NORTH LINCOLNSHIRE COUNCIL
SCRUTINY PANELS

Questioning Responsive Accountable

Report of the Healthier Communities and Older People Scrutiny Panel

The Inverse Care Law in North Lincolnshire

March 2010

The role of the council's Healthier Communities and Older People Scrutiny Panel is to examine, in detail, selected issues which can affect local people's health and wellbeing or their access to health care.

The aim is to find out if there are ways in which the council and its health partners could be doing things better, and to influence national issues.

This report is the end result of a review into a particular subject. It sums up how the review was carried out, the panel's findings/considerations, conclusions and recommendations for any improvements which could be made.

NORTH LINCOLNSHIRE COUNCIL

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Summary report

The scrutiny panel conducted a review into how GPs' budgets were allocated, and compared these to levels of deprivation and ill-health. The panel also compared vaccination rates, treatment outcomes and patient satisfaction rates with levels of deprivation and ill-health.

The panel found that, generally, GP budgets fell as deprivation levels rose. Similarly, there were generally lower rates of vaccination amongst very young children and lower rates of patient satisfaction in more deprived areas. There was some evidence that practices in poorer areas received fewer Quality Outcome Framework points on their contracts, and generally lower levels of funding. The panel was concerned that this could mean inequalities in people's health became more ingrained.

The panel has made nine recommendations to address this, including:

- GP budgets to more closely reflect the national guidance,
- Helping GPs to tailor their services to reflect local need,
- An increased focus on tackling inequalities at the wider, strategic level.

These recommendations will now be passed to NHS North Lincolnshire, the local leader for the NHS, for consideration.

Scrutiny report

The Inverse Care Law in North Lincolnshire

Introduction

The Inverse Care Law is a widely described phenomenon that states that areas with the greatest level of need, tend to receive the poorest level of services and the lowest levels of funding. This is linked to inequality. If we are to make a fairer society, we must ensure that resources are targeted in a fair, proportionate manner. This is not about favouring certain areas or groups of people, but about ensuring that services are provided based on need, rather than where someone lives or works.

I would like to thank the members of the sub-group who completed this piece of work, and the witnesses we have spoken to, who gave their views so openly. I realise that this is a complicated issue, with no simple solutions, and that our conclusions and recommendations may cause some debate. I also recognise that tackling inequality is something that falls to us all as a society, and that primary care is only one element within this. However, I hope that this report can play a role in the wider discussions around funding and the provision of healthcare, in order to support our front-line GPs, primary care workers and ultimately, the people of North Lincolnshire.

Cllr Sidell

Members

The review was completed by a small working group of members, feeding back to the Healthier Communities and Older People Scrutiny Panel on a regular basis.

Chaired by Cllr Sidell
Cllr Eckhardt
Cllr Simpson

The report was approved and adopted by the Healthier Communities and Older People Scrutiny Panel. The panel's membership is as follows:

Cllr Barker (Chair)
Cllr Wells (Vice-Chairman)
Cllr Collinson
Cllr Eckhardt
Cllr Jawaid MBE
Cllr Sidell
Cllr Simpson

Glossary

Acute Care	Healthcare normally provided in a hospital setting
DFLE	Disability Free Life Expectancy. A measure of how long an average person might expect to live without a limiting, long-term illness. Often compared to a national standard of 70 years, and known as the DFLE70. For example, if a practice has a DFLE70 score of 5, then an average patient might expect to live to 65 without developing a limiting, long-term illness
Indicative budget	The annual budget allocated to each GP practice, held by the PCT, and used to provide patient care.
Fair Shares	National guidance to calculate GP budgets.
Inverse Care Law	The phenomenon that healthcare or other services tend to favour more affluent areas, or areas with lower levels of need.
Joint Strategic Needs Assessment (JSNA)	A local assessment of people's health and wellbeing, used to plan services.
PCT	Primary Care Trust. The local leader of the NHS. Primary Care Trusts co-ordinate local healthcare. The local PCT is NHS North Lincolnshire.
Practice Based Commissioning (PBC)	A national programme designed to empower local GPs to plan and provide health services, based on local need.
Primary Care	Health services that are provided in the community, as opposed to in hospital.
Quality Outcome Framework (QOF)	The national voluntary system of financially rewarding GPs, based on patient treatment, planning and outcomes.

The selection and scope of the review

The review was an additional piece of work that the scrutiny panel agreed to, following an invitation from the Centre for Public Scrutiny to bid for funding to complete an innovative scrutiny review. The review was required to fit around the aims of the 2006 government White Paper "Strong and Prosperous Communities".

The panel felt that a review into the equity of care and funding in primary care would be a useful way to begin a discussion on how GPs and other primary care staff could be better supported. The review would also fit into national concerns about health inequalities, as highlighted in the recently published Marmot Review.

Whilst the panel is aware that the determinants of health inequality go far beyond primary care, members agreed that a relatively narrow focus would provide more specific information and enable members to undertake more in-depth analysis. It is hoped that this approach can then be a useful tool to investigate other areas of interest.

The review included discussions with a wide range of individuals involved in the planning and provision of primary care, statistical analysis and research of the national framework.

As the review ran alongside other work, a sub-group of three members of the Healthier Communities and Older People Scrutiny Panel agreed to conduct the work, regularly reporting back to the full panel.

Findings and considerations

Background

Within North Lincolnshire there are significant variations in people's health and wellbeing – perhaps the most striking example of this is that men in the poorest areas of North Lincolnshire live around ten years less than those in the richest areas. We know that where people live can have a major impact on the causes of ill-health and also how, when and if people use the primary care that is available. This gap between people's health, and the factors that can contribute towards ill-health such as poverty, poor education, poor housing and crime is known as health inequality. Whilst tackling health inequalities across North Lincolnshire is a stated aim of all key agencies, the health gap continues to widen.

A Corporate Assessment by the Audit Commission in 2008 found that "[the council] and partners were only just beginning to develop an understanding of the issues involved in building sustainable communities in areas such as health inequalities." Similarly, a peer review of Healthy Communities was completed by the Improvement and Development Agency in late 2008, which found that "partners cannot currently identify whether resources are focussed on areas of need" and recommended that "locally identified health needs should systematically inform strategy". The review concluded that "targeting of resources will be a key challenge – geographic, community and service."

However, there is some evidence that the need to tackle health inequalities is becoming better understood, and a number of key actions are planned. The Director of Public Health made tackling health inequalities a central element of his 2008 Annual Report, including a specific recommendation highlighting an apparent need for better community treatment for long term conditions in deprived areas. Despite this, there is evidence that inequalities are widening in North Lincolnshire. Whilst tackling these requires a strategic focus, sustained investment and education, this report focuses specifically on primary care. Whilst this is obviously only one element of the required response, it is hoped that this report can promote discussion locally and highlight the relationship between the use of resources and the provision of services in areas of deprivation.

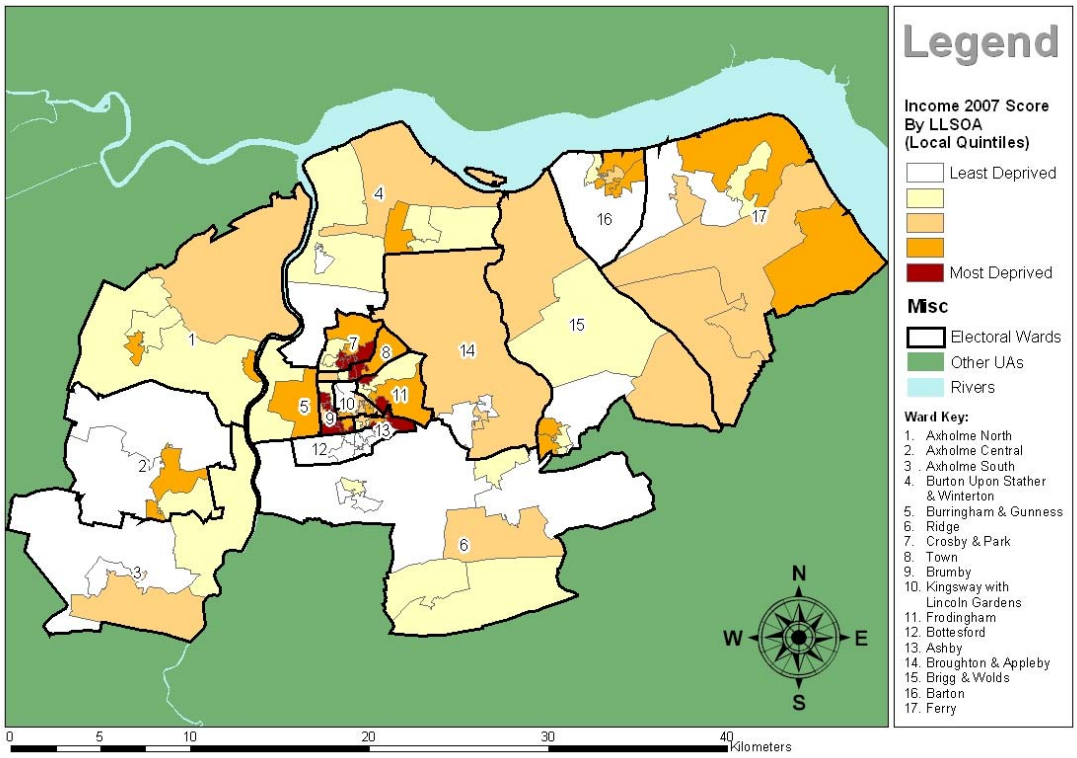
Inequalities in North Lincolnshire.

The population of around 160,000 people who live in North Lincolnshire is split between those who live in the main urban areas of Scunthorpe and Bottesford (47%), with around 40% living in the smaller towns such as Brigg, Barton and Crowle. The remaining 13% live in smaller villages and hamlets across the area.

The local economy is similar to much of the country, with average earnings, levels of poverty and employment. The main areas of deprivation are the

urban wards of Crosby and Park, Brumby, Ashby, Frodingham and Town. However, there are also smaller pockets of deprivation in rural areas.

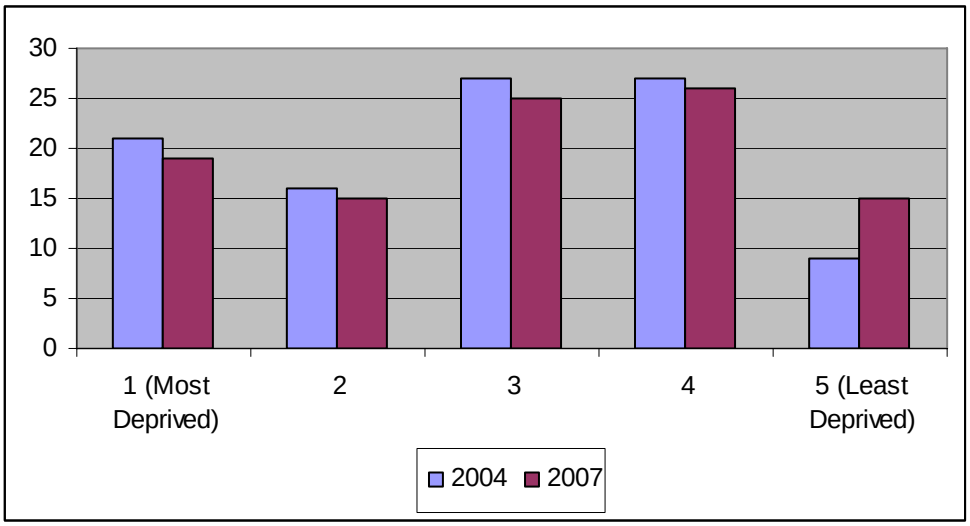
Figure 1. Map of Income Scores in North Lincolnshire (2007).



Data Source: Department of Communities & Local Government

The latest published figures show that levels of deprivation in North Lincolnshire are reducing. The number of local residents in the poorest quintile fell from 21% in 2004 to 19% in 2007. Whilst this is to be welcomed, there is evidence that the most affluent are improving faster than the communities in the poorest wards. This is leading, in turn, to increased inequality between the richest and poorest people in North Lincolnshire.

Figure 2. Percentage of North Lincolnshire residents in national income groups, 2004 – 7



Source: IMD 2004 and 2007, DCLG

This chart shows a clear and growing income gap between our richest and poorest residents.

Health Inequalities in North Lincolnshire

A Joint Strategic Needs Assessment (JSNA) was undertaken in 2008, which highlighted that the areas of deprivation described above, were also prone to inequalities in health and wellbeing. The document states that areas with higher than average deprivation are associated with:

- Lower than average male life expectancy,
- Higher than average premature death rates from coronary heart disease and cancer,
- Higher than average teen conception rates,
- Higher rates of adult smoking,
- Higher levels of long term illness and disability,
- Higher rates of mental ill health,
- Higher rates of alcohol and substance misuse.

It is acknowledged that, on current trends, "we should expect local health and well being inequalities in our urban areas to become more pronounced."

On December 9 2009, the Audit Commission released its "Oneplace" assessment of how all key services were working together for the benefit of local people. Largely due to the above problems, health inequalities were highlighted (or Red Flagged) as the main area of concern locally. The report concluded that "The local strategic partnership is taking action to address all these problems, but progress is too slow. Initiatives aimed at the main causes of ill health, such as smoking, obesity, exercise, diet and healthy lifestyle have yet to have a significant impact on health inequalities in North Lincolnshire.

The partnership needs to do more if the health of North Lincolnshire residents, *and especially those from the poorer areas*, is to improve.

The Local Strategic Partnership have long been aware of the issue of health inequalities, and the Audit Commission has acknowledged that action is planned to tackle inequality through identifying priority areas to target. This issue is discussed later within the report.

Practice Based Commissioning

Practice based commissioning is a national programme in which GP practices, or groups of practices, work with their local PCT to redesign the health services for local areas based on their understanding of patients' needs. . This is intended to give local doctors and other primary care workers a greater say in meeting the needs of their patients. The approach is designed to enable GP practices, in co-operation with the PCT, to identify the health needs locally, and play a role in providing or commissioning effective and appropriate healthcare. The role of the PCT is to provide performance data, calculate and hold the practice's indicative budget, and to co-ordinate wider local action and incentives. Practice Based Commissioning is intended to make care "more responsive to patient needs" and to encourage investment in community-based alternatives to hospital care.

National research suggests that progress on Practice Based Commissioning has been slow, although discussions between members and key figures locally provide evidence that the situation is improving.

Within North Lincolnshire, four groups (or consortia) of GP practices handle Practice Based Commissioning activity. These are:

Lindsey Health LLP
Barton Central Surgery
Riverside Surgery, Brigg
South Axholme Group Practice, Epworth

GP Indicative Budgets

As stated above, NHS North Lincolnshire (the local PCT), allocates a budget to each GP practice on an annual basis. The actual budget is held by the PCT in an "indicative" manner, although its use remains the responsibility of the GP practice. The latest guidance from the Department of Health states that "practice based commissioning is central to world class commissioning and is a crucial method through which PCTs and practices can work together to improve health outcomes and reduce inequalities. PCTs are responsible for ensuring that practices receive an indicative budget that reflects the needs of their population as accurately as possible."

A national formula and dataset has been provided to each PCT to help them calculate the indicative budgets since 2006. A new budget toolkit was released for the 2009/10 financial year, which, to some extent, moves away

from historical usage towards a more refined model based upon predicted activity. The new formula also includes a weighted inequalities adjustment, with the aim of contributing towards "the reduction of avoidable health inequalities". The following table described the weighting of each element of the formula.

Table 1 – Weights used for each component of the Fair Shares formula.

Acute	58.6 %
Maternity	2.5 %
Mental Health	13.9 %
Prescribing	12.0 %
Health Inequalities	12.9 %
Total	100.0 %

From Practice Based Commissioning: Budget Guidance for 2009/10

The Inverse Care Law

The Inverse Care Law is a phenomenon first described by Julian Tudor Hart in 1971. It states that "the availability of good medical care tends to vary inversely with the need for it in the population served." There is some evidence that those with least need of health care use health services more, and more effectively, than those with greatest need. As discussed previously, it is commonly recognised that people who live in deprived areas tend to also have higher levels of ill health, higher rates of preventable illness and premature death. Research has found that, nationally, emergency admissions for lung, colorectal and breast cancer are higher in residents living in deprived areas, and conditions such as asthma are strongly correlated with deprivation.

It has been estimated that 8 million people in England live in our most deprived communities. This equates to 15 % of the population. In these areas, people are more likely to be out of work and claiming benefits, have lower life expectancy, live in poor quality housing and become the victims of crime. There is also evidence that, at a national level, people who live in deprived areas tend to receive poorer health services. This has been recognised by several high profile reviews, including the Black Report (1980), the Acheson report (1998) and Lord Darzi's review (2007).

The obvious concern is that, without action to address this, those in deprived areas will utilise the available primary care less, and when they do attend, will use the services less effectively. This can exacerbate efforts to tackle health inequalities, and as GP budgets have tended to be allocated based on historical usage, could ingrain and extend inequity.

The Inverse Care Law in North Lincolnshire

Whilst levels of deprivation and associated poor health vary across North Lincolnshire, evidence of a local inverse care law at practice level can be difficult to obtain. The scrutiny panel asked NHS North Lincolnshire whether

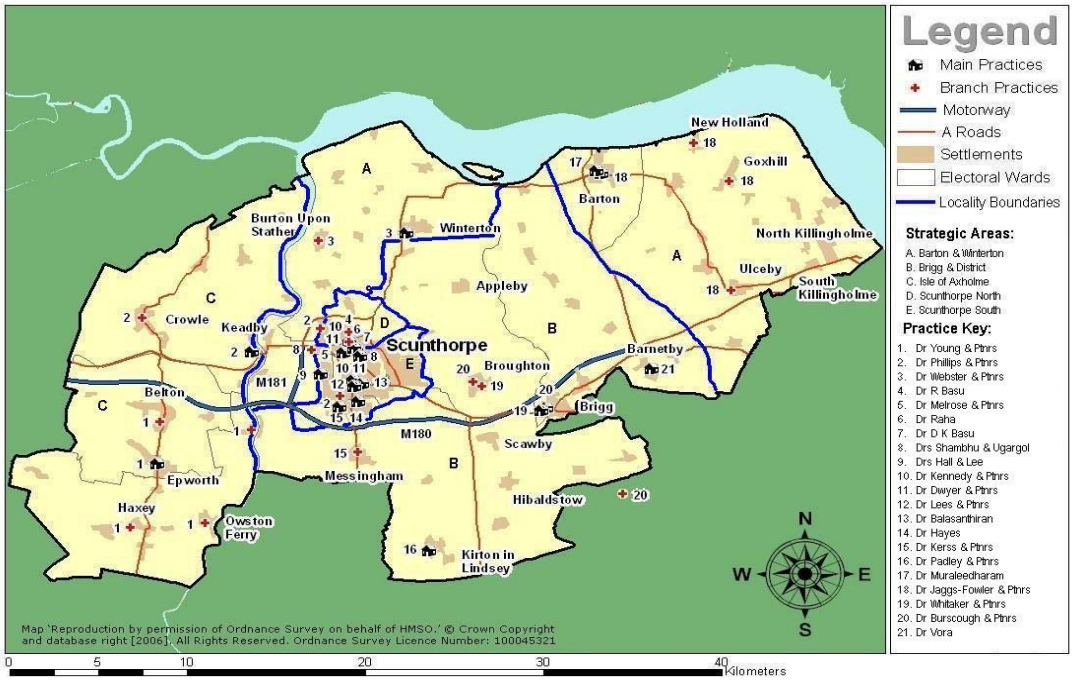
"they believe that an inverse care law exists in primary care in North Lincolnshire". Whilst recognising the "continuing challenge to reduce health inequalities", they responded that "NHS North Lincolnshire does not have a view as to whether an inverse care law exists in primary care within North Lincolnshire."

We have sought evidence to ascertain whether an inverse care law in primary care exists locally. This will be set out in the following pages.

Fair Shares

Fair Shares is a set of principles and guidance given to each Primary Care Trust in order to calculate indicative budgets for each GP Practice within its area. Whilst PCTs have some discretion to alter budgets for individual practices where this is deemed appropriate, there is usually no requirement to do so if the indicative budget is within 10 % of the 'Fair Shares' budget target. Some PCTs in England have chosen to allocate indicative budgets wholly against Fair Shares guidance. Whilst that is not the case in North Lincolnshire, each practice does receive a budget within the allowable 10 % "collar." However, PCTs are expected to consider the pace of change, taking into consideration the Fair Shares calculation, indicative budget and list size for each practice.

Figure 3 – Map of North Lincolnshire's Main GP Surgeries.



Map courtesy of NHS North Lincolnshire

Fair Shares in North Lincolnshire

The table below shows each practice in North Lincolnshire, its DFLE70 score (see below), the Fair Shares and actual budgets, and how much these two figures vary.

Table 2. Financial Comparison of Local GPs Indicative Budgets Compared to Fair Shares Guidance.

GP	Location	DFLE70	Distance from Fair Shares Budget	Indicative budget	Budget according to fair shares (approx.)	Difference (approx.)
Dr DK Basu & Partners	Scunthorpe North	9.85	6.3 %	£2,930,480	£3,115,100	- £184,620
Dr Whitaker & Partners	Brigg	6.55	6.1 %	£6,993,661	£7,420,274	- £426,613
Dr R Basu & Partners	Scunthorpe North	10.11	4.4 %	£3,438,924	£3,590,236	- £151,312
Dr Raha & Partners	Scunthorpe North	9.67	3.5 %	£4,544,735	£4,703,801	- £159,066
Dr Melrose & Partners	Scunthorpe North	9.46	2.4 %	£10,944.511	£11,207,179	- £262,668
Dr Phillips & Partners	Keadby	8.43	1.6 %	£14,233,637	£14,461,375	- £227,738
Dr Dwyer & Partners	Scunthorpe South	9.44	1.4 %	£6,930,342	£7,027,366	- £97,024
Dr Jaggs-Fowler & Partners	Barton on Humber	6.97	0.9 %	£18,473,517	£18,639,779	- £166,262
Dr Burscough & Partners	Brigg	6.63	0.7 %	£13,606,770	£13,702,017	- £95,247
Dr Shambu & Partners	Scunthorpe South	9.76	0.0 %	£4,691,562	£4,691,562	£0
Dr Muralee & Partners	Barton on Humber	6.98	- 0.6 %	£2,618,928	£2,603,214	£15,714
Dr Vora	Barnetby	6.81	- 0.6 %	£3,130,253	£3,111,471	£18,782
Dr Kennedy & Partners	Scunthorpe South	9.31	- 0.7 %	£19,211,238	£19,076,759	£134,479
Dr Hayes & Partners	Ashby	9.01	- 0.7 %	£2,904,021	£2,883,693	£20,328
Dr Balasanthiran	Ashby	8.64	- 0.9 %	£3,800,601	£3,766,396	£34,205
Dr Lees & Partners	Ashby	9.02	- 1.0 %	£15,403,199	£15,249,167	£154,032
Dr Kerss & Partners	Bottesford	7.41	- 1.5 %	£17,525,537	£17,262,654	£262,883
Dr Young & Partners	Epworth	6.39	- 1.9 %	£16,228,283	£15,919,946	£308,337
Dr Padley & Partners	Kirton Lindsey	6.27	- 3.0 %	£6,083,231	£5,900,734	£182,497
Dr Hall & Partners	Scunthorpe South	10.24	- 3.6 %	£5,454,011	£5,257,667	£196,344
Dr Webster & Partners	Winterton	5.94	- 3.9 %	£11,776,575	£11,317,289	£459,286
Totals				£190,924,016		

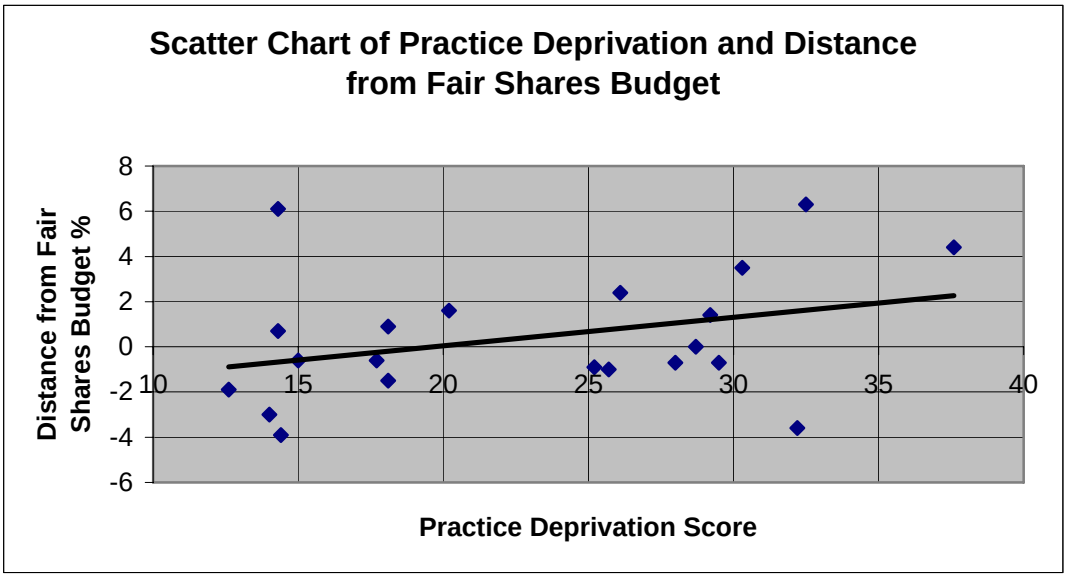
Data provided by NHS North Lincolnshire

As can be seen from the above table, whilst the distances from fair shares budget all fall within the required 10% collar, the financial difference between Fair Shares guidance and actual indicative budgets can be relatively large. One practice was allocated more than £400,000 below what would be

expected if Fair Shares was wholly adopted in North Lincolnshire. Similarly, another practice in a relatively affluent area received more than £450,000 above Fair Shares in 2009/10.

To analyse this further, the panel's first task was to calculate the percentage difference between each practice's indicative budget and their indicative budget allocated by North Lincolnshire. This was then compared with the practice's deprivation score, with the results set out in the following scatter chart (NB – negative distances from Fair Shares represent indicative budgets higher than Fair Shares budgets, and vice versa).

Figure 4.

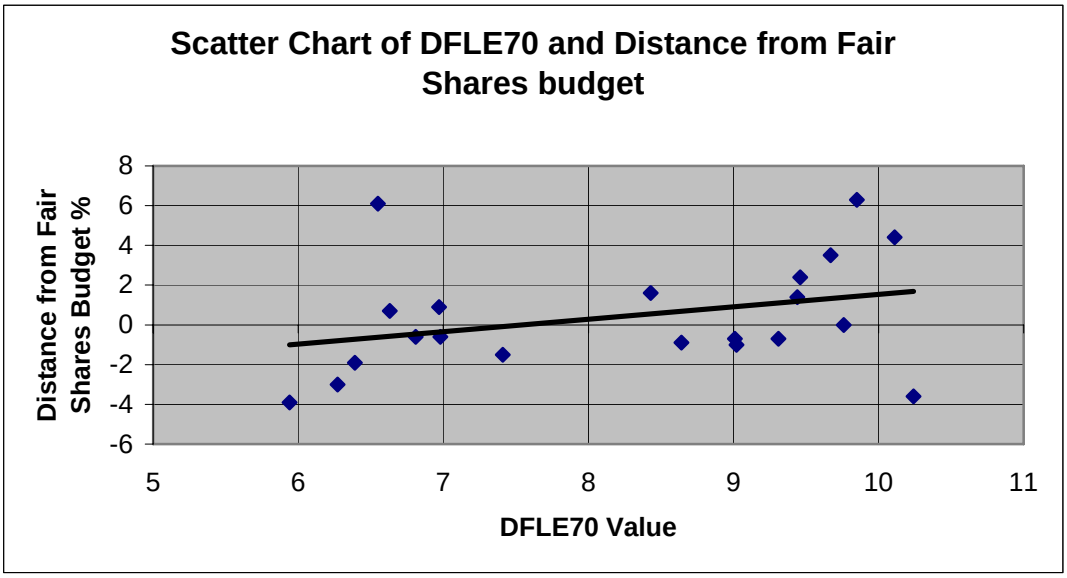


As can be seen by figure 3 above, there is a general trend that as deprivation levels increase, the indicative budgets that are allocated to practices fall below "fair shares" levels. Whilst this correlation approached statistical significance, it did not meet it[1].

Whilst practice deprivation is a useful measure, the most recent guidance suggests calculating Disability Free Life Expectancy (DFLE) for each practice. This combines life expectancy rates with data on patients suffering from limiting long-term illness. This is intended to provide a much richer picture of the patient make-up. When compared with a national benchmark figure of 70, this provides a DFLE70 value. As the DFLE70 figure increases, levels of premature death and long-term illness also rise.

[1] Unless otherwise specified, the statistical techniques utilised when calculating correlation are the Pearson product-motion correlation co-efficient and the Spearman's rank correlation co-efficient, with the latter used typically where there are outliers in the data set.

Figure 5.



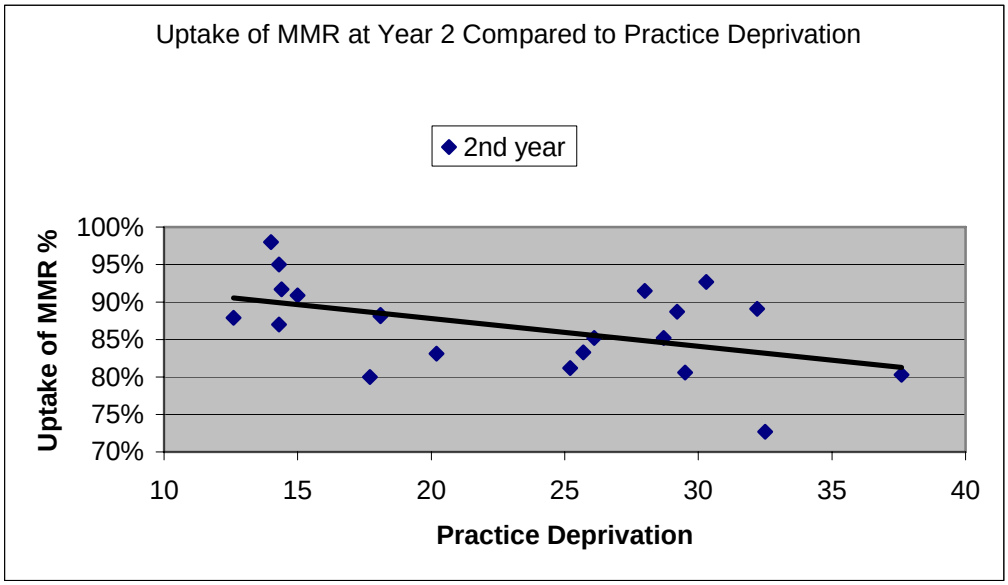
When DFLE70 scores are compared to distance from Fair Shares budgets there is a similar trend for practices with higher DFLE70 scores to receive budgets below the fair shares guidance (NB – negative distances from Fair Shares represent indicative budgets higher than Fair Shares budgets, and vice versa). Clearly, this is a trend only, and some practices with relatively high DFLE70 scores, receive indicative budgets above the fair shares guidance levels. Statistical analysis confirmed the trend; however, whilst this is relatively marked, it is not statistically significant.

Vaccination Rates

One possible measure of establishing performance in primary care is childhood vaccination rates. If there was an inverse care law locally, it could be argued that children in deprived areas may be less likely to receive vaccinations. Evidence was requested from NHS North Lincolnshire on the number of children receiving vaccinations at all GP practices. This data was then compared with practice deprivation levels provided by NHS North Lincolnshire.

The analysis found that there was a strong level of correlation between deprivation and lower uptake of vaccines in younger age groups. This was most marked within children aged 2 and under, with a high, statistically significant, correlation between deprivation and fewer children receiving vaccination for many conditions. For younger children, the correlation was strong, either reaching or approaching statistical significance. One example of this trend data can be seen in the graph on the following page:

Figure 6.



This trend continued but was less marked and not statistically significant in those in the "children reaching their fifth birthday" group, "children reaching their sixth birthday" group and amongst girls receiving immunisation against rubella at ages 13 and 14. There was a general trend that, as deprivation increased vaccination in these groups fell.

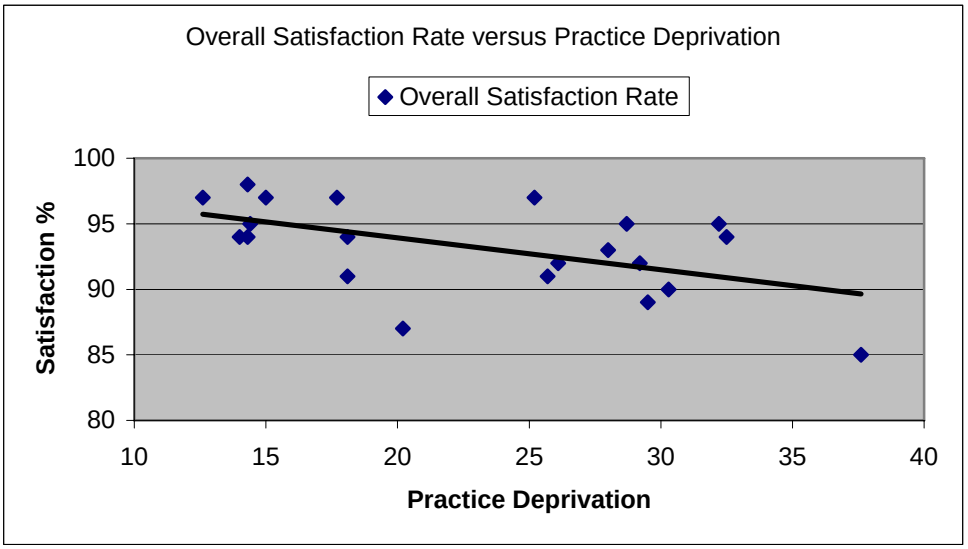
The panel is concerned that this trend potentially puts very young children aged 2 and under in more deprived areas at greater risk than their peers who live in less deprived areas. For example, uptake of the MMR vaccine can vary by as much as 18%. Of course, GPs can only vaccinate children who present at the surgery, and people who live in these areas may not take their children to the doctor.

Due to these concerns, further information on this issue was requested from NHS North Lincolnshire. It was confirmed that a vaccination plan is in place across North Lincolnshire, that targets are in place for all practices, and that where uptake rates are low Health Visitors act to follow-up children and encourage attendance.

Patient Satisfaction

GP patient surveys are completed on a quarterly basis. These can provide good evidence of how satisfied patients are with aspects of primary care, such as getting to see a doctor, opening hours, out of hours care, etc. Again, if there is an inverse care law locally, it could be the case that residents whose GP is in a more deprived area have lower rates of satisfaction. Figures from January to April 2009 were mapped against deprivation levels to test this. The graph below shows responses to the question "in general, how satisfied are you with the care you get at your local GP surgery or health centre?" and includes those who were "satisfied" and those who were "very satisfied"

Figure 7.



As can be seen from the above graph, there is a general trend for satisfaction levels to fall as deprivation increases. The figures were analysed, and indicated a strong negative correlation between overall satisfaction and deprivation.

Treatment Quality and Outcomes.

How funding is allocated is based on a number of factors; in many cases including the type of contract that the practice has agreed with the PCT. Some individual practices receive funding by measuring the treatment and services that they provide. Where GPs have signed up to the voluntary Quality Outcome Framework (QOF) scheme, they can then claim financial incentives for evidencing a range of nationally developed treatments and actions. The scheme is points based, and GPs can claim up to a maximum of 1,050, which are then linked to incentive payments to the practice. So, for example, if a practice can demonstrate it has a register of patients with coronary heart disease, it receives 4 points. Each practice in North Lincolnshire has a register, and therefore receives the four points and subsequent rewards.

The panel compared local Quality Outcome Framework data for a number of key conditions against deprivation and DFLE70 scores. The following summarises the panel's findings.

Mental Health – because of the nature of the data collected, the sample sizes in each practice are too small to make firm conclusions. However, almost all practices scored the maximum points in this area.

Chronic Obstructive Pulmonary Disease – Again, with the exception of one practice in one of the indicators, all practices scored full points in this area. There was no correlation between deprivation and level of treatment or influenza immunisation.

Cancer – there was no noticeable relationship between practice deprivation or DFLE score and performance against the cancer quality framework. In fact, on almost every case, all GP practices performed consistently well.

Coronary Heart Disease – there was no correlation between deprivation or DFLE and patients with newly diagnosed angina who are referred for exercise testing and/or specialist assessment. Similarly, there was no evidence of a link between deprivation, low blood pressure, or heart disease patients having full and up-to-date notes. There was a relatively strong correlation between DFLE70 scores and higher rates of cholesterol, although this wasn't statistically significant. There was no correlation between deprivation and influenza immunisation, or a range of treatments.

Heart Failure – the relatively small number of patients with heart failure makes analysis difficult. However, no link between treatment or deprivation was apparent. All practices maintained a register of patients with heart failure.

Stroke and Transient Ischemic Attack (TIA) - again, there was no link between deprivation and treatment. However, as with coronary heart disease, there was a relatively strong correlation between DFLE70 score and higher rates of cholesterol.

Hypertension – hypertension is being treated well in primary care, and interestingly, there seemed to be no link between high blood pressure and deprivation.

Diabetes – in line with coronary heart disease and stroke, there is a relatively strong correlation between deprivation and higher rates of cholesterol in patients with diabetes. However, there were no other links between deprivation and poorer treatment or clinical outcomes for diabetic patients. Despite this, there was evidence of wide variations between practices in several key areas – for example, retinal screening rates varied from 67 % to 99 %.

Epilepsy – all practices were very good in recording seizure frequency and medication reviews. Rates for recording seizure-free patients were lower, but there was no link between recording this and deprivation levels.

Hypothyroidism – all practices kept a register of patients with hypothyroidism, and performed well in ensuring patients had thyroid function tests. Again, there was no link between performance and deprivation.

Asthma – all practices scored the maximum points in each of the framework areas, except in one case. There was no relationship between smoking status and deprivation or DFLE. Similarly, there was no relationship between DFLE or deprivation and the percentage of asthma patients who have had a review in the previous 15 months. Despite this, there were some major differences between practices, with percentages ranging from 99 % to 68 %

Dementia – the number of patients is relatively small, but there seems to be no correlation between deprivation and care.

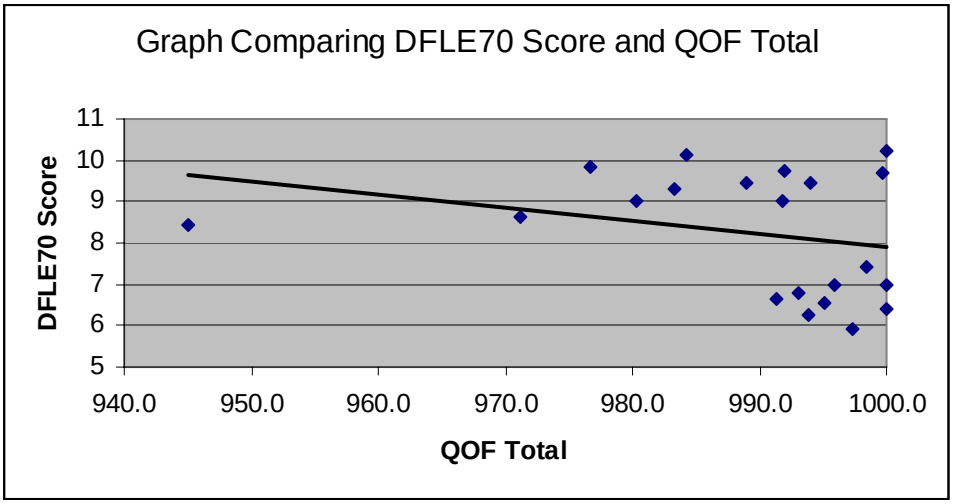
Depression - There was no correlation between deprivation levels and the indicators in the depression framework.

Chronic Kidney Disease - There was no correlation between deprivation levels and the indicators in the kidney disease framework.

Cervical screening – whilst the two lowest performing surgeries in North Lincolnshire were situated in deprived areas of Scunthorpe, there was no significant relationship between the percentage of women receiving a cervical smear in the previous five years and deprivation.

Overall – generally speaking, there was no significant relationship between deprivation and GP performance against each of the above conditions, with the exception of cholesterol rates, which tend to be higher in more deprived areas. However, when a comparison is made between the DFLE70 score and the overall number of QOF points that practices claim, there is some evidence of a relationship. Whilst this is not statistically significant, and there are clear outliers, there is a general trend for practices to receive fewer QOF points as the DFLE70 score rises. Whilst there is a need for caution, this could provide some evidence of a local inverse care law.

Figure 8.



The above figures only measure people that have accessed their GP with specific issues, who have then received treatment. As discussed later, it does not measure prevalence rates.

Health Inequalities Between Practices.

The above analysis compares only the quality and outcomes of the treatment; it does not measure the number of people with certain conditions. If health inequalities were present in North Lincolnshire, one hypothesis would be that

there would be higher rates of conditions such as coronary heart disease, asthma, pulmonary disease and poor mental health in deprived areas. Despite this, robust figures are difficult to obtain for a number of reasons. Firstly, as the patient choice agenda increases, people who are registered at a practice in a deprived area may not actually live near the surgery. One consequence of the current 8 – 8 walk-in centre on Market Hill in Scunthorpe and future walk-in provision could be that mapping of health trends are made more complex. Secondly, the demography of a patient list is likely to be very different in a less deprived, rural area than it is in central Scunthorpe. It could be the case that conditions such as dementia are more prevalent in less deprived areas, as life expectancy rates tend to be longer. Thirdly, it could also be the case that patients who are registered with practices do not attend their GP, or only attend when there is a serious need. It is widely acknowledged that men in some age groups are less likely to attend than women, and there may be other groups who do not access their doctor, or who are not registered. As stated above, this document does not analyse prevalence data. It is possible that rates of conditions such as asthma and heart disease are more prevalent in more deprived areas.

As the panel does not have access to detailed, practice-level patient data, it was found that some initial analysis could not be considered robust enough to make any firm conclusions. For example, initial comparison of smoking rates as recorded in QOF data did not seem to have a significant relationship with deprivation. However, we know from other sources that smoking rates do tend to be related to deprivation. As such, the panel cannot offer any new analysis on health inequalities at practice level, or draw any conclusions. Despite this, the North Lincolnshire Health & Wellbeing Strategy, JSNA and other key documents highlight the links between deprivation and poor health, and commits all agencies, through the Local Strategic Partnership, to reduce these inequalities.

NHS North Lincolnshire has led on the identification of the diseases that contribute most to health inequalities. The major culprits are heart disease, lung cancer and stroke – each of which have a number of preventable risk factors in common, such as smoking rates, poor diet and lack of physical activity. GPs can play a key role in helping people to acknowledge these risk factors, and to treat, advise or refer as appropriate. However, whilst some of these referral and treatment pathways are well-established (smoking for example), others require much more work if inequalities are to be tackled effectively.

World Class Commissioning

World Class Commissioning (WCC) is a government policy intended to transform how health and care services are planned and commissioned at a local level. WCC is intended to focus on health outcomes and reducing health inequalities, and is built on the NHS Next Stage Review: Our Vision for Primary and Community Care. This vision included consideration of promoting healthy lives, strengthened PBC, reducing health inequalities and a stronger QOF focus on public health.

One of the key competencies of WCC is the expectation that PCTs will "prioritise investment according to local needs, service requirements and the values of the NHS". Information was requested on a number of occasions over the space of five months regarding how NHS North Lincolnshire was tackling health inequalities through World Class Commissioning and Practice Based Commissioning. However, unfortunately, despite repeated contacts, this was not provided. Clearly, this is unacceptable, and the scrutiny panel will be taking relevant action in due course.

Practices Tailoring Services to Local Need

A key element of Practice Based Commissioning is to empower GPs to match their services to the level of need, either through provision or commissioning. For example, a number of GPs with special interests have set up specialist services in neurology, respiratory care and dermatology. This helps patients to receive care without the need for referral to hospital, saving time and money. A number of other special interest schemes are also currently being negotiated with NHS North Lincolnshire.

Despite this, it has been acknowledged that progress in Practice Based Commissioning has been slow across the country, with expectations not being matched by results. Locally, problems have been identified with the provision of information to practices, training opportunities for GPs and, at least initially, organisational tensions. Services can be provided that don't fully take into account demographic, medical and social differences between main surgeries and branch surgeries. Despite this, the panel is assured that a good working relationship between GPs and NHS North Lincolnshire has been fostered and that a more strategic approach to Practice Based Commissioning is planned.

Conclusions and Recommendations.

Is There a Primary Care Inverse Care Law in North Lincolnshire?

As stated previously, reaching a firm conclusion on this question is difficult for many reasons. The analysis carried out by the panel was limited to a relatively small range of data sources, and by its nature, only contained patients who present at practices. Also, some practice level data was unavailable to the panel, reducing the ability to analyse the data in greater depth. The panel acknowledges these limitations, but has made clear that this review is part of a much wider picture of health inequalities and the provision of services across North Lincolnshire.

Despite these limitations, the panel is confident that it has shown at least some evidence of a local primary care inverse care law. Consistently, GP funding is generally lower in areas of higher deprivation and poor health. There is also some evidence through analysis of vaccination and QOF data that there is a correlation between practice deprivation and inoculation and treatment outcomes. The panel wishes to make it very clear that this is not a criticism of local GPs who retain members' full support. The reasons for, and necessary responses to, health inequalities goes far beyond general practice. Local people also have a responsibility for their own health, and too often people at most risk do not access their GP.

However, we are confident that if NHS North Lincolnshire works concertedly with its partners, including local primary care professionals, in helping those most at need, wherever they live and work, the gap in health inequalities will reduce.

Recommendation 1 – the panel recommends that NHS North Lincolnshire formally acknowledge the existence of an inverse care law in North Lincolnshire, and reflect this in their policies, contracts and service specifications.

Health Inequalities

As discussed on pages 7 and 8, health inequalities remain a major concern within North Lincolnshire, and the issue was raised as the only Red Flag in the recent Oneplace inspection report. The report highlighted that "not enough was being done" to stop the growing gap between the health and wellbeing of those who live in our most affluent areas, compared to those in areas of deprivation in North Lincolnshire.

The panel notes that there are many schemes and approaches to tackle health inequalities, led by NHS North Lincolnshire. Currently, the most high profile of these is the Extended Access Centre on Market Hill in Scunthorpe, with the planned Integrated Health and Social Care Centre also planned to open in 2011/12. Both of these are (or are planned to be) located in areas of

deprivation. Proposals are underway to better match district nursing and health visiting teams to meet the level of need. However, the Oneplace report noted that “progress is too slow” in efforts to tackle health inequalities locally. This will require a strategic, co-ordinated response across North Lincolnshire, rather than a traditional model of NHS responsibilities.

GPs can play a role in addressing health inequalities in a number of ways. They can refer people to Stop Smoking services or drug treatment for example. GPs are also able, through their consortium, to plan and invest in preventative services for local people through the Practice Based Commissioning programme. However, like many areas of the country, progress in tailoring local primary care services to local need is slow. The panel believes strongly that clinicians can, and do, play a valuable role in addressing health inequality.

In North Lincolnshire, there is an overarching Health and Wellbeing Strategy. This document sets out the strategic aims for a three year period, and this, in turn, has led to the production of detailed delivery plans setting out who will lead on improvements, what actions are planned and any timescales or data issues. Progress is managed on a quarterly basis by the Wellbeing and Health Improvement Partnership (WHIP), and is monitored by overview and scrutiny.

The panel believes that this approach is to be commended as an effective method of linking strategy to action “on the ground”, with appropriate oversight by senior figures on the WHIP and elected members on scrutiny. Despite this, members are concerned that many of the delivery plans do not contain consideration of health inequalities or targeting of resources. The panel also notes the findings of the document “Tackling Health Inequalities: Ten Years On” which states that “the drive for health improvement can produce an ‘inverse care law’ where the benefits of such programmes accrue to the more advantaged groups who have awareness and knowledge of how to use the system”. Care must be taken to ensure local plans reflect how information is best disseminated, social determinants of ill health, and accessibility.

The Health and Wellbeing Strategy includes a commitment for “improving health in priority neighbourhoods”. Whilst this is picked up, to some extent, under the WHIP priority “Increasing Healthy Life Expectancy”, actions are limited to improving front-line workers in disadvantaged communities. Whilst this is to be welcomed, and is leading to targeting of some services, the panel believes that much more must be done to close the gap. For example, the strategy highlights many areas, such as Stop Smoking services, blood pressure and cholesterol management, and earlier detection of lung disease, where targeting could have a rapid impact on health inequalities.

The panel feels that the Red Flag on targeting health inequalities, combined with the recent, positive appointment of a Director of Public Health, provides a rare opportunity to re-evaluate current and planned work to address the real, growing health inequalities across North Lincolnshire. However, it should be acknowledged that the Director must be given the necessary “tools to do the

job". This may require greater degrees of delegation, a louder voice for clinicians and an increased focus on the determinants of ill-health and inequality and where non-NHS bodies can have an impact.

Recommendation 2 - the panel recommends that the Director of Public Health, through the WHIP and wider Local Strategic Partnership, should lead on the formulation of a comprehensive, multi-agency targeted action plan on Improving Health in Priority Neighbourhoods. This should address the vision and priorities within the North Lincolnshire Health and Wellbeing Strategy and other key documents, in order to respond to the concerns about health inequality. Furthermore, the panel recommends that a co-ordinated response to the health inequalities Red Flag contained within the Oneplace survey be prepared by the Director of Public Health, and shared with the Local Strategic Partnership, the WHIP, clinicians and the public.

Indicative Budgets

As stated previously, there is a general trend for GPs in more deprived areas of North Lincolnshire to receive indicative budgets below what would be expected if the Fair Shares guidance was wholly adopted. There are a number of reasons for this, although it is likely that historical usage explains the majority of the variation. National research has found that, for some conditions, referral rates to acute or specialist care tend to be lower in comparison to the level of clinical need in areas of greater deprivation. This, in turn, could lead to historically lower budgets for these GPs. Contract type, enhanced services and patient access are also important contributors to PCTs decisions when they set indicative budgets.

The panel is concerned that the trend for deprived areas to generally receive lower GP budgets has the potential to lead, in some cases, to greater pressure in primary care in these areas, to less investment in preventative services, and to health inequalities becoming more ingrained. In addition, current and future walk-in provision should be monitored to avoid any unintended future consequence

Recommendation 3 – The panel recommends that NHS North Lincolnshire routinely and regularly gather evidence regarding the impact of current and future 8-8 or walk-in provision on existing GP practices within the Scunthorpe area. The panel further recommends that this information be shared annually with NHS North Lincolnshire's Board and Clinical Executive Committee, and this scrutiny panel.

Members note that, unlike many areas of the country, all practices in North Lincolnshire fall within the allowable 10 % collar of Fair Shares guidance, meaning there is no pressure to move wholly towards equalisation of the Fair Shares figure and the actual Indicative budget that is allocated (see table 2).

Despite this, because of the concerns around health inequalities and the distribution of funding discussed above, the panel recommends that this

arrangement should be reviewed as part of NHS North Lincolnshire's annual budget setting arrangements.

Recommendation 4 – The panel recommends that NHS North Lincolnshire adopt a medium term (3 year) strategy to wholly align indicative budgets with Fair Shares guidance.

We believe this timescale allows for a fuller understanding of health inequalities, referral patterns, etc. and for GPs to become accustomed to revised budgets. We note that, for the majority of practices, this will have a minimal financial impact.

Provision of information

When reviewing the practice level MOSAIC a summary, the panel was surprised to hear that these were not routinely shared with practices. Obviously, practices, GPs and other workers will have a good understanding of the populations that they serve. However, the MOSAIC summaries are a rich source of data, potentially giving GPs a greater knowledge of demography and level of need of the people on their practice list. In turn, this could lead to more tailored services through Practice Based Commissioning or other enhanced schemes.

Recommendation 5 – the panel recommends that NHS North Lincolnshire, provides annual briefings for GPs, Practice Based Commissioning leads and practice managers on local demography, priority issues, etc. This will better inform primary care workers, and could lead to improved treatment, planning and commissioning.

Recommendation 6 – the panel recommends that NHS North Lincolnshire work closer with Practice Based Commissioning consortia to identify and overcome barriers to effective Practice Based Commissioning, and to share learning from leading practices both within and outside of North Lincolnshire. It may be appropriate to develop and share a register of specialist skills and treatment pathways provided in primary care.

Transparency

The panel's review looked at a local, annual spend of more than £190 million. As this significant figure is public money, the panel believes that there should be some level of transparency to enable local people to see how NHS North Lincolnshire is allocating its funding. This could be done through a short annual report, information provided into GP practices and local Link offices, or a page on NHS North Lincolnshire's website. The panel is aware that annual reports have been used in previous years, although there is an obvious financial cost to these.

Recommendation 7 – the panel recommends that NHS North Lincolnshire publish easily accessible, plain English annual decisions on funding allocations to GPs and elsewhere. The decision on where this information is

published should be at the discretion of NHS North Lincolnshire, but should include consideration of accessibility, ease of understanding and the aims of the Publication Scheme. We would expect information to be distributed widely, including in individual GP practices.

Public Health Budgets

Historically, NHS North Lincolnshire as an organisation has been underfunded. A recent national review found that, compared to Fair Shares guidance, NHS North Lincolnshire receive 6.2 % less than what might be expected. The Board and senior managers have completed a range of planning assumptions for the future, as pressure on budgets may well increase. Whilst the situation is not yet clear, the Chief Executive of the NHS has warned that there will be major financial pressures over the next five-year period. The panel acknowledges that the public would expect traditional front-line services to be protected, wherever possible. However, discussions with a range of partners informed the panel's view that it could be counter-productive to seek reductions on public health budgets. There is good evidence in a number of areas that a relatively limited public health investment can lead to a reduction in more expensive treatment costs.

Recommendation 8 – the panel recommends that every effort be made by NHS North Lincolnshire and North Lincolnshire Council to protect public health and preventative budgets where there is evidence of cost-effectiveness and beneficial health and social outcomes, particularly where public health measures are linked to tackling health inequalities.

Whilst NHS North Lincolnshire is key to addressing health inequalities, due to their history and knowledge base, the panel recognises that effectively tackling inequality is the duty of many organisations, groups, agencies and individuals in the area. It will require a much wider focus than the NHS if the causes of inequality are to be addressed. This is set out in the Sustainable Communities Strategy and includes, but is not limited to, providing employment, education and training, quality housing, a reduction in crime and disorder and the provision of leisure and cultural facilities.

Recommendation 9 – the panel recommends that the Chair of the Local Strategic Partnership (LSP) ensures that all key agencies represented on the LSP, including the private and Voluntary and Community Sector, recognise the opportunities to work together in a concerted effort to reduce inequality (including health inequality) across North Lincolnshire.

Appendix 1 – index and further reading:

Asthana, S. & Gibson, A, Deprivation, demography, and the distribution of general practice: challenging the conventional wisdom of inverse care, Br J Gen Pract. 2008 October 1; 58(555): 720–726.

Audit Commission, North Lincolnshire Area Assessment, 9 December 2009.

Briddon, S. *Is There Such a Thing as a Fair Shares Budget?*, Pulse, 11 May 2008

Cabinet Office, Prime Minister's Strategy Unit, Improving the Prospects of People Living in Areas of Multiple Deprivation in England, 2005.

Department of Health, Practice Based Commissioning: Budget Guidance for 2009/10. Methodical Changes and Toolkit Guide.

Department of Health, Practice Based Commissioning, Guidance and Resources,

Health Service Journal, *Health Inequalities: Wealthiest Overfunded as the Poor Lose Out.* 30 October 2008

Health Service Journal, *Statistics Lay Bare Inequalities in Mental Healthcare.* 13 November 2008

NHS Data Model and Dictionary (Version 3)

NHS Information Centre, Practice Level QOF Tables

North Lincolnshire Annual Public Health Report 2008, Changing Time, Changing Lives: Health Inequalities in North Lincolnshire. .

North Lincolnshire Health and Wellbeing Strategy 2009 – 2011.

North Lincolnshire Joint Strategic Needs Assessment, Health and Social Care in North Lincolnshire: Finding the Future Together, 2008.

Pickett, K. E. & Wilkinson, R. G., Greater Equality and Better Health, BMJ 2009;339:b4320

QOF Implementation: Business Rules. http://www.pcc.nhs.uk/145

Yorkshire and Humber Public Health Profile, Health Profile North Lincolnshire 2009

GP Practice	Address	List Size	Practice Deprivation	DFLE70 Score	Indicative Budget	Fair Shares Budget (approx.)	Difference (approx.)	Distance from Fair Shares	GP with Special Interest	Overall QOF score 2007/ 08
Dr S Balasanthiran	**Main Surgery** Ashby Clinic, Collum Lane, Scunthorpe, DN16 2SZ	2,886	25.2	8.64	£3,800,601	£3,766,396	£34,205	-0.9 %		971.2
Dr D K Basu	**Main Surgery** 27 Comforts Avenue, Scunthorpe, DN15 6PN	2,453	32.5	9.85	£2,930,480	£3,115,100	- £184,620	6.3 %		976.8
Dr R Basu	**Main Surgery** Crosby Health Centre, Parkinson Avenue, Scunthorpe, DN15 7JY	3,380	37.6	10.11	£3,438,924	£3.590,236	- £151,312	4.4 %		984.3
Dr Burscough & Partners	**Main Surgery** Riverside Surgery, Barnard Avenue, Brigg, DN20 8AS **Branch Surgery** Community Village Hall, School Lane North Kelsey, LN7 6JW 27 Brooklands Avenue Broughton, DN20 0DY	12,171	14.3	6.63	£13,606,770	£13,702,017	- £95,247	0.7 %	End of life and weight management (under development)	991.3
Dr Dwyer & Partners	**Main Surgery** The Cedar Medical Practice, 275 Ashby Road, Scunthorpe, DN16 2AB **Branch Surgery** Crosby Health Centre, Parkinson Avenue, Scunthorpe, DN15 7JY	5,734	29.2	9.44	£6,930,342	£7,027,366	- £97,024	1.4 %		994.0

GP Practice	Address	List Size	Practice Deprivation	DFLE 70 Score	Indicative Budget	Fair Shares Budget (approx.)	Difference (approx.)	Distance from Fair Shares	GP with Special Interest	Overall QOF score 2007/ 08
Dr Hall & Partners	**Main Surgery** West Common Lane Medical Centre Dorchester Road, Scunthorpe, DN17 1YH	4,704	32.2	10.24	£5,454,011	£5,257,667	£196,344	- 3.6 %	Neurology	1000.0
Dr G J Hayes	**Main Surgery** Ashby Clinic, Collum Lane, Scunthorpe, DN16 2SZ	2,458	28.0	9.01	£2,904,021	£2,883,693	£20,328	- 0.7 %	Respiratory	991.8
Dr Jaggs-Fowler & Partners	**Main Surgery** Central Surgery , King Street, Barton on Humber, DN18 5EP **Branch Surgeries** The Surgery, St Nicholas School, Ulceby, DN39 6TB 3 Turners Buildings, Main Street, New Holland, DN19 7RB Thornleigh, Chapel Street, Goxhill, DN19 7JQ	16,772	18.1	6.97	£18,473,517	£18,639,779	- £166,262	0.9 %		1000.0
Dr Kennedy & Partners	**Main Surgery** 291 Ashby Road, Scunthorpe, DN16 2AB **Branch Surgery** 20 Detuyll Street, Scunthorpe, DN15 7LS	16,367	29.5	9.31	£19,211,238	£19,076,759	£134,479	- 0.7 %		983.3

GP Practice	Address	List Size	Practice Deprivation	DFLE 70 Score	Indicative Budget	Fair Shares Budget (approx.)	Difference (approx.)	Distance from Fair Shares	GP with Special Interest	Overall QOF score 2007/ 08
Dr Kerss & Partners	**Main Surgery** The Medical Centre, Cambridge Avenue, Bottesford, DN16 3LG **Branch Surgery** The Health Centre, Wendover Road Messingham, DN17 3SN	15,310	18.1	7.41	£17,525,537	£17,262,654	£262,883	- 1.5 %		998.5
Dr Lees & Partners	**Main Surgery** Ashby Turn Primary Care Centre, Ashby Link Scunthorpe, DN16 2UT	12,506	25.7	9.02	£15,403,199	£15,249,167	£154,032	- 1.0 %		980.3
Dr Melrose & Partners	**Main Surgery** Church Lane Medical Centre, Orchid Rise Church Lane, Scunthorpe, DN15 7AN	8,919	26.1	9.46	£10,944,511	£11,207,179	- £262,668	2.4 %		989.0
Dr A Muralee	**Main Surgery** West Town Surgery, 80 High Street, Barton on Humber. DN18 5PU	2,471	17.7	6.98	£2,618,928	£2,603,214	£15,714	- 0.6 %		995.9
Dr Padley & Partners	**Main Surgery** The Surgery, Traingate, Kirton Lindsey, DN21 4DQ	5,561	14.0	6.27	£6,083,231	£5,900,734	£182,497	- 3.0 %		993.8

GP Practice	Address	List Size	Practice Deprivation	DFLE 70 Score	Indicative Budget	Fair Shares Budget (approx.)	Difference (approx.)	Distance from Fair Shares	GP with Special Interest	Overall QOF score 2007/ 08
Dr Phillips & Partners	**Main Surgery** 45 Trent View, Keadby, DN17 3DR **Branch Surgery** Skippingdale Health Centre, Ferry Road West Scunthorpe, DN15 8EA Health Centre, Chancery Lane, Crowle, DN17 4HN 4 Manby Road, Riddings Estate, Scunthorpe DN17 2LA	12,333	20.2	8.43	£14,233,637	£14,461,375	- £227,738	1.6 %	Dermatology	945.0
Drs Raha & Rajkumar	**Main Surgery** 78 Oswald Road, Scunthorpe, DN15 7PG	3,885	30.3	9.67	£4,544,735	£4,703,801	- £159,066	3.5 %		999.6
Drs Shambhu & Ugargol	**Main Surgery** 58e Cottage Beck Road, Scunthorpe, DN16 1LE	4,208	28.7	9.76	£4,691,562	£4,691,562	£0	0.0 %		991.9
Dr Vora	**Main Surgery** The Medical Centre, Victoria Road, Barnetby DN38 6JR	2,877	15.0	6.81	£3,130,253	£3,111,471	£18,782	- 0.6 %		993.0

GP Practice	Address	List Size	Practice Deprivation	DFLE 70 Score	Indicative Budget	Fair Shares Budget (approx.)	Difference (approx.)	Distance from Fair Shares	GP with Special Interest	Overall QOF score 2007/ 08
Dr Webster & Partners	**Main Surgery** The Surgery, Manlake Avenue, Winterton, DN15 9TA **Branch Surgery** The Health Centre, Burton on Stather, DN15 9EW	10,009	14.4	5.94	£11,776,575	£11,317,289	£459,286	- 3.9 %		997.2
Dr Whitaker & Partners	**Main Surgery** 53 Bridge Street, Brigg, DN20 8NS **Branch Surgery** 8 Brigg Road, Broughton, DN20 0JW	6,558	14.3	6.55	£6,993,661	£7,420,274	- £426,613	6.1 %		995.1
Dr Young & Partners	**Main Surgery** South Axholme Practice, High Street, Epworth DN9 1EP **Branch Surgeries** 32 High Street, Belton, DN9 1NS 30 Church Street, Haxey, DN9 2HY Pinfold Surgery, Station Road, Owston Ferry DN9 7AW Jubilee Surgery, School Lane, West Butterwick DN17 3LB	14,671	12.6	6.39	£16,228,283	£15,919,946	£308,337	- 1.9 %		1000.0