

HEALTH AND SOCIAL WELLBEING: STROKE

Issue/Problem	Inequalities in the prevalence of stroke in Northern Ireland
Evidence Base (Equality & Inequalities Report)	<p>Stroke is a leading cause of disability in Northern Ireland and is one of the most common causes of death.</p> <p>In 2001, just under 1% of respondents in the 2001 NI Health and Wellbeing Survey had been informed by a doctor that they had had a stroke.</p> <p><i>Ref: 2001 NI Health and Wellbeing Survey cited in “Equality and Inequalities in Health and Social Care in Northern Ireland: A Statistical Overview (DHSSPS, 2004:90).</i></p> <p>Age, Gender and Stroke</p> <p>Almost 2% of males had been diagnosed with a stroke compared with just over 1% of females.</p> <p>Strokes are more prevalent amongst the older population. In the older age groups males were more likely to have been diagnosed with a stroke than their female counterparts. Just over 7% of males over the age of 75 had suffered a stroke compared with 4% of females in the same age band.</p> <p><i>Ref: 2001 NI Health and Wellbeing Survey cited in “Equality and Inequalities in Health and Social Care in Northern Ireland: A Statistical Overview (DHSSPS, 2004:90).</i></p> <p>Socio-Economic Group and Stroke</p> <p>Findings from the 2001 NI Health and Wellbeing Survey demonstrate professionals, skilled workers and unskilled workers experienced higher rates of stroke than skilled non-manual and partly-skilled workers.</p> <p><i>Ref: 2001 NI Health and Wellbeing Survey cited in “Equality and Inequalities in Health and Social Care in Northern Ireland: A Statistical Overview (DHSSPS, 2004:91).</i></p>
Evidence Base (Literature Review)	<p>What is a stroke?</p> <p>A stroke occurs when a blood clot blocks a blood vessel or artery, or</p>

when a blood vessel breaks, interrupting blood flow to an area of the brain. The NI Multidisciplinary Association for Stroke Teams (NIMAST) suggest that although a stroke is often called a ‘cerebrovascular accident’, the conditions that lead to stroke have usually been present for many years before it happens. NIMAST therefore stress that *health promotion* is an important element in stroke prevention¹.

How common is it?

Stroke is the third most common cause of death in Northern Ireland, after ischaemic heart disease and cancer and is the commonest cause of disability in adults. However, NIMAST highlight that the true incidence of stroke in Northern Ireland may not be known as up to 25% of all strokes and ischaemic heart attacks are not reported.

Stroke Risk Factors²

NIMAST maintain that the risk factors associated with stroke can be influenced by uncontrollable and controllable factors. Risk factors which cannot be controlled include age and gender; a family history of cerebrovascular disease which may predispose people to stroke; a previous history of stroke or mini-stroke; and certain types of irregular heartbeat.

Risk factors which can be controlled include:

- *High blood pressure (hypertension)* – is the most important risk factor as 40% of all stroke patients have high blood pressure. Reducing salt intake can help control blood pressure.
- *Diet* – high cholesterol levels can lead to arterial disease that can cause stroke. A healthy diet can help lower blood fats.
- *Alcohol intake* – the risk of stroke can be three-fold for heavy drinkers. Too much alcohol can lead to raised blood pressure.
- *Overweight & obesity* – being overweight predisposes to heart disease and diabetes, both of which increase the risk of stroke.
- *Physical inactivity* – active people tend to have lower cholesterol levels and are less likely to suffer arterial disease (which can increase the risk of stroke).
- *Smoking* – around 12% of strokes are caused by smoking. A history of angina + high blood pressure + smoking can place a person in the high-risk smoke bracket.

People living in deprived circumstances are more likely to suffer stroke, partly because they are more likely to experience such risk factors. People in certain minority ethnic groups, such as those from the Indian sub-continent, are also at an increased risk of stroke³.

Younger People and Stroke

Stroke is less common amongst younger people. However, for those young people who have suffered a stroke, recovery and rehabilitation may present different challenges. Younger people with stroke may, for example, have particular occupational, vocational and relationship needs. They are also more likely to have young dependent children⁴.

As stroke is more common in those over 55, current provision inevitably focuses attention on the older stroke survivor. Some argue that the specific and complex needs of the younger stroke survivor may not receive the full attention that it deserves⁵.

Childhood Stroke

It is estimated that in the UK around five out of every 100,000 children per year have a stroke (a total of several hundred per year). However, the causes of ischaemic stroke in children are not the same as in adults. Strokes in adults tend to be brought on by smoking or high blood pressure. In contrast, strokes in children are caused by, for example, sickle cell disease or by heart problems⁶.

Recent clinical guidelines on childhood stroke state that over the last decade there has been a revolution in stroke care for adults but that similar improvements have not been mirrored in the treatment of childhood stroke. The guidelines maintain that although childhood stroke is less common than adult stroke it is still a serious problem and that anecdotal evidence suggests that it is prone to even more variable quality of care than adult stroke⁷.

Inequities in Stroke Service Provision

A report by the Northern Ireland Chest Heart and Stroke Association (NICHSA) maintains that there are inequities in stroke service provision in Northern Ireland as some Trusts have stroke units whilst others do not. The report also highlights that the type of stroke unit varies between hospitals and that there are serious gaps in clinical neuro-psychology services for stroke patients throughout Northern Ireland. NICHSA further maintains that the provision of specialist stroke rehabilitation services in the community is limited^{8,9}.

Sentinel Audit of Stroke

A fourth round (2004) of the sentinel audit of stroke has been conducted by the Royal College of Physicians. The audit surveys 100% of hospitals admitting stroke patients across England, Wales and Northern Ireland. The audit report highlights that Northern Ireland consistently outperforms England and Wales in the stroke audits since the first rounds of sentinel audit in 1998. For example,

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85% of hospitals in Northern Ireland now have a stroke unit in comparison to 82% in England and only 45% in Wales¹⁰.

The report also highlights some disappointing falls in some of the key measures in Northern Ireland since the 2001 audit, particularly in areas of assessment of mood before discharge and access to physiotherapy. However, the number of patients being treated in a stroke unit during their stay in hospital had increased from 57% in 2001 to 62% in 2004¹¹.

Is the issue/problem being addressed by current or proposed strategies and policies? On what level?

The Four Board Evidence Based Stroke Strategy maintains that an estimated 40% of strokes are preventable. Population-based health strategies that address the risk factors associated with stroke (e.g. physical activity, diet, smoking, obesity, excessive alcohol intake) are believed to be effective. The strategy report highlights that there is already considerable health promotion activity in Northern Ireland which is targeted at reducing these risk factors. However, the report adds that this work should specifically include, and mention, stroke.

Some examples of initiatives/policies aimed at addressing stroke or the lifestyle risk factors associated with stroke include:

Evidence-Based Stroke Strategy

In 2001 the Northern Ireland Chest Heart and Stroke Association (NICHSA) published an [Evidence-Based Stroke Strategy](#) (Four Board Stroke Strategy). This strategy made a number of recommendations for the coherent management of stroke both in the hospital settings and the community. The strategy project team contained representatives from NIMAST, all four Boards, DHSSPS, NI Chest Heart and Stroke Association, service users, GP and community services.

Since the publication of the report, NICHSA in association with the Eastern Health and Social Services Board have received a grant from the Big Lottery Fund for a three year [Stroke Strategy Implementation Project](#). The aim of the project is to implement the recommendations of the Four Board Strategy Report.

DHSSPS Priorities for Action 2004/2005

The DHSSPS [Priorities for Action](#) 2004/2005 states that the DHSSPS seek to reduce the mortality rate from circulatory diseases (particularly deaths from heart disease and stroke) by at least 20% in people aged under 75 by 2010. The Priorities document further states that strokes and fractures are major risks for older people and that there is considerable potential for improvement in prevention and rehabilitation services.

The Priorities for Action paper also outlines the Department’s wish to see progress in implementing the four HSS Boards’ strategies for stroke services and that the “Evidence-Based Stroke Strategy” should include a prioritised plan for taking forward outstanding recommendations.

NIMAST

The Northern Ireland Multidisciplinary Association for Stroke Teams ([NIMAST](#)) is a charity launched in 1999 by professionals working in Stroke Care. One of the primary purposes of the organisation is to raise the profile of stroke amongst professionals, the general public and commissioners of services. NIMAST provides a source of ‘expert’ opinion in stroke care and identify and disseminate evidence of best practice.

National Clinical Guidelines for Stroke

A second edition of the [Clinical Guidelines for Stroke](#) was published by the Royal College of Physicians in 2004. The guidelines cover the management of stroke. [Clinical Guidelines for Childhood Stroke](#) has also been published and covers issues such as acute management, rehabilitation and longer-term care.

Contribution of Voluntary/Community Groups

Many voluntary and community agencies make a valuable contribution towards the treatment and prevention of stroke. One such organisation is the Northern Ireland Chest Heart and Stroke Association (NICHSA). NICHSA provides a broad range of services to stroke clients through the Stroke Family Support Scheme.

Addressing the Risk Factors Associated with Stroke

Investing for Health

Investing for Health provides a cross-Departmental and multi-agency approach to tackling health inequalities. One of the principle objects of [Investing for Health](#) is to enable people to make healthier choices. Through a number of associated strategies and initiatives, many of the risk factors associated with coronary heart disease and stroke such as smoking, obesity and poor diet, and physical inactivity are currently being addressed.

Investing for Health Partnerships

[Investing for Health Partnerships](#) bring together key statutory, community and voluntary agencies at local level. The aim of each Partnership is to address the social, cultural, economic and environmental determinants of health. All four partnerships have

Inequalities and Unfair Access Issues Emerging from the DHSSPS (2004) “Equality and Inequalities in Health and Social Care: A Statistical Overview” Report

published [Health Improvement Plans](#) (HIPs) outlining how the health and wellbeing needs of their local populations are to be met. Addressing the underlying causes of heart disease and other related diseases (e.g. physical inactivity, poor food and nutritional intake) is a major component of the HIPs.

Physical Activity Strategy and Action Plan

The aim of the proposed new [Physical Activity Strategy and Action Plan](#) is to promote the benefits of regular physical activity, particularly amongst those who are inactive. The key objectives of the proposed new strategy including raising awareness of the physical and mental benefits of physical activity. The strategy aims to see a reduction in ill-health, including a reduction in preventable diseases such as stroke.

Other important developments already underway or planned which have a relevance to physical activity (and which are also relevant to weight management) include - CREST’s work on diabetes and obesity, the [Workplace Health Strategy](#), the impending Food and Nutrition Strategy and Action Plan, the [Northern Ireland Cycling Strategy](#), the [Northern Ireland Walking Action Plan](#), and the [Community Sports Programme](#).

Food and Nutrition Strategy

A multi-sector working group has been established to develop a new food and nutrition strategy for Northern Ireland. A review of the first food and nutrition strategy was completed in 2003 and recommended the development of a new food and nutrition strategy and action plan. The working group comprises of representatives from statutory, voluntary and private sectors¹².

Alcohol Strategy

A Strategy for Reducing Alcohol Related Harm was published in September 2000 to encourage a sensible approach to drinking and protect individuals and communities from alcohol-related harm. Several developments have taken place since the publication of the strategy including the appointment of a Northern Ireland Drugs and Alcohol Co-ordinator and four joint Drugs and Alcohol Co-ordination Teams (DACTs).

Tobacco Action Plan and Smoking Cessation Services

The [Five Year Tobacco Action Plan 2003-2008](#) recognises that smoking is a major risk factor for coronary heart disease, strokes and other disease of the circulatory system. The key objectives of the strategy are to prevent people from starting to smoke, to help

smokers to quit and to protect non-smokers from tobacco smoke. The Plan whilst aimed at the population as a whole have identified children and young people, disadvantaged adults who smoke and pregnant women who smoke, as key target groups. The strategy strives to achieve these targets through, for example, public information campaigns, education programmes and other such initiatives.

Boards, Trusts and others such as the Health Promotion Agency have taken numerous steps to tackle to issue of smoking including the implementation of various smoking cessation services. Multi-agency, multi-disciplinary [Tobacco Control Groups](#) have been also established in each of the four HSS Board areas to plan and support smoking cessation initiatives.

DHSSPS Smoking Consultation

In December 2004, the Government announced that was to carry out a [consultation on smoking in public places](#) in Northern Ireland. The consultation has now ended with interest groups, health professionals and the public expressing their opinions in regards to three options, including the implementation of a ban on smoking in all enclosed places and workplaces in Northern Ireland. The outcome of the consultation is likely to have important implications for people with respiratory conditions such as asthma.

Is the problem amenable to further intervention by the DHSSPS or other?

Interventions: Evidence-Based Stroke Strategy

An extensive range of interventions has been identified by the Four Board [Evidence-Based Stroke Strategy](#). These include:

Raising the Profile of Stroke

- There is a need to raise the profile of stroke as an important public health issues with public, health care professionals and politicians.
- Health professionals and the public need to be re-educated to treat stroke as a medical emergency.

Primary Prevention

- Population approaches to reduce lifestyle risk factors should specifically mention stroke.
- There should be greater public education about the importance of high blood pressure in causing stroke. Greater emphasis much be given to the appropriate detection, recording, treatment and monitoring of hypertension.

Transient Ischaemic Attacks

- Systems should be developed to ensure that patients with suspected TIA can be referred rapidly for specialist opinion (e.g.

neuro-vascular clinics).

Stroke Units

- All patients with a stroke should be admitted to a stroke unit, preferably as their first admission ward.
- Stroke care should be provided in a co-ordinated manner by an interdisciplinary team with specialist expertise in stroke and rehabilitation.
- Each hospital admitting patients with an acute stroke should have a Lead Stroke Clinician responsible for the development, management and audit of local stroke services.
- There should be appropriate educational programmes for health care staff.

CT Scanning

- Arrangements should be in place to ensure that patients can have a CT scan performed within 48 hours of admission.

Secondary Prevention

- Adequate secondary prevention following stroke requires the development of agreed protocols.
- The introduction of ‘liaison professionals’ to facilitate discharge arrangements, information giving and follow-up should be considered on a pilot basis.

Rehabilitation

- Patients should be referred to a specialist rehabilitation team as soon as possible.
- Patients should see a therapist each working day, if possible.
- Early supported hospital discharge should only be considered if there is a specialist stroke service in the community.
- Any patient with a disability at 6 months or later after a stroke should be assessed for a period of further targeted rehabilitation.
- The individual assessment for, and provision of, equipment and adaptations should be as rapid as possible and equitable across Northern Ireland.
- The suitability and use of equipment and adaptations should be kept under regular review.

Younger People with Stroke

- The particular medical, rehabilitation, social and vocational needs of younger patients with stroke should be recognised and those needs should be addressed within a suitable environment.

Users and Carers

- Educational programmes and resources should be developed for users and carers.
- Effective rehabilitation needs to be responsive to the needs and wishes of users and carers.
- The views of users and carers should be integral to the audit and

monitoring of local services.

Audit

- All hospitals caring for patients with stroke should have clinical audit systems in place to audit their services against the clinical guidelines set out by the Royal College of Physicians. Secondary prevention should be the subject of regular audit.

Research

- There is merit in conducting an epidemiological study into the incidence of first stroke in Northern Ireland.

Prevention of Stroke and Coronary Heart Disease in Older People

See www.publichealth.nice.org.uk/page.aspx?o=502217

Promoting Healthier Lifestyles Amongst Black and Minority Ethnic Groups

See www.publichealth.nice.org.uk/page.aspx?o=502357

Childhood Stroke Interventions

See Royal College of Physicians Clinical Guidelines for Childhood Stroke www.rcplondon.ac.uk/pubs/books/childstroke/

¹ Information extracted from NIMAST website

www.stroke.cwc.net/niweb/faq.htm#1%20what%20is%20a%20stroke

² Information extracted from the NIMAST website

³ Northern Ireland Chest Heart and Stroke Association (2001) *Evidence-Based Stroke Strategy. Project Team's Report to Project Board.* www.nichsa.com/html/worddoc/strategy.doc

⁴ *Ibid*

⁵ Information extracted from Different Strokes Website. Different Strokes is a registered charity that provides services for young stroke survivors throughout the UK.

⁶ The Stroke Association & Royal College of Physicians. *Care After Stroke in Childhood. Information for Parents and Families of Children Affected by Stroke.*

www.rcplondon.ac.uk/pubs/books/childstroke/childstroke_patientcarer.pdf

⁷ Royal College of Physicians (2004) *Stroke in Childhood: Clinical Guidelines for Diagnosis, Management and Rehabilitation.*

www.rcplondon.ac.uk/pubs/books/childstroke/childstroke_guidelines.pdf

⁸ Northern Ireland Chest Heart and Stroke Association (2001) *Op Cit.*

⁹ 'Postcode Lottery in Stroke Treatment Needs To Change'. Northern Ireland Chest Heart and Stroke Association Press Release. 14 March 2005.

¹⁰ Royal College of Physicians (2005) *National Sentinel Stroke Audit 2004.*

www.rcplondon.ac.uk/pubs/books/strokeaudit

¹¹ *Ibid*

¹² Health Promotion Agency for Northern Ireland. *Inform.* Issue 34. April/May 2004.