Together For Health – Stroke Delivery Plan
A Delivery Plan for NHS Wales and its Partners
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Foreword from Lesley Griffiths AM, Minister for Health and Social Services

When an individual suffers a stroke, they need rapid assessment and the best possible diagnosis, treatment and on-going support. Alongside excellent treatment a focus is required on actions which prevent stroke occurring in the first place. The Stroke Delivery Plan sets out my expectations of NHS Wales, working with its partners, in tackling stroke up to 2016.

This document builds on the progress we have already made in Wales. It updates our actions and renews our focus. It is deliberately short to ensure we keep our eye on the outcomes we want and leave flexibility for innovation.

The efforts of the NHS must be supported by those of our partners and the public themselves. We know individuals can reduce their risk of stroke by changing their lifestyles by not drinking as much alcohol, stopping smoking, improving their diet and increasing levels of physical activity. There are important roles for Local Government to promote better health, tackle known risk factors which cause a stroke and work with the NHS to ensure seamless care is provided to all. The Third Sector is also crucially important in raising awareness, providing support and on-going care at home or as close to home as possible.

We are building on a record of success. There is wide recognition since the Royal College of Physicians Audit 2006 and the subsequent Health and Well Being and Local Government Committee inquiry into stroke services, that stroke care has improved significantly in Wales. However, our population is ageing so the number of people living with a stroke is increasing. We know we can achieve better outcomes by re-organising aspects of the care we provide and focusing on quality and patient experience. We must close the gaps within Wales and between Wales and the most successful European countries.

Our challenge is to meet the expectations of people who have had a stroke and improve the quality of our services at a time of economic challenge. Making the best use of the resources available to us, this is a time for innovation and improvement. The Stroke Delivery Plan has been developed by us all working well together. I am very grateful for everyone's shared ambition and willingness to contribute and, in particular, to the work of the NHS staff, Stroke Association and Welsh Stroke Alliance.

I strongly believe we can ensure the care provided is focused on meeting every individual's needs in the most effective way. I expect the NHS and its partners, to work with ambition, locally, regionally and nationally, to make us amongst the best in Europe for stroke treatment and outcomes.

December 2012
Foreword from David Sissling, Chief Executive of NHS Wales

I commit Local Health Boards and Trusts, to plan and deliver safe, sustainable, high quality stroke care for their populations. I will support them in this endeavour but I will hold Local Health Boards to account on the outcomes they deliver for their populations and their contribution to the overall health of the people of Wales.

This Stroke Delivery Plan sets a compelling vision for success. It challenges each organisation to ensure the existence of high quality responsive services. I want to see continuous improvement integrated into everyday working. Our measures of success must focus more on public health outcomes, the quality of our services and the individual's experience.

Using the Stroke Delivery Plan as the framework, my challenge to the NHS in Wales is to work effectively with partners to plan, innovate and, most importantly, to deliver really effective stroke care.
1. Introduction

This Stroke Delivery Plan provides a framework for action by Local Health Boards and NHS Trusts working with their partners. It sets out the Welsh Government’s expectations of all stakeholders to tackle stroke in people of all ages, wherever they live in Wales and whatever their circumstances. The Plan is designed to enable the NHS to meet the needs of people at risk of a stroke or affected by a stroke. It sets out:

• The population outcomes we expect.
• The outcomes from treatment and support to return to health and independence we expect.
• How success will be measured and the level of performance we expect.
• Themes for action by the NHS, together with its partners.

2. Strategic Context – Why This And Why Now?

The Welsh Government’s Programme for Government and its 5 year NHS Plan, Together for Health, sets out an ambitious programme for health and healthcare in Wales so that:

• Health will be better for everyone.
• Access and patient experience will be better.
• Better service safety and quality will improve health outcomes.

Achieving Excellence: The Quality Delivery Plan for the NHS in Wales for 2012-16 describes a journey to consistent excellence. It outlines actions for quality assurance and improvement. We commit to a quality-driven NHS that provides services which are safe, effective, accessible, and sustainable. We want to provide more personalised care at home or close to home and for that care to be planned and provided by the range of health and social care professionals all working in an integrated way to meet the needs of each person.

This Delivery Plan sets out what this means for the delivery excellence in stroke services.

3. Our Vision

The Programme for Government states the overall population outcomes we want to achieve: better health for all and reduced inequalities in health. Reducing the impact of stroke on the lives of people in Wales will contribute significantly to these outcomes.

For our population we want:

• People of all ages to have a minimised risk of having a stroke and, where it does occur, an excellent chance of surviving, returning to independence as quickly as possible.
• Wales to have stroke incidence and mortality rates comparable with the best in Europe.
We will use the following indicators to measure success:

- Stroke incidence rates
- Cerebrovascular mortality rates (European Age Standardized Rates)
- Improved level of disability
- Stroke survival rates (30 days)

4. Our Drivers

There are clear reasons stroke services remain a top priority area for the Welsh Government. We estimate there are around 11,000 stroke events, including 6,000 new strokes, per year in Wales\(^1\). The Welsh Government is concerned that the problem of stroke varies geographically, with worse outcomes in the more deprived areas of Wales.

Overall, health is improving and our population is getting older. Improvements in health have not been achieved equally for all people. Life expectancy for the most deprived fifth of the population has risen more slowly than for other groups. People living just a few miles apart may face a 10-year difference in average length of life. These inequalities also apply to the chances of having a stroke.

Stroke can occur at any age from childhood onwards. It is one of the top three causes of death and a leading cause of adult disability\(^2\) with around half of all stroke survivors living with a significant level of physical, psychological or social need. Although the incidence of stroke is decreasing; the absolute numbers may increase overall, due to the ageing population.

Childhood stroke affects around five out of every 100,000 children a year in the UK.\(^3\) The term, childhood stroke, covers from the twenty-eighth week of pregnancy up to the age of eighteen. The causes and the effects of a stroke are likely to be different depending on how old the child is.

For ischaemic stroke, every minute a stroke goes untreated 1.9 million neurones are lost\(^4\) so even a short delay can lead to significant irreversible loss of brain function.

Stroke requires immediate comprehensive multidisciplinary assessment, acute care and rehabilitation during the early phase. A significant number of stroke survivors need seamless longer-term rehabilitation, follow-up and support from all partners including health, local government and third sector. A collaborative approach is required to the delivery of services along the whole stroke care pathway.

Hospital services for circulatory disease, which includes stroke and cardiac disease, accounts for 8.7% of all NHS expenditure in Wales. In 2010-11, this amounted to £464.4 million – the second highest area of expenditure for the NHS. There is also

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\(^{1}\) Estimated figures based on Welsh population and incident rate.
significant cost burden to primary and community care. We must ensure we get the maximum value and impact from our stroke services.

5. Our Journey so far

There is wide recognition that much has already been achieved in Wales. As well as delivering a much greater chance of survival, people with stroke are now assessed, diagnosed and treated more promptly in line with Welsh targets. Wales has experienced good health gain from improved survival for ‘all causes’, including the individual leading causes of death such as stroke or heart attack over the last twenty years. Survival rates from cardiovascular disease have increased progressively for both men and women.

We have better information than ever before. The culture of recording data for clinical audit to improve services to the standard of the best is embedded in the clinical community. New drugs and technologies have been introduced and new treatments such as 24/7 thrombolysis are now contributing to better outcomes for people who have had a stroke in Wales.

Local multi-professional service planning and delivery structures are in place to provide more personalised, co-ordinated care at home or close to home. These systems now need to grow and mature.

6. What do we want to achieve?

This Delivery Plan sets out actions to improve outcomes in the following key areas between now and 2016:

1. Preventing stroke
   People live a healthy lifestyle, make healthy choices and minimise risk of stroke.

2. Detecting stroke quickly
   Stroke is detected quickly where it does occur or recur.

3. Delivering fast, effective care
   People receive fast, effective treatment and care so they have the best chance of living a long and healthy life.

4. Supporting life after stroke
   People are placed at the centre of stroke care with their individual needs identified and met so they feel well supported and informed, able to manage the effects of stroke.

This will be supported through:

5. Improving Information
6. Targeting research
6.1 Preventing stroke

Improving the national awareness of both the risk factors and signs of stroke is paramount to achieve both a reduction in incidence and faster access to treatment when it does occur. We must also get better at systematically identifying those people at risk of a stroke and putting preventative treatment and care in place.

Many of the causes of poor health are deep-rooted and difficult to tackle. Obesity is widespread in Wales and rates of smoking, drinking and substance misuse continue to cause concern. These root causes of poor health contribute directly to the risk of having a stroke. Local Health Boards need to systematically identify those at risk of a stroke and put preventative care and treatment in place.

To consider one specific risk factor, atrial fibrillation (AF) is a common arrhythmia whose incidence doubles with each decade of life, to 9% in the 80s\(^5\). It is present in 3-6% of acute medical admissions\(^6\). It increases the risk of an embolic stroke so early recognition and treatment is essential. Once AF is detected, risk-stratification for thrombo-embolic complications and commencement of appropriate treatment is essential (NICE, 2006).

Other conditions such as hypertension and carotid stenosis must be systematically identified and managed promptly to reduce stroke risk.

In March 2011, the Welsh Government published a Reducing Inequities in Health Strategic Action Plan *Fairer Health Outcomes for All*. This sets out our vision to improve health and wellbeing for everyone in Wales, with the pace of improvement increasing in proportion to the level of disadvantage. Working with their partners, NHS organisations are developing single integrated plans to take forward action to meet the needs of local people and communities to improve health and well being.

Stroke in babies during pregnancy to within 28 days of birth are usually caused by clots breaking off from the placenta and lodging in the child’s brain or because of a blood clotting disorder that the mother or baby may have. Stroke in children from 28 days to 18 years are associated with existing conditions mostly commonly, congenital heart disease and blood disorders such as sickle cell disease. Other risk factors are infectious diseases, trauma to the head or neck, vascular problems and blood disorders.

**ACTIONS**

Local Health Boards will:

- Engage effectively through Local Service Boards to ensure appropriate local population outcomes are identified within Single Integrated Plans and

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that the actions of all partners to achieving these outcomes are clearly set out, monitored and measured.

- Work with the Welsh Government, local government, Public Health Wales, GPs and community pharmacies, the Third Sector and others to identify, implement and audit local strategies, clearly stated population outcomes and performance measures and targets to prevent stroke. In particular, to:
  - promote better public awareness of stroke risk factors and the importance of recognising and presenting symptoms promptly;
  - work through their locality networks to plan and deliver a more systematic and coordinated approach to identifying those at risk of vascular disease and atrial fibrillation and managing that risk effectively;
  - reduce smoking, obesity and excess alcohol intake;
  - implement all elements of the All Wales Obesity Pathway;
  - encourage healthy schools and workplace environments to take action to reduce smoking, obesity and harmful alcoholic consumption.

### 6.2 Detecting Stroke Quickly

Rapid diagnosis and treatment not only improves survival but also the quality of life of survivors. People are still waiting too long to be diagnosed as having a stroke, where an earlier diagnosis might have led to a much better outcome. Through audit, Local Health Boards are expected to understand the root causes of any delay in diagnosis in every case and act to improve systems of care to prevent this happening again. All Local Health Boards will need to consider how services can be developed to support the diagnostic process in patients admitted as emergencies.

Local Health Boards need to raise awareness amongst the public and health professionals about the risks and symptoms of stroke and how to act promptly and appropriately on this knowledge. For example, there is evidence that patients that have strokes within a hospital, such as on an orthopaedic ward have worse outcomes, than those on a stroke unit.\(^7\)

### ACTIONS

**Local Health Boards will:**

- together with their partners, raise public awareness of the symptoms of stroke and the importance of accessing medical care promptly, such as by using the FAST test;
- ensure that primary and secondary care and the public treat stroke as a medical emergency;
- work with GPs to raise their awareness of symptoms;
- ensure through audit that services are in line with national guidance and

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\(^7\) QQUIPP Bridging the quality gap: Stroke, 2008
agreed referral protocols and pathways;
- ensure seven day access to fully functional services for stroke and transient ischaemic attack;
- Audit the pathway for people diagnosed with a stroke and act on findings to improve services for early detection.

6.3 Delivering Fast and Effective Care

We expect Local Health Boards to plan and deliver effective evidence-based stroke services through well-organised multidisciplinary teams. This needs to be in line with national standards and guidelines, such as those produced by NICE, the Royal College of Physicians and from the all Wales clinical advisory structures. Every individual must be placed at the centre of their care so they have a smooth journey and confidence in the direction and quality of their care.

Clinical audit and outcome review is critical to continuous service improvement. All NHS organisations providing stroke care must participate in all relevant National Clinical Audits and Clinical Outcome reviews, set out in the Welsh Government’s National Annual Audit Programme and then act on the findings.

Stroke services should be configured in a way that enables the highest standard of multidisciplinary care and outcome. This will require Local Health Boards to centralise services, such as hyperacute stroke care, when good outcomes depend upon volume. There are examples such as the reorganisation of stroke care in London that a move to centralising hyperacute care during the first 72 hours complimented by stroke units can improve the quality of services and the outcome for patients. When this happens, patients and families need to be supported with travel and accommodation arrangements by their Local Health Boards.

Local Health Boards are expected to operate effective pathways so all patients who have had a stroke, wherever they are, pass without delay to treatment. Adequate staffing levels across all of the multidisciplinary stroke team and at all points along the stroke pathway are required to provide appropriate services and care. It is essential that all clinical staff have the appropriate competencies and knowledge base. Consideration should be given to developing specialist and advanced practice health professional roles thus ensuring prominent clinical leaders able to drive service improvements.

Thrombolytic drugs approved by NICE for the hyper-acute management of ischaemic stroke must be given where appropriate 24 hours a day, 7 days a week and within the optimal thrombolysis door-to-needle timeframe.

Local Health Boards and Trusts need to work together to plan for the prompt and equitable introduction of new technologies, such as interventional neuroradiology and neurosurgery, where there is evidence to support their effectiveness. High-

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8 How to implement evidence based stroke care and Six steps to delivering better stroke care, Health Service Journal May 2012
quality imaging of the brain and blood vessels is a key part of a successful stroke service. Diagnostic imaging should be up-to-date and evidence-based. Patients with carotid stenosis must access vascular surgery services for timely carotid intervention.

**ACTIONS**

Local Health Boards will:

- review, plan and deliver evidence-based and timely treatment, in line with latest evidence, standards and guidance;
- identify mechanism to plan and deliver equitable access to new diagnostic procedures, technologies, treatment and techniques in line with latest evidence and guidance;
- provide timely access 24/7 to thrombolysis where appropriate, with telemedicine support where required;
- deliver tertiary services at appropriate sites to include interventional neuroradiology and neurosurgery;
- provide access to vascular surgery for carotid intervention within timescales set out in national guidelines;
- undertake complex surgery in line with peri-operative care standards as in the ERAS programme;
- provide a robust in-hospital early rehabilitation service including psychological support in line with national standards;
- provide access to a robust community early rehabilitation service with psychological support in line with national standards;
- participate in and act on the outcome of national clinical audits and peer review and reflect action/learning to be taken in local stroke delivery plans;
- provide sufficient capacity, workforce, infrastructure and equipment to treat and care for people.

**6.4 Supporting Life after Stroke**

Local Health Boards are expected to work in an integrated way across secondary, primary and community care and with social services to plan and put packages of care in place to allow for prompt discharge when someone who has had a stroke is assessed as safe to leave an acute hospital setting. These discharge arrangements should be planned through the multi-professional locality network and include close communication and co-ordination with the GP.

Many factors contribute to a positive experience of healthcare including communication, co-ordination of care, access to care and support at home or close to home, respect of dignity, provision of information, access to psychosocial support and access to financial support.
Services need to be planned and delivered around the patient and their individual needs rather than the needs of the organisation. Where people have to travel for more specialist stroke care, organisations are expected to put appropriate transport arrangements in place with care being provided as close to home as possible. Local Health Boards need to work closely with local government and the third sector to ensure people access the most appropriate service.

There has to be more focus on multidisciplinary collaboration between and across agencies. Local Health Boards, through their multi professional locality networks are expected to plan and co-ordinate integrated health and social care service models to ensure that the needs of patients and carers are met locally delivered by a single team of professionals working together to meet the individual needs of the person to help them return to health and independence.

Early rehabilitation is effective when provided in specialist stroke rehabilitation units, or as part of a properly organised specialist early supported discharge scheme. The model of early supportive discharge should be embedded.

As more people now survive stroke, it is an increasingly common chronic condition that people have to manage for many years. Their recovery can continue for many years, so it is important to consider how to provide access to appropriate services at or close to home over the long-term and that this needs to be flexible as people’s needs change. They need easy access to clear information, advice and support to ensure their ongoing needs are routinely assessed and met in line with the national standards and guidance.

Following a stroke, people might still have a range of complex physical, psychological and social needs such as visual impairment, dental issues and depression. All these care needs must be anticipated where possible and recognised through routine assessment and care planning.

The range of health and social care professionals providing care are expected to develop with the individual and their carer a package of care incorporating both clinical and non-clinical needs to help them manage the impact on their daily life. The care plan must include regular assessment, evaluation and rehabilitation and help ensure care is co-ordinated between community and hospital and other agencies. It must also address other needs such as where and how to access financial, emotional and spiritual advice and support, to ensure a holistic, person-centred approach.

People who have had a stroke highlight the need to improve communication as a core component of person-centred services. Each person who has had a stroke should be offered, through their care plans, written information about their condition, rehabilitation treatment and supportive care including psychological needs as close to home as possible.

The financial impact of stroke can be great. People affected by stroke should be offered the opportunity to access financial advice and support as part of the care assessment and planning process.
We must provide advice to support people living with stroke to return to work as part of their recovery programme.

To support and promote effective self care, the Welsh Government is developing a Self Care programme of work. This will identify action at a national, local and individual level. It will set action to help someone affected by a stroke to manage the impact of this on their daily life and to take responsibility for their own health.

Where appropriate, people who have had a stroke and are approaching the end of life need access to care and support. These services need to be well co-ordinated across primary, community, social and hospital care and between statutory and Third Sector organisations. The right support can transform the end of life experience for everyone – the patient, family, carers and friends. We have consulted on a separate Delivery Plan for Palliative and End of Life Care for the NHS up to 2016; we will issue a final plan during 2013.

**ACTIONS**

**Local Health Boards working with their partners will:**

- Ensure discharge arrangements are planned through multi professional locality networking and include close communication and co-ordination with the GP
- plan and deliver integrated health and social care services to meet the ongoing needs of people who have had a stroke as locally as possible to help them return to health and independence;
- implement the Self Care programme of work once developed;
- develop appropriate care plans to agree care and support based on the needs of individuals following a diagnosis of stroke;
- ensure regular review of stroke survivors with residual impairment and implement joint care plans;
- ensure stroke survivors are screened for visual impairment and psychological needs;
- involve stroke patients and their carers in the development of future services including creative ways of supporting them, listening to what they have to say about decisions that affect them and to provide accessible and meaningful information and training when they need it;
- plan and deliver palliative and end of life care services as locally as possible to meet the needs of people who have had a stroke, where appropriate.

**6.5 Improving Information**

There are essentially four types of information needs in NHS Wales:

- Patients need information to make decisions about their care and treatment.
• Health professionals need information for the clinical management of patients.
• Service planners need information on the health needs of their local populations and how well the NHS is operating.
• The public, the NHS, the Third Sector and Welsh Government need information on the outcomes that result from NHS care.

People affected by stroke have significant information needs, not just in terms of their treatment but in terms of their financial and emotional needs. They consistently highlight the need to improve communications between themselves and all relevant agencies.

Health care professionals, local government, third sector organisations, such as the Stroke Association and other local organisations offering stroke support or other services must provide help and information to people affected by stroke and this needs to be accessible to all potential users in all areas of Wales.

**ACTIONS**

**Improving Information for People**

Local Health Boards, working with their partners will:

- work with stroke survivors, their carers and the Third Sector to ensure effective signposting to sources of information and support;
- assess, record and meet the information needs of people through the use of joint care plans;
- publish regular and easy to understand information about the effectiveness of their local stroke services.

**Improving Clinical and Service Planning Information**

Local Health Boards will:

- record and use clinical information in planning and service provision
- monitor performance against stroke clinical indicators and use the results to inform and improve service planning and delivery;
- survey the views of people who have had a stroke and their carers with respect to their experience and outcome of treatment
- act on the findings of service user experiences

**Public Health Wales NHS Trust to:**

- Provide Local Health Boards with support to meet the information needs of people affected by stroke.
6.6 Targeting Research

Stroke research results in on-going improvements in patient outcomes. Patients benefit through access to novel therapies and the on-going implementation of evidence based best practice. In the longer term patients also benefit from better understanding of the causes and prevention of stroke. An active research culture in hospitals provides staff with opportunities to develop skills and gain experience of delivering innovative treatments. A strong research base stimulates opportunities for innovation, increases the competitiveness of Welsh applications for grants from UK funding bodies and industry and supports the establishment of state of the art research units and centres.

Research is critical to effective stroke care and the NHS must respond to the latest evidence in the planning and delivery of its services. Stroke research in Wales is also vital in attracting investment and first class NHS staff. Wales already has a good research reputation for stroke and the Older People and Ageing Research and Development Network Registered Research Group (OPAN Cymru RRG) is an example of this. OPAN Cymru, based at Swansea University, is funded through the National Institute for Social Care and Health Research (NISCHR) with the aim of providing leadership and coordination in ageing and stroke research, as well as enhancing the quality and volume of research on stroke.

In order to meet this aim, OPAN Cymru facilitates collaborative research projects and has developed specific Research Development Groups (RDGs), one of which is the Stroke Research Group. The Stroke Research Group aims to increase the quantity of high quality ageing and stroke research and increase the participation of older people and stroke survivors in the research process. This RDG, together with the forthcoming NISCHR faculty and the NISCHR-funded Haemostasis Biomedical Research Unit, promotes high standards of research and supports the development of strong academic leadership in stroke research.

NISCHR also funds the All Wales Rehabilitation Research Network (AWRRN) that is based within the Wales School of Primary Care Research (WSPCR) in Cardiff University. The AWRRN is funded to work on rehabilitation research, which includes rehabilitation after stroke and as part of this remit works closely with OPAN Cymru.

The NHS must continue to promote our research base and ensure access to clinical trials, where appropriate, is well-established as this can lead to better outcomes for patients. The NISCHR funded North Wales Organisation for Randomised Trials in Health (NWORTH) at Bangor University, has a focus on developing expertise in Ageing and Dementia and continues to be collaborative partners with OPAN.

NISCHR will continue to work with other UK funders to maximise the opportunities for Welsh researchers to apply for funds to support their stroke research programmes.
ACTIONS

Local Health Boards will:

Foster a strong culture of research. In particular to:

- offer all appropriate patients access to relevant clinical trials;
- maximise the use of Welsh Government funding for NHS research;
- provide effective and efficient research governance processes to enable a speedy start-up and delivery of clinical trials;
- support and encourage protected research time for clinically-active staff;
- build on, and extend, academic training schemes to develop a highly skilled workforce;
- promote collaboration with key stroke research initiatives and facilities such as OPAN Cymru RRG, Haemostasis Biomedical Research Unit and All Wales Rehabilitation Research Network;
- collaborate effectively with other Local Health Boards and NHS Trusts, universities and industry in Wales to enable a speedier application of research and introduction of new technology into the NHS.

7. Working Together

All of us have a key part to play in our efforts to tackle stroke.

The Welsh Government is responsible for strategic leadership through setting the health outcomes it expects for the people of Wales. It holds the NHS to account on how well it delivers the outcomes we want. The lines of accountability are via the Chairs of the Local Health Boards and Trusts to the Minister for Health and Social Services. The Chief Executives of the Local Health Boards and Trusts report to the Chief Executive of NHS Wales who is also the Director General of the Welsh Government’s Department for Health and Social Services. There are regular performance reviews. Progress will be overseen through monitoring the specified levels of performance by 2016 for each of the NHS performance measures.

NHS Wales is made up of 7 Local Health Boards and 3 NHS Trusts. Local Health Boards are responsible for planning, securing and delivering local services to help prevent stroke and to diagnose, treat and care for people affected by stroke.

To plan services effectively for their populations, Local Health Boards must build and lead coalitions with: other Local Health Boards, Trusts, primary care providers, pharmacists, local government and the Third Sector voluntary bodies. Stroke charities and independent hospices play a valuable role in helping meeting the needs of people who have had a stroke. These services need to be part of an integrated stroke service.

Public Health Wales NHS Trust provides Local Health Boards with information and
advice to inform service planning. The Welsh Ambulance Service NHS Trust plays a vital role in responding to strokes. Velindre NHS Trust hosts the National Wales Informatics Service (NWIS), which supports Local Health Boards in the collecting and reporting of information.

Local government also has a vital role to play to prevent stroke. To promote a co-ordinated approach, they need to work with Local Health Boards through Local Service Boards. This work includes development of Single Integrated Plans, informed by evidence, showing how they can contribute to improving health outcomes, in areas such as smoking, obesity, nutrition and exercise.

The revised Stroke Delivery Group will provide strong national-level, joined up leadership. The Group will consist of representatives from Welsh Government, Health Board Executive Leads for stroke, Welsh Ambulance Service and Public Health Wales NHS Trusts, Chair of the stroke clinical advisory group, a GP lead, local government social services, National Leadership and Innovation Agency for Healthcare and Stroke Association, This Group will:

- work in a co-ordinated way at an all Wales level to support Local Health Boards to deliver the outcomes asked of them in a consistent way across Wales
- agree how best to measure success;
- facilitate the sharing and implementation of best practice;
- identify constraints and solutions to common issues where a strategic approach is needed.

The Third Sector has an important role to play, both in providing services and acting as the voice of individuals.

People do not choose to have a stroke and its cause may be hereditary or unknown. We all can, however, choose to minimise our risk of stroke through our lifestyle choices. Smoking, alcohol and obesity increase the risk of a stroke. We all need to take more responsibility for our own health to make an active contribution to minimising our risks and harm.

8. Measuring Success

The Quality Delivery Plan sets out how we will monitor performance and progress in improving health and health care in Wales. An initial Outcome Indicator Framework will be developed and reported against in 2012.

The clinical advisory structure for stroke will develop a Technical Document which contains analysis of outcomes, consensus clinical priorities and horizon scanning in relation to Royal College of Physicians, National Institute for Clinical Healthcare Excellence (NICE) guidance and other guidance or trials. This advice on effective strategies is designed to support Local Health Boards and their partners in developing local integrated stroke delivery plans to improve outcomes for their population. This Technical Document will be published during Spring 2013.
The Quality Delivery Plan places requirements on NHS organisations to monitor a set of quality metrics and report them to the public and hence to Welsh Government and their Boards at regular intervals. This Stroke Delivery Plan now places a requirement on each organisation to publish an annual report on stroke services for the public of Wales to demonstrate progress. The year 2012/13 will therefore be one of transition as we move to this new approach.

Annex 3 sets out an initial set of national outcome indicators and NHS performance measures. These will be refined on an ongoing basis in discussion with the NHS and partners.

9. Local Plans – Local Action

In response to this Stroke Delivery Plan, Local Health Boards are required, together with their partners, to produce and publish a detailed local stroke delivery plan to identify, monitor and evaluate action needed by when and by whom. The Local Health Boards will report progress against milestones in these delivery plans and publish these reports on their websites quarterly.

Whilst this plan sets out our expectations of the NHS, the delivery process which will follow is intended to be dynamic and flexible and able to demonstrate real improvement along the way.

There are a number of strategic actions identified throughout this document. These are set out in annex 2.
Annex 1 - Outcomes for people as a result of NHS stroke care

The bullet points reflect the range of characteristics expected by 2016.

### Outcome 1 – People are aware of and are supported in minimising their risk of stroke through healthy lifestyle choices and medication where appropriate

- more people are aware of the health harms of smoking, above limits alcohol consumption, the broader benefits of physical activity and healthy eating;
- more people are supported to stop smoking, achieve a healthy weight through healthy eating and weight management support;
- more people are physically active as a natural part of their everyday life and undertake sufficient physical activity to benefit their health;
- services to assess and address people's risk of stroke are easier to access and are more co-ordinated and systematic;
- medication to manage risk factors such as atrial fibrillation, high cholesterol and high blood pressure are speedily targeted to all patients who would benefit from them;
- easier access to primary care services for stroke risk reduction and more direct access to certain diagnostic tests for GPs to identify and manage stroke risk factors appropriately;
- high-risk TIA and significant carotid stenosis treated within the appropriate time frame;
- more clinical advice and support available 24 hours a day, 365 days a year including more accessible information and support services provided through local pharmacies;
- more information on reducing the risk of avoidable strokes, recognising symptoms suggestive of stroke and what services to expect are available by telephone and online.

### Outcome 2 – Stroke is detected quickly where it does occur

- more clinical advice and support available 24 hours a day, 365 days a year;
- increased awareness by public and all health care professionals that stroke (and high-risk TIA) is treated as a medical emergency;
- prompt and appropriate access to evidence based assessment and treatment;

### Outcome 3 - People who are risk of or have a stroke receive fast, effective treatment and care so they have the best possible chance of living a long and healthy life

- people have immediate access to appropriate access to clinically and cost-effective acute and hyperacute stroke treatment and all care is in line with latest evidence and national standards and guidelines;
- thrombolysis must be delivered to the appropriate patients within the optimal time;
- access to a stroke unit bed within 4 hours giving the patient the optimum chance of best specialist care in the early acute phase;
- people experience well co-ordinated services, which are compliant with national standards and guidelines, are safe, sustainable and available as locally as possible;
- specialised stroke care is planned and delivered strategically in centres of excellence matching or surpassing the best and is seamlessly connected with local stroke
flourishing stroke research to improve treatment and making NHS Wales an attractive place to live and work for high-calibre clinicians;

- stroke services are audited systematically and findings are used to continually improve care.

**Outcome 4 - People are placed at the heart of stroke care with their individual needs identified and met so they feel well supported and informed, able to manage the effects of stroke**

- everyone is treated with dignity and respect;
- life after stroke services are available as locally as possible meaning less need to travel, particularly for care after treatment;
- people have access to timely information, tailored to their individual needs, so they understand the condition, what to do, what to look out for and which service to access should problems occur;
- people’s clinical and non-clinical needs as a consequence of stroke are assessed and recorded in a joint care plan and services are provided to meet those needs;
- the joint care plan is written and shared with the person involved, and their carers, and reviewed on an ongoing basis;
- care is given in the most appropriate place for the patient and not the service. Increasingly this should be in the community;
- people who need it have routine access to rehabilitation and are offered an eye examination;
- NHS, local government and third sector care is integrated and seamless
- best possible IT and communication links giving clinical staff fast, safe and secure access anywhere in Wales to the information needed to care for patients;
- patients and carers are involved in the design of services and people’s views on services are sought regularly and acted on to ensure continuous improvement;
- transparently published information available on the performance of NHS stroke care in terms of safety, effectiveness and patients’ views;
- key information on all patients who have had a stroke are recorded on clinical information systems and accessible to others who have clinical responsibility for the patient, including out-of-hours GP services, on a 24/7 basis;
- more people are able to receive palliative and end of life care and support on a 24/7 basis in the place of their choice;
- people’s needs and wishes, and those of their family, are clarified, clearly recorded and are a key guide to care provided;
- families have access to pre and post bereavement support appropriate to their age
### Annex 2 - Strategic Key Actions

<table>
<thead>
<tr>
<th>Key Action</th>
<th>By Whom</th>
<th>By When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revise the remit of the all Wales Stroke Delivery Group to provide strategic leadership and work at an all Wales level to support Local Health Boards’ service improvements.</td>
<td>Welsh Government</td>
<td>December 2012</td>
</tr>
<tr>
<td>Provide strategic leadership and work at an all Wales level to support Local Health Boards’ service improvements. In particular, beginning with work on:</td>
<td>Stroke Delivery Group members working with the Stroke NSAG</td>
<td>Ongoing from December 2012</td>
</tr>
<tr>
<td>- a set of Stroke Outcome Indicators and NHS Performance Measures</td>
<td></td>
<td>February 2013</td>
</tr>
<tr>
<td>- developing a stroke care pathway</td>
<td></td>
<td>June 2013</td>
</tr>
<tr>
<td>Review current stroke services against the expectations set out for 2016 and use the outcome to inform an updated local delivery plan to reflect activity under each of the themes for action.</td>
<td>Local Health Boards working in partnership with other Local Health Boards, NHS Trusts, Local Government and Third Sector</td>
<td>March 2013</td>
</tr>
<tr>
<td>Report formal progress against the delivery plans and NHS Performance Measures to Health Boards and Welsh Government.</td>
<td></td>
<td>Annually, starting September 2013</td>
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<tr>
<td>Report progress against local delivery plan milestones via own website.</td>
<td></td>
<td>Quarterly, starting with quarter ending June 2013</td>
</tr>
<tr>
<td>Review and update delivery plans and milestones.</td>
<td></td>
<td>At least annually</td>
</tr>
<tr>
<td>Publish annual All Wales report on effectiveness of NHS stroke services in Wales, based on Local Health Board reports against Performance Measures.</td>
<td>Welsh Government</td>
<td>November 2013</td>
</tr>
</tbody>
</table>
# Annex 3 – Measuring Success – Outcomes, Indicators and Assurance Framework

## Vision
- People in Wales are less likely to have a stroke
- If people in Wales do have a stroke, its impact is minimised to give them longer, healthier lives

## Outcome Indicators*
- Stroke Incidence rates
- Stroke mortality rates (Cerebrovascular)
- Reported modified Rankin scale at discharge

## Preventing and Detecting Stroke
### Overarching Outcome Indicator
- Stroke incidence rates

#### Assurance Measures
Evidence of a robust system to measure and improve compliance with all Wales TIA and AF bundles, including:
- % of population with cardiovascular risk conditions managed appropriately
- % of atrial fibrillation (AF) patients managed appropriately
- % of high risk TIA patients managed appropriately (medical assessment)

## Delivering fast, effective care
### Overarching Outcome Indicator
- Mortality within 30 days of admission
- Reported modified Rankin scale at discharge

#### Assurance Measures
Evidence of a robust system to measure and improve compliance with all Wales acute care bundles including:
- % of all strokes who receive thrombolysis and % receiving thrombolysis within optimal time (tbd)
- % of people who spend at least 90% of their time on a stroke unit

## Supported Life after Stroke
### Overarching Outcome Indicator
- PROM (to be developed)

#### Assurance Measures
Evidence of a robust system to measure and improve compliance with all Wales rehabilitation bundles, including:
- % of people with joint care plans on discharge
- % of people who are supported to leave hospital by a skilled stroke early discharge team
- % of people who are reviewed 6 (+/- 2)

## Improving Information
- Compliance with stroke clinical indicators, audits and bundles

## Targeting Research
- % of people with stroke entered into clinical trials

## Public Awareness and Health Prevention
### Overarching Indicator
- Stroke Incidence Rates

#### Performance Measures
- % of adults who smoke
- % of adults who are obese
- % of adults who report drinking above recommended guidelines
- % of adults who are physically active

* ICD10 Codes: 161, 163, 164