

Putting a health inequalities focus on the Northern Ireland cardiovascular service framework

Summary report

**Health impact assessment
Northern Ireland cardiovascular service framework**



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Foreword

The challenge

Cardiovascular disease is a major health burden. It is also largely preventable.

Eight hundred people still die annually here from ischaemic heart disease (IHD) alone. About half of these deaths could be prevented through better use of available health promotion and treatment services.

Our approach to preventing and treating cardiovascular diseases recognises that health, disability and death are influenced by many factors that lie outside the Health and Social Care (HSC) sector.

Cardiovascular diseases affect people living in poverty more severely than others, but they are not unique in this regard. In Northern Ireland, however, they remain the main contributor to inequalities in mortality.

Men living in the wealthiest areas in Northern Ireland live on average almost eight years longer than men in the poorest areas. For women, the gap is five years. This gap in life expectancy is widening and it needs to be addressed.

Our response

The Public Health Agency (PHA) has a lead role in implementing the cardiovascular service framework (CVSFW). This was launched in 2009 as the first of a programme of service frameworks.

It has 45 standards for good practice in the prevention and treatment of cardiovascular diseases in Northern Ireland. Its principles include equity of access to HSC services and reducing health inequalities.

One of the PHA's organisational priorities is to make health improvement a reality for all people living in Northern Ireland. In line with this aim, the PHA undertook this health impact assessment (HIA) to test and improve the effects of implementing the CVSFW on health inequities and inequalities.

I am delighted to now present to you the results of this work. These include a literature review, a cardiovascular health and wellbeing profile and a full technical report. This report is based on these documents, which are available as separate documents.

A particular strength of this HIA has been its wide ranging consultation across and beyond HSC organisations. The findings are, therefore, based on many sources of information and include suggestions on how to get the best from the CVSFW and other service frameworks.

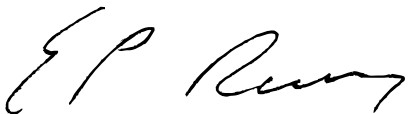
The way forward

This HIA has confirmed that health inequities and inequalities exist. It underpins the importance of participation of both service providers and users in HSC design and delivery. It reinforces the imperative of putting people and communities at the centre of HSC services and aligning these with individuals' life experience and the patient journey.

It also identifies barriers to health improvement and ways to overcome these. It states the benefits that will arise from putting the CVSFW into action and tells us, in the form of a health action plan, what we need to do to maximise its benefits.

My thanks go to all those individuals and organisations who have contributed to this work, which will help to guide HSC service planning, development and commissioning through the present and future annual commissioning plans.

My hope is that the learning from this work will support the PHA and other organisations in our efforts to build capacity for health improvement through partnerships and networks within, and beyond, the HSC.



Dr Eddie Rooney
Chief Executive
Public Health Agency

Executive summary

Cardiovascular disease is the main cause of death and disability in Northern Ireland, despite steady improvements in services and reductions in morbidity and mortality.

Cardiovascular health is determined not only by access to HSC services and lifestyle choices, but also by the social and economic conditions in which people live. These include housing, employment, transport and access to fresh food.

In Northern Ireland, some people have benefitted more from improvements in services and living conditions than others. This has created differences (inequities) in how people can access and make use of services. These inequities have, in turn, resulted in higher levels of ill health and premature death (inequalities) in some population groups.

For example, men living in the least deprived areas live on average almost eight years longer than men in the most deprived areas. For women, this gap is five years. These differences are getting worse, widening the gap between those who are more affluent and those who are not. Cardiovascular disease is not unique in this regard but, in Northern Ireland, is the main contributor to inequalities in mortality.

In 2007 the Department of Health, Social Services and Public Safety (DHSSPS) started developing a series of service frameworks to set out explicit standards for those delivering and receiving HSC services and to support the planning, development and commissioning of services.

The CVSFW was launched in 2009 as the first of these frameworks. It identifies 45 standards for good practice in the prevention and treatment of cardiovascular disease in Northern Ireland. Its principles include equity of access to HSC services and a reduction in health inequalities.

The PHA has a lead role in implementing the CVSFW. In support of this work, the PHA has undertaken this HIA:

- to test the effects of implementing the CVSFW on health inequities and health inequalities;
- to propose actions to increase health equity and reduce health inequalities in cardiovascular and related services;
- to harvest the learning from this HIA and apply it to the implementation and development of the CVSFW and other frameworks.

This report shares the findings of, and lessons learnt from, the HIA.

How we conducted the health impact assessment

Our approach to the HIA was based on internationally developed good practice guidance. It was supported by the Institute of Public Health in Ireland (IPH) and an internationally recognised expert in HIA. We followed a systematic, participatory process and gathered information from a range of sources and stakeholders without needing to undertake original research.

Local data were gathered to develop a community profile, which provides a baseline for cardiovascular health across Northern Ireland. This improves our understanding of the health needs of the population affected by the CVSFW.

A literature review was carried out to identify international evidence on cardiovascular health and its determinants. The review outlines appropriate and effective interventions.

Using workshops we consulted health practitioners, statutory representatives, patients, carers and the community on the potential health impacts associated with the implementation of the CVSFW. A rapid appraisal tool was developed for this, based on analysis of the CVSFW and tested in desktop appraisal sessions prior to being used.

Each standard was subject to a comprehensive assessment on how it could be implemented effectively and efficiently. Participants at each workshop made suggestions on how to enhance the delivery and impact of the CVSFW standards to reduce health inequalities and inequities.

These suggestions have been collated to form a health action plan. This has contributed to the Health and Social Care Board (HSCB)/PHA commissioning plan 2011–12 and will support future service planning activity.

What the health impact assessment found

The HIA determined that almost all standards in the CVSFW related to areas of the HSC where health inequalities and inequities already exist. These are due mostly to socioeconomic factors and variable access to services mainly on account of geography, ie where services are delivered in relation to where patients live.

There are barriers to the implementation of each standard. They include the capacity of systems, organisations and staff to facilitate and support change.

On the other hand, the HIA identified positive effects on staff arising from the implementation of standards if adequately resourced. This includes increased job satisfaction from the delivery of improved services.

A potential increase in demand for services was identified for just under half of the 45 standards. This might result from increasing awareness among potential service providers and users, or increased service capacity to respond to previously unmet needs. Against this, about a third of standards are likely to reduce the need for services in the future through greater effectiveness in reducing the burden of cardiovascular disease.

Most standards were identified as benefiting individual and population health. However, there could be high opportunity costs from using limited resources for specialist services and other limitations, such as overburdening patients with health messages and complex choices about treatment options.

The HIA found that the effects of standard implementation on the wider determinants of health will be mainly positive. This supports the health economic argument for sustainable investment in HSC services to improve health and productivity of the population in Northern Ireland.

This work also showed that despite the aim of the CVSFW to improve equity of access and equality of outcomes, only a minority of standards were thought likely by HIA participants to achieve this result, even if particular attention was paid to vulnerable population groups and geographies.

Suggestions for future action

This report concludes with the main findings and suggestions arising from the HIA in the form of a health action plan. This is presented in a format that mirrors the layout of the CVSFW which is divided into 10 sections (see Appendix 2).

Learning for health equity

Beyond the suggestions and insights relating to the specific sections and standards in the CVSFW, the HIA has generated other important outcomes.

It provides a qualitative and quantitative analysis of the CVSFW's ability to achieve its stated aims. It identifies where action is needed to protect vulnerable population groups from further unintended inequity, which could otherwise result from CVSFW implementation.

This work has highlighted that health is not evenly distributed in Northern Ireland, nor is the ability of individuals to benefit from HSC interventions. This we need to be mindful of if we wish to contribute to reducing the health inequalities gap.

We highlight the following areas for consideration:

Health intelligence for health improvement

Implementation of the CVSFW has thrown up many challenges for information systems and data management within the HSC. We need to work on data linkage and information sharing across agencies to create better understanding of what determines health and wellbeing for people in Northern Ireland.

Capacity building in learning organisations

This HIA of health policy implementation is the first of its kind in Ireland. Many people have contributed to it, acquiring new knowledge and skills in the process. This was enhanced by the involvement of an international expert. This will benefit HSC organisations in their endeavours to improve health equity and reduce health inequalities in the future.

Participation, partnerships and networks

Development, implementation and the HIA of the CVSFW embrace the principles of participation and depend on collaborative working across agencies, organisations, communities and individuals. The HIA has added value to HSC services by strengthening connections beyond institutional boundaries.

The future

“...education alone is not sufficient... effective commissioning and service management are also necessary but not sufficient... vital to address whole systems of care, build on networks, not institutions...”

Sir Muir Gray, NHS Atlas of Variation in Healthcare,
NHS Right Care, Nov 2010

1. Cardiovascular disease and its determinants

Despite significant improvement over recent decades, cardiovascular disease remains the main cause of death and disability in Northern Ireland. This can be partly attributed to our lifestyle, such as sedentary behaviour, alongside patterns of eating, smoking and alcohol consumption.¹

Health is determined not only by access to quality healthcare services and lifestyle choices, but also by the social and economic conditions in which people live.² These include many factors which lie outside the healthcare sector, such as housing, employment, transport and access to fresh food (Figure 1).

Figure 1: The determinants of health and wellbeing



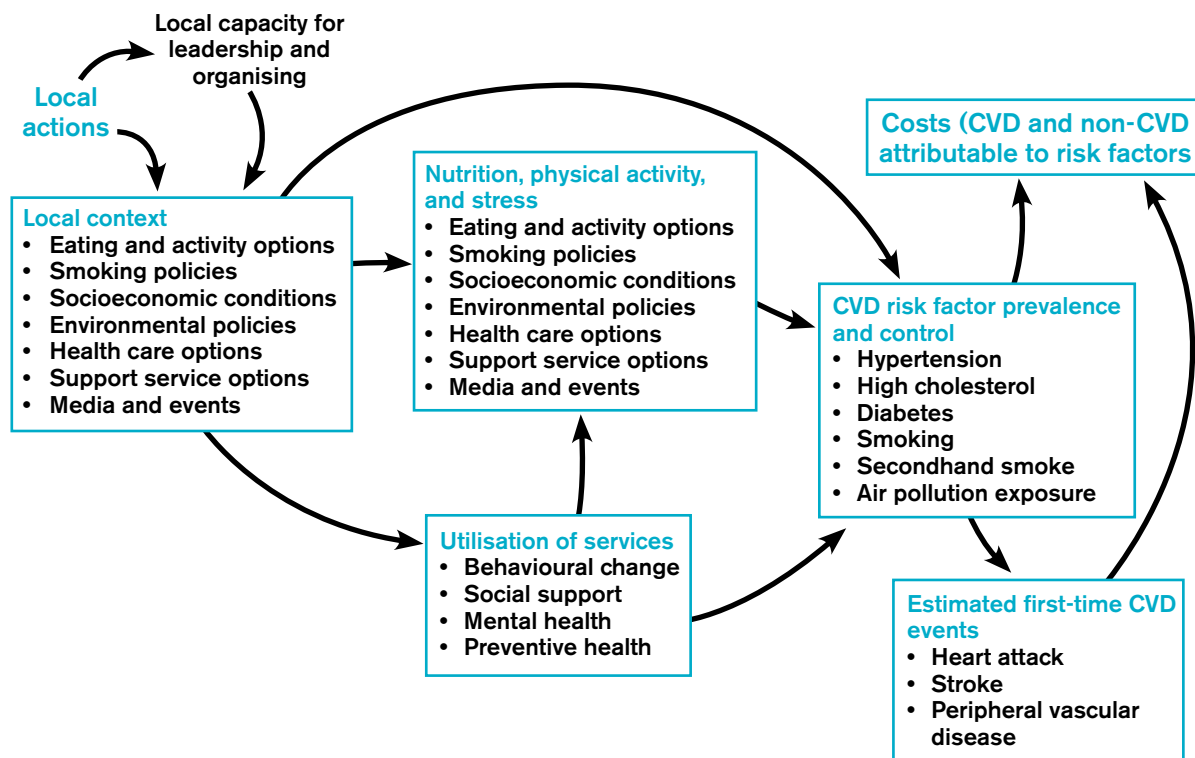
Smoking remains one of the biggest risk factors for cardiovascular disease alongside sedentary lifestyles and alcohol consumption. Circumstances experienced during the early years also influence health and wellbeing into adulthood. Breastfeeding can help to protect against obesity. Physical activity and eating habits develop from a young age and often form lifelong patterns of behaviour.

Living and working conditions also impact on health. Employment, education and income are powerful influences on health. The environment in which we live needs to

provide access to open and green space, which plays an important part in physical activity patterns, alongside the transport options available in communities.

All of these factors also influence mental health and emotional wellbeing. Figure 2 provides an overview of the determinants of health in relation to cardiovascular disease.³

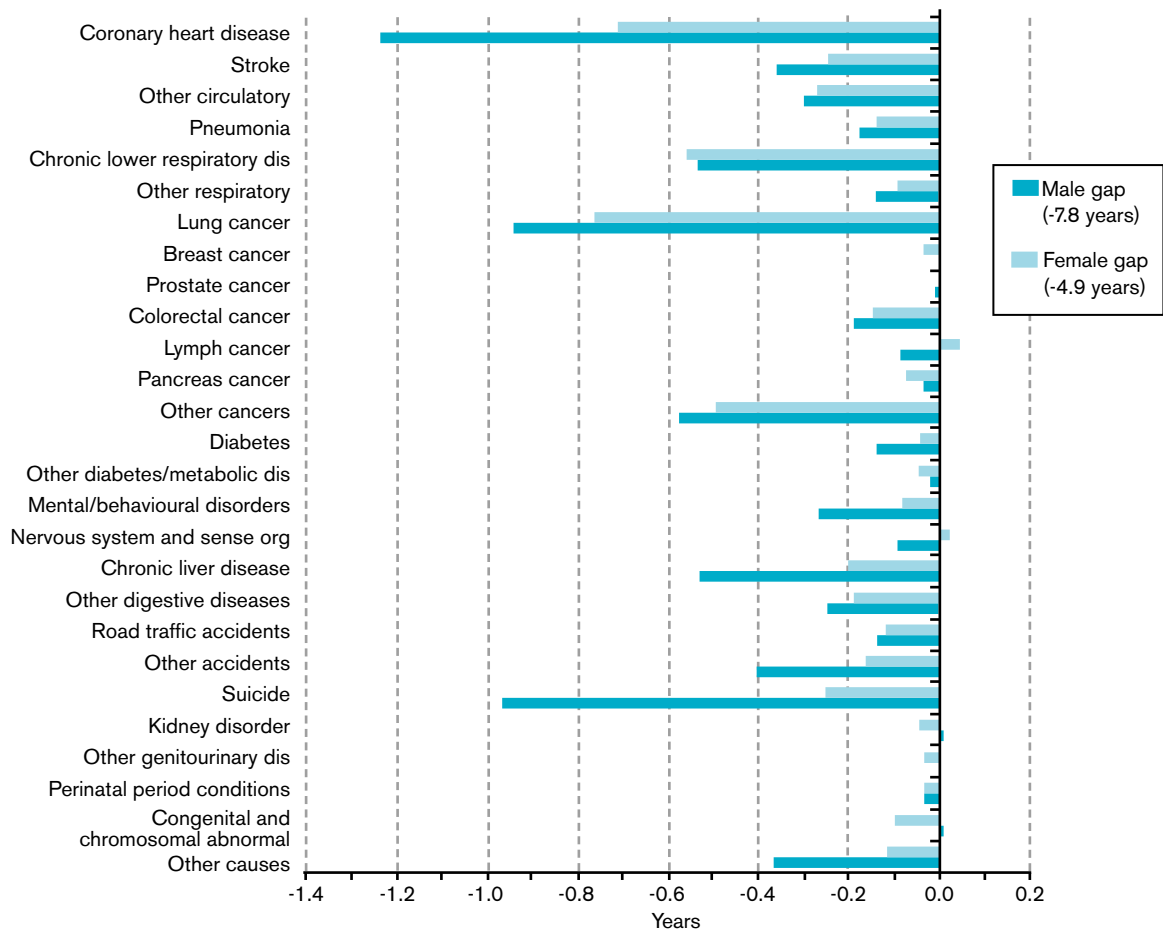
Figure 2: Cardiovascular health and its contributory factors



Health inequalities and inequities

Health inequalities are differences in health and wellbeing experienced by individuals or groups in society, such as socioeconomic groups or between men and women. Men living in the 20% least deprived areas in Northern Ireland live on average seven years longer than men in the 20% most deprived areas; for women, this gap is eight years (Figure 3). Cardiovascular disease remains the main contributor to this gap.

Figure 3: Contribution to the life expectancy gap between the 20% most deprived and 20% least deprived areas in Northern Ireland (2006-08) by cause of death (years)

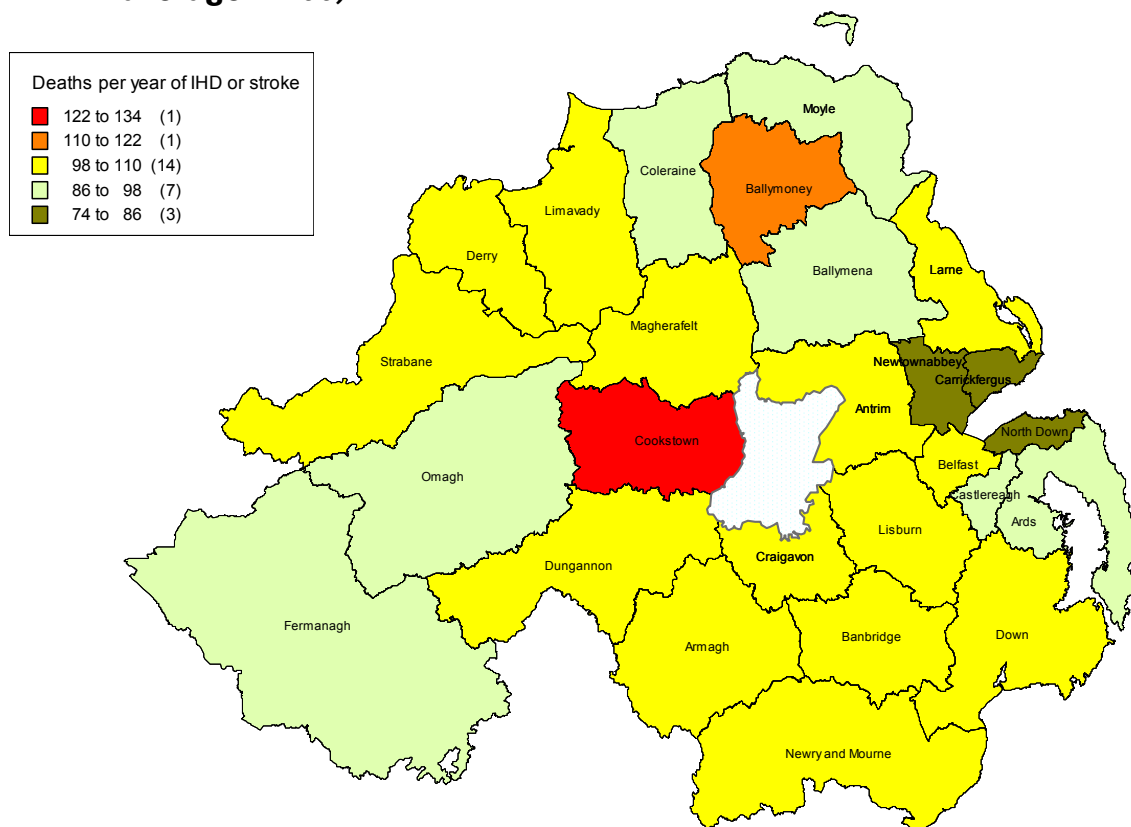


Source: Project Support Analysis Branch, DHSSPS

Note: Positive numbers indicate that deprived areas had lower death rates than the least deprived areas. Conversely, negative numbers indicate that deprived areas had higher death rates.

Health inequalities can also occur within, or between, geographical areas. Figure 4 shows that people living in Cookstown and Ballymoney District Council areas are more likely to die from cerebrovascular (CVD = stroke) or IHD than those from other areas in Northern Ireland.

Figure 4: Comparative death rates for IHD or stroke 2006-08 (Northern Ireland average = 100)



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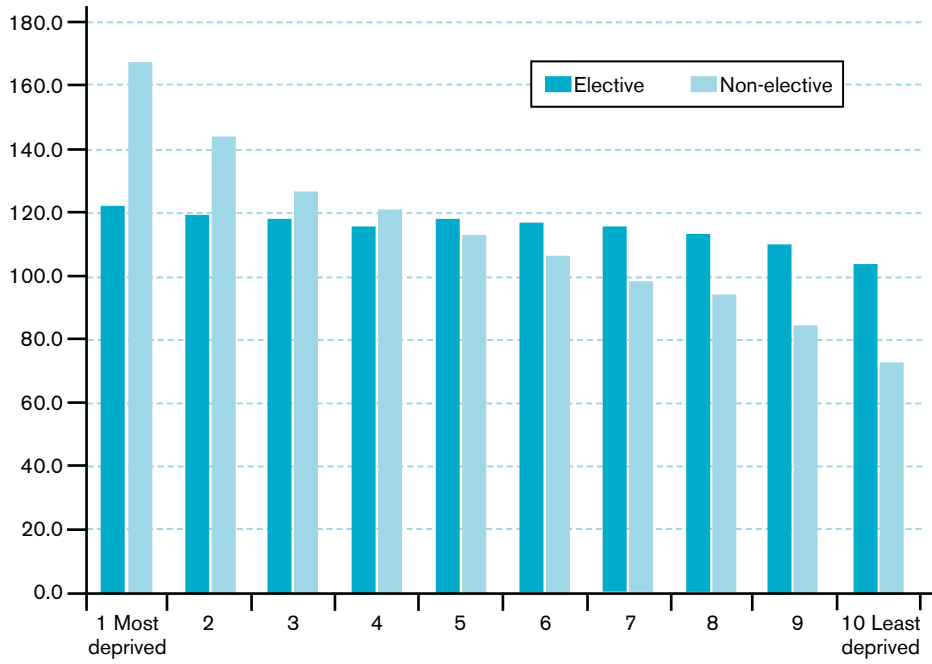
HSC services in Northern Ireland are intended to be available fairly to all who need them, but some people are less likely than others to ask for, or get, the treatment they need. This health inequity might be the result of where they live or because they are disadvantaged by poverty, disability or ethnicity.

Inequities in health are avoidable differences in the opportunity to be healthy, and in the risk of illness and premature death, which can arise from an unequal distribution of services, resources or power.

Disadvantaged people tend to be less healthy and, therefore on average, need more HSC services than wealthier members of society. There is ample evidence of inequitable access to health services for people with cardiovascular disease.

Figure 5 shows that, despite higher levels of ill health, people from lower socioeconomic groups are less likely to be admitted to hospital for elective, ie planned investigations or treatment, than those from higher socioeconomic groups. Instead, they are much more likely to come to hospital for emergency treatment, which carries higher risks of poorer outcomes.

Figure 5: Elective and non-elective treatment rates, by economic deprivation decile 2001–02 (per thousand population)

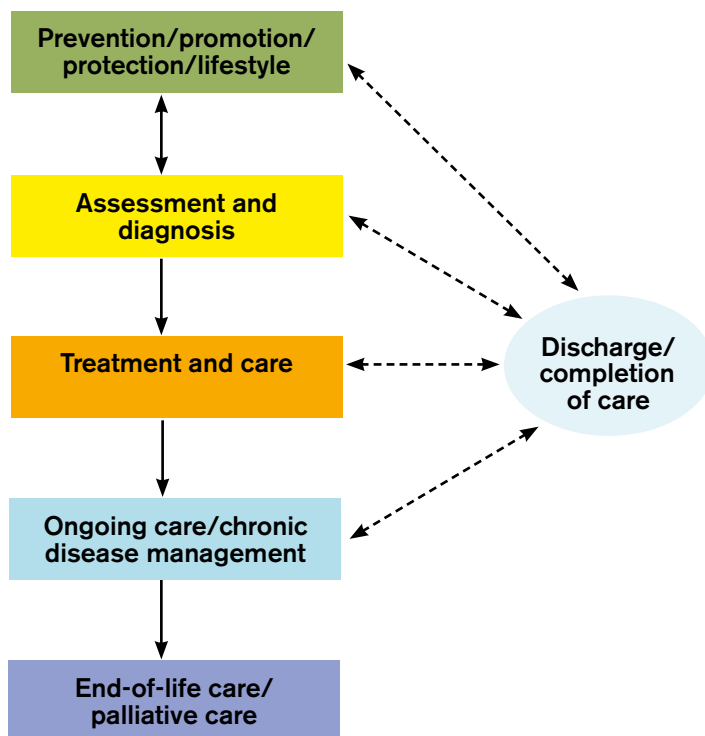


Source: Belfast HSCT, 2008

2. Cardiovascular health and wellbeing service framework

In 2007, the DHSSPS began to develop a programme of service frameworks to set out explicit standards for health and social care for service users, providers and planners. Service frameworks aim to promote seamless care from prevention and health promotion, through primary and hospital, to end of life care (Figure 6).

Figure 6: Development of service frameworks



The first series of service frameworks focused on the most significant causes of ill health and disability in Northern Ireland – cardiovascular health and wellbeing; respiratory health and wellbeing; cancer prevention, treatment and care; mental health and wellbeing, and learning disability. Others are being developed for older people, and children and young people.

The CVSFW was launched in 2009 as the first of these frameworks. It has 45 standards for good practice in communication, health improvement, hypertension, hyperlipidaemia, diabetes, heart disease, stroke, peripheral vascular disease, kidney disease and end of life care.

The PHA, the HSCB, Health and Social Care Trusts (HSCTs), primary care teams and other service providers all have a responsibility for implementing the CVSFW's standards.

3. Health impact assessment

HIA is defined as, 'a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population'.⁴

The strategic decision to conduct an HIA of the Northern Ireland CVSFW was taken:

- to test the effect of implementing the CVSFW framework on health inequalities and inequities in relation to cardiovascular disease;
- to use the learning from the HIA on the CVSFW and apply it to the development and implementation of other service frameworks.

The HIA was overseen by an HIA steering group (members listed in Appendix 1) who agreed the scope for the HIA and a work plan for the project. The terms of reference of the steering group, HIA scope and work plan are contained in the full technical report available online at www.publichealth.hscni.net

A wide range of information was collected to support and shape the results of the HIA. This included:

- a literature review of the international evidence on what works in reducing inequalities and inequities in cardiovascular health, services and determinants (summarised on page 16; full document available online at www.publichealth.hscni.net),
- a cardiovascular health and wellbeing profile for Northern Ireland, which brings together local information to give a better understanding of the cardiovascular health needs of people (summarised on page 15; full document available in print and online at www.publichealth.hscni.net)
- consultation with service users and providers on potential effects on health from implementing the CVSFW.

The following consultation workshops were held with HSC practitioners, policy makers, researchers, patients, carers and the wider public:

- Community engagement sessions:
 - Maureen Sheehan Centre, Belfast, 27 May 2010
 - Gasyard Healthy Living Centre, Derry, 14 June 2010
 - Ards Peninsula Healthy Living Centre, Kirkubbin, 20 July 2010
 - Loughguile Millennium Centre, Co Antrim, 5 August 2010
- Statutory stakeholder engagement session:
 - Farset International, Belfast, 24 June 2010

The consultation covered issues such as existing health inequities and inequalities in relation to individual standards, potential barriers to implementation and impacts on services; as well as impacts on health, inequalities and inequities.

Most importantly, we asked for suggestions on how to enhance positive, and minimise potential negative, impacts arising from implementing the 45 standards in the framework.

This information was analysed and the findings were prioritised, based on their importance for, and potential impacts on, the health and wellbeing of service users and providers.

Based on this, a health action plan was developed for use by HSC services in the planning and delivery of cardiovascular and related services. This is summarised in Appendix 2.

3.1 Cardiovascular health and wellbeing profile for Northern Ireland

The following information is a summary of the cardiovascular health and wellbeing profile for Northern Ireland. It provides a snapshot of cardiovascular health and the range of factors which contribute to it.¹

- Cardiovascular disease (involving the heart and blood vessels in the brain and other parts of the body) remains the main cause of death. This can be partly attributed to lifestyles including sedentary behaviour and patterns of eating, smoking and alcohol consumption.
- There is a large gap in life expectancy between different socioeconomic groups. People who live in the most deprived areas are almost twice as likely to die, before the age of 75 years, as the regional average.
- Coronary heart disease (CHD) and stroke accounted for 19% of deaths in people aged 15–74 between 2001–08. In the same period, these diseases accounted for the deaths of 30% of those aged 75 years and over.
- While lower socioeconomic groups are more likely to suffer CHD, they are less likely to be treated in a planned way before having a heart attack.

Lifestyle factors contributing to cardiovascular health

- Men and women from manual occupations have higher rates of smoking than non-manual workers.⁵
- Around 60% of the adult population and approximately 22% of primary school children, are either overweight or obese.^{6,7}
- People living in the most deprived 20% of geographical areas are over four times as likely to die from misuse of alcohol as those living in affluent areas.⁸

Other factors influencing cardiovascular health

- In 2008, 3.6% of young people left school with no GCSEs.⁹
- Older people, especially those living alone, are more likely to live in houses unfit for human habitation than other population groups.¹⁰
- One quarter of all households do not have access to a car but, with public transport in short supply, most people are dependent on cars for travel.¹¹

The full community profile is available in print and online at www.publichealth.hscni.net

3.2 Links between cardiovascular disease and wider determinants of health

This is a summary of the literature review undertaken as part of the CVSFW HIA.

- The major risk factors for cardiovascular disease include smoking, high blood pressure, diabetes, obesity and physical inactivity. Prevention of cardiovascular disease depends on effective reduction of these risk factors, especially smoking, physical inactivity and poor eating habits.
- People from deprived areas are at higher risk from cardiovascular disease than people living in more affluent areas. Smoking is more prevalent in people from deprived areas. Unemployment, job insecurity and low education levels are associated with increased risk of cardiovascular disease. The quality of the living environment affects cardiovascular disease risk in terms of opportunities for physical activity, community cohesion and housing conditions: fuel poverty kills.
- People from deprived areas, women, older people, people from ethnic minorities and people with mental health problems or learning disabilities appear to be less likely than others to get treated for cardiovascular disease.
- People from deprived areas are less likely to benefit from health promotion and efforts to improve lifestyles. More affluent communities are also at risk and health improvement actions must reach all, but with a scale and intensity proportionate to need. Population-wide approaches including legislation tend to be more effective because they reach everyone, do not stigmatise and can reduce health inequalities.

The full literature review is available online at www.publichealth.hscni.net

3.3 Main findings

In this section we summarise the main findings from the HIA in relation to individual sections and standards of the CVSFW (3.3.1–3.3.10). The standards are numbered 1 to 45.

We first outline the need for actions to improve health equity and reduce health inequalities. The health action plan at Appendix 2 provides more detail.

We then draw generic conclusions from the HIA process for organisational learning, capacity building and development (3.4.1–3.4.4).

3.3.1 Communication and participation for patients, clients and carers (Section 1, Standards 1–2)

1. All patients and carers should expect effective communication from HSC organisations as an essential and universal component of the planning and delivery of HSC.

2. All patients, carers and the public should have opportunities to engage actively and meaningfully with HSC organisations at all levels.

Health inequalities and inequities already exist in relation to both of these standards, including for people from lower socioeconomic, and black and ethnic minority (BME) groups, those with hearing and visual problems, and rural dwellers. There are many barriers to, but also potential benefits arising from, standard implementation for both services and staff.

Demands on staff to improve communication with service users, and demands for services as a result of better informed service users, will increase in the short to medium term.

In the longer term, the health and wellbeing, not only of service users, but also service providers will be improved through empowerment and participation. This will have wider benefits on and through the determinants of health, leading among other things to a healthier workforce and more appropriate use of limited HSC resources.

The main suggestion for achieving the benefits arising from implementation of Standards 1 and 2 is to:

- Facilitate HSC staff in improving communication with, and participation of, service users and the wider public in service design and delivery.

3.3.2 Health improvement (Section 2, Standards 3–9)

3. The HSC should work in cooperation with voluntary, education, youth and community organisations to prevent the recruitment of young people to smoking.
4. All HSC professionals should identify people who smoke, make them aware of the dangers of smoking, advise them to stop and provide information, and then signpost to the well developed specialist cessation services available.
5. HSC professionals should identify inactive* individuals and, where appropriate, provide them with advice and support to accumulate a minimum of 30 minutes of moderate activity** on five days of the week or more.
6. All people should be provided with healthy eating support and advice, appropriate to their needs, in a range of settings.
7. HSC professionals should work with early years settings, schools, workplaces and communities in the promotion and support of breastfeeding, healthy eating and physical activity to prevent obesity.
8. Primary care professionals should identify people who consume hazardous/harmful amounts of alcohol, make them aware of the dangers, advise them to reduce or stop and provide information and signposting to specialist services, if appropriate.
9. HSC professionals should work with schools, workplaces and communities to raise awareness of, and access to, emergency life support skills.

The HIA identified health inequities and inequalities like age, gender and disability in access to services, especially for rural dwellers, as well as many barriers to implementation of each standard in the health improvement section. Standard 8 (management of alcohol misuse in primary care) has the highest number of identified inequalities related to it in the whole CVSFW HIA.

The socioeconomic gradient in healthy lifestyle behaviours, and capability for change, is already well recognised and has again been demonstrated in this HIA. Investment in health improvement interventions can take time to generate identifiable returns, and evaluation of health outcomes can be challenging because of this; as well as the complexity of modelling or measuring them.

This is borne out by the HIA findings, which recognise that implementation of Standards 3–9 will initially increase demand for relevant services but, in the longer term through improved health of people, decrease their need for such services.

* no physical activity beyond what happens during normal activities of daily living

** activity that gets people out of breath and makes their heart beater faster without pushing them to their physical limits

The risk of increasing existing health inequities and inequalities among socioeconomically disadvantaged people is high, with health improvement interventions like those in the CVSFW which are aimed at changing individuals' lifestyles and behaviours. Those most in need are least likely to be able to make the necessary lifestyle changes because of other competing priorities (inverse care law).

It is therefore of critical importance for the success of health improvement interventions, aimed at individual risk factor reduction, that they are designed and delivered in ways that make them effective for all people who need them.

The recommendations from the health action plan recognise this and seek to shape health improvement interventions in ways that make them effective for all members of society:

- Integrate health improvement activities across topics, settings and sectors by:
 - coordinating brief intervention training for all HSC staff to support behaviour change and self management;
 - supporting collaboration between HSC organisations, communities and local government in creating healthier environments;
 - creating synergy between communities, voluntary organisations and HSC providers including pharmacies and primary care providers.
- Implement an obesity prevention strategic framework on an interagency basis to take account of the determinants of health.
- Develop a regional emergency life support business case, strategy, policy and implementation plan.
- Advocate for salt reduction in food.

3.3.3 Hypertension (Section 3, Standards 10–11)

10. All adults should be offered lifestyle advice as to the prevention of hypertension and have their blood pressure measured and recorded using standardised techniques every five years from age 45 years.

11. All patients should be offered drug therapy if they have (a) persistent blood pressure of 160/100 mm/Hg or more and/or (b) raised cardiovascular risk (10 year risk of cardiovascular disease of 20% or existing cardiovascular disease / target organ damage) with persistent blood pressure of 140/90 mm/Hg.

Figures 7 and 8 show maps of GP practices which measure blood pressure in under 85% of eligible patients and those practices who do so in over 95% of eligible patients.

There are health inequalities and inequities associated with these standards, but not all are socioeconomically patterned. There are differences in the performance of GP practices across Northern Ireland in identifying and managing hypertension, but these differences are not related to deprivation.

Interventions to improve implementation of these standards in primary care therefore need to be targeted at individual practices regardless of location, rather than focusing on deprived areas.

Figure 7 Northern Ireland GP practice performance in measuring blood pressure in patients aged 45 years and over

Standard 10 - KPI 10a - % of patients aged >45 yrs who have had a recorded BP on their GP record within the past 5 years. Target is 70%

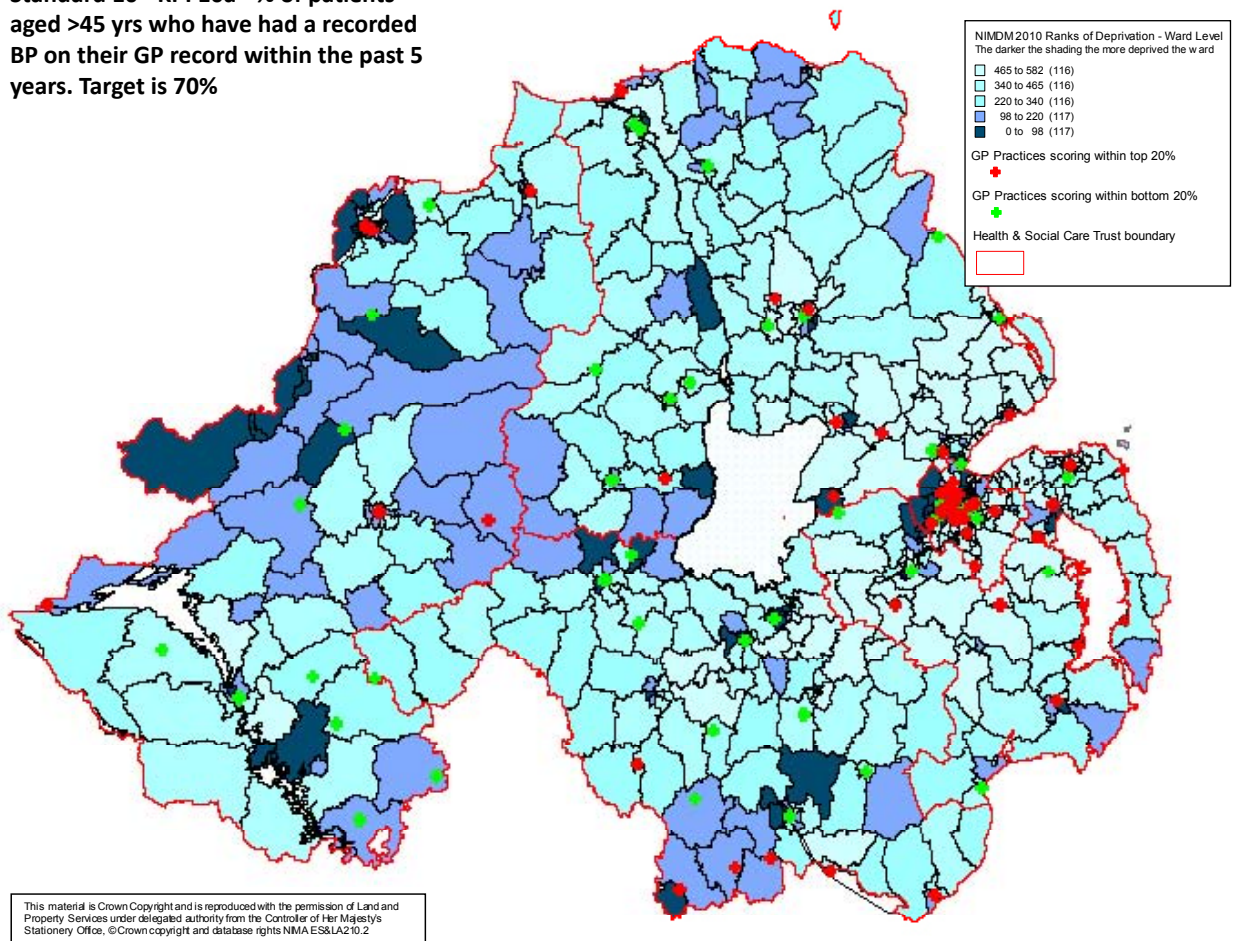
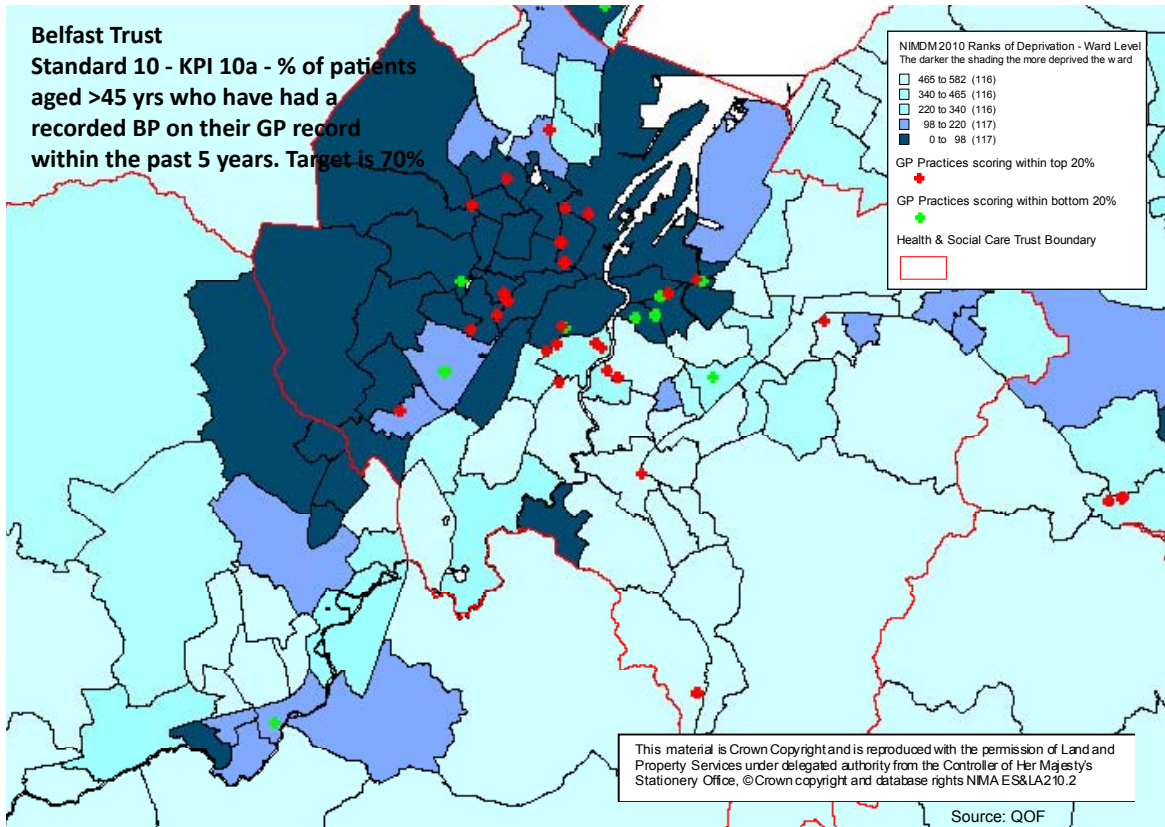
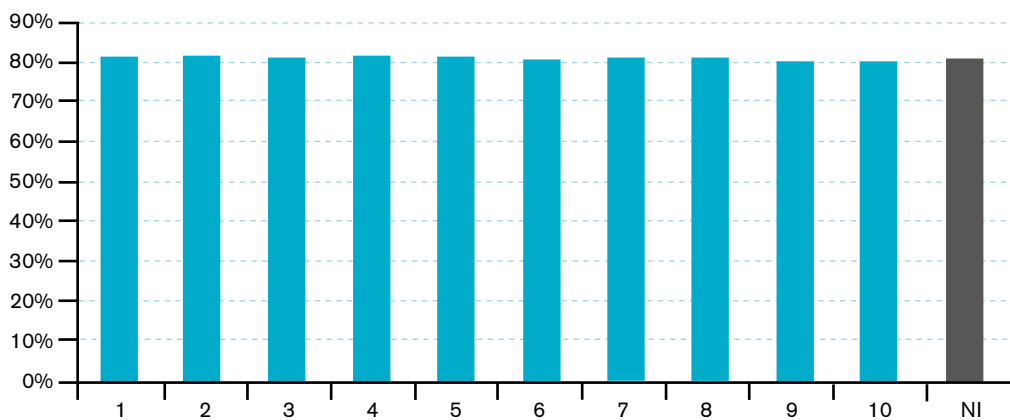


Figure 8 Belfast Health and Social Care Trust GP practice performance in measuring blood pressure in patients aged 45 years and over



Once identified, it is important to ensure that all patients with hypertension are treated effectively. This is more challenging in patients with other chronic illnesses, like diabetes. However, Figure 9 shows little variation in diabetic blood pressure control based on information from the primary care quality and outcomes framework (QOF) looked at by deprivation areas.

Figure 9: Diabetic blood pressure control by deprivation decile



For staff delivering these services in primary care, there will likely be further increases in workloads through higher service activity and efforts to reach all in need of treatment. These seemingly adverse effects are likely to be balanced in the longer term through improved population health and less need for health services in primary and secondary care.

In the short term, patients might feel 'medicalised' by being offered treatment for a condition which in itself is not causing them any symptoms. This can have adverse effects on mental health and physical wellbeing.

In light of this, the HIA makes recommendations to:

- Address variation in primary care performance.
- Integrate health improvement work aimed at reducing hypertension with the wider health improvement activities discussed in 3.3.2.

3.3.4 Familial hyperlipidaemia (Section 4, Standard 12)

12. All people with familial hypercholesterolaemia should be identified and treated and their names entered on a regional register so that other family members can be identified in order for measures to be introduced to prevent the development of cardiovascular disease.

This standard refers to an estimated 3,500 people in Northern Ireland living with an inherited disorder that results in a high level of cholesterol in their blood. This puts them at higher risk of cardiovascular disease than others. Just over 500 of this patient group have been identified to date and are receiving specialist treatment. Therefore, many people who have the condition are unaware of it and are not receiving the treatment they need to reduce their risk of cardiovascular disease. This situation is not unique to Northern Ireland and exists in other parts of the UK. To address this, we need to:

- Pursue funding and implementation of a business case for expansion of a regional hyperlipidaemia service and establishment of a regional database and genetic support outreach service.

3.3.5 Diabetes (Section 5, Standards 13–15)

13. All people with diabetes should have an accurate diagnosis made.

14. All patients with diabetes have access to education programmes and emotional/psychological support. Services will encourage partnership in decision making, support in managing their diabetes and help to adopt and maintain a healthy lifestyle.

15. All patients with diabetes should have access to, at a minimum, an annual review to a defined standard by an appropriate multi-disciplinary team.

There are well documented health inequalities and inequities for people living with diabetes, and these have been confirmed in the HIA. These include socioeconomic disadvantage, ethnicity, age and disability.

Standard 14 (access to structured patient education programmes including psychoemotional support) was found by the HIA to be beset by the largest number of health inequities within the CVSFW. This is because of the patchy availability of such programmes across Northern Ireland.

The HIA also identified many barriers to standard implementation and potential negative effects on staff through an increase in demand for services in the short to medium term. Improved and more equitable service provision on the other hand was thought to be good for staff morale.

From a service user perspective, the effects of standard implementation were considered to be largely beneficial both for population and individual health. Caution will be needed to meet patient expectations for improved services and ensure that all patients get the support they as individuals, and their families or carers, need to benefit from patient education and self management programmes.

There are approximately 60,000 people with diabetes living in Northern Ireland and this figure is set to increase sharply unless the obesity epidemic can be halted and reversed.

It is therefore critical for the health and wellbeing of people in Northern Ireland, and the sustainability of HSC services as well as the wider economy, that improvements in the prevention and management of diabetes are achieved.

In light of this challenge, the HIA recommends that a strong infrastructure is established to drive these improvements:

- Establish regional and local networks to facilitate service improvement including equitable access to structured patient education (SPE).

3.3.6 Heart disease (Section 6, Standards 16–28)

Congenital heart disease (ConHD)

16. All pregnant women should have appropriate antenatal screening for congenital heart disease (ConHD), with specialist services available to those in whom a diagnosis of ConHD is made.

17. All children with suspected major congenital and acquired heart disease should have access to prompt diagnosis and appropriate management in line with ministerial targets.

18. All patients with suspected inherited cardiac disease should have access to a consultant-led service specifically designed to meet their needs.

19. All adults with major congenital heart disease should have access to a specialist consultant-led service specifically designed to meet their needs.

The first four standards in the heart disease section refer to inborn and inherited heart disease, as well as children who develop heart disease. These conditions do not follow a socioeconomic distribution pattern. Life expectancy in this numerically small but growing group of patients has improved due to better treatment over recent decades. While some investments have been made, more is needed. Detailed recommendations arising from the HIA relating to these standards are contained in the health action plan. See Appendix 2.

Cardiac arrhythmia (irregular heart beat)

20. All patients with a diagnosis of non atrial fibrillation arrhythmia should receive timely assessment, treatment and support based on individual need.

21. All patients with a diagnosis of atrial fibrillation should receive timely assessment, treatment and support based on individual need.

Heart failure

22. All patients with a clinical suspicion of heart failure should have access to ECG and BNP (a blood test) for first level rule out in a primary care setting.

23. All patients with a diagnosis of heart failure should be prescribed evidence-based medication as appropriate, under the guidance of the multidisciplinary specialist team.

Myocardial infarction

24. All eligible patients suffering an acute myocardial infarction with ST-segment elevation heart attack should receive thrombolysis within one hour of calling for professional help.

Cardiac rehabilitation

25. All patients identified as requiring cardiac rehabilitation, in line with the regional guidelines, should be offered this service.

Angina

26. All patients who develop new onset chest pain suggestive of angina should be reviewed at a rapid access chest pain clinic within two calendar weeks of referral by the GP/appropriate clinician.

27. All high risk patients presenting with non ST elevation acute coronary syndromes should undergo angiography/revascularisation within 72 hours of diagnosis in accordance with clinical need.

Pulmonary hypertension

28. All patients with suspected pulmonary arterial hypertension should be managed in a timely fashion by a specialist multidisciplinary team in line with national specialist cardiac assessment groups.

Heart disease, with the exception of its inborn forms, tends to affect people from disadvantaged backgrounds more commonly and more severely than others, but there is no evidence from primary care QOF data that treatment varies with deprivation. Figures 10 and 11 show maps of GP practices which treat atrial fibrillation in line with recommendations for best practice in less than 90% of patients, and those who do so in over 95% of patients.

Figure 10 Northern Ireland GP practice performance in treating atrial fibrillation

Standard 21 – KPI 21a - % of patients with AF who are currently treated with anti-coagulation drug therapy or an anti-platelet therapy. Target is 90%.

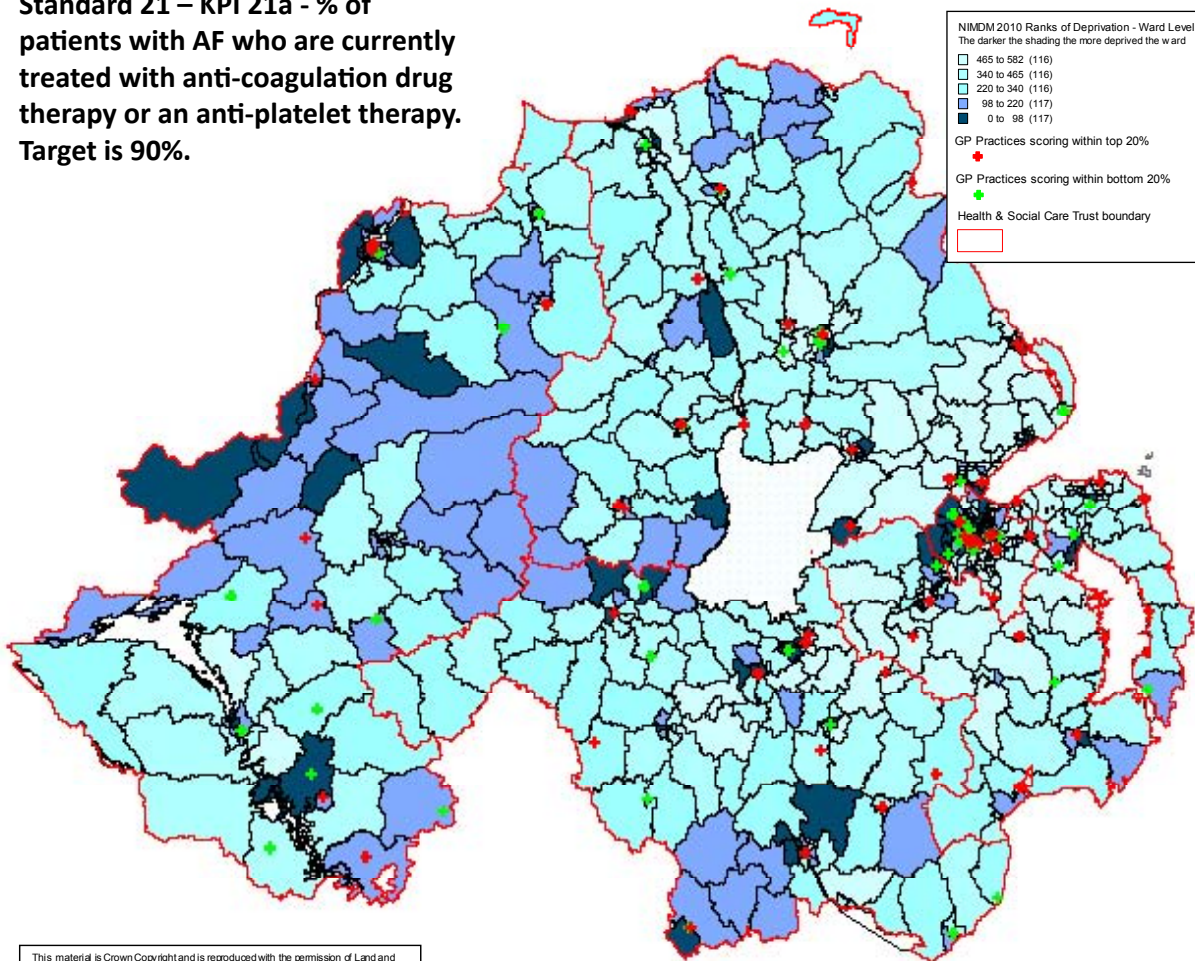
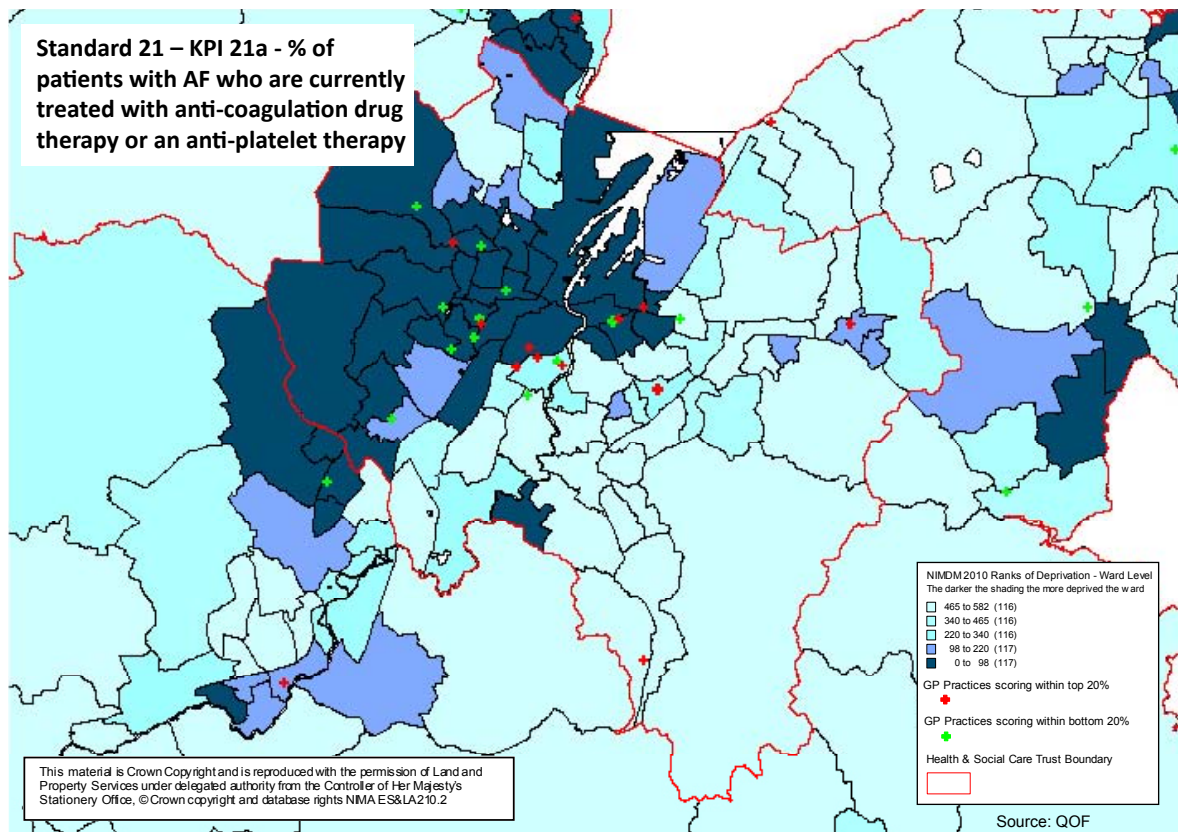


Figure 11 Belfast Health and Social Care Trust GP practice performance in treating atrial fibrillation



The HIA confirmed health inequalities, as well as inequities in access to hospital based cardiovascular services. The latter are mostly due to geography, either because some services are only available in certain central locations or difficult to access in rural areas.

In common with other sections of the CVSF, the HIA identified barriers to implementation of standards and impacts on staff arising from increasing demands for services in the short to medium term. It is important to manage these additional demands carefully and actively in supportive ways that build sustainable service capacity.

With anticipated improvements in population and individual health, need for cardiac surgery and cardiology services should reduce in the longer term, but demand on, and need for, community-based services is likely to increase as patients seek management of long term ill health arising from cardiovascular disease closer to home.

Recommendations arising from the HIA have been referred to the Northern Ireland Cardiac Network for action and include:

- Increase investment in congenital and inherited heart disease services to meet the needs of a growing patient population.

- Increase investment in the prevention of atrial fibrillation.
- Support patients in their adherence to treatment.
- Establish self help groups for patients with heart failure.
- Identify key workers for patients with heart failure.
- Introduce programme budgeting and marginal analysis to facilitate allocation of resources to the management of long term conditions, including heart failure.
- Improve communication, through data linkage, between primary and secondary care for patients needing cardiac rehabilitation.
- Streamline referrals for patients with acute chest pain from primary to secondary care by improving patient pathways.

3.3.7 Cerebrovascular disease (Section 7, Standards 29–32)

29. All patients with suspected transient ischaemic attack (TIA) should have rapid specialist assessment and investigation to confirm the diagnosis and should have a management plan urgently put in place to reduce short term and long term cardiovascular complications (see also Standard 35).

30. All patients with suspected acute stroke should have rapid access to specialist assessment, appropriate brain imaging and emergency treatment, including thrombolysis.

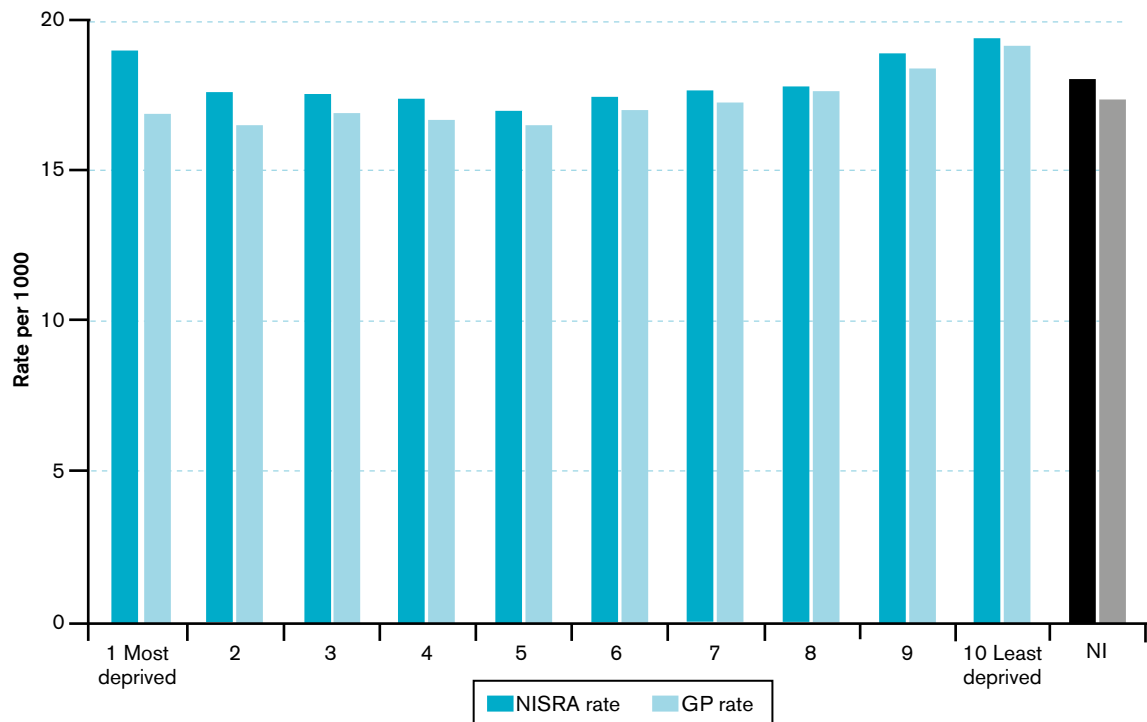
31. All patients who have had a stroke should have their rehabilitation delivered by a specialist stroke rehabilitation team in a stroke unit, starting immediately after admission to hospital.

32. All patients who have had a stroke or TIA are reviewed post discharge by primary care services at six weeks, six months, and annually. Stroke patients with persisting disability at six months should be reviewed by a member of a specialist team to determine the need for a further targeted period of rehabilitation. As part of ongoing review, referral to neuropsychology services should be considered where appropriate.

The HIA confirmed many health inequalities in cerebrovascular disease including socioeconomic deprivation and membership of an ethnic minority group.

Recent GP data show a picture that is different from the socioeconomic gradient usually associated with circulatory diseases. The least deprived wards have the highest rates of stroke/TIA compared with the Northern Ireland average. The most deprived wards have the second highest rates (Figure 12).

Figure 12 Prevalence of stroke/TIA by population deprivation deciles, using NISRA or GP list information



Increased prevalence is reported from the least deprived areas, but this may reflect the older age profile of people living in those areas, since primary care QOF data are not age adjusted. These data need to be interpreted with caution; in addition, area of residence is being used as proxy for individuals' socioeconomic status in the absence of easily available alternatives.

The variation between GP list based rates, and those based on Northern Ireland Statistical and Research Agency (NISRA) population estimates, is most noticeable in the more deprived areas. This is consistent with other work, which has highlighted variation between GP list data and NISRA population estimates, especially in areas of greater Belfast where there is a geographical concentration of deprived areas compared to the remainder of Northern Ireland.

During the HIA, concerns about inequities in access to services and referral to specialist services for stroke patients were identified for several standards in this section. There are many barriers to implementing the CVSFW standards, but the HIA findings emphasise how improved services will lead to better staff morale and more efficient use of resources in the medium to longer term.

The effect on standard implementation will be mainly positive for population health and that of individuals, their families and carers. Health inequalities might be reduced ultimately if equity in service distribution and access for all population groups can be achieved.

Many positive impacts through improved cerebrovascular health and wider determinants of health were identified, including lifestyle and personal circumstances, social and economic factors.

The main suggestions from the HIA to the regional stroke strategy implementation group include:

- Implement agreed referral pathways.
- Establish a regionally available 24/7 thrombolysis service.
- Share good practice between service providers and users through effective mechanisms, ie networks.

3.3.8 Peripheral vascular disease (Section 8, Standards 33–38)

The standards for peripheral vascular disease (PVD) refer to distinct conditions and therefore need to be considered separately. They all carry health inequalities and inequities in access to services, as well as barriers to implementation common to other service improvement initiatives, but vary in their impact on health service providers and users. Deprivation and being a smoker, older person or male were confirmed in the HIA to predispose to PVD.

Peripheral vascular disease

33. All people with a high risk of developing PVD such as patients with diabetes, chronic kidney disease, smokers and the elderly should have accessible and timely care delivered by appropriate members of the multi-disciplinary foot care team.

36. Patients with leg pain on exertion, suggestive of peripheral arterial disease, should have an ankle brachial pressure index (ABPI) test performed in primary care.

These two standards refer to primary care services for people either at risk of, or presenting with, PVD.

Their implementation will improve service quality for patients and therefore impact positively on their, and potentially also population, health; but will increase workloads in primary care.

Like other interventions aimed at risk factor reduction and treatment of symptomatic people, implementation of these standards is likely to increase health inequalities because of inequitable provision and uptake of primary care services.

The main recommendations arising from the HIA to the vascular network are:

- Provide support to primary care teams for participation in, and delivery of, PVD direct enhanced service (DES).
- Provide alternatives to GP services through community based provision, especially in deprived areas.

Aortic disease

34. All patients with abdominal aortic aneurysm (AAA) should have their medical therapy optimised, particularly all patients should be on statin therapy. Aneurysm repair should be considered in patients whose aneurysm exceeds 5.5cm in diameter. Patients should be offered open or endovascular repair if possible. All men aged 65 should be offered AAA screening in line with national screening committee recommendations.

37. All patients presenting with features of thoracic aortic dissection should be assessed and referred immediately to an appropriate management centre.

These two standards cover many aspects of service quality improvement for people with aortic disease, from screening, to diagnosis, to surgical treatment and rehabilitation.

Early identification of AAA through screening reduces mortality in men and will reduce the need for emergency treatment, which has poorer outcomes than planned surgery.

In common with other screening programmes, AAA screening will: increase the workload for health service providers; result in anxiety and potential harm for patients from discovery and treatment of an otherwise unknown health problem; increase health inequalities and inequities if some people are more likely than others to avail of, or benefit from, screening.

AAA screening is only recommended for men, because they get the disease more often and at an earlier age than women.

Recommendations from the HIA to staff responsible for vascular services include:

- Identify and address barriers for patients in making informed choices about treatment for AAA.
- Raise awareness and improve management of thoracic aortic dissection among the public and professionals.

Lymphoedema

38. All patients who are at risk of, or who have developed lymphoedema, should have access to timely information, diagnosis and treatment within the Lymphoedema Network in Northern Ireland in accordance with the CREST lymphoedema guidelines.

This standard refers to the management of a condition that can, among others, complicate cancer treatment. Awareness and availability of improved services will increase demand initially where there has been unmet need. Earlier and more proactive treatment, on the other hand, will ultimately reduce need for services.

The impact on staff, arising from standard implementation, is thought to be positive as a result of improved satisfaction that comes with delivering better services despite increases in workload.

Individual and population health will improve quickly with better treatment of a disabling condition, because it will improve patients' quality of life in relation to several determinants of health, eg by allowing them to return to work. Health inequalities and inequities will be reduced as service capacity increases to match need.

The HIA recommendations to the lymphoedema network centre on:

- Providing awareness-raising and training to service users and providers in identification and management of lymphoedema.

Cerebrovascular disease

35. All patients who experience an anterior circulation TIA and carotid artery stenosis of 70–99% should be referred to a vascular surgeon, be investigated and have their carotid surgery within two weeks of the event. The long term goal should include carotid intervention within 48 hours (see Standard 29, Section 7 on CVD, which it is similar).

3.3.9 Renal disease (Section 9, Standards 39–42)

39. All patients with a diagnosis of chronic kidney disease (CKD) should receive timely, appropriate and effective investigation, treatment and follow-up to reduce the risk of progression and complications.

40. Renal services are to ensure the delivery of high quality, safe and effective dialysis care, which is designed around the individual's needs and preferences and are available to all patients of all ages. This should be delivered by a highly skilled multiprofessional workforce to maximise dialysis capacity, improve quality of life and reduce complications.

41. All children, young people and adults likely to benefit from a kidney transplant should receive a high quality service, which supports them in managing their transplant and enables them to achieve the best possible quality of life.

42. All people at risk of, or suffering from, acute kidney injury (AKI) acute renal failure should be identified promptly, with hospital services delivering high quality, clinically appropriate care in partnership with specialised renal teams. Prevention of AKI should be a priority for all clinicians in both primary and secondary care.

The renal standards refer to both AKI and CKD in the community (Standards 39 and 42) and the specialist treatment of kidney failure with dialysis and kidney transplant (Standards 40 and 41).

The HIA identified inequities in access to services and service quality as well as barriers to implementation for all four standards, but health inequalities only for Standards 39–40 and possibly for 41, namely socioeconomic disadvantage and impacts arising from the different approaches across Northern Ireland to providing vascular access for dialysis.

Improved services were considered in the HIA to increase workloads for certain staff by moving preferences from one intervention to another, but also lead to increased satisfaction among service providers that comes with delivering better services for patients. Patient and population health outcomes will ultimately improve as a result of standard implementation, but earlier identification of CKD could worry some patients.

Health inequalities and inequities could be reduced if standards can be implemented fully to reach all population groups equitably, but especially with Standard 39 (management of CKD in primary care) and Standard 40 (access to evidence-based dialysis services) health inequities might increase through differential access to and compliance with treatment.

Impact on quality of life and wider determinants of health including lifestyle, personal circumstances, social and economic activity is likely to be mainly positive.

HIA recommendations to the regional renal implementation group included:

- Support patients, especially those from marginalised groups, in managing psychosocial (anxiety and adherence to treatment) aspects of CKD identification and treatment.
- Consider home visits for hard to reach patients.
- Ensure geographical equity of vascular access for dialysis service provision, in line with evidence for best practice across Northern Ireland.

3.3.10 Palliative care (Section 10, Standards 43–45)

43. HSC professionals, in consultation with the patient, will identify, assess and communicate the unique supportive, palliative and end of life care needs of that person, their caregiver/s and family.

44. All patients, carers and families should have access to responsive, integrated services, which are coordinated by an identified team member according to an agreed plan of care, based on their needs.

45. All people with advanced progressive conditions, their caregivers and families, will be informed about the choices available to them, by an identified team member, and have their dignity protected through the management of symptoms and provision of comfort in end of life care.

Health inequalities and inequities exist in relation to the standards for palliative care which, like the communication, participation and health improvement standards, are generic and shared across service frameworks. These include socioeconomic disadvantage, age, disability and low literacy or educational attainment levels, which mitigate against health equalities. Variable availability of services currently creates health inequity.

There are many barriers to implementation as would be expected with complex and multifaceted service improvement interventions. The effects on HSC providers will also be variable – encompassing both positive impacts arising from better and more integrated service provision, and negative consequences resulting from increased workloads and the demands that change brings with it.

Implementation of all standards is expected to increase both demand, due to higher levels of awareness among service users, and need as a result of broadening the scope of palliative care services to include life-limiting conditions other than cancer.

There will be improvements to individual wellbeing and population health, but resources are needed for expansion of palliative care services.

Also, there could be both positive and negative effects on health inequalities and inequities arising from standard implementation if access to, and availability of, palliative care services is not evenly distributed among population groups, disease groups and geographical areas.

The positive effects of standard implementation on individual and population health will in part come from improvements in the wider determinants of health, including better lifestyle and personal circumstances, economic and social factors.

The suggestions from the HIA to the regional palliative care strategy implementation board include:

- Increase health literacy through community development approaches (which will benefit other HSC service areas also).
- Engage especially with vulnerable, and potentially marginalised, population groups to reduce health inequities.

3.4 Overarching learning

Beyond the recommendations and insights relating to specific sections and standards of the CVSFW contained in this report, the HIA has also generated some less tangible, but equally important outcomes.

3.4.1 Health inequalities and health and social care equity

Like any other health policy or strategy, the CVSFW is intended to improve health and wellbeing and to do so fairly and sustainably.

The HIA provides a qualitative and quantitative analysis of the CVSFW's ability to achieve its stated aims of improving access to HSC services equitably, and ultimately contribute to a reduction in health inequalities. It gives clear understanding where additional steps need to be taken to protect vulnerable population groups from unintended harms (increased inequalities gap), which could otherwise result from implementation of the CVSFW.

Health is not evenly distributed in Northern Ireland, nor is the ability of individuals within its population to benefit from HSC interventions. We need to be mindful of this if we wish to contribute to reducing the health inequalities gap.

3.4.2 Health intelligence for health improvement

Implementation of the CVSFW has thrown up many challenges for information systems and data management within HSC organisations. The HIA has brought these into sharp focus because it reinforces the importance of measuring HSC performance and population health outcomes, beyond geographical areas, at the level of individuals and in ways that link the interplay of factors which influence health and wellbeing for people from different backgrounds.

This poses challenges for all sectors, should they be governmental, statutory, voluntary, community or private organisations with an interest in health and sustainability, to work on data linkage and information sharing – within the confines of data protection legislation – to create a better understanding of health and wellbeing in Northern Ireland.

This learning has already been shared in governmental forums so that it may benefit the development of other service frameworks, and ultimately ICT strategic approaches and operational system developments.

3.4.3 Capacity building in learning organisations

This HIA of health policy implementation is the first of its kind on the island of Ireland. Many people have contributed, learning new knowledge and skills in the process. This was enhanced by the involvement of an international expert in HIA. This will benefit and strengthen HSC organisations in their endeavours to improve health and reduce health inequities in the future.

Already many participants, including members of the public, have expressed their appreciation for a better understanding of health, its determinants and distribution across Northern Ireland and what this means for service providers and users.

The dissemination strategy for the HIA includes printed and web based publications, a public launch event, speaking engagements at national and international conferences and training events, as well as other scientific publications.

There will be an evaluation in early 2012 to review progress.

3.4.4 Participation, partnerships and networks

Development, implementation and the HIA of the CVSFW by necessity and design embrace the principles of participation and depend on collaborative working across agencies, organisations, communities and individuals.

The HIA has added value to HSC services by strengthening its connections beyond institutional boundaries.

Both the project structure, with its large and diverse steering group, and the wide ranging consultative process have created opportunities for further innovation. These include community development approaches to risk factor reduction for cardiovascular diseases, and stronger links with the voluntary and community sector to support advocacy for cardiovascular health improvement.

Appendix 1

Management group and steering group members of the health impact assessment

HIA management group

Name	Organisation
Christine McMaster (Chair)	Public Health Agency
Diane Anderson	Public Health Agency
Leslie Boydell	Belfast Health and Social Care Trust
Avril Craig	Public Health Agency/Patient Client Council
Ffiona Dunbar	Health and Social Care Board
Louise Herron	Public Health Agency
Claire Higgins	Institute of Public Health in Ireland
Erica Ison	Independent HIA Practitioner
Sinead Malone	Stroke Service Development Team Northern Ireland Chest Heart and Stroke Association
Elaine O'Doherty	Public Health Agency

HIA steering group

Name	Organisation
Adrian Mairs (Chair)	Public Health Directorate, Public Health Agency
Lorraine Adair	Cardiovascular Service Nurse Manager, Southern Health and Social Care Trust
Diane Anderson	Health Intelligence Department, Public Health Agency
Leslie Boydell	Belfast Health and Social Care Trust
Avril Craig	Business Support Directorate, Public Health Agency (until July 2010); Patient and Client Council
Iain Deboys	Belfast Local Commissioning Group, Health and Social Care Board
Ffiona Dunbar	Information Management, Public Health Agency (until April 2010); Performance Management and Service Improvement and Development, HSCB
Veronica Gillen	Department of Health, Social Services and Public Safety (until April 2010)
Mark Harbinson	Consultant Cardiologist, Belfast Health and Social Care Trust and Queen's University Belfast
Brendan Heaney	Diabetes UK
Louise Herron	Public Health Directorate, Public Health Agency
Claire Higgins	Institute of Public Health in Ireland
Erica Ison	Independent HIA Practitioner
Stephanie Leckey	British Heart Foundation
Jim Livingstone	Department of Health, Social Services and Public Safety
Houston Magee	General Practitioner, Health and Social Care Board
Sinead Malone	Northern Ireland Chest Heart and Stroke Association
Sheelin McKeagney	Chair of Southern Area Local Commissioning Group
Christine McMaster	Public Health Directorate, Public Health Agency
Liz McShane	Maureen Sheehan Healthy Living Centre, West Belfast
Lorna Nevin	Northern Ireland Cancer Network
Elaine O'Doherty	Health Improvement Division, Public Health Agency
Jillian Patchett	Northern Ireland Chest Heart and Stroke Association
Emma Quinn	Prescribing Advisor, Health and Social Care Board
John Yarnell	Queen's University Belfast (until September 2010)

Appendix 2

Health Action Plan

Communication; standards 1-2

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
<p>1 All patients and carers should expect effective communication with them by health and social care organisations as an essential and universal component of the planning and delivery of health and social care</p>	<p>Ensure that healthcare professionals accord appropriate priority to effective, timely communication with patients and carers and are provided the opportunity to reflect on and discuss appropriate and effective methods of patient engagement</p>	<p><u>HSCT, PHA, PCC</u> GPs – NIMDTA, NMC, Professional training courses, RQIA</p>	<p>HSCTs – as regional lead in area would have already commenced plan of work in this area.</p>
	<p>Develop and audit communication practices and procedures, which encourage feedback from patients and carers to facilitate dialogue and help understanding.</p> <p>Communication practices should ensure that written information is understandable and tailored to the needs of different population groups such as young people, vulnerable, disadvantaged or marginalised groups. Consider communications needs in different setting and how to engage people with literacy difficulties. Take into account that different people prefer different levels of engagement, and incorporate ascertaining what level of engagement people want into the process and give them a choice, subject to wide consultation with appropriate representation from various groups.</p>	<p><u>PCC, HSCT as lead and RQIA to monitor</u> PHA, PCC, GPs – NIMDTA NMC, Professional training courses, GAIN Voluntary user groups to ensure written information is understandable.</p>	
	<p>Develop procedures and mechanisms to ensure good communication among all partners involved in implementation of the standard and encourage healthcare professionals and community groups to link up and inform each other of the opportunities available for involvement and engagement. This can be achieved by providing patient advice services e.g. within Healthy Living Centres (HLCs).</p>	<p>PCC, HSCT PHA HLCs User Groups</p>	

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
2 All patients, carers and the public should have opportunities to engage actively and meaningfully with health and social care organisations at all levels	Healthcare organisations need to conduct consultations about Public and Patient Involvement in a way that members of the general public and service users can respond to easily and effectively.	No lead as needs to be element of all healthcare organisations, including HSCT, PCC, PHA through regional PPI Group	
	During the development of Patient and Public Involvement strategies, and in any information produced, make clear the opportunities available to service users to become involved and actively engaged.	<u>PHA</u> All healthcare organisations have PPI consultation schemes in place	

Health Improvement: standards 3-9

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency <u>underlined</u>)	Possible links or existing implementation opportunities
<p>3 Health and social care should work in cooperation with voluntary, education, youth and community organisations to prevent the recruitment of young people to smoking</p>	<p>Develop, in a coherent way, a holistic evidence-based programme with the partners mentioned in the standard</p>	<p><u>PHA</u>, HSCT, Voluntary/community orgs, ELBs, DE</p>	<p>PHA currently developing Tobacco Action Plan/ Strategy (details not fully known). PHA has been identified as lead for majority of suggestions in this section and could therefore form a core component of this work.</p>
	<p>Increase support (staff and resources) for smoking cessation for the organisations mentioned in the standard; ensure the support is sustainable and implementation is not simply a one-off activity</p>	<p>DHSSPS, <u>PHA</u>, ELB, HSCT, Voluntary/ community orgs, (UCF)</p>	
	<p>Undertake individual area-based needs assessments and evaluations to ensure that the programmes implemented are effective for the local population</p>	<p><u>PHA</u>, LCG, HLC Voluntary/community orgs</p>	
	<p>Ensure all staff involved from all organisations are communicating the same message to service users about smoking</p>	<p>PHA, LCG, HLC, Primary care (PC), Voluntary/community orgs, HSCT</p>	
	<p>Provide training for staff in brief interventions, but ensure the training provided is appropriate to each organisation</p>	<p>HSCT, Voluntary/ community orgs, PHA responsibility to Commission, PC</p>	
	<p>Develop and establish a mentoring scheme that can be implemented at a local level.</p>	<p><u>PHA – to commission and resource</u> HSCT, Voluntary/ community orgs, UCF</p>	
	<p>Develop education programmes for parents to make them aware of the key messages about smoking</p>	<p><u>PHA</u>, <u>DE</u>, HSCT Voluntary/community orgs, Surestart</p>	
	<p>Implement a ban on smoking in open spaces, in cars, and in the presence of young people</p>	<p>PHA, <u>DHSSPS</u> Voluntary/community orgs, Local government, NILGA</p>	

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
4 All health and social care professionals should identify people who smoke, make them aware of the dangers of smoking, advise them to stop and provide information and then to signpost to the well developed specialist cessation services available	If the standard applies to “all staff”, insert the standard into management objectives as core business and include in staff personal development plans	HSCT, HSCB, PHA, PC RQIA – to inspect	All organisations have to initiate and implement therefore no lead is identified.
	Provide appropriate training for health and social care professionals to ensure staff can identify whether people are ready to stop smoking, and be clear on their role on advising people (e.g. opportunistic chat and signposting to services)	HSCT, HSCB, PHA, NIMDTA, Nursing training	Nursing training for motivational interviewing already in place. Not always easy to implement e.g. smoking outside doors at hospitals.
	Implement the standard by focussing on target groups and target settings as identified in the NICE Guidance, which needs to be incorporated into the standard; ensure that older people are considered as one of the target groups	PHA – as lead but focus is on range of organisations to take forward PC, Pharmacies, Local authorities, Workplaces	
	Provide smoking cessation services at a local level, and address the needs of the local population, e.g. need for travel, and need for childcare	Voluntary/community orgs, PHA, HSCT Primary Care	

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
<p>5 Health and social care professionals should identify inactive* individuals and, where appropriate, provide them with advice and support to accumulate a minimum of 30 minutes of moderate activity** on 5 days of the week or more</p>	<p>Include this standard in the corporate objectives of the responsible organisations, and amend staff remits accordingly</p>	<p><u>DHSSPS</u> – direction of travel, PHA Community/ Voluntary orgs, HSCTs, HSCB Clinical Advisory Group in Cardiac Rehabilitation</p>	<p>Undertaking in PHA Business Plan to support implementation of the CVSFW (code Amber)</p> <p>The National Audit and Cardiac Rehabilitation Database contains health behaviour information in relation to people who have had angioplasties or cardiac surgery</p>
	<p>Need to be specific about which “health professionals” are to be involved in the implementation of/ take responsibility for this standard – is it all health workers in the HPSS or just a defined group?</p>	<p><u>DHSSPS</u>- Service Framework Informatics Working Group PHA , HSCT, HSCB</p>	<p>Informatics Group already set up – they could address how information systems can be modified to record staff activity. It could work in primary care but probably not secondary</p>
	<p>Need to identify more precisely how and when it is appropriate to identify inactive individuals and provide them with advice and support, for instance: what is meant by the use of “support” in the wording of the standard; need to include children and young people in the identification of “inactive individuals”. There is also a need to ensure that appropriate agencies such as the Planning Service and local authorities are involved in relation to planning opportunities for activity such as open space provision and good quality footpaths in rural areas to support inactive individuals</p>	<p><u>DHSSPS</u>, <u>PHA</u>, HSCT, HSCB Local government DE DoE Planning Service</p>	<p>Joint Working Arrangements between PHA and local government – clusters focus on obesity and physical activity.</p> <p>Obesity Framework is out for consultation – this could be used to define greater detail with respect to this intervention, and to take forward some of the suggestions from the HIA of the CVSFW</p>
	<p>To ascertain whether the implementation of this standard is affecting people's health status, a mechanism for regular review needs to be established and a key performance indicator defined</p>	<p><u>PHA</u> DHSSPS – SFW Forum and informatics working group HSCB</p>	<p>System needs to be put in place to enable this suggestion/action to happen (see 5.2); Northern Ireland Health Survey will be yearly from 2010 and gathers information on self-reported levels of physical activity – could also ask whether people had received advice</p>

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
5 Health and social care professionals should identify inactive* individuals and, where appropriate, provide them with advice and support to accumulate a minimum of 30 minutes of moderate activity** on 5 days of the week or more	Develop a training programme on brief interventions. PHA needs to develop a training resource that takes a holistic approach to brief interventions to promote healthy lifestyle choices (not develop separate training programmes for each different lifestyle factor, e.g. diet, physical activity, alcohol consumption). HSC staff all need to be trained systematically so that a consistent message and application are the result. Focus on early years and continuity across HSC sectors, incl. primary and community care	DHSSPS, <u>PHA</u> , HSC Trusts HSCB LCGs Primary Care DE and schools	Loughborough may have a training programme on physical activity and Eat Well Plate. Use results from HIA of NICVSWF to influence implementation of Obesity Prevention Strategic Framework
	Work in partnership with local councils, private sector, education and voluntary sector to incorporate into the implementation of this standard, the need to increase people's access to green infrastructure and physical activity. Concessions for people/families in low-income groups needs to be considered alongside supporting inactive individuals through workplace activities and encouraging use of active travel e.g. provision of bicycle racks and showers	<u>PHA</u> , HSCT, HSE? Local government, including Chamber of Commerce, Community/ Voluntary sector, including Sustrans, DE, DoE Planning Service, DRD Roads Service Rural transport networks	Joint working arrangements between PHA and local government Implementation of Obesity Prevention Strategic Framework Cycle to work scheme for PHA

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
6 All people should be provided with healthy eating support and advice, appropriate to their needs, in a range of settings	Provide information in different languages to reflect those used by local population.	HSCT	Section 75 of the Northern Ireland Act 1998
	Encourage people to grow their own fruit and vegetables (which will also increase their level of physical activity).	<u>PHA</u> – lead , DARD Local government	Community and voluntary sector projects. Allotments

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
7 Health and social care professionals should work with early years settings, schools, workplaces and communities in the promotion and support of breastfeeding, healthy eating and physical activity to prevent obesity	Support the implementation of this standard through the Priorities for Action targets set by the DHSSPS	PHA	Through implementation of Obesity Prevention Strategic Framework 'A Fitter Future for All'
	Identify the barriers and develop appropriate interventions for active cultural change within health and social care services to enhance the effectiveness of the implementation of this standard, for example provide training for staff to address the lack of capacity		
	Encourage people to take physical activity outdoors, e.g. work on an allotment		

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
8 Primary care professionals should identify people who consume hazardous / harmful amounts of alcohol, make them aware of the dangers, advise them to reduce or stop and provide information and signposting to specialist services if appropriate	Build capacity within primary care to identify and support people consuming hazardous or harmful amounts of alcohol to reduce their intake	Primary care training – NIMDTA, HSCT support staff, <u>HSCB</u> , PHA, LCGs Community pharmacy	
	Establish a greater number of centres to support people who consume hazardous amounts of alcohol to improve systems of delivery of specialist alcohol services	HLCs, HSCB Voluntary/Community orgs EDACT, DACT, FASA, CODA etc <u>LCGs as commissioning agents</u>	Link into Drugs and Alcohol work currently happening across Northern Ireland
	Encourage parents and carers to spend time with their children so that young people do not start to consume harmful amounts of alcohol from an early age	Surestart, HSCT, PHA Parenting programmes in Voluntary/ Community orgs	
	Increase the level of education in schools about the harms associated with consuming hazardous amounts of alcohol	<u>DE</u> , ELBs, PHA, HSCT Local government	
	Health and social care staff including accident and emergency department staff should work with community groups as one way to reach people who are hazardous or harmful drinkers, especially those who are disadvantaged or experiencing health inequalities	A&E staff – little capacity GPs – through referral from A&E, Voluntary/Community orgs, HSCT	Note – this is more a signposting suggestion due to nature of A&E work.

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
9 Health and social care professionals should work with schools, workplaces and communities to raise awareness of and access to emergency life support (ELS) skills	Use community groups to deliver ELS	<u>PHA</u> , BHF, HSCTs, LTC Commissioning Group	Regional business case under development to feed into 2011/12 service plan

Hypertension: standards 10-11

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined>)	Possible links or existing implementation opportunities
<p>10 All adults should be offered lifestyle advice as to the prevention of hypertension and have their blood pressure measured and recorded using standardised techniques every five years from age 45 years</p>	<p>Advocate a reduction in the amount of salt in food</p>	<p>PHA, <u>NICHSA</u>, Safefood, DHSSPS: MGPH</p>	
	<p>Promote workplace health initiatives, including blood pressure measurement and lifestyle advice</p>	<p>PHA, <u>HSCT</u>, NICHSA, BHF DETI</p>	<p>Health in all policies!</p>
	<p>Coordinate and strengthen ongoing work in community and voluntary organisations, outreach services, community pharmacy and primary care services in identifying and managing hypertension and unhealthy lifestyles through, amongst others, case finding and brief interventions</p>	<p>Pharmacies, PHA Voluntary/Community orgs PC staff, LCGs/PCPs <u>HSCTs</u>, DHSSPS- long term conditions strategy, HSCB (prescribing advisors)</p>	<p>Develop synergy between disparate health improvement initiatives aimed at preventing long term conditions in community and workplace settings by aligning health improvement functions of PHA, HSCB (primary and community care including pharmacy), community and voluntary organisations and policy makers.</p>
	<p>Involve patients in self management, i.e. by training staff in ways of maximising concordance with drug regimes</p>		
<p>11 All patients should be offered drug therapy if they have (a) persistent blood pressure of 160/100 mmHg or more and/or (b) raised cardiovascular risk (10 year risk of cardiovascular disease of 20% or existing cardiovascular disease/target organ damage) with persistent blood pressure of 140/90 mm/Hg</p>	<p>Work with pharmacies to improve levels of compliance with drug regimens through evidence based interventions</p>		

Hyperlipidaemia: standards 12

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
12 All people with genetically linked high cholesterol (familial hypercholesterolaemia) should be identified and treated and their names entered on a regional register so that other family members can be identified in order that measures can be introduced to prevent the development of cardiovascular disease	Raise awareness of hyperlipidaemia in the general population	Health promotion PC staff	Include in awareness campaign
	Provide training to primary care teams for effective identification and management of people with hyperlipidaemia	PC staff Community/ voluntary orgs with an interest in cardiovascular disease	Progress business case for development of regional familial hyperlipidaemia service
	Provide support to identified index patients and family members, i.e. through support groups		

Diabetes: standards 13-15

CVSFW Standard	HIA Suggestions	Stakeholders (Lead agency underlined)	Possible links or existing implementation opportunities
13 All people with diabetes should have an accurate diagnosis made	Raise awareness among members of the public about the risk factors for and symptoms of diabetes, with strategies for reaching people in hard-to-reach groups, including raising the level of community-based awareness	PHA, Community/ Voluntary orgs	Include in awareness campaign for prevention of long term conditions
	Develop capacity through training and skills development for identification and management of diabetes, especially in primary care and with a focus on the provision of Structured Patient Education (SEP)	PHA, HSCB PC staff	Progress through development of diabetes network and long term conditions commissioning group
	Improve communication, sharing of information and performance management between primary and secondary care from diagnosis through creation of patient pathways to systems of care development	PHA, HSCB, PC staff Secondary care staff	

Heart Disease: standards 16-28

The following suggestions have been presented to the Cardiac Network for consideration

CVSFW Standard	HIA Suggestions
<p>16 All pregnant women should have appropriate antenatal screening for congenital heart disease (ConHD), with specialist services available to those in whom a diagnosis of ConHD is made</p>	<p>Increase investment in service delivery for congenital heart disease, including training for healthcare professionals, and in equipment</p> <p>Improve the quality of investigation for congenital heart disease, especially in area hospitals</p> <p>Increase the efficiency of the service in processing the results of investigation for congenital heart disease</p> <p>Ensure the capacity is available in the Belfast Regional Centre to meet the increased demand as a result of the implementation of this standard</p> <p>Develop a clearly defined referral pathway for congenital heart disease</p> <p>Conduct outcomes evaluation, and ongoing audit of screening and diagnosis of congenital heart disease</p> <p>Undertake health economic/outcomes assessment to control the opportunity costs of congenital heart disease</p>
<p>17 All children with suspected major congenital and acquired heart disease should have access to prompt diagnosis and appropriate management in line with Ministerial targets</p>	<p>Increase investment in equipment and in service delivery for children with congenital heart disease and acquired heart disease, including training for healthcare professionals</p> <p>Increase awareness among healthcare professionals of the needs of children with congenital heart disease and acquired heart disease experiencing health inequalities and inequities</p> <p>Provide post-natal support to children and their families and/or carers, especially for children from lower socio-economic groups or who are from vulnerable or marginalised groups in society</p> <p>Consider the development of cross-border services for the treatment of children with congenital heart disease and acquired heart disease in order to obtain the appropriate level of skills in the operator (surgeon)</p> <p>Conduct outcomes evaluation, and ongoing audit of the treatment of children with congenital heart disease and acquired heart disease</p> <p>Increase the efficiency of the service in processing the results of investigations for congenital heart disease and acquired heart disease in children</p> <p>Undertake health economic/outcomes assessment to control the opportunity costs of treating children with congenital heart disease and acquired heart disease</p>

CVSFW Standard	HIA Suggestions
<p>18 All patients with suspected inherited cardiac disease should have access to a consultant led service specifically designed to meet their needs</p>	<p>Review the current provision of services for people with suspected inherited cardiac disease, and consider increasing investment in service delivery, including training for healthcare professionals, and in equipment</p> <p>Provide support to individuals with inherited cardiac disease and their families and/or carers, especially for those from lower socio-economic groups or who are from vulnerable or marginalised groups in society</p> <p>Increase awareness among healthcare professionals of the specialist services available for people with suspected inherited cardiac disease</p> <p>Increase the efficiency of the service in processing the results of investigation for suspected inherited cardiac disease</p> <p>Conduct outcomes evaluation, and ongoing audit of treatment and access to services for inherited cardiac disease</p>

CVSFW Standard	HIA Suggestions
<p>19 All adults with major congenital heart disease should have access to a specialist consultant led service specifically designed to meet their needs</p>	<p>Increase awareness in secondary and tertiary care of the needs of patients with adult congenital heart disease</p> <p>Increase investment in equipment and in service delivery for patients with adult congenital heart disease, including training for healthcare professionals</p> <p>Ensure there is sufficient capacity in adult congenital heart disease services to provide care for an increasing population, including:</p> <ul style="list-style-type: none"> • Investigations (echocardiography and MRI); • Interventions; • Cardiac surgery. <p>Develop an effective referral pathway into specialist services for adults with congenital heart disease</p> <p>Increase the efficiency of the service in processing the results of investigation for adult congenital heart disease</p> <p>Ensure direct access to services via a specialist nurse</p> <p>Develop nurse-led transition services for young people aged 14-16 years</p> <p>Provide clinical psychology support and palliative care services</p> <p>Provide support to patients and their families and/or carers, especially for patients from lower socio-economic groups or who are from vulnerable or marginalised groups in society</p> <p>Conduct outcomes evaluation, and ongoing audit of treatment of and access to services for adult congenital heart disease</p> <p>Develop a network with other services for adults with congenital heart disease in the UK</p> <p>Undertake health economic/outcomes assessment to control the opportunity costs of adult congenital heart disease</p>

CVSFW Standard	HIA Suggestions
<p>20 All patients with a diagnosis of non-atrial fibrillation arrhythmia should receive timely assessment, treatment and support based on individual need</p>	<p>Invest in increasing access to services for non-atrial fibrillation arrhythmia</p> <p>Invest in staff training</p> <p>Develop the appropriate skills mix in services for patients with non-atrial fibrillation arrhythmia</p> <p>Develop a shared care protocol between primary and secondary care</p> <p>Support patients in the development of self-management skills through good-quality patient education</p> <p>Ensure all patients with non-atrial fibrillation arrhythmia are followed up by HSC services</p> <p>Monitor and evaluate the outcomes of services for patients with non-atrial fibrillation arrhythmia</p> <p>Conduct a cost-effectiveness assessment of services for patients with non-atrial fibrillation arrhythmia</p> <p>Establish mechanisms for patient feedback on services for non-atrial fibrillation arrhythmia</p> <p>Conduct ongoing quality improvement in services for non-atrial fibrillation arrhythmia</p> <p>Consider conducting opportunistic screening/case finding while patients are in hospital for other reasons, e.g. for pre-operative work-up or when hospitalised with another condition</p>
<p>21 All patients with a diagnosis of atrial fibrillation should receive timely assessment, treatment and support based on individual need</p>	<p>Increase investment in the prevention of atrial fibrillation</p> <p>Increase the amount of resources for frontline staff in the identification and management of people with atrial fibrillation</p> <p>Identify and ensure the appropriate skills mix for the identification and management of people with atrial fibrillation</p> <p>Target high risk groups for identification of atrial fibrillation, e.g. people with hypertension</p> <p>Undertake incidental finding in very frail elderly people – some treatment risk in this group</p> <p>Undertake regular reviews of patient medication</p> <p>Increase patient adherence to treatment</p> <p>Introduce change management and quality improvement initiatives to reduce health inequities</p> <p>Include key performance indicators that address the diagnosis and assessment of patients with atrial fibrillation</p>

CVSFW Standard	HIA Suggestions
<p>22 All patients with a clinical suspicion of heart failure should have access to ECG and BNP for first level rule out in a primary care setting</p>	<p>Run training courses and provide regular updates for primary care teams in the appropriate use of diagnostic test (BNP and ECG)</p> <p>Increase the use of patient pathways in the management of people with heart failure</p> <p>Increase the use of referral systems (electronic) in the management of people with heart failure, including updating primary care teams on appropriate referral</p> <p>Work with and train practice nurses in the management of shortness of breath</p> <p>Establish self-help groups for people heart failure</p> <p>Undertake regular reviews of patient medication for heart failure</p> <p>Either re-word the standard or alter the KPI – the standard concerns ruling out heart failure in a primary care setting, and the KPI measures the percentage of patients referred to a specialist heart failure services</p> <p>Define a “specialist heart failure service” (mentioned in KPI)</p>

CVSFW Standard	HIA Suggestions
<p>23 All patients with diagnosis of heart failure should be prescribed evidence-based medication as appropriate, under the guidance of the multidisciplinary specialist team</p>	<p>Enhance the capacity of multidisciplinary teams</p> <p>Encourage and monitor the regional standardisation of the service provided by multidisciplinary teams</p> <p>Ensure the overall clinical leadership for the management of heart failure patients is made clear in each case</p> <p>Consider the use of nurse prescribers in the management of patients with heart failure</p> <p>Consider ways of ensuring continuity of care for patients when several healthcare professionals are involved in their management, e.g. identifying a key worker for patients</p> <p>Consider the provision of a 24/7 service for patients with heart failure</p> <p>Ensure there is capacity in the service to support quality improvement, and the necessary change management processes</p> <p>Develop a coherent plan for the management of local approaches to commissioning healthcare services (Local Commissioning Groups)</p> <p>Consider ways to redistribute funding equitably from the voluntary sector to health and social care trusts</p> <p>Monitor expenditure on and investment in heart failure services</p> <p>Review the funding and resources for heart failure services</p> <p>Consider the introduction of programme budgeting and marginal analysis to facilitate the allocation of resources for heart failure services</p> <p>Establish a central point of contact to improve communication between primary and secondary care about patients with heart failure</p> <p>Set up and maintain a strategic central server to collect web-based data to support the management of patients with heart failure</p>

CVSFW Standard	HIA Suggestions
<p>25 All patients identified as requiring cardiac rehabilitation, in line with the regional guidelines, should be offered this service</p>	<p>Increase capacity to deliver rehabilitation services, e.g. by training the trainers</p> <p>Identify mechanisms of collaboration between primary and secondary care</p> <p>Set up data linkage systems between primary and secondary care</p> <p>Improve the monitoring of the KPI</p> <p>Consider the development of a patient manual of cardiac rehabilitation services</p>
<p>26 All patients who develop new onset chest pain, suggestive of angina should be reviewed at a rapid access chest pain clinic (RACPC) within 2 calendar weeks of referral by the GP/ appropriate clinician</p>	<p>Establish a structured referral process for GPs</p> <p>Audit inappropriate referrals, and use the results to improve practices in referral</p> <p>Consider an increase in the number of clinics able to offer chest pain services</p> <p>To achieve equity, consider different models of providing chest pain services</p> <p>Implement NICE recommendations for the management of chest pain</p>
<p>27 All high risk patients presenting with non ST elevation acute coronary syndromes should undergo angiography / revascularisation within 72 hours of diagnosis in accordance with clinical need</p>	<p>Provide training and education for healthcare professionals, including team-building skills</p> <p>Undertake monitoring and evaluation of the service provided</p> <p>Provide feedback on performance to staff, e.g. through use of an electronic whiteboard</p> <p>Audit services against European standards to improve understanding of outcomes</p>
<p>28 All patients with suspected pulmonary arterial hypertension should be managed in a timely fashion by a specialist multidisciplinary team in line with NSCAG centres</p>	<p>Review the care pathways for suspected pulmonary arterial hypertension</p> <p>Introduce effective change management for service providers not complying with NSCAG requirements</p> <p>Provide feedback on performance in the management of pulmonary arterial hypertension</p>

Cerebrovascular Disease: standards 29-32

The following suggestions have been presented to the Stroke Strategy Implementation Group for consideration

CVSFW Standard	HIA Suggestions
<p>29 All patients with suspected transient ischaemic attack (TIA) should have rapid specialist assessment and investigation to confirm the diagnosis and should have a management plan urgently put in place to reduce short term and long term cardiovascular complications. (See also Standard 35)</p>	Ensure the implementation of NICE guidance
	Conduct an audit of compliance with NICE guidance
	Ensure there is a focus on secondary prevention throughout the service
	Conduct a programme to raise awareness among primary and secondary care staff of the symptoms and signs of suspected TIA, including information on referral and care pathways
	Ensure there is capacity in TIA clinics to provide an equitable service
	Establish an agreed referral pathway for people requiring carotid endarterectomy
	Provide training in the use of the agreed referral pathway, and provide GPs with access to immediate specialist advice on TIA symptoms, to avoid inappropriate referrals
	Establish links between the TIA service and other relevant services such as the diabetes service and the cardiac service
	Employ specialist nurses for TIA and stroke
Increase access to urgent scanning through the investment of resources or through re-organisation of the service	

CVSFW Standard	HIA Suggestions
<p>30 All patients with suspected acute stroke should have rapid access to specialist assessment, appropriate brain imaging and emergency treatment, including thrombolysis</p>	<p>Conduct a programme to raise awareness among primary and secondary care staff of the symptoms and signs of suspected acute stroke, including information on referral and care pathways</p> <p>Audit the care pathway for stroke</p> <p>Establish a regional thrombolysis service that is available 24/7</p> <p>Develop an appropriate service model to take account of health inequities, which is also practical so people are not put at risk</p> <p>Obtain informed consent from patients with the provision of good-quality information</p> <p>Set up mechanisms for sharing best practice</p> <p>Establish mentoring schemes to improve staff competencies</p> <p>Provide appropriate training to healthcare professionals to ensure that they are able to deliver the service described in standard 30</p> <p>Ensure a regional coordinated and networked approach to the provision of stroke services</p>
<p>31 All patients who have had a stroke should have their rehabilitation delivered by a Specialist Stroke Rehabilitation Team in a Stroke Unit, starting immediately after admission to hospital. Specialist stroke rehabilitation focuses on assessing the individual needs of patients and, in consultation with the patient and their family/carer(s), addressing them in the most effective way. Ongoing specialist rehabilitation needs, as defined by the Team, should continue to be delivered by a Specialist Stroke Rehabilitation Team</p>	<p>Ensure a coordinated approach to stroke care across Northern Ireland</p> <p>Conduct audits of rehabilitation services for stroke patients</p> <p>Improve team-working between rehabilitation teams working in the acute sector and those working in the community</p> <p>Establish mechanisms by which healthcare professionals can share good practice in the provision of stroke rehabilitation services</p> <p>Provide a skills development programme to increase staff competencies in the rehabilitation of people with stroke</p> <p>Introduce a system for ring-fencing beds for people with stroke who need rehabilitation</p>

CVSFW Standard	HIA Suggestions
<p>32 All patients who have had a stroke or TIA are reviewed post discharge by primary care services at 6 weeks,6 months, and annually. Stroke patients with persisting disability at 6 months should be reviewed by a member of a specialist team to determine the need for a further targeted period of rehabilitation. As part of ongoing review referral to neuropsychology services should be considered where appropriate</p>	<p>Establish a systematic approach to the follow-up of people with stroke that will ensure all patients are followed up regardless of location or level of social support</p> <p>Provide training for primary care staff to enable them to carry out reviews effectively, as well as promoting lifestyle changes for health improvement, e.g. smoking cessation</p> <p>Ensure that reviews are holistic, patient-centred, and are conducted by a multidisciplinary team</p> <p>Establish effective mechanisms for communication and coordination between primary and secondary care, especially with respect to communicating the results of reviews</p> <p>Provide people with stroke with information on the relevant voluntary sector organisations which can provide support</p>

Peripheral Vascular Disease: standards 33-38

The following suggestions have been presented to the Vascular Network for consideration

CVSFW Standard	HIA Suggestions
<p>33 All people with a high risk of developing PVD such as patients with diabetes, chronic kidney disease, smokers and the elderly should have accessible and timely care delivered by the appropriate members of the multi-disciplinary foot care team</p>	<p>Encourage all GP practices to participate in the peripheral vascular disease DES</p> <p>Provide ongoing training for primary care staff</p> <p>Advise GPs to use opportunistic approaches with men who do not attend the service</p> <p>Engage with men's health groups to provide alternative community-based services in areas of deprivation</p>
<p>34 All patients with abdominal aortic aneurysm (AAA) should have their medical therapy optimised, particularly, all patients should be on statin therapy. Aneurysm repair should be considered in patients whose aneurysm exceeds 5.5cm in diameter. Patients should be offered open or endovascular repair if possible. All men aged 65 should be offered AAA screening in line with National Screening Committee recommendations.</p>	<p>Ensure the equitable geographical provision of AAA screening services across Northern Ireland.</p> <p>Identify and address barriers to patients being able to make an informed choice about treatment for AAA</p> <p>Undertake quality improvement of the AAA service with a target of reducing mortality to national standards</p>
<p>35 All patients who experience an anterior circulation TIA and carotid artery stenosis of 70-99% should be referred to a vascular surgeon, investigated and have their carotid surgery within 2 weeks of the event. The long term goal should include carotid intervention within 48 hours (See also Standard 29)</p>	<p>Establish a continuous care pathway for people with an anterior circulation TIA and a carotid artery stenosis of 70-99% that is clear and can be accessed easily</p>

CVSFW Standard	HIA Suggestions
<p>36 Patients with leg pain on exertion, suggestive of peripheral arterial disease should have an ankle brachial pressure index (ABPI) test performed in primary care</p>	<p>Encourage all GP practices to participate in the peripheral vascular disease Direct Enhanced Service</p> <p>Provide ongoing training for primary care staff</p> <p>Develop agreed referral guidelines between primary care and the vascular service</p>
<p>37 All patients presenting with features of thoracic aortic dissection should be assessed and referred immediately to an appropriate management centre</p>	<p>Raise awareness of thoracic aortic dissection among the public and health and social care professionals</p> <p>Provide training in the identification and management of thoracic aortic dissection for GPs</p> <p>Provide training in the identification and management of thoracic aortic dissection for clinicians, especially those in cardiology services and the emergency department</p> <p>Develop guidance governing the referral and management of thoracic aortic dissection</p>
<p>38 All patients who are at risk of, or who have developed lymphoedema, should have access to timely information, diagnosis and treatment within the Northern Ireland Lymphoedema Network in accordance with the CREST Lymphoedema Guidelines</p>	<p>Raise awareness of lymphoedema among patients and clinicians</p> <p>Provide training in the identification and management of lymphoedema to clinicians</p> <p>Provide adequate resources to the Lymphoedema Network, in particular to enable timely data entry onto the LymphDat IT System</p> <p>Identify and enhance methods for the prevention of lymphoedema</p> <p>Ensure equitable geographical access to lymphoedema services</p> <p>Develop and provide patient information on lymphoedema and its effective prevention and management</p>

Renal Disease: standards 39-42

The following suggestions have been presented to the Renal Sub-group for consideration

CVSFW Standard	HIA Suggestions
<p>39 All patients with a diagnosis of chronic kidney disease (CKD) should receive timely, appropriate and effective investigation, treatment and follow-up to reduce the risk of progression and complications</p>	<p>Develop mechanisms for the pro-active follow-up by primary care of people at risk</p> <p>Ensure the availability of specialist nephrology advice</p> <p>Provide training for primary care staff in the management of chronic kidney disease</p> <p>Identify ways to increase compliance with treatment, particularly in people from vulnerable, disadvantaged or marginalised groups</p> <p>Provide tailored support packages for hard-to-reach groups, e.g. home visits</p> <p>Develop practices to manage patient anxiety</p> <p>Identify a data source of information for KPI 39d, and develop an appropriate information system</p>
<p>40 Renal services are to ensure a delivery of high quality, safe and effective dialysis care which is designed around the individual's needs and preferences and are available to all patients of all ages. This should be delivered by a highly skilled multi-professional workforce to maximise dialysis capacity, improve quality of life and reduce complications</p>	<p>Ensure geographical availability of dialysis services across Northern Ireland</p> <p>Increase the input of vascular surgeons to the provision of vascular access</p> <p>Identify ways to reduce surgical risk</p>
<p>41 All children, young people and adults likely to benefit from a kidney transplant should receive a high quality service which supports them in managing their transplant and enables them to achieve the best possible quality of life</p>	<p>Resource and develop a sustainable renal transplantation service</p> <p>Develop appropriate mechanisms to obtain donor consent, and to provide support to the donor's family and /or carers</p>

CVSFW Standard	HIA Suggestions
<p>42 All people at risk of, or suffering from, acute kidney injury/acute renal failure should be identified promptly, with hospital services delivering high quality, clinically appropriate care in partnership with specialised renal teams. Prevention of AKI should be a priority for all clinicians in both primary and secondary care</p>	Ensure appropriate dissemination of guidance
	Ensure implementation of the guidance
	Audit the implementation of the guidance
	Incorporate guidance into the Northern Ireland Cardiovascular Service Framework
	Ensure that the management of acute kidney injury is included in training for both undergraduate and postgraduate clinical students and staff
	Provide training for healthcare professionals involved in the identification and management of people with acute kidney injury

Palliative Care: standards 43-45

The following suggestions have been presented to the Palliative Care Implementation Board for consideration

CVSFW Standard	HIA Suggestions
<p>43 Health and social care professionals, in consultation with the patient, will identify, assess and communicate the unique supportive, palliative and end of life care needs of that person, their caregiver/s and family</p>	<p>Consider identifying a budget for palliative and end-of-life care across all relevant programmes of care (and not just cancer), thereby developing a funding stream for each condition and/or service framework</p> <p>Establish support networks for training and education in palliative and end-of-life care</p> <p>Define clearly the roles and responsibilities of healthcare professionals in relation to the provision of palliative and end-of-life care</p> <p>Conduct qualitative research on palliative and end-of-life care services with individuals receiving care and their families, and ensure representation of the population across Northern Ireland</p> <p>Monitor and evaluate the effects of the implementation on health inequalities and health inequities</p>
<p>44 All patients, carers and families should have access to responsive, integrated services which are coordinated by an identified team member according to an agreed plan of care, based on their needs</p>	<p>Ensure there are appropriate protocols in place to manage palliative and end-of-life care</p> <p>Review whether staffing levels are appropriate for the implementation of Standard 44</p>
<p>45 All people with advanced progressive conditions, their caregivers and families, will be informed about the choices available to them, by an identified team member, and have their dignity protected through the management of symptoms and provision of comfort in end of life care</p>	<p>Review the investment required to support choice for individuals during palliative and end-of-life care</p> <p>Define the role of the Patient Client Council in relation to palliative and end-of-life care</p> <p>Develop a programme with the voluntary sector to increase health literacy about palliative and end-of-life care, using a community development approach</p> <p>Engage with vulnerable, disadvantaged and marginalised groups in order to define their needs for and increase their access to palliative and end-of-life care</p>

The remaining HIA suggestions represent those which refer to public awareness campaigns. These are listed below for considered by the Public Health Agency

CVSFW Standard	HIA Suggestions
<p>3 Health and social care should work in cooperation with voluntary, education, youth and community organisations to prevent the recruitment of young people to smoking</p>	<p>Develop publicity material for all organisations and individuals trained in service provision at a local level</p> <p>Communicate and promote the positive outcomes of standard implementation, especially to staff so they can see the benefits of their work</p>
<p>5 Health and social care professionals should identify inactive individuals and, where appropriate, provide them with advice and support to accumulate a minimum of 30 minutes of moderate activity</p>	<p>Increase the number of health promotion information “films” on the television</p>
<p>24 All eligible patients suffering an acute myocardial infarction with ST-segment elevation heart attack should receive thrombolysis within one hour of calling for professional help.</p>	<p>Increase public awareness of the main message, “Phone 999”, when people are having a heart attack, including through the use of advertising</p>
<p>29 All patients with suspected transient ischaemic attack should have rapid specialist assessment and investigation to confirm the diagnosis and should have a management plan urgently put in place to reduce short term and long term cardiovascular complications. (See also Standard 35)</p>	<p>Conduct a public awareness campaign about the symptoms and signs of transient ischaemic attack (TIA), including what to do and where to go; ensure the campaign is able to reach people who are vulnerable, disadvantaged or marginalised</p>
<p>30 All patients with suspected acute stroke should have rapid access to specialist assessment, appropriate brain imaging and emergency treatment, including thrombolysis</p>	<p>Conduct a public awareness campaign about the symptoms and signs of stroke, including what to do and where to go; ensure the campaign is able to reach people who are vulnerable, disadvantaged or marginalised</p>

CVSFW Standard	HIA Suggestions
<p>31 All patients who have had a stroke should have their rehabilitation delivered by a Specialist Stroke Rehabilitation Team in a Stroke Unit, starting immediately after admission to hospital. Specialist stroke rehabilitation focuses on assessing the individual needs of patients and, in consultation with the patient and their family/carer(s), addressing them in the most effective way. Ongoing specialist rehabilitation needs, as defined by the Team, should continue to be delivered by a Specialist Stroke Rehabilitation Team</p>	<p>Increase awareness of the signs and symptoms of stroke, and its appropriate treatment</p>
<p>39 All patients with a diagnosis of chronic kidney disease (CKD) should receive timely, appropriate and effective investigation, treatment and follow-up to reduce the risk of progression and complications</p>	<p>Raise public awareness of the symptoms and signs of chronic kidney disease, and what to do about it</p>
<p>41 All children, young people and adults likely to benefit from a kidney transplant should receive a high quality service which supports them in managing their transplant and enables them to achieve the best possible quality of life</p>	<p>Conduct a public information campaign and launch it after developing the renal transplantation service</p>
<p>43 Health and social care professionals, in consultation with the patient, will identify, assess and communicate the unique supportive, palliative and end of life care needs of that person, their caregiver/s and family</p>	<p>Conduct a public awareness campaign about palliative and end-of-life care</p>

Health action plan abbreviations

BHF British Heart Foundation

CODA Community Drug Awareness

DACT Drugs and Alcohol Coordination Team

DE Department of Education

DES Direct Enhanced Service

DETI Department of Enterprise, Trade and Investment

DoE Department of the Environment

DRD Department for Regional Development

EDACT Eastern Drugs and Alcohol Coordination Team

ELB Education and Library Board

FASA Forum for Action on Substance Abuse and Suicide Awareness

GAIN Guidelines and Audit Implementation Network

HSCB Health and Social Care Board

HSCT Health and Social Care Trust

LCG Local Commissioning Group

MGPH Ministerial Group on Public Health

NACR National Audit and Cardiac Rehabilitation

NICHSA Northern Ireland Chest Heart and Stroke Association

NILGA Northern Ireland Local Government Association

NIMDTA Northern Ireland Medical and Dental Training Agency

NMC Nursing and Midwifery Council

NSCAG National Specialist Commissioning Group

PC Primary Care

PCC Patient and Client Council

PHA Public Health Agency

PPI Public and Patient Involvement

RQIA Regulation and Quality Improvement Authority

SFW Service Framework

UCF Ulster Cancer Foundation

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References

1. Department of Health, Social Services and Public Safety. Cardiovascular health and wellbeing service framework. Belfast: DHSSPS, 2009.
2. Barton H, Grant M. A health map for the local human habitat. *The Journal of the Royal Society for the Promotion of Health* 2006; 126(6): 252-53.
3. Homer J, Milstein B, Wile K, Pratibhu P, Farris R, Orenstein D. Modeling the local dynamics of cardiovascular health: risk factors, context, and capacity. *Prev Chronic Dis* 2008; 5(2). Available at www.cdc.gov/pcd/issues/2008/apr/07_0230.htm Last accessed 28 Sept 2010.
4. WHO Regional Office for Europe. Gothenberg consensus paper: health impact assessment; main concepts and suggested approach. Brussels: European Centre for Health Policy, 1999.
5. Northern Ireland Statistics and Research Agency. Registrar General annual report. Belfast: NISRA, 2008.
6. Health Intelligence Unit, Public Health Agency, 2010.
7. Department of Health, Social Services and Public Safety. Project support analysis branch. Belfast: DHSSPS, 2010.
8. Northern Ireland Health Inequalities Monitoring System via Health Intelligence Unit, Public Health Agency, 2010.
9. Department of Education and Learning. School leavers survey 2008. Northern Ireland Neighbourhood Information System. Belfast: Northern Ireland Statistics and Research Agency, 2010.
10. Northern Ireland Housing Executive. House condition survey: main report. Belfast: NIHE, 2006.
11. Department for Regional Development. Travel survey for Northern Ireland 2006-2008. Belfast: DRD, 2009.



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