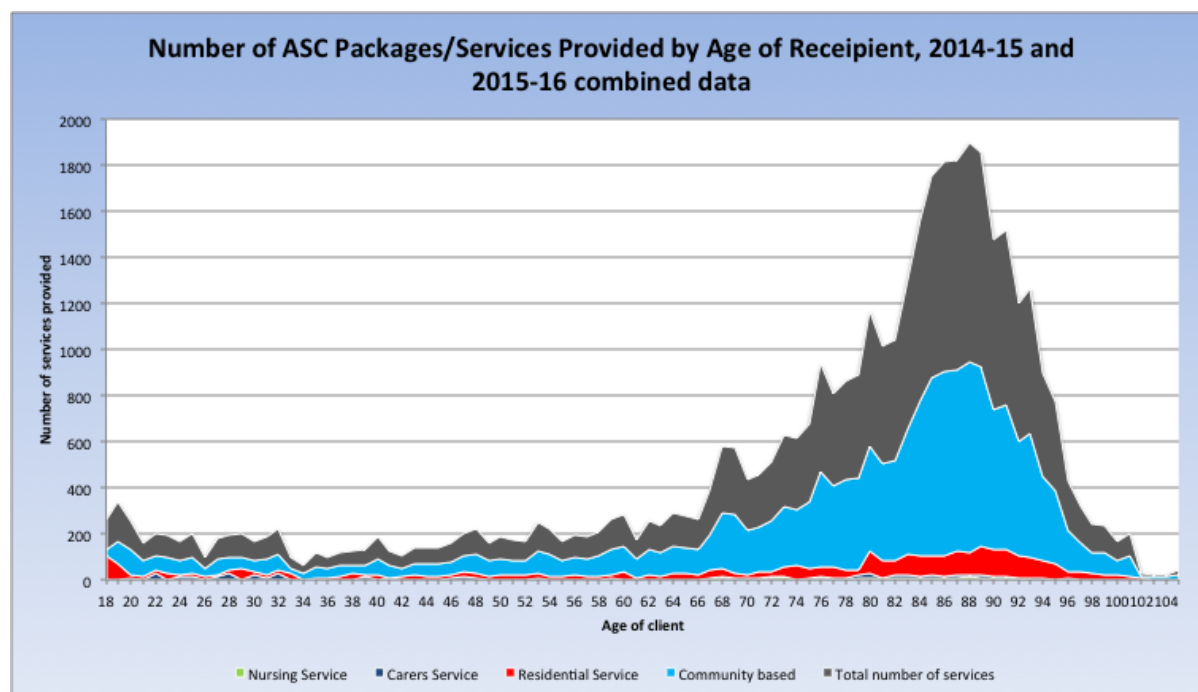
6.2.2 LOCATION OF CLIENTS ACCESSING ADULT SOCIAL CARE

In order to explore the demand for ASC packages from different older people within Thurrock, spend of ASC package per ward was analysed. The cost of a ASC package/service is a good proxy for the complexity of the package/service and hence the need or demand for ASC within different geographical communities.

Figure 61 shows the total cost of 'community' ASC packages per ward for clients aged 75+. Clients aged 75+ were considered as the previous section identifies these as the cohort of the population using the greatest number of ASC packages. It is also recognised that patients aged 75+ are more likely to be living with a number of long term health conditions which will be managed by other parts of the health and social care system locally.

A *Community* ASC package in this context has been defined as a Homecare Package; Direct Payment; Day Care Package; or Supported Living Package.

Residential and Nursing Home packages have been excluded from these analyses as they are provided in fixed buildings where clients are moved to, and so would skew the genuine need from within the original ward population. Equipment was excluded, as costs were not recorded at client level by year.

Figure 61 shows a very significant variation in spend on *Community* ASC packages (as defined above) between different ward populations in 2015-16. However this variation is likely to be a product of a number of factors; the percentage of the ward population made up of those aged 75+, their need for ASC community services and their ability to self-fund.

However, four wards; Grays Thurrock, Stifford Clays, Stanford East and Corringham and Chadwell St. Mary stand out as having significantly greater spend than other wards and hence overall the greatest level of total ward population based need. In order to have the biggest impact on the population aged 75+, resources for future prevention and early intervention programmes should be focussed most on these four wards.

In order to control for variation in population age structure between wards, Figure 62 shows the rate of spend on ASC *Community* packages (as defined above) per head of ward population aged 75+. Rate of spend per head of ward population aged 75+ shows the complexity of the ASC need within each ward population aged 75+.

Figure 62 Rate of ASC spend on "Community" care packages for clients aged 75+ per head of population aged 75+ by Ward (2015-16)
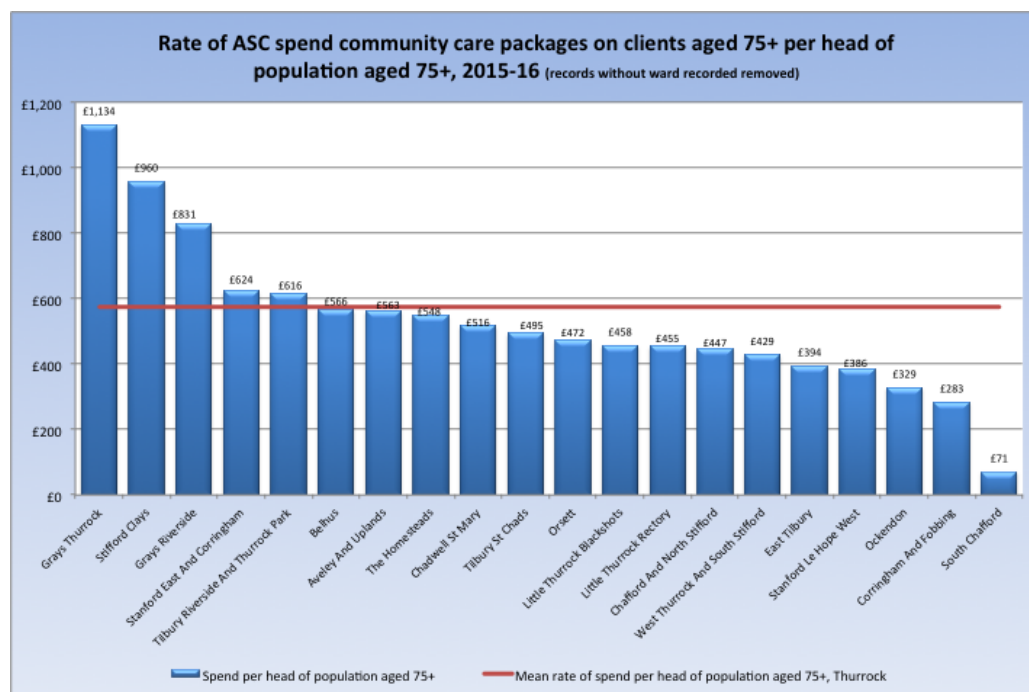
Like Figure 61, there is very considerable variation in rate of spend on *Community based* (as defined previously) ASC packages per head of ward population aged 75+. Three wards; Grays Thurrock, Stifford Clays and Grays Riverside have rates of spend per head of population aged 75+ significantly greater than the Thurrock mean. As age structure between wards has been controlled for, this would suggest that the population aged 75+ in these three wards have significantly greater ASC needs than older people living in other areas of Thurrock.   The reasons for this are not clear and this warrants further investigation.

Figure 63 shows the association between the Index of Multiple Deprivation (IMD 2015) indicator on Income Deprivation Affecting Older People. (IDAOP). Income Deprivation is a relatively good proxy indicator for levels of morbidity within a community and is positively associated with poorer health.

Figure 63 Association between spend on community based ASC packages per head of population aged 75+ and IMD(IDAOP, 2015)
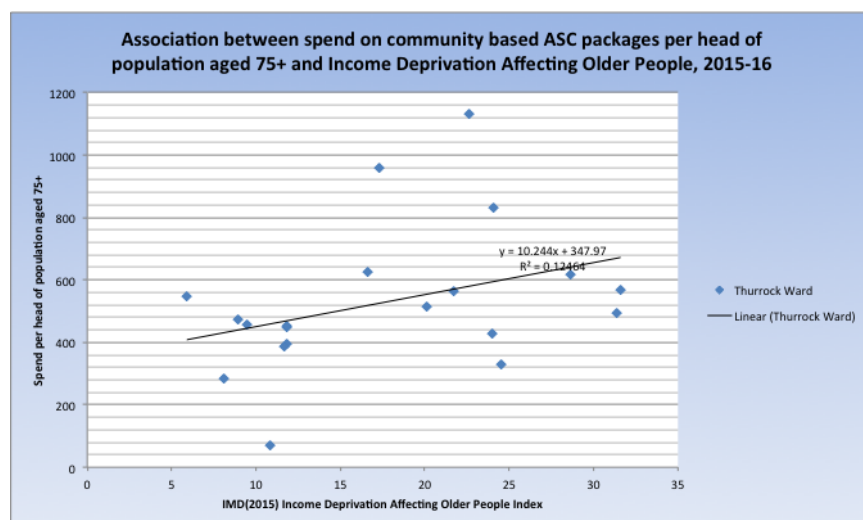
Figure 63 shows a positive correlation between IMD (2015) IDAOP and ASC *Community* spend per head of population aged 75+ at ward level. Approximately 12.5% of the variation in spend per head of population aged 75+ between wards (a good proxy indicator of level of social care need within the general population of older people) can be explained by levels of income deprivation. This is a relatively strong association for a single variable.   Whilst association between two variables does not necessarily demonstrate one causes another, a reasonable hypothesis could be that differences between morbidity levels in different populations is at least partly responsible for Adult Social Care need within different ward populations in Thurrock. This in turn would suggest that there are Social Care Inequalities in addition to Health Inequalities between different wards in Thurrock.

6.3   ADULT SOCIAL CARE NEED IN OLDER PEOPLE AT GP PRACTICE POPULATION LEVEL

Given the evidence presented in sections 1-3, it can be hypothesised that the clinical care provided by GP practices and NHS Community Services could in part impact on Adult Social Care demand in those patients aged 75+.

In order to explore this further, mean ASC *Community Spend* per registered patient aged 75+ at GP practice population level was calculated.   Some care should be exercised in interpreting the results within this section as only approximately 50% of ASC clients in 2015-16 had their GP practice recorded in their record.   This has major implications for future plans set out within the Thurrock Health and Wellbeing Strategy (2016-2021) to procure a system to link ASC and NHS records at patient/client level, and needs to be urgently addressed if we are going to be in a position to best target prevention and early intervention programmes at those most likely to benefit, and understand how patients/clients flow through our health and social care system.   As such one key assumption in this section is that those clients without a record of a GP practice are distributed across all GP practices on the basis of their population age structures.

*1 *Community Spend*, as in section 6.2.2 was defined as spend on *Homecare Packages, Direct Payments, Day Care and Supported Living*. Residential and Nursing Care spend was deliberately excluded from this analysis, as a single GP practice is usually assigned to a specific nursing or residential home, and so including this spend in the analysis may skew the general ASC demand within different GP practice populations.

*2. In addition, the following conditions were excluded from the analysis on the basis that clinical practice at Primary or Community Care level was unlikely to impact significantly on ASC need of these patients: Acquired Physical Injury, Acquired Brain Injury; Aspergers; Autism; Motor Neuron Disease; Other DID

Figure 64 shows this analysis by GP practice population

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Figure 64 ASC community package *1 spend per registered patient aged 75+ (2015-16)

ASC community package *1 spend per registered patient aged 75+ 2015-16 (Some Conditions Excluded) *2
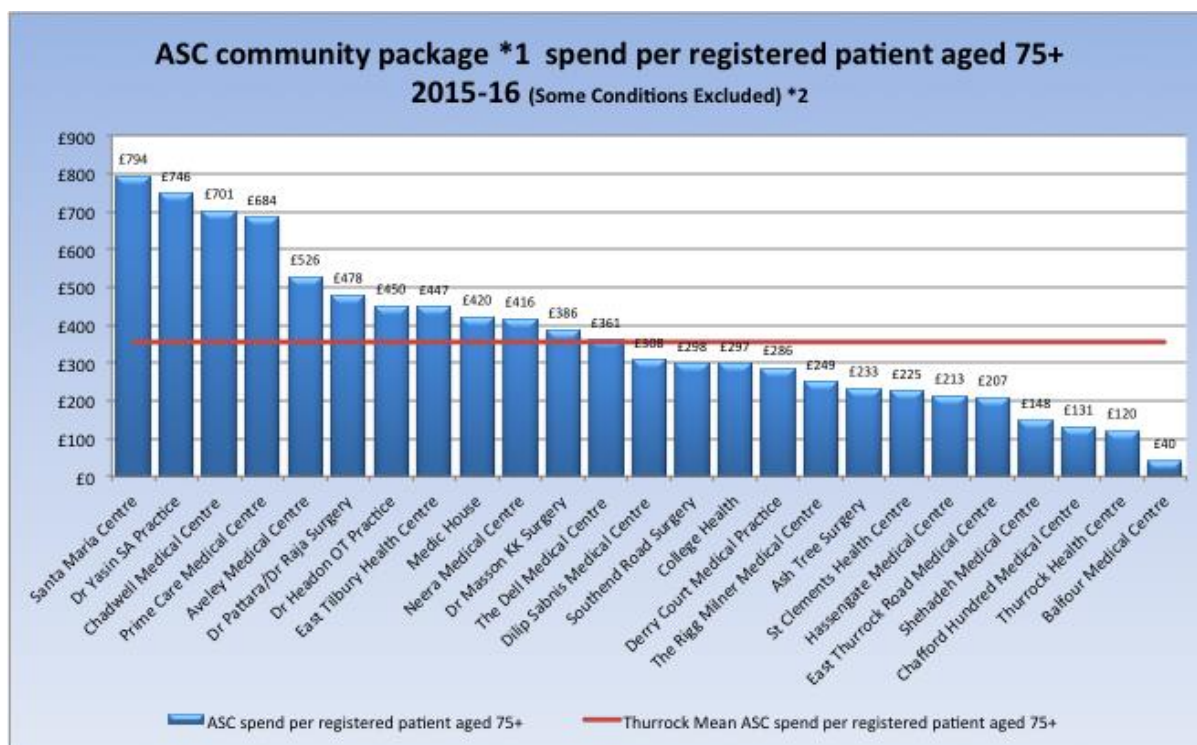
Figure 64 shows a surprisingly wide variation in ASC *Community Package *1* spend per head of practice population aged 75+. There is almost a 20 fold difference in spend between the practice population with the highest and lowest rate of spend.   Four practice populations aged 75+; Santa Maria Medical Centre; Dr. Yasin; Chadwell Medical Centre; Prime Care Medical Centre have rates of spend per head registered practice population aged 75+ that are 224%; 210%; 197% and 193% greater than the Thurrock mean spend of £355 per head of population aged 75+.   This would suggest a genuinely significantly greater level of ASC community need within the older populations of these practices than others in Thurrock, although the reasons for this are unclear and warrant further investigation.

Figure 65 shows the mean spend per ASC Community *1 package on patients aged 75+ receiving a community *1 ASC package. Unlike figure A, figure B demonstrates variation in the complexity of packages being provided to clients registered to Thurrock Council ASC and receiving care packages funded by Thurrock Council, by GP practice population.

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Figure 65 Mean spend per ASC community package *1 on patients aged 75+, 2015-16
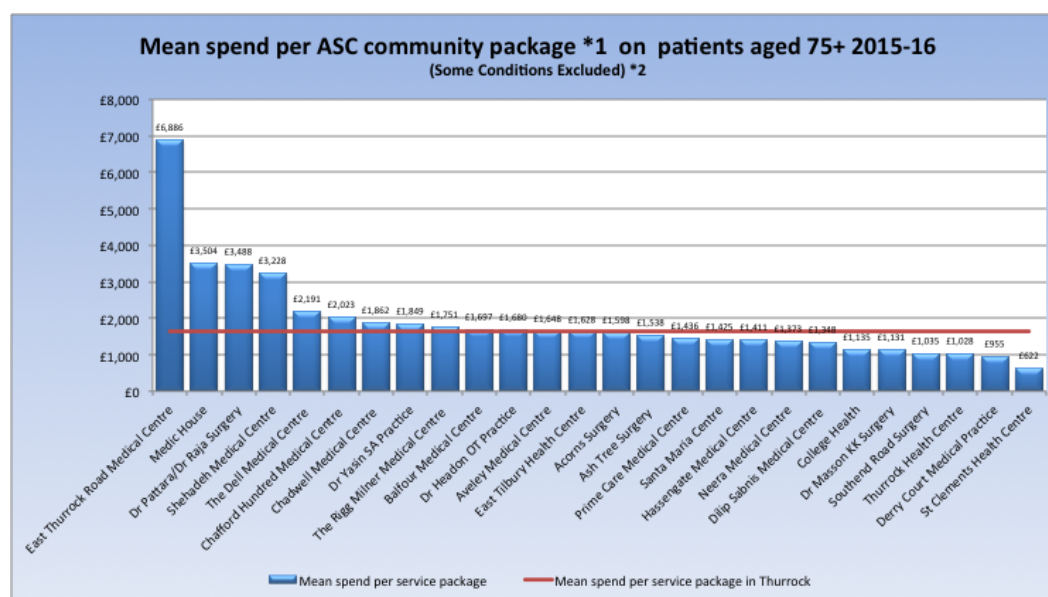
There is considerably less variation in mean spend per client at GP practice population level (figure B) than compared to spend per head of population aged 75+ (figure A). This suggests that GP practice populations of clients aged 75+ in receipt of ASC community packages *1 have a generally similar level of complexity. Four practice populations appear to be outliers; East Thurrock Road Medical Centre; Medic Housel Dr. Pattara/Dr. Raka and The Shehadeh Medical Centre. Patients aged 75+ in receipt of ASC community *1 packages registered to these practices appear to have more complex needs. The reasons for this are unclear and this may warrant further investigation.

6.3.1   ASSOCIATION BETWEEN UNDER DOCTORING AND ASC SPEND ON COMMUNITY *1 PACKAGES FOR THOSE AGED 75+

Continuity of Care within a GP practice (i.e. being able to see the same doctor for each consultation) for older people with long term conditions has already been identified as the single biggest factor in preventing unnecessary hospital admissions in this age group. ***INSERT REFERENCE. The issue of under-doctoring in Thurrock has already been discussed in section 1.1.2 of this report. Under-doctoring presents a major issue for both high quality primary care and continuity of care. Under-doctored practices have been shown to be more likely to employ locums making continuity of care less likely. More fundamentally it is likely to be more difficult for an older person to obtain a timely appointment to see any GP in an under-doctored practice.

Figure 66 shows the association between under-doctoring at GP practice population level in Thurrock and mean ASC Community Spend per patient aged 75+ registered to that practice (as a proxy of practice population ASC need).

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Figure 66 Association between ASC Community Spend *1 on patients aged 75+ and levels of under-doctoring at GP Practice Population level (2015-16)

Association between ASC Community Spend*1 on patients aged 75+ and levels of underdoctoring at GP practice population level (2015-16)

$y = 0.3927x + 1735.1$
$R^2 = 0.16635$
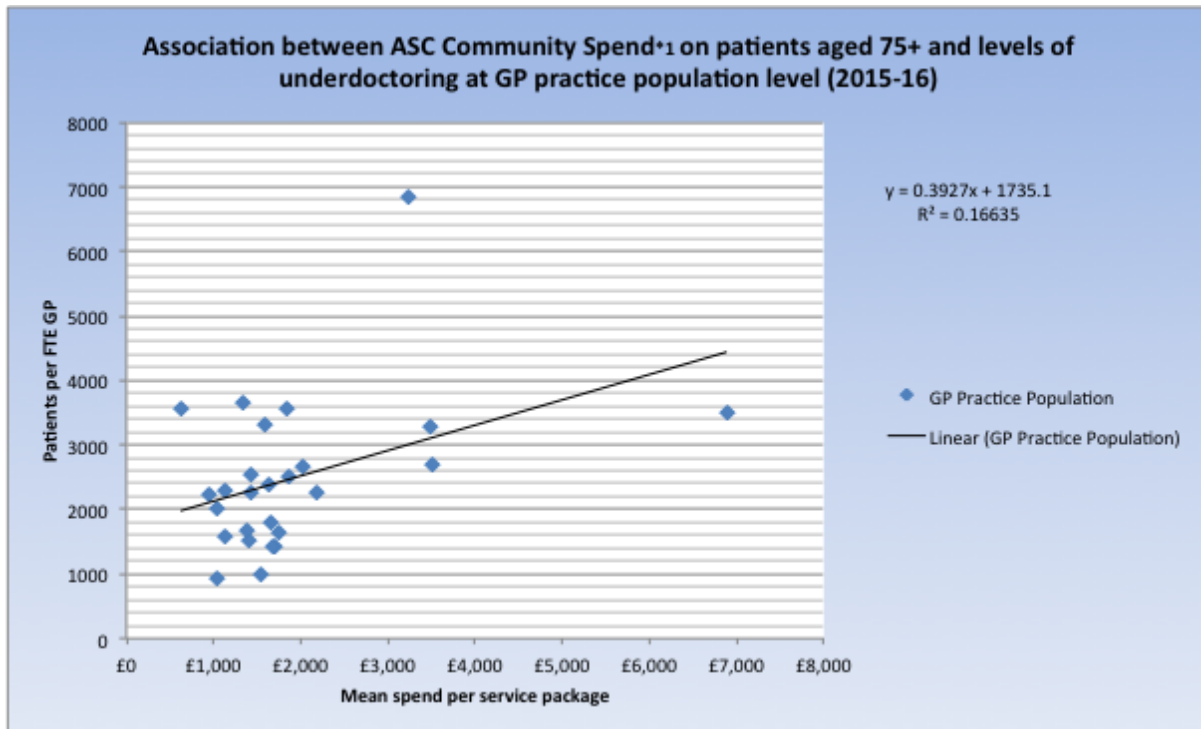
There is a clear positive association between levels of under-doctoring at GP practice level and mean ASC Community *1 spend per patient aged 75+ in the GP practice population. Almost 17% of the variation in ASC Community *1 spend per patient over 75 between different practice populations can be explained by levels of under-doctoring. This is a relatively strong association for a single variable although it is important to remember that association does not necessarily imply that under-doctoring is causing increased rates of ASC spend.

6.4   WHAT TYPE OF CARE IS BEING USED?

Figure 67 Number of New Package Starts by Primary Support Reason and Service Type, 2015-16
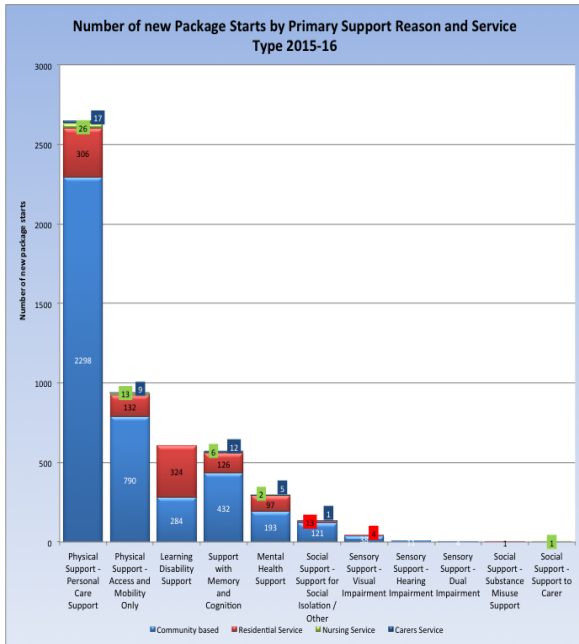
Figure 67 shows the Primary Support Reason recorded and service type for all new ASC Package starts in 2015-16. The most common Primary Support Reason for a new ASC package/service start in 2015-16 was Physical Support – Personal Care Support, followed by Physical Support – Access and Mobility Only.

The vast majority of services for both of these primary support reasons were provided within the community; 86.8% and 83.7% respectively (Figure 69).

The third most common reason for a new package start in 2015-16 was Learning Disability Support, but conversely Physical Support the majority of new package starts for LD were residential.

Figure 69 % Breakdown of Service Type for each Primary Support Reason for new ASC Package Starts in 2015-16
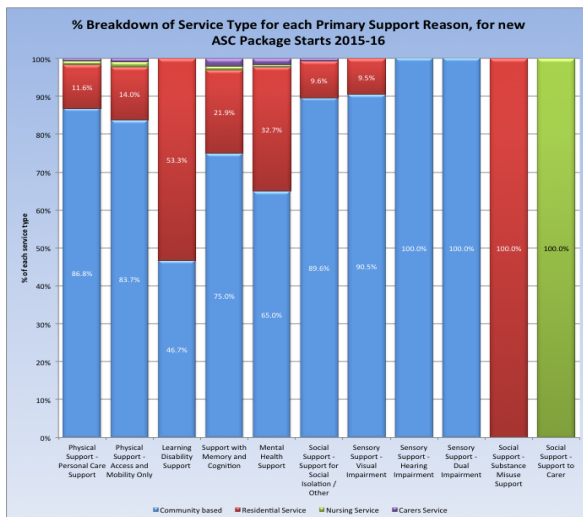
Figure 68 % Breakdown of Service Type for each Primary Support Reason, for all ASC Packages Provided in 2015-16
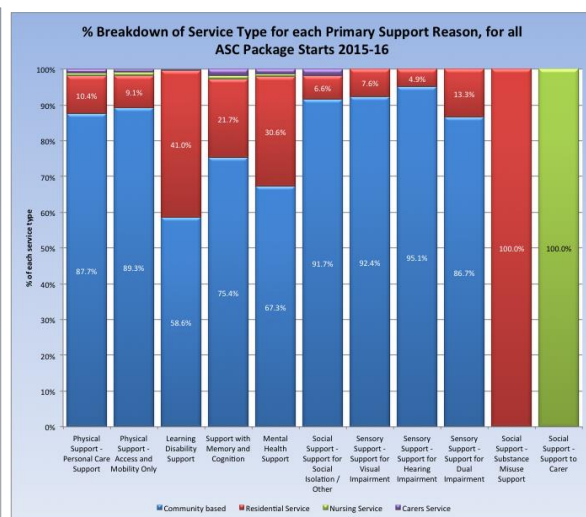
Figure 67 shows the proportion of all ASC package service types for each Primary Support reason. When comparing figure 69 to Figure 67 for three most common Primary Support Reason; Physical Support – Personal Care; Physical Support – Access and Mobility Only and Learning Disability Support, in 2015-16 the

ratio of residential: community services was greater for new package starts than for all packages (which would include historical on-going packages). This may suggest that the complexity of packages is increasing.

Compared to Physical Support, a significantly greater percentage of support to people with Learning Disabilities is provided in a residential setting (57%) as opposed to a community setting. This ratio has also increased when comparing new Learning Disability package starts in 2015/16 those that started before 2015/16.

6.5   WHAT CLINICAL CONDITIONS ARE LEADING TO ADULT SOCIAL CARE NEED IN THURROCK?

Whilst demand on ASC is a function of more than simply declining physical or mental health (for example breakdown of family carer ability may be the key underlying reason why a resident enters the care system), a level of physical or mental morbidity or decline or impairment is almost always one of the key underlying factors relating to need.

Understanding the most common physical or mental health problems that precede ASC need is key to our future plans to work further 'upstream' to reduce ASC demand.   Thurrock Social Care staff have the ability to record the underlying health condition that led to a new Package or Service, by selecting from a list of discrete options from a drop down menu in LAS.

Figure 70 shows the total number of ASC service packages in 2015-16 by underlying health condition, and figure Y shows the total cost of these packages by condition.

Figure 70: Recorded Conditions Leading to an ASC Package/Service in 2015-16

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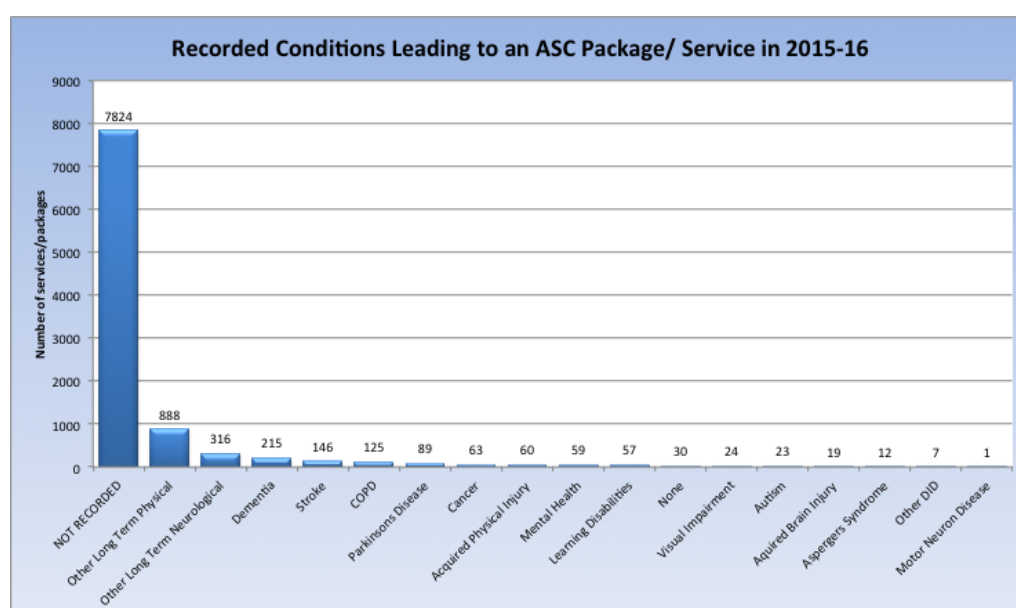
Figure 71 Total spend on ASC packages/services by recorded condition
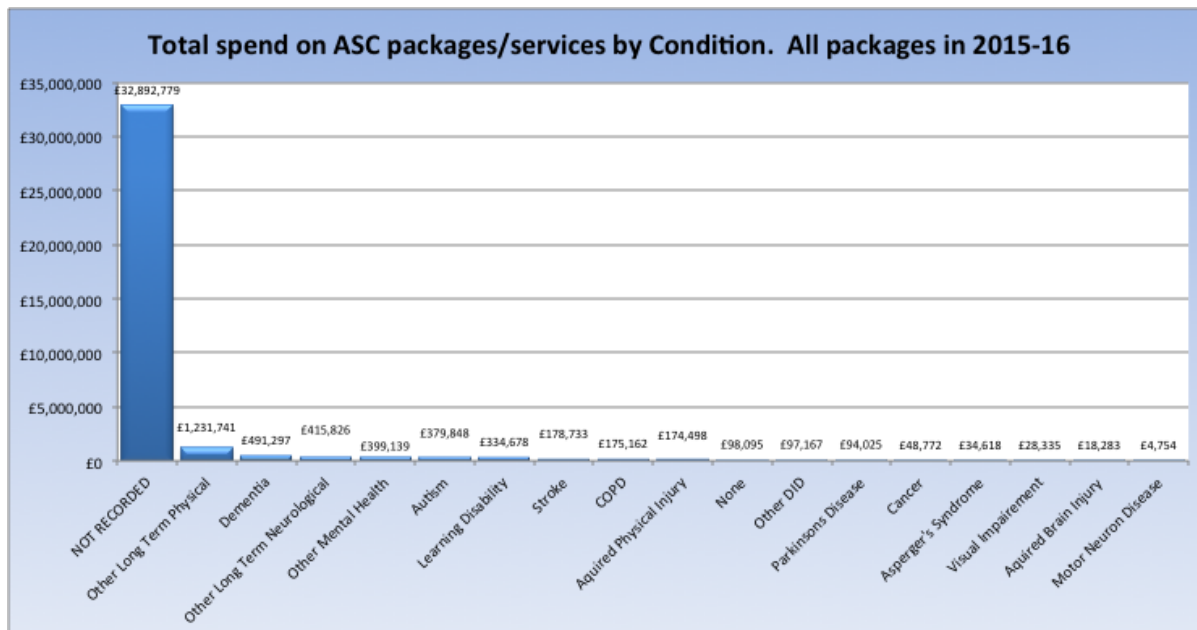
As both Figure 70 and Figure 71 show, there is extremely poor recording of the underlying health condition or impairment that has led to an ASC package or service being provided in 2015-16. Indeed Figure 71 shows that in the last financial year we spend £32.9M on ASC packages without a clear record the underlying physical or mental impairment or condition being recorded, and this included £8.56M for new package starts, (Figure 72) suggesting that the practice of not recording underlying health condition is current amongst our social care front line staff.

Figure 72 Total spend on ASC packages/services by condition for packages commencing in 2015-16

Source: LAS
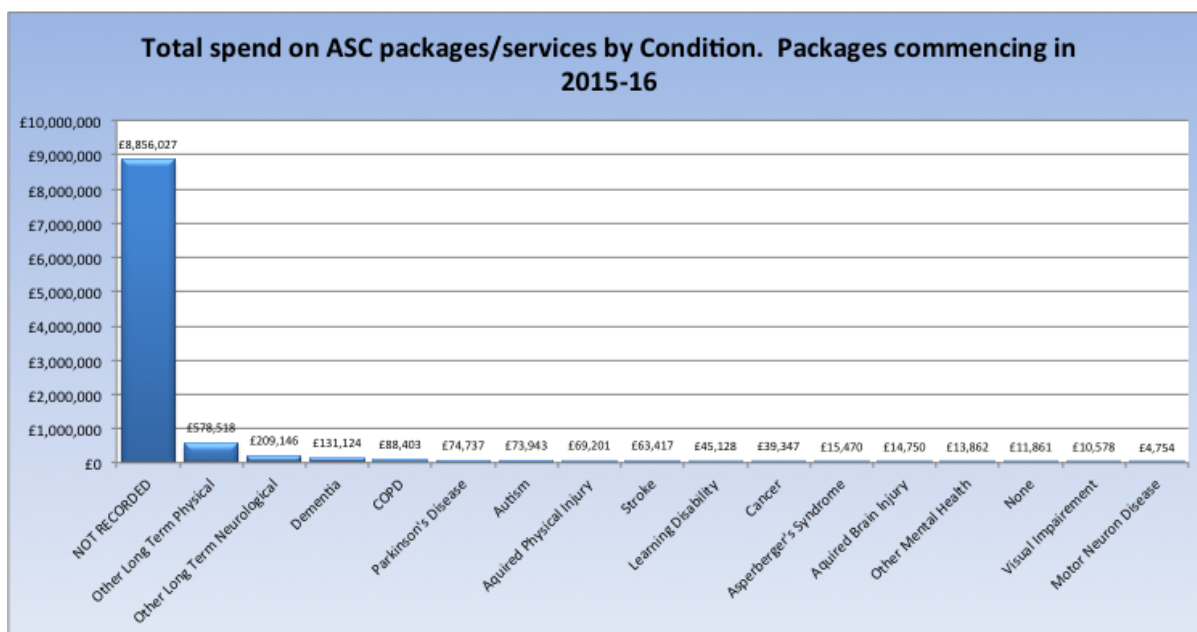
Furthermore, the next two most common categories in both numbers of services/packages and spend are "Other Long Term Physical" and "Other Long Term Neurological", which provided further specific detail of the health conditions underlying the ASC package. It is imperative moving forward that the Council ensures better recording of physical and mental health conditions underlying ASC package provision by front line Social Care Staff, if we are going to be able to target improvements in NHS clinical care pathways and long term conditions management for the conditions that are most likely to lead to future ASC demand.

In order to try and further understand the health conditions that precede entry into the local ASC system, further analyses were done on the Other Long Term Physical and Other Long Term Neurological categories. Some social care staff 'free text' a description of the health of the client in these two categories. Category analysis was undertaken on the free text 'health details' field and a description of any health condition coded. The results of this analysis are shown in Figure 73

Figure 73 Clinical Diagnoses (where recorded) of New ASC Package Starts for Clients Recorded in the Long Term Physical Disability Category (2015-16)
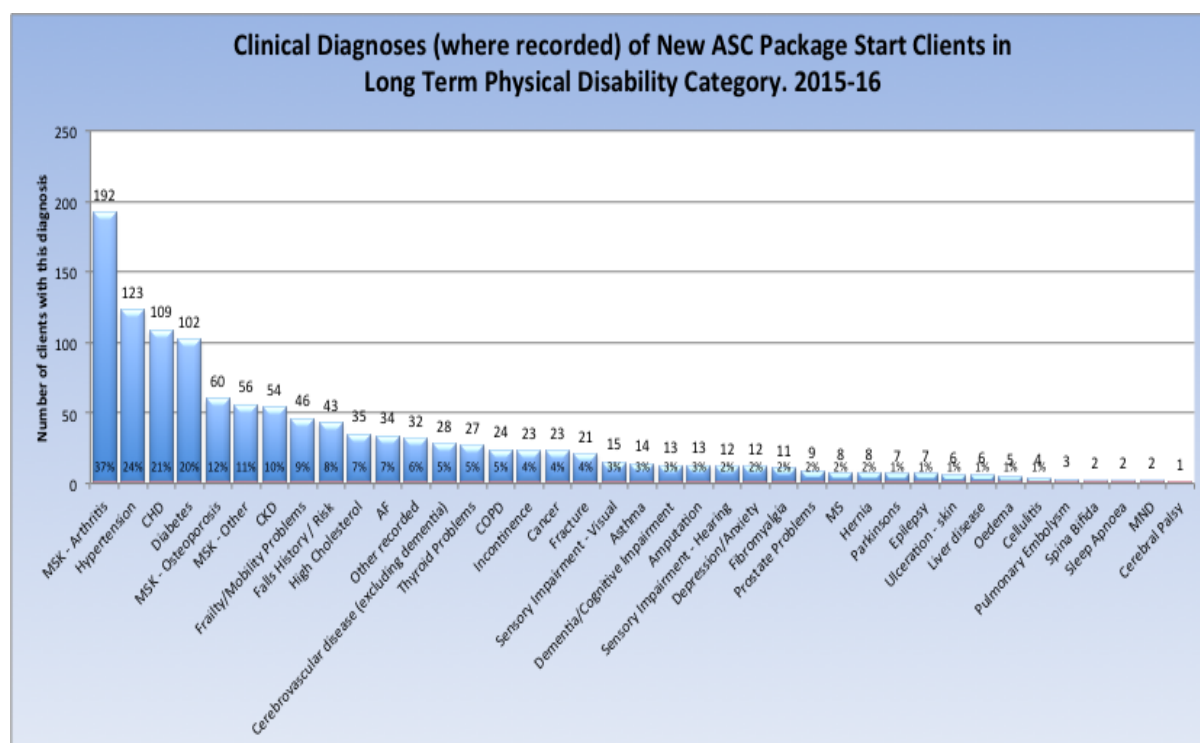
It is important to note that Figure 73 counts diagnoses and not clients. The majority of clients had more than one clinical condition free text recorded in their 'health details' field. It is also worth noting that we cannot be sure what impact each clinical diagnosis had on the decision to provide an ASC package to the client. For example a client may have Hypertension, Diabetes and Incontinence, but if the hypertension and diabetes are well controlled, the demand for care may have been a result purely of the incontinence.

Remembering the above caveats, Muscular Skeletal Problems – Arthritis, Osteoporosis and MSK (other) if combined are by far the most common clinical diagnosis recorded in the Long Term Physical 'Other' category. It is highly likely that these conditions are playing at least some part in entry into the ASC system for a significant number of clients. This warrants further investigation particularly in terms of the quality of

NHS services commissioned to treat MSK, and in terms of primary, secondary and tertiary MSK prevention initiatives.

It is also worth noting a significant proportion of the diagnoses are for conditions that are largely preventable, and controllable with good clinical management. These include Hypertension, CHD, Diabetes, Chronic Kidney Disease, Falls, High Cholesterol, Atrial Fibrillation and COPD. Improving the case finding and clinical management of these conditions and (in the medium term) investing in Primary Prevention initiatives such to assist people to improve lifestyle behaviour is likely to have a positive impact on reducing demand of ASC conditions.

Figure 74 shows the same category analyses on the free text 'health details' field as in Figure A, but for clients with new ASC packages/services categorised as "Long Term Neurological".

Figure 74 Number and % of Clients Categorised as "Long Term Neurological" with a ASC Package Start in 2015-16 by existing recorded clinical conditions
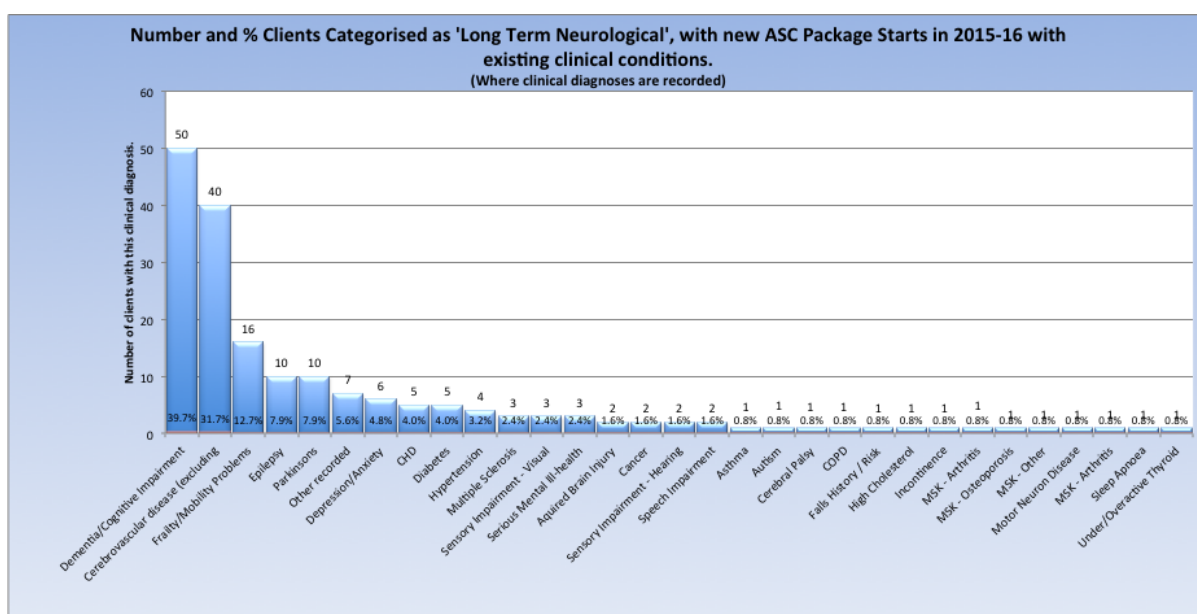
Cerebrovascular disease (excluding dementia) was the second most common clinical diagnosis recorded for this category. Again, this clinical diagnosis refers to a group of health events that are largely preventable and respond well to good clinical management if diagnosed early.   This is further evidence that programmes to increase hypertension case finding, improve the management of hypertension and prevent strokes will reduce demand on ASC.

6.6   CLIENT 'FLOW' BETWEEN YEARS AND ACROSS SERVICE PACKAGES. LINKING ACTIVITY TO COST.

Understanding how clients enter and leave the ASC system locally, and how their needs increase or decrease whilst in it, is absolutely key if successful demand management programmes are to be developed. Similarly being able to link service package numbers and type (activity) to cost across the cohorts of people to whom the council provides ASC services and packages is vital.

There is much more work that needs to be undertaken to generate a clear picture of the 'client journey' through our commissioned and provided ASC services. The DPH has commenced this work by building a client flow modeller that links activity to cost for all ages, and clients aged 75+ for different service categories.

There are too many iterations of output from the modeller to include all within this report, but an example is given below in Figure 75

Figure 75: Output from Public Health Team ASC Service Package Flow Modeller
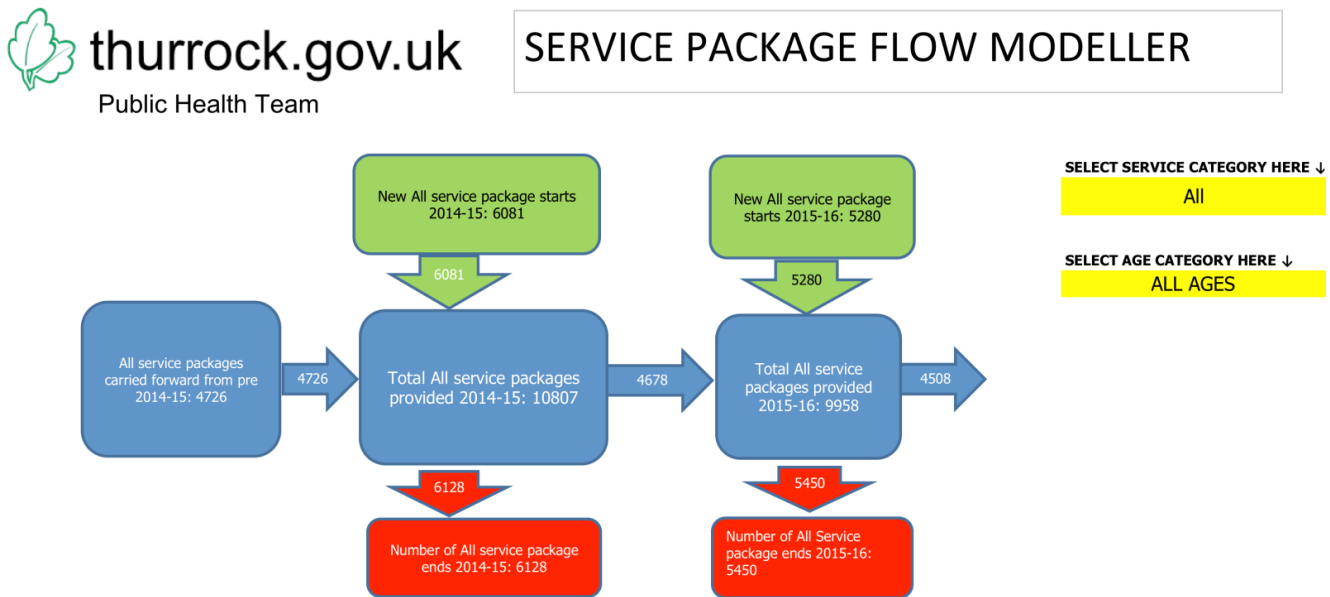
Figure 75 above shows the total number of ASC packages being carried forward from pre 2014-15 through to 2016-17, the total being provided in 2014-15 and 2015-16 and the total new package starts and package ends in 2014-15 and 2015-16. It demonstrates that there were fewer total ASC packages starting, ending and being provided in 2015-16 compared to 2014-15. This can also be shown in Figure 76 from the modeller.

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Figure 76 Number of ASC Service Packages 2014 to 2016 for Clients of all ages
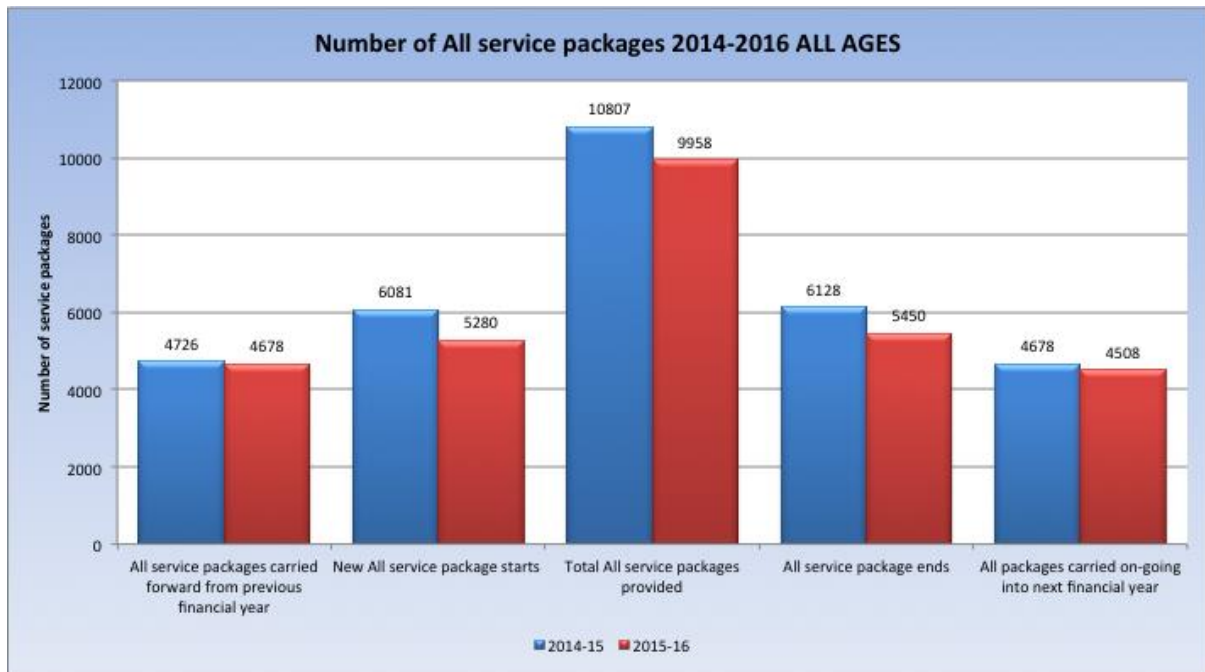
Conversely, the mean cost of each service/package in 2015-16 was slightly greater than in 2014-15 across all Service Packages. (Figure 77)

Figure 77 Mean cost per service package for all ASC Packages/Services from 2014-2016 for all ages of client
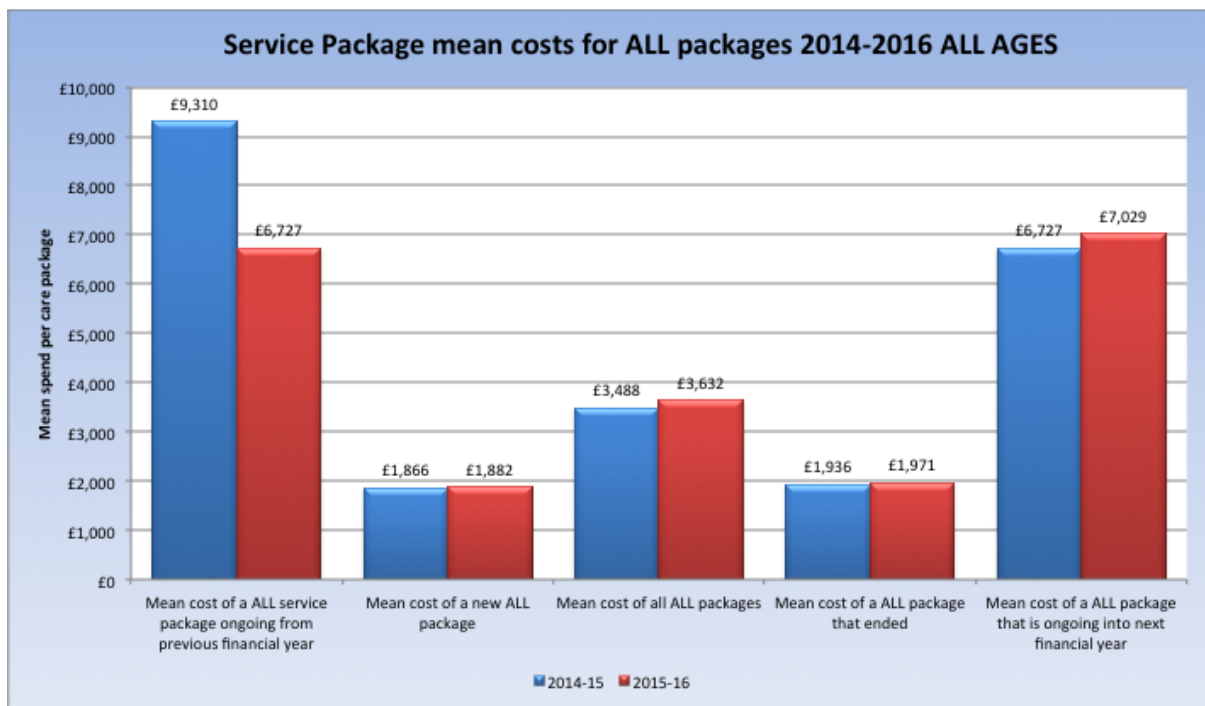
As a result, this total ASC spend across all packages in 2015-16 increased compared to 2014-15, even though fewer packages/services were provided. (

Figure 78)

Figure 78: Total spend on all ASC packages from 2014 to 2016 for all ages of client

Figure 78: Total spend on all ASC packages from 2014 to 2016 for all ages of client
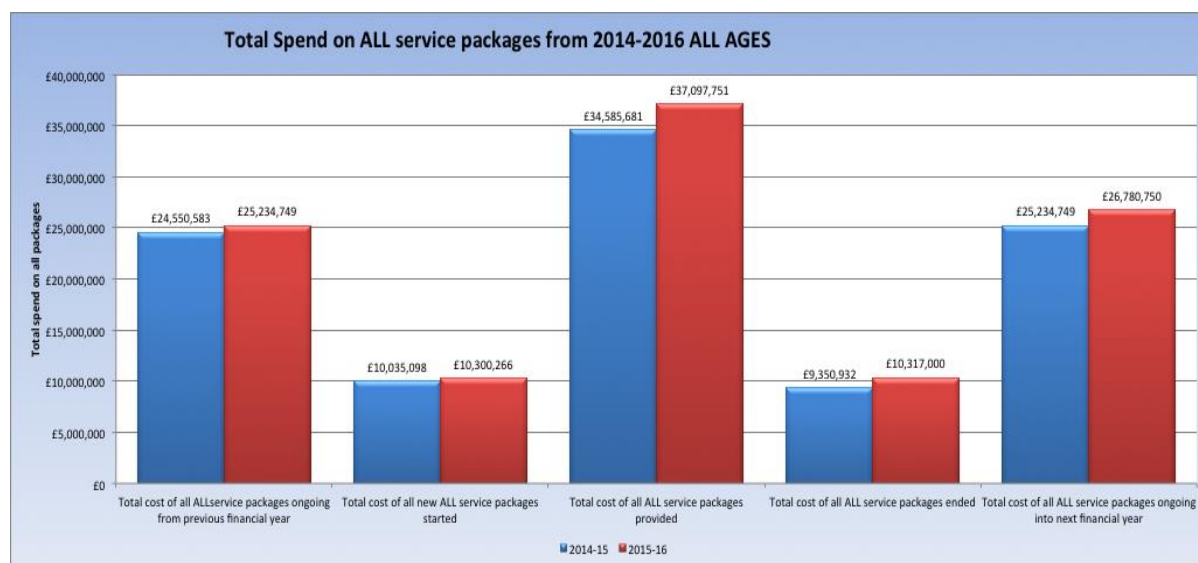
Similar patterns can be observed in Residential and Homecare Service Package Categories for clients aged 75+. In both cases, the total number of Homecare or Residential Care Packages falls from 2014-15 to 2015-16, suggesting that either some of the prevention/early intervention work undertaken/commissioned by the ASC Teams, and/or diverting or rationing care is being effective in reducing the number of packages. However, the mean cost of each care package increases from 2014-15 to 2015-16 in both Homecare and Residential Care, suggesting that complexity of care packages is increasing. The impact of this may be masked by additional efforts to procure more cost efficient services. The overall impact in both service categories is an overall increase in spend.

The ASC Client Flow Cost Modeller Can be Accessed Here *** INSERT HYPERLINK

6.7 THE RAPID RESPONSE ASSESSMENT SERVICE

The Rapid Response Assessment Service (RRAS) is an integrated joint health and social care team which provides rapid response and assessment for people in crisis and went live in April 2012. RRAS co-ordinates and redirects care to the appropriate intermediate provider or service. The RRAS was developed following the success of the Thurrock Rapid Response Duty pilot with the aim to respond to service users who needed to be seen within four days to prevent the situation reaching crisis and also respond when they are in crisis. The pilot identified the need for urgent social care support outside of the usual ways of working and dedicated health care input. The team does not hold a caseload and is therefore able to rapidly respond to crisis intervention calls.

6.7.1   REFERRALS

There were 3,462 referrals received to the RRAS in 2015/16, which is a 1.7% increase on the previous year. 64% of these were female and 36% were male. 89% of all referrals received were for those over the age of 65 years. The table below depicts the primary client group (where known on the system) for those referred in both 2014/15 and 2015/16, and it can be seen that the most common client group is frailty, followed by physical disability.

Table 35: Primary Client Group for RRAS referrals, 2014/15 and 2015/16

Primary Client Group	2014/15	2015/16
Carer	15	7
Dementia	136	93
Dual Sensory Loss	0	2
Frailty/Illness	1494	1802
Hearing Impairment	13	28
Learning Disability	31	23
Mental Health	24	20
Other Vulnerable People	21	17
Physical Disability	267	296
Substance Misuse	6	4
Visual Impairment	7	6
Unknown	1390	1164
Total	3404	3462

Source: Thurrock Council Performance Report

The most predominant referral routes into the service were GP's (19% - 658 referrals), Family/Friends/Neighbours (18% - 628 referrals) or Self referrals (16% - 539 referrals). Self-referrals saw a large increase between 2014/15 and 2015/16 – from 433 in 2014/15 to 539 in 2015/16. Large proportional increases can also be seen in referrals from Family/Friends/Neighbours – from 508 to 628, perhaps suggesting an increased awareness around the service.

Table 36: Referral route for RRAS referrals, 2014/15 and 2015/16

Referral Route	2014/15	2015/16
Care Provider/agency	344	394
Carer	13	38
CST	197	162
East of England Ambulance	92	98
Family/Friend/Neighbour	508	628
GP	652	658
Internal (RRAS)	61	35
NELFT	387	359
Out Of Hours services	264	178
Other	24	29
Self	433	539
SEPT	0	2
Social Care	149	167
Voluntary Organisations	4	2
Unknown	276	173
Total	3404	3462

Source: Thurrock Council Performance Report

The primary reason for referral was for short term health conditions (51% - 1770 referrals). A further 19% (673) had long term health conditions. Again this was the same for last year (48% short term health conditions, 15% long term health conditions). There was a 34.5% reduction between 2014/15 and 2015/16 in the number of referrals with an unknown reason, which is positive to see as it enables a better understanding of the reasons the service is being requested.

Table 37: Referral reason for RRAS referrals, 2014/15 and 2015/16

Referral Reason	2014/15	2015/16
Carer Breakdown	37	28
Dementia	50	14
Discharge from Hospital	6	12
End of Life	2	3
Equipment/Adaptation	55	74
Falls	24	14
Long Term Conditions - Health	515	673
Malnutrition	16	9
Medication	47	47
Mental Health	14	2
Mobility	33	18
Review	3	0
Safeguarding	4	0
Social Care Package	238	279
Social/Welfare check	421	320
Short Term Conditions - Health	1635	1770
Unknown	304	199
Total	3404	3462

Source: Thurrock Council Performance Report

46% of referrals in 2015/16 were repeat referrals in the year which is a 2% increase from last year.

6.7.2 ASSESSMENTS

There were 2,632 assessment visits in 2015/16, which is a 2.7% increase on the previous year. This equates to 76.02% of those referred having an assessment.

3.0% of service users receiving an assessment resulted in an immediate admission to hospital; this is a 0.2% decrease from last year and is 4% under the target. Of those aged 65+ 2.3% had an immediate admission to hospital, which is a 0.6% decrease from last year.

830 referrals in 15/16 did not go on to receive an assessment/visit; the reasons for these are listed in the table below. It can be seen that the majority of these were resolved by telephone or no visit was needed (505), and a large number were also redirected (226). The top three services that service users were redirected to were GPs (38), Locality Social Workers (34) and District Nurses (33).

Table 38: Reasons that no assessment was carried out

Reason for No Assessment	Number of service users
Admitted to hospital prior to visit	75
Deceased	1
Declined visit	5
Inappropriate Referral	10
No response	8
Resolved by telephone/no visit needed	505
Redirected	226
Total	830

Source: Thurrock Council Performance Report

6.7.3 WHAT ARE THE OPPORTUNITIES?

An evaluation of the RRAS was commissioned and completed in 2014. Recommendations centred on the following themes:

1) Technical improvements to recording data
2) Joint working and team dynamics
3) Raising awareness
4) Pathway development

6.7.4 WHAT ARE THE POTENTIAL IMPACTS?

Whilst it is not possible to track the subsequent outcome of each patient through the system, some population-level analyses can be undertaken to consider if the RRAS could be a contributor to the variation seen in other health and care services. The figure below shows the 658 referrals received in 2015/16 by the RRAS at GP level, depicted as a rate per practice population aged 65+ (as the majority of the referrals were for patients in this age group). The range in referral activity is quite vast, with two practices referring no patients, and two practices having a referral rate of over 165 per 1,000 patients aged 65+. The Thurrock average is 27.69. A point of interest observed from the variation in referral activity is that the majority of practices in the Tilbury locality have low referral rates, whilst the majority of the South Ockendon practices have high referral rates. This variation could also be explained by differing levels of awareness of service criteria.
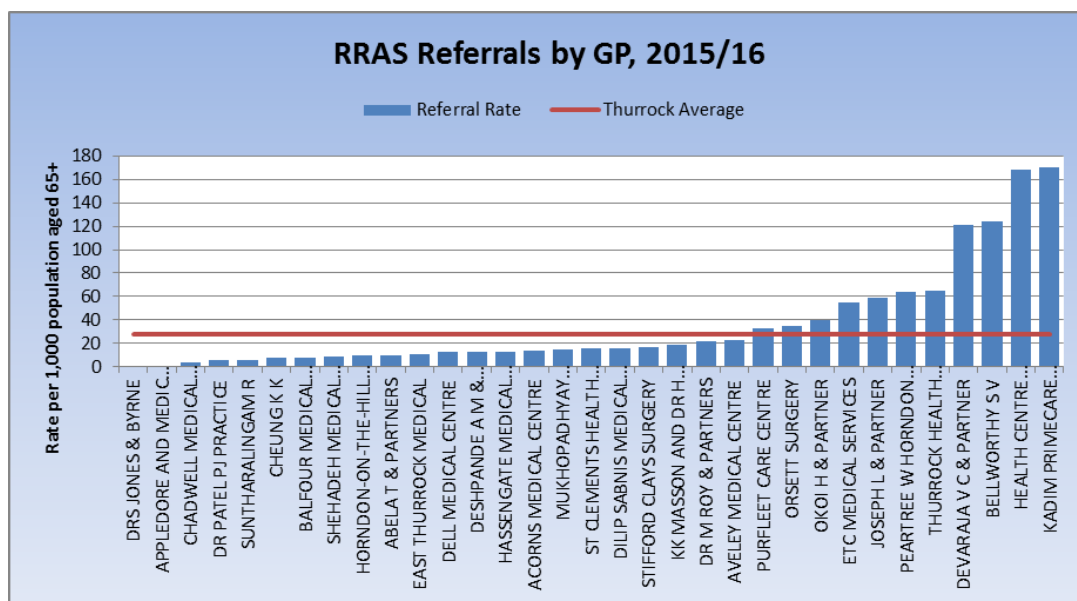
Source: Thurrock Council and HSCIC GP Population figures, April 2015

Another point of interest is that many of the GPs with low referral rates to the RRAS also have some poorer levels of long term conditions management (see practice-level analysis in Appendix X) – examples include Dr Patel/Sai Medical Centre, Chadwell Medical Centre and Dr Suntharalingham.

Subjective avoidance (in opinion of RRAS worker)

RRAS workers are asked to record the services which – in their opinion, the intervention of RRAS had prevented the service user requiring in the future. Whilst the below data is subjective, it does give an indication on the perceived needs of the service users and can offer one potential way to quantify costs saved due to the service being in place. For both 2014/15 and 2015/16, the largest proportion of service users were viewed to have required home care if RRAS had not been in place (43.52% in 2014/15 and 53.61% in 2015/16). Emergency Respite Care was the second most common category of package avoided, with 26.42% of service users in 2014/15 and 17.59% of those in 2015/16 estimated to have required this. For both years, less than 5% of all RRAS users would have required no package without RRAS – this equates to 126 service users in 2014/15 or 127 in 2015/16.

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Figure 80: Potentially-avoided social care services by type

Potential Social Care Services avoided, 2014/15 and 2015/16

■ 2014/15 ■ 2015/16
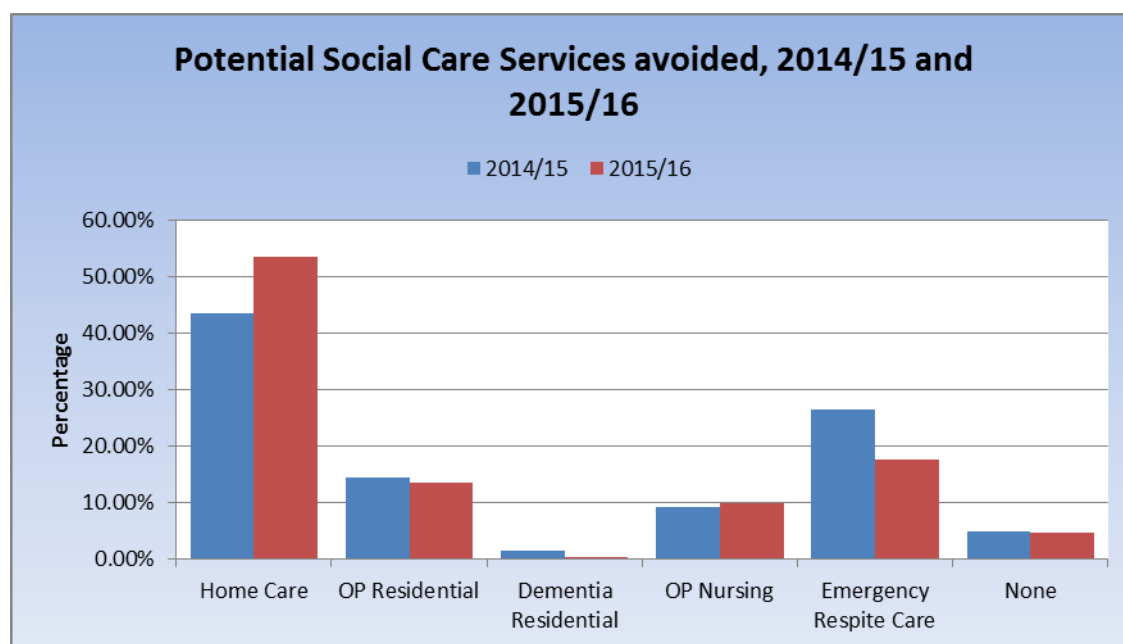
Source: Thurrock Council Performance Report

Using the data gained from Adult Social Care package costs, the unit costs per social care package were quantified as:

- Home care - £128.55 per week
- OP residential care - £517.39 per week
- OP nursing care - £606 per week

[It should be noted that upon comparing these costs to data from the Personal Social Services Research Unit 2015[v], Thurrock's costs were much lower [PSSRU costs were £178, £595 and £621 per week respectively]

Applying the numbers of service users estimated to avoid each service in 2015/16 would generate savings of **£524,081** on the proviso that each service user classified would definitely have used the listed service. It should be noted that the true savings are likely to be higher, as reliable weekly estimates were not found for dementia residential care or emergency respite care due to the varying nature of the care required at different levels of need.

Table 39: Costs of potentially-avoided social care packages

Service	Mean cost	Frequency	Number of service users	Cost per week
OP Nursing (private)	£606	Week	259	£156,954
OP Residential (private)	£517.39	Week	359	£185,743
Home Care	£128.55	Week	1411	£181,384
Total				£524,081

Source: Thurrock Council Performance Report and the Unit Costs of Health and Social Care, 2015

6.8   SUMMARY: Adult Social Care

SUMMARY: Adult Social Care (continued)

6.9 RECOMMENDATIONS: ADULT SOCIAL CARE

Required Outcome	Mechanisms to achieve the outcome	Recommendations
Reduce demand for new Community ASC packages	- Ensure that the Living Well In Thurrock programme of prevention and early intervention is targeted at the most effective populations	- Direct prevention and early intervention programmes at the population aged 60 plus - Prioritise additional prevention and early intervention programme activity in Grays Thurrock, Stifford Clays, Standford East and Corringham and Chadwell St. Mary wards to maximise impact
	- Increase understanding of the fundamental local drivers of ASC need in Thurrock	- Undertake further analyses to ascertain why the older population of Grays Thurrock, Stifford Clays and Grays Riverside have a significantly greater need for ASC compared to older people living in other parts of the borough. - Undertake further analyses to ascertain why older people registered to Santa Maria Medical Centre, Dr. Yasin's Practice, Chadwell St. Mary MC and Primecare Medical Centre appear to have a significantly greater need for ASC community care packages when compared to older people registered at other GP practices across the borough - Review the effectiveness of local MSK commissioned health services - Improve recording practice by front line ASC staff on the LAS system wrt underlying reasons why a care package is initiated, clinical conditions of the clients involved and the GP practice that the client is registered to
	- Address under doctoring in GP Practices in Thurrock	- Implement the recommendations as set out in sections 3.9 7.9
	- Improve community capacity in order to assist older people to remain independent for longer	- Implement (or continue to implement) the programmes set out in section 7.1, 7.3 and 7.8
Reduce the demand for residential care	- Increase the percentage of clients with Learning Disabilities supported within the Community	- Implement the proposed programmes to support clients with LD within the community including *Shared Lives; Medina Road Supported Living* and *Sheltered Housing Support* - Consider further review of the current service model
	- Reduce the number of older people entering residential care	- Implement the Depression Screening Programme as set out in the Thurrock Health and Wellbeing Strategy 2016-21 - Target prevention and early intervention support at clients from their early 70s onwards - Implement the recommendations set out in sections 7.1, 7.3 and 7.8

Section 7   HOW CAN WE MITIGATE THESE IMPACTS?

This final section considers the latest evidence base relating to interventions that reduce demand on the health and social care system and ameliorate some of the negative impacts discussed in the previous six sections.

This final section discusses:

- Self-care
- Prevention
- Primary Care
- Social Care

7.1   SELF-CARE

7.1.1 INTRODUCTION

There is a large body of information to indicate that encouraging patients to self-care where possible increases a patient's sense of empowerment and control over their health, and can lead to generally healthier behaviours that prevent future ill-health. This also results in a reduction in unnecessary use of health services, meaning the system can provide support to those that need it most.

Research commissioned by the Patient Information Forum[vi] looked at the benefits of providing patients with high quality information to support them in managing their health. Some of their key quantifiable findings included:

• *Making greater use of e-communication channels could deliver very substantial capacity savings in primary care* - One analysis suggests that if 10% of GP attendances for minor ailments could be avoided through online self-care advice, annual savings would be around £830m.

• *Increasing the self-management of long-term conditions can yield significant returns on investment* - The management of long-term conditions accounts for 70% of total health spending. Evidence from the Expert Patients Programme found that 50% of participants reported having subsequently made fewer GP visits, while 35% reported having reduced their medications. Overall, for an investment cost of £400 per attendee, the research estimated an average net saving of £1,800 per chronically ill patient per year.

• *Actively engaged patients incur lower costs* - Evidence from the United States shows that more active participants in treatment decisions and self-management incur significant lower costs, overall and for different long-term conditions. More actively engaged patients are also less likely to experience a medical error or be readmitted within 30 days of discharge. A study for the Commonwealth Fund found the cost of health care to be 21% higher for the least engaged patients than for the most engaged.

Community-Centred Approaches

7.1.2 What works?

Communities play a key role in improving health and wellbeing. One aspect where this is well-known to be the case is the benefit of good social relationships on mental health - evidence reviewed in a recent Public Health England report[vii] found that communities 'with strong social relationships are likely to remain alive longer than similar individuals with poor social relations', with a 50% increase in odds of survival over an average follow-up of 7.5 years when integration in social networks, supportive social interactions and perceived social support were examined. Loneliness itself has a range of impacts on health, with lonely individuals more likely to undertake unhealthy lifestyle behaviours (e.g. poor diet which could potentially lead to obesity), have an increased risk of developing dementia or depression, and are less likely to maintain independence in later life.[viii]

Community-centred approaches draw on community assets, are non-clinical and go beyond using a community as a setting for health improvement. The table below captures the range of potential outcomes experienced from these approaches:

Table 40: Potential outcomes from community-centred approaches

Individual	Community level	Community process	Organisational
Health literacy – increased knowledge, awareness, skills, capabilities	Social capital – social networks, community cohesion, sense of belonging, trust	Community leadership – collaborative working, community mobilisation/coalitions	Public health intelligence
			Changes in policy
			Re-designed services
Behaviour change – healthy lifestyles, reduction of risky behaviours	Community resilience	Representation and advocacy	
	Changes in physical, social and economic environment	Civic engagement – volunteering, voting, civic associations, participation of groups at risk of exclusion	Service use – reach, uptake of screening and preventive services
Self-efficacy, self-esteem, confidence			
Self-management	Increased community resources – including funding		Improved access to health and care services, appropriate use of services, culturally relevant services
Social relationships – social support, reduction of social isolation			
Wellbeing – quality of life, subjective and objective wellbeing			
Health status physical and mental			
Personal development – life skills, employment, education			

Source: Public Health England, 2015

Evidence behind each of these is varied, although there are some reviews that show quantifiable cost benefits. Volunteering for example has been estimated to be worth around £13,500 per person per year in its effects to the wellbeing of each volunteer.[ix] Social Return on Investment calculations have estimated a return on investment of £2.16 for every £1 invested in community development approaches[x].

Locating a range of services together in community hubs at the heart of a population enables support to be directed towards those most likely to benefit most. It is likely to reduce inequalities that may be experienced due to lack of access, and promote individuals to support each other, encouraging community resilience and empowerment.

7.1.3   WHAT IS CURRENTLY HAPPENING IN THURROCK

COMMUNITY HUBS

Community Hubs are run by the local community in partnership with a range of organisations including Thurrock Council. There are currently five Community Hubs in South Ockendon, Chadwell St Mary, Stifford Clays/Blackshots, Tilbury and Aveley, with work in progress to open one in Purfleet later in 2016. The priorities for each Hub are determined according to local need, meaning their activities are varied. Examples of hub activities include:

- Support and advice for residents to self-serve for information, both via face-to-face and web-based support
- Increasing volunteering opportunities
- Hosting groups to encourage cohesion and reduce isolation such as craft groups
- Hosting groups to improve health and wellbeing (e.g. fitness classes)
- Facilitating meeting opportunities for residents with public sector staff (e.g. Local Area Coordinators)
- Community gardens

Current data on users of the hubs is limited at present; however investment has been made into a borough-wide database for all hubs to record activity in order to better quantify their use and effectiveness. The most established hub is South Ockendon, and footfall figures have recorded an average of 10,311 visitors per month between April-June 2016, with this centre including a library service, Local Area Coordination, and a base for housing staff and Department for Work and Pension staff. Community feedback to date has been very positive with residents, ward councillors and professionals providing good comments back to the Stronger Together partnership who oversee the Hubs programme. One volunteer in Tilbury summed this up by saying 'people come in full of concern, and leave after talking over a cup of tea empowered to face anything'. Analysis of the volunteers data indicates there is a mixed demographic across age, gender, disability and ethnicity reflected in the volunteer base.

LOCAL AREA COORDINATION

Local Area Coordinators (LACs) are in place to support with building community capacity; developing and updating asset lists (activities and clubs); identifying gaps, opportunities and trends in the community; encouraging the use of voluntary organisations; enhance knowledge of community responses to replace services including micro –enterprise; maintain visibility within the community, holding a presence/making presence known in the community (working in places which include community hub, GP surgeries, children centres, village halls, cafes/pubs, health centres, schools, voluntary organisation, faith groups, libraries).

Currently there are nine Local Area Co-ordinators working with Thurrock, who each have an allocated area to co-ordinate as shown in the map below.

Figure 81: Map of LAC areas, 2016
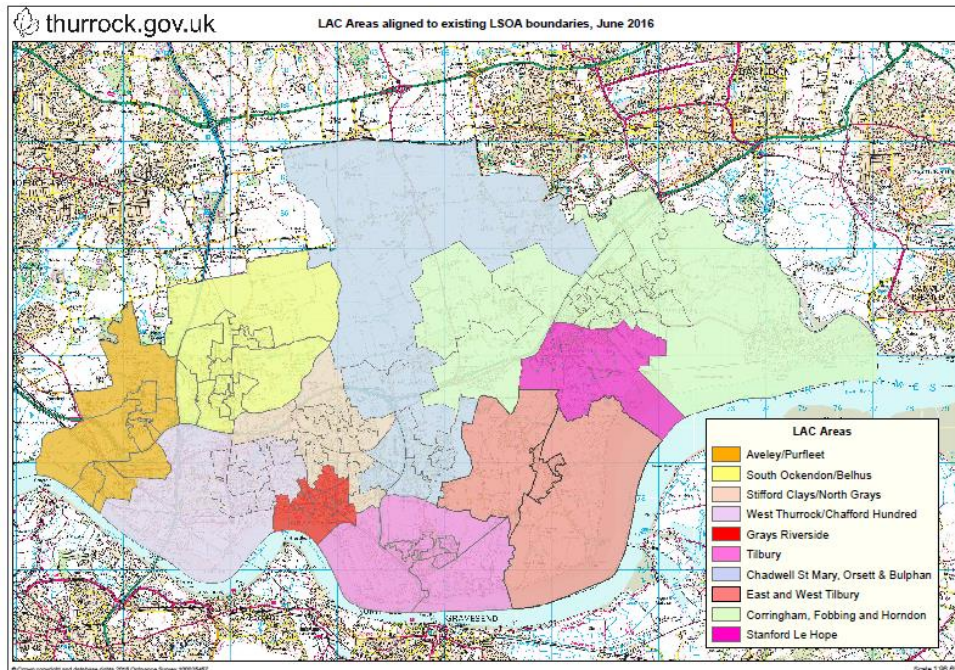
Source: Thurrock Council

Within Thurrock our Local Area Co-ordinators Service is supported by a partnership between:

- Thurrock Council for Voluntary Service
- Thurrock Health watch
- Thurrock Council's Adult Social Care, Housing & Public Health teams
- Essex County Fire and Rescue Service
- North East London Foundation Trust (provides community health services)
- South Essex Partnership Foundation Trust (provide services for mental health problems)
- Thurrock Clinical Commissioning Group (work with the Council to commission services to promote health and well-being).

Out of 1,066 initial contacts, 588 Thurrock residents were referred and introduced to the service in 2015. Some of those initial contacts may not have progressed to referrals where the LAC was unable to re-contact or arrange an outcomes service for the individual. The Age Bands of the users is detailed in the table below.

Age Ranges

Age Bands	Count of Persons
0-18 years	2
18-35 years	112
36-55 years	182
56-75 years	241
76+ years	252

Source: Thurrock Council

Geographically there is higher usage of the LACs within the Stanford le Hope, Corringham, Fobbing and Horndon on the Hill Locality with 18.97% and Aveley/Purfleet the lowest with 5.44%, as shown below in the table. There will also be a new Community Hub opening within Purfleet.

Locality Usage

Table 42: LAC usage by area, 2015

Locality/Ward	Persons Total	Locality Usage (%)	% of Locality who presented as a Older Person
Stanford le Hope, Corringham, Fobbing and Horndon on the Hill	108	18.37%	39%
Blackshots, Little Thurrock, North Grays, Stifford Clays	82	13.95%	57%
South Ockendon, Belhus Ward	75	12.76%	13%
Chadwell St Mary/Orsett/Bulphan	68	11.56%	38%
Tilbury	63	10.71%	29%
West Thurrock, Chafford Hundred, North/South Stifford	54	9.18%	26%
East Tilbury	53	9.01%	19%
Grays Riverside	53	9.01%	32%
Aveley/Purfleet	32	5.44%	44%
Total	588	100%	

Source: Thurrock Council

Within 2015 the main referral source into the LAC service was via Adult Social Care with 44%, followed by the Community (Inc. Family, Police, Friends and the Individual) (12%) then Housing (11%), Mental Health (10%) and Other HP/GP (9%) as the referral source, detailed in the chart below.

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Figure 82: Referrers into LAC service, 2015
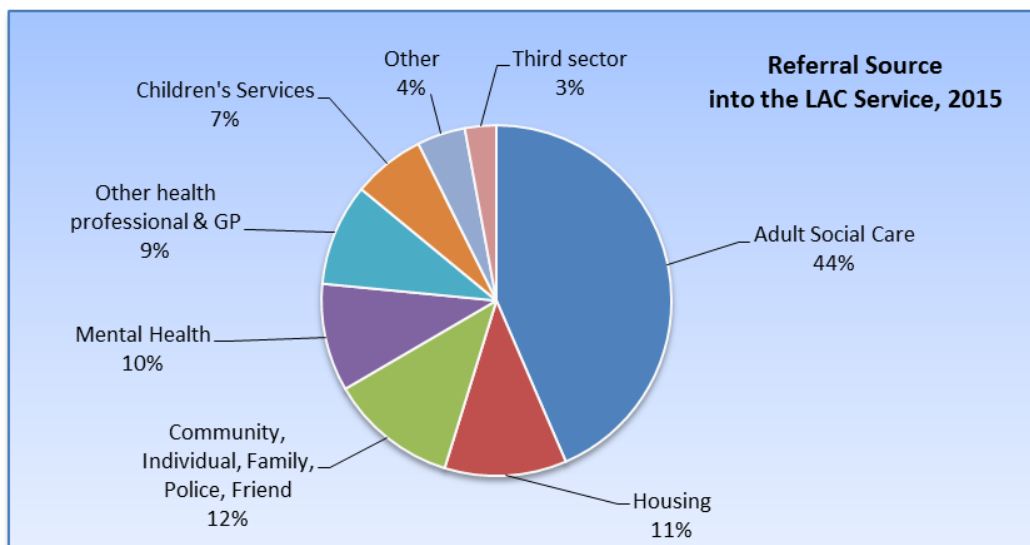
Source: Thurrock Council

The main presenting issue for those being referred to LACs was *Older Person*[1]. This varied by age group – it can be seen that the most common issue for those aged 76+ was *older person* (87%) and same for 56-75yrs (36%) whilst for those aged 56-75yrs the most common was *mental health* (36%) and same for 36-55yrs (49%). *Learning Difficulties* was the most common issue for age groups 18-35yrs (35%) and 0-18yrs (100%) detailed below in the chart.

Figure 83: Main presenting issue for LACs by age group, 2015
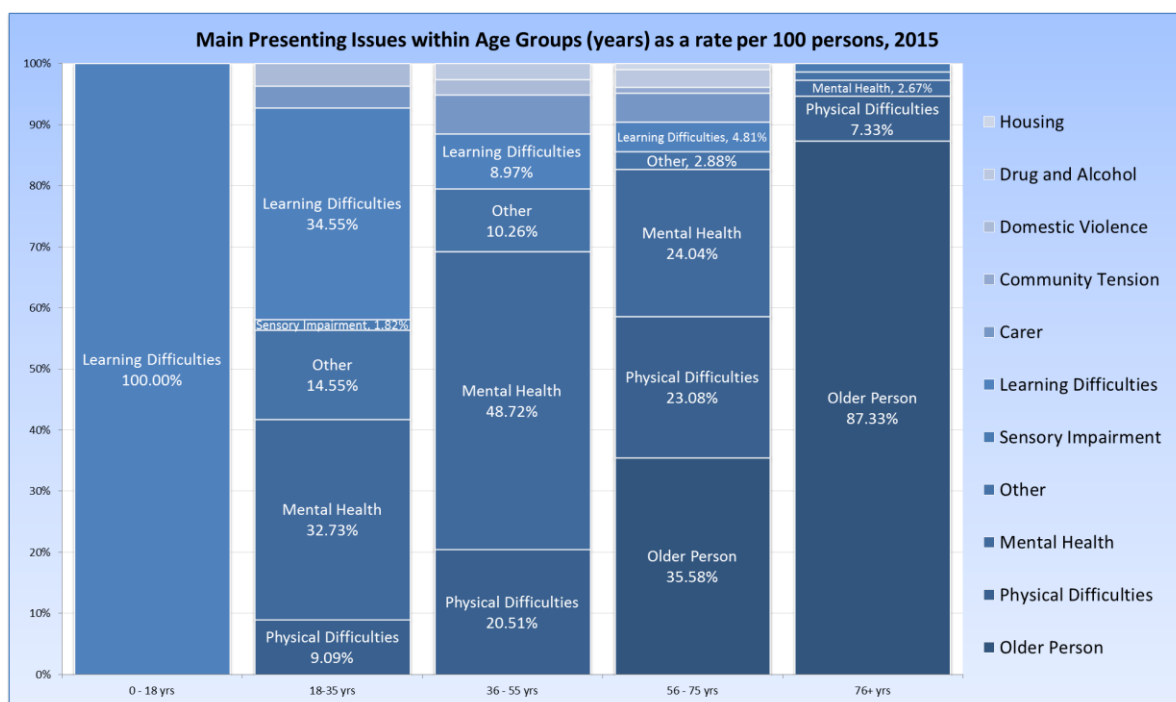
Source: Thurrock Council

Older Person is the data recording term for a person that has been referred/contacted the LAC Service due to Social Isolation, Day Care enquiries, Supporting others in their Community, wish to Volunteer and/or looking for local Clubs/Activities instead of funded Day Care over the age of 55yrs +.

The LAC Service has two levels of support available, these are:

- Level 1 Support is the provision of information and/or limited support, information and advice is given and no further support is needed at that time, connections made.
- Level 2 Support is a longer term relationship supporting people (children and adults); who are vulnerable due to physical, intellectual, cognitive and/or sensory disability, mental health needs, age or frailty and require sustained assistance.

Out of the 588 referrals, 431 persons received level 1 support and 157 received level 2. The type of support received is detailed in Table 43.

Table 43: Level 1 and 2 support, 2015

LAC Level and Service Required - 2015	
Level 1	431
Information	207
Advice	113
Connections	100
No Further Action	11
Level 2	157
Total of Level 1 / 2	588

Source: Thurrock Council

42 persons who received a LAC service went on to require a formal funded service, which is 7% of the 588 persons supported. The types of service required are detailed in Table 44.

Table 44: Type of formal funded service subsequently required, 2015

Formal Funded Service Required - 2015	
Adult Social Care	12
Adult Care	9
Mental Health	8
Housing	4
Third Sector	4
Children's Services	3
GP	2
Total Formal Funded Service	42

Source (Thurrock Council)

The table below shows the onward referrals made by the LACs following intervention:

Table 45: Onward referrals by LACs, 2015

Onward referrals via LAC Support/Assistance, 2015	
Advice & Info given	401
Individual connected with others in community	288
Access other groups/clubs in community	273
Referred to Public Health initiative (including experienced MECC conversation)	156
Family and carers supported	104
Supported with daily entitlements/benefits	58
Supported to access volunteer opportunities	47
Supported to access paid employment	12
Total	1339

Source: Thurrock Council

Age UK collated a map defining the relative risk of loneliness in older people based on demographic characteristics. This can be triangulated with the locations of our community hubs which are used by the LACs for community development/engagement and new referrals into the service. The locations can be seen in the map below.

Figure 84: Relative risk of loneliness and Thurrock's community hub locations, 2016
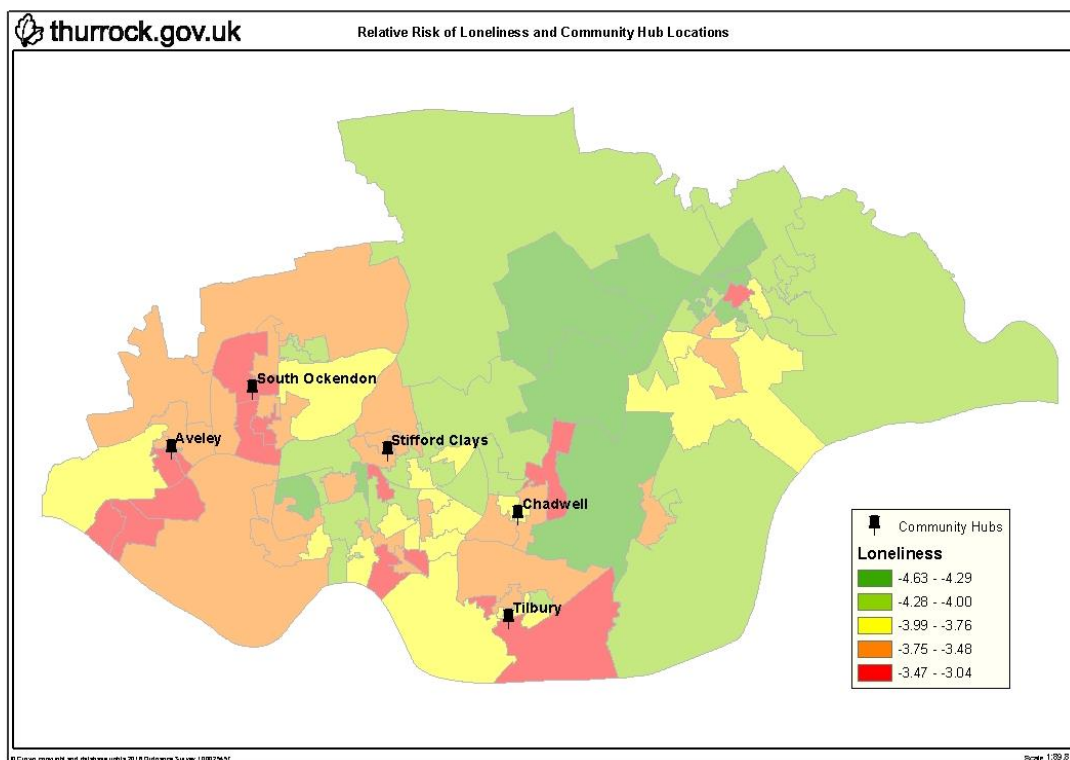
Source: Age UK / Thurrock Council

The locality of Blackshots, Little Thurrock, North Grays and Stifford Clays has 57% of referrals for *Older Person* which is near to the Stifford Clays hub. Aveley/Purfleet has 44% of referrals with a community hub located at Aveley. Purfleet are opening an additional community hub, so this will capture *Older Persons* within Purfleet if they feel socially isolated.

Stanford le Hope, Corringham, Fobbing and Horndon on the Hill had 39% of referrals for *older person*, although there is no community hub within this locality. Compared to the Age UK Heat Map the risk of loneliness is lower within this area, therefore there may be a need to investigate further and local interpretation to establish if a need for a Community Hub is required within this locality.

LAC Locality	% of older person within each locality
Blackshots, Little Thurrock, North Grays, Stifford Clays	57%
Aveley/Purfleet	44%
Stanford le Hope, Corringham, Fobbing and Horndon on the Hill	39%
Chadwell St Mary/Orsett/Bulphan	38%
Grays Riverside	32%
Tilbury	29%
West Thurrock, Chafford Hundred, North/South Stifford	26%
East Tilbury	19%
South Ockendon, Belhus Ward	13%

Source: Thurrock Council

MICRO ENTERPRISES

With the support of the Transformation Challenge Award, there is a scheme underway to enable 25 Thurrock-based micro enterprises to develop in 2016/17. These will be linked to hubs and will diversify the market for people looking to use personal budgets to meet health, care and support needs. The pilot programme in South Ockendon ['Living Well at Home'] will look to develop specific support to supplement domiciliary care where traditional service models are failing to provide the community and individual need amongst vulnerable residents. It is envisaged that a neighbourhood scheme, linked to the hub and combining volunteer help with opportunities to commission care through local micro-enterprise, will help test new ways of working for the future.

LINKS WITH HEALTH AND SOCIAL PRESCRIBING

The four future Integrated Healthy Living Centres will develop alongside the Community Hubs programme ensuring there is a synergy to how they work locally. Basildon Hospital has worked through Community Hubs to help avoid unnecessary use of A&E via dissemination of relevant information. Health Watch are also working through hubs to engage residents face to face on issues around health and social care, which has partly influenced the new focus of the Health and Wellbeing Strategy. There will also be future work undertaken with regard to launching social prescribing in Thurrock. Social prescribing provides a way of linking patients' in primary care and their carers with non-medical sources of support within the community. It is tailor-made for voluntary and community sector (VCS)-led interventions and can result in:

- better social and clinical outcomes for people with long-term conditions and their carers
- more cost-efficient and effective use of NHS and social care resources
- a wider, more diverse and responsive local provider base.

It is the intention for small social prescribing pilots to take place in the areas of Aveley/Purfleet and Tilbury. Scoping work is still underway but it is expected that these will commence within the next few months.

THIRD SECTOR LONG TERM CONDITION GROUPS

There are a number of third sector organisations in place dedicated to supporting those with diagnosed long term conditions to effectively manage their condition, as well as promote awareness amongst the wider community. An example is Diabetes UK – current examples of campaigns they are running include: foot care, 15 procedures, access to structured education and know your risk. Their work is further strengthened by the future inclusion of two new indicators on Diabetes in the NHS Improvement and Assessment Framework 2016/17: improving access to structured education, and improving treatment targets. Work is underway to quantify usage of this group, e.g. how many people accessing their support groups/ support line, feedback following attendance at Living with Diabetes days etc.

7.1.4 WHAT COULD WE IMPROVE?

- More opportunities for structured, supported volunteer involvement
- Increasing range of activities delivered from hubs
- The Local Area Co-ordinators have acknowledged a need to improving their recording of personal data, when visiting residents and they are currently in the process of transferring over to Thurrock Councils Liquid Logic Programme. Further recommendations from Public Health to include more robust data collection and quality processes to aid future understanding of LAC impact.
- Further recommendations have been made in the LAC Final Report 2014
- Understanding of patient usage of third sector groups such as Diabetes UK, Stroke Association and Breathe Easy

7.1.5 WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

COMMUNITY HUBS

Although quantifiable data across all hubs is limited, it is expected that the Hubs programme will have had the following outcomes:

- Increased employment/employability

Hubs are helping volunteers and the unemployed secure paid work. Two part time jobs have been created to date in the hubs themselves, with one additional full time post about to be advertised. A total of 23 individuals have gained employment in 2015/16 due to the hubs of which 16 were long-term unemployed and a further 7 community hub volunteers. Based on the original CBA analysis and supporting formulas for engagement, retention, impact and deadweight, as well as the unit cost/assumptions derived from the Department for Work and Pensions (DWP) Cost Benefit Analysis Framework, the total annual fiscal benefit from these individuals entering employment is **£52,815** or **£78,738** annual public value benefit[xi].

There is also the impact that the hubs will have had on employable skills – for example, there is a thorough volunteers training programme that all new volunteers must undertake, as well as job searching skills etc. 111 volunteers were trained and supported into roles at hubs in 2015/16. Exit interviews from those who left their posts show a strong correlation between the personal skills and development experienced through

volunteering, and their ability to take paid employment. The value of volunteers supporting the community hubs programme is estimated at **£151,448**. This is based on a formulaic approach using the hourly rate contained in the Annual Survey of Hours and Earnings, ONS and apportioned to the caring, leisure and other service occupations industry. Each volunteer is very modestly considered to have completed at least 3x hours per week to support community hubs in 2015/16 over a 40 week period in 2015/16.

- Reduction in visits to the Civic Offices and uptake of 'My Account' through hubs

Shaped by local need, all hubs have a core offer: support and advice for citizens to self-serve for information and make on-line applications to services with signposting from trained volunteers. In addition, hubs support the channel shift of enquiries from direct to Council into hubs, helping people both face to face and through web based support. The development of micro-enterprises will further develop local support networks in the coming months.

- Reductions on number of visits to Grays to visit Job Centre Plus advisor

In South Ockendon, a very positive partnership has developed with DWP. A piece of work funded through "Our Place" in 2014 explored the barriers to work experienced by the long term unemployed, especially aged 50+. This enabled a positive dialogue to develop with DWP and has resulted in DWP having a regular base at the Hub – meeting clients, enabling them to 'sign on' locally and explore appropriate job opportunities. Since November 2015, DWP has released staff from the Grays Job Centre to meet claimants at South Ockendon, saving individuals around £4.50 in public transport costs per visit. The caseload started at 77 and now stands at 92 clients.

Work is in process to explore a similar relationship with DWP at Tilbury Community Hub where similar barriers to employment exist, though with a more vibrant and local job market developing with the expansion of Tilbury Docks. Thurrock Council is leading a project match funded by ESF and ERDF to develop a full Community Led Local Development strategy over the summer, and intend to make a full application following this stage of the bidding process.

- Increased connectivity and reduced loneliness

Timebanking has been established alongside hubs, and over 11,000 exchanges were supported in 2015/16. Many time bankers choose to donate their time to a wider community benefit so that people can benefit at short notice before 'earning' credits. In addition, the wide range of community activities run from each hub offer a range of opportunities to increase community connectivity.

It is envisaged that the support that the hubs programme has provided to residents will also have improved knowledge of available health services, thereby potentially avoiding inappropriate primary care and secondary care visits, and promoting opportunities for self-care.

Work is underway to perform an external evaluation and provide more robust data before the end of the financial year.

LOCAL AREA COORDINATION

254 Thurrock residents were referred to the LAC service via Adult Social Care, with 21 people being referred back to a fully funded Adult Social Care package. If it is assumed that the remaining 233 people could

perhaps have required assistance from Adult Social Care at a later stage, then the LAC referral has at least delayed or prevented the Adult Social Care costs at this present time.

Thurrock Council LAC Final Report 2014 states the financial benefits and potential cost savings of the LAC Service:

Table 46: Potential unit costs preventable by LAC intervention

Cost	Unit of prevention cost	Rationale
£36	Per GP appointment	Earlier intervention from a LAC could result in a reduction in future GP visits if potential health conditions are managed at an earlier stage.
£1779	Episode of inpatient care	Earlier intervention from a LAC could result in a reduction of an episode of being admitted to hospital, by supporting the management of their medication and their health.
£956	Annual cost of depression	Poor mental health has been reported as a key presenting issue in 106 cases of those referred to LAC. Assuming that intervention from a LAC has assisted to improve mental health, this could contribute to reducing future costs associated with conditions such as depression.
£445	MH overnight stay in hospital	Early Intervention from a LAC could result in a reduction of potential admissions to hospitals if condition is supported at an earlier stage.
£162	MH community provision (per contact)	Need for mental health professionals could reduce in future, by people attending regular support groups within the community.
£510	Adult Social Care assessment	By referring to the LACS at the first stage, this could potentially save the initial ASC assessment, for alternative solutions within the community.
£65	Day Care provision	By referring to the LACS at the first stage, this could potentially save Day Care services, for alternative solutions within the community.
£10.50	Volunteering per hour contribution	By referring to the LACS, people have been supported into volunteering within their communities, to give help to others in need and improve health and wellbeing.
£1,962	Annual cost of alcohol to NHS	Early Intervention from a LAC could result in a reduction of alcohol services/rehabilitation, if supported to reduce and/or stop alcohol intake and improve their health
£7,744 & £8,831	Income Support claimant entering work & ESA claimant entering work	LACs can support people to get back into work and assist with the process to encourage this.
£3,568	Average response to fire	Early intervention from a LAC to support people to make their homes safer, so potential saving to the fire service and less risk to the person due to their environment and lifestyle being a high fire risk.

Source: Thurrock Council LAC Final Report 2014, Thurrock Council LAC Data 2015 and Baqir et al (2011):http://jpubhealth.oxfordjournals.org/content/33/4/551.long#T2)

SOCIAL PRESCRIBING

Social prescribing provides a way of linking patients' in primary care and their carers with non-medical sources of support within the community. It is tailor-made for voluntary and community sector (VCS)-led interventions and can result in:

- better social and clinical outcomes for people with long-term conditions and their carers
- more cost-efficient and effective use of NHS and social care resources
- a wider, more diverse and responsive local provider base.

Results from a pilot intervention in Rotherham[xii] found that social prescribing resulted in a reduction in patients' use of hospital resources:

- Inpatient admissions reduced by as much as 21%
- Accident and Emergency attendances reduced by as much as 20%
- Outpatient appointments reduced by as much as 21%

The pilot also found that patients who were referred to the Social Prescribing Pilot experienced improvements in their well-being and made progress towards better self-management of their condition. Analysis of well-being outcome data showed that, after 3-4 months, 83% of these patients had experienced positive change in at least one outcome area.

The pilot also quantified some outcomes, with an estimated return on investment of an additional £0.16-0.26 per £1 spent for volunteering alone, and at five years, a potential total return on investment of £3.38 per £1 spent.

7.2 THE ROLE OF PHARMACISTS IN PROMOTING SELF-CARE

7.2.1 WHAT WORKS?

There is a large body of evidence to suggest that pharmacists play a large role in relieving pressure in primary care already. This is particularly the case for women, older people and those with a long term condition as these have been identified as the most frequent pharmacy users[xiii]. All pharmacy contractors are required to provide *Essential Services*; these include:

- Dispensing and actions associated with dispensing including repeatable dispensing
- Disposal of unwanted medicines
- Promotion of healthy lifestyles, including public health campaigns
- Prescription-linked interventions
- Signposting
- Support for self-care

Some pharmacy contractors also provide *Advanced Services*; these include:

- Medicine Use Reviews and Prescription Interventions (MURs).
- New Medicines Services (NMS).

- Appliance Use Reviews (AUR) – No services provided in Thurrock, but services can be accessed outside the borough and via the internet.
- Stoma Appliance Customisation Services (SAC)

Other services currently delivered through Thurrock's pharmacies include:

- Substance misuse [Needle Exchange / Supervised Consumption]
- Sexual Health [Chlamydia testing and treatment / Emergency hormonal contraception Condom distribution (C-card) scheme]
- Stop smoking services

The below focuses on Medicines Use Reviews and Minor Ailments Services.

MEDICINES USE REVIEWS

An MUR is an advanced service which involves the pharmacist reviewing the patient's use of their medication, ensuring they understand how their medicines should be used and why they have been prescribed, identifying any problems and then, where necessary, providing feedback to the GP. This generally happens once a year. Three national target groups for (MURs were introduced in October 2011; a fourth target group was agreed in September 2014 (Cardiovascular risk) and was implemented from 1st January 2015. The national target groups are:

1. patients taking high risk medicines;
2. patients recently discharged from hospital who had changes made to their medicines while they were in hospital. Ideally patients discharged from hospital will receive an MUR within four weeks of discharge but in certain circumstances the MUR can take place within eight weeks of discharge;
3. patients with respiratory disease; and
4. patients at risk of or diagnosed with cardiovascular disease and regularly being prescribed at least four medicines.

From 1st April 2015 community pharmacies must carry out at least 70% of their MURs within any given financial year on patients in one or more of the above target groups.

7.2.2 WHAT IS CURRENTLY HAPPENING IN THURROCK?

MEDICINES USE REVIEWS

In March 2016, there were 31 pharmacies in Thurrock which had completed at least one MUR. For that month, 1061 MURs were completed in 31 Thurrock pharmacies – giving an average of 34.2 MURs completed per pharmacy. This is slightly higher than the Essex LPC area average of 32.3. As each pharmacy is only able to complete a maximum of 400 MURs per year, this would indicate that 12 months at 34.2 MURs per month would result in 411 per year. Data from additional months is required to ascertain whether Thurrock is regularly completing high numbers of MURs or whether this was just a month with an exceptionally high volume.

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WHAT COULD WE IMPROVE?

The Thurrock Pharmaceutical Needs Assessment (2014) recommended that whilst Thurrock appeared to have a generally good coverage of pharmacies with suitable opening hours, there was capacity within the existing offer to target more patients who would benefit from MURs and Prescription Interventions. However as highlighted above, more current data is required to corroborate this. The PNA also highlighted that the out of hours service offer may need to adapt with the future population changes and the changes towards an extended hours service in primary care.

7.2.3 WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

MEDICINES USE REVIEWS

Presuming that at least 70% of the MURs that are being delivered are to those target groups, it is assumed that this intervention will:

- improve patients' understanding of their medicines;
- highlight problematic side effects and propose solutions where appropriate;
- improve adherence; and
- reduce medicines wastage, usually by encouraging the patient only to order the medicines they require.

As Thurrock has a large number of patients that would greatly benefit from an MUR, it is key that this is still encouraged. Further research suggests that care home patients would benefit even more from an MUR as they take an average of 7-8 different medications[xiv] - it would be of interest to calculate the impact this could have for Thurrock residents if promoted locally.

7.3 PRIMARY PREVENTION OF LONG TERM CONDITIONS

7.3.1 INTRODUCTION

This section of the report will include information on potential opportunities to strengthen primary prevention of disease in Thurrock. Prevention approaches can be adopted by a number of organisations – e.g. social care, public health, housing, CCG etc, and although the future benefits might not be immediately felt by the organisation investing up-front (e.g. a public health team funds NHS Health Checks which might result in better disease detection, meaning the savings would be first made from potential reduced hospital activity for example), there are still large benefits to be had for patients. The Thurrock Health and Wellbeing Strategy 2016-2021 is focussed on prevention and early intervention, containing 5 goals which together aim to "add years to life and life to years".

7.3.2 WHAT WORKS?

There is a large body of evidence to indicate that poor housing can impact on health conditions such as:

- **Respiratory problems** – this is particularly linked to residents living in cold homes and houses with mould, although is also associated with general overcrowding.

- **Circulatory problems** – cold homes are linked to an increased risk of hypertension and cardiovascular disease.
- **Mental Health** – increased exposure to noise due to poor home insulation can result in increased stress and anxiety levels, and also lead to an increased risk of ischemic heart disease. Stress can also be exacerbated by feeling of overcrowding or fuel poverty. Depression and feelings of isolation could also develop as people feel they cannot escape their situation.
- **Falls and accidents** – poor quality housing leads to an increased number of falls.
- **Mortality rates** – The Marmot Review Team (2011) found that residents who live in the coldest homes have a 20% greater risk of Excess Winter Deaths than those in the warmest homes, simply due to their houses being colder. It is also known that mortality rates increase during extreme hot weather; and although there is not conclusive evidence to link housing quality to this, it should be ensured that houses are adequately ventilated to reduce this risk.

The National Housing Federation has produced a number of briefings looking at how housing associations can work effectively with health authorities to address unmet health needs. One briefing (Tackling health inequality through housing, 2014) outlined a number of housing interventions that have a 'major' impact on health:

- Targeted work with homeless individuals with complex and multiple needs
- Providing refuge and support for victims of domestic violence and specialist work with troubled families
- Supporting people to access other public services, training or employment
- Encouraging healthy lifestyle choices in partnership with public health and the voluntary sector
- Providing advice and information, help with personal budgeting, financial capability and support to deal with personal debt
- Providing specialist accommodation and tailored support to help people with mental health needs make progress towards recovery and live more independently
- Providing specialist support and adapted accommodation for people with long-term conditions.

7.3.3 WHAT IS CURRENTLY HAPPENING IN THURROCK

"Well Homes" is a project that is supporting residents in private sector housing and looks at a more holistic response to the full range of home based hazards. Through targeted partnership working to the most vulnerable residents, it tackles health inequalities caused by poor quality housing conditions and improves access to a wider variety of services, including local health services. The service was re-procured by Public Health in August 2015 and a two year contract offered to Family Mosaic.

The service objectives are to:

Improve housing conditions in the homes of people who are most vulnerable/susceptible/at risk to poor health as a result of the home, identified as:

- Older people aged 65 years and over
- People with respiratory conditions
- People with cardiovascular conditions
- People with mental health conditions

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- People on a low income
- Make homes safer and healthier by:
  - removing housing hazards that may cause falls or accidents
  - reducing excess cold and helping people achieve warmer homes
- Help residents self-care and protect and improve their own health by:
  - ensuring they are registered with primary care services (GP and Dentist)
  - promoting the uptake of immunisation and screening appointments (including pneumococcal jabs, annual flu jabs, appropriate age-related screening programmes)
  - engaging residents, where appropriate, with preventative health and lifestyle services that can improve quality of life (Including NHS Health Checks, help to stop smoking, debt advice, LACs, weight management and physical activity programmes)
- Improve the self-reported health and well-being of those accessing the service.

The service was designed in line with best practice principles outlined above to enable a more holistic assessment to be undertaken which would provide a range of advisory services and encourage access to others, as well as addressing the home hazard(s) identified.

WELL HOMES SERVICE ACTIVITY

The following data is for the period 01/08/2015 – 27/04/2016.

During the above time period, the service has undertaken 241 assessments. Analysis of the age categories of the clients reached indicates that only 86 of them were over the age of 65 years, which is 35.7%. 151 of the 241 assessments were for clients on benefits, which served as a proxy measure for low income and equates to 63% of assessments completed. No robust information was captured on prevalence of long term condition to enable analysis on whether these target groups were reached.

Geographical reach of the programme was varied across the borough. Public Health had provided 9 Lower Super Output Areas for the provider to particularly target (these would contain about 9% of the Thurrock population), and analysis showed that nearly 20% of assessments completed were within the target areas. The geographical variation is surmised to be due to a number of factors including the difficulties with cold-calling, personal choice whether to accept support, knowledge of the scheme and wider promotion. The figure below shows the geographical variation by ward:

Figure 85: Well Homes Assessments by ward
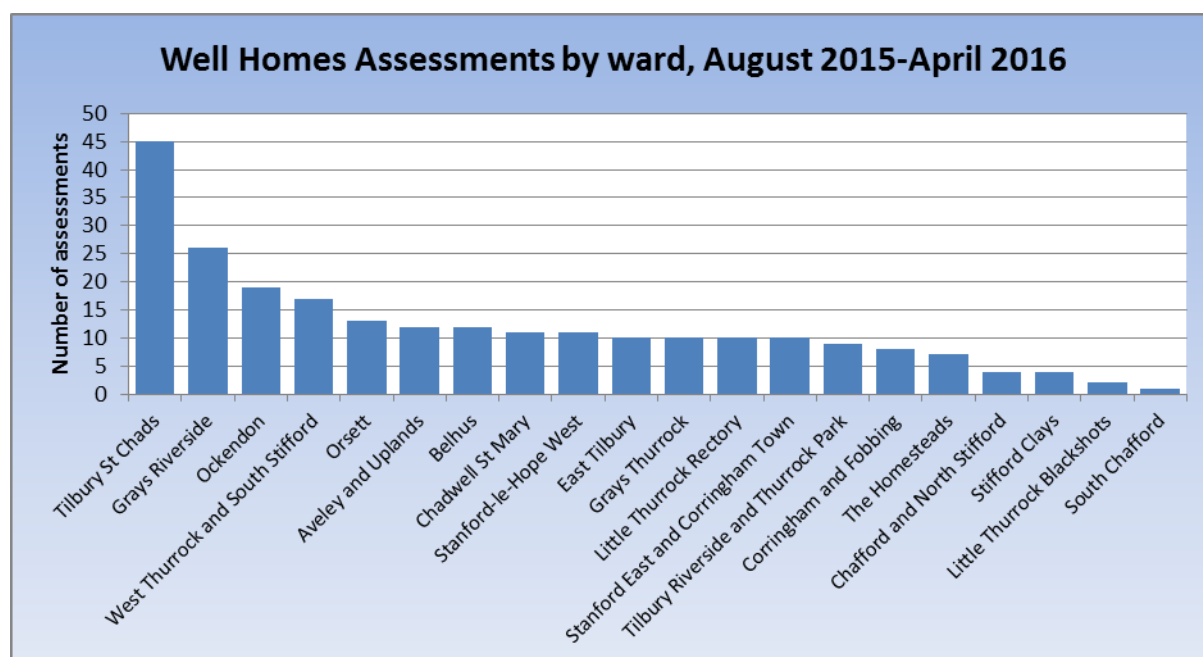
Source: Thurrock Council Performance Report

Activity data indicates that the 241 assessments resulted in a total of 593 onward referrals to other services – whilst services delivered by Thurrock Council (e.g. social services, homelessness etc) had the highest number of referrals, services by Thurrock Lifestyle Solutions (e.g. gardening), Energy services and Fire services also received high numbers of referrals. The Well Homes service has begun to work very closely on a pilot initiative with the Essex Fire and Rescue Service so it is expected that this number will increase. There were 43 referrals on to health and lifestyle services, which is 7.3% of all referrals. The table below shows onward referral activity by organisation:

Table 47: Onward referrals from Well Homes

Onward referrals	Number	Percentage
Thurrock Council Services	175	29.51%
Energy Services	101	17.03%
Thurrock Lifestyle Solutions Services	98	16.53%
Essex Fire and Rescue Services	61	10.29%
Private Housing Service (Well Homes offers: gas check, quick fix grants, etc)	60	10.12%
Health and Lifestyle Services	43	7.25%
Private Housing Service (Private Rented Property Inspection Requests)	30	5.06%
Home Improvement Agency	20	3.37%
Other (e.g. Education and Employment Services, Local Area Coordinator, Debt Services)	5	0.84%
Total	593	100.00%

Source: Thurrock Council Performance Report

115 surveys were undertaken with participants after 28 days of receiving the assessment. Of these, 98 (85%) said they felt safer in their home as a result of the intervention, and 82 (74%) felt that their health was good or very good compared to before the intervention.

7.3.4 WHAT COULD WE IMPROVE?

Work is underway to better identify those in the most vulnerable groups – it is hoped that by establishing clear referral pathways between health and social care services and Well Homes that the service will be able to support those who will benefit most.

Promotional work and engagement have been positive to date; however analysis of postcode-level data on referral uptake showed varied activity across the borough which did not necessarily correlate with need. Further targeted work could help address this.

7.3.5 WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

Using the methodology from the Building Research Establishment's Housing Health Costs Calculator[xv], it is estimated that undertaking those 241 assessments resulted in savings to the NHS of **£418,314** and to the NHS and wider society of **£1,010,281**. These savings are based on reducing harm outcomes such as falls, hospital admissions for respiratory conditions exacerbated by mould etc following mitigation of Housing Health and Safety Rating System (HHSRS) hazards. The model uses data from the English House Condition Survey to illustrate the effects of various scenarios and repair options. It allows all the hazards measured in the Survey to be compared, and identifies repair solutions which provide direct benefit to the NHS through reduced injury rates and treatment costs.

The service is aiming to complete 400 assessments by the end of August 2016. If it achieves this, taking an average saving per assessment to the NHS of £1,735.74 and to NHS + wider society of £4,192.04 could result in total savings from one year's activity to be **£694,297.10** and **£1,676,815** to the NHS and NHS + wider society respectively. The cost invested into the service in 2015/16 was £45,000, thereby generating a return on investment of **£14.43 for every £1** spent for NHS benefits [(£694,297.10-£45,000)/£45,000], and **£36.26 for every £1** spent for NHS + wider society benefits [(£1,676,815-£45,000)/£45,000]. It should be noted that this ROI does not include all costs spent on rectifying housing hazards as this funding came from a mix of the Council's Private Housing Service and various government grants.

7.4 CANCER SCREENING

7.4.1 WHAT WORKS?

Research conducted by Cancer Research UK states that Cancers that are diagnosed at an early stage, before they have had the chance to get too big or spread, is more likely to be treated with success (see table below)

Table 48: Type of cancer and prognosis

Cancer Type	Early diagnosis can improve survival
Bowel	More than 9 in 10 bowel cancer patients will survive the disease for more than 5 years if diagnosed at the earliest stage

Breast	More than 90% of women diagnosed with breast cancer at the earliest stage survive their disease for at least 5 years compared to around 15% for women diagnosed with the most advanced stage of disease
Ovarian	More than 90% of women diagnosed with the earliest stage ovarian cancer survive their disease for at least 5 years compared to around 5% for women diagnosed with the most advanced stage of disease
Lung	Around 70% of lung cancer patients will survive for at least a year if diagnosed at the earliest stage compared to around 14% for people diagnosed with the most advanced stage of disease

Source: Cancer Research UK

When Cancer is diagnosed at an early stage, it can have a significant result on survival rates, as detailed below.

Figure 86: One year survival rate by stage and cancer type, 2012
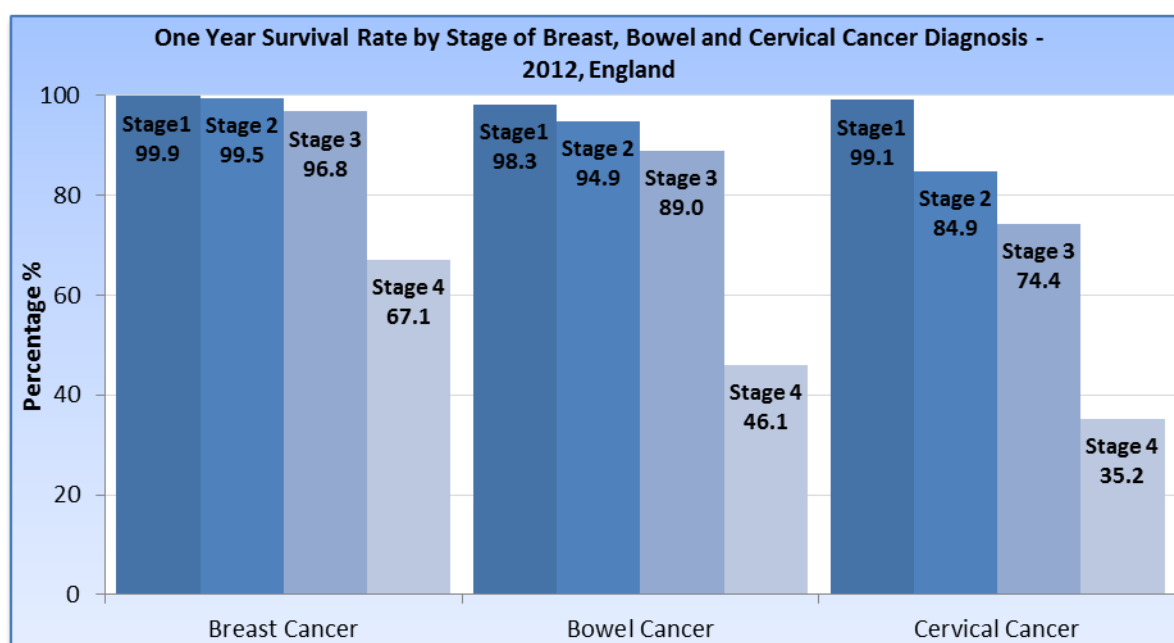
Source: Cancer Research UK

Cancer costs the health system less money to treat if it is detected at an earlier stage and referred at first signs via the national two week wait programme. The table below indicates the costs by stage for four types of cancer.

Table 49: Treatment costs by stage and type of cancer

Cancer Stage	Colon Cancer	Rectal Cancer	Non-small cell Lung Cancer	Ovarian Cancer
Stage 1	£3,373	£4,449	£7,952	£5,328
Stage 2	£7,809	£6,944	£8,349	£10,217
Stage 3	£9,220	£8,302	£8,733	£11,207
Stage 4	£12,519	£11,815	£13,078	£15,081
Additional Costs for Stage 3 if not diagnosed at Stage 1	£5,847	£3,853	£781	£5,879
Additional Costs for Stage 4 if not diagnosed at Stage 1	£9,146	£7,366	£5,126	£9,753

Source: Incisive Health – Saving lives, averting costs, prepared for Cancer Research UK

Average recurrence treatment costs are also lower if diagnosed and treated at an earlier stage:

Table 50: Recurrent treatment costs by stage and type of cancer

Cancer Stage	Colon Cancer	Rectal Cancer	Non-small cell Lung Cancer	Ovarian Cancer
Stage 1 Recurrence	£376	£354	£8,457	£1,504
Stage 2 Recurrence	£2,003	£1,890	£10,346	£8,623
Stage 3 Recurrence	£4,757	£4,490	£12,251	£12,276
Stage 4 Recurrence	n/a	n/a	n/a	n/a
Additional Costs for Stage 3 if not diagnosed at Stage 1	£4,381	£4,136	£3,794	£10,772

Source: Incisive Health – Saving lives, averting costs, prepared for Cancer Research UK

7.4.2 WHAT IS CURRENTLY HAPPENING IN THURROCK

OVERALL GP PERFORMANCE

Thurrock GPs have variable Screening rates, Two Week Wait Referrals and a Cancer diagnosis first being diagnosed within an Emergency Admission setting via Accident and Emergency between practices. Thurrock's lower performing practices could learn from higher performing practices to improve lower outcomes.

Table 4 states statistical significance from the Thurrock average of practices for each of the Cancer measures.

Table 51: Practice-level performance against five cancer measures

GP Code	GP Surgery Name	Cancer Screening Uptake %			Two Week Wait Referral Route	Emergency Admissions with a first time diagnosis of Cancer
		Breast (Female, 50-70)	Cervical (Females, 25-64)	Bowel (Persons, 60-69)		
F81010	Aveley Medical Centre	Low	Low	Low	High	Average
F81082	The Rigg Milner Medical Centre	High	Average	High	High	Average
F81219	The Dell Medical Centre	High	High	Average	Low	Average
F81192	Dr Headon OT Practice	High	Average	High	Low	Average
F81623	Prime Care Medical Centre	Average	Average	Average	Low	Average
F81641	Dr Masson KK Surgery	High	Average	Average	Average	Average
F81197	Sancta Maria Centre	Low	High	Average	Average	Average
F81177	Neera Medical Centre	Average	Low	Average	Low	Average

F81697	The Sorrells Surgery	Average	High	Average	Low	Average
F81110	Dr Suntharalingam R Practice	Low	Low	Low	Low	Average
F81644	Ash Tree Surgery	High	High	High	Average	Average
F81691	East Tilbury Health Centre	High	High	Average	Average	Average
F81155	Balfour Medical Centre	Average	Low	Average	Low	Average
F81137	Dr Colburn Surgery	High	High	High	Average	Average
Y00033	Purfleet Care Centre	Low	Average	Low	High	Average
F81134	Pear Tree Surgery	Average	Average	Average	High	Average
F81632	Dr Yasin SA Practice	Low	Average	Low	Low	Average
F81088	Southend Road Surgery	High	Low	Average	Average	Average
F81206	Shehadeh Medical Centre	Average	Average	Low	High	Average
F81698	Dilip Sabnis Medical Centre	Average	Average	Low	High	Average
F81084	Chadwell Medical Centre	Average	Low	Average	Average	Average
F81113	Chafford Hundred Medical Centre	Low	High	Average	High	Average
F81742	Acorns Surgery	Low	Average	Low	Average	Average
F81218	The Grays Surgery	Average	Low	Average	Average	Average
Y02807	Thurrock Health Centre	Low	Low	Low	Average	Low
F81211	East Thurrock Road Medical Centre	High	High	Average	Low	Low
F81198	Dr Pattara/Dr Raja Surgery	High	High	High	Low	Average
F81669	Derry Court Medical Practice	Low	Average	Low	High	Average
F81153	Hassengate Medical Centre	High	High	High	Low	Average
F81708	Sai Medical Centre	Low	Low	Low	Low	Average
F81652	Medic House	Average	Low	Low	Average	Average
Y00999	St Clements Health Centre	Low	Average	Low	High	Average
F81719	Dr Mukhopadhyay PK Practice	Average	Low	Average	Average	Average

Source: National GP Practice Profiles

Cancer Deep Dive JSNA

A Cancer Deep Dive JSNA was completed in November 2015, which contained extensive details of all Thurrock's GPs performance and made recommendations relating to:

- Cancer Prevention: Smoking
- Cancer Screening

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- Early Identification and Referral of People with Suspected Cancer
- Cancer Diagnosis and Treatment
- Cancer Survival

The full document can be accessed here: Cancer Deep Dive JSNA

HEALTH AND WELLBEING STRATEGY 2016-2021

The Thurrock 2016-2021 Health and Wellbeing Strategy contains an objective dedicated to preventing and treating cancer better (E4). The Outcomes Framework measuring progress against the Strategy contains indicators relating to smoking prevalence, emergency diagnoses of cancer, cancers diagnosed at stages 1 or 2, bowel screening, 62 day pathway and 1 year survivorship after breast cancer which should emphasise the need to reduce variation amongst practices and improve cancer care across Thurrock. Action plans are in place to drive this forward.

What could we improve?

The full list of recommendations from the Cancer Deep Dive can be viewed here: Cancer Deep Dive JSNA

COMMISSIONING FOR VALUE

The CfV pack for Cancer was issued this year (2016) in May and gives an overview of costs and potential opportunities if Thurrock were to improve their outcomes in line with their most similar CCG's. The data indicates that:

- If Thurrock were to improve the proportion of women who have had breast cancer screening in the last three years in line with the best most similar CCG (Swindon), this could result in up to 1,440 more women screened
- If Thurrock were to improve the proportion screened for bowel cancer in the last 30 months in line with the best most similar CCG (Greater Huddersfield), this could result in up to 699 more people screened
- If Thurrock were to improve the proportion of women screened for cervical cancer in line with the best most similar CCG (Greater Huddersfield), this could result in up to 1,723 more women screened

7.4.3 WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

SOCIAL CARE

Screening for Cancers at an earlier stage and diagnosing and treating cancers earlier on, would be expected to have a positive impact on our Social Care system due to patients having a reduced reliance on Domiciliary Care. However this is unable to be quantified at present due to limitations with the available data. The models below show for each type of cancer, the number of patients currently treated at stages 1 or 2 and 3 or 4, their associated treatment costs and the likelihood of their surviving after one year. They

then hypothesise the impact to costs and survival rates if the proportion treated at stages 1 or 2 is increased – i.e. intervening at an earlier stage.

HEALTH CARE

Model 1; Breast Cancer

Breast Cancer New Diagnosis

106

% of Breast Cancer diagnosed at Early Stage (Stage 1/2)	% of Breast Cancer diagnosed at Late Stage (Stage 3/4)
51%	49%

Number of Patients	54		52	Number of Patients
Cost of Treatment at Stage 1/2 (Including Recurrence)	£9,260.96	Total Costs of Treating All Stages of Cancers in Thurrock	£18,418.71	Cost of Treatment at Stage 3/4 (Including Recurrence)
Total Treatment Costs for Early Diagnosis Treatments	£500,647.41	£1,457,315.12	£956,667.71	Total Treatment Costs for Late Diagnosis Treatments

Opportunity if 100% of Patients were Diagnosed at Stages 1/12

One-year survival index (%) 2013	100%	£475,653.54	82.0%	One-year survival index (%) 2013
Number of 1 yr Survivors	54		43	Number of 1 yr Survivors

SHIFT EARLY DIAGNOSES RATE IN LINE WITH EAST OF ENGLAND	
EOE early DIAGNOSIS	57%
Thurrock early Diagnosis increase Rate	6%
Savings if we shift early diagnosis rate in line with EOE	£58,243.29
Additional patients diagnosed early	6
Additional 1 year survivors	1

Model 2; Cervical Cancer

Cervical Cancer New Diagnosis

5.00

% of Cervical Cancer diagnosed at Early Stage (Stage 1/2)	% of Cervical Cancer diagnosed at Late Stage (Stage 3/4)
51%	49%

Number of Patients	3		2	Number of Patients
Cost of Treatment at Stage 1/2 (Including Recurrence)	£12,836.00	Total Cost for Treating all Stages of Cervical Cancer in Thurrock	£25,420.00	Cost of Treatment at Stage 3/4 (Including Recurrence)
Total Treatment Costs for Early Diagnosis Treatments	£32,731.80	£95,010.80	£62,279.00	Total Treatment Costs for Late Diagnosis Treatments

Opportunity if 100% of Patients were Diagnosed at Stages 1/12

One-year survival index (%) 2013	92%	£30,830.80	55%	One-year survival index (%) 2013
Number of 1yr Survivors	2		1	Number of 1yr Survivors

SHIFT EARLY DIAGNOSES RATE IN LINE WITH EAST OF ENGLAND	
EOE early DIAGNOSIS	57%
Thurrock early Diagnosis increase Rate	6%
Savings if we improved early diagnosis rate in line with EOE	£3,775.20
Additional patients diagnosed early	0.30
Additional 1 year survivors	0.11

Model 3; Bowel Cancer

Bowel Cancer New Diagnosis

48

% of Bowel Cancer diagnosed at Early Stage (Stage 1/2)	% of Bowel Cancer diagnosed at Late Stage (Stage 3/4)
51%	49%

Number of Patients	24		24	Number of Patients
Cost of Treatment at Stage 1/2 (Including Recurrence)	£9,260.96	Total Cost for all Stages of Bowel Cancer	£18,418.71	Cost of Treatment at Stage 3/4 (Including Recurrence)
Total Treatment Costs for Early Diagnosis Treatments	£226,708.26	£659,916.28	£433,208.02	Total Treatment Costs for Late Diagnosis Treatments

Opportunity if 100% of Patients were Diagnosed at Stages 1/12

One-year survival index (%) 2013	97%	£215,390.28	68%	One-year survival index (%) 2013
Number of 1yr Survivors	24		16	Number of 1yr Survivors

SHIFT EARLY DIAGNOSES RATE IN LINE WITH EAST OF ENGLAND	
EOE early DIAGNOSIS	57%
Thurrock early Diagnosis increase Rate	6%
Savings if we improved early diagnosis rate in line with EOE	£26,374.32
Additional patients diagnosed early	3
Additional 1 year survivors	1

BREAST CANCER[3]

Model 1 quantifies the current cost to Thurrock health system for Breast Cancer treatment and shows the opportunity available if we could increase early diagnosis in line with the East of England.

The findings show that if we had 106 new patients with a diagnosis of Breast Cancer (HSCIC Data) this is currently costing Thurrock £1,457,315.12 in treatment costs (all Cancer Stages). Thurrock does have an opportunity to save an additional £475,653.54 if all patients were diagnosed at Stages 1/2. However more realistically if we improved the Early Diagnosis rate by 6%, to be in line with the East of England, by increased Screening Rates (resulting in six new patients) we could save £58,243.29 in Cancer treatment costs and one additional One Year Survivor patient.

CERVICAL CANCER[1]

Model 2 quantifies the current cost to Thurrock for Cervical Cancer treatment and shows the opportunity available if we could increase early diagnosis in line with the East of England.

The findings show that if we had five new patients with a diagnosis of Cervical Cancer (HSCIC Data) this is currently costing Thurrock £95,010.80 in treatment costs (all Cancer Stages). Thurrock does have an opportunity to save an additional £30,830.80 if all patients were diagnosed at Stages 1/2. However more realistically if we improved the Early Diagnosis rate by 6%, to be in line with the East of England, by increased Screening Rates (resulting in 0.3 new patients) we could save £3,775.20 in Cancer treatment costs.

BOWEL CANCER[1]

Model 3 quantifies the current cost to Thurrock for Bowel Cancer treatment and shows the opportunity available if we could increase early diagnosis in line with the East of England.

The findings show that if we had five new patients with a diagnosis of Bowel Cancer (HSCIC Data) this is currently costing Thurrock £659,916.28 in treatment costs (all Cancer Stages). Thurrock does have an opportunity to save an additional £218,390.28 if all Patients were diagnosed at Stages 1/2. However more realistically if we improved the Early Diagnosis rate by 6%, to be in line with the East of England, by increased Screening Rates (resulting in three new patients) we could save £26,374.32 in Cancer treatment costs and one additional One Year Survivor patient.

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[3]

- Late diagnoses are those patients that were diagnosed at any point other than stage 1 or 2
- Costs for treatment are assumed to be equal to the average of those in table 2
- Costs for recurrence are assumed to be the average of those in table 3 (we have excluded lung cancer due to the higher recurrence rate)
- Source: New Diagnosis Incidences for Breast, Cervical and Bowel Cancers - HSCIC Data (2011 - 2013)
- Source: Cervical One Year Survival assumed to be in line with All Cancers One Year Survival – ONS (2013)
- Source: Stage 1-2 diagnoses rates from Early Diagnosis experimental statistics and covers all cancers (PHE - Public Health Profiles)

CANCER PROJECTIONS

The projections stated in the tables below have been used in the models (section Cancer Health Care) to estimate savings over five years if we were to shift detection rates from Stage 3/4 to Stage 1/2 by 6%, in line with the East of England detection rates.

Table 52: Breast cancer – five year projections

Breast Cancer	Projections of new cases	6% Shift from Late to Early Diagnosis	Additional 1yr Survivors	Reduction in Treatment Costs
2011/13	106	6	1	£58,243.29
2017	108	6	1	£59,342.22
2018	111	7	1	£60,990.61
2019	115	7	1	£63,188.47
2020	117	7	1	£64,287.40
2021	120	7	1	£65,935.80
Total Count of Five Year Projections	572	34	6	£314,293.98

Source: ONS 2014-based Subnational population projections

Table 53: Cervical cancer – five year projections

Cervical Cancer	Projections of new cases	6% Shift from Late to Early Diagnosis	Additional 1yr Survivors	Reduction in Treatment Costs
2011/13	5.00	0.30	0.11	£3,775.20
2017	5.25	0.32	0.12	£3,936.96
2018	5.30	0.32	0.12	£4,001.71
2019	5.37	0.32	0.12	£4,054.56
2020	5.43	0.33	0.12	£4,099.87
2021	5.47	0.33	0.12	£4,130.07
Total Count of Five Year Projections	27	1.62	0.6	£20,386.08

Source: ONS 2014-based Subnational population projections

Table 54: Bowel cancer – five year projections

Bowel Cancer	Projections of new cases	6% Shift from Late to Early Diagnosis	Additional 1yr Survivors	Reduction in Treatment Costs
2011/13	48	3	1	£26,374.32
2017	49	3	1	£26,923.79
2018	49	3	1	£26,923.79
2019	49	3	1	£26,923.79
2020	50	3	1	£27,473.25
2021	51	3	1	£28,022.72
Total Count of Five Year Projections	247	15	4	£135,717.86

Source: ONS 2014-based Subnational population projections

7.5 OBESITY PREVENTION

7.5.1 WHAT WORKS?

Work is in progress to develop a whole systems obesity evidence base and accompanying needs assessment, which will better inform the Thurrock approach to obesity prevention.

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THE BUILT ENVIRONMENT AND THE ROLE OF PLANNING

The built environment can provide the opportunities, support and choices or barriers to being physically active. Evidence cited by the Faculty of Public Health (2013) shows that people are more likely to be physically active when they live in neighbourhoods with better resources for exercise, such as parks and walking or jogging trails; with less litter, vandalism and graffiti; and with street patterns that present fewer pedestrian obstacles. Neighbourhood design also impacts on obesity levels; with the probability of obesity being lower in residents living in areas where there is land-use mix (i.e. the area has a mix of residential, commercial, office and institutional uses). Access to **green space** has significant benefits for health and wellbeing. Natural England (2012) wrote that "[the] ability to access green settings has been demonstrated to encourage contact with nature and participation in physical activity, both of which encourage the adoption of other healthy lifestyle choices such as social engagement and consumption of healthy foods." The association is particularly strong in children. Evidence was also cited that green space has positive impacts on mental health, was associated with increased life expectancy in older people and reduces stress levels. However research is relatively under-developed associating the amount of green space in an area and physical activity.

The Kings Fund concluded that effective spatial planning can impact on health in a number of ways. The table below depicts the strength of evidence associated with specific types of spatial planning:

Table 55: The evidence relating planning and effects on aspects of health

	Heart disease	Respiratory disease	Obesity	Mental Health	Increased mortality, morbidity
Excess winter deaths	++	++		++	++
Physical activity	++		++	++	++
Excess heat	++	++			++
Air pollution	++	++			++
Safe community	+	+	+	++	+
Traffic accidents					++
Noise Pollution	+			+	
Flooding				+	++
Access to food			+		
Access to health services				+	
Unemployment				+	

++ Strong evidence + Anecdotal evidence

Source: The Kings Fund, cited by Bains (2010)

Good planning can have sustained and meaningful improvements to individuals' health and wellbeing and can have a positive impact on some of the wider determinants of health. Incorporating public health

engagement into the planning process would ensure that key health and wellbeing priorities are prioritised with a clear focus on creating healthy communities, improving access to health care services and reducing inequalities. Utilisation of robust techniques such as Health Impact Assessments will identify the potential health consequences of a future proposal on the population, explore how to maximise the positive health benefits and minimise potential adverse effects on health and inequalities.

WHAT IS CURRENTLY HAPPENING IN THURROCK?

Further work is underway to better understand the most effective ways to prevent and treat obesity – production of a comprehensive evidence review and a separate Whole Systems Obesity Needs Assessment will provide this. With regard to work with preventing obesity in children, the recently published Childhood Obesity – a Plan for Action document has driven the production of a local action plan to address this.

JOINT WORKING WITH PLANNING AND HEALTH

It is recognised that planning at all levels, can play a crucial role in creating environments that enhance people's health and well-being. To create these environments colleagues from planning, housing, regeneration and health need to work collaboratively. In response to this need, Thurrock Council hosted the first South Essex Health, Well-being and Planning Summit, which took place in September 2016, with leaders from across south Essex coming together to discuss how departments can work closer together for better health outcomes. Topics covered were wide ranging and included planning effectively for healthy weight environments, meeting the needs of an aging population and making sure that health facilities and services are located in the right place.

The South Essex Health, Well-being and Planning Summit was the first step achieving what will hopefully be the first of many meaningful discussions about health, well-being and planning issues in South Essex. The next steps on how we can take place making for health and well-being forward are now being developed; looking to create the conditions for developing a borough whose environment encourages and promotes people who live and work in the area to be physically active, to socialise and meet, and to maintain independence and have a good quality of life.

The below depicts the shared vision from the day:

Figure 87: Visual minutes, Planning and Health summit 2016

Source: More Than Minutes, 2016

7.5.2 WHAT COULD WE IMPROVE?

- Potential for further work in schools? Actions with younger people in terms of preventing?
- Behaviour change?
- MECC?
- Is recording of obesity for QOF accurate? Or is there potential to increase recording so we truly understand the problem.

7.5.3 WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

It is well-evidenced that obesity is both a risk factor for development of certain long term conditions, and a contributing factor itself to disease complications and higher service use/cost. For example, an obese woman is 13 times more likely to develop type 2 diabetes than a healthy weight woman[xvi]. The four figures below depict the modelled projected increase in numbers of stroke, CHD, Diabetes and Hypertension patients (estimated based on no major changes to service provision and population growth) up to 2026, split by those estimated to be obese and non-obese. It can be seen for all four conditions, the steeper increase in patient numbers is in those who are obese.

STROKE

The modelling work estimates that stroke patients are likely to increase by 736 (26.12%) between 2016 and 2026 from 2,812 to 3,548. In 2016, 1,092 stroke patients were estimated to also be obese, which is 39% of all stroke patients. By 2026, 1,620 of the expected 3,548 stroke patients could be obese, which is 46%.

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Figure 88: Estimated number of obese and non-obese stroke patients, 2014-2026
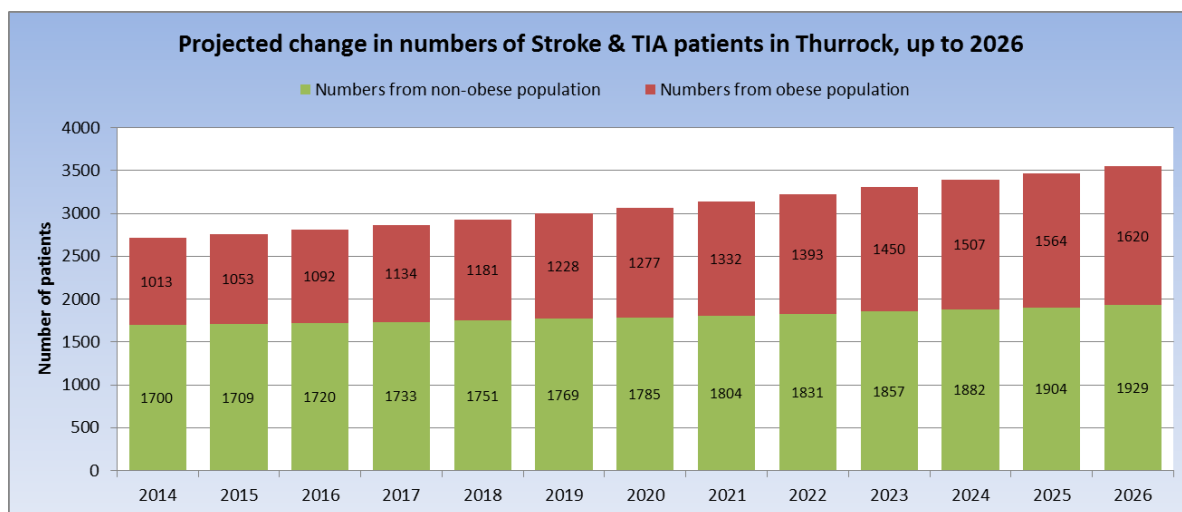
Projected change in numbers of Stroke & TIA patients in Thurrock, up to 2026

■ Numbers from non-obese population   ■ Numbers from obese population

Year	Obese	Non-obese
2014	1013	1700
2015	1053	1709
2016	1092	1720
2017	1134	1733
2018	1181	1751
2019	1228	1769
2020	1277	1785
2021	1332	1804
2022	1393	1831
2023	1450	1857
2024	1507	1882
2025	1564	1904
2026	1620	1929

Source: ONS 2014 Population Projections, NHS Comparators, Foresight Report 2007 and Norfolk County Council

CHD

The modelling work estimates that CHD patients are likely to increase by 1,847 (27.6%) between 2016 and 2026 from 6,687 to 8,534. In 2016, 2,885 CHD patients were estimated to also be obese, which is 43% of all CHD patients. By 2026, 4,315 of the expected 8,534 CHD patients could be obese, which is 51%.

Figure 89: Estimated number of obese and non-obese CHD patients, 2014-2026
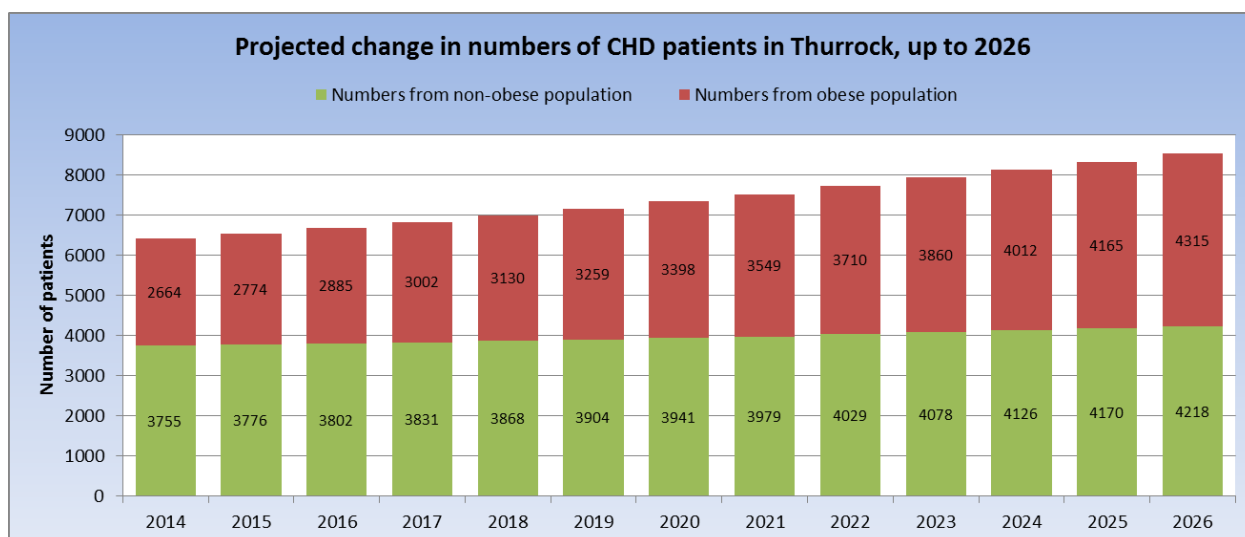
Projected change in numbers of CHD patients in Thurrock, up to 2026

■ Numbers from non-obese population   ■ Numbers from obese population

Year	Obese	Non-obese
2014	2664	3755
2015	2774	3776
2016	2885	3802
2017	3002	3831
2018	3130	3868
2019	3259	3904
2020	3398	3941
2021	3549	3979
2022	3710	4029
2023	3860	4078
2024	4012	4126
2025	4165	4170
2026	4315	4218

Source: ONS 2014 Population Projections, NHS Comparators, Foresight Report 2007 and Norfolk County Council

DIABETES

The modelling work estimates that Diabetes patients are likely to increase by 3,012 (35.88%) between 2016 and 2026 from 8,396 to 11,408. In 2016, 6,797 Diabetes patients were estimated to also be obese, which is 81% of all Diabetes patients. By 2026, 9,721 of the expected 11,408 Diabetes patients could be obese, which is 85%.

Figure 90: Estimated number of obese and non-obese Diabetes patients, 2014-2026
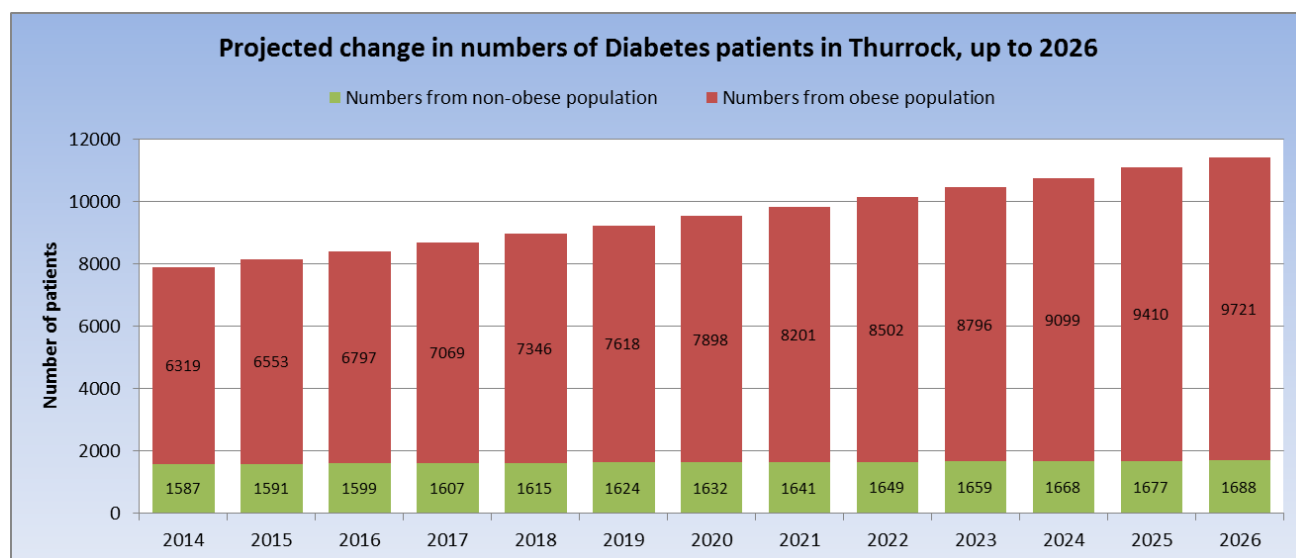
Source: ONS 2014 Population Projections, NHS Comparators, Foresight Report 2007 and Norfolk County Council

HYPERTENSION

The modelling work estimates that hypertension patients are likely to increase by 9,928 (25.06%) between 2016 and 2026 from 39,612 to 49,540. In 2016, 22,171 hypertension patients were estimated to also be obese, which is 56% of all hypertension patients. By 2026, 31,050 of the expected 49,540 hypertension patients could be obese, which is 63%.

Projected change in numbers of Hypertension patients in Thurrock, up to 2026
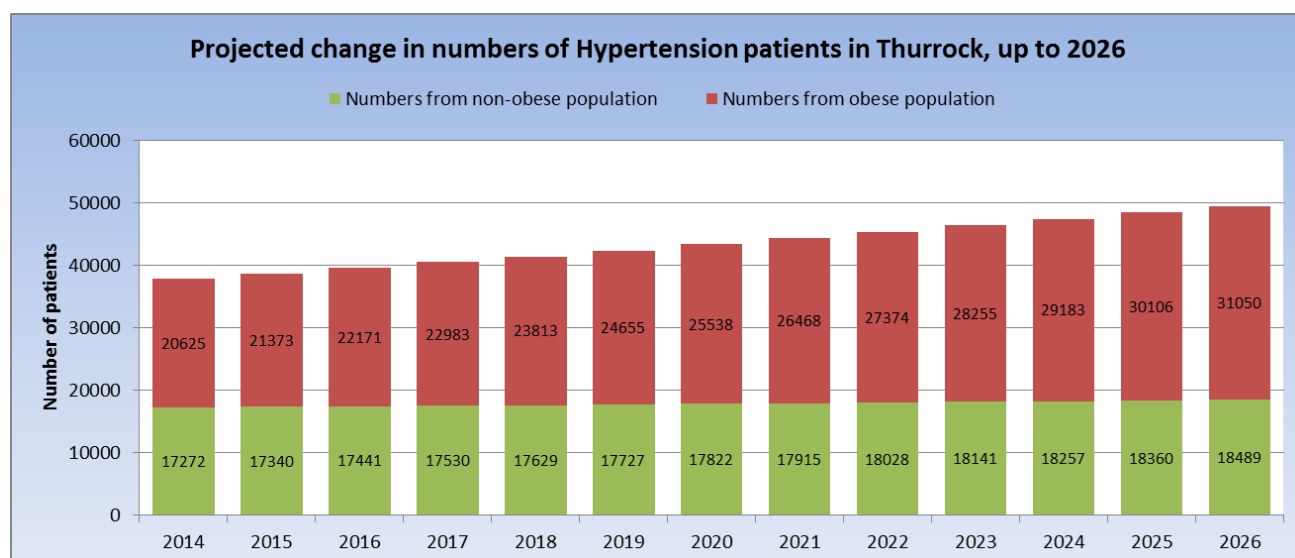
Source: ONS 2014 Population Projections, NHS Comparators, Foresight Report 2007 and Norfolk County Council

Using the information in the chart above this would mean that in 2021 there would be an additional 4,771 cases of Hypertension and that 3,694 of those are related to an increase in Obesity prevalence.

	2016	2021	Difference between 2016 and 2021	% increase	Underlying increase*	Number of additional cases due to obesity (Difference - Underlying increase)
Hypertension plus obesity	22,171	26,468	4,297	19.38%	603	3,694
Hypertension without obesity	17,441	17,915	474	2.72%	474	
* applies % increase of no obesity across board						

	Stroke admissions
Number due to natural increase in hypertension cases (population change)	2
Number due to obesity	6

Source: ONS 2014 Population Projections, NHS Comparators, Foresight Report 2007 and Norfolk County Council

Our Emergency admission models suggest that for every additional hypertensive patient an average practice will have an additional 0.05 stroke admissions over a three year period. This would mean that in 2021 we would expect an additional 6 stroke non-elective admissions per year as a result of rising levels of obesity. This would have an associated cost of and £1,386 to ASC per year of life lived post stroke

The impact of increased numbers of patients with long term conditions who are also obese will increase the health and social care costs, with obese patients estimated to have approximately 30% higher medical costs than non-obese patients[xvii]. Research by Public Health England (2016)[xviii] also found that severely obese people are over 3 times more likely to require social care than those of a normal weight, with examples of requirements including housing adaptations, carers or provision of appropriate transport and facilities. The

same research also cited that obesity reduces life expectancy by an average of 3 years, and severe obesity could reduce life expectancy by an average of 8-10 years.

Using the above assumption that obese patients with a long term condition will have 30% higher medical costs than non-obese LTC patients, applying this to the projected change in obese LTC patients in Thurrock would mean:

Table 56: Estimated additional treatment costs due to obesity in 2021

Condition	Average treatment cost per person	Average treatment cost per obese person	Additional number of obese patients between 2016 and 2021	Additional projected health costs between 2016 and 2021 due to obesity as a co-morbidity
Stroke	£23,315 (acute & rehab care)	£30,309.50 (acute & rehab care)	240	**£1,678,680** (acute & rehab care)
CHD	£4,956 (Coronary Artery Bypass Graft) £427 (Cardiac Rehab episode) £20 (ACE inhibitors per year)	£6,442.80 (Coronary Artery Bypass Graft) £555.10 (Cardiac Rehab episode) £26 (ACE inhibitors per year)	664	**£987,235.20** (Coronary Artery Bypass Graft) **£85,058.40** (Cardiac Rehab episode) **£3,984** (ACE inhibitors per year)
Diabetes	£1,800-£2,500 per year (inpatient only)	£2,340-£3,250 per year (inpatient only)	1,404	**£758,160-£1,053,000** per year (inpatient only)
Hypertension	£69 per year	£89.70 per year	4,297	£88,947.90 per year

Source: Stroke Association, British Heart Foundation, Diabetes UK, Public Health England and Norfolk County Council methodology

7.6 HEALTH CHECKS

The NHS Health Check is a national risk assessment, awareness and management programme for those aged 40 to 74 living in England who do not have an existing vascular condition, and who are not currently being treated for certain risk factors. It is aimed at preventing heart disease, stroke, diabetes and kidney disease. The check which should be offered every five years, systematically targets the top seven causes of premature mortality. It incorporates current NICE-recommended public health and clinical guidance, ensuring it has a robust evidence base for the individual interventions included, i.e. smoking cessation or blood pressure management. As such, the NHS Health Check programme offers the English health and care system an outstanding opportunity to reduce the growing burden of non-communicable disease related to behavioural and physiological risk factors.

7.6.1 WHAT WORKS?

Evidence indicates the effectiveness of case-finding for prevention in defined populations especially where the benefit of intervention is clear cut such as for hypertension. However, whilst such programmes can be beneficial for individuals, the potential impact on the total burden of disease in the population is often minimal. Information taken from the national evaluation of the NHS Health Check programme[xix] looked at attendees and non-attendees of Health Checks over the period 2009-2013, and found that whilst take up was slow to begin with, this had increased, and the programme had been successful at reaching many of those at somewhat higher than average risk. The findings showed that NHS Health Check attendance was associated with significant decreases in blood pressure, BMI and total cholesterol which persisted after

matching. There was no significant change in smoking rates. This evidence indicates that appropriate targeting of the NHS Health Check program in Thurrock could result in improved lifestyle behaviours, and a reduction in future long term conditions.

7.6.2 WHAT IS CURRENTLY HAPPENING IN THURROCK?

Health Checks are delivered in Thurrock by GPs and by Vitality via an outreach service. There are also discussions in process to pilot delivery of Health Checks in pharmacies.

Work is underway to undertake a separate Health Equity Audit of the NHS Health Check programme delivered in 2015-16 to better understand service delivery and identify opportunities for improvement. The audit will particularly focus on targeting Health Checks appropriately and understanding barriers for checks, as well as aim to get a broader understanding of the outcomes achieved.

In 2015/16, Thurrock invited 7,703 individuals to a Health Check out of an eligible population of 38,138, equating to an invite percentage of 20.2%. As the eligible population is calculated for a five year period, it is expected that approximately 20% of this figure would be invited each year. Of the 7,703, 4,364 attended, equating to an uptake percentage of 56.65%, which is significantly above the national average. Comparison of these results to the national average can be seen below.

Figure 92: Invites and Uptake of NHS Health Check in Thurrock and England, 2015/16
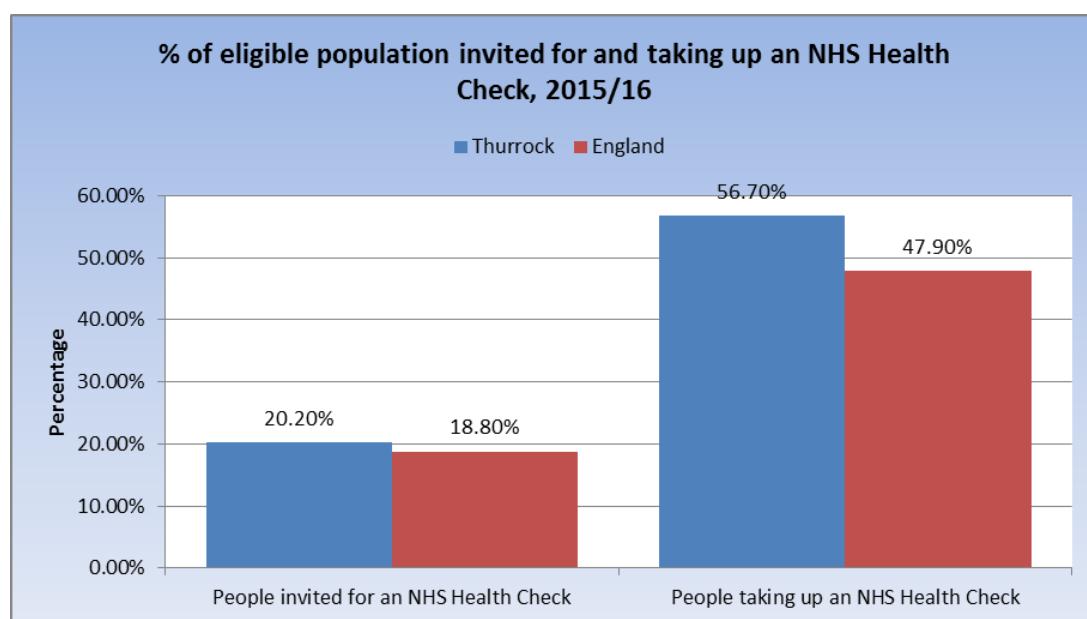
Source: Public Health England

The program is designed for up to 20% of the eligible population to receive a Health Check each year. The last three years of data show that Thurrock has had significantly higher proportions of their eligible population receiving Health Checks than the national average, with 13.73%, 12.74% and 11.44% receiving Health Checks in 2013/14, 2014/15 and 2015/16 respectively. This can be seen in the figure below.

Percentage of eligible population receiving an NHS Health Check per year
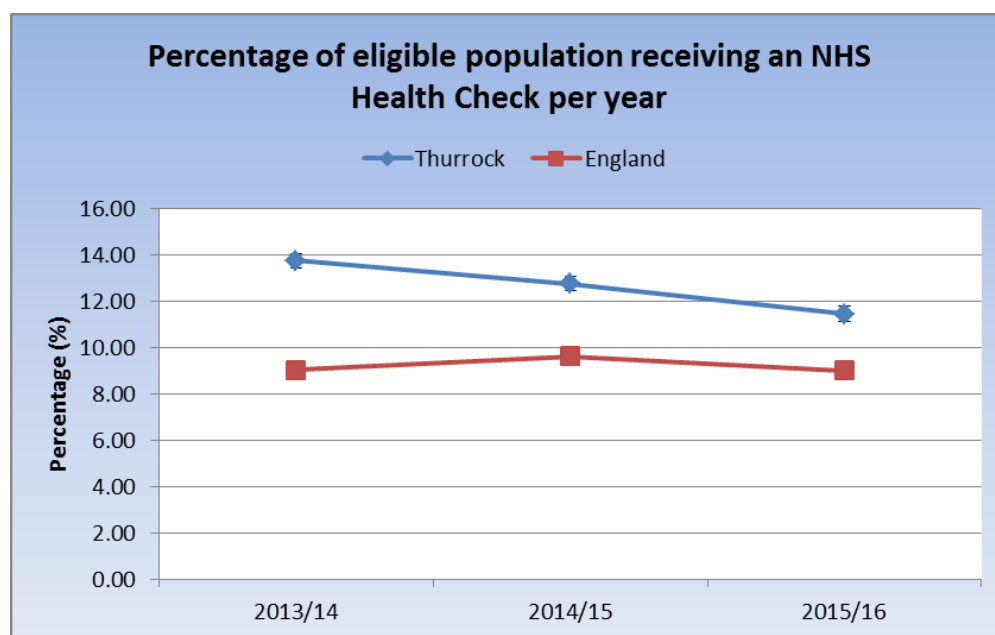
Source: Public Health England

GP-level analysis of invites and uptake will be presented as part of the separate NHS Health Check Health Equity Audit (due for completion by December 2016).

7.6.3 WHAT COULD WE IMPROVE?

- GP uptake is varied – work should be undertaken with GPs with lower uptake, particularly those also in areas of high deprivation or ill health
- Improve uptake/follow on through services – reduced information is known about the effectiveness of Thurrock's checks on outcomes in future years.
- Further work will come from the findings from the HEA

7.6.4 WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

Inputting Thurrock's NHS Health Check data into the national Health Check Ready Reckoner model enabled generation of some modelled outcomes. Using Thurrock's most recent population information, including figures on ineligible population, it is estimated that of the 4,364 attendees:

Table 57: Estimated outcomes from Thurrock's 2015/16 Health Checks

Characteristic	Outcome
1,048 would have been obese	285 additional people complete a weight loss program due to the NHS Health Check
1,885 people would have been at high risk of diabetes	66 new diagnoses of diabetes – 40 due to the NHS Health Check
1,155 people would have had a single high blood pressure reading	490 people are prescribed anti-hypertensive drugs (118 due to NHS Health Check)
	137 new diagnoses of CKD – 74 due to the NHS Health Check
2,896 people would have been inactive	2,230 people would have undertaken a brief exercise intervention (1,405 due to the NHS Health Check), of which 70 people would have increased their levels of physical activity.
1,136 people would have smoked	216 people would have been referred to smoking cessation (110 due to the NHS Health Check), resulting in 6 people quitting smoking.

Source: NHS Health Check Ready Reckoner tool, 2015 population estimates and Thurrock Council Public Health team

One way of measuring cost effectiveness of an intervention is to use the calculation of QALYs (Quality Adjusted Life Years) which estimate the quality and length of life gained as a result of an intervention. [One QALY is equal to 1 year of life in perfect health.] Generally, it is considered that interventions costing the NHS less than £20,000 per QALY gained are cost effective. Those costing between £20,000 and £30,000 per QALY gained may also be deemed cost effective, if certain conditions are satisfied.

The tool estimates that the NHS Health Check program resulted in **lifetime gains of 518 QALYs at a cost of £1,768 per QALY** with an uptake rate of 56%.

If the uptake percentage was increased by 10% to 66%, the following outcomes might be seen:

Table 58: Estimated outcomes from Thurrock's 2015/16 Health Checks with an increased uptake

Characteristic	Outcome
1,163 would have been obese	316 additional people complete a weight loss program due to the NHS Health Check
2,092 people would have been at high risk of diabetes	73 new diagnoses of diabetes – 44 due to the NHS Health Check
1,282 people would have had a single high blood pressure reading	544 people are prescribed anti-hypertensive drugs (130 due to NHS Health Check)
	152 new diagnoses of CKD – 82 due to the NHS Health Check
3,215 people would have been inactive	2,476 people would have undertaken a brief exercise intervention (1,560 due to the NHS Health Check), of which 78 people would have increased their levels of physical activity.
1,261 people would have smoked	240 people would have been referred to smoking cessation (122 due to the NHS Health Check), resulting in 6 people quitting smoking.

Source: NHS Health Check Ready Reckoner tool, 2015 population estimates and Thurrock Council Public Health team

The tool estimates that the NHS Health Check program would have resulted in lifetime gains of 575 QALYs at a cost of £1,768 per QALY if it had had an uptake rate of 66% - **resulting in 57 more QALYs due to the increased uptake.** If each of these has a cost of £1,768, this would result in a total cost of £100,776.

7.7 NATIONAL DIABETES PREVENTION PROGRAMME

7.7.1 WHAT WORKS?

Lifestyle is a major factor in the onset of type II diabetes; diet, physical activity and obesity. The new evidence based national diabetes prevention programme is currently being rolled out as a pilot. In this programme those who are at high risk of developing type II diabetes are referred for intensive lifestyle change support.

7.7.2 WHAT IS CURRENTLY HAPPENING IN THURROCK?

Thurrock is part of the Wave 1 list of sites delivering this program in partnership with Essex and Southend. The diagram below depicts the entry process onto the program:
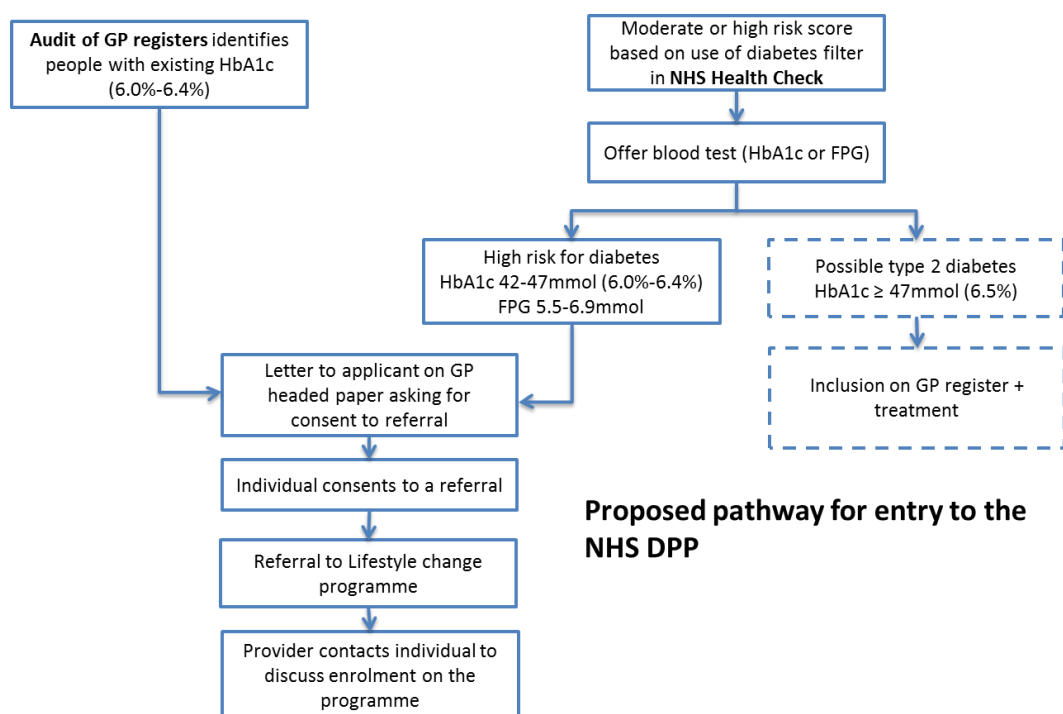
Source: NHS England

7.7.3 WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

A Ready Reckoner tool was developed by the University of Sheffield in order to estimate likely benefits from implementing the National Diabetes Prevention Program in each CCG area. Assuming that 500 patients are referred, with a cost of £270 each and with a standard intervention effect, below are some of the key estimated impacts:

- 160 patients will receive the intervention (32% of referred population)
- There will be a cumulative reduction of 6.6 Diabetes cases by 2020/2021
- The total intervention cost will be £43,200; and the savings to the NHS will outweigh the cost by year 12 [see table below for breakdown of expected savings over time]

Table 59: Expected savings to health and social care from Diabetes Prevention Program

	2016/17	2017/18	2018/19	2019/20	2020/21	2025/26	2030/31	2035/36
Total NHS Savings	£5,371	£8,965	£12,820	£16,330	£19,981	£39,035	£48,905	£54,168
Primary Care Savings	£1,338	£2,432	£3,551	£4,646	£5,645	£9,070	£9,987	£10,469
Secondary Care Savings	£2,502	£4,018	£5,820	£7,466	£8,906	£14,496	£18,742	£21,873
Cashable Savings*	£1,531	£2,515	£3,448	£4,218	£5,430	£15,470	£20,175	£21,826
Prescription/Medication Savings	£1,485	£2,386	£3,220	£3,883	£5,010	£15,021	£19,802	£21,449
Laboratory Test Savings	£47	£129	£228	£335	£419	£449	£373	£377
Social Care Savings	£117	£408	£707	£1,041	£1,374	£2,481	£2,766	£3,040

Source: Diabetes Prevention Program Ready Reckoner, 2016

- Savings to the NHS will come from a number of areas, including reduced Diabetes treatment costs, reduced cardiovascular costs, osteoarthritis savings and reduced numbers of strokes. This can be seen in the figure below.

Figure 95: Expected NHS savings from Diabetes Prevention Program
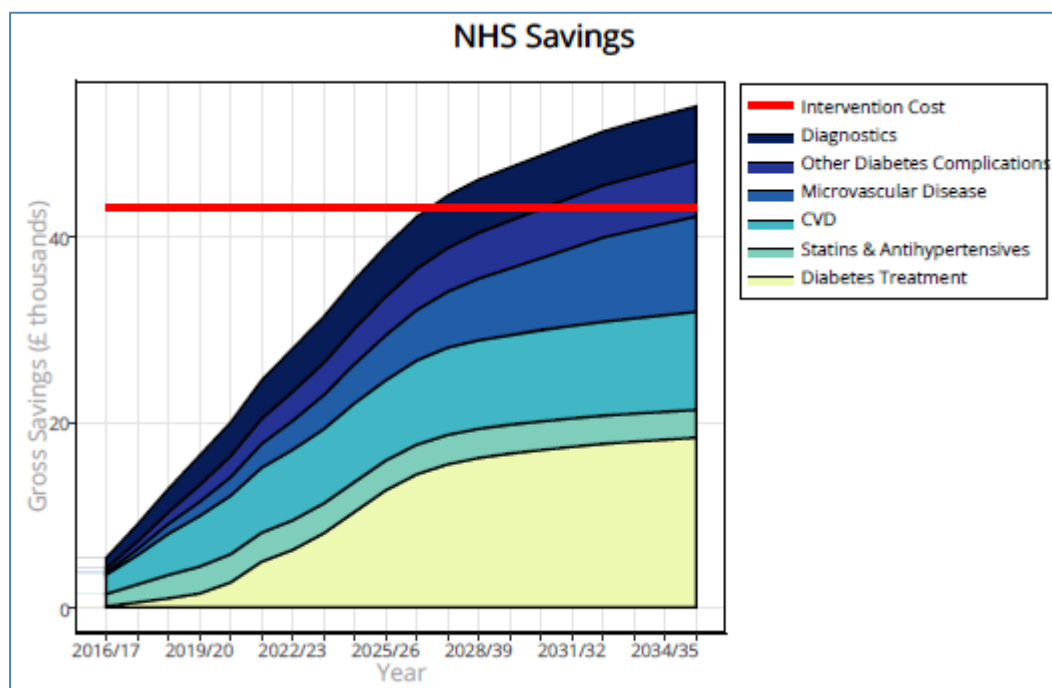
Source: Diabetes Prevention Program Ready Reckoner, 2016

- When compared to the expected England outputs per 1,000 patients, Thurrock has very similar expected outcomes, with both areas estimating 41.5 per 1,000 fewer Diabetes cases by 2020/21. There is also a comparable level of savings to the NHS with the national average – in 5 years, Thurrock should see savings of £124,879 per 1,000 patients, compared to the national expected savings of £120,083 per 1,000 patients.

Projections of future numbers of Diabetes patients show that the number of patients who are also obese is likely to increase if nothing is done – further demonstrating the importance to ensure this program is fully endorsed and supported to help prevent future cases of Diabetes. This can be seen in the Obesity Prevention section of the document.

7.8 FALLS PREVENTION

7.8.1 WHAT WORKS?

In 2013 Kings Fund Published a paper using the Torbay linked health and social care data set[xx]. They found the following based on 421 falls:

- On average, the cost of hospital, community and social care services for each patient who fell were almost four times as much in the 12 months after admission for a fall as the costs of the admission itself.
- Over the 12 months that followed admission for falls, costs were 70 % higher than in the 12 months before the fall.
- Comparing the 12 months before and after a fall, the most dramatic increase was in community care costs (160%), compare to a 37% increase in social care costs and a 35% increase in acute hospital care costs.
- While falls patients in this study accounted for slightly more than 1 % of Torbay's over-65 population, in the 12 months that followed a fall, spending on their care accounted for 4 % of the whole local adult social care budget.

Figure 96: Falls costs by category and time

Figure 1 Costs of the core event, and other health and social care costs in the 12 months before and after
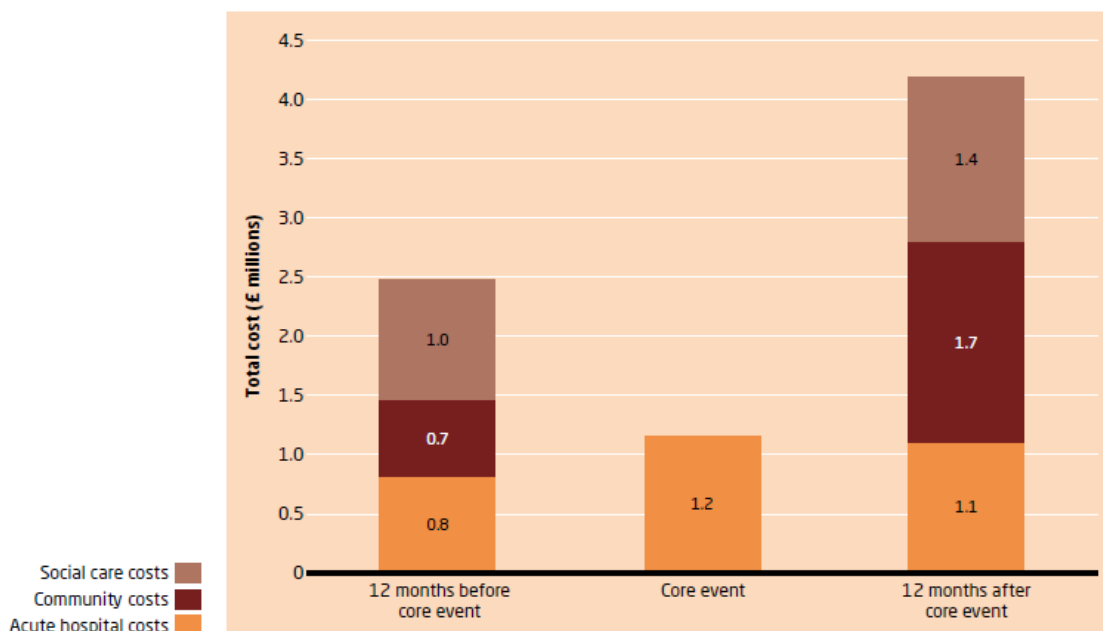
Source: All figures are the authors' own, based on data provided by Torbay

The "core event" costs in Torbay are estimated at £2,850 per fall.

The NICE recommended pathway can be found here:

https://pathways.nice.org.uk/pathways/falls-in-older-people

7.8.2   WHAT IMPACTS COULD THAT HAVE ON THE HEALTH AND SOCIAL CARE SYSTEM?

Applying the findings from Torbay to the Thurrock Population, assuming that:

1) All of the above hospital activity is due to falls.

2) A conservative 60% of the above hospital activity is due to falls

Table 60: Potential cost savings from falls prevention in Thurrock

	Per Fall					Applied to Local Information	
	12 months before core event	Core Event	12 months after core event	Difference (after-before)	Cost per fall	Total Cost of falls (1,540 per year)	Total Cost of falls (924 per year)
Social Care Costs	£2,375		£3,325	£950	£950	£1,463,184.80	£877,910.88
Community Costs	£1,663		£4,038	£237	£237	£365,426.60	£219,255.96
Acute Hospital Costs	£1,900	£2,850	£2,613	£713	£3,563	£5,486,388.60	£3,291,833.16
Total					£4,750	£7,315,000	£4,389,000

We believe that we are spending between £4M and £7M per year due to falls. (This only includes the costs of Social Care, Community Health Care and Acute Hospital Care. Ambulance services are not included.

7.8.3 WHAT IS CURRENTLY HAPPENING IN THURROCK

In Thurrock we are piloting a falls prevention scheme which includes an increased pharmacist capacity and a geriatrician to oversee the programme. We expect this service to start imminently and will evaluate robustly as to the impacts. We have secured funding of £152 K to pilot this scheme.

Returns on investment are expected to be **between £1.88 and £3.79 for every £1 we spend.**

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7.9   IMPROVING ACCESS TO PRIMARY CARE

7.9.1   WHAT WORKS?

GP and Nursing levels in Thurrock are a particular problem. The figure below shows the number of additional GPs and Nurses that would be required, by locality simply to align Thurrock with the England average.

Figure 97: Patients per WTE GP and nurse per Thurrock locality and England
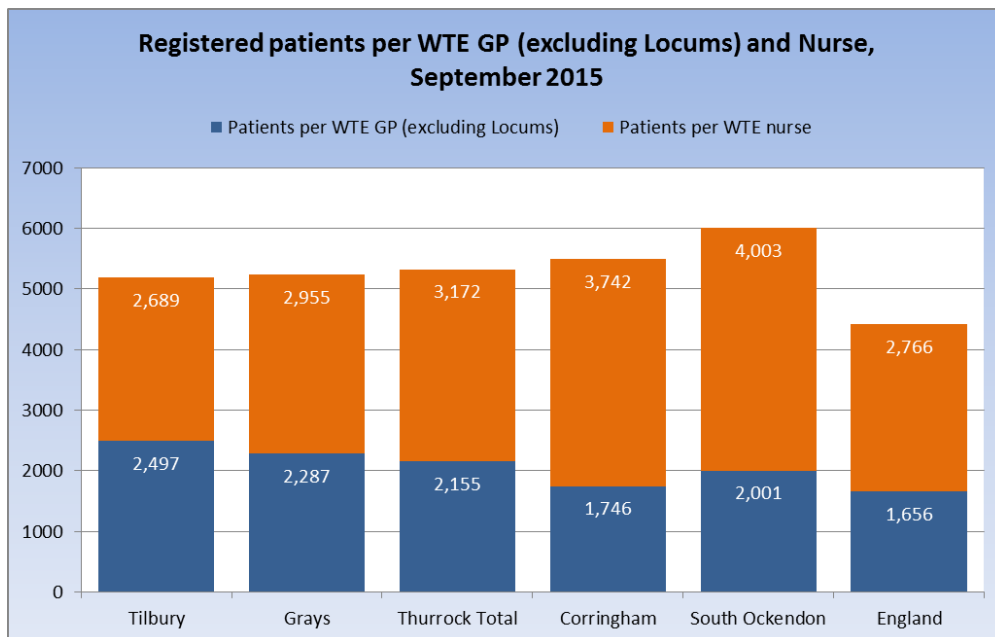
Source: HSCIC

Figure 98: Current and Additional GPs required to meet England average
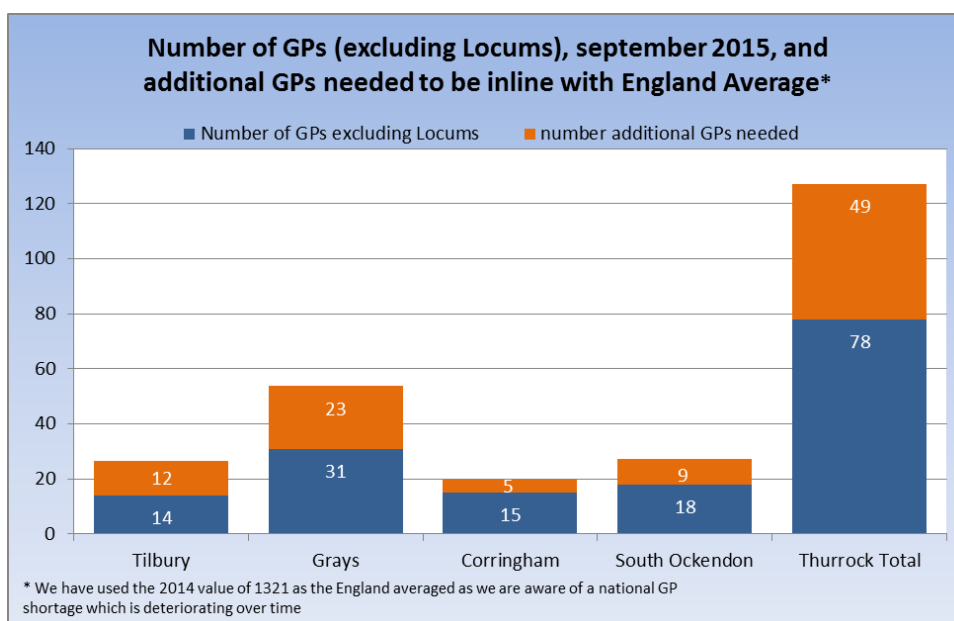
Source: HSCIC

Figure 99: Current and Additional nurses required to meet England average
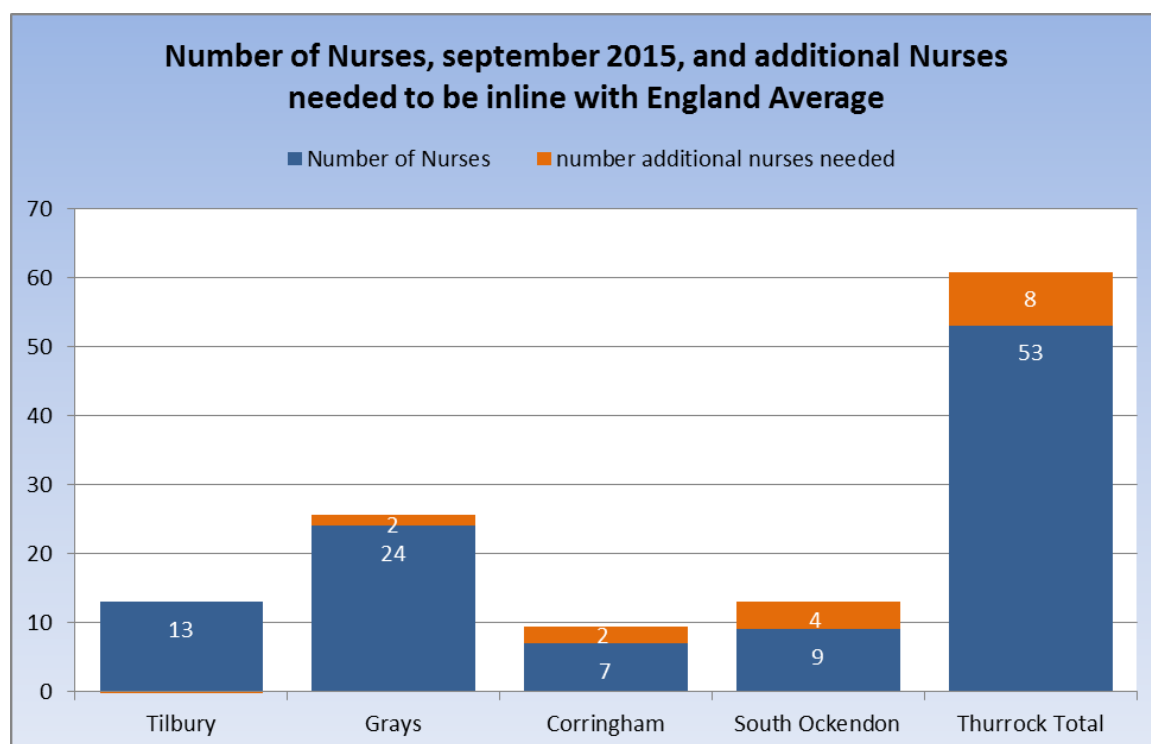
Source: HSCIC

This is not feasible. To attract 53 GPs and 8 nurses into Thurrock, an area with huge health needs, under-doctoring and so close to city jobs with more attractive salaries would be difficult. We need to tackle this in two ways:

1. Make it more attractive to young, newly qualified GP's to come and work here.
2. Free up GP time so that they can spend time solving clinical issues, and caring for their patients rather than dealing with every day bureaucratic processes.

Plans are already under-way to tackle 1, these are discussed below (what is currently happening in Thurrock).

In October 2015 the Primary Care Foundation and NHS alliance published "Making Time in General Practice [xxi]. This report looks at a number of ways that we can free up GP time, leaving them with more time to do the job that they were trained to do and perhaps go some of the way to bridging the gap between the number of GPs that are required and what we can provide. Solutions can be split into two broad categories:

1) Introducing alternative staff (clinical and/or administrative) to take over some of the work load
2) Introducing an environment to reduce the bureaucratic burden on GPs. This includes information systems, communications, referrals pathways etc...

There is much work to be done nationally on both of these but here we concentrate on what is in Primary care and the CCGs gift to achieve.

PHYSIOTHERAPY

Physiotherapists working in a primary care setting have been shown to:

- Reduce referrals to secondary care orthopaedics
- Reduce unrequired diagnostic investigations such as x-rays
- Reduce referral processes and therefore waiting times if physiotherapists are not based solely in community or secondary care settings
- Increase the number of patients able to self-manage effectively
- Improve health outcomes (for patients who have self-referred, likely due to reduced waiting times and the sense of empowerment over their own care

Information from the Chartered Society of Physiotherapists indicates that physiotherapists are experts in rehabilitation and reablement, and can reverse the deterioration in ability. Physiotherapy builds resilience for the long term by supporting self-management and training families, carers and care professionals to deliver care safely and effectively and facilitate reintegration into the community.

7.9.2   WHAT IS CURRENTLY HAPPENING IN THURROCK

There are four Integrated healthy living centres being built/planned in Thurrock - one in each locality. It is felt that these will have an impact in multiple ways:

1) They will attract GPs into the area
2) They will make it easier to fully integrate services so that the centres can be a 1 stop shop for patients/residents
3) They will enable easier diagnoses and treatment of conditions as there will be on-site diagnostic equipment
4) There will be space to run clinics such as smoking cessation or Long Term Condition management

In these healthy living centres we are recommending the staffing structures for primary care as discussed in the "making time in general practice paper". We have modelled what amount of work could be conducted by other professionals, and re-calculated how many GPs and nurses we would then need to operate excellent primary care facilities. These models are discussed below.

AVAILABILITY OF APPOINTMENTS

Within Thurrock's GP Practices, the perceived ability to get a GP appointment varies, with The Sorrells Surgery providing 91% of patients with appointments and College Health providing 37%. The Thurrock average is 68% of patients being able to get an appointment. This indicator was factored into the stroke, CHD and COPD models as a hypothesised factor impacting on admissions, and it was shown to have the strongest impact in the CHD model, which found that increasing perceived availabilty of getting an appointment by 0.05 percentage points could prevent 24 CHD admissions in a three year period.

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Figure 100: Availability of appointment, practice-level
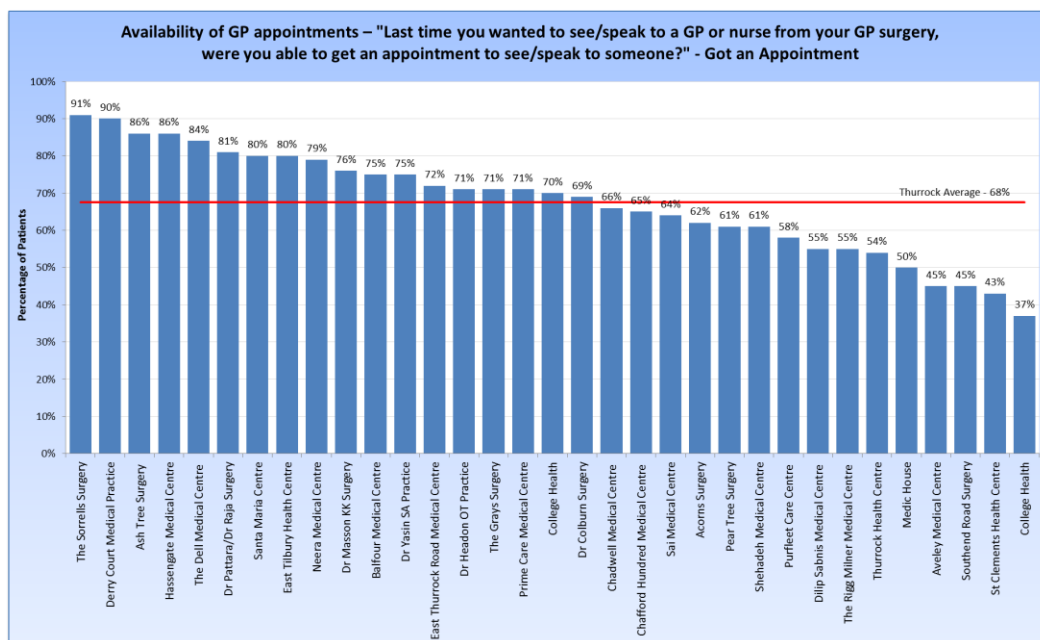
Source: GP Patient Survey

AWARENESS OF OUT OF HOURS SERVICE

There is also variation in the proportion of patients who are aware of the out of hours service. The Dell Medical Centre has a value of 81% and Purfleet Care Centre has 32%. The Thurrock average is 60% of patients stating they are aware of the out of hours service. This indicator was factored into the A&E model as a hypothesised factor impacting on inappropriate A&E use; however it did not show as having a significant impact.

Figure 101: Awareness of Out of Hours service, practice-level
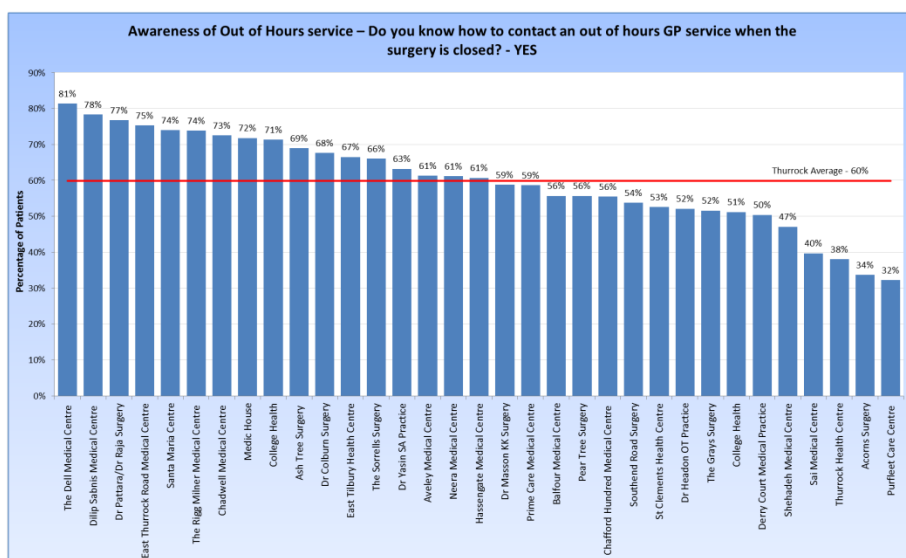
Source: GP Patient Survey

7.9.3 WHAT COULD WE IMPROVE?

STAFFING ALTERNATIVES

Figure 102 shows the administrative (red) and clinical (blue) staff that could surround GPs in primary care to reduce the number of required GPs and maximise GP time spent on clinical issues. The remit of each of these roles is explored individually in the appendices.

It is important to note here that the staff considered not only reduce the caseload of a GP but also add value and aim to target some of the needs of the population identified in **Appendix A**

Figure 102 Primary Care Staff Mix Model to maximise GP time spent on clinical issues
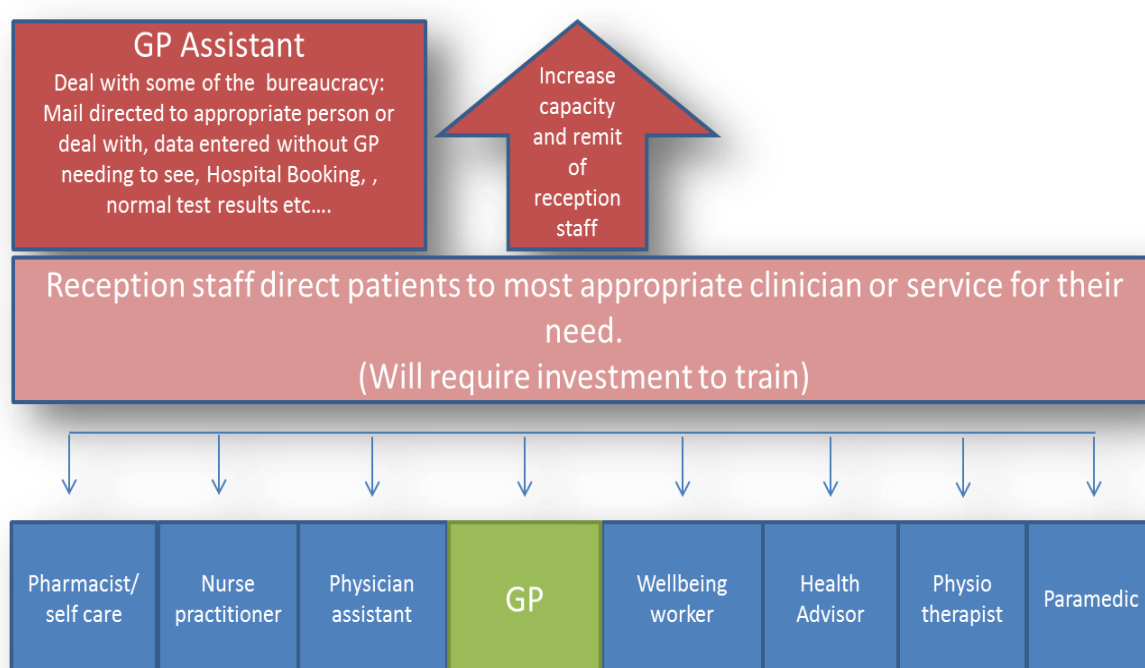
 A brief description of these jobs is available in appendix 2.

7.9.4 WHAT IMPACTS COULD WE HAVE

A BETTER SKILL MIX IN PRIMARY CARE

Using assumptions[4] from the "making time in general practice" report we have calculated the expected staff mix that would be required to offer enough appointments for our populations currently and in 2021. It has

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[4] Assumptions:
1) In Tilbury and Purfleet it is assumed that the ratio of patients: GPs under the current model should be 1300:1 – this is to reverse the inverse care law (Tilbury Integrated healthy living centre needs assessment, 2015). For the other localities the England average is assumed.
2) The recommended ratio of 4000:1 is assumed for nurses

been assumed that average levels of GP's and Nurses (England) would be adequate under the current model (unless stated in otherwise in the assumptions list), and that an equivalent number of appointments would be required by other staff that will reduce demand on GPs in the mixed staffing models. These are illustrated in tables 61 to 64. It can be seen that the mixed staffing model drastically reduces both the demand on GPs but also the number of GP's required to effectively manage the four localities. This model would result in an extra **2,186** appointments for patients, per day, compared to what we are currently able to provide, this would increase to an additional 2928 by 2021.

3) In a full time day a GP, Practice pharmacist, nurse practitioner, wellbeing worker and physiotherapist can spend around 410.4 minutes per day seeing patients.
4) Appointment lengths for GPs, practice pharmacists and nurse practitioners are 10 minutes each
5) Appointments for wellbeing workers are 30 minutes in length
6) Appointments for physiotherapists are 15 minutes in length
7) A practice pharmacist can deal with 5.5% of a GPs caseload
8) A Nurse practitioner can deal with 6.5% of a GPs caseload
9) A Well-being worker can deal with 4% of a GPs caseload
10) A Physiotherapist can deal with 20% of a GPs caseload
11) A Physician assistant can deal with 40 appointments per day
12) A GP assistant for 3 hours per week per 5000 patients would free up 40 minutes of GP time per day
13) Each communication with a receptionist would last 3 minutes and they would have 410.4 minutes per day to communicate with patients.
14) GP registered populations will increase in the same pattern as the Local Authority estimated population projections. (source: GP registered populations, April 2016 & 2014-based ONS Subnational Population Projections)

Table 61: Impact of current and proposed staffing models – Tilbury locality

| | Tilbury | | | |
| | 2015 | | 2021 | |
	FTE Staff	Total Number of Appointments per day	FTE Staff	Total Number of Appointments per day
CURRENT MODEL				
Current Number of FTE GP's (excluding Locums)	19	780		
Current number of FTE Nurses	13	534		
TOTAL APPOINTMENTS PER DAY		**1313**		
CURRENT MODEL INCREASED TO REQUIRED RATIOS				
Total number of FTE GP's required (See assumptions for Ratios)	27	1104	30	1244
Total number of FTE Nurses required	13	519	14	585
TOTAL APPOINTMENTS PER DAY		**1623**		**1828**
ADDITIONAL APPOINTMENTS (compared to current)		**309**		**515**
MIXED STAFFING MODEL				
receptionist	3		4	
practice pharmacist	1	61	2	68
nurse practitioner	2	72	2	81
Wellbeing worker	3	44	4	50
Physio-therapist	8	221	9	249
physician assistant	1	40	1	40
GP assistant	1	4	1	4
GPs	16	662	20	802
Plus Nurses already in Post	13	534	13	534
Plus additional Nurses	N/A	N/A	1	51
TOTAL APPOINTMENTS PER DAY		**1637**		**1879**
ADDITIONAL APPOINTMENTS (compared to current)		**324**		**565**

Note: for Tilbury assumption of WTE GPs required under current model has been adjusted to 1300 patients per WTE to account for the additional need due to deprivation.

Table 62: Impact of current and proposed staffing models – South Ockendon locality

| | South Ockenden | | | |
| | 2015 | | 2021 | |
	FTE Staff	Total Number of Appointments per day	FTE Staff	Total Number of Appointments per day
CURRENT MODEL				
Current Number of FTE GP's (excluding Locums)	18	739		
Current number of FTE Nurses	9	369		
TOTAL APPOINTMENTS PER DAY		**1108**		
CURRENT MODEL INCREASED TO REQUIRED RATIOS				
Total number of FTE GP's required (See assumptions for Ratios)	28	1137	30	1215
Total number of FTE Nurses required	13	535	14	571
TOTAL APPOINTMENTS PER DAY		**1672**		**1787**
ADDITIONAL APPOINTMENTS (compared to current)		**564**		**679**
MIXED STAFFING MODEL				
receptionist	3		4	
practice pharmacist	2	63	2	67
nurse practitioner	2	74	2	79
Wellbeing worker	3	45	4	49
Physio-therapist	8	227	9	243
physician assistant	1	40	1	40
GP assistant	1	4	1	4
GPs	17	684	19	762
Plus Nurses already in Post	9	369	9	369
Plus additional Nurses	4	165	5	202
TOTAL APPOINTMENTS PER DAY		**1672**		**1815**
ADDITIONAL APPOINTMENTS (compared to current)		**564**		**707**

Note: for South Ockendon assumption of WTE GPs required under current model has been adjusted to 1300 patients per WTE to account for the additional need due to deprivation.

Table 63: Impact of current and proposed staffing models - Grays locality

| | Grays | | | |
| | 2015 | | 2021 | |
	FTE Staff	Total Number of Appointments per day	FTE Staff	Total Number of Appointments per day
CURRENT MODEL				
Current Number of FTE GP's (excluding Locums)	31	1272		
Current number of FTE Nurses	24	985		
TOTAL APPOINTMENTS PER DAY		**2257**		
CURRENT MODEL INCREASED TO REQUIRED RATIOS				
Total number of FTE GP's required (See assumptions for Ratios)	54	2203	57	2349
Total number of FTE Nurses required	26	1052	27	1122
TOTAL APPOINTMENTS PER DAY		**3255**		**3471**
ADDITIONAL APPOINTMENTS (compared to current)		**998**		**1214**
MIXED STAFFING MODEL				
receptionist	6		7	
practice pharmacist	3	121	3	129
nurse practitioner	3	143	4	153
Wellbeing worker	6	88	7	94
Physio-therapist	16	441	17	470
physician assistant	1	40	1	40
GP assistant	1	4	1	4
GPs	33	1366	37	1512
Plus Nurses already in Post	24	985	24	985
Plus additional Nurses	2	68	3	137
TOTAL APPOINTMENTS PER DAY		**3255**		**3524**
ADDITIONAL APPOINTMENTS (compared to current)		**998**		**1267**

Table 64: Impact of current and proposed staffing models - Corringham locality

| | Corringham | | | |
| | 2015 | | 2021 | |
	FTE Staff	Total Number of Appointments per day	FTE Staff	Total Number of Appointments per day
CURRENT MODEL				
Current Number of FTE GP's (excluding Locums)	15	616		
Current number of FTE Nurses	7	287		
TOTAL APPOINTMENTS PER DAY		**903**		
CURRENT MODEL INCREASED TO REQUIRED RATIOS				
Total number of FTE GP's required (See assumptions for Ratios)	20	814	21	862
Total number of FTE Nurses required	9	389	10	412
TOTAL APPOINTMENTS PER DAY		**1203**		**1275**
ADDITIONAL APPOINTMENTS (compared to current)		**300**		**372**
MIXED STAFFING MODEL				
receptionist	2		3	
practice pharmacist	1	45	1	47
nurse practitioner	1	53	1	56
Wellbeing worker	2	33	3	34
Physio-therapist	6	163	6	172
physician assistant	1	40	1	40
GP assistant	0	4	0	4
GPs	12	477	13	525
Plus Nurses already in Post	7	287	7	287
Plus additional Nurses	2	102	3	125
TOTAL APPOINTMENTS PER DAY		**1203**		**1292**
ADDITIONAL APPOINTMENTS (compared to current)		**300**		**389**

More focused, pro-active Primary Care Staff

Some of the additional **2,186** appointments per day could be used pro-actively to support the prevention agenda of the Health and Well-being strategy in Thurrock. This could include the running of Long Term Condition clinics to ensure patients are able to better manage their conditions, partaking in disease detection programmes (such as the diabetes prevention programme and the hypertension detection programme), offering lifestyle advice to patients who need it. All of these things would impact on the health of the population and contribute toward reducing activity in secondary and social care.

Expected reduction in Health and Social care activity

A conservative assumption that the new staffing model mix model would impact only as much as increasing the availability of appointments, assuming that the measure (in the practice survey) were to increase linearly with the increase in provision of appointments (that is an increase of 40% in 2016 and 50% by 2021) we could expect a decrease of 201 respiratory non elective admissions and 341 CHD/HF non-elective admissions in a year if everything else remained as was in 2014/15, the cost would be around **£448,833 for respiratory non elective admissions** (average tariff cost of £2,233 as per 2015/16 costs) and around **£1,388,814 for CHD/HF non-elective admissions** (average admission cost of £4,614 as per NICE 2010).

A reduction in the number of events for these conditions would also be expected to have an additional reduction/delay in the requirement of social care packages yielding savings. It is not currently possible to quantify this but we expect to re-visit in the near future.

Impact to GP time (including self-referrals to Physiotherapy)

The *Making Time in General Practice report (2015*) presents some assumptions about different staff scenarios and how they can impact on GP time. The output from the staffing model that indicates that there could be up to 902 physiotherapy appointments per day now, or 1,134 appointments by 2021, which could be used to address these MSK conditions and free up GP time. Using an assumption that a physiotherapist in primary care could deal with 20% of a GP's MSK caseload, and that they are seeing all 6,812 patients with hip osteoarthritis and 11,622 patients with knee osteoarthritis, this could mean the physiotherapists could take up to 1,362 hip and 2,324 knee patients.

Enabling a patient to self-refer to a physiotherapist has been estimated to save the NHS £33 per patient, with further potential savings from a reduction in prescribing rates. If all 1,362 hip patients and 2,324 knee patients self-referred, this could result in savings of up to **£44,959.20** in hip osteoarthritis and **£76,705.20** in knee osteoarthritis.

The role of preventative physiotherapy in preventing falls

As mentioned above, physiotherapy has been shown to prevent falls in older people. An economic model[xxii] developed by the Chartered Society of Physiotherapy estimates that if everyone aged 65+ at risk of falling in the UK was referred to physiotherapy, 160,000 falls would be prevented, saving the NHS £250 million a year.

Applying some of their assumptions to Thurrock:

- The current level of physiotherapy investment is generating savings of £26,712 compared to no service provision

- Investment in an optimal amount of preventative physiotherapy particularly targeted towards the high risk groups could save up to **£432,442 per year** in prevented hospital admissions and long-term care costs – this accounts for the cost of the physiotherapists within the figure.
- This could give a return on investment of between £3.86 (conservative estimate) - £8.67 for every £1 spent.

IMPACT TO A&E ACTIVITY

Salford Royal NHS Foundation Trust employed an advanced physiotherapy practitioner in 2010 for people attending A&E with musculoskeletal injuries to provide holistic assessment and treatment for all aspects of their condition. The role includes ordering and interpreting investigations such as X-rays and blood tests and onward referral for further physiotherapy if required. Evaluation of outcomes showed the following benefits:

- Increased service efficiency/reduced waiting times
- Better quality of care
- A reduced requirement for more expensive medical staff has resulted in cost savings of £32 per patient - a 60% reduction.
- Better knowledge sharing between staff members

Other expected benefits of physiotherapy to A&E activity include prevention of unnecessary readmissions and a reduction in delayed discharges.

7.10 IMPROVING DIGITAL SERVICES IN HEALTH AND SOCIAL CARE

7.10.1 WHAT WORKS?

Summary Care Records – from http://systems.hscic.gov.uk/scr/pharmacy/cppilot.pdf

The Summary Care Record (SCR) is a copy of key information from a patient's GP record and as a minimum, contains medication, allergies and adverse reactions. It provides authorised care professionals with faster, more secure access to essential patient information. Rollout of the SCR has now commenced to all pharmacies, and is expected to be complete by Autumn 2017.

Findings from the pilot 'proof of concept' phase showed the following benefits:

Effectiveness:

Reducing onward referrals to other NHS care settings such as A&E, Out-of-Hours GP, NHS 111, and GP practices:

- In 92% of encounters where SCR was accessed, the pharmacist avoided the need to signpost the patient to other NHS care settings.
- 56% of these encounters would have been signposted to the GP practice, 22% to GP out of hours/NHS 111, and 1% to A&E.
- 90% of pharmacists agree that using SCR allows them to resolve a patient's issues without signposting them to other services.

Reducing the need to contact the GP practice:

- 85% of respondents to the questionnaire either agree or strongly agree that SCR reduces the need to contact the patient's GP practice to gather more clinical information to treat them appropriately.
- 92% of respondents agree or strongly agree that the SCR enables them to treat patients more effectively on those occasions when GP practices are closed.

Safety:

Identifying prescribing errors and reducing potential harm:

- In 18% of encounters where SCR was accessed, the risk of a prescribing error was avoided. The majority of these cases had potential for moderate or major harm to the patient.
- In 87% of encounters where SCR was accessed, it provided information which would otherwise have been unknown.
- 85% of respondents agree or strongly agree that having access to SCR has contributed towards improving patient safety.
- 73% of respondents agree that using the SCR has helped them avoid medication related errors.

Patient experience

Reducing patient waiting time:

- The benefits audit results captured whether the pharmacist believed accessing SCR saved the patient waiting time for their issue to be resolved. 122 encounters were reported. Of these, 100 encounters indicated that overall waiting time was reduced.
- Having access to SCR enabled the pharmacist to meet the patient's needs in 96% of the encounters reported.
- 92% of respondents agree or strongly agree that using the SCR has improved the service they provide to patients

7.10.2   WHAT IS HAPPENING IN THURROCK?

The Digital Maturity Assessment measured the extent to which healthcare services in England are supported by the effective use of digital technology. It aimed to identify key strengths and gaps in healthcare providers' provision of digital services at the point of care and offer an initial view of the current 'baseline' position across the country. Thurrock CCG achieved an overall compliance score of 90.58%, with practice scores varying from 82.5% (Dilip Sabnis) - 97.05% (Dr Devaraja). This will have informed the actions taken by the Local Digital Roadmap (further information below).

It is now a contractual requirement for GP practices to offer and promote to patients: online booking of appointments, ordering of repeat prescriptions and access to summary information (as a minimum) in their patient record, subject to the necessary GP systems and software being made available to practices by NHS England. The Patient Online Management Information (POMI) dataset records whether practices offer the functionality for online booking of appointments, and the number of patients enabled to do so – i.e. those who have been supported to register. The figure below shows the proportion of patients at each practice who were enabled as of June 2016 to electronically book or cancel a GP appointment. It can be seen that

the Thurrock average of 9.98% is below the national average of 15.3%. There is a large amount of variation between practices in Thurrock, with the most successful practice (Dr Amanda Davies/Pear Tree) enabling 35% of their patients to use online booking services, whilst the two least successful practices (Dr Headon and Acorns) enabling just 0.04% and 0.06% of their patients – equating to just 4 and 2 patients respectively.

Figure 103: Patients able to electronically book/cancel appointments per practice, June 2016
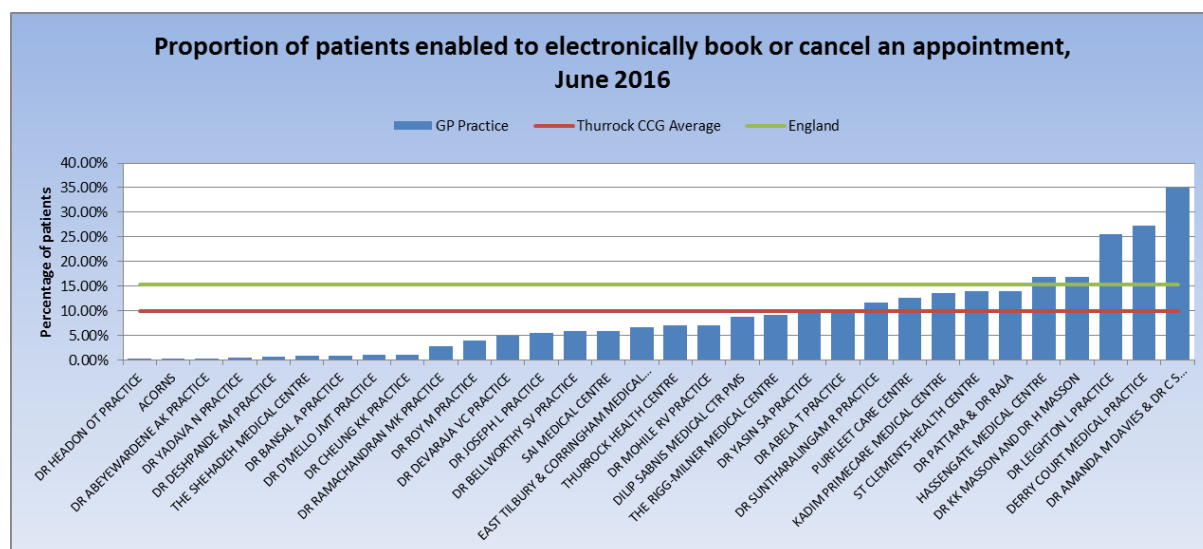
Source: POMI

It is envisaged that if the number of patients who can electronically book or cancel appointments can be increased, this can have a positive impact on use of practice receptionist time, freeing them up to undertake more complex tasks as identified in the mixed staffing model.

THE LOCAL DIGITAL ROADMAP

Below are the Universal Capabilities being worked on for all areas. At this stage, Thurrock is still working to embed approaches across the whole CCG level, and will later look to address variation with specific practices.

A. Professionals across care settings can access GP-held information on GP-prescribed medications, patient allergies and adverse reactions. Most providers in this area use the same system (Systm One), with BTUH and the Minor Injuries Unit having access to this. For the non-Systm One practices, there is functionality to see the Summary Care Record via their portal.

B. Clinicians in U&EC settings can access key GP-held information for those patients previously identified by GPs as most likely to present (in U&EC). MIU ask all patients if they are happy to share their records so the U&EC providers do get access to records for patients registered at the 28 Systm One practices).

C. *Patients can access their GP record*. Data from NHS Digital indicates that this is increasing in Thurrock, and work is in process with the national team to increase numbers of patients who can do this.

D. *GPs can refer electronically to secondary care*. The e-referral system is currently not working well for either primary or secondary care and it has been recognised that further work is needed to stop the number of e-referrals from continuing to decrease.

E. *GPs receive timely electronic discharge summaries from secondary care.* There is a draft target for the acute trusts of December 2016 for this to be in place; however this may slip.

F. Social care receive timely electronic Assessment, Discharge and Withdrawal Notices from acute care. Work is in process with the relevant Council colleagues.

G. Clinicians in unscheduled care settings can access child protection information with social care professionals notified accordingly. Work is in process with the relevant Council colleagues.

H. *Professionals across care settings made aware of end-of-life preference information.* This should be included within the SCR and Community nursing teams at the MDTs should have this information.

I. *GPs and community pharmacists can utilise electronic prescriptions.* More information is required to ascertain how Thurrock is doing against this, as anecdotally it appears to have begun but there is no further information available at the moment.

J. *Patients can book appointments and order repeat prescriptions from their GP practice.* Data on this is shown above. Numbers registered to view their clinical record are increasing, and there is work underway to promote this within the Patient Participation Groups across the CCG.

It is hoped that the next phase of the work will look to identify specific practices to benefit from further digital intervention, and there is the possibility of future investment in patient check in systems and digital health clinics as recommended for the future Integrated Healthy Living Centres. These, along with the joint Council and CCG project to procure an Integrated Data Solution to unite sources of health and social care data, should support better use of information and ultimately benefit patient care.

More information is also required on the summary care record uptake amongst Thurrock pharmacies.

QUICKHEART INFORMATION PORTAL

The Council have also invested in an Information, Advice and Guidance portal known as *QuickHeart* which aims to bring together accessible information on different aspects of health and social care in one place for the public. The portal aims to:

- Provide self-help information, signposting to more appropriate websites, where appropriate
- Signpost to community and voluntary resources, where appropriate, to maintain independence
- Clarify social care support in terms of what we can provide should eligibility be met and how this is paid for

In future this will also incorporate the resource allocation system (RAS) tool to help screen eligibility and an indicative budget, although this is still under development.

Usage statistics of the Quickheart pages indicate there are roughly around 1,500 page views per month currently across all page categories. The figure below shows some periods of particularly high activity over the last 21 months, with a peak of 4913 views in February 2015; however these may have been associated with periods of upgrades.

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Figure 104: Page views of Quickheart portal, January 2015-September 2016
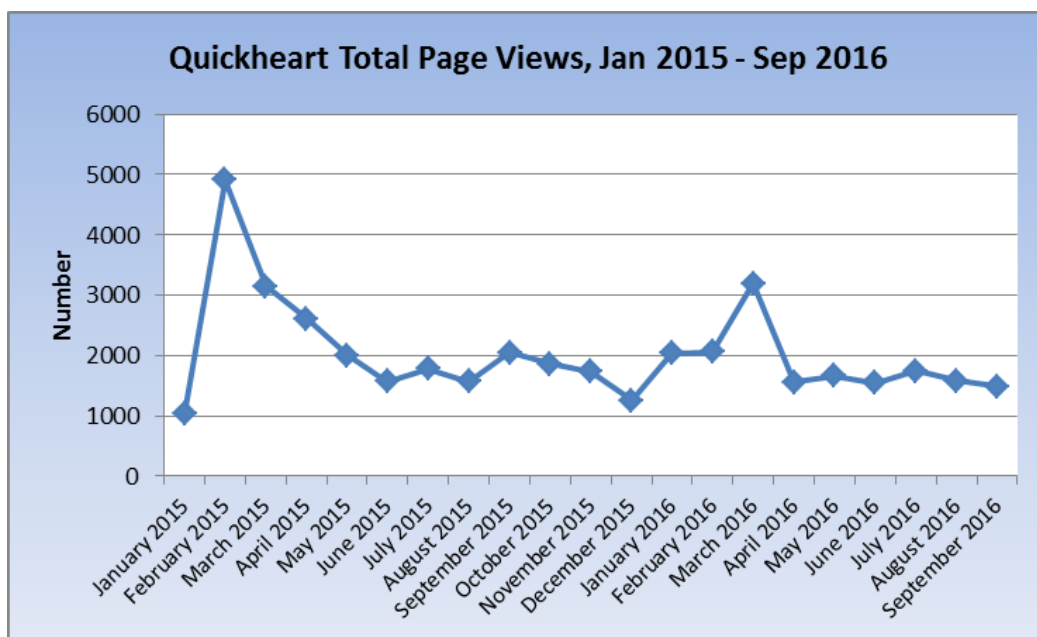
Source: Thurrock Council

When looking at page views categorised by the types of pages accessed, the most popular content appears to be *Living at home*, with 2,471 views. This includes information on how to look after yourself and maintain independence. This should be taken positively in line with the shift towards improving digital access in social care and promotion of self-care approaches.

Figure 105: Page views of Quickheart portal by category, January 2015-September 2016
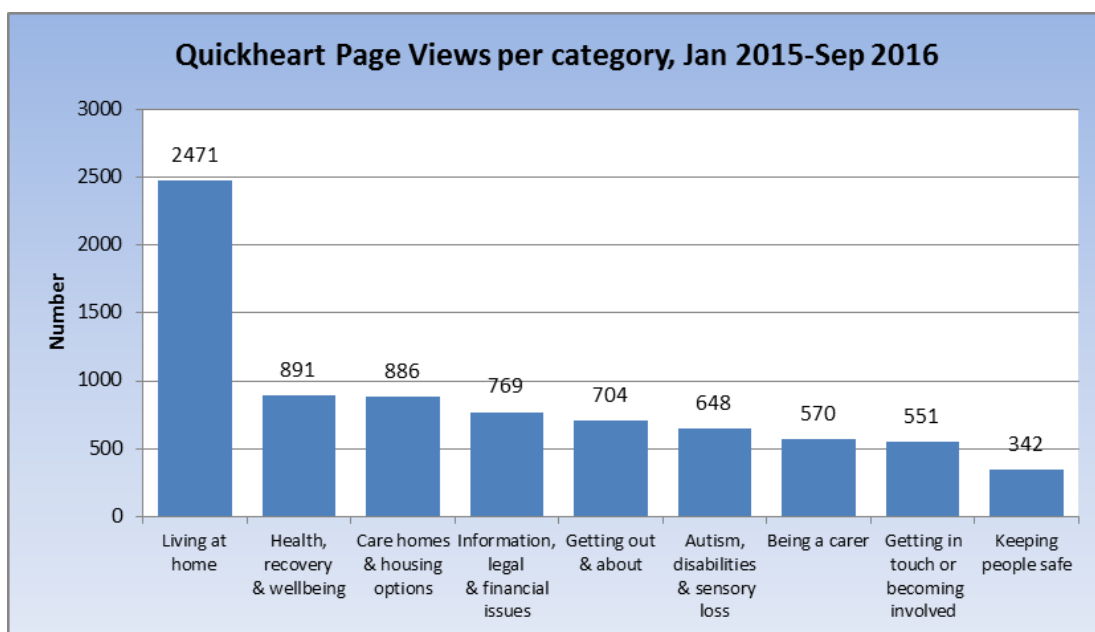
Source: Thurrock Council

It is recommended that the opportunity be explored to extend this system to enable more front line ASC/Housing/hospital staff to access to it. It should also align to the CVS directory of third sector services which is being worked on independently.

7.11 IMPROVING QUALITY OF PRIMARY CARE

7.11.1 IMPROVE DETECTION RATES OF DISEASES

A Public Health priority, that is also part of our new Health and Wellbeing strategy is to improve the detection of Long Term Conditions across Thurrock. Plans are underway to start with Hypertension;

Our colleagues in the CCG have identified a large number of patients who have had a blood pressure reading of 150/100mmHg or greater who have not had any further follow-up. We are investigating ways of re-calling these patients, possibly using weekend HUBs in primary care.

Additionally we are currently looking at ways in which we can use pharmacists to help us detect some of these patients.

7.11.2 PRODUCE A LONG TERM CONDITIONS /MANAGEMENT SCORECARD

Produce a Long Term Conditions scorecard which tells practices, at a glance, where they should be aiming to make improvements to the number of people receiving interventions that will keep them healthy. This scorecard should concentrate on both aspects reported here:

1) Levels of the population receiving the intervention (i.e. including those who have been exception reported where appropriate)
2) Levels who are not receiving an intervention or exception reported.

The scorecard should not be restricted to QOF indicators and should seek to concentrate on identifying areas of need that will make a difference to the clinical outcomes of patients. Including referrals into community teams.

7.11.3 SUPPORT FOR PRACTICES NEEDING HELP AS A RESULT OF THE ABOVE

The Public Health team will provide support to practices or projects of particular need to help improve the number of people receiving appropriate interventions across Thurrock. We will also help practices to identify individual patients who are not receiving interventions or being exception reported where needed.

The 12 practices identified as needing support across all conditions will be the first priority for this support.

7.11.4 LEARN FROM BEST PRACTICE

We should also look to learn from practices that show a best model, in particular those who have shown recent improvements . [see case study below]

A Case Study

Since the publication of the QOF data used in this report Dr Suntharalingams practice has been taken over by College Health. College Health have a bank of specialist nurses and they prioritise use of these nurses where there are most needed based on data. Anecdotal evidence suggests that since this has been happening figures have been much improved. The Authors plan to confirm this when more up to date data is available. If this is confirmed to be the case we will make appropriate recommendations to

7.11.5 WHAT WORKS - SATISFACTION WITH GP PRACTICES

The connection that a patient feels with his or her GP/health professional can significantly improve their health through participation with their care, support with their treatment, and self-managing their condition. A good relationship can also help improve a patient's emotional wellbeing and mental health. However this may not always be the sole responsibility of a GP to maintain this – there is some evidence on other approaches such as nurse-led care which have contributed to improving patient satisfaction. A practice in Sandwell[xxiii] acted on poor patient satisfaction results by 1) extending their opening hours to enable more patients to access appointments at convenient times, 2) redesigning their provision of service to meet the increased demand for appointments at the start of a week, 3) expanding the number of different types of health services that could be accessed from the one place, becoming an Integrated Care Organisation, and 4) increasing the skillset of their staff to enable them each to offer a wider range of support. Following this, the practice found that:

- Patient satisfaction was high – Rowley Healthcare was ranked third in England in the 2008 GP Patient Survey
- Relationships with patients were excellent because staff are accommodating and happy to listen;
- Preventative interventions were successful because patients were willing and able to talk about lifestyle issues;
- Unnecessary visits to acute care and surgery were avoided by having services delivered in nearby GP surgeries;
- Staff were free to develop specialisms and widen their expertise;
- More services were offered closer to home by several GP practices pooling resources in a community interest company.

7.11.6 WHAT WORKS - UNDIAGNOSED DISEASE PREVALENCE

Detection of undiagnosed cases of disease should ultimately lead to reduced future costs and better patient outcomes. There are a number of preventative programs already described such as the NHS Health Check and the Diabetes Prevention Program which are designed to detect undiagnosed cases of disease. There is research to indicate that case-finding for LTCs in existing community clinics might be effective – research by Halpin *et al* (2013)[xxiv] undertook spirometry for all patients in their non-COPD community clinics who were current or ex-smokers, and found that 1 in 5 of them had undiagnosed COPD. A meta-analysis (Haroon *et al*, 2015[xxv]) looking at general effective case-finding strategies for COPD reviewed studies that used screening questionnaires, handheld flow meters, and direct invitation for diagnostic spirometry, and concluded that the use of screening questionnaires may reduce the number of diagnostic assessments needed to diagnose COPD. They also found that the targeting of specific sub-groups such as current/historic smokers with a history of respiratory symptoms may be more efficient. However they identified a gap in research regarding evidence of effectiveness or cost-effectiveness for recommending any particular approach to case finding in primary care.

7.11.7 WHAT IMPACTS COULD WE HAVE TO INCREASE DETECTION OF UNDIAGNOSED CASES?

- Re COPD article above, do NELFT screen their current smokers in their Diabetes clinic for COPD as well? If not, could they do this? Might pick up some undiagnosed COPD patients there....
- Do Vitality do screening questionnaires for their quitting smokers to look at whether they might have undiagnosed COPD? How about other PH services who come across smokers – Addaction for example?

In Thurrock we have committed to identify 5000 undiagnosed Hypertensive patients over the next 3 years, thereby reducing the ratio of observed (diagnosed): expected patients. The stroke prevention model in section 3.3 found that each unit increase in this ratio reduces number of strokes by 65 every 3 years (assuming everything else remains constant). An increase of 5000 patients means that the observed: expected ratio of hypertensive patients changes from 36% to 78%, which is a difference of 42% - therefore applying a reduction of 65 strokes to 42 percentage points would result in 2730 fewer strokes over the three year period, or 910 per year across Thurrock.

HYPERTENSION RISK ALGORITHM

A risk algorithm has been developed by researchers at the University of Birmingham which measures such as clinic BP, age, gender and history of CVD to help GPs decide if someone with relatively normal clinic blood pressure readings might still be at risk of hypertension and should undergo ambulatory blood pressure monitoring (ABPM).

It is called the Predicting Out-of-Office Blood Pressure (PROOF-BP) risk algorithm, and is estimated by the researchers to identify around 10-15% with masked hypertension – this was quantified to be an additional 14,623 additional cases of hypertension for every 100,000 people with clinic blood pressure of 130/80mmHg or above. It would also cut out 18,578 unnecessary ABPM investigations, compared with the current NICE approach.

The authors calculated that the algorithm would be cost effective 'compared to the conventional blood pressure diagnostic options in primary care' and would lead to reduced death and disability.[xxvi]

BLOOD PRESSURE CONTROL IN PEOPLE WITH HYPERTENSION

In Thurrock, it is estimated that 19,300 hypertensive patients have effective blood pressure control to 150/90 mmHg. If the CCG could treat another 865 patients (in order to increase the total in line with the rates from the GP practice on the 75th percentile), this could result in a number of events avoided. The table below summarises these, and estimates that improving blood pressure control to this level could reduce in the avoidance of 18 cases of heart failure, 8 heart attacks and 6 deaths. PHE estimate that the annual cost of controlling blood pressure of an average person with hypertension is approximately £69.

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Table 65: Opportunities and savings from blood pressure control in hypertensive patients

Disease event	Events avoided (opportunity)	Opportunities avoided over:	One-year savings from events avoided - NHS	One-year savings from events avoided - social care
Heart attack: 1 in 100	8	5 years	£69,800	-
Heart failure: 1 in 48	18	5 years	£24,800	-
Deaths: 1 in 125	6	5 years	-	-

Source: Public Health England CVD Prevention Opportunities, 2016

These estimates are calculated slightly differently to the modelled estimates presented earlier in the report which found that one admission for stroke could be prevented by the effective blood pressure control of five hypertensive patients over a three year period.

BLOOD PRESSURE CONTROL IN PEOPLE WITH CARDIOVASCULAR DISEASE

In Thurrock, it is estimated that 3,900 hypertensive patients with Diabetes have effective blood pressure control to 140/80 mmHg and 1,480 hypertensive patients with Stroke have effective blood pressure control to 150/90 mmHg. If the CCG could treat another 388 hypertensive Diabetes patients and another 110 hypertensive Stroke patients (in order to increase the total in line with the rates from the GP practice on the 75th percentile), this could result in a number of events avoided. The table below summarises these, and estimates that improving blood pressure control to this level could reduce in the avoidance of 6 strokes to Diabetes patients and 4 strokes to previous Stroke patients, 9 cases of heart failure, 1 heart attack and 7 cases of CKD. PHE estimate that the annual cost of controlling blood pressure of an average person with hypertension is approximately £69.

Table 66: Opportunities and savings from blood pressure control in patients with CVD

Condition	Disease event	Events avoided (opportunity)	Opportunities avoided over:	One-year savings from events avoided - NHS	One-year savings from events avoided - social care
Diabetes	Stroke: 1 in 59	6	9 years	£65,667	£23,791
	Heart attack: 1 in 204	1	9 years	£8,727	-
	Chronic kidney disease: 1 in 51	7	4 years	£1,761	-
	Heart failure: 1 in 42	9	4 years	£12,406	-
Previous stroke	Recurrent stroke: 1 in 27	4	4 years	£43,778	-

Source: Public Health England CVD Prevention Opportunities, 2016

CHOLESTEROL CONTROL IN PEOPLE WITH CARDIOVASCULAR DISEASE

In Thurrock, it is estimated that 5,700 patients with Diabetes and 3,140 patients with CHD have effective cholesterol control to less than 5mmol. If the CCG could treat another 493 Diabetes patients and another 241 CHD patients (in order to increase the total in line with the rates from the GP practice on the 75th percentile), this could result in a number of events avoided. The table below summarises these, and estimates that improving cholesterol control to this level could reduce in the avoidance of 2 strokes to Diabetes patients and 1 stroke to CHD patients, and 6 heart attacks. PHE estimate that the annual cost of controlling cholesterol of an average person with hypertension is approximately £69.

Table 67: Events avoided and costs saved from cholesterol control in hypertensive patients

Condition	Disease event	Events avoided (opportunity)	Opportunities avoided over:	One-year savings from events avoided - NHS	One-year savings from events avoided - social care
Diabetes	Stroke: 1 in 233	2	5 years	£21,889	£7,930
CHD	Stroke: 1 in 125	1	5 years	£10,944	£3,965
	Heart attack: 1 in 39	6	5 years	£52,363	-

Source: Public Health England CVD Prevention Opportunities, 2016

7.12 SOCIAL CARE

7.12.1 EVIDENCE BASE – WHAT WORKS IN REDUCING DEMAND ON ADULT SOCIAL CARE?

The following programmes/interventions have been shown in published studies to be effective in reducing demand on ASC services.

Falls Prevention

There is strong evidence that an integrated falls prevention programme that includes postural stability programmes, eye checks, home safety checks and medication review can reduce the likelihood of falls in older people either at risk of falling or who have already fallen by between 10% to 30% and delay/reduce demand on ASC services.

Stroke Prevention Programmes

There is strong evidence that programmes that prevent strokes by identifying and clinically managing people with high blood pressure in the community are highly cost effective in reducing demand on Adult Social Care services.   These are discussed in more detail in section 1.4

Atrial Fibrillation Case Finding and Clinical Management

There is strong evidence that programmes that identify and clinically manage patients with AF who have a high stroke risk, are both highly cost effective and reduce demand on ASC. These are discussed in more detail in section 1.4.

Integrated Continence Services

Incontinence is a major reason for the breakdown of the relationship between the carer and the person they are caring for. This can lead to admissions into residential or nursing home care.[14][15]

Studies in the US have shown that urinary infection increased the likelihood of care home referrals two-fold and faecal incontinence almost five-fold and 50% of care home residents with faecal incontinence have overflow from constipation which is a treatable condition.

Case studies from Nottingham and Oxford, were recently mentioned by the Department of Health.[11] Oxfordshire County Council worked in partnership with the Institute of Public Care on a study of the pathways of older people who had entered a care home. The aim of the research was to identify the critical characteristics, circumstances and events which led to a care home admission in order to provide appropriate services to prevent or delay such an admission.[12] An analysis of 115 admissions of people in 2008-9 was carried out to identify common characteristics. This was followed up with interviews of people who had entered a care home, their carers and care managers, to explore more fully the circumstances and experiences prior to entering a home. The study found that certain conditions and experiences were particularly prevalent - these included incontinence, dementia, falls and depression. Most people had been receiving social care support prior to entering the care home as well as informal care. However, despite common features, individual situations were both varied and complex.

Depression Screening

There is reasonably strong evidence that depression is associated with residential care admission and that it is poorly recognised and undertreated in older people. There is also evidence that it can be well treated in older people. If this treatment can reduce the risk of residential home admission, managing depression would be a very cost effective intervention across the system.

Strengthening Community Capacity and Sign Posting

The LGA (ref ***) site the significance and effectiveness in terms of ASC demand management, of Councils that have developed a new contract with citizens and communities that means individuals take more responsibility for their own care and families and communities are supported to help those individuals to be as independent as possible. In the future, citizens will have a duty to contribute as well as a right to receive support.

Approaches that proactively help and encouraging people to live healthier lifestyles, thus reducing or delaying the need for formal social care services are suggested to be an effective way to reduce both demand on traditional services and dependency. To deliver this new model of care, there needs to be a fundamental shift in the expectations of individuals, communities and service providers if the most is to be made of diminishing resources while securing public wellbeing.

Thurrock's Stronger Together and Local Area Coordination Programmes are two examples of this approach in action.

Interface Geriatricians

'Interface Geriatricians' work across both community and secondary health care settings to provide an interface of care between both settings. This includes Comprehensive Geriatric Assessment (CGA) on AMU after assessment by a general physician, and then following discharge a comprehensive medical assessment, general medical review including psychiatric assessment, investigation into geriatric syndromes and medication review. Interface Geriatricians are also responsible for liaison with the GPs post discharge and follow-up home assessment where appropriate. There is strong evidence from systematic review and meta-analysis of 28 control trials considering 9961 subjects that this model of care results in a greater likelihood that patients will remain living at home.[17][18]

Carers Services:

Evidence suggests that day care, home care and (often) residential respite care are cost effective in reducing residential care needs.

Re-ablement:

The evidence around the benefits of re-ablement is growing but is not of the most robust nature. There is however increasing evidence that re-ablement focusing on all who might benefit can be delivered at moderate cost and can markedly reduce on-going homecare costs to social care for at least two years. It is less clear how it impacts on health costs but Tinetti et al suggests some promise As Lewin suggests (2011), it should be the "gateway" to services for the majority who might benefit

Multi-disciplinary Teams (MDT):

There is limited evidence around the impact of MDTs on ASC demand. However one study suggests potential reductions in residential care admissions from the approach. There is a need to consider cost and net gain.

Social Workers in A&E

A Canadian study demonstrated that 5 per cent of admissions could have been avoided if seen by a social worker in A&E (Boyack and Bucknam 1991).[4] A French study found that a similar proportion of admissions was potentially preventable by a social work intervention (Monsuez *et al* 1993).[5] A study of a US emergency department demonstrated that having social workers available 24 hours a day can be economically beneficial (Gordon 2001).[6] There were greater advantages in larger departments in terms of fewer return visits, prevention of admissions for social reasons only, and savings in terms of other staff time. The applicability of this study to the UK is limited by the differences in costing health care in the two

systems. Overall, there seems to be uncertainty about the effectiveness of social workers based in the emergency department in terms of reducing inappropriate admissions among older people although this may be because of a lack of supporting community resource (McLeod *et al* 2003).[7]

Assistive Technology:

Telehealth: Few studies that were identified considered the impact of Telehealth on social care demand per se, however the WSD RCT reported a non-significant 27% lower cost of social care in the Telehealth group compared to the control group.[23]

Telecare: Limited robust evidence on the impact of Telecare on social care demand was identified. A 2007 systematic review found a lack of robust evidence on the efficacy of Telecare interventions such as home safety and security alert systems.[24] The British Psychological Society's 2007 guideline on Dementia[25] stated that initial findings support the use of AT in aiding people with dementia to stay in the community longer, thereby delaying moves to higher dependency care, but also found that further research is needed before any firm conclusions can be drawn.

An evaluation of telecare provision in Essex in 2009-10 reported that, across 240 randomly selected telecare users, for every £1 spent on telecare £3.82 was saved in traditional care, based on social worker report of the next best care scenario. For those users where telecare was a direct replacement for traditional care, every £1 spent on telecare saved £12.60 in traditional care.[26]

7.12.2   LIVING WELL

Domiciliary care in Thurrock is currently being provided in-house by Thurrock Care @Home as well as by two other providers. There have been historic issues with the way domiciliary care has been provided in Thurrock, which has led to the decision to redesign the service. In line with the wider Transforming Adult Social Care agenda, which aims to support people to live well and independently at home, Adult Social Care in partnership with the community, the voluntary sector, health and housing, have decided to implement a pilot redesigned offer of support to 75 people living in specific areas of South Ockendon who receive some form of care and support, mainly domiciliary support, meals on wheels and equipment. This model of care delivery is proposed in order to support each person to have their needs met through a combination of approaches. The vision is to have a local response that will be consistent and will connect the person to their local community. The pilot has not yet started, but the project will be fully evaluated in order to inform the redesign of adult social care delivery in Thurrock.

Care Home provision

Thurrock has the following provision available (as of May 2016):

- 13 Older People's Residential Homes, 4 of which are nursing/dementia. There were 593 beds as of May 2016.
- 20 Working Aged Adults Residential Homes, including 2 transition flats.
- 30 Working Aged Adults Supported Living

- 2 Extra Care Housing schemes (Elizabeth Gardens and Piggs Corner)
- Day Care at Bell House, Carers Centre, Kynoch Court and Thurrock Lifestyle Solutions (Grays, South Ockendon, Stanford and Chadwell St. Mary)

7.12.3   FUTURE SINGLE POINT OF ACCESS TO SERVICES

Thurrock Council, NELFT and SEPT are working in partnership to launch a new Single Point of Access to services that will facilitate access to professional advice and care coordination across disciplines. This new joint venture will incorporate Thurrock Council's Social Care services, RRAS and SEPT's services for older adults. It is intended that this service will result in one single access point that is via email, app, phone, thereby improving customer experience, reducing demand in the longer term and resulting in an improved out of hours offer. This is expected to launch in February 2017.

Section 8 APPENDIX 1: DEMOGRAPHY OF THURROCK

8.1.1 POPULATION

Whilst the boundaries of Thurrock Local Authority and Thurrock CCG are co-terminus, there are slightly different population estimates used, as the CCG population can be determined by GP practice populations, which also contain patients from neighbouring areas.

Local Authority Population

In 2015 the total population of Thurrock was 165,184 (ONS mid-year estimates 2015) of which 81,349 (49.2%) were male and 83,835 (50.8%) female. The population age structure mirrors that of the CCG registered population shown below. Further information on the Local Authority population can be found in the **Demographics and Population Change JSNA** (published 2015).

CCG GP Registered Population

Data from April 2016 shows that the practice registers for all 32 GP practices in Thurrock CCG have a combined population of 171,486 patients (source: HSCIC GP Population data, April 2016). 49.6% are male and 50.4% are female. When looking at the age breakdown of this population, it can be seen there are some differences compared to the national population – Thurrock has a larger proportion of children aged 0-19 and fewer adults over 65+ than the national average.

Figure 106: Thurrock Registered Population by age/sex, April 2016

Thurrock CCG GP Registered Population, April 2016
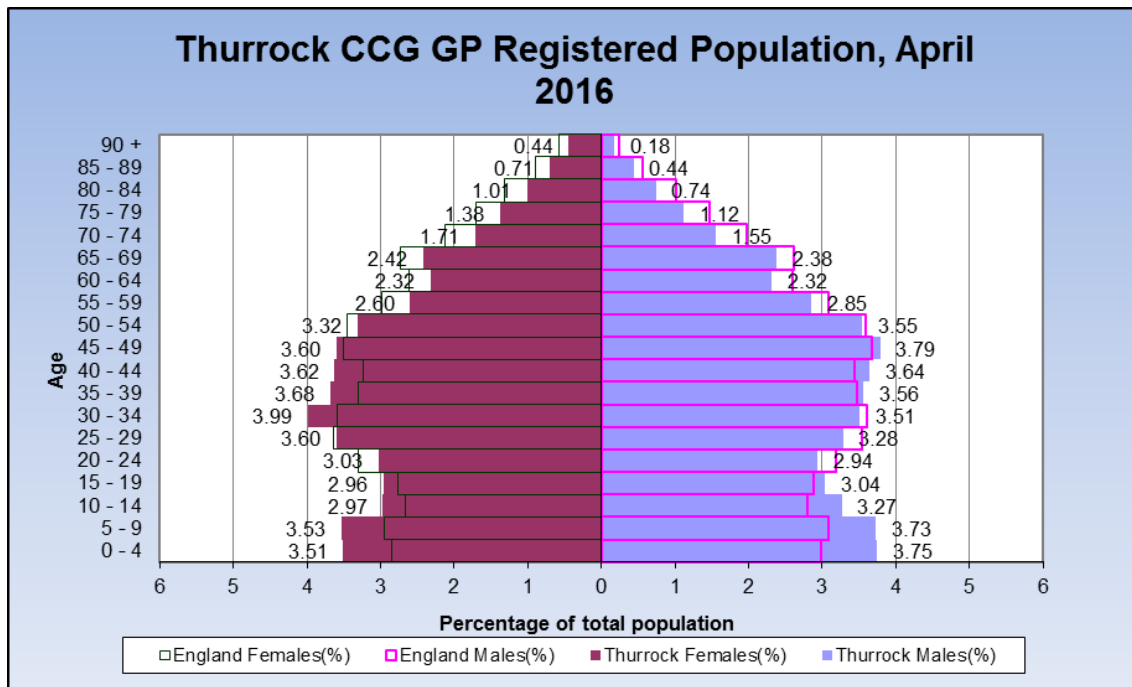
Source: HSCIC GP Registered Population, April 2016

8.1.2 ETHNICITY

Census data tell us that 81.6% of Thurrock residents were White British in 2011, with 7.8% classifying themselves as Black, 3.8% as Asian and 4.3% as White Other. This distribution is not uniform across the borough; it can be seen from the figure below that areas to the south of the borough have higher concentrations of those from a BME group than areas in the north and east.

Figure 107: Proportion from a BME group by ward, 2011

% of people stating their ethnicity as from a BME group, 2011 - *source: ONS Census*
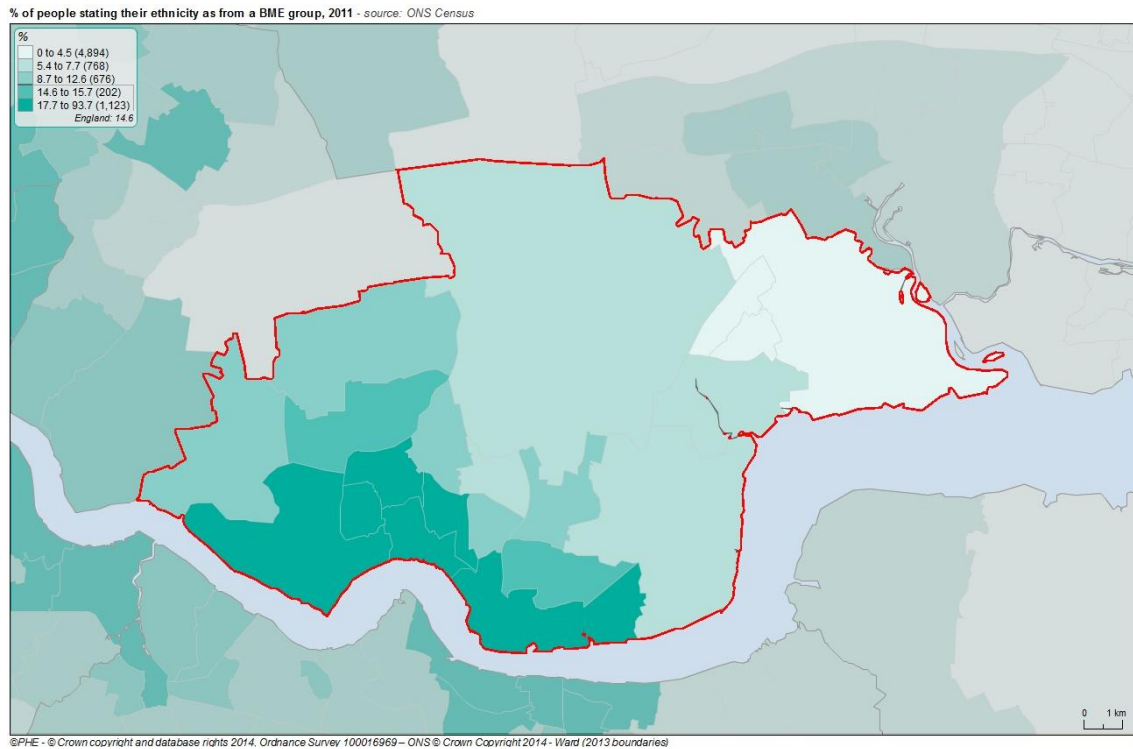
Source: ONS and Local Health

8.1.3   POPULATION GROWTH

ONS POPULATION PROJECTIONS

Figure 108: Predicted population growth, 2014-2039
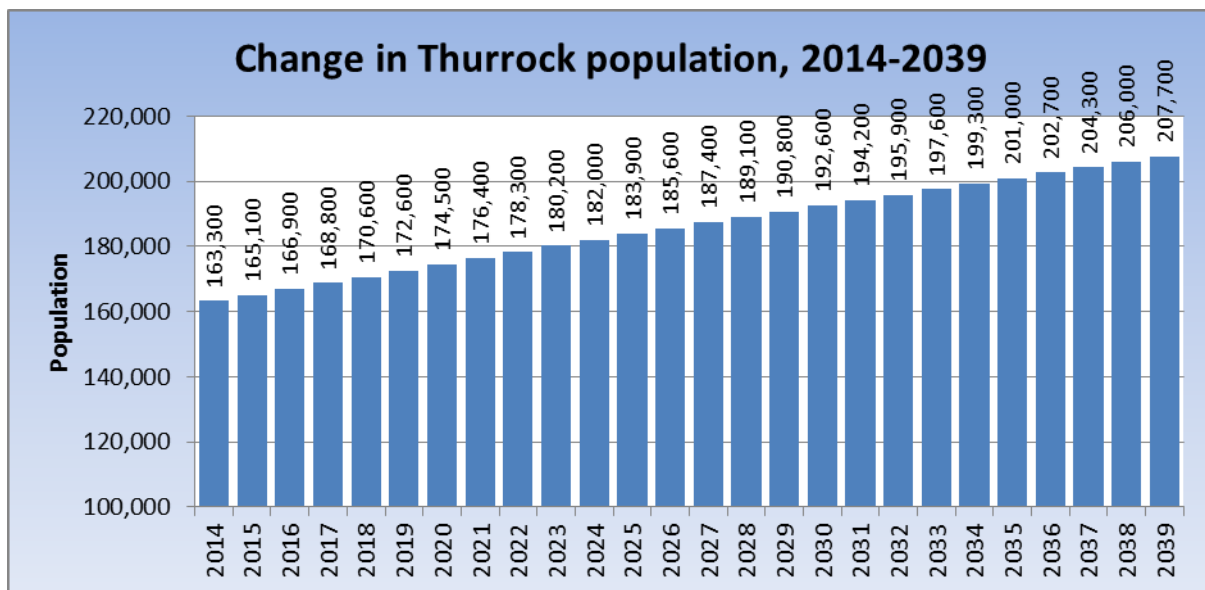
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The population of Thurrock is set to increase to 207,700 by 2039. However the increase is not uniformly distributed across the age bands – the number of older people (65+) in particular is set to increase from 22,300 in 2014 to 39,000 in 2039 which is a 74.9% increase.

Figure 109: Population change by age group, 2014-2039
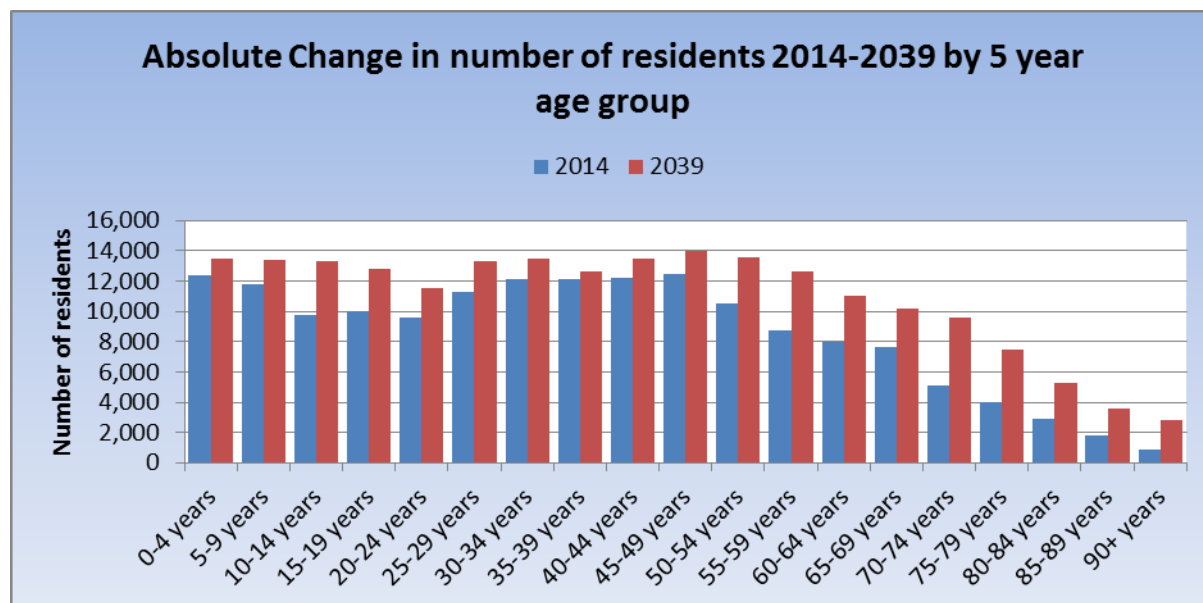
FACTORS UNDERPINNING POPULATION CHANGE

Analysis of the population change data between 2014 and 2015 indicates that approximately two thirds was due to natural change (i.e. the number of births minus the number of deaths), and the other third due to internal and international migration. The majority of new migrants have been families with children, with fewer older people migrating into the borough. Thurrock has a higher birth rate than the national average (68.7 per 1,000 women aged 15-44 years compared to the national rate of 62.4 per 1,000) which has contributed to the high amount of natural change.

REGENERATION PROGRAMMES

Thurrock has an ambitious regeneration agenda, focussing large-scale developments within growth 'hub' areas:

Purfleet

The Purfleet Centre development will totally transform Purfleet creating a new town centre which will provide up to 2,500 new homes, local shops, new school and health care facilities, open access to the River Thames, and an exciting Film, Television and Media development creating up to 2,000 new jobs. The regeneration of Purfleet was kick-started in 2010 by the High House Production Park (HHPP) development, which is now home to the Royal Opera House Production Workshop, Backstage Centre (National Academy Creative and Cultural), Artists' Studios and Royal Opera House Costume Store and production facility.

Lakeside

The ambition for Lakeside is to expand the existing shopping centre to become a regional town centre, which will include major investment in improved transport infrastructure, new leisure and commercial facilities and an extension to the current shopping facilities. Outline planning permission has already been granted for a multi-million pound retail and leisure expansion at Lakeside, which will ultimately create up to 9,000 new jobs.

Grays

The regeneration of Grays is being achieved through some key projects to create a revitalised town centre which is a high quality destination for people to live, work, learn, shop and socialise. The £48m South Essex College Thurrock campus generated a 50% increase in enrolment and will in time accommodate 3,000 students. The redevelopment of the Magistrates Court into high quality small business units will provide much needed office space for small and medium sized businesses (SMEs) and will complement current business support activities being provided by the Council and other partners, such as NWES. Work with Network Rail and c2c to develop an underpass is progressing well. This will create opportunities for new retail and housing growth in the town centre, providing up to 4,500 new homes and 1,600 new jobs.

Tilbury

The vision for Tilbury, endorsed by Cabinet in July 2013, defines the ambition to create a place of opportunity and growth built upon its strong community spirit, rich employment and tourism history (through the Port of Tilbury and cruise terminal), strong transport links, outstanding education facilities and affordable housing. The logistics academy established by the Port of Tilbury is successfully delivering training programmes to support unemployed residents to gain new skills, improve their employability and, in many cases, gain employment at the port. Expansion of the port, new business accommodation at the Riverside Business Centre and efforts to assist the local community into sustainable employment through, the provision of a job shop, will support the creation of up to 1,000 new homes and 3,800 new jobs.

London Gateway

DP World has invested £1.5m in London Gateway, a new deep water port and logistics park development, which is the largest project of its kind in Britain. The Local Development Order, created for the logistics park, was acknowledged at the Royal Town Planning Institute's Awards for Planning Excellence awards ceremony where the Council won the 'Outstanding Planning to Deliver Growth and Employment' award in June 2014. Once the port is fully operational a total of 2,000 jobs will be created at the port and a further 10,000 jobs will be created in the logistics park, which will be one of the biggest in Europe once complete. The Council is continuing to look at routes to secure greater local employment at the port.

Thames Enterprise Park

The ambition for Thames Enterprise Park, formerly the Petroplus oil refinery, is to re-develop approximately 400 acres of land to create a cluster of energy related industries co-located with supply chain companies and research & development firms, and has the potential to create up to 2,000 new jobs. South Essex College and the University of Northampton recently signed a partnership agreement that will bring specialised further and higher education courses to Thurrock, designed to prepare local people for the high technology jobs that will be created at Thames Enterprise Park.

1. STAFFING MIX MODEL

The Primary Care Receptionist

In this model the receptionist(s) is key to success. They need to be highly trained individuals who can make a judgement on the best clinician/professional that a patient needs to see. And they need to get this right most of the time to avoid duplicating appointments.

The GP Assistant / Clinical Personal Assistant

This is a band 4 administrative worker trained to support GPs by processing letters coming into the practice. They use a clearly defined and agreed workflow, to carry out delegated work where it is safe to do so, leaving GPs to deal only with letters requiring medical input or oversight. Other actions can involve entering read codes and other data onto the GP system; booking a follow up appointment with a patient; booking follow-up blood tests with patients; or following DNA processes for patients who missed appointments. The GP or other clinicians then have no need to see these letters.

A pilot scheme in Brighton and Hove estimated that this role required around 3 hours of administrative work per 5,000 registered patients and saved each GP in a practice 40 minutes of time per day. Translated into GP appointments for Tilbury, with 16 required GPs this would free up 66 10 minute appointment slots.

The role is heavily dependent on well-defined processes and workflow, requires training for administrative staff, and a lead GP to provide governance and audit.

The added value of this role is that communications at the practice can be dealt with in a more timely and organised manner. Patients requiring follow-up will be contacted more swiftly, patient records should be more up to date when a health professional does see a patient, and a reduction in the number of times a patient has to make contact with or see anyone at the practice.

The Primary Care Pharmacist

While GPs are in short supply, nationally there is an over-supply of pharmacists. The RCGP and RPS describe pharmacists as a "hidden army"[xxvii]

The "Making Time in General Practice" report suggests that around 5.5% of GP appointments nationally could be taken care of by a pharmacist or self-care. A pharmacist is able to diagnose and treat minor ailments (see information above on minor ailments scheme).[xxviii]

This role is not necessarily about including a pharmacy on site, as we can see (above) there are already a number of pharmacies in Tilbury, it is about making use of a pharmacists clinical skills to help patients and the over-stretched GP workforce.

"Having a pharmacist a part of the team could make a huge difference both to patients and clinical colleagues. Practice pharmacists can consult with and treat patients directly, relieving GPs of casework and enabling them to focus their skills where they are most needed, for example on diagnosing and treating patients with complex conditions. As part of the multidisciplinary team, practice pharmacists can advise other professionals about medicines, resolve problems with prescriptions and reduce prescribing errors. They can work with GPs to resolve day-to-day medicine issues and with practice teams to provide advice on medicines to care homes, as well as visiting patients in their own homes when needed."

In the modelling work below we consider the role only in terms of reducing a GPs workload in way of a minor ailments clinic, however with further additional capacity the role could also help to improve the quality of care:

Medicines Reconciliation

Medication Review (polypharmacy / QOF etc.)

Prescription management (average GP 200 repeat prescriptions per week)

Prescription safety / concordance

Chronic disease management (respiratory, cardiovascular and diabetes clinics)

We recommend that the use of practice pharmacists is considered separately in a wider context. An additional pharmacist could be employed using savings generated from the staffing changes.

The Nurse Practitioner

The role of the Nurse Practitioner is already well documented and understood. The "Making Time in General Practice" report suggests that 6.5% of GP appointments nationally could be seen by a nurse practitioner. The impact that this would have on GP requirements in Tilbury is modelled below.

The role would also mean that those patients with more complex clinical needs, who need to see a GP, will get to do so in a much more timely manner.

Wellbeing worker

These members of the team act as a care navigator, peer coach, health trainer or befriender. This role could be handled expanding the current Thurrock Local Area Coordinator role.

The "Making Time in General Practice" report suggests that 4% of GP appointments nationally could be handled by a wellbeing worker. Because a wellbeing worker would be considerably cheaper than a GP to handle these "non-clinical" issues it would be possible for them to spend more time with patients on these issues.

Physio-therapist

MSK patients make up to 30% of a GPs caseload [xxix]. There is a complex referral pathway from this point, typically with a GP referring to a consultant who then either refers to physiotherapist or decides to perform surgery.

At Windermere Health Centre, in the Lake District, a physiotherapist joined the practice team to assess, diagnose and triage MSK patients. During the first three months, 168 GP appointments were freed up and the translation of orthopaedic referral to operation rate increased to 99%. Additionally, the number of steroid injections delivered in the centre rose because the physiotherapist could also do this, generating income for the practice.

In Betsi Cadwaladr, north Wales, two physiotherapists worked across four practices and in the first six months, saw 1525 patients who would normally have seen the GP. Only 23 of these patients required any input from the GP and there was a 12% reduction in secondary care referrals. In addition to freeing up GP time, the reduction in referrals for MSK activity in Tilbury would equate to around 4100 per year. Fewer patients would also have a need to travel to see consultants at the hospital.

Two systematic reviews of physiotherapy showed that patient costs were lower for primary care clinics than conventional outpatient clinics (Hensher, 1998; Roberts and Stevens, 1997). Overall cost per patient was also lower for primary care clinics than conventional outpatient clinics, but savings were partially offset by increased demand in primary care.

Physician Assistant

There is much debate about this role in GP practice, it is not a well-researched or defined role and training schemes / courses vary in their emphasis. Drenan et al (2014) published a review of the research around the role along with an observational study comparing 6 practices which employed PAs to 6 that did not. Evidence showed that the role is acceptable to patients and that they tended to see patients with same day booked appointments, and worked at the younger end of the population compared to GPs.

No difference was found in rates at which patients returned to surgery within 14 days between patients seeing a GP or a PA. The PA tended to spend longer with a patient but the cost per consultation was £6.22 lower.[xxx]

Caveats:

Little thought given to regulation or prescribing rights of role

Some evidence that higher level of supervision needed

No research comparing PA and nurse practitioner (possible overlap)

Short supply so finding may be as difficult as finding a GP, however new places on courses in 2015 announced.

Registration issues?

The "making time in general practice report" suggests that a PA could see around 40 patients per day.

Paramedic

A newer role is the practice-attached paramedic or emergency care practitioner. This role is now being tested in a number of the Multispecialty Community Provider vanguards, including Kent and Derbyshire.

In Whitstable, Kent, a paramedic team is now based in a GP practice. They have their own vehicle with on-board diagnostics and access to electronic patient records. When patients call the surgeries at 8am requesting home visits, GPs screen the calls and refer the most urgent to the paramedics who can make a visit quickly. The less urgent wait until a GP can visit later in the day. In the first five weeks of the pilot in sprint 2015, paramedics were able to see, treat and complete two thirds of patients referred to them. The volume of 999 calls was down 10% over the period.

There is currently not enough evidence to consider this in our calculations but we could re-visit this at a later date.

2. NUMBER OF PATIENTS NOT RECEIVING INTERVENTIONS BY PRACTICE

Practice Code	Practice Name	HYP006: The percentage of patients with hypertension in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		CVD-PP001: In those patients with a new diagnosis of hypertension aged 30 or over and who have not attained the age of 75, recorded between the preceding 1 April to 31 March (excluding those with pre-existing CHD, diabetes, stroke and/or TIA), who have a recorded CVD risk assessment score (using an assessment tool agreed with the NHS CB) of ≥20% in the preceding 12 months: the percentage who are currently treated with statins		AF004: In those patients with atrial fibrillation whose latest record of a CHADS2 score is greater than 1, the percentage of patients who are currently treated with anti-coagulation therapy		AF005: In those patients with atrial fibrillation in whom there is a record of a CHADS2 score of 1, the percentage of patients who are currently treated with anti-coagulation drug therapy or anti-platelet therapy	
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
F81010	Aveley MC	41	301	1	0	4	17	3	13
F81082	The Rigg Milner MC	14	132	0	0	4	14	0	10
F81084	Chadwell MC	17	182	0	0	4	11	1	7
F81088	Southend Road SURG	10	55	0	0	1	0	0	-1
F81110	Dr Suntharalingam R PRACT	12	120	0	0	0	5	0	5
F81113	Chafford Hundred MC	24	227	2	0	3	12	0	9
F81134	Pear Tree SURG	18	290	4	0	6	12	0	6
F81137	Dr Colburn SURG	16	181	2	0	7	14	0	7
F81153	Hassengate MC	22	162	1	0	17	12	5	-5
F81155	Balfour MC	23	242	0	0	12	7	1	-5
F81177	Neera MC	15	146	1	0	3	4	0	1
F81192	Dr Headon OT PRACT	82	176	4	0	33	15	4	-18

F81197	Santa Maria Centre	2	49	1	0	2	2	0	0
F81198	Dr Pattara/Dr Raja SURG	11	55	0	0	3	2	1	-1
F81206	Shehadeh MC	15	198	1	0	9	12	0	3
F81211	East Thurrock Road MC	14	61	0	0	3	3	0	0
F81218	The Grays SURG	8	45	0	0	0	1	0	1
F81219	The Dell MC	9	85	0	0	2	5	0	3
F81623	Prime Care MC	2	46	0	0	1	1	1	0
F81632	Dr Yasin SA PRACT	5	136	0	0	0	4	0	4
F81641	Dr Masson KK SURG	21	99	1	1	8	0	0	-8
F81644	Ash Tree SURG	2	66	1	4	1	0	0	-1
F81652	Medic House	14	75	4	3	7	0	0	-7
F81669	Derry Court Medical PRACT	20	55	0	0	2	2	0	0
F81691	East Tilbury HC	3	57	1	0	3	0	0	-3
F81697	The Sorrells SURG	6	87	0	0	3	3	0	0
F81698	Dilip Sabnis MC	12	56	0	0	0	0	0	0
F81708	Sai MC	4	50	0	0	0	3	0	3
F81719	Dr Mukhopadhyay PK PRACT	15	211	0	0	0	1	1	1
F81742	Acorns SURG	12	30	0	0	0	0	0	0
Y00033	Purfleet Care Centre	25	97	0	0	2	0	0	-2
Y00999	St Clements HC	15	48	1	0	4	0	0	-4
Y02807	Thurrock HC	27	79	0	0	4	1	2	-3

Practice Code	Practice Name	HF002: The percentage of patients with a diagnosis of heart failure (diagnosed on or after 1 April 2006) which has been confirmed by an echocardiogram or by specialist assessment 3 months before or 12 months after entering on to the register		HF003: In those patients with a current diagnosis of heart failure due to left ventricular systolic dysfunction, the percentage of patients who are currently treated with an ACE-I or ARB		HF004: In those patients with a current diagnosis of heart failure due to left ventricular systolic dysfunction who are currently treated with an ACE-I or ARB, the percentage of patients who are additionally currently treated with a beta-blocker licensed for heart failure	
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
F81010	Aveley MC	0	5	1	5	1	1
F81082	The Rigg Milner MC	0	2	2	2	1	0
F81084	Chadwell MC	0	3	1	3	0	0
F81088	Southend Road SURG	2	0	0	-2	0	0
F81110	Dr Suntharalingam R PRACT	1	8	0	7	0	1
F81113	Chafford Hundred MC	0	0	0	0	5	2
F81134	Pear Tree SURG	0	7	0	7	1	1
F81137	Dr Colburn SURG	0	4	2	4	1	1
F81153	Hassengate MC	1	3	0	2	1	0
F81155	Balfour MC	3	0	1	-3	2	1
F81177	Neera MC	1	8	1	7	1	0

F81192	Dr Headon OT PRACT	2	2	0	0	2	0
F81197	Santa Maria Centre	1	0	0	-1	0	1
F81198	Dr Pattara/Dr Raja SURG	0	0	4	0	2	0
F81206	Shehadeh MC	4	4	0	0	5	0
F81211	East Thurrock Road MC	0	0	1	0	1	0
F81218	The Grays SURG	1	0	0	-1	0	0
F81219	The Dell MC	0	0	0	0	0	0
F81623	Prime Care MC	0	0	0	0	0	0
F81632	Dr Yasin SA PRACT	0	0	1	0	0	0
F81641	Dr Masson KK SURG	0	1	0	1	5	0
F81644	Ash Tree SURG	4	0	0	-4	0	0
F81652	Medic House	0	0	0	0	1	0
F81669	Derry Court Medical PRACT	0	0	0	0	2	0
F81691	East Tilbury HC	1	0	1	-1	1	0
F81697	The Sorrells SURG	0	0	0	0	0	0
F81698	Dilip Sabnis MC	2	0	0	-2	0	0
F81708	Sai MC	0	2	0	2	0	0
F81719	Dr Mukhopadhyay PK PRACT	1	0	0	-1	0	1
F81742	Acorns SURG	1	0	0	-1	0	0
Y00033	Purfleet Care Centre	1	0	0	-1	0	0
Y00999	St Clements HC	3	0	0	-3	0	0
Y02807	Thurrock HC	3	0	0	-3	0	0

Practice Code	Practice Name	CHD002: The percentage of patients with coronary heart disease in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		CHD005: The percentage of patients with coronary heart disease with a record in the preceding 12 months that aspirin, an alternative anti-platelet therapy, or an anti-coagulant is being taken		CHD006: The percentage of patients with a history of myocardial infarction (on or after 1 April 2011) currently treated with an ACE-I (or ARB if ACE-I intolerant), aspirin or an alternative anti-platelet therapy		CHD007: The percentage of patients with coronary heart disease who have had influenza immunisation in the preceding 1 August to 31 March	
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
F81010	Aveley MC	12	49	29	37	9	0	118	0
F81082	The Rigg Milner MC	7	15	7	8	4	0	32	6
F81084	Chadwell MC	11	44	6	33	4	0	24	50
F81088	Southend Road SURG	1	5	3	4	0	0	8	1
F81110	Dr Suntharalingam R PRACT	4	29	0	25	0	0	23	20
F81113	Chafford Hundred MC	3	10	4	7	1	0	55	0
F81134	Pear Tree SURG	3	47	0	44	0	4	39	31
F81137	Dr Colburn SURG	4	12	1	8	5	0	44	2
F81153	Hassengate MC	7	17	15	10	20	0	49	3
F81155	Balfour MC	2	27	2	25	2	0	19	33
F81177	Neera MC	0	14	0	14	0	0	9	6
F81192	Dr Headon OT PRACT	14	22	9	8	12	2	74	0
F81197	Santa Maria Centre	0	2	0	2	0	0	5	1

F81198	Dr Pattara/Dr Raja SURG	0	2	20	2	1	0	17	0
F81206	Shehadeh MC	3	16	2	13	0	2	43	6
F81211	East Thurrock Road MC	2	5	8	3	3	2	48	0
F81218	The Grays SURG	0	6	0	6	1	1	12	0
F81219	The Dell MC	0	3	1	3	0	0	12	4
F81623	Prime Care MC	1	3	3	2	0	0	15	0
F81632	Dr Yasin SA PRACT	0	12	0	12	0	0	28	1
F81641	Dr Masson KK SURG	2	20	0	18	3	4	32	28
F81644	Ash Tree SURG	0	5	11	5	1	0	7	1
F81652	Medic House	8	10	8	2	0	0	24	1
F81669	Derry Court Medical PRACT	1	5	1	4	0	0	17	0
F81691	East Tilbury HC	1	3	4	2	2	0	18	0
F81697	The Sorrells SURG	2	3	1	1	1	0	9	5
F81698	Dilip Sabnis MC	4	4	1	0	0	0	23	0
F81708	Sai MC	1	5	2	4	0	3	4	4
F81719	Dr Mukhopadhyay PK PRACT	6	20	6	14	2	2	18	6
F81742	Acorns SURG	1	0	0	-1	0	0	6	0
Y00033	Purfleet Care Centre	2	4	0	2	2	0	15	4
Y00999	St Clements HC	2	1	0	-1	0	0	18	0
Y02807	Thurrock HC	1	3	1	2	0	0	23	1

Practice Code	Practice Name	STIA003: The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		STIA007: The percentage of patients with a stroke shown to be non-haemorrhagic, or a history of TIA, who have a record in the preceding 12 months that an anti-platelet agent, or an anti-coagulant is being taken		STIA008: The percentage of patients with a stroke or TIA (diagnosed on or after 1 April 2014) who have a record of a referral for further investigation between 3 months before or 1 month after the date of the latest recorded stroke or the first TIA		STIA009: The percentage of patients with stroke or TIA who have had influenza immunisation in the preceding 1 August to 31 March	
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
F81010	Aveley MC	7	9	8	1	0	0	23	0
F81082	The Rigg Milner MC	6	49	1	43	4	1	80	3
F81084	Chadwell MC	1	12	7	11	3	2	29	6
F81088	Southend Road SURG	0	9	0	9	0	0	6	1
F81110	Dr Suntharalingam R PRACT	6	13	5	7	2	0	28	1
F81113	Chafford Hundred MC	19	31	13	12	0	3	53	15
F81134	Pear Tree SURG	2	5	1	3	0	0	9	1
F81137	Dr Colburn SURG	6	24	8	18	3	1	36	10
F81153	Hassengate MC	3	12	0	9	2	0	25	0
F81155	Balfour MC	13	19	14	6	2	1	38	4
F81177	Neera MC	6	26	3	20	0	2	30	3
F81192	Dr Headon OT PRACT	3	20	9	17	7	1	25	3
F81197	Santa Maria Centre	5	25	2	20	2	0	43	0

F81198	Dr Pattara/Dr Raja SURG	9	37	5	28	0	2	49	54
F81206	Shehadeh MC	2	2	2	0	4	1	9	11
F81211	East Thurrock Road MC	3	21	4	18	2	7	6	19
F81218	The Grays SURG	1	23	0	22	1	2	4	27
F81219	The Dell MC	5	12	2	7	1	0	24	3
F81623	Prime Care MC	4	31	5	27	0	0	44	1
F81632	Dr Yasin SA PRACT	3	25	0	22	1	0	25	16
F81641	Dr Masson KK SURG	6	21	13	15	5	4	45	11
F81644	Ash Tree SURG	4	22	2	18	2	1	35	5
F81652	Medic House	3	15	4	12	1	0	46	3
F81669	Derry Court Medical PRACT	2	4	3	2	0	1	3	2
F81691	East Tilbury HC	13	9	13	-4	1	0	25	0
F81697	The Sorrells SURG	4	17	1	13	1	0	13	6
F81698	Dilip Sabnis MC	0	9	0	9	0	0	11	0
F81708	Sai MC	2	2	1	0	1	0	3	0
F81719	Dr Mukhopadhyay PK PRACT	3	1	2	-2	1	0	1	8
F81742	Acorns SURG	4	6	3	2	1	0	37	0
Y00033	Purfleet Care Centre	7	10	7	3	5	3	18	0
Y00999	St Clements HC	0	1	0	1	0	0	1	0
Y02807	Thurrock HC	2	1	1	-1	0	0	2	0

Practice Code	Practice Name	AST002: The percentage of patients aged 8 or over with asthma (diagnosed on or after 1 April 2006), on the register, with measures of variability or reversibility recorded between 3 months before or anytime after diagnosis		AST003: The percentage of patients with asthma, on the register, who have had an asthma review in the preceding 12 months that includes an assessment of asthma control using the 3 RCP questions		AST004: The percentage of patients with asthma aged 14 or over and who have not attained the age of 20, on the register, in whom there is a record of smoking status in the preceding 12 months	
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported
F81010	Aveley MC	19	8	164	-11	0	0
F81082	The Rigg Milner MC	2	12	8	10	0	1
F81084	Chadwell MC	4	7	9	3	2	2
F81088	Southend Road SURG	2	1	4	-1	0	0
F81110	Dr Suntharalingam R PRACT	7	15	8	8	0	1
F81113	Chafford Hundred MC	1	25	4	24	0	13
F81134	Pear Tree SURG	2	9	5	7	0	1
F81137	Dr Colburn SURG	1	8	4	7	0	3
F81153	Hassengate MC	5	12	11	7	0	6
F81155	Balfour MC	2	9	27	7	0	3
F81177	Neera MC	5	4	2	-1	0	1
F81192	Dr Headon OT PRACT	3	20	9	17	0	3
F81197	Santa Maria Centre	0	0	0	0	0	0

F81198	Dr Pattara/Dr Raja SURG	0	0	0	0	0	2
F81206	Shehadeh MC	1	4	8	3	0	2
F81211	East Thurrock Road MC	3	3	8	0	0	2
F81218	The Grays SURG	1	0	1	-1	0	0
F81219	The Dell MC	0	2	3	2	1	1
F81623	Prime Care MC	0	1	3	1	0	0
F81632	Dr Yasin SA PRACT	1	0	2	-1	0	0
F81641	Dr Masson KK SURG	1	0	2	-1	0	0
F81644	Ash Tree SURG	1	0	4	-1	0	0
F81652	Medic House	0	2	25	2	0	0
F81669	Derry Court Medical PRACT	2	2	10	0	0	2
F81691	East Tilbury HC	1	6	2	5	0	0
F81697	The Sorrells SURG	0	2	1	2	0	0
F81698	Dilip Sabnis MC	2	2	5	0	0	1
F81708	Sai MC	0	4	0	4	0	2
F81719	Dr Mukhopadhyay PK PRACT	5	10	18	5	1	0
F81742	Acorns SURG	1	1	2	0	0	0
Y00033	Purfleet Care Centre	6	18	10	12	0	0
Y00999	St Clements HC	3	9	6	6	0	0
Y02807	Thurrock HC	4	12	7	8	0	1

Practice Code	Practice Name	COPD002: The percentage of patients with COPD (diagnosed on or after 1 April 2011) in whom the diagnosis has been confirmed by post bronchodilator spirometry between 3 months before and 12 months after entering on to the register		COPD003: The percentage of patients with COPD who have had a review, undertaken by a healthcare professional, including an assessment of breathlessness using the Medical Research Council dyspnoea scale in the preceding 12 months		COPD004: The percentage of patients with COPD with a record of FEV1 in the preceding 12 months		COPD005: The percentage of patients with COPD and Medical Research Council dyspnoea grade ≥3 at any time in the preceding 12 months, with a record of oxygen saturation value within the preceding 12 months		COPD0 patients v influenz precedin
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions
F81010	Aveley MC	42	6	57	-36	51	41	7	6	67
F81082	The Rigg Milner MC	10	5	18	-5	15	7	2	0	19
F81084	Chadwell MC	8	11	19	3	14	9	4	11	18
F81088	Southend Road SURG	4	0	4	-4	6	0	0	1	4
F81110	Dr Suntharalingam R PRACT	2	20	3	18	6	38	0	5	11
F81113	Chafford Hundred MC	5	0	15	-5	31	7	2	3	27
F81134	Pear Tree SURG	8	7	5	-1	10	65	1	1	33
F81137	Dr Colburn SURG	1	5	3	4	2	11	0	3	13
F81153	Hassengate MC	0	6	5	6	3	7	1	0	32
F81155	Balfour MC	8	7	14	-1	14	12	0	2	20
F81177	Neera MC	4	10	3	6	3	11	2	0	6
F81192	Dr Headon OT PRACT	4	2	15	-2	12	22	0	5	62
F81197	Santa Maria Centre	2	1	0	-1	6	2	0	0	8

F81198	Dr Pattara/Dr Raja SURG	0	1	1	1	2	1	0	2	4
F81206	Shehadeh MC	6	9	10	3	6	31	2	2	42
F81211	East Thurrock Road MC	7	5	6	-2	9	16	1	3	18
F81218	The Grays SURG	2	1	5	-1	9	1	0	0	8
F81219	The Dell MC	5	6	8	1	9	5	0	2	12
F81623	Prime Care MC	3	1	3	-2	19	1	2	0	6
F81632	Dr Yasin SA PRACT	0	4	3	4	4	7	2	4	28
F81641	Dr Masson KK SURG	4	4	7	0	11	5	1	2	9
F81644	Ash Tree SURG	3	2	6	-1	8	5	0	1	3
F81652	Medic House	9	1	10	-8	10	4	2	0	16
F81669	Derry Court Medical PRACT	0	1	4	1	0	4	0	2	17
F81691	East Tilbury HC	4	1	3	-3	3	0	0	0	9
F81697	The Sorrells SURG	2	5	1	3	0	0	0	1	4
F81698	Dilip Sabnis MC	7	0	4	-7	4	4	0	1	20
F81708	Sai MC	1	6	1	5	1	21	0	2	1
F81719	Dr Mukhopadhyay PK PRACT	1	9	5	8	6	42	1	9	14
F81742	Acorns SURG	4	0	2	-4	1	0	0	0	10
Y00033	Purfleet Care Centre	2	4	1	2	2	7	1	1	9
Y00999	St Clements HC	5	0	2	-5	1	2	0	1	15
Y02807	Thurrock HC	3	2	5	-1	6	4	0	0	13

Practice Code	Practice Name	DM002: The percentage of patients with diabetes, on the register, in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less		DM003: The percentage of patients with diabetes, on the register, in whom the last blood pressure reading (measured in the preceding 12 months) is 140/80 mmHg or less		DM004: The percentage of patients with diabetes, on the register, whose last measured total cholesterol (measured within the preceding 12 months) is 5 mmol/l or less		DM006: The percentage of patients with diabetes, on the register, with a diagnosis of nephropathy (clinical proteinuria) or micro-albuminuria who are currently treated with an ACE-I (or ARBs)		DM00 patients register, HbA1c is the pr
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions
F81010	Aveley MC	15	70	28	164	51	221	2	31	93
F81082	The Rigg Milner MC	5	25	7	64	15	58	3	4	12
F81084	Chadwell MC	31	53	59	107	51	56	11	52	59
F81088	Southend Road SURG	2	6	5	28	5	31	2	5	3
F81110	Dr Suntharalingam R PRACT	3	38	7	61	6	54	1	13	5
F81113	Chafford Hundred MC	15	45	24	117	35	97	1	7	34
F81134	Pear Tree SURG	5	76	17	122	23	112	1	18	19
F81137	Dr Colburn SURG	5	27	10	80	19	105	1	8	8
F81153	Hassengate MC	7	25	19	59	76	92	11	18	34
F81155	Balfour MC	10	50	20	129	19	86	1	27	20
F81177	Neera MC	4	29	6	48	3	56	1	15	3
F81192	Dr Headon OT PRACT	29	15	44	59	133	77	11	0	102
F81197	Santa Maria Centre	3	6	5	23	11	19	1	1	24

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F81198	Dr Pattara/Dr Raja SURG	2	6	4	20	14	14	9	0	6
F81206	Shehadeh MC	8	37	15	65	16	63	4	10	17
F81211	East Thurrock Road MC	4	6	13	14	47	39	9	1	54
F81218	The Grays SURG	4	10	6	24	6	20	0	1	2
F81219	The Dell MC	2	14	3	28	7	39	4	0	8
F81623	Prime Care MC	2	6	5	14	7	13	2	1	5
F81632	Dr Yasin SA PRACT	5	24	6	34	8	47	1	0	8
F81641	Dr Masson KK SURG	2	35	4	70	12	67	0	6	6
F81644	Ash Tree SURG	2	5	3	15	8	20	2	2	7
F81652	Medic House	7	18	9	40	9	57	0	5	7
F81669	Derry Court Medical PRACT	6	7	15	32	16	30	0	1	14
F81691	East Tilbury HC	3	5	7	27	18	51	3	7	12
F81697	The Sorrells SURG	2	12	4	41	6	38	0	0	8
F81698	Dilip Sabnis MC	6	12	9	29	23	18	10	0	9
F81708	Sai MC	1	13	6	21	7	26	0	1	6
F81719	Dr Mukhopadhyay PK PRACT	9	34	13	60	13	40	2	15	23
F81742	Acorns SURG	3	2	6	5	5	13	10	0	8
Y00033	Purfleet Care Centre	7	25	15	62	14	55	2	31	15
Y00999	St Clements HC	8	6	19	18	9	19	1	0	11
Y02807	Thurrock HC	18	8	29	55	28	41	14	0	34

Practice Code	Practice Name	DM008: The percentage of patients with diabetes, on the register, in whom the last IFCC-HbA1c is 64 mmol/mol or less in the preceding 12 months		DM009: The percentage of patients with diabetes, on the register, in whom the last IFCC-HbA1c is 75 mmol/mol or less in the preceding 12 months		DM012: The percentage of patients with diabetes, on the register, with a record of a foot examination and risk classification: 1) low risk (normal sensation, palpable pulses), 2) increased risk (neuropathy or absent pulses), 3) high risk (neuropathy or absent pulses plus deformity or skin changes in previous ulcer) or 4) ulcerated foot within the preceding 12 months		DM014: The percentage of patients newly diagnosed with diabetes, on the register, in the preceding 1 April to 31 March who have a record of being referred to a structured education programme within 9 months after entry on to the diabetes register		DM01: patients register, immunisa Au
		Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions	Not received intervention or exception reported	Exceptions
F81010	Aveley MC	89	107	79	55	55	19	26	0	211
F81082	The Rigg Milner MC	8	83	6	51	1	28	6	0	60
F81084	Chadwell MC	54	70	47	49	63	62	2	16	60
F81088	Southend Road SURG	1	30	1	19	4	13	5	1	21
F81110	Dr Suntharalingam R PRACT	5	84	5	70	5	42	0	6	31
F81113	Chafford Hundred MC	32	145	27	96	30	55	10	0	164
F81134	Pear Tree SURG	15	140	9	97	16	108	1	2	68
F81137	Dr Colburn SURG	7	98	7	51	9	43	0	1	80
F81153	Hassengate MC	30	101	25	43	8	30	4	0	124
F81155	Balfour MC	15	90	11	61	7	66	7	1	54
F81177	Neera MC	3	65	3	49	5	24	5	0	21
F81192	Dr Headon OT PRACT	74	63	53	37	22	18	0	1	126
F81197	Santa Maria Centre	20	12	16	8	1	10	2	0	20

Code	Practice								
F81198	Dr Pattara/Dr Raja SURG	6	25	4	16	4	7	1	0	17
F81206	Shehadeh MC	14	120	11	79	13	85	11	0	77
F81211	East Thurrock Road MC	50	48	37	26	28	18	3	0	92
F81218	The Grays SURG	2	26	2	20	1	9	1	1	28
F81219	The Dell MC	8	60	7	25	6	44	4	0	26
F81623	Prime Care MC	5	21	5	12	5	4	1	0	28
F81632	Dr Yasin SA PRACT	6	59	4	33	6	12	8	0	43
F81641	Dr Masson KK SURG	6	63	4	49	4	39	18	0	38
F81644	Ash Tree SURG	7	24	6	17	5	5	4	0	23
F81652	Medic House	6	61	6	50	8	12	1	0	51
F81669	Derry Court Medical PRACT	14	37	12	28	10	3	0	0	43
F81691	East Tilbury HC	12	38	12	17	12	2	6	1	45
F81697	The Sorrells SURG	7	46	6	31	0	18	1	2	15
F81698	Dilip Sabnis MC	8	47	7	27	7	5	3	0	37
F81708	Sai MC	5	30	2	22	6	27	3	3	7
F81719	Dr Mukhopadhyay PK PRACT	22	44	17	37	14	65	0	7	26
F81742	Acorns SURG	8	17	7	11	2	0	4	0	25
Y00033	Purfleet Care Centre	13	59	12	42	6	50	1	5	34
Y00999	St Clements HC	9	45	6	30	14	0	2	0	37
Y02807	Thurrock HC	31	62	27	46	17	5	4	2	65

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