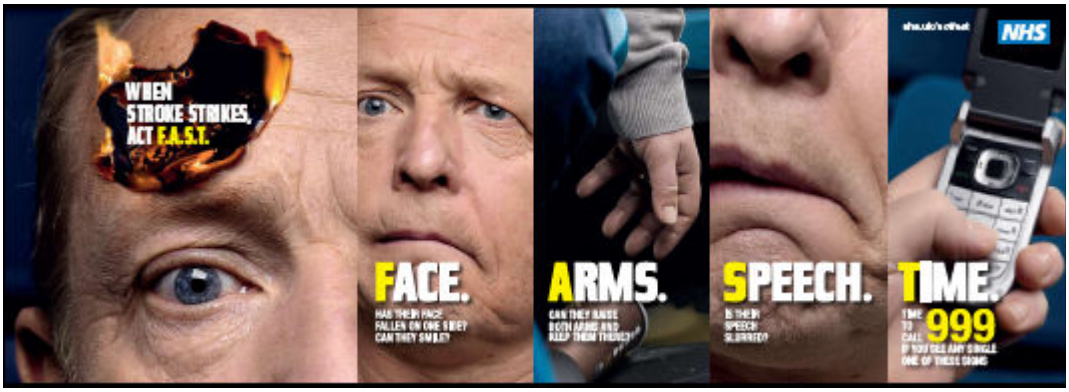
Haringey Council

Scrutiny Review of Stroke Prevention



"An ounce of prevention is worth a pound of cure"

Benjamin Franklin

A REVIEW BY THE OVERVIEW AND SCRUTINY COMMITTEE

April 2009

www.haringey.gov.uk

Chair's Foreword

The debate about public health issues and the widely different health outcomes in different parts of the Borough is already becoming one of the main focuses of interest in Haringey. Last year Overview and Scrutiny organised and hosted a very well attended public health seminar and Stroke was one of the main areas of discussion.

This Scrutiny Review has been a fascinating and timely piece of work, both in keying into the public health debate but also coinciding with the Department of Health's recently launched FAST (Face, Arm, Speech, Time to call 999) campaign.

Panel members were surprised by a number of statistics uncovered during the course of our work:

- It is estimated that 4195 people are currently living with the effects of a stroke in Haringey.
- It is estimated that a further 478 people over the age of 16 years could have a stroke in Haringey in 2009.
- Stroke deaths in Haringey for those under 75 years of age were 50% higher than expected in 2004-2006.
- Stroke deaths for all Haringey residents were 15% higher than expected.

It is clear that this is a major public health matter and I hope that our recommendations will echo the move in the NHS towards preventative measures and, in the medium to long term, prevent many incidents of stoke.

The three key messages that emerged simple, inexpensive to implement and available to all -

- EXERCISE - Increase physical activity. This reduces the risk of having a stroke by between 25-60%.
- SMOKING – Stop! Within just 5 years you'll have the same risk of a stroke as a non smoker.
- BLOOD PRESSURE - Ensuring your blood pressure is normal can reduce the risk of stroke by 40%. So, get your blood pressure checked!

I would like to thank all of those involved in the review, especially Cllrs: Alexander, Mallett and Vanier, Officers (especially our resourceful clerk, Melanie Ponomarenko) and our health services and voluntary sector partners.

Cllr David Winskill

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Executive Summary

The Overview and Scrutiny Committee commissioned a review into stroke prevention for their 2008/09 work programme. This piece of work was timely due to the publication of the National Stroke Strategy, by the Department of Health in December 2007. This strategy listed a number of Quality Markers for stroke care which the panel felt would be an appropriate basis for the recommendations included in this document, thus contributing to the national direction in stroke care. The relevant Quality Markers for this review are listed below.

- Quality Marker 1 – Awareness Raising
- Quality Marker 2 – Managing Risk
- Quality Marker 3 – Information, advice and support
- Quality Marker 4 – Involving individuals in developing services
- Quality Marker 5 – Assessment – referral to specialist
- Quality Marker 6 – Treatment
- Quality Marker 16 – Return to work
- Quality Marker 20 – Research and Audit

The review focused on three aspects of stroke prevention; the impact of a person's lifestyle, primary prevention (preventing first event of stroke) and secondary prevention (preventing reoccurrence of stroke).

Key findings of the panel included:

- Stroke is a largely preventable disease, with key risk factors including smoking, lack of exercise and high blood pressure.
- The need for greater awareness of the signs, symptoms and risk factors of strokes and that a stroke should be treated immediately as a medical emergency.
- Haringey has a higher than average stroke mortality rate, particularly for those under the age of 75 years.
- There is under-reporting of stroke patients on Haringey's General Practice stroke registers.
- There are greater opportunities for the voluntary and community sector to be involved in stroke services.
- There is a need for greater active identification of those who are at risk of a stroke.

Recommendations

Local recommendation	Responsibility
National Stroke Strategy **Quality Marker 1: Awareness raising**	
1. Workforce Development Plan to be jointly developed between Haringey Council and Haringey Teaching Primary Care Trust a. Risk, symptom and 'what to do' training for staff (TPCT and ACCS) who come into regular contact with those who are at risk of stroke – to include Teachers, Meals on Wheels staff, Home Care staff, Residential Care staff, Health Trainers, Community Development workers etc. b. To be provided by the voluntary and community sector e.g. Different Strokes, Stroke Association. c. 'Stroke Training' should be embedded as part of the overall training on 'Assessment and Care Management' for people working with Adults who have disabilities.	**Stroke Steering Group** (refer to Recommendation 10)
2. Targeted awareness raising for members of the public a. Particularly in areas where there is a population at high risk of stroke, including; • Asian, black, mixed ethnic groups (particularly men)[1], carers, manual workers, workers aged 40 years and over with a hereditary risk of stroke, people experiencing high levels of stress or high blood pressure. • Staff and residents in residential nursing homes, day centres and other settings where staff and residents need to know the symptoms in case of a stroke. b. Stroke refresher seminars involving all Haringey GPs c. FAST[2] posters to be sent to all Haringey GP Surgeries, community centres, religious centres, sports clubs and other appropriate locations. d. FAST All-Users email with link to DoH web-site at both the Council and NHS Haringey – message to be consistent across both organisations. e. FAST information to be placed on the internal and external website of both the Council and NHS Haringey – message to be consistent across both organisations.	**Joint Director of Public Health** **and** **NHS Haringey Director of Strategic Commissioning**

[1] Haringey's top three ethnic groups who are at greater risk of stroke. NHS Haringey, March 2009

[2] FAST – **F**ace, **A**rms, **S**peech, **T**ime to call 99 Test. The Department of Health is currently running a National campaign on this. Please see front and back page for an example of this.

f. Consideration to be given to a social marketing campaign including the possible use of 'hard hitting' images, for example those shown by Ricability to the Scrutiny Panel. g. An article in Haringey People providing information on stroke prevention, including information from Different Strokes, the national campaign, risk factors and preventative measures.	
National Stroke Strategy **Quality Marker 2: Managing risk**	
3. Annual Review/Patient Toolkit a. Best Practice requirement for GPs (or practice nurse/nurse practitioner) to conduct annual reviews of stroke and TIA patients which goes beyond the current blood pressure and cholesterol check. b. The annual review template on EMIS (primary health care software) should be edited to include active referral and a personal prevention plan covering health, social and emotional needs. This could lead to active referral and uptake of stroke clubs, counselling, volunteering, getting back into work, reducing salt intake, personal exercise plan etc.	**NHS Haringey**
4. Active identification a. Of people at risk of stroke by GP practices (including people experiencing high levels of stress) e.g. Asian, Black, Mixed ethnic groups, family carers, manual workers, and adults aged 40, over with a hereditary risk of stroke and people experiencing high levels of stress or high blood pressure. • These should be invited for an annual personal plan consultation. b. Greater obligation for GPs to identify potential stroke patients through the exploration of options for developing a Stroke Local Enhanced Service (LES)[3].	**NHS Haringey**
5. Vascular Checks a. NHS Haringey to ensure that all agencies are aware of the forthcoming Vascular Check programme and NHS Haringey's roll out plans to ensure that there is sufficient infrastructure to support people being identified as being at risk and given appropriate advice and/or referral.	**a & b - NHS Haringey** **c - Haringey Council**

[3] Local Enhanced Service – an enhanced service offered by GP surgeries which are financially incentivised by the local Primary Care Trust. GP surgeries are not obliged to sign up to these.

b. NHS Haringey should consider the inclusion of a waist measurement in the local vascular check tool. c. Haringey Leisure Services to support Vascular Risk Assessments with provision of affordable referral options (for example through Active for Life scheme)	
6. Reinforce link between health and lifestyle a. All practices to be actively encouraged to sign up to the GP referral scheme on roll-out to West of the Borough. • Reminder of criteria and benefits to be sent to all GP's currently signed up. b. Leisure Services to actively encourage those coming to the end of the GP referral scheme to sign up for continued Membership.	**a. – NHS Haringey** **b. – Haringey Council**
National Stroke Strategy **Quality Marker 3: Information, advice and support** **Quality Marker 4: Involving individuals in developing services**	
7. Community Involvement a. A co-ordinated strategy should be developed to link the Expert Patient Programme with the wider voluntary and community sector. • This should also link into other strategies which are being developed across the partnership b. Greater collaboration between the voluntary and community sectors, NHS Haringey and Adult Services to enable low level prevention work to be led by people in the community with support from professional services for example the Health Trainers Programme. • Consideration to be given to the use of the health centres for this.	**a - HAVCO** **b – Joint Director of Public Health**
8. Information Provision a. Exploration of the possibilities of joint working with other boroughs and the voluntary and community sector for information provision as well as specific Haringey information where relevant. b. Stroke Prevention booklet to be commissioned with specific focus messages particularly relevant to Haringey's demographics ensuring consultation with both services users and the voluntary sector.	**Joint Director of Public Health**
National Stroke Strategy **Quality Marker 20: Research and Audit**	

9. Lead GPs a. With responsibility for stroke in Haringey to be identified - one per collaborative	**NHS Haringey**
Partnership working	
10. Set up a multi agency steering group that takes forward the action points and Quality Markers from the National Stroke Strategy. • To hold quarterly stroke steering group meetings • To oversee the development and performance management of a local stroke care action plan. • To provide a forum for clinical pathway development. • To horizon scan for new Stroke Care guidance/guidelines with potential implications for commissioning or performance. • To investigate the current situation with regards to Oberoi and take a co-ordinated overview of what improvements could be made to maximise the benefit of this system.	**NHS Haringey**

1. Background

1.1. The Overview and Scrutiny Committee commissioned a feasibility report on stroke services in Haringey, based on information which had come to Councillor's attention and local prevalence (the number of people within a given population who have had a stroke and survived) data within the borough. Based on this report, the Overview and Scrutiny Committee commissioned an in-depth review into stroke prevention in Haringey.

1.2. The review was felt to be timely given the Department of Health National Stroke Strategy, which was published in December 2007 and also due to the Healthcare for London work currently being done around acute services for stroke. A decision was made by the Panel Members to follow the relevant Quality Markers from the above mentioned National Stroke Strategy and link the recommendations from this review to those Quality Markers.

1.3. The review was conducted by a Panel of four Councillors:

- Councillor David Winskill (chair)
- Councillor Karen Alexander
- Councillor Toni Mallett
- Councillor Bernice Vanier

with the support of a range of Haringey Council and NHS Haringey Officers, General Practitioners, a Clinician from North Middlesex University Hospital NHS Trust, Different Strokes, Age Concern Haringey and other relevant agencies.

A full list of contributors can be found in Appendix A.

1.4. The review consisted of four panel meetings to hear evidence from various agencies, a visit to North Middlesex University Hospital NHS Trust, visits to Different Strokes and meetings with various Council officers, NHS Haringey officers and partners.

1.5. The terms of reference for the review were as follows:

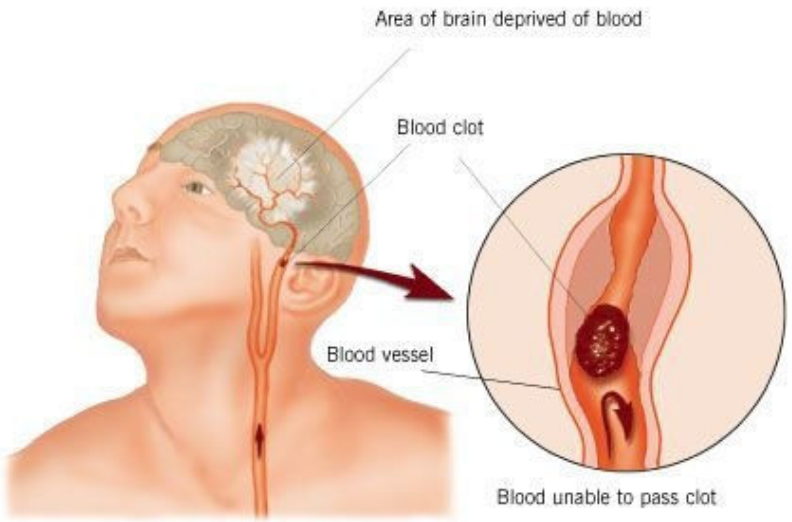
"*To review stroke prevention services in Haringey to consider their effectiveness in preventing strokes. In particular looking at well-being activities, primary prevention and secondary prevention across health, social care and the voluntary sector with a view to making recommendations for the improvement of stroke prevention services*.[4]"

1.6. The initial scope included the consideration of housing in relation to stroke prevention, however it was felt that on further consideration this would widen the scope of the report and make it less focused, thus being less effective. The panel also noted that at the time of the review there was work being done around a Housing Strategy and accompanying action plan.

2. Introduction

2.1. What is a Stroke?

- A stroke is a 'brain attack' caused by a disturbance to the blood supply to the brain. There are two main types of stroke:
    - Ischaemic: this is the most common type of stroke and is caused by a clot narrowing or blocking blood vessels so that blood can not reach the brain. This leads to the death of brain cells due to the lack of oxygen.
    - Haemorrhagic: this is caused by blood vessels bursting producing bleeding into the brain causing damage.
- Minor Strokes also occur (Transient Ischaemic Attacks – TIAs) – these occur when stroke symptoms resolve themselves within 24 hrs.



2.2. Haringey

2.2.1. Haringey has high death rates from stroke compared to London and England[5], particularly in those under the age of 75 years of age.

[4] Stroke Prevention Scoping Report, Overview and Scrutiny Committee, 2008
[5] NHS Haringey presentation, Stroke Panel meeting, September 2008

2.2.2. Stroke deaths in Haringey for those under 75 years of age were 50% higher than expected in 2004-2006[6].

2.2.3. Stroke deaths for all Haringey residents were 15% higher than expected[7].

2.2.4. There are variations in stroke prevalence across the borough, with those living in the central and northeast being slightly more likely to have a stroke[8].

An analysis of Stroke data in Haringey can be found in Appendix C

2.3. Who is more likely to have a Stroke?

2.3.1. Gender

- In people under 75 years of age, men are more likely to have a stroke than women.
- Stroke death and is attributed to 13% of deaths among women and 8% among men[9].

2.3.2. Age

- Strokes are more common in people over the age of 55 years. This risk continues to increase with age. The incidence of stroke doubles with each successive decade after the age of 55.
- Older people are also significantly more likely to die after having a stroke where fatality is twice as high among people aged 85 and over compared to those aged 65 and over.
- Stroke is not exclusively a disease of old age however, as 10,000 people under the age of 55 suffer a stroke every year of which 1,000 of these will be under the age of 30.[10]
- Haringey has an aging population. The number of people aged 65 years plus in Haringey is projected to rise from 20,400 in 2008 to 23,300 in 2025. This includes an increase in those who are 85 years old and above from 2,140 in 2008 to 2,692 in 2025[11].

2.3.3. Family History

- People who have a close relative who has suffered a stroke are at greater risk of having one themselves[12].

2.3.4. Ethnicity

- People from Asian, African and African Caribbean communities are at greater risk of having a stroke[13]. In Haringey those most likely to have a stroke are Asian, Black and mixed ethnic groups[14].
- Studies have highlighted that the incidence of stroke among black populations is more than twice that of white populations and that black populations also tend to have a stroke a younger age than white populations.[15]

[6] NHS Haringey Stroke Report – see appendix C
[7] NHS Haringey Stroke Report
[8] NHS Haringey Stroke Report
[9] Office of National Statistics, 2007
[10] Different Strokes, Younger People Stroke Survivor Charity, http://www.differentstrokes.co.uk/
[11] Greater London Authority, Population Projections, 2006
[12] What is a Stroke? The Stroke Association
[13] What is a Stroke? The Stroke Association
[14] NHS Haringey, 2009
[15] Stewart et al Ethnic Differences in the incidence of stroke BMJ 318:967-971 1999

- There is a greater prevalence of hypertension (high blood pressure) amongst black and other ethnic minority populations which may place these communities at greater risk of stroke.[16]
- Given the ethnic diversity of Haringey's population this is of significance for local preventative strategies.

2.3.5. Health

- High blood pressure (hypertension), heart disease, irregular heart beat (arterial fibrillation) and diabetes all increase the risk of stroke.
  - The relative stroke risk of these conditions suggests that the identification and management of existing health conditions should be central to stroke prevention strategies.
- Some health treatments, for example, warfarin (blood thinning agent), increases the risk of stroke.
- Smoking doubles a person's risk of having a stroke[17].
- Stroke risk is much higher for people who have had a stroke or a TIA before. Approximately 10% of those who have had a stroke will have another one within one year[18]

2.4. Effects of a Stroke

2.4.1. Stroke is the third most common cause of death in the United Kingdom and the largest single cause of severe disability.

2.4.2. There are over 900,000 people who have had a stroke currently living in England[19] with more than 250,000 people in the UK living with disabilities caused by stroke[20].

2.4.3. Approximately 130,000 people will have a stroke each year and whilst one-third of people may fully recover with no long term ill-effects, one-third may experience long term disability and further one-third will die.[21]

2.4.4. Effects may include:

- Weakness or paralysis - leading to difficulties with walking, movement or coordination.
- Lack of feeling or loss of awareness of objects on one side of the body.
- Difficulties swallowing - this can cause trouble with eating or drinking. If this isn't managed, and food or liquid passes into the windpipe and lungs, it can result in chest infections such as pneumonia. Dehydration or constipation may also result.
- Speech or language difficulties - including difficulties in understanding, speaking (dysphasia, aphasia), reading, writing and calculation.
- Problems of perception - including trouble recognising or being able to use everyday objects, difficulties telling the time and problems interpreting what the eyes see.

[16] London Health Observatory, Healthcare for London Presentation
[17] What is a Stroke? The Stroke Association
[18] What is a Stroke? The Stroke Association
[19] NHS Haringey Stroke Report
[20] www.stroke.org.uk
[21] National Stroke Strategy, Department of Health, 2007

- Cognitive difficulties - including problems caused by damage to areas of the brain controlling mental processes such as thinking clearly and logically, learning, paying attention, memory and decision making.
- Behaviour changes - including being slower to react than before the stroke, excessive caution, disorganisation, difficulties adjusting to change and becoming confused or irritated.
- Difficulties with bowel or bladder control.
- Mood changes - including mood swings, irritability and laughing or crying, even when you don't feel particularly happy or sad. Depression is extremely common, with symptoms such as loss of appetite, insomnia, crying, low self-esteem and anxiety.
- Epilepsy affects around seven to 20 per cent of people who have strokes[22].

2.5. What is the impact on people and their families?

2.5.1. The impact of a stroke is not limited to the person who suffers it but also impacts on their partner and among their wider support network of family and friends. Caring for a patient following a stroke may precipitate many social and economic pressures, particularly as there may be a legacy of disability after the stroke has occurred. Psychological support is often required for both the patient and the Carer to help them adapt to a life that is often very different after stroke, (e.g. disability, exclusion from workforce, new caring role)[23].

2.6. What are the financial implications?

2.6.1. It is estimated that the total cost (direct and indirect) of stroke in England & Wales to be in excess of £7 billion each year, the most significant cost areas being the provision of informal care (£2.4 billion) and community care/ rehabilitation (£1.7 billion)[24].

2.6.2. In 2006/2007 the NHS in London spent £136 million on stroke care[25].

3. Policy Context

3.1. The Sustainable Community Strategy is an overarching strategy agreed by the Haringey Strategic Partnership and aims to deal with issues which more than one agency can have an impact on. This review links with the Sustainable Community Strategy[26] outcome of:

- Healthier people with a better quality of life

3.2. The Council Plan focuses on the Council's contribution to the Sustainable Community Strategy and defines the Council's ambitions and priorities. This review relates to the Council Plan[27] priorities of:

[22] www.bbc.co.uk/health
[23] Feasibility study for a scrutiny review of stroke services in Haringey, April 2008
[24] London Health Observatory
[25] NHS Haringey Stroke Report
[26] Sustainable Community Strategy 2007-2016, Haringey Council

- Encouraging lifetime well-being, at home, work, play and learning
- Promoting independent living while supporting adults and children when needed

3.3. The Local Area Agreement is a three year agreement between the Council, its statutory and voluntary partners and central government. It sets out targets which the partnership is striving to achieve. The review also relates to the Local Area Agreement[28] target "**NI 121** Mortality rate from all circulatory diseases at ages under 75" which aims to reduce the number of people dying of circulatory disease in Haringey.

3.4. In December 2007 the Department of Health published the National Stroke Strategy. This strategy sets out key objectives and quality markers to improve stroke services in England and Wales in all patient pathways, including prevention.

3.5. Healthcare for London - In December 2006 the London Strategic Health Authority commissioned Professor Lord Darzi to write a strategy aimed to meet Londoners health needs over the next ten years, the result of this work was 'A Framework for Action' which was published in July 2007 outlining how healthcare in London needed to change in order to meet Londoners needs. Five key principles emerged from this report including the principle that 'Prevention is better than cure[29]"

3.5.1. A current strand of work within this framework is that of Stroke and trauma care in London. This is focusing on the acute end of the stroke pathway, and therefore this review will complement this piece of work.

4. Main Report

4.1. Quality Marker 1 – Awareness Raising

Markers of a quality service:

"Members of the public and health and care staff are able to recognise and identify the main symptoms of stroke and know it needs to be treated as an emergency"

4.1.1. The panel heard from a number of sources just how important the recognition of stroke symptoms is and also how important it is for strokes to be treated as a medical emergency.

4.1.2. The Stroke Association commissioned a MORI poll in 2005 which suggested that only 50% of people could correctly identify what a stroke is, and less than 40% being able to correctly name the three main symptoms of stroke[30]. The same study found that only 1/3 of respondents would go to hospital or call an ambulance. At the same time the panel heard time and again of the importance of treating a possible stroke as a medical emergency and calling 999 immediately.

4.1.2.1. Attendees at a Different Strokes[31] meeting strongly agreed that a greater awareness on the whole is crucial. They also felt that if they and others had

[27] Haringey Council Plan 2007-2010, Haringey Council
[28] Local Area Agreement, Haringey Council
[29] www.healthcareforlondon.co.uk
[30] National Stroke Strategy, Department of Health, 2007
[31] A charity for working age stroke survivors

been aware of the symptoms before their stroke, it could have prevented them having a full stroke.

4.1.3. The panel heard from the North Central London Cardiac and Stroke Network (NCLCSN) the importance of reacting faster for a stroke than for a heart attack due to the treatment needed for a stroke. For example, a person who has had an ischaemic stroke (where there is a blood clot to the brain), the decision to thrombolyse (a drug treatment which dissipates a blood clot. Also known as 'clot busting treatment') to be taken within two hours of the stroke occurring and treatment needs to be given within three hours of a stroke occurring.

4.1.4. As highlighted in the scoping report[32] Haringey's demographic profile includes large sections of the community who are at an increased risk of stroke for example, Haringey's aging population and ethnic diversity.

- African, Asian and African Caribbean populations are more likely to have a stroke – these populations are concentrated in the East of the Borough, specifically Northumberland Park, Bruce Grove and Tottenham.
- People aged 55 years of age and over are more likely to have a stroke – these populations are more concentrated in Muswell Hill and Highgate.
- Cared for pensioners are five and a half times more likely than the general population to have a stroke[33] - there are a large number of care homes in the West of the Borough.

4.1.5. Therefore there is an increased need for heightened awareness of not only the symptoms of stroke, but also of the risk factors and not only in the general population but in those who are in regular contact with people at risk of stroke. Haringey Council currently runs a Stroke Awareness course, which looks at the impact of stroke. There is currently no training for those who are in regular contact with people at risk of stroke, focusing on risk factors, prevention and spotting the signs that someone is having/has had a stroke.

4.1.6. Both the Stroke Association and Different Strokes highlighted the research suggesting that there is also a lack of awareness amongst health professionals, including some General Practitioners. A study by the National Audit Office[34] Nearly one in five GPs said they do not refer around a fifth of cases of a Transient Ischaemic Attack (TIA) or stroke. Just over half of GPs said they would refer someone with a suspected stroke immediately.

4.1.7. The panel is aware of the national campaign for stroke awareness[35], which is being run by the Department of Health, but felt that more needed to be done on a local level. Both in terms of raising the awareness of the general public and also in raising awareness of staff who spend time with people at risk of stroke, particularly given the above mentioned demographic profile of the borough.

4.1.8. The panel received a presentation from Ricability[36] on a booklet which has been commissioned by NHS Islington - "Getting Back Home". This booklet contains information for Islington stroke patients, and includes information about managing their condition, preventing a secondary stroke and information about local services. NHS Haringey has recently spoken to NHS Islington and is now working on adding Haringey information to the booklet to ensure that Haringey residents who are admitted to the Whittington Hospital, which is based in Islington, can also access relevant information.

[32] Scrutiny Review into Stroke prevention services in Haringey, Scoping Report, Haringey Overview and Scrutiny Committee, 2008
[33] MOSAIC
[34] Reducing Brain Damage: Faster access to better stroke care, National Audit Office, 2005
[35] http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_094239
[36] Ricability is a information provision agency, focusing on older people and disabilities.

4.1.8.1. The panel was shown an early draft of a booklet focusing on primary prevention which contained information on the effect of smoking and alcohol on a person's risk of strokes. It also contained blunt messages regarding the effects of strokes e.g. on sexual ability. The panel felt that this was a particularly useful piece of work for stroke prevention and would also be very useful for Haringey if it were to be adapted to be specifically for Haringey's diverse ethnic population. The panel felt that this could be particularly helpful in getting the message across to those parts of the community who are statistically more at risk.

4.1.9. Work has already started on adapting a booklet which is for stroke patients and includes information and advice on secondary prevention; this is being done in conjunction with NHS Islington.

Local recommendation	Responsibility
1. Workforce Development Plan to be jointly developed between Haringey Council and Haringey Teaching Primary Care Trust d. Risk, symptom and 'what to do' training for staff (TPCT and ACCS) who come into regular contact with those who are at risk of stroke – to include Teachers, Meals on Wheels staff, Home Care staff, Residential Care staff, Health Trainers, Community Development workers etc. e. To be provided by the voluntary and community sector e.g. Different Strokes, Stroke Association. f. 'Stroke Training' should be embedded as part of the overall training on 'Assessment and Care Management' for people working with Adults who have disabilities.	**Stroke Steering Group** (refer to Recommendation 10)

Local recommendation	Responsibility
2. Targeted awareness raising for members of the public h. Particularly in areas where there is a population at high risk of stroke, including; • Asian, black, mixed ethnic groups (particularly men)[37], carers, manual workers, workers aged 40	**Joint Director of Public Health** **and** **NHS Haringey Director of**

[37] Haringey's top three ethnic groups who are at greater risk of stroke. NHS Haringey, March 2009
[38] FAST – **F**ace, **A**rms, **S**peech, **T**ime to call 99 Test. The Department of Health is currently running a National campaign on this. Please see front and back page for an example of this.

years and over with a hereditary risk of stroke, people experiencing high levels of stress or high blood pressure. • Staff and residents in residential nursing homes, day centres and other settings where staff and residents need to know the symptoms in case of a stroke. i. Stroke refresher seminars involving all Haringey GPs j. FAST[38] posters to be sent to all Haringey GP Surgeries, community centres, religious centres, sports clubs and other appropriate locations. k. FAST All-Users email with link to DoH web-site at both the Council and NHS Haringey – message to be consistent across both organisations. l. FAST information to be placed on the internal and external website of both the Council and NHS Haringey – message to be consistent across both organisations. m. Consideration to be given to a social marketing campaign including the possible use of 'hard hitting' images, for example those shown by Ricability to the Scrutiny Panel. n. An article in Haringey People providing information on stroke prevention, including information from Different Strokes, the national campaign, risk factors and preventative measures.	**Strategic Commissioning**

4.2. Quality Marker 2 – Managing Risk

Markers of a quality service:

"Those at risk of stroke and those who have had a stroke are assessed for and given information about risk factors and lifestyle management issues (exercise, smoking, diet, weight and alcohol), and are advised and supported in possible strategies to modify their lifestyle and risk factors.

Risk factors, including hypertension, obesity, high cholesterol, atrial fibrillation (irregular heartbeats) and diabetes, are managed according to clinical guidelines, and appropriate action is taken to reduce overall vascular risk"

4.2.1. Haringey's well-being strategic framework and implementation plan[39] has specific outcomes and for improving the well-being of adults in Haringey and brings together the multitude of programmes taking place to improve health and well-being across the borough, not just within the Council.

[39] Haringey Well-being Strategic Framework and Implementation Plan 2007-2010, Haringey Strategic Partnership

4.2.2. **Active for Life**

4.2.2.1. Haringey Council and the TPCT currently jointly run a physical activity referral scheme, 'Active for Life', which enables GPs who have signed up to the scheme to refer patients for an exercise programme at Haringey Leisure Centres. The person must be classed as inactive or moderately inactive and meet the inclusion criteria which include:

- Hypertension
- Obesity (BMI of more than 30)
- History of stroke

4.2.2.2. There are currently 27 GP practices on the East of the borough signed up to the scheme, which is rolling out to the West of the borough with the expansion of support staff and premised for the team. This project was initially funded by the Neighbourhood Renewal Fund. As of 1st April 2009, this is funded by NHS Haringey with Haringey Council providing leisure facilities and staff and a subsidised rate for continued leisure membership.

4.2.2.3. Once a person is referred they are assessed and a free programme of activities at the Leisure centre is arranged for them for the following 12 weeks. They then receive a final assessment and can sign up at a reduced rate of £15 per month (rather than the standard rate of £35 per month).

4.2.2.4. The scheme currently has 25-30 referrals per month with a total of 269[40] people participating in the scheme thus far. Initial figures suggest that there have so far been 60[41] people who have completed the scheme. There is currently an issue regarding retention of people after the initial 12 week programme, leisure services have acknowledged the need for active encouragement of people at the end of the initial 12 weeks in order for them to sign up for membership.

4.2.2.5. To encourage people to stay active the Active for Life scheme also coordinates a number of walks across the borough, from various starting points, whereby people from the local community can be trained as walk leaders.

4.2.3. There is also a forthcoming initiative 'Hariactive' which is a range of initiatives aimed to inspire residents to take part in sport or physical activity at least 3 times a week.

4.2.4. **Vascular Checks**

4.2.4.1. A Department of Health vascular screening programme will be rolled out this year. The 'Vascular Check' programme will screen all persons aged between 40-74 years of age for vascular risks, with a view to preventing vascular disease (vascular disease includes coronary heart disease, stroke, diabetes and kidney disease).

4.2.4.2. The vascular checks will be rolled out in Haringey using a phased approach which is due to be completed in 2012/2013. The initial roll out will be in GP surgeries and community pharmacies who will be incentivised to carry out the checks. NHS Haringey is currently working to ensure that the checks are systematic and structured with clear pathways and quality assurances in place. However, there are acknowledged challenges which need to be addressed including actually getting people to show up for the checks and getting people to follow up on the advice given to them during their vascular check.

4.2.4.3. The panel discussed the need to ensure that there are structures in place to help people follow the advice they are given e.g. weight loss and exercise. Part of this could

[40] NHS Haringey, as of April 2009
[41] NHS Haringey, as of April 2009

be in the Active for Life scheme, but there is a need to ensure that there is the support in other areas as well and not just in the physical capacity but also in opening hours of services. There are estimated to be 74,300[42] 40-74 yr olds in Haringey. The importance of getting all of the relevant services aware of the vascular checks to ensure that the benefits are maximised was stressed.

4.2.4.4. The national risk assessment tool does not include a waist measurement as part of the check. The panel felt that this would be a useful addition in the local Vascular checks tool due to the fact that carrying too much fat around your waist can increase your risk of developing heart disease and therefore suffering a stroke.

Please see Appendix D for Department of Health Vascular Check Risk Assessment Diagram

4.2.5. **Quality Outcomes Framework**

4.2.5.1. The panel looked at the Quality Outcomes Framework (QOF) data for Haringey and neighbouring boroughs. Whilst Haringey's performance is comparable to neighbouring boroughs the data reveals that there are some practices which are well below the average. For example, on the QOF Stroke register there are variances with some GP practices achieving 100% for monitoring blood pressure and some only achieving 67%. The same applies for those who refer new stroke patients for further investigation; some practices are achieving 100% whilst some are at 0%.

4.2.5.2. Based on the number of patients on the stroke register and the expected prevalence for Haringey's population it is estimated that Haringey GPs are treating about 37% of those estimated to have had a stroke. There is therefore serious under recording of stroke in GP registers in Haringey[43]. The difference could be explained by the fact that the estimated prevalence is the number of people who have had stroke at any time while GPs rely only on presented stroke in primary care. The fraction of people with stroke, in particular people with no apparent, lasting disability could be overlooked.

Please see Appendix E for further a full breakdown of these figures.

4.2.6. **Oberoi**

4.2.6.1. Oberoi is a software application which is currently being used by all but four[44] GP practices in Haringey. This system can identify those who are at risk of certain conditions, for example stroke, by analysing data held on the whole patient register. A letter inviting those at risk in for follow up appointments can then generated. This has the potential to be extremely useful, again especially given the demographics in Haringey.

4.2.6.2. However, there are a number of issues which have been identified with the software's use:

- Some readings may be very out of date as they rely on the last time a person attended a practice.
- There are lots of 'unknowns' – where certain data fields have not been populated, thus meaning that the picture presented is not as full as it could be.
- There are resource implications, both in terms of generating the letters and ensuring they are sent out and the potential increase in prescription costs to treat those needing treatment. There would also be a resource implication to audit the database and populate the 'unknowns'.

[42] 2007 Mid-Year estimates, Office of National Statistics
[43] NHS Haringey Stroke report, 2008
[44] NHS Haringey, as at March 2009

- There is a lack of interface with this system and NHS Haringey's systems meaning that NHS Haringey can not directly access the data.
- Data is not currently reported from Oberoi by the GP practices to NHS Haringey.

The panel agreed that this is potentially a crucial tool in stroke prevention and that work should be done to ensure that its benefits are maximised. This is covered under recommendation 10 below and work is also due to be carried out in relation to this software for the Vascular Checks roll out.

Local recommendation	Responsibility
3. Annual Review/Patient Toolkit c. Best Practice requirement for GPs (or practice nurse/nurse practitioner) to conduct annual reviews of stroke and TIA patients which goes beyond the current blood pressure and cholesterol check. d. The annual review template on EMIS (primary health care software) should be edited to include active referral and a personal prevention plan covering health, social and emotional needs. This could lead to active referral and uptake of stroke clubs, counselling, volunteering, getting back into work, reducing salt intake, personal exercise plan etc.	**NHS Haringey**

Local recommendation	Responsibility
4. Active identification c. Of people at risk of stroke by GP practices (including people experiencing high levels of stress) e.g. Asian, Black, Mixed ethnic groups, family carers, manual workers, and adults aged 40, over with a hereditary risk of stroke and people experiencing high levels of stress or high blood pressure. • These should be invited for an annual personal plan consultation. d. Greater obligation for GPs to identify potential stroke patients through the exploration of options for developing a Stroke Local Enhanced Service (LES)[45].	**NHS Haringey**

Local recommendation	Responsibility
5. Vascular Checks d. NHS Haringey to ensure that all agencies are aware of the forthcoming Vascular Check programme and NHS Haringey's roll out plans to ensure that there is sufficient infrastructure to support people being identified as being at risk and given appropriate advice and/or referral.	**a & b - NHS Haringey** **c - Haringey Council**

[45] Local Enhanced Service – an enhanced service offered by GP surgeries which are financially incentivised by the local Primary Care Trust. GP surgeries are not obliged to sign up to these.

e. NHS Haringey should consider the inclusion of a waist measurement in the local vascular check tool. f. Haringey Leisure Services to support Vascular Risk Assessments with provision of affordable referral options (for example through Active for Life scheme)	

Local recommendation	Responsibility
6. Reinforce link between health and lifestyle c. All practices to be actively encouraged to sign up to the GP referral scheme on roll-out to West of the Borough. • Reminder of criteria and benefits to be sent to all GP's currently signed up. d. Leisure Services to actively encourage those coming to the end of the GP referral scheme to sign up for continued Membership.	**a. – NHS Haringey** **b. – Haringey Council**

4.3. Quality Markers 3 and 4

Quality Marker 3 - Information, advice and support

Markers of a quality service:

"People who have had a stroke, and their relatives and carers, have access to practical advice, emotional support, advocacy and information throughout the care pathway and lifelong"

Quality Marker 4 – Involving individuals in developing services

Markers of a quality service:

"People who have had a stroke and their carers are meaningfully involved in the planning, development, delivery and monitoring of services. People are regularly informed about how their views have influenced services"

4.3.1. The panel heard of the various pieces of work currently being undertaken to ensure that service users are fully involved and have access to all of the information which is necessary both to prevent a secondary stroke and also to ensure that in the case of a secondary stroke, people are re-directed back into services appropriately and in a timely manner. This includes with Adult services a Stroke Project Group, which meets to coordinate the Stroke Grant as allocated by the Department of Health[46]. Currently this has involved discussion around investment in the following:

- "Appointment of a joint Stroke Coordinator for 3 years to work across health and social care. Elements of this role will involve improving care pathways from Acute

[46] Stroke Grant, Department of Health. Haringey allocation of £92k per year for three years.

Services into rehabilitation – including social care within the community and in care homes;
- Support for existing initiatives – specifically the Age Concern Stroke Clubs;
- Support the Council's 'Welfare to Work' strategy to the 'Winkfield Resource Centre' to support outreach work to help working age adults return to work;
- Enhance the establishment of the 'Haven Day Centre' by 1 worker to enable more intensive work with older people who have returned to the community & could benefit from further intermediate care."[47]

4.3.2. Funded from this year's allocation is also being spent on a local stroke prevention campaign which will run in June 2009 and January 2010 on 400 buses running in the borough and 5 posters in Haringey's tube stations. This campaign has been organised on the basis of discussions which have taken place throughout this review.

4.3.3. The panel heard that the Expert Patient Programme[48] has had 180 people graduate through it in Haringey thus far. The value of this programme for enabling people to take control of their conditions is seen as invaluable. However, the panel felt that there was more that could be done to utilise the skills and knowledge that they have learnt on the programme for the benefit of the wider community.

4.3.3.1. This could be through a co-ordinated support and advocacy strategy for people with long term conditions and those newly diagnosed with a stroke or TIA. This would not only benefit those who have been newly diagnosed but would also empower those who have been on the programme and may lead to them attaining skills to be able to return to work.

4.3.4. There was also discussion around people who have had a stroke or TIA running low level preventative services on a voluntary basis, with the support of professionals in the field. The panel felt that this could take place in community centres, and space could be considered for use at neighbourhood health centres across the borough.

4.3.4.1. It was felt that this would link with the Local Area Agreement target NI 6 "Participation in regular volunteering"[49].

4.3.5. Different Strokes, is largely funded through the Haringey Adult Learning service, runs twice weekly meetings at Wood Green library, and is extremely proactive in arranging for speakers to attend the sessions as well as encouraging attendees to share their experiences and learn from one another, including coping strategies and discovering new skills to enable people to "move back into the world"[50]. Their weekly activities include:

- "Weekly Chi Kung/Tai Chi classes to reduce stress, build stamina, improve cardiovascular and circulatory functions and enhance the immune system
- Weekly Exercise Class/Circuit Training to improve cardio-vascular function and strength
- Weekly Physiotherapy for members with severely affected limbs.
- Talks by outside speakers, every 8-12 weeks, on such topics as diet and exercise; talks by other stroke survivors who have overcome adversity and who provide inspiration
- Involvement in stroke research and campaigning to raise awareness of stroke"[51]

[47] Adult, Culture and Community Services briefing for Stroke Prevention panel, October 2008
[48] A programme which teaches self-management courses for people living with any long-term health conditions(s), to enable them to better understand and manage their condition.
[49] Haringey's Local Area Agreement, 2007-2010, Haringey Council
[50] Different Strokes briefing for Scrutiny Panel, John Murray
[51] Different Strokes briefing for Scrutiny Panel, John Murray

Local recommendation	Responsibility
7. Community Involvement c. A co-ordinated strategy should be developed to link the Expert Patient Programme with the wider voluntary and community sector. • This should also link into other strategies which are being developed across the partnership d. Greater collaboration between the voluntary and community sectors, NHS Haringey and Adult Services to enable low level prevention work to be led by people in the community with support from professional services for example the Health Trainers Programme. • Consideration to be given to the use of the health centres for this.	**a - HAVCO** **b – Joint Director of Public Health**

Local recommendation	Responsibility
8. Information Provision c. Exploration of the possibilities of joint working with other boroughs and the voluntary and community sector for information provision as well as specific Haringey information where relevant. d. Stroke Prevention booklet to be commissioned with specific focus messages particularly relevant to Haringey's demographics ensuring consultation with both services users and the voluntary sector.	**Joint Director of Public Health**

4.4. Quality Marker 5 – Assessment – referral to specialist

Markers of a quality service:

"Immediate referral for appropriately urgent specialist assessment and investigation is considered in all patients presenting with a recent TIA or minor stroke.

A system which identifies as urgent those with early risk of potentially preventable full stroke – to be assessed within 24 hours in high risk-cases; all other cases are assessed within seven days.

Provision to enable brain imaging within 24 hours and carotid intervention, echocardiography and ECG within 48 hours where clinically indicated"

4.4.1. **Healthcare for London**

4.4.1.1. Evidence shows that patients who have a TIA and are assessed as 'high risk' of a full stroke should have their symptoms investigated within 24hrs and receive specialist treatment thus reducing their likelihood of having a stroke by 80%[52].

4.4.1.2. Under the Healthcare for London proposals all stroke patients, whether they have had a stroke or a TIA will receive high quality care, with those having had a TIA also being seen by an expert for investigation and therefore reducing the chance of a full stroke[53]. TIA services "will provide rapid assessment and access to a specialist within 24 hours (for high-risk patients) or within seven days (for low-risk patients)[54]"

4.4.1.3. There are however challenges, as mentioned above if nearly one in five GPs do not refer around a fifth of cases of a TIA or stroke and just over half of GPs referring someone with a suspected stroke immediately55 then the patient may not get to be seen by a specialist at all. This again highlights the need for greater awareness by not just the public, but also of health and social care professionals.

4.4.1.4. The panel felt that as this Quality Marker is being considered within the Healthcare for London consultation and that a Pan London Joint Overview and Scrutiny Committee has been set up specific recommendations into this area would not be appropriate. However, this is also covered in the panels Quality Marker 1 - Awareness Raising recommendation around information provision.

4.5. Quality Marker 6 – Treatment

Markers of a quality service

"All patients with a TIA or minor stroke are followed up one month after the event, either in primary or secondary care"

4.5.1. This Quality Marker is related to ensuring that clear pathways exist for managing all TIAs and also for ensuring that a pathway is established for urgent carotid intervention (an operation to remove fatty deposits (plaques) from inside the arteries in your neck). It is also related to ensuring that TIAs and minor strokes are followed up appropriately to prevent a full stroke[56].

4.5.2. Key elements of stroke care are seeing people fast, diagnosing them fast and putting hem on the correct treatment fast. If you do this well and systematically then there is a high impact on the outcomes of strokes. A study in Oxford reported an 80% improvement in the outcomes of stroke patients[57].

4.5.3. The panel also heard about the importance of patients starting to take aspirin, cholesterol lowering drugs and blood pressure drugs immediately after diagnosis and by working closely with primary care services.

[52] *National Stroke Strategy* (p.23)
[53] The Shape of things to come. Consultation on developing new, high quality major trauma and stroke services in London, Draft, Healthcare for London, January 2009
[54] The Shape of things to come, page 28
[55] Reducing Brain Damage
[56] National Stroke Strategy
[57] Dr Luder, North Middlesex Hospital NHS Trust

4.5.4. This is again an area which is being looked at within the Healthcare for London consultation, with the North Middlesex University Hospital Trust proposed as a TIA clinic and therefore the panel felt that it would not be beneficial to make any recommendations at this time. However, as identified above, there are significant variances in the QOF data and to ensure that those who have had a stroke or TIA risks are managed effectively GPs and other health professionals need to be actively monitoring patient's health, both in medical terms but also in lifestyle terms.

4.6. Quality Marker 16 – Return to work

Markers of a quality service

"People who have had a stroke and their carers are enabled to participate in paid, supported and voluntary employment"

4.6.1. Whilst this Quality Marker is mainly related to rehabilitation, there is evidence to suggest that work is good for both the physical and mental health of a person. Therefore, ensuring that people who have had a stroke or TIA are able to access paid and voluntary employment may lead to a reduction in the chance of a further or full stroke.

4.6.2. For the purpose of this review, it is felt that this is covered under Quality Marker 3 and Quality Marker 4, in that the panel feels that people who have had a stroke or TIA should be able to utilise their skills in the wider community, thus empowering the person and also enabling others to learn from them. Please see above for further information.

4.6.3. Different Strokes is a charity for people of working age who have had a stroke, its aim is "through active self-help and mutual support, our aim is to help stroke survivors of working age optimise their recovery, take control of their lives and regain as much independence as possible, including returning to work[58]".

4.6.4. The panel heard that some of the Stroke Grant has been identified for use to support the Council's 'Welfare to Work' strategy to the 'Winkfield Resource Centre' to support outreach work to help working age adults return to work.[59]

4.6.5. Adult Services is currently drafting a Carers Strategy, which will be adopted by the partnership. This includes the following draft outcome "**Carers will be able to have a life of their own alongside their caring role**". Adult Services have identified a number of issues around carers being able to work, for example a lack of flexible working or part-time job opportunities/advertisements. The National Audit Office have also recently published a report "Supporting Carers to Care[60]" which addresses a number of national issues, including those around Job Centre Plus, and a lack of specific support programmes for Carers to find employment.

4.6.5.1. Adult Services has been working to engage with Job Centre Plus in Haringey and is hoping to get the Partnership Manager at Job Centre Plus to attend the Carers Partnership Board meetings.

4.7. Quality Marker 20 – Research and audit

[58] Different Stroke, Scrutiny Panel briefing
[59] Adult, Culture and Community Services, Scrutiny Panel briefing
[60] Supporting Carers to Care, National Audit Office, 2009

"All trusts participate in quality research and audit, and make evidence for practice available."

4.7.1. The panel heard that the current Co-ordinator of Different Strokes is a lay member of the Prevention Clinical Studies group of the National Stroke Research Network and of its operational steering group.

4.7.2. The panel also heard that Dr Luder, Consultant Physician at the North Middlesex Hospital Trust is actively involved in attending group meetings, and lecturing for General Practitioners.

4.7.3. It was felt that NHS Haringey would benefit from having Lead GPs in the area of stroke, who would be able to share best practice from both within Haringey and across the Country and also participate in research.

Local recommendation	Responsibility
9. Lead GPs b. With responsibility for stroke in Haringey to be identified - one per collaborative	**NHS Haringey**

4.8. Partnership working

4.8.1. Whilst the panel came across examples of best practice in various agencies and across agencies, it was noted that those attending the meetings welcomed the opportunity to speak to each other about strokes. The panel meetings were an ideal place for people to share ideas as well as knowledge, for example a representative from the acute sector commented on how useful it would be to have known some of the activities carried out across the borough especially regarding lifestyle changes. Thus the panel felt that there was a need for greater partnership working and information sharing across stroke care.

4.8.2. The panel also noted that across the stroke care pathway there is the need for involvement from a number of different agencies and disciplines. This is relevant both the primary and secondary prevention of strokes, but also to the stroke pathway on the whole.

4.8.3. Therefore the panel felt that the development of a Stroke Steering Group would be beneficial to Haringey. It felt that it would be an ideal forum to take forward the National Stroke Strategy as a whole and also to monitor and be involved in recommendations from this report.

Local recommendation	Responsibility
10. Set up a multi agency steering group that takes forward the action points and Quality Markers from the National Stroke Strategy. • To hold quarterly stroke steering group meetings • To oversee the development and performance management of a local stroke care action plan. • To provide a forum for clinical pathway development. • To horizon scan for new Stroke Care guidance/guidelines with potential implications for commissioning or performance.	**NHS Haringey**

• To investigate the current situation with regards to Oberoi and take a co-ordinated overview of what improvements could be made to maximise the benefit of this system.	

Appendices

Appendix A – Contributors to the review

Councillor David Winskill	Chair
Councillor Karen Alexander	Panel Member
Councillor Toni Mallett	Panel Member
Councillor Bernice Vanier	Panel Member
Lisa Redfern	Assistant Director, Adults Services, Adult, Culture and Community Services, Haringey Council
Robert Edmonds	Director, Age Concern Haringey
John Murray	North London Co-ordinator, Different Strokes
Dr Vivienne Manheim	Haringey General Practitioner
Dr Sejal Pandya	Haringey General Practioner, Member of NHS Haringey's Professional Executive Committee
Dr Robert Luder	Consultant in Elderly Medicine and Stroke, North Middlesex University Hospital Trust
Joseph Buttell	Clinical Specialist Physiotherapist, North Middlesex University Hospital
Caylie Fields	Therapy Services Manager, North Middlesex University Hospital
Hayley Bridge	Ward Manager Medicine of the Elderly, North Middlesex University Hospital
Veronica Wareham	Team Leader Occupational Therapy Department, North Middlesex University Hospital
Candida Ellis	Speech and Language Therapy Manager, North Middlesex University Hospital
Mags Farley	General Manager Acute & Emergency Medicine, North Middlesex University Hospital
Homaira Sophia Khan	Stroke Prevention Officer, Stroke Association
Eugenia Cronin	Joint Director of Public Health, Haringey
Dr Tamara Djuretic	Consultant in Public Health
Vicky Hobart	Consultant in Public Health
Adrian Hosken	Senior Commissioning Manager, Haringey Teaching Primary Care Trust
Jinty Wilson	Director, North Central London Cardiac and Stroke Network
Fiona Wright	Associate Director of Public Health
Alan Hewitt	Connect
Jan Bryant	Commissioning Manager, Carers, Haringey Council
Craig Ferguson	Haringey Council, Project Manager (Information Management)
Dr Jasper Holmes	Senior Researcher, Ricability

Appendix B – A Stroke Story, John Murray, Different Strokes

JOHN MURRAY
DIFFERENT STROKES LONDON NORTH GROUP
TIA AND SUBSEQUENT STROKE STORY

BEFORE THE STROKE

Before the stroke I had been the Haringey Borough Architect. Over 10 years, we had pioneered working with tenants through multidisciplinary area teams, developed collective responsibility in the service and, as funding for public services reduced, established a public sector consultancy to supplement service income. Initially we did work for other Councils and for Housing Associations. Then, as part of a consortium we won and successfully completed a UK Govt funded project in Moscow. In association with Russian colleagues, the consortium sought and eventually won a further EU funded project in 23 Russian cities. I was invited to join them and was due to start when I had a stroke.

THE TIA

I had a peculiar experience early on 26 February 1994, a Saturday morning. It lasted about 30-45 minutes. My left arm felt very light, as if it wasn't there. It wasn't unpleasant. When I went to make a cup of tea, my left hand was clumsy and I couldn't turn the tap on. I had no idea what was happening and was relieved when the symptoms went away. But it was obviously a significant event and it was clear I needed to see a doctor.

Because it was a Saturday morning, we agreed we shouldn't trouble our GP but should go to A+E ourselves. With the benefit of hindsight, we should have called our GP. He would have had access to my records which would have shown a history of both high blood pressure and high cholesterol. As a result he may well have concluded that I had had a TIA and arranged appropriate treatment.

We decided not to go to our nearest hospital, the Whittington, largely because it is very difficult to park there. On the other hand the Royal Free Hospital in Hampstead was not too far away and had a large multi-storey car park. So we decided we should go there. I drove.

There was a queue of people in A+E and I was eventually seen by a young doctor around midday, about four hours after the TIA. She went through what I now know to be the standard checks for stroke – strength, speech, mental arithmetic, etc. All of these I passed successfully. But I did have an incredibly bad headache. The doctor asked if I wanted a prescription for my headache. I declined the offer, saying that I had paracetamol at home. Then we went home.

It is interesting that the young doctor initially assumed from my description that I may have had a stroke but then went on to discount that in the light of my lack of symptoms (apart from the headache). Doctors are trained to base their decisions on observable symptoms and, apart from the headache, I didn't have any.

My own reaction is also interesting. We knew that the doctor had made a mistake and that something very significant had happened. But I did not follow it up by going to my own doctor on the Monday, as I should have done. It is true that I was busy that week. But I was having curious pins and needles in my left arm. I thought it might be a muscular problem and went to an osteopath but that did not help, nor provide any reason.

THE STROKE

Two weeks later. On Saturday morning 12 March, I had a stroke. I remember feeling somewhat confused. My daughter, then a teenager, remembers it differently. She has told me that*, 'you were wandering around in the kitchen and hallway bumping into things and the tap was left running in the toilet (this thing of forgetting to turn the tap off carried on for quite a while after the stroke). I asked you were you ok and you seemed really distant and just complained of a bad headache. Then I went upstairs and told mum "dad's acting really weird" and she ran downstairs'*. My wife immediately connected it with the earlier incident and phoned our GP. He arrived quite quickly, diagnosed that I had had a stroke and called an ambulance. I was taken to the Whittington Hospital where I went through the various now familiar tests. I was able to deal with these quite reasonably I thought. I do remember answering '9' after being asked how bad my headache was on a scale of 1-10. But my daughter says, *'you seemed totally spaced out, as if you were in shock or something, definitely not at all right - and I was rather shocked when you said the pain of your headache was a 9, that's when I realised it was awful so I think I left at that point. I didn't realise about the whisking away by the nurse part, I must have gone by then.'*

I have subsequently praised the Whittington's response that day, but my wife has told me that it was not quite as I remember. She also said that I was dazed and confused. She has said that despite this the doctors were intent on discharging me, although I was obviously ill, with agonisingly slow responses to questions, not to mention the very bad headache. She said they were short of beds, presumably due to the relentless cuts in public expenditure over many years. I don't remember any of this going on. Then something happened to me. My wife said I collapsed. I remember suddenly being given oxygen and being wheeled at high speed through the hospital with an obviously anxious member of staff asking me how I was. I was in Whittington Hospital for a week. My wife told me that for the first few days I couldn't walk and had difficulty speaking. But I was very well looked after by kind and considerate staff.

AFTER THE STROKE

But when I left hospital all my left side was affected. The worst problem was that I couldn't use my left hand. Eating is difficult with only one hand and I couldn't tie my shoes. Dressing was hard. I was also confused. I remember a visit to the barber shortly after getting out of hospital and finding it difficult to find my way out of his small shop.

Then followed significant changes in lifestyle; changes in diet, (although my previous diet had been reasonable), regular exercise, walking instead of driving to the tube and taking walking holidays, staring that summer.

A friend of my wife's suggested I try Feldenkrais treatment which involves gentle repetitive movement which is believed to create new paths in the brain. So I did. Following weekly Feldenkrais treatment, by the end of 1994 I had gradually recovered the use of my arm. During this time I was also receiving outpatient hospital treatment while the reasons for the stroke were being investigated. In February 1995 I had an operation in Middlesex Hospital to clear a significant blockage in my right carotid artery. The investigations revealed that my left carotid artery was also severely blocked although I had no symptoms. Consequently, I opted to join an Asymptomatic Carotid Surgery trial in which half the patients would be operated on and half would not to test the efficacy of operating as against medical treatment. As I was worried that I would have another stroke which could affect my speech I was hoping that I would be chosen for the operation. In the event I was and had a successful operation in August 1996.

I am fortunate in having made a good recovery but I was determined to get better. I returned to work about a year after the stroke. Since then, I have supported and worked as a volunteer for stroke charities, firstly for the Stroke Association who were very helpful after the stroke and then

for Different Strokes, a charity which supports younger stroke survivors, whose founder I met at a Stroke Association Christmas Party in 1994.

Since 2003, I have been a volunteer for the North London Group of Different Strokes. Our Group, which is run on a voluntary basis, currently has about 100 members with an average age of 45. We aim, through active self help and mutual support, to help stroke survivors of working age take control of their lives and regain as much independence as possible, including returning to work. My initial input was to ensure that the systems for managing the group were robust and accountable. In due course I was elected secretary and am now the group coordinator. I am particularly keen to encourage and to keep up to date with research and we regularly attend the Royal Free Hospital annual stroke conferences where we have a display stand. This year we have been meeting local hospital stroke units and are shortly to meet with the North Middlesex stroke unit. I was appointed a member of the Prevention Clinical Studies Group of the Stroke Research Network in 2007.

In view of my own experience, a few years ago I wrote a short policy paper proposing that in the case of TIAs where symptoms had disappeared, it would be better to play safe, take the patients' word for it and admit to hospital patients who may have had a TIA rather than send them home. Subsequently, while evaluating a proposed research trial for the Stroke Research Network, I discovered that Professor Peter Rothwell a noted researcher into stroke prevention, had carried out a research project demonstrating that it would indeed be more economical for the NHS to admit possible TIA patients even if there were doubts.

FOOTNOTE

I asked my daughter to comment on these notes. Some of her comments have been included but in summary she said,

'I think it is all good except the part about the actual impact of the stroke - in the immediate aftermath and also for at least a year after that, I think you underplay that a lot. I think you make light of the symptoms afterwards.... I think it did quite affect your personality for quite a long while, I remember the worst part was that you weren't you for a long time... it wasn't the arm that bothered me as much as that....'.

JM/SR/30/08/08R

Appendix C - NHS Haringey Stroke Report

Submitted for the Scrutiny Stroke prevention review

STROKE IN HARINGEY

Toyin Ogboye

Public Health Analyst

November 2008

Definition of Stroke

According to the World Health Organisation, stroke is a syndrome characterized by rapidly developing clinical signs of focal (at times global) disturbance of cerebral function, lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin. There are two types of stroke

Ischaemic stroke: The most common type of stroke, accounting for almost 80% of all strokes. It is caused by a clot or other blockage within an artery leading to the brain. Transient Ischaemic Attack (TIA) is a minor stroke which has usually rectifies itself within 24 hours. It is a strong risk factor of possible further stroke (Sauerbeck, 2006).

Haemorrhagic stroke: It is less common, accounting for 20% of all strokes. It caused by bleeding into brain tissue when a blood vessel bursts (Sauerbeck, 2006).

Burden of Stroke

National

Stroke is the third most common cause of death in the United Kingdom, and the largest single cause of severe disability (Saleem *et al*., 2008). There are over 900,000 people who have had a stroke living in England (prevalence approximately 1.5%). In the United Kingdom, the prevalence of stroke in people aged over 75 years is about 8% for women and 9% for men (Kwain, 2001). Each year approximately 110,000 people in England suffer from a stroke. Thirty three percent will recover fully with no long-term ill effects, 33% may experience permanent disability and 33% will die. Stroke has a 2.2 higher incidence in people of African or Caribbean origin, and men of South Asian origin are also disproportionately susceptible to stroke. Bangladeshi and Pakistani women are reported to have relatively high levels of stroke. One in ten strokes occurs in people under the age of 55 years (Department of Health, 2007). Stroke is a life changing event that affects not only the person who may be disabled, but the entire family and other caregivers as well (Goldstein *et al*., 2006). Its human and economic toll is staggering. Stroke costs the NHS and the economy about £7 billion a year: £2.8 billion in direct costs to the NHS, £2.4 billion of informal care costs (e.g. the costs of home nursing borne by patients' families) and £1.8 billion in income lost to productivity and disability (Department of Health, 2007). The NHS in London spent £136 million on stroke care in 2006/2007. By 2010 the Government aims to reduce the death rate from Stroke, CHD and related diseases in people under 75 by at least 40% (Saleem *et al*., 2008).

Local

Stroke is one of the major causes of death from circulatory disease in Haringey. Deaths from stroke in Haringey are higher than for England as a whole. In 2004-2006, there were a total number of 196 deaths from stroke of these 45 people (23%) under the age of 75 died of potential preventable stroke. In Haringey, there has been a significant increase in Under 75 years stroke standardised mortality rate (SMR) from 2002 to 2006 (Figure 1). In 2006/2007, 270 people were admitted to hospital with stroke (Secondary Uses Service (SUS)). The rate of stroke admissions from 2001 to 2007 is shown in Figure 2 below. Haringey's GPs suggests that there are 2317 people living with stroke in Haringey in March 2008 – an overall prevalence of 0.84%. This is likely to be an under- estimate due to incompleteness of reporting known to be associated with the Quality Outcomes Framework (QOF) data in Haringey. Slight variations in stroke prevalence appear to occur across the geographical areas of the Borough; the highest prevalence being in the Central and North East Localites (0.9%) and lowest in the West (0.86%) and South East (0.69%). The London Observatory suggests that under diagnosis exists in Haringey, only 61% (the lowest in London) of the expected cases diagnosed and managed. High stroke death rates compared with London and England, particularly in Under 75s were recorded in 2004-06 (Office of National Statistics).

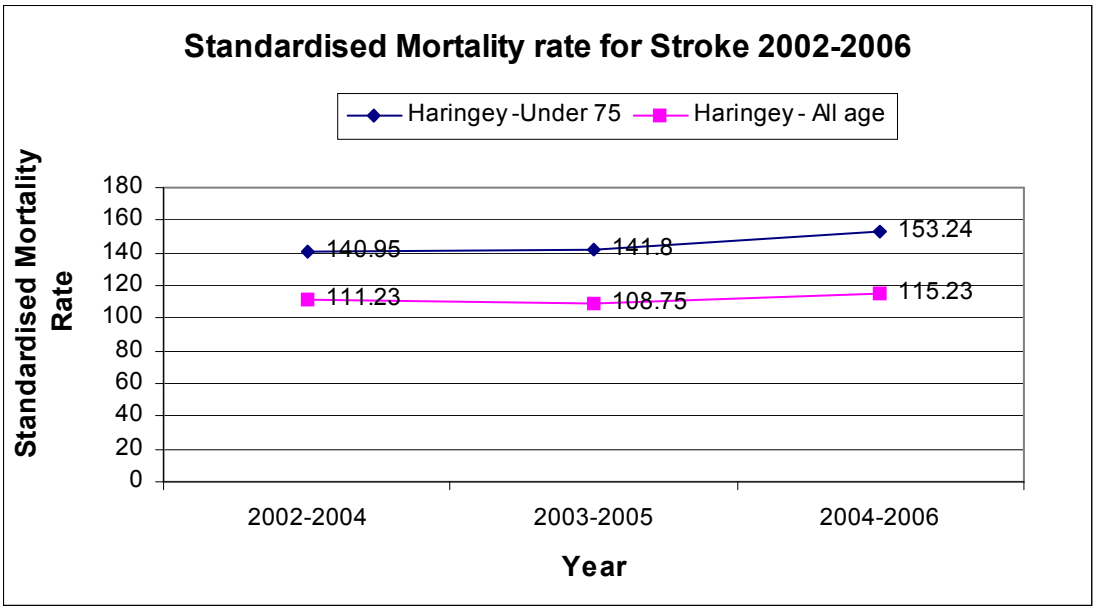


Figure 1: Stroke Standardised Mortality Rate (SMR) in Haringey, 2002-2006
Source: Office of National Statistics.

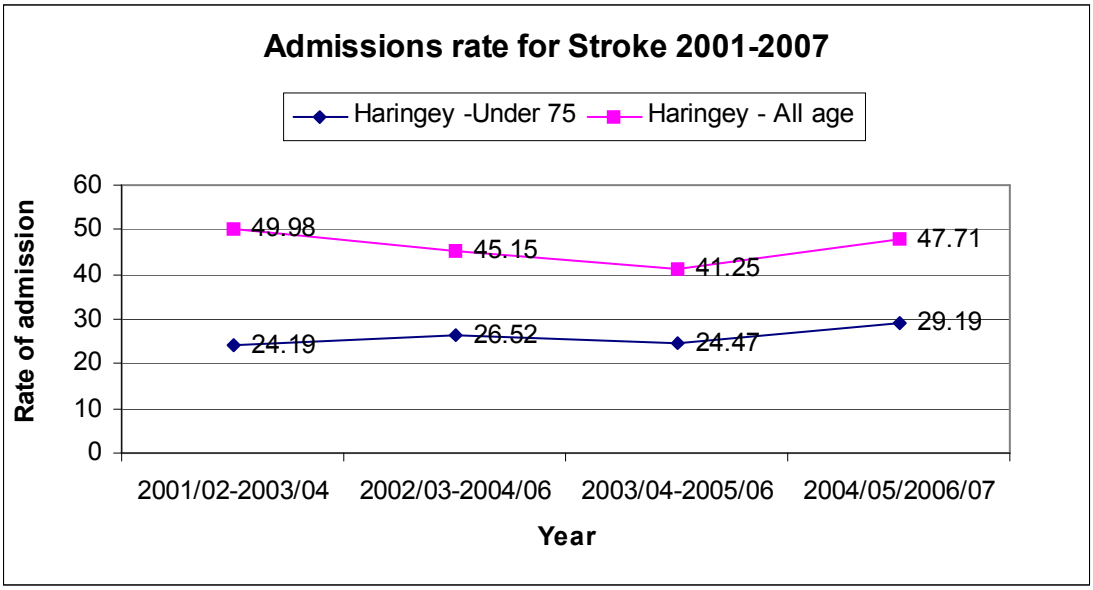


Figure 2: Stroke Admissions rate in Haringey, 2001-2007
Source: Secondary Uses Service (SUS)

Risk Factors for Stroke

The risk for stroke is based on heredity, natural processes, and lifestyle. Many risk factors for stroke can be changed or managed (i.e. modifiable) such as lifestyle factors which include smoking, obesity, poor diet, physical activity and excessive alcohol consumption, and health conditions such as previous stroke or TIA, diabetes, hypertension (high blood pressure) and cardiac diseases (such as atrial fibrillation, infective endocarditis, mitral stenosis, recent large MI, left ventricular hypertrophy). Many of these conditions are associated with lifestyle factors. The relative risk of these conditions (Table 1) suggests that the identification and management of present health conditions should be vital to stroke prevention strategies.

Others that relate to hereditary or natural processes cannot be changed (i.e non-modifiable) which include age, ethnic group and gender. Both paternal and maternal history of stroke has been associated with an increased stroke risk. This increased risk could be mediated through a variety of mechanisms, including

(1) genetic heritability of stroke risk factors, (2) the inheritance of susceptibility to the effects of such risk factors, (3) familial sharing of cultural/environmental and lifestyle factors, and (4) the interaction between genetic and environmental factors (Liao *et al*., 1997).

Table 1: Stroke risk factors and their relative risk

Risk Factor	Relative Risk
Age (per decade)	2.2
Male gender	1.4
BP (per 10mmHg diastolic)	2.3
BP (≥ 160mmHg systolic)	2.5 - 4
Atrial fibrilation	5
Diabetes Mellitus	2 -3
Ischaemic Heart Disease	2.5
Heart Failure	2.5 – 4.4
Peripheral vascular disease	2
Previous TIA	7
Previous stroke	9 - 15
Warfin treatment	7 - 10
Smoking	2
Alcohol (> 30 units/week)	2.5 - 4
Family History	1.4 - 2

Source: Kwain, 2001

The Stroke Pathway

- Population-level prevention
    - Health education, social marketing and life style modification
- Primary care prevention: management of risk factors in individuals – Hypertension, cholesterol, obesity, atrial fibrilation, alcohol, diabetes
- Rapid access to Health Care Transient Ischaemic Attack (TIA) management, Acute stroke management – including timely CT scans and thrombolysis
- Acute rehabilitation in a stroke centre
- Secondary prevention
- Specialist Rehabilitation in the community
- Care and support

Health inequalities in Stroke

> *Exworthy et al (2003) defined health inequalities as systematic, structural differences in health status between and within social groups within the population. These groups can be defined by socio-economic status, geographical area, age, disability, gender or ethnic group*.

The differences in stroke risk and outcome in groups defined by socio-economic status, geographical area, age, disability, gender or ethnic group is demonstratable.

Age:

Stroke incidence is clearly associated with advancing age (Chong and Sacco, 2005). People who are over 65 years of age are most at risk from having strokes, but they can affect people of any age, including children. The risk of stroke doubles for each successive decade after the age of 55 years (Goldstein et al., 2006). Haringey has an aging population. The number of people aged 65 years plus in Haringey is projected to rise from 20,400 in 2008 to 23,300 in 2025 (Greater London Authority, 2006).

Ethnic Group:
Stroke is an important cause of mortality and morbidity in Blacks worldwide. People of Black ethnic origin are at increased risk of having a stroke, and the number of people affected by the condition is higher among this ethnic group than the white ethnic group (Bravata *et al*., 2005). This is because of higher prevalence or severity of stroke risk factors (smoking and obesity) in blacks, biological differences between blacks and whites, and lower socioeconomic status in blacks compared with whites. People of Black ethnic origin have a genetic predisposition (a natural tendency) to developing diabetes and heart disease, which are two conditions that can cause strokes (Gillum,1999). Stoke also occurs at a higher rate than the general population in some other ethnic groups such as Bangladeshi and Pakistani ethnic origin and whit Irish men (Health Survey for England, 2004). Given the ethnic diversity of Haringey's population this is very important for local preventive strategies.

Gender:
Stroke is more prevalent in men than in women (Goldstein *et al*., 2006). Men also generally have higher age-specific stroke incidence rates than do women; exceptions are in 35- to 44-year old and in those of 85 years of age groups in which women have slightly greater age-specific stroke incidence than do men (Sacco *et al*., 1998). Factors such as oral contraceptive (OC) use and pregnancy contribute to the increased risk of stroke in young women (Kittner *et al*., 1997) and the earlier cardiac-related deaths of men with cardiovascular disease may contribute to the relatively greater risk of stroke in older women (Goldstein *et al*., 2006).

Geographical area:
Area deprivation is associated with a higher incidence of stroke, increased rate of recurrence and early first stroke (Aslanyan *et al*., 2003).

Disability:
Having a disability irrespective of independent living by an individual results in a delay in presenting for treatment in the event of stroke (Smith *et al*., 1998).

Socio-economic Status and Stroke:
The phenomenon that health is not evenly distributed over the different socioeconomic classes has been well established in many studies (Cox *et al*., 2006). In several studies a gradient appears across the social spectrum, rather than a threshold effect, suggesting that it is the position within the social hierarchy that is important for health (Macintyre, 1997). General factors that affect health have been categorised at the individual level to include material (e,g income and possessions), behavioural (e.g. diet, smoking and exercise) and psychosocial factors (percieved inequality, stress). Socioeconomic status (SES) (as defined by occupational position, income or education) is an important and powerful determinant of stroke incidence and outcomes (Cox *et al*., 2006). Decreasing socioeconomic status is associated with increasing stroke incidence and stroke mortality. People from lower socioeconomic groups have a substantially higer risk of stroke. Higher stroke mortality rates of lower socioeconomic groups are probably

related to several factors (Kapral *et al*., 2002). As a general rule, disadvantaged communities are more frequently exposed to lifestyle factors for the risk of stroke, such as excessive alcohol consumption, smoking and obesity (Anton *et al*., 1998), which result in conditions such as hypertension and diabetes.

Haringey Population Profile

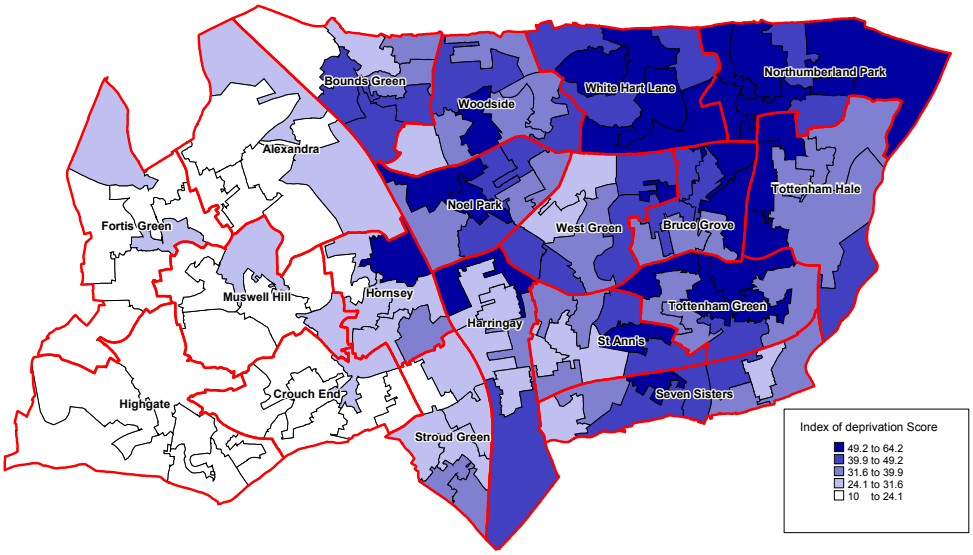


Figure 3: Index of deprivation score by lower super output area.
Source: Department and Local Government, Indices of Deprivation, 2007 of Communities

Socioeconomic deprivation has a significant impact on health. Inequalities in experience of health occur in Haringey and this can be explained by difference in socioeconomic status (using index of deprivation) in different parts of Haringey (Figure 3).

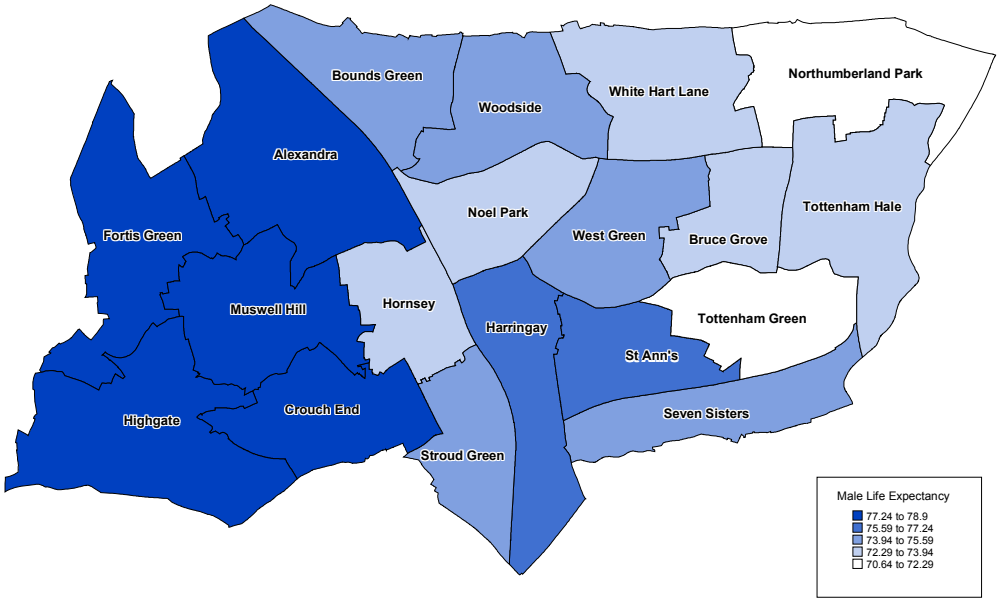


Figure 4: Male Life Expectancy 2002-2006
Source: London Health Observatory, 2002-2006 data

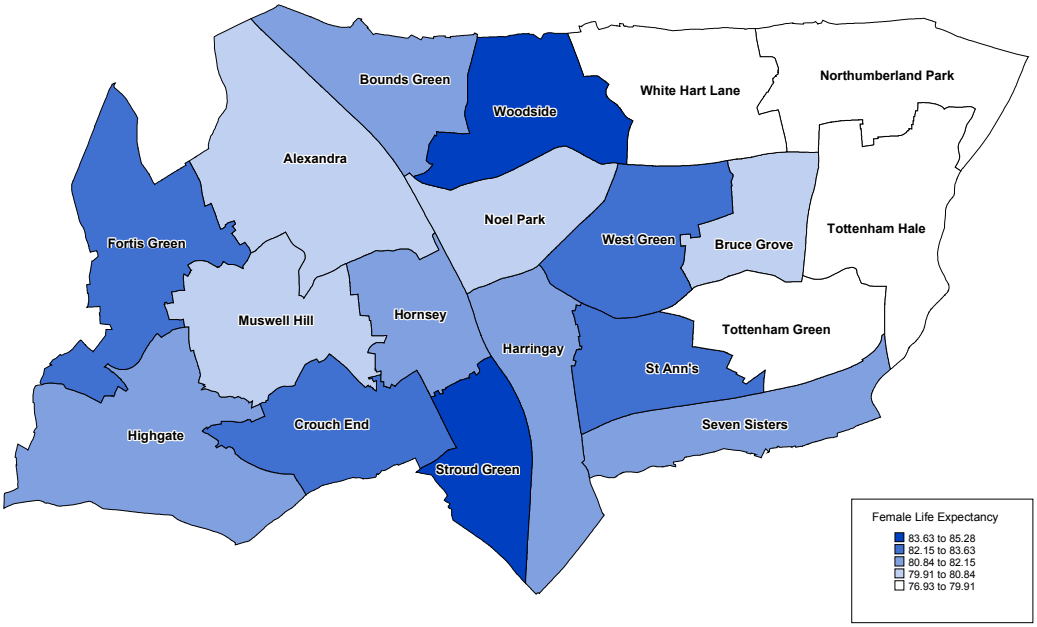


Figure 5: Female Life Expectancy 2002-2006
Source: London Health Observatory, 2002-2006 data

Generally, the more deprived wards (as measured by the Index of Multiple Deprivation) have a lower male life expectancy than the more affluent wards. At the two extremes, male life expectancy in Tottenham Green (70.6 years) is over 8 years lower than male life expectancy in Alexandra (78.9 years) (Figure 4). The gap in female life expectancy between the boroughs with the highest and lowest life expectancy is 6.8 years in 2002-2006 (Figure 5).

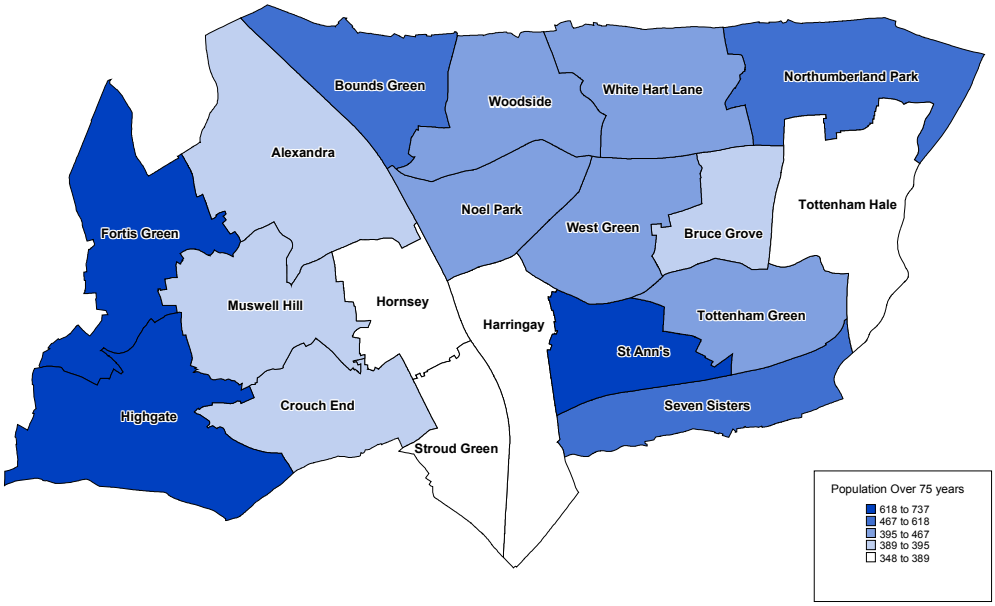


Figure 6: Population Over 75 years
Source: Greater London Authority, 2007

Residents in Highgate, Fortis Green and St Ann's have the highest number of people under the 75 years. Residents in Tottenham Hale, Hornsey, Stroud Green and Harringay have the lowest number of people under the 75 years.

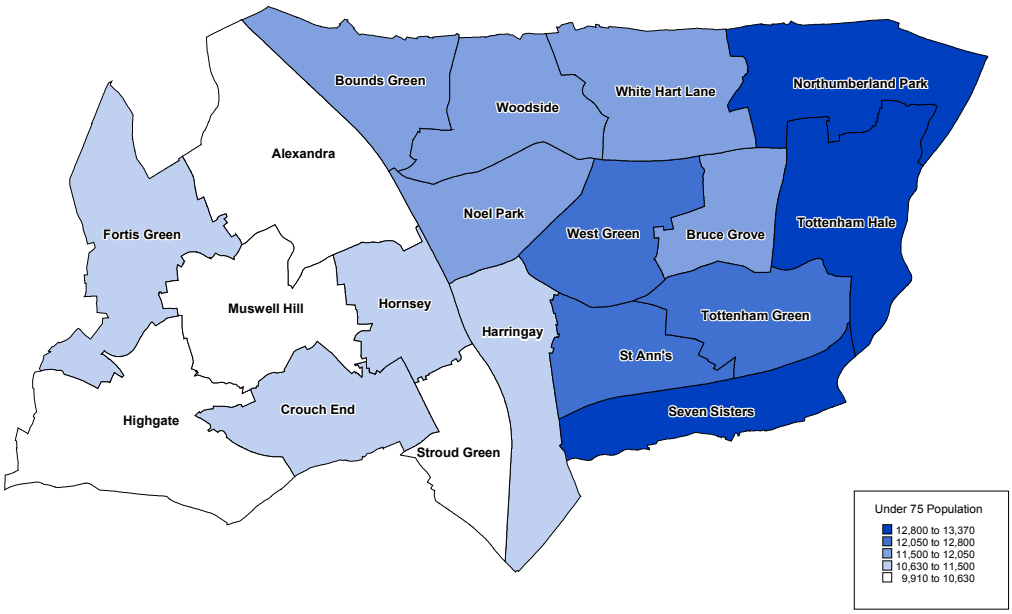


Figure 7: Population Under 75
Source: Greater London Authority, 2007

Residents in Tottenham Hale, Northumberland Park and Seven Sisters have the highest number of people under the 75 years. Alexandra, Highgate, Muswell Hill and Stroud Green have the lowest number of

people under the 75 years. Tottenham Hale and Northumberland are in top fifth of wards for under 75 years population and in the fifth of the wards with the highest under 75 mortality from stroke.

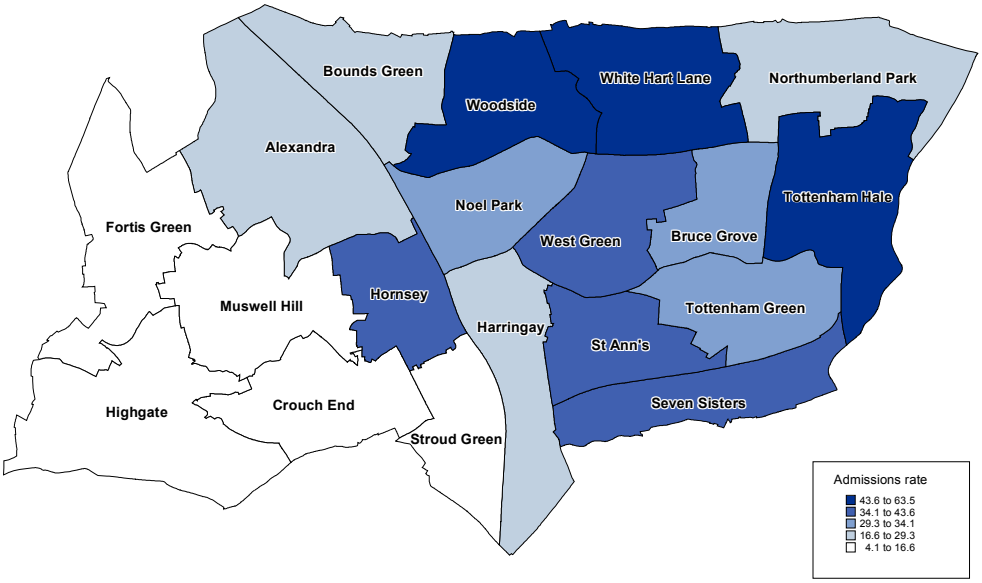


Figure 8: Under 75 years stroke admissions rate. Source: SUS

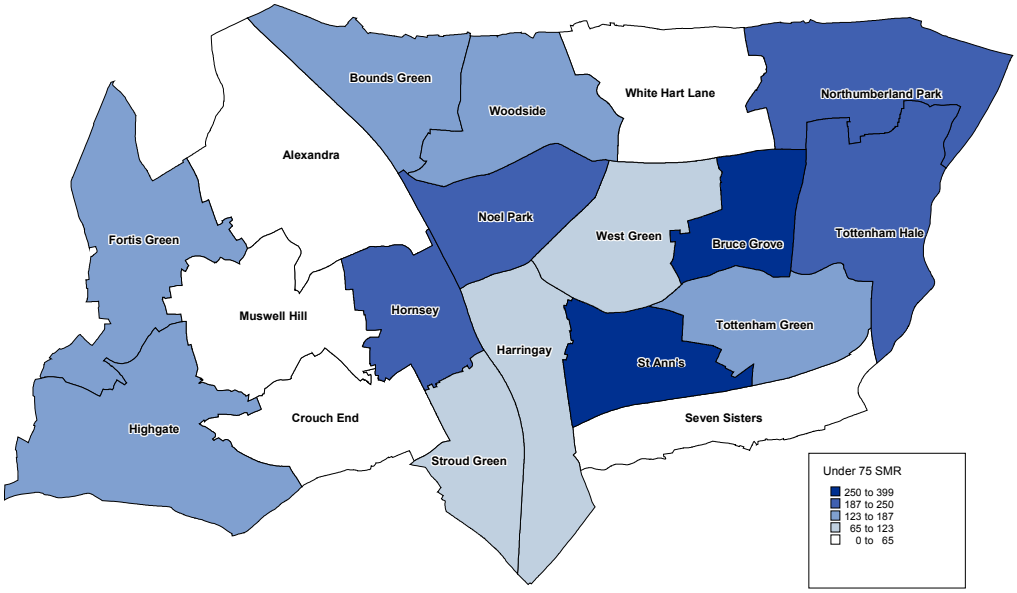


Figure 9: Under 75 years stroke standard mortality ratio (SMR)
Source: Office of National Statistics

Figure 8 and 9 show rate of hospital admissions and deaths from stroke in those under 75 years of age in Haringey. There are geographic differences in the mortality and incidence of stroke in Haringey. In 2004/05 to 2006/07, hospital admissions for stroke those under 75 years of age in Haringey occurred at a

rate of 29.19 per 100,000. Higher rates of stroke admissions were observed in the wards of Tottenham Hale, Woodside and White Hart Lane. Lower rates were observed in Muswell Hill and Stroud Green. Stroke deaths rates (SMR) for residents less than 75 years of age in 2004-06 was 153, 50% higher than expected. Higher than expected mortality rates from stroke (in residents aged less than 75 years) were observed in almost all areas in the borough, particularly St Ann's and Bruce Green wards.

The Stroke death rate and hospital admission give an important pointer of the size of the problem, but underestimates the true incidence in the community. Some people are surviving with mild or slowly developing stroke, for which they do not go to the hospital for treatment. For example, White Hart Lane has relatively high under 75 years stroke admissions rate, but a fairly low stroke mortality compared to other wards, where as Northumberland is in middle fifth of wards for under 75 years stroke admissions rate but in the fifth of the wards with the highest mortality. Hornsey has high rates of under 75 years stroke admissions and mortality from stroke. These differences could reveal not just differences in wards in the treatment of acute stroke by health services but also differences in ward populations' ability to identify and take effective timely action.

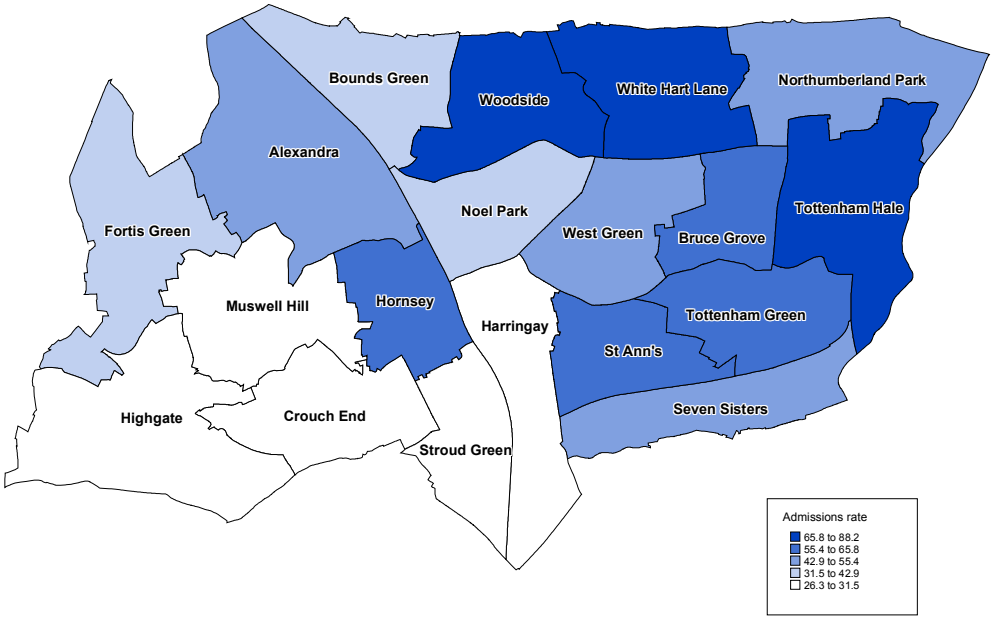


Figure 10: All age stroke admissions rate
Source: Secondary Use Service (SUS)

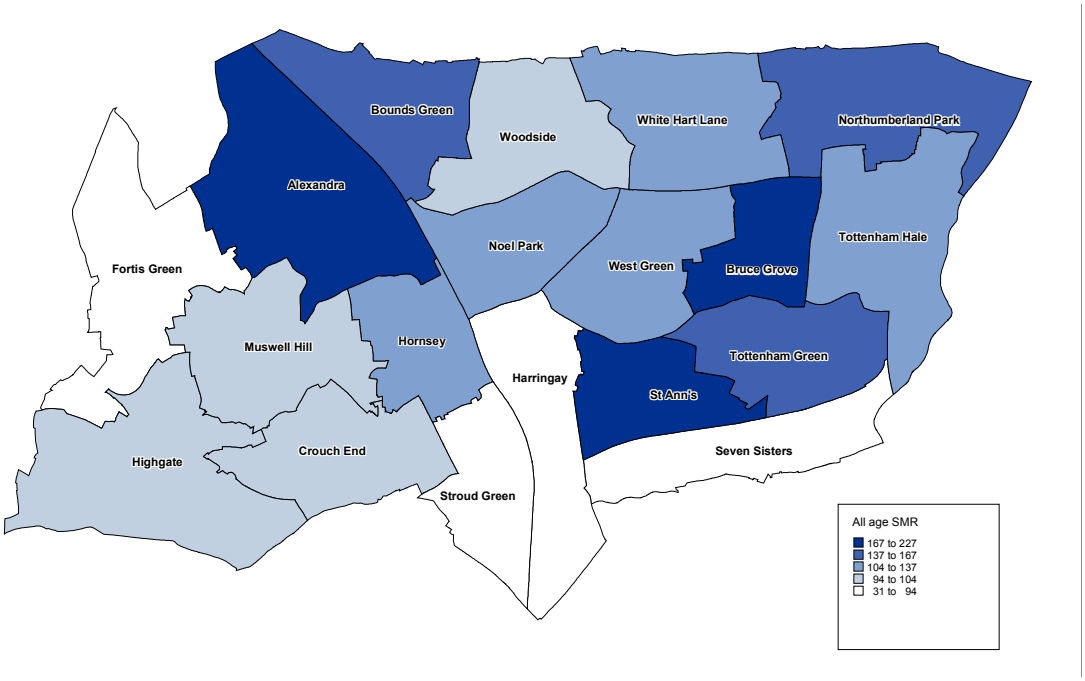


Figure 11: All age stroke standard mortality ratio (SMR)
Source: Office of National Statistics

Figure 10 and 11 show rate of hospital admissions and deaths rates from stroke for all ages in Haringey. There are geographic differences in the mortality and incidence of stroke in Haringey. In 2004/05 to 2006/07, hospital admissions for all age stroke in Haringey occurred at a rate of 47.7 per 100,000. Higher rates of stroke admissions were observed in the wards of Tottenham Hale, Woodside and White Hart Lane. Lower rates were observed in Muswell Hill and Stroud Green. Stroke death rates for residents of all age in 2004-06 was 115, 15% higher than expected. Higher than expected mortality rates from stroke fro all ages were observed in almost all areas in the borough, particularly in St Ann's, Bruce Green and Alexandra wards.

GPs recorded prevalence (0.84%) of stroke in Haringey (Figure 12). According to Eastern Region Public Health Observatory (ERPHO) the expected prevalence of stroke in Haringey is 2.3%. GPs are treating only about 37% of those estimated to have stroke. There is therefore serious under recording of stroke in GP registers. The difference could be explained by the fact that the estimated prevalence is the number of people who have had stroke at any time while GPs rely only on presented stroke in primary care. The fraction of people with stroke, in particular people with no apparent, lasting disability could be overlooked. There is evidence of differences between ethnic groups and socioeconomic status in timely recognition of stroke, seeking help early and early arrival at the hospital (Ratner *et al*., 2006). Stroke awareness campaigns should focus on ethnic minorities and disadvantaged population to promote early recognition of stroke signs and prompt access to healthcare services.

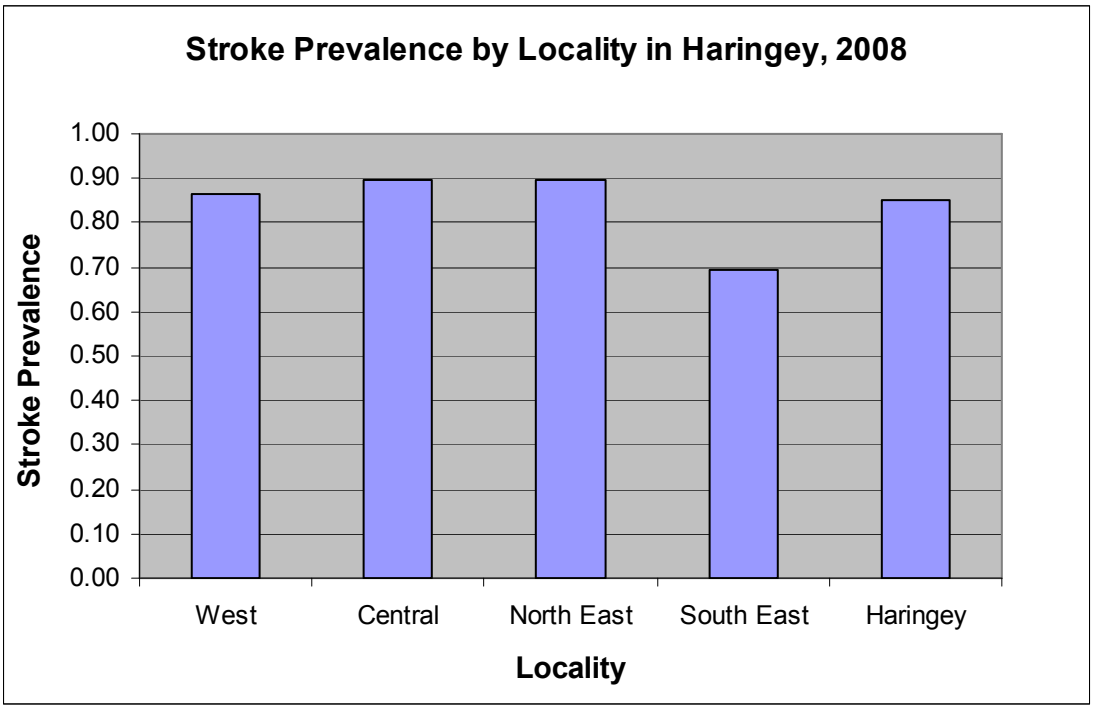


Figure 12: Stroke Prevalence by Locality in Haringey (2008)
Source: Quality Outcomes and Framework data (March, 2008)

Prevention of Stroke in Haringey

Stroke is a preventable condition. Kwain (2001) highlighted that 50% of stroke deaths in patients aged less than 70 years might be preventable by use of existing knowledge through primary care and population level preventive strategies. There are two types of stroke prevention: Primary prevention – prevention before first event and Secondary stroke prevention – prevention for recurrent strokes.

Primary prevention

According to Lynch *et al* (2005), the management of risk factors leads to significant reductions in the occurrence of both first and recurrent strokes. The Stroke Association highlighted that 40% of strokes could be prevented with the monitoring and treatment of Hypertension (high blood pressure). Kwain (2001) highlighted that modifiable risk factors for stroke in the general population such as hypertension, smoking, arterial fibrillation and obesity should be the target for primary prevention strategies. Evidence shows that the identification and management of underlying stroke risk factors in primary care varies across general practices in Haringey (Table 2).

Table 2: Management of stroke risk factors in primary care in Haringey in 2006/2007

Performance of GP practices in Haringey in identification and management of stroke related risk factors			
	Haringey	**General Practice Variance**	**London**
Patients on Hypertensive register	9.5%	2.5% - 17.0%	10.3%
Hypertensive patients blood pressure checked < 9 months	91.5%	76.4% - 100%	90.3%
Patients that are obese (BMI 30+)	7%	2.2% -18.0%	6.5%
Patients that smoke	25.1%	8.6% - 27.5%	23.4%
Patients on Arterial Fibrillation	0.5%	0% - 2.0%	0.8%

Register			
Arterial Fibrillation treated with anticoagulant/platelets	88.0%	0% - 100%	87.8%

Source: London Health Observatory data (2006/2007)

Secondary prevention

Due to the considerable risk of a reoccurrence of a stroke in persons with major stroke or Transient Ischaemic Attack (TIA), monitoring and treatment after first event of stroke are important in preventing further stroke (i.e. secondary prevention). Following discharge from hospital, the management and care of stroke patients is primarily undertaken through the General Practices. The performance of GPs in managing stroke patients (secondary prevention) is measured through the Quality and Outcomes Framework. The Quality and Outcomes Framework (QOF) is an innovative way to reward GPs for providing good quality care for their patients and a way of funding the work needed to improve the health care delivered to people across the United Kingdom. Stroke patients in Haringey seem to be well managed by their GP through regular blood pressure and cholesterol monitoring, provision of anti blood thinning/ thickening treatments. However, evidence shows that the performance of general practices varies across Haringey (Table 3).

Table 3: Management of stroke in Haringey in 2006/2007

Management of stroke and TIA in Haringey 2006/7			
	Haringey	**General Practice variance across Haringey**	**London**
Patients on stroke register	0.84%	0.1%-2.0%	1.0%
Stroke Patients BP Check in past 15 months	93.8%	82.4% - 100%	94.4%
Stroke Patients BP 150/190 or less	81.2%	35.7-100%	81.8%
Stroke Patients cholesterol checked in past 15 months	82.8%	64.3-100%	84.9%
Stroke Patients with cholesterol <5.0	61.9%	25-100%	63.6%
Stroke Patient with anti platelet /anti coagulant	93.2%	50-100%	93.7%
Stroke Patients given flu immunisation	72.2%	35.7-100%	74.6%

Source: London Health Observatory data (2006/2007)

Given the relative cost of stroke prevention interventions (Table 4), population level prevention and primary care prevention seem to be the effective methods of reducing risk of stroke.

Table 4: Cost of interventions to prevent one stroke per year

Interventions	**Cost to Health Services (£)**
Quit smoking by yourself	Nil
Quit smoking with NRT	12,000
Aspirin for those at increased risk of stroke	600
Treatment of High Blood Pressure	1000-7000
Low dose anticoagulation for atrial	9000

fibrillation	
Statins (for heating high blod cholesterol)	20,000-25,000
Carotid surgery (for those at high risk of stroke)	162,000-232,000

Source: London Health Observatory

Conclusion

Stroke is a serious but potentially preventable public health problem in Haringey. Understanding of the risk factors, local burden of stroke and relative cost of stroke prevention health services is essential in order to provide preventive primary care services. The variation in identification and management of underlying stroke risk factors in primary care across general practices in Haringey proves to be significant.

The North Central London Cardiac Network (NCLCN) will take the strategic lead in scoping local stroke services to assess the level of service provision and to identify any service gaps across the sector, across Barnet, Camden, Enfield, Haringey and Islington. The initial focus of the work from the NCLCN will be on acute stroke care provision; however, work will also be carried out in terms of stroke prevention.

Local initiatives are focusing on:

- Commissioning awareness campaigns aiming to promote early recognition of stroke signs and prompt presentation to healthcare services;
- Developing strategies to improve stroke registers in primary care;
- Vascular risk checks to identify people who are at risk for stroke and apply evidence-based intervention measures to reduce morbidity and mortality related to stroke
- Strengthening stroke specialist rehabilitation services in the community

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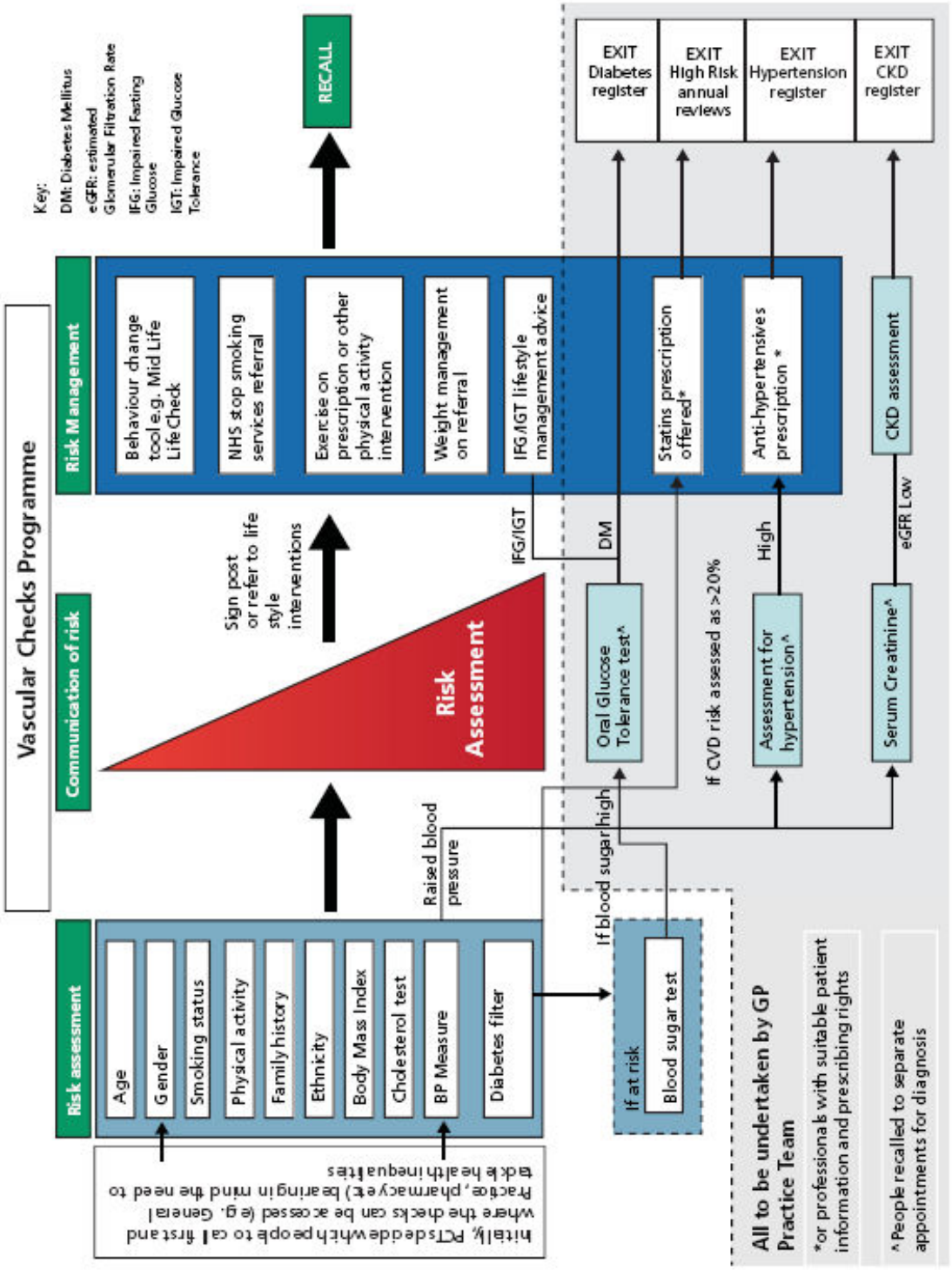
Appendix D - Putting Prevention first: vascular checks, risk assessment and management tool, Department of Health, 2008



Appendix E - Quality Outcomes Framework data

Average percentage achievement for Stroke indicators and range of achievement by practice[61].

QOF 2007/08		Islington	Camden	Enfield	**Haringey**	Barnet
Stroke 5	Record of Blood Pressure in last 15 months	98% (91%-100%)	96% (75%-100%)	98% (72%-100%)	96% (67%-100%)	96% (80%-100%)
Stroke 6	Last BP is < 150/90	90% (74%-100%)	85% (72%-100%)	89% (67%-100%)	86% (57% - 100%)	88% (70%-100%)
Stroke 7	Record of cholesterol check in last 15 months	92% (76%-100%)	89% (65%-100%)	89% (50%-100%)	87% (33% -100%)	90% (33%-100%)
Stroke 8	Last record of cholesterol is <5.0m/ml	77% (65%-100%)	75% (54%-94%)	72% (25%-92%)	71% (25% -100%)	74% (33%-100%)
Stroke 11	New stroke patients referred for further investigation	92% (0%-100%)	91% (67%-100%)	84% (0%-100%)	88% (0% -100%)	93% (50%-100%)
Stroke 12	TIA/Ischaemic Stroke on antiplatlet/anticoagulation	95% (80%-100%)	93% (75%-100%)	95% (75%-100%)	94% (57% -100%)	94% (75%-100%)

Number of patients on the CHD, Stroke and Heart Failure register and crude prevalence using GP list size as of February 2008[62].

Register	Islington Crude prevalence % (number on register)	Camden Crude prevalence % (number on register)	Enfield Crude prevalence % (number on register)	Haringey Crude prevalence % (number on register)	Barnet Crude prevalence % (number on register)
Stroke	**1.1%** (2,169)	**0.98%** (2,252)	**1.09%** (3,197)	**0.84%** (2,317)	**0.94%** (3,428)

[61] Quality and Outcomes framework 2007/08, produced by Mahnaz Shaukat, Public Health Strategist, Islington PCT

[62] Quality and Outcomes framework 2007/08, produced by Mahnaz Shaukat, Public Health Strategist, Islington PCT