

Programme for Relationships, Intelligence, Metrics and Equality (PRIME)

Baseline Findings Report

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Contents

Introduction	3
Approach	4
Findings	6
Groupings and Measures	14
Additional Datasets	16

Introduction

Document Purpose

This document acts as a commentary for the work undertaken by the PRIME Relationships and Metrics Workstream for the baseline activity it will:

- Give an overview of the process followed
- Provide an overview of the findings
- Outline the methodology which should be utilised in the future where an additional priority for the programme is to be considered.

Programme context

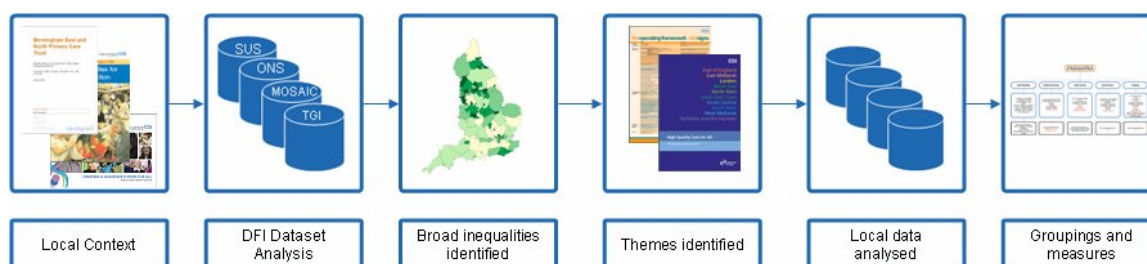
As a programme team we are uniquely placed in ‘tackling health inequalities by generating new relationships and exploiting information creatively’. We are now combining market leading NHS data aggregation, cleansing, analysis and representation techniques with the interpretation of the data to ensure that meaningful interventions can be recommended and then implemented in a targeted, personalised and measurable way.

In ensuring that this ambitious programme delivers its objectives, we are committed the following set of principles:

- ***It is the outcomes which matter*** - All activity in the programme will be focused on how and when improvements for patients, staff and taxpayers are achieved – through the baselining and subsequent measurement of meaningful Key Performance Indicators and Outcomes.
- ***Keep it simple*** - The benefits of the programme should be readily understandable – both in concept and description to those receiving them.
- ***No blame for bad ideas*** - The Programme will shamelessly copy good ideas from around the world and will rapidly discard ideas that don’t work.
- ***Demonstrable world-class products, services and processes*** - The processes and content of the programme will draw on international best practice, and demonstrate new excellence in modelling the right balance between creativity and delivery founded on continuous improvement. Clearly our delivery partners Humana are significant in helping us address this issue.
- ***Understand but do not avoid risks*** - The success of the project will sometimes depend on doing what seems to be the right thing even when research is equivocal.
- ***Utilise our networks*** - BEN PCT, Dr Foster Intelligence and Humana have a world wide, world class network of health professionals, partners and innovators, we will work with you to use this network to make a difference to the people of Birmingham East and North.

Approach

The intention for the baseline has been to blend national and local datasets to give PRIME a rich picture of the as-is (or as close as we can get with available data) state of play. This picture will then be used to set the priorities of the programme and provide focus for the way in which each of the workstreams and projects should be measured. Each of the steps below was completed:



Local context – The first step required the DFI analysts gain a basic understanding of the Birmingham East & North geography, history and high level demographics. This was an important step to ensure that the data could be analysed not only from a statistical point of view but also a population point of view (to some extent).

DFI Dataset Analysis – To ensure the best use of resource was employed the national datasets were analysed before the local datasets. This data allowed the broad inequalities to be identified.

Broad Inequalities Identified – The national data was analysed by age, sex, geography, deprivation, Mosaic™ type, Mosaic™ Origins and in relation to the PCT ONS cluster ‘Centres with Industry’.

Themes identified – Broad themes within the data were identified for which there were significant inequalities. These themes were also complimented with emerging policy such as the Darzi review to provide further focus to the local data that was requested. The data requested and whether it was available (indicated by a tick or cross) is listed below along with the analysis on Vital Signs:

- Infant Mortality ✓
- Breast Cancer ✗
- Tackling Obesity ✓
- Childhood Weight Issues ✓
- Reducing alcohol harm ✓
- Treating drug addiction ✗
- Reducing smoking rates ✓

- Improving sexual health ✗
- Improving mental health ✓
- Injuries and Poisonings ✓
- All-age all-cause mortality rate per 100,000 population (VSB01) ✓
- Mortality rate from all circulatory diseases at ages under 75 (VSB02) ✓
- Mortality rate from all cancers at ages under 75 (VSB03) ✓
- Mortality rate from causes considered amenable to healthcare (VSC30) ✓
- Hospital admissions for alcohol related harm (VSC26) ✓
- Hospital admissions by unintentional and deliberate injuries to children and young people (VSC29) ✓

Local data analysed – The available local data was then analysed in line with the previous analysis.

Findings

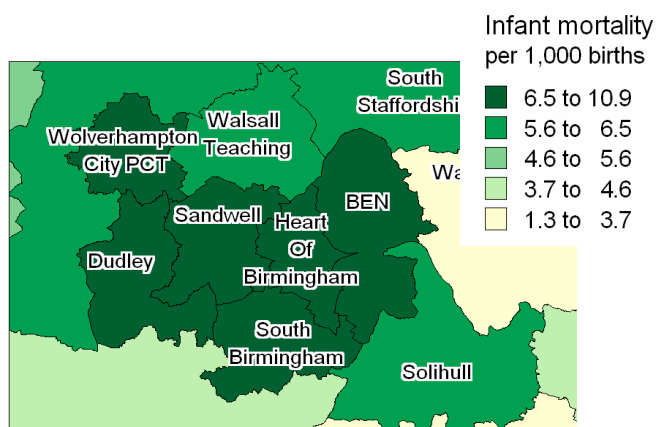
The analysis of national and local data led to a number of themes comprising Health Inequalities within the region. The high level themes (listed below) resonated with the experience and existing understanding of the PCT. However, in building the rich data picture, there were surprises and interesting findings in each of the data themes, which had been invisible at the previous level of general analysis.

- Infant Mortality – high levels in poor white population in Kingstanding and high rates of hospital admission for pregnancy related conditions, suggesting missed opportunities for intervention
- Childhood Obesity/Weight Issues – concentrated levels of malnutrition which need addressing along side the burden of obesity
- Adult Obesity - Target women, most likely of British or Pakistani origin and in the more deprived wards (especially Kingstanding, Shard End and Washwood Heath).
- Alcohol Harm – general population levels of drinking appear okay compared to rest of ONS group but this masks very high levels of damage amongst women at all ages within the PCT
- Smoking - British men and Shard End are recommended for consideration as initial focus

The specific health inequality based findings will now be explained in more detail.

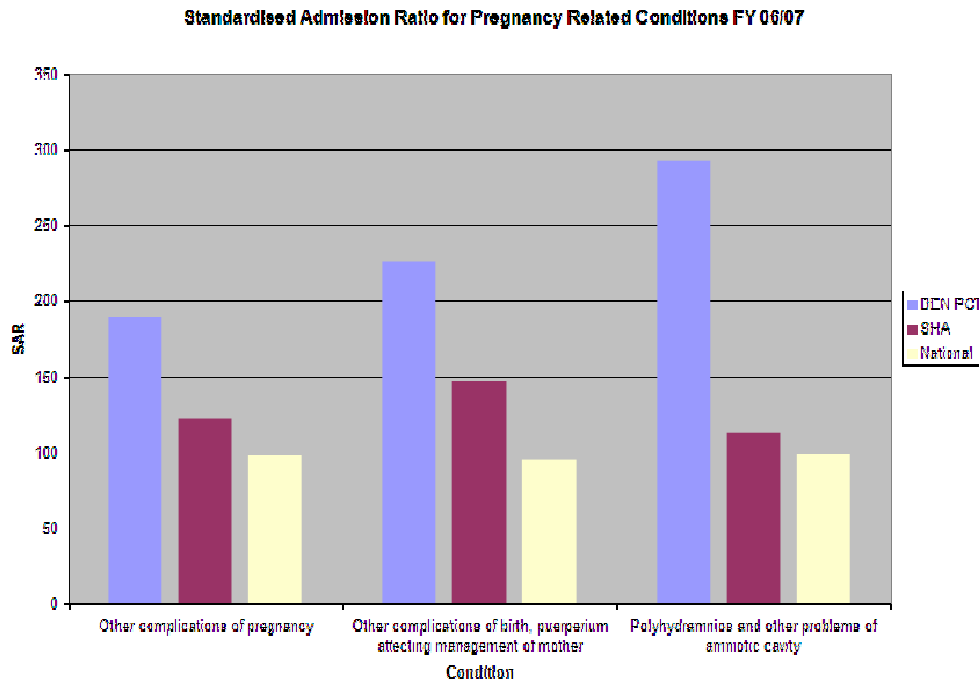
Infant Mortality

BEN PCT was already aware that the infant mortality rates within the region were high, the mortality rate of 9 in 1000 was something that the PCT was and is taking seriously. The baseline exercise has however given the PCT a feel for how this fits with the national picture by region and also internationally. The mortality rate is the same as Kuwait, Latvia and Bahrain whilst being some distance from the England national average of 5 in 1,000 births.

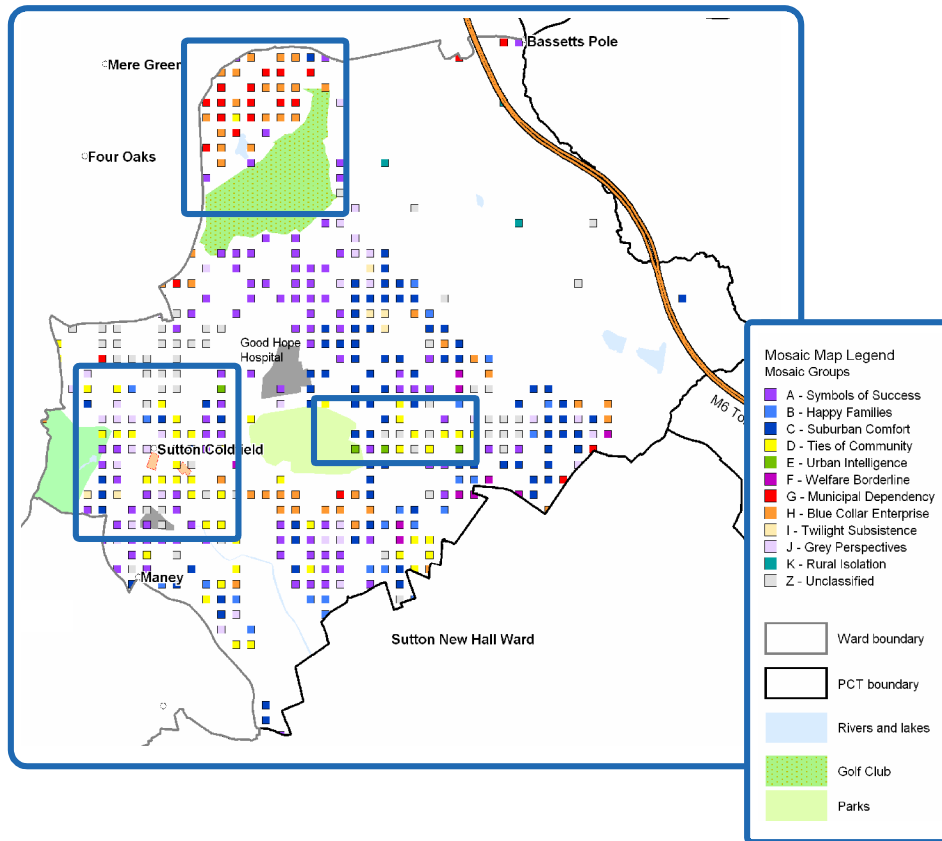


The data used for measuring infant mortality was last refreshed in 2006. In 2006 there were 6,551 births within the PCT boundaries. This equates to 59 infant deaths in the year. If we can reduce this to the current national average the deaths would number 33, a difference of 26, or the equivalent of one whole infant class (<http://www.civitas.org.uk/press/prcs80.php>).

The picture became more compelling when the Standardised Admission Rates were examined for pregnancy related conditions as shown in the chart below. The rates were significantly higher than both West Midlands SHA and the national picture for these conditions.



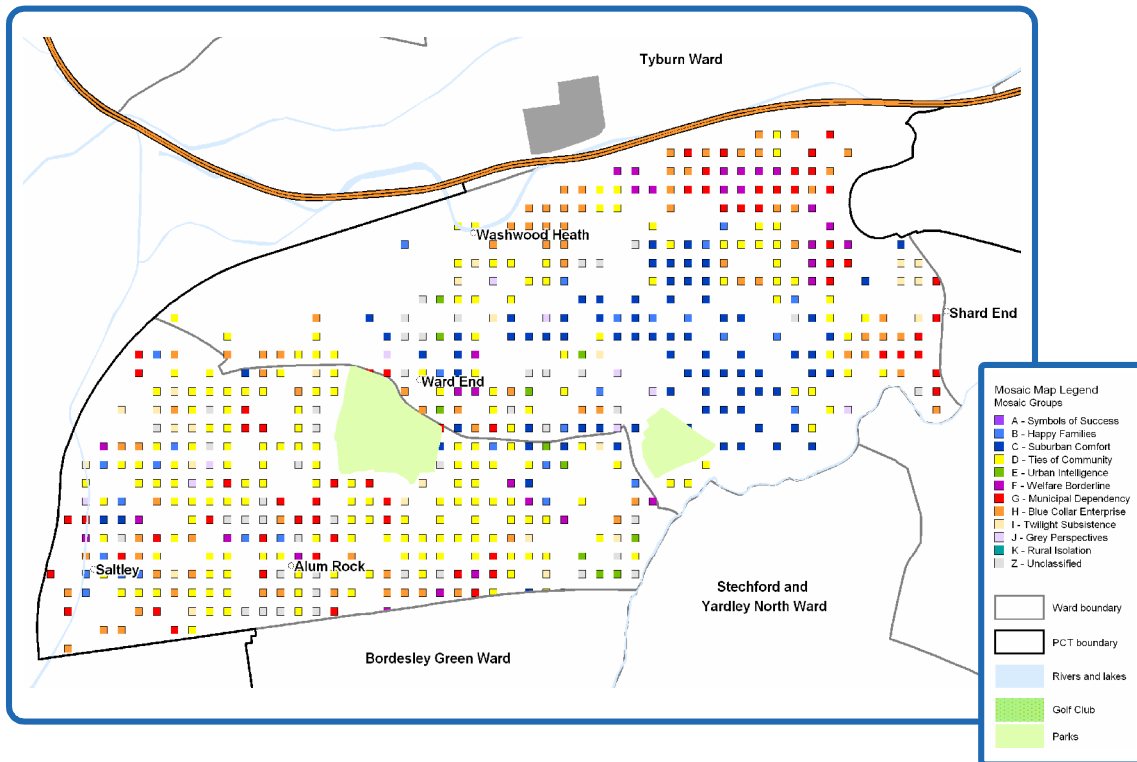
Further analysis compared the wards of BEN PCT with the national average and also compared the wards of BEN PCT with each other to identify where the geographical inequalities lay. Surprisingly Sutton Trinity Ward appeared to be one of the poorer performers with regards to infant mortality. When Sutton Trinity was analysed by Mosaic™ type there appeared to be pockets of the ward that may warrant further investigation.



Further analysis of Mosaic™ types indicated that the ‘ties of the community’ and ‘municipal dependency’ groups are those that should be targeted when considering interventions in this area.

Mosaic™ Group	Three Year Average	Percentage
Ties of Community	24.0	45.0%
Municipal Dependency	9.0	16.9%
Blue Collar Enterprise	6.3	11.9%
Suburban Comfort	4.7	8.8%
Welfare Borderline	3.7	6.9%
Symbols of Success	3.5	4.4%
Happy Families	1.7	3.1%
Grey Perspectives	2.0	1.3%
Unclassified	1.0	1.3%
Urban Intelligence	1.0	0.6%
Grand Total	53.3	-

The wards with highest percentage of ‘ties of the community’ Mosaic™ type were Hodge Hill and Washwood Heath (shown below).

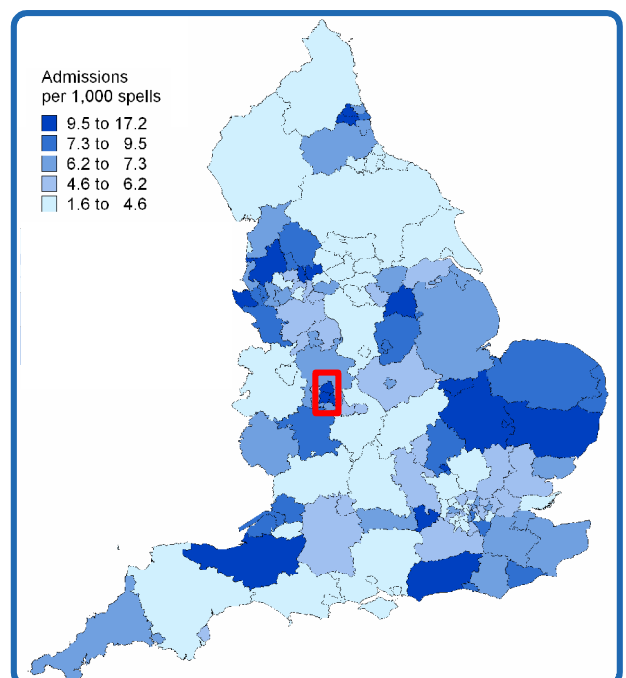


Due to this the recommended next step is further research and social marketing starting within the Hodge Hill and Washwood Heath wards. The recommended measures moving forward are the SAR for pregnancy related conditions along with the infant mortality rate.

Obesity

The analysis carried out by PRIME quickly identified that in relation to obesity related hospital admissions, BEN PCT were performing marginally worse than the national average with 7.1 related spells per 1000 admissions as opposed to 6.1 nationally.

Significant effort has been put in across Birmingham with regards to male life expectancy, this work combined with other local knowledge meant that BEN PCT had a good understanding of it's male population. This understanding was backed with the evidence available to PRIME, the men within the PCT boundaries largely track the national average with peaks occurring in the age ranges 25-35, 40-55 and 65-75



It was interesting to find that the women within the PCT population did not follow the same trend and from the age 10-84 remain above the national average for Obesity related admissions.

Ethnicity	Obese	All Spells	Rate per 1,000
Bangladeshi	16	1758	9.10
Black African	4	1012	3.95
Black Caribbean	1	187	5.35
British Isles	516	67327	7.66
Chinese	10	812	12.32
Eastern European	9	1516	5.94
Greek/Greek Cypriot	0	384	0.00
Hindi	22	3087	7.13
Hispanic	3	347	8.65
Italian	2	685	2.92
Jewish/Armenian	0	34	0.00
Other East Asian	0	125	0.00
Other Muslim	5	407	12.29
Pakistani	240	32991	7.27
Sikh	20	2697	7.42
Somali	0	22	0.00
Tamil/Sri Lankan	0	67	0.00
Turkish	0	58	0.00
Unknown	7	899	7.79
Western European	6	967	6.20

When the data was analysed by Mosaic™ Origins the British and Pakistani population of the PCT were those who appeared to be the issue. When thought of in relation to the overall origins of the PCT clearly the Pakistani population would be a target for any intervention.

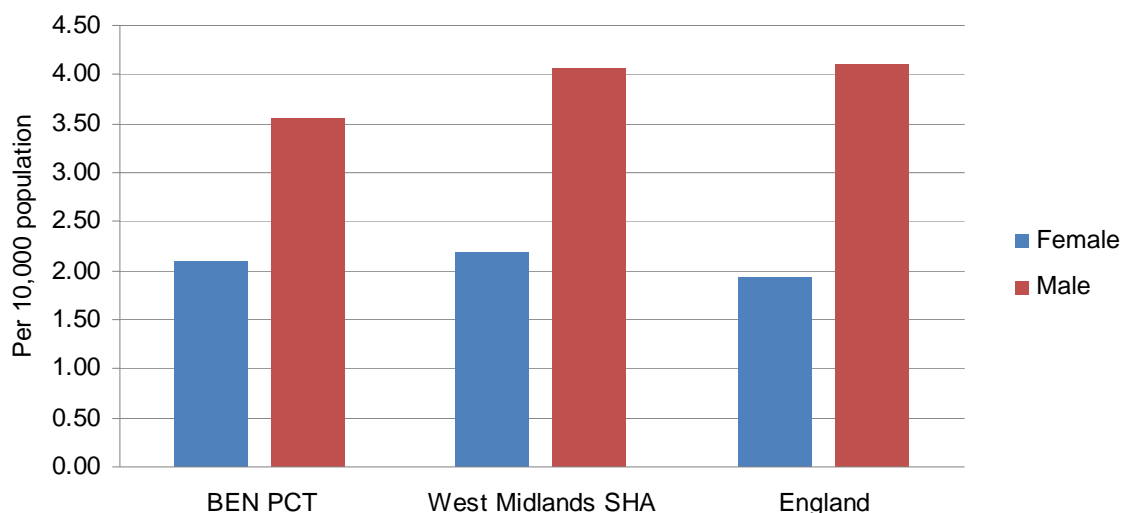
The analysis by Mosaic™ type did not provide any significant areas of target but when analysed by geography it was once again the more deprived wards that stood out as being potential targets.

Due to this it is recommended that we target women, most likely of British or Pakistani origin and in the more deprived wards (especially Kingstanding, Shard End and Washwood Heath). Consideration of a targeted campaign for men within certain age ranges should also be considered.

Alcohol Harm

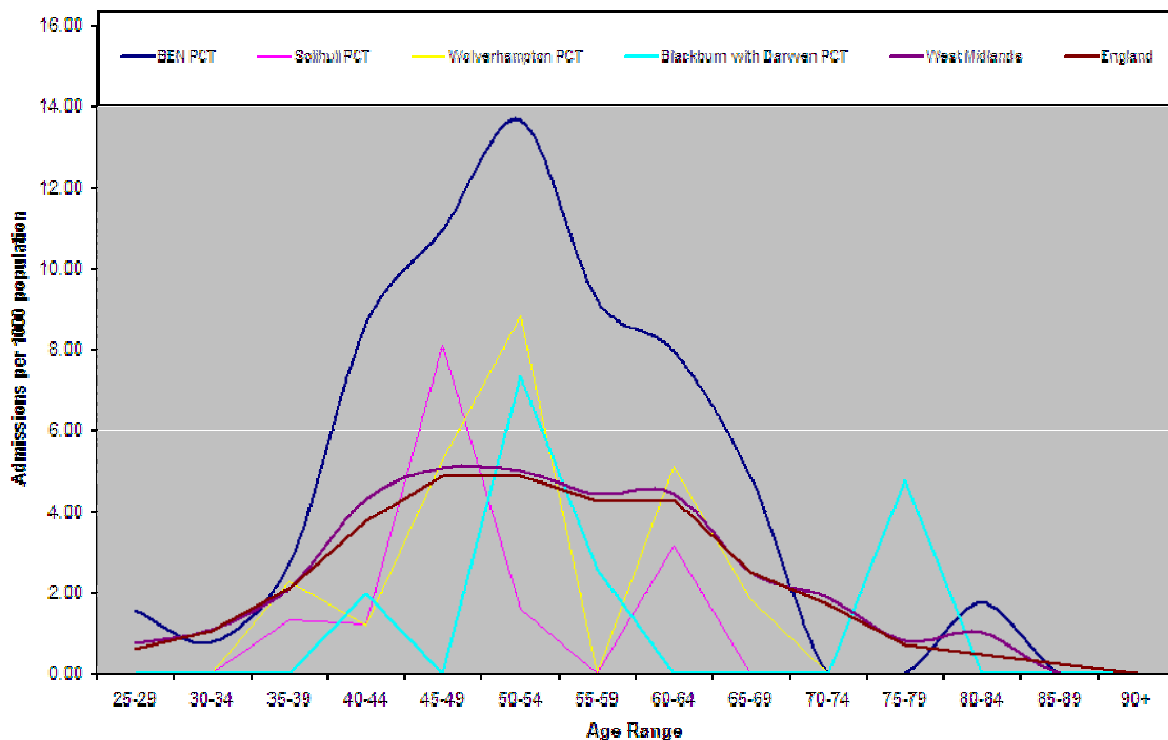
Upon initial investigation it appeared that the performance of BEN PCT in relation to admissions for liver disease were close to both national and SHA performance. When these admissions were split by sex the picture became extremely interesting, as the chart below shows.

Admissions for Liver disease, alcohol related per 10,000 population 07/08



This picture was investigated further and split by age range and sex. The chart below shows that when compared to peers, the SHA and nationally the women aged 35-70 have significantly higher admissions to hospital for alcohol related liver disease. When geographically analysed the wards of Acock's Green, Hodge Hill, South Yardley and Sutton Trinity were those that should be targeted for women.

Female Admissions for Alcohol Related Liver Disease per 10,000 population



For males the picture was somewhat different with BEN males performing well against all peers and in fact the only age range for which further investigation would be recommended is 60-80 year olds.

When these admissions were analysed by Mosaic™ Origins type the British and Pakistani population were areas of interest. Specifically the Pakistani admission rate per 10,000 population is higher than that of the British population.

It is recommended that we target women aged 35-70 living in Acock's Green, Hodge Hill, South Yardley and Sutton Trinity. We should also target men aged 60-80 living in Hodge Hill.

The key population ethnicity to target is British and Pakistani.

The recommended measures are:

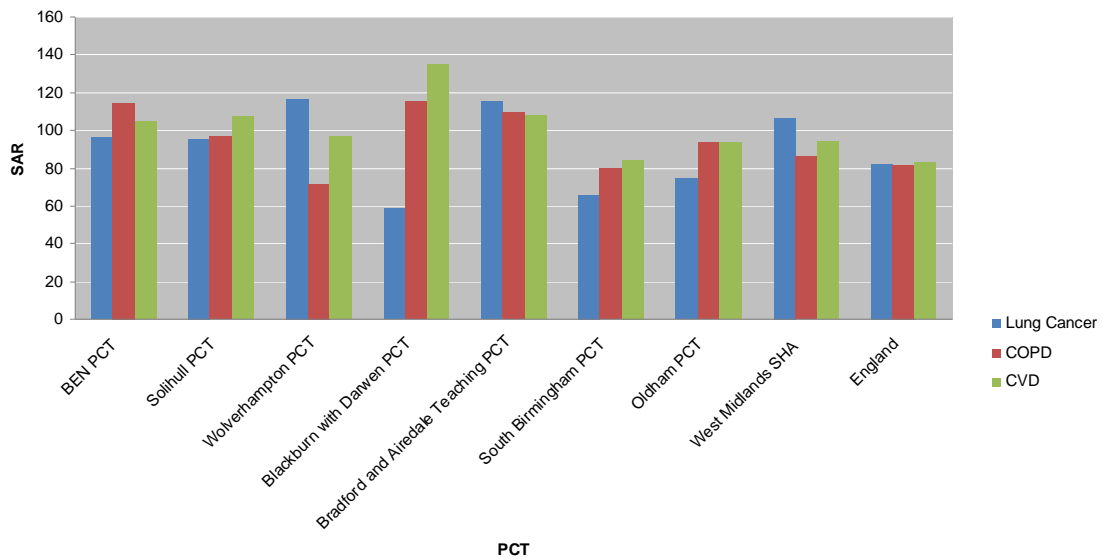
- Alcohol related liver disease spells per 10,000 population (quarterly)

- Alcohol related liver disease spells in middle aged women per 10,000 population (indicator/priority)
- Alcohol related liver disease spells in older men per 10,000 population (indicator/priority)

Smoking

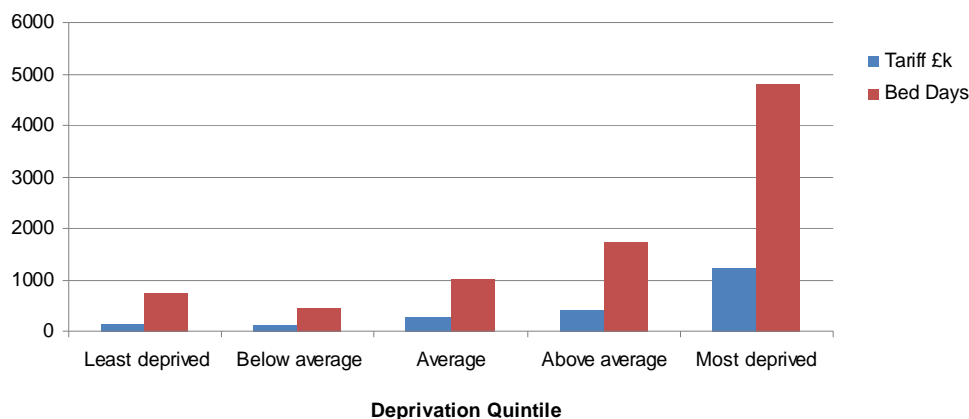
Standardised admission rates for Lung Cancer, COPD and CVD were compared with the English, West Midlands and ONS peers. All three diseases were above the English average with COPD within the PCT looking to be a key area for focus.

Smoking Related Standardised Admission Rates 07/08



When the tariff and bed days associated with each of the deprivation quintiles was analysed for COPD the picture was as expected with nearly 5000 bed days associated with COPD being accounted for by the 'most deprived' quintile at a cost to the PCT of around £1.2million for the period July 07 to July 08.

Rolling 12 Months COPD by Deprivation



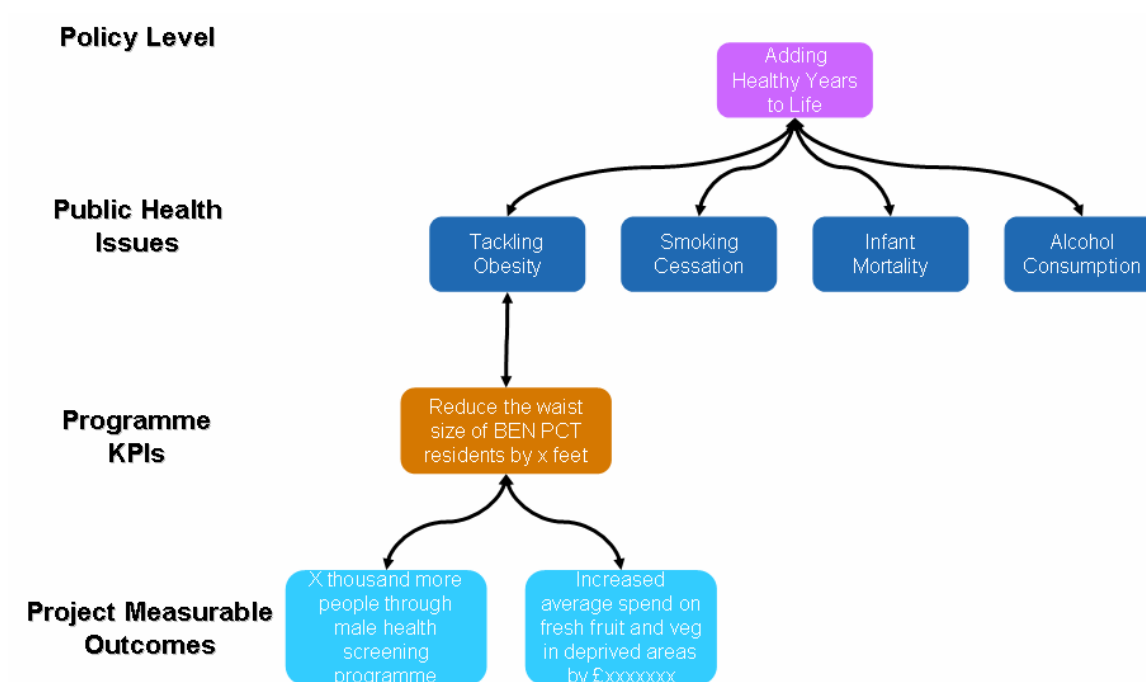
The picture changes slightly when smoking related deaths are analysed, CHD appears to be the primary diagnosis for smoking related deaths within the PCT boundaries and twice as many men as women appear to be its victim. In terms of Mosaic™ Origins it is the British that should be targeted.

Mental Health

Whilst some initial activity data has been provided by the PCT more depth has been requested and it is anticipated Mental Health will be added as a to the baseline upon receipt of this data.

Groupings and Measures

The emerging themes were presented to the Strategic Partnering Board on 25/09/08. This group broadly agreed with the groupings and it was decided that there should be a methodology for adding new datasets to the baseline. The structure of the KPIs and measurable outcomes is represented below:



An event on 13/11/08 facilitated by VISTA and in attendance of key PCT and DFI employees allowed the Programme KPIs to be developed to their early stages as described below:

Impact

- Life expectancy – measured by numbers of additional bus passes, pensions and free TV licences collected
- Infant mortality – measured in numbers of extra classes of children who live to start school
- Alcohol and tobacco – measured as impact on the family purse

Finance

- Basic return – impact measures multiplied by NICE guidance on value of additional years
- Product value – purchases by other organisations of jointly developed products and services

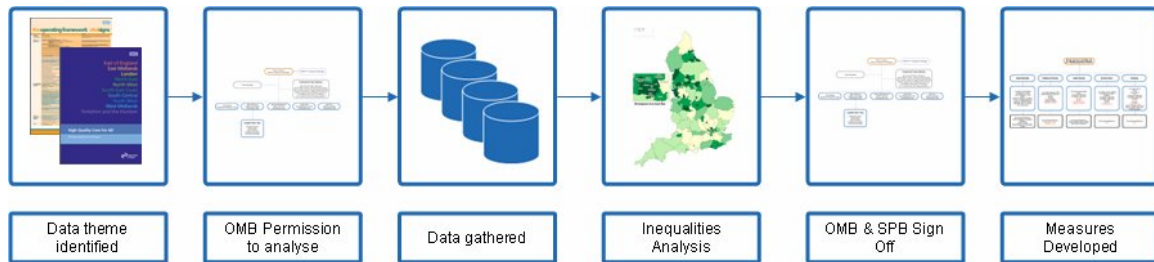
- Wise and fair investment – shift in investment patterns across the wards

Relationships

- Meeting the agreed basics – establishing a baseline and living up to the promise
- Productive relationships – increase in engagement by contractors
- Visibility – changing nature of the relationship and sense of alignment with our goals

Additional Datasets

PRIME will require the addition of datasets over the life of the programme, it is recommended the process below is adhered to.



Following a recommendation that a data theme should be added by a member of the PRIME team the OMB will discuss the feasibility at the next available OMB meeting. The feasibility should include age, sex, deprivation, ethnicity, residence, diagnosis (or reason for contact) and data quality indicators.

The relevant local and national data will be gathered and the inequalities analysis carried out, the inequalities analysis structure used to date will be applied. At this point if no inequality is found this will be reported to the OMB. Should an inequality be found a report will be written for the OMB who will then report to the SPB for sign off. Should the SPB feel the programme will need to apply focus in the area relevant measures will be developed.