British Heart Foundation Cymru

A heart and circulatory disease plan for Wales.

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1. Introduction

1.1 Background and Context

There have been improvements in survival from acute heart and circulatory events over previous decades. This is positive progress, but challenges remain. 340,000 people across Wales are living with heart and circulatory diseases[1] and 9,400 deaths each year are caused by these conditions[2]. That's more than 1 in 4 deaths in Wales.

The scale of the challenge presented by heart and circulatory disease in Wales remains substantial. An ageing population, the rise in co-morbidities, an increase in risk factors for heart and circulatory disease, and persisting health inequalities, all continue to have an impact and require strong action to address. The Covid-19 pandemic has brought this into even sharper focus, having had a significant negative impact on people with heart and circulatory diseases and on the services that support them.

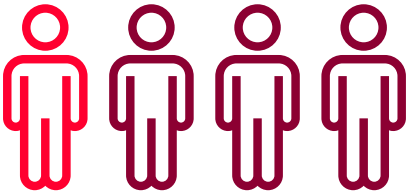
The solutions to the challenge posed by cardiovascular diseases go beyond solely reducing mortality. We must ensure that where possible, we prevent people from developing heart and circulatory diseases, and that those living with these conditions have equitable access to timely, high-quality care and are supported to live well with their condition.

The 2017 Heart Conditions Delivery Plan recognised many of the challenges and set a vision of minimising the incidence of preventable heart disease. This included ensuring equitable and timely access to high-quality pathways of care and encouraging a shift towards community-based support. Wales still needs to drive forward and build on this vision, but the Delivery Plan is now coming to the end of its implementation period. A refreshed commitment is required, and this should take the form of a bold plan, supported by sufficient resources and clear leadership to deliver necessary and effective actions.

To identify priorities that a renewed plan should address, BHF Cymru consulted with clinicians, people living with heart and circulatory diseases, and the general public. More detail on the consultation process can be found in Appendix 1. This document outlines a vision and sets priorities based on that engagement, in the form of a plan for heart and circulatory diseases in Wales.

This plan focuses on priorities and actions that address the needs of people with, and those at risk of developing heart and circulatory diseases. We have not directly addressed diabetes or other cardiovascular conditions such as stroke, as these are addressed separately in the *Diabetes Delivery Plan for Wales 2016–2020* and the *2017–2020 Stroke Delivery Plan*. Despite this, there are many common themes in providing timely detection and equitable care for people with all cardiovascular risk factors and conditions. With many people living with multiple conditions, collaborative working is necessary and many recommended actions in this plan may be beneficial for other health conditions.

This document concentrates on the provision of diagnosis, treatment and care for people with heart and circulatory disease and its risk factors. It does not specifically address wider societal public health measures, as several policy commitments exist in Wales in relation to this. This does not diminish the importance of such measures and we strongly believe that the commitments made in *Healthy Weight, Healthy Wales* and the *Tobacco Control Plan for Wales* should be implemented, and that further action should be taken to address population level health issues where necessary.



Heart and circulatory diseases cause 1 in 4 deaths in Wales

1.2 The Scale of the Problem

Since 1961, the Welsh death rate from heart and circulatory diseases has declined by more than three quarters[3]. However, these conditions continue to represent a significant health challenge in Wales and cause 9,400 deaths each year[4].

This burden is likely to increase due to an ageing population. The latest estimates from the Office of National Statistics (ONS) suggest that Wales has 855,000 people over the age of 60, with around a third of these over 75[5].

The most common heart and circulatory disease is coronary heart disease (CHD). Around 118,000 people in Wales are living with CHD[6], and it is responsible for around 14,000 hospital admissions[7] and 3,750 deaths each year[8].

Other types of heart disease have a substantial impact on the lives of people in Wales, too. The numbers of people diagnosed with atrial fibrillation (AF), heart valve disease and, heart failure (HF) have increased over the last decade, due to an ageing and growing population, combined with improved diagnosis.

- **Around 76,000 people in Wales have been diagnosed with AF, an increase of 23,000 diagnoses in the last decade[9].**

- **Between April 2018 and March 2019, around 11,000 patients in Wales were diagnosed with heart valve disease[10]; its burden has risen significantly over the last decade[11].**

- **More than 34,000 people in Wales have been diagnosed with HF by their GP, an increase from 28,500 a decade ago[12].**

As the population ages, there is also an increase in co-morbidity. An estimated 93% of CHD patients in Wales live with at least one other co-morbidity[13].

It is also important to consider the impact of less common, but no less important heart conditions.

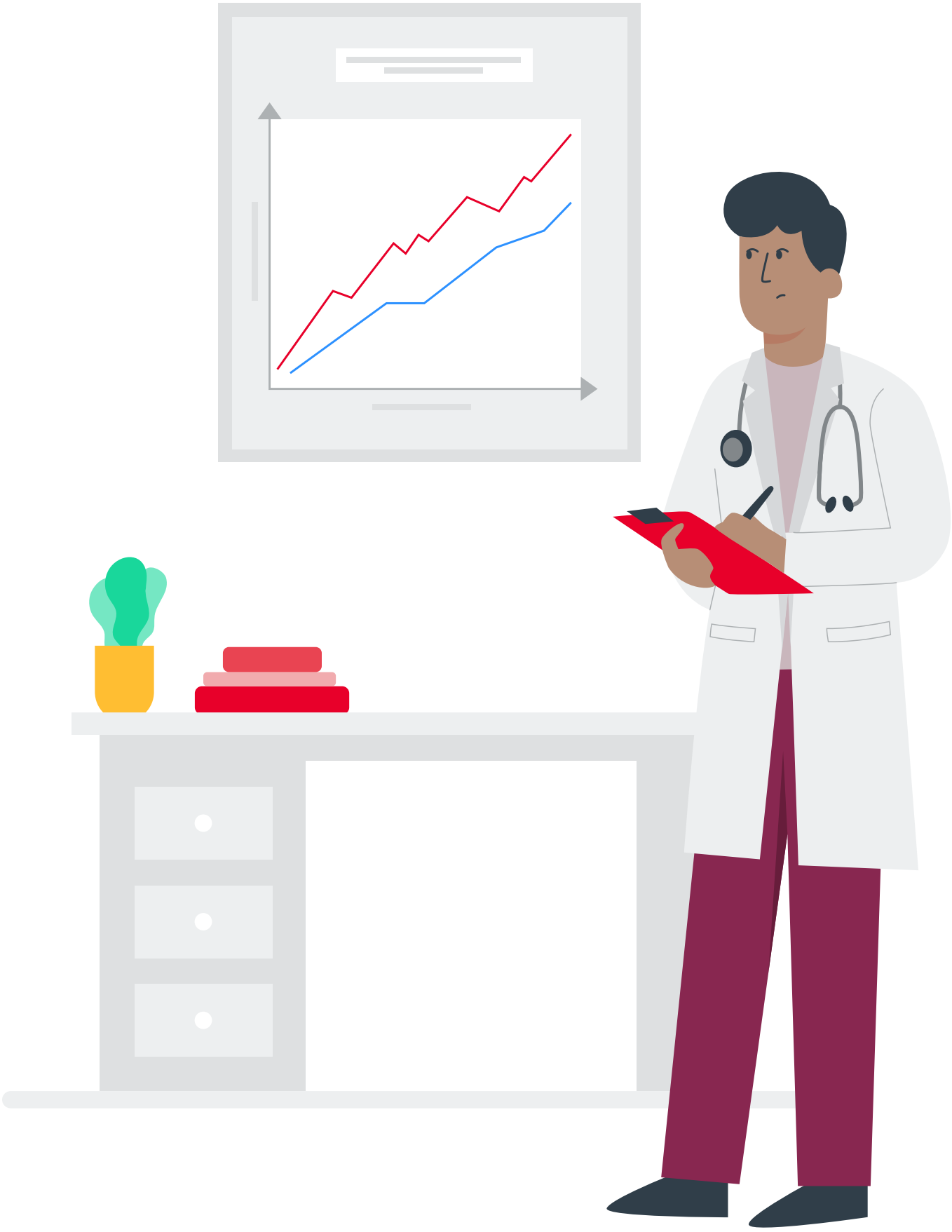
- **Congenital heart disease is diagnosed in around 1 in 150 births[14], which means there are around 18 diagnoses a month in Wales with further diagnoses of anomalies likely to be made later in life.**

- **An estimated 30,000 people in Wales have a faulty gene that can cause an inherited heart-related condition[15], the most common of which are hypertrophic cardiomyopathy (HCM) and familial hypercholesterolaemia (FH).**

Health inequalities remain a persistent challenge in Wales, with those in more deprived areas shouldering the greatest burden of disability and death from heart and circulatory diseases. The premature death rate for these conditions is 116.4 per 100,000 in Blaenau Gwent, compared to 58.2 in the Vale of Glamorgan, one of the least deprived areas in Wales[16].

There are early signs that morbidity and mortality related to heart and circulatory diseases in Wales could worsen as a result of the Covid-19 pandemic. People living with many heart and circulatory diseases and also their risk factors have an increased risk of severe outcomes when infected with Covid-19. A recent study of severe Covid-19 cases across the UK revealed two of the most common co-morbidities are chronic cardiac disease (29%) and uncomplicated diabetes (19%)[17]. Furthermore, coronary heart disease is one of the most common pre-existing conditions for Covid-19 fatalities, with 9% of patients in Wales dying from Covid-19 having CHD mentioned on their death certificate[18].

During the pandemic there has also been a deferral and reduction in the health services available to people with heart and circulatory diseases, including diagnostics, treatments, access to specialist support in the community and cardiac rehabilitation. There are concerns across the sector that all of this will not only increase waiting times as the number of people who require support from the health system rises, but it will also increase mortality and morbidity rates.



1.3 Policy Context

This plan focuses on the provision of equitable and timely access to services for heart and circulatory diseases, and their risk factors, and is set within the wider policy context for health and social care in Wales.

A Healthier Wales sets the vision of a whole systems, integrated approach to health and social care with a focus on prevention, and the delivery of equitable and high-quality care from birth through to end of life. It aligns with the ethos of Prudent Healthcare, which is the ethos of using resources as effectively as possible to prevent illness, support people to manage their health and wellbeing, and have personalised care delivered as close to home as possible.

Within this vision, there is an emphasis on shifting care into the community, working in partnership, investing in workforce, and ensuring quality improvement to reduce variation and waste; all of which is reflected throughout this plan.

A Healthier Wales includes a commitment to the development of a National Clinical Plan and the formation of an NHS Wales National Executive. The National Clinical Plan, which is still in development, will demonstrate how clinicians are expected to base their work on nationally agreed pathways and work across whole systems. This is closely reflected in the actions recommended within Priority Two. We firmly believe that the implementation of existing pathways for atrial fibrillation, acute coronary syndrome and heart failure is vital and that further All Wales Cardiac Pathways should be developed.

The formation of a National Executive aims to speed up decision making and make the system more responsive to national priorities and facilitate a shared planning approach across national, regional and local levels. It will provide a consistent approach to priority setting, performance management, and accountability. The governance structure for this Executive will include the National Clinical Networks. Clarity on the governance structure will be important to ensure that the Wales Cardiac Network has a strong voice within this Executive Framework, to ensure that it can deliver against its priorities effectively and support the wider vision of *A Healthier Wales*.

A Healthier Wales also identifies the development of digital services as vital in developing services fit for the future. In *A Healthier Wales*, Welsh Government committed to a £50 million digital priorities fund, the creation of a Chief Digital Officer role, and the development of a new NHS Wales organisation to deliver national digital services. NHS Wales Informatics Services will transition to a new standalone NHS Wales organisation, reflecting the importance of digital and data in health care. The importance of incorporating digital models of care is reflected strongly in this plan, particularly in the opportunities for telemonitoring for long-term conditions like high blood pressure, described in Priority One.

It is recognised by Welsh Government that a clear and coherent approach to developing and planning the whole workforce is required. Welsh Government commissioned Health Education and Improvement Wales (HEIW) and Social Care Wales (SCW) to develop a *long-term workforce strategy*. The strategy identifies actions to improve understanding of the workforce, address recruitment and makes a commitment to the development of a multi-professional workforce plan. Several recommendations we have provided are relevant to these workforce ambitions and it is vital that HEIW work collaboratively with the Wales Cardiac Network to ensure that those priorities are delivered and achieved.

The Primary Care Model for Wales supports a transformation in care and seeks to enable seamless working between community partners, with a focus on wellbeing, prevention and exploring digital solutions. Focus is given to prevention in clinical settings, including maximising the benefit of detection and management of high risk conditions like high blood pressure, atrial fibrillation, and high cholesterol. The model promotes joining up of services and maximising diagnostics within the community. We strongly advocate for a transformation in care for people with heart and circulatory diseases in line with the Primary Care Model for Wales and believe that primary care must be a key partner in the delivery and implementation of a heart and circulatory disease plan in Wales.

The vision and recommended actions identified in this document closely align to the vision and principles set by *A Healthier Wales*.

1.4 Vision and Priorities

Vision

Our vision, informed by a consultation process with clinicians, patients and the public, is to minimise preventable heart disease. This should be achieved through improved detection and management of risk factors and ensuring that everyone in Wales has equitable access to high-quality diagnosis, treatment and care, to support them in living well with their condition.

Priority One: Improving detection, diagnosis and management of high risk conditions

Early detection and optimal treatment of the major risk factors of high blood pressure, atrial fibrillation and high cholesterol, must be prioritised to minimise the risk of developing heart and circulatory disease.

Priority Two: Timely diagnosis, improving access and quality of care

People living with heart and circulatory disease should receive a timely diagnosis and have equitable access to high-quality treatment and care.

Priority Three: Effective use of health data

Ensuring that high quality, standardised data are available and used effectively to support clinical decision-making; understand patient outcomes; enable better service-planning, so people experience better quality of care and improved outcomes.

2. Priority One:

Improving detection, diagnosis and management of high risk conditions

2.1 Overall Ambition

The early detection and optimal treatment of the major risk factors of high blood pressure, atrial fibrillation and high cholesterol, to minimise the risk of developing heart and circulatory disease.

Recommended Actions for Welsh Government

1. Wales Cardiac Network should work with GP clusters to evidence the impact of the AF quality improvement project and use this learning to ensure the inclusion of high cholesterol into the national disease register, and the incorporation of high blood pressure and high cholesterol as quality improvement projects within QAIF.

2. Expand the NHS Wales Informatics Service (NWIS) AF software module to include high blood pressure and high cholesterol. National extraction of the information within the NWIS software module should also be enabled to support identification of unwarranted variation as part of the work of the Cardiovascular Atlas of Variation.

3. Welsh Government should support key partners, including Public Health Wales, primary care clusters, community pharmacy and British Heart Foundation, to develop a programme of community detection and self-management of high blood pressure and high cholesterol across Wales.

4. Welsh Government should fund the piloting and scale up of telemonitoring for high blood pressure and use of advanced technology for remote detection of AF, with a view to incorporating other long-term conditions into such work. This should be in line with the aims of *Informed Health and Care, A digital health and social care strategy for Wales.*

2.2 Context

Many people in Wales are living with high risk conditions such as high blood pressure, atrial fibrillation and high cholesterol, putting them at increased risk of heart and circulatory diseases. Improved detection, diagnosis and optimal management of these conditions can help minimise preventable heart and circulatory diseases.

The detection and management of these high risk conditions were highlighted as key actions within the Heart Conditions Delivery Plan 2017, with some health boards given funding to develop and implement cardiovascular disease risk assessment pilots[19]. A full evaluation of the program is expected this year and it is vital to learn from this work. It is also necessary to learn from the examples of digital detection and monitoring that have been utilised during the Covid-19 pandemic, which should support an ambitious approach to tackling high risk conditions over the next five years.

There is an opportunity to shift detection and management of these conditions closer to the community and better support people with self-management. The response to the Covid-19 pandemic has shown how effective community mobilisation can be, with many volunteers supporting those in need. This should be built on to develop healthier and more resilient communities. A clear national direction is required to ensure consistent information is available to support local areas with implementation of new models of care, and improved data collection to ensure measurement and learning is possible.

The solutions presented in this section link closely to Public Health Wales's (PHW) *Long-term strategy 2018–2030*. To deliver their contribution to *A Healthier Wales*, the long-term strategy prioritises the development of a sustainable health and care system which is focused on prevention, early intervention in the community, and has a focus on the risk factors for the most common health conditions. It is necessary that PHW are key partners in driving this forward and should work closely with the Wales Cardiac Network on the delivery of the forthcoming recommended actions.

A more detailed overview of each condition, and potential approaches, is provided on the following pages.

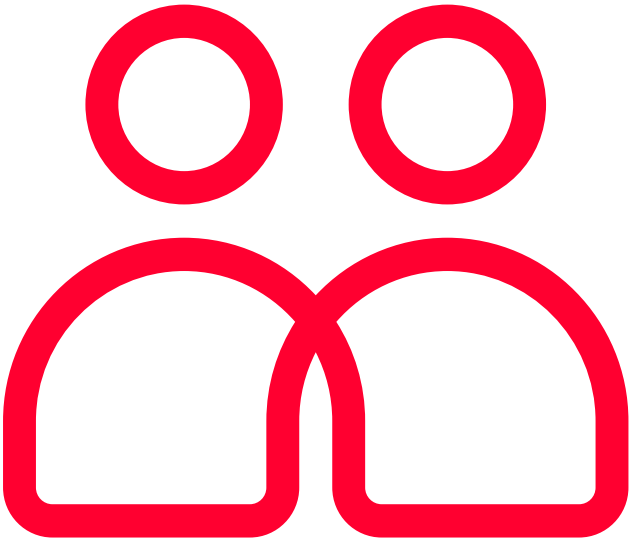
2.2.1 High Blood Pressure

High blood pressure (high BP) or hypertension, is the leading modifiable risk factor for heart and circulatory disease in Wales. An estimated 700,000 adults in Wales have high BP[20] and it is associated with half of all strokes and heart attacks.

Once high BP is detected, lowering blood pressure significantly reduces the risk of heart and circulatory disease and death[21]. Though high BP is a risk factor, it usually does not have any symptoms and people may not realise that they have the condition. As many as 180,000 people in Wales could be living with the condition undiagnosed[22].

Innovative approaches can be taken to improve the detection and management of high blood pressure. Making Every Contact Count (MECC)[23] is an approach which recognises that staff across health, local authority and voluntary sectors, have thousands of contacts with individuals every day and are ideally placed to promote health and healthy lifestyles. In line with this approach, we should consider innovative community models of detection and management of high BP. This could take place outside of the typical health care setting, for example in community pharmacies, local authority settings (like gyms or community centres) and community settings (like cultural centres and places of worship).

Examples from other countries have shown that community models of detection, diagnosis and management are effective.



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Case Study: Canada's Cardiovascular Health Awareness Programme

In Canada, the Cardiovascular Health Awareness Programme introduced integrated community-based cardiovascular health promotion and chronic disease management activities. It did this through partnership with primary care providers, community pharmacists, community groups and locally trained volunteers acting as peer health educators. The programme was associated with a 9% reduction in hospital admissions at population level for stroke, heart attack and heart failure among working age people (under 65), compared to communities that did not implement the programme[24] and is viewed internationally as an innovative and successful programme.

In Wales, around 25%[25] of those who are diagnosed with high BP are not treated to 150/90 mmHg. It is therefore equally important that models for detection are supported by appropriate pathways to ensure that people gain an accurate diagnosis, effective and optimised treatment and support to self-manage their condition.

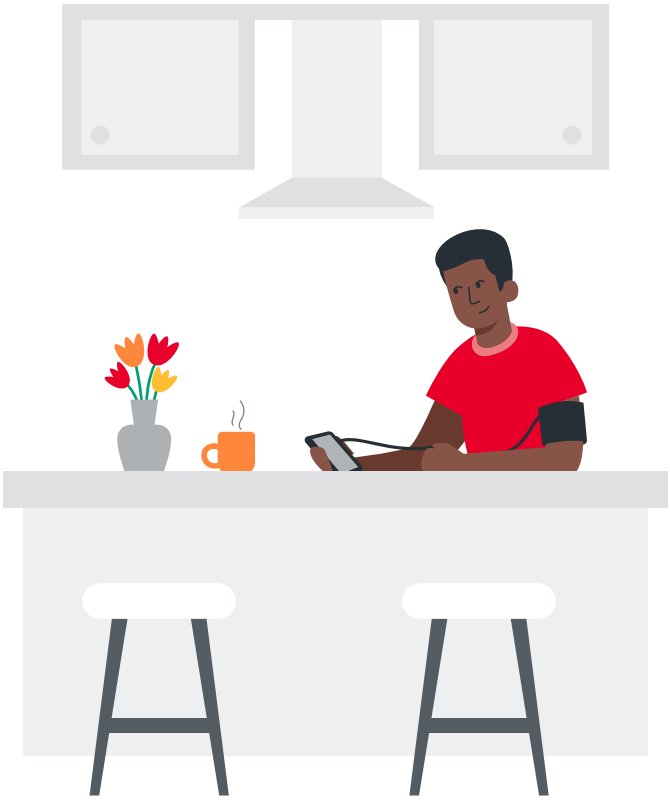
Self-monitoring has become an increasingly common part of blood pressure management and can increase adherence to lifestyle changes or medication. Combining self-monitoring with support from a health care professional can result in decreases in blood pressure where self-monitoring alone did not have the same impact[26]. One way in which this additional collaboration might be achieved in a more time efficient manner is through telemonitoring. This is supporting an individual to self-monitor their blood pressure remotely, using a validated monitor with an automatic electronic transmission of data to a health care professional.

Case Study: Scale-Up BP in Scotland

Scale-Up BP is part of the Technology Enabled Care (TEC) programme funded by Scottish Government.

People with suspected high blood pressure are given a validated blood pressure monitor and are prompted regularly to check their blood pressure at home and then asked to text back the readings through a text messaging system. The system informs them immediately if their blood pressure is on target or to contact a doctor or nurse if it is worryingly high. This model can support with diagnosis, and with longer term self-management.

A key action of *Informed Health and Care: A digital health and social care strategy for Wales* is to promote system level, digitally enabled services to monitor long-term conditions. High BP is an excellent model for this type of work and should be prioritised to expand digitally enabled services. Wales should also consider how to incorporate high cholesterol and atrial fibrillation within such models of care.



2.2.2 High Cholesterol

High cholesterol increases the risk of heart disease and stroke and is associated with one in four deaths from heart and circulatory diseases in Wales[27]. Once diagnosed, people can benefit from lifestyle adaptations and treatment with statins to reduce their cholesterol and related risk of developing heart and circulatory diseases.

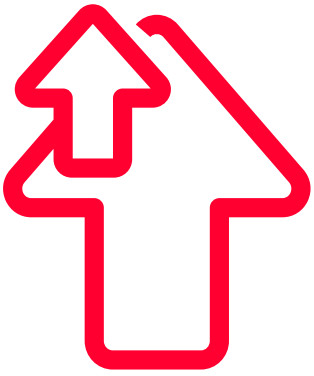
The detection, diagnosis and management of high cholesterol could be incorporated into models of community care described in section 2.2.1.

Currently, patient data on high cholesterol in Wales is not collected. Without this data we cannot identify unwarranted variation. Identifying variation would support improvement of high cholesterol management across Wales.

QAIF is the Quality Assurance and Improvement Framework within primary care which forms a part of the 2019 General Medical Services Contract for Wales. It replaces the Quality and Outcome Framework (QOF) to incentivise cluster working. Several disease registers are included in the QAIF points system, where primary care practices are rewarded financially for submitting data and information on the prevalence of certain conditions within their area. The disease register includes a register of patients with atrial fibrillation, coronary heart disease, heart failure and hypertension. High cholesterol is not yet included in the disease register section of QAIF, but this should be considered. The NHS Wales Informatics Service (NWIS) should also consider developing a software module to ease data collection on identification and treatment of high cholesterol across Wales, similar to their work on atrial fibrillation, described in more detail in section 2.2.3.

Familial hypercholesterolemia (FH) is an inherited condition in which a gene mutation leads to abnormally high cholesterol. 11,500 people in Wales are estimated to have FH[28]. In 2010, the BHF and Welsh Government co-funded an FH cascade testing service in Wales, with the BHF funding three clinical nurse specialists for three years. The Welsh Government took over this funding from 2013, and the service had identified 1,154 genetically confirmed cases of FH by February 2019. Though FH genetic services are available in every health board, there is variation across Wales, with limited access in Powys Teaching Health Board.

The 2017 Heart Conditions Delivery Plan stated that health boards, the Welsh Health Specialised Services Committee (WHSCC) and the Wales Cardiac Network should ensure pathways are in place to identify and treat individuals with FH. It is necessary to extend this commitment and ensure that people across Wales have equitable access to FH services in line with NICE guidelines[29]. FH should therefore form a core part of the All Wales Cardiac Pathway development and implementation work described in more detail in section 3.3.



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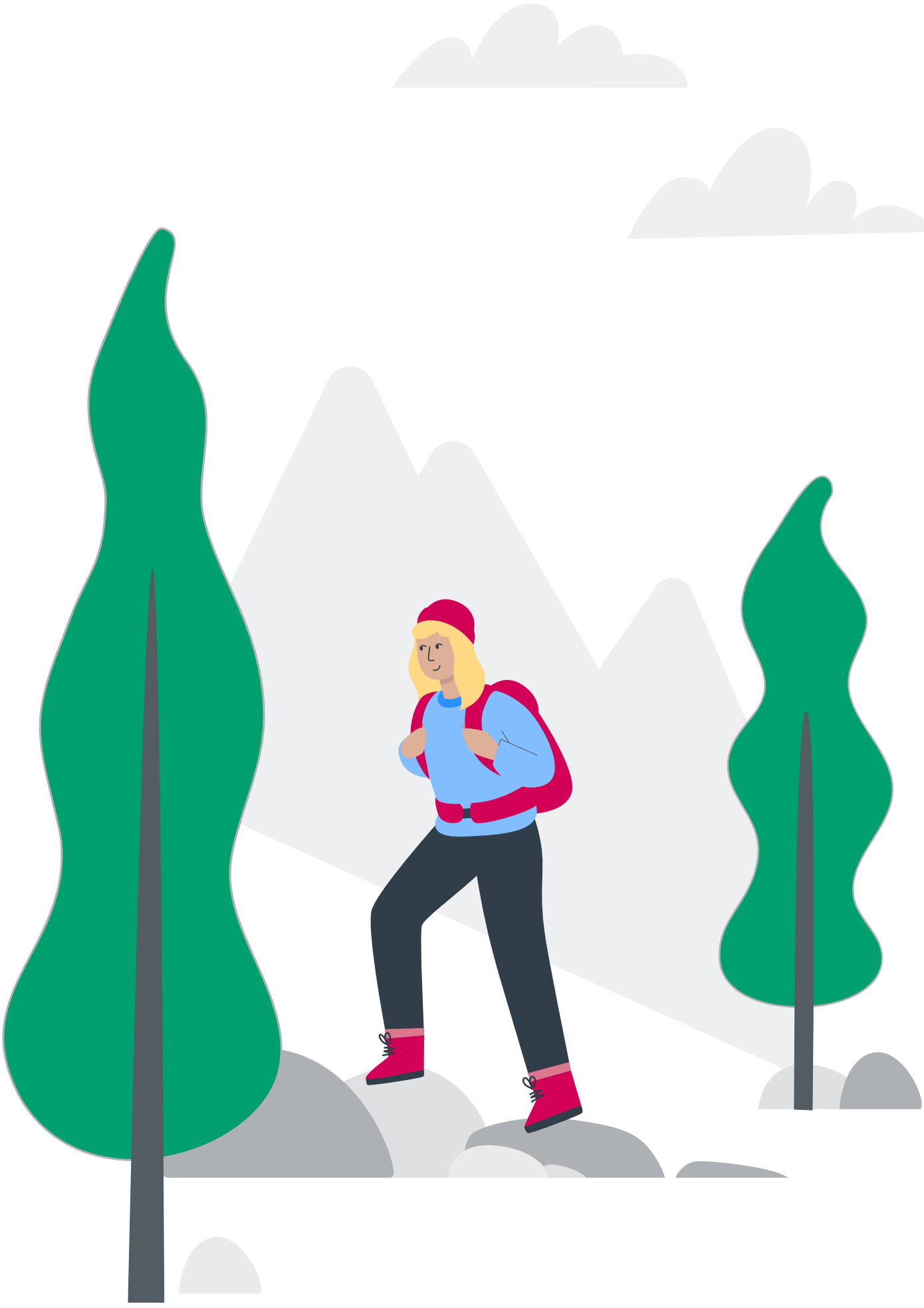


2.2.3 Atrial Fibrillation

Atrial Fibrillation (AF) is an irregular heart rhythm that can increase the risk of stroke by five times. Around 76,000 people in Wales have been diagnosed with AF[30], but the BHF estimates that thousands more are living with undiagnosed AF.

AF can be treated effectively through appropriate anti-coagulation, ideally in primary care, which means the risk of stroke can be reduced. However, up to 10,000 diagnosed AF patients are not effectively treated[31]. If everyone with AF in Wales was diagnosed and anti-coagulated optimally, up to 800 strokes could be avoided over three years[32]. Learning around providing anti-coagulation in primary care could also be applied to improve remote detection and monitoring of other high risk conditions, which has been particularly important during the Covid-19 pandemic.

Population level screening of AF is not currently recommended by the UK Screening Committee. Further evidence as to the most appropriate systematic approach to the detection of asymptomatic AF should be available on conclusion of the *SAFER study*. It may therefore be appropriate to revisit detection of AF in detail within the implementation of this plan, but no specific recommendations have been made at this point. Diagnosis and treatment of AF involves interaction between primary care and secondary care cardiology services. A full pathway covering all aspects has been developed (The All Wales AF Pathway[33]), discussed in section 3.3.

As explained in section 2.2.2, primary care is rewarded for completing disease registers as part of QAIF. In addition to this, QAIF also provides points for the completion of quality improvement projects in primary care, of which there are five different projects to choose from. The most recent basket of projects included the reduction of stroke risk through management of atrial fibrillation within the cluster population. This means that prioritisation of appropriate management of AF has been undertaken by primary care practices across Wales.

To facilitate the implementation of the QAIF AF quality improvement project, the NHS Wales Informatics Service (NWIS) has developed an AF Audit+ software module. This module enables the identification of patients with AF and their current anti-coagulation medication, which has supported GP clusters to make improvements in the number of people appropriately treated. At present, reporting of the percentage of patients who are receiving anti-coagulant or antiplatelet therapy (or have documented shared decision-making declining this medication), takes place at GP cluster level. This enables clusters to set, monitor and evaluate quality improvement targets within each cluster.

The ability to extract the data collected for QAIF at national level, for inclusion within the Cardiovascular Atlas of Variation, could support the national peer review framework and the All-Wales AF pathway implementation. This would support the whole systems approach to quality improvement outlined in the 2017 plan and reaffirmed in a refreshed plan.

Using the learning from the AF quality improvement project, there should be a case developed for future QAIF quality improvement projects to address high blood pressure and high cholesterol. The NWIS Audit+ software should also be expanded to enable the monitoring of identification and treatment these high-risk conditions, and for this data to be made available for extraction and inclusion within the Cardiovascular Atlas of Variation.

If everyone with AF in Wales was diagnosed and anti-coagulated optimally, up to 800 strokes could be avoided over three years

2.3 Recommended Actions for Welsh Government

1. Wales Cardiac Network should work with GP clusters to evidence the impact of the AF quality improvement project and use this learning to ensure the inclusion of high cholesterol into the national disease register, and the incorporation of high blood pressure and high cholesterol as quality improvement projects within QAIF.

2. Expand the NHS Wales Informatics Service (NWIS) AF software module to include high blood pressure and high cholesterol. National extraction of the information within the NWIS software module should also be enabled to support identification of unwarranted variation as part of the work of the Cardiovascular Atlas of Variation.

3. Welsh Government should support key partners, including Public Health Wales, primary care clusters, community pharmacy and British Heart Foundation, to develop a programme of community detection and self-management of high blood pressure and high cholesterol across Wales.

4. Welsh Government should fund the piloting and scale up of telemonitoring for high blood pressure and use of advanced technology for remote detection of AF, with a view to incorporating other long-term conditions into such work. This should be in line with the aims of *Informed Health and Care, A digital health and social care strategy for Wales*.

3. Priority Two:

Timely diagnosis, improving access and quality of care

3.1 Overall Ambition

People living with heart and circulatory disease should have equitable and timely access to high-quality diagnosis, treatment and care.

Recommended Actions for Welsh Government

5. Develop All Wales Cardiac Pathways for all heart conditions and provide appropriate resource to support their implementation. Pathway development should include core aspects of care for people with heart and circulatory diseases, including: consideration of primary care services, access to community models of cardiology, cardiac rehabilitation, psychological support and end of life care where appropriate.

6. Identify indicators to measure the performance of the All Wales Cardiac Pathways, including timescales to diagnosis and treatment.

7. Resource the development, evaluation and wider implementation of new models of care to advance the shift to community cardiology, the transformation in cardiac rehabilitation and the provision of appropriate palliative care, in line with the agreed All Wales Cardiac Pathways. The wider implementation of these models of care should be supported by a dedicated champion within the Wales Cardiac Network. The first priority of this work should be focused on community diagnostic hubs to support the recovery of services impacted by the Covid-19 pandemic.

8. The National Clinical Plan must provide a clear governance framework for the implementation of the All Wales Cardiac Pathways, ensuring that an adequately resourced Wales Cardiac Network has a strengthened role to provide leadership and insight directly to the NHS Executive.

9. The Wales Cardiac Network should be supported by HEIW to carry out a workforce review against the agreed All Wales Cardiac Pathways, with a focus on cardiac physiology and specialist nurses for people with heart and circulatory diseases. The findings from this should be incorporated into wider workforce planning carried out by HEIW.

10. Wales Cardiac Network should work collaboratively with HEIW to review training and professional development opportunities in line with recommendations from national bodies (such as British Association for Cardiovascular Prevention and Rehabilitation, British Cardiovascular Society, and British Society for Heart Failure) and the requirements of the All Wales Cardiac Pathways. An all-Wales training offer for cardiovascular health care professionals, which ensures staff are empowered and supported to work across the cardiovascular care treatment pathway, should be developed.

3.2 Context

There are several challenges to achieving timely and equitable access to evidence-based diagnosis, treatment, care and support for people with heart and circulatory diseases.

An ageing population and increased survival from acute events, means that many more people are living with conditions which require long-term treatment and support. Research and advances in surgical techniques have enabled more people to be diagnosed and treated successfully with congenital heart disease, and these patients can require complex, life-long care. A better understanding of inherited heart conditions has also led to an increased need for access to specialist centres for diagnosis and ongoing cardiology care.

To ensure capacity within acute services, it is important that where possible, care is provided close to home and seeks to avoid hospital admission. To enable this, a transformation in models of care and the use of digital technology to support new ways of interacting with patients are needed.

The Covid-19 pandemic has accelerated this. In response to the challenges of delivering care during a pandemic, new models of care have been adopted and digital technology used more widely. The adoption at scale of digital technology will support many of the ambitions of this plan and should be prioritised by the Welsh Government. It remains important that there is a longer-term plan for the delivery of transformed services for people living with heart and circulatory disease, as well as the ability to assess these innovations and implement more widely where successful.

Receiving a timely diagnosis is vital to improving access to equitable care and treatment for people with heart and circulatory disease, and there are many opportunities to improve performance in this area. Available data on waiting times for diagnostic tests for heart and circulatory diseases are limited, although anecdotally we know that there are significant challenges accessing certain diagnostic tests: Echocardiography, Computed Tomography (CT) Angiograms and Magnetic Resonance Imaging (MRIs). This means that people are waiting far too long for a diagnosis. This is likely to have been exacerbated as a result of the Covid-19 pandemic as many services were deferred and restricted, resulting in a backlog of people waiting for investigations and treatment.

People with heart and circulatory diseases should be better supported to recover and live well with their condition. Services like cardiac rehabilitation are vital, but we need to encourage innovation and new models of care that provide holistic support in recovery and have an increased focus on emotional and psychological wellbeing. Living well with heart disease also means that people are supported at the end of their life. Palliative care is not offered to many people who die from heart disease, despite the fact that they would have benefitted. This must be addressed.

3.3 All Wales Cardiac Pathways

The development of All Wales Cardiac Pathways can support the standardisation of care, reduce variation, drive improvements in patient outcomes and improve patient experience. Work to develop and implement such pathways will support wider policy aims, as nationally agreed pathways are a core focus of the upcoming National Clinical Plan.

The development of All Wales Cardiac Pathways will support the NHS Executive to ensure that health boards are providing timely and equitable care for people with heart and circulatory diseases. Pathways will provide clear and agreed standards and indicators to support and encourage health boards to deliver against in their planning cycles. This includes ensuring that health boards' financial, workforce and digital plans identify the necessary resources.

Case Study: The Single Cancer Pathway in Wales

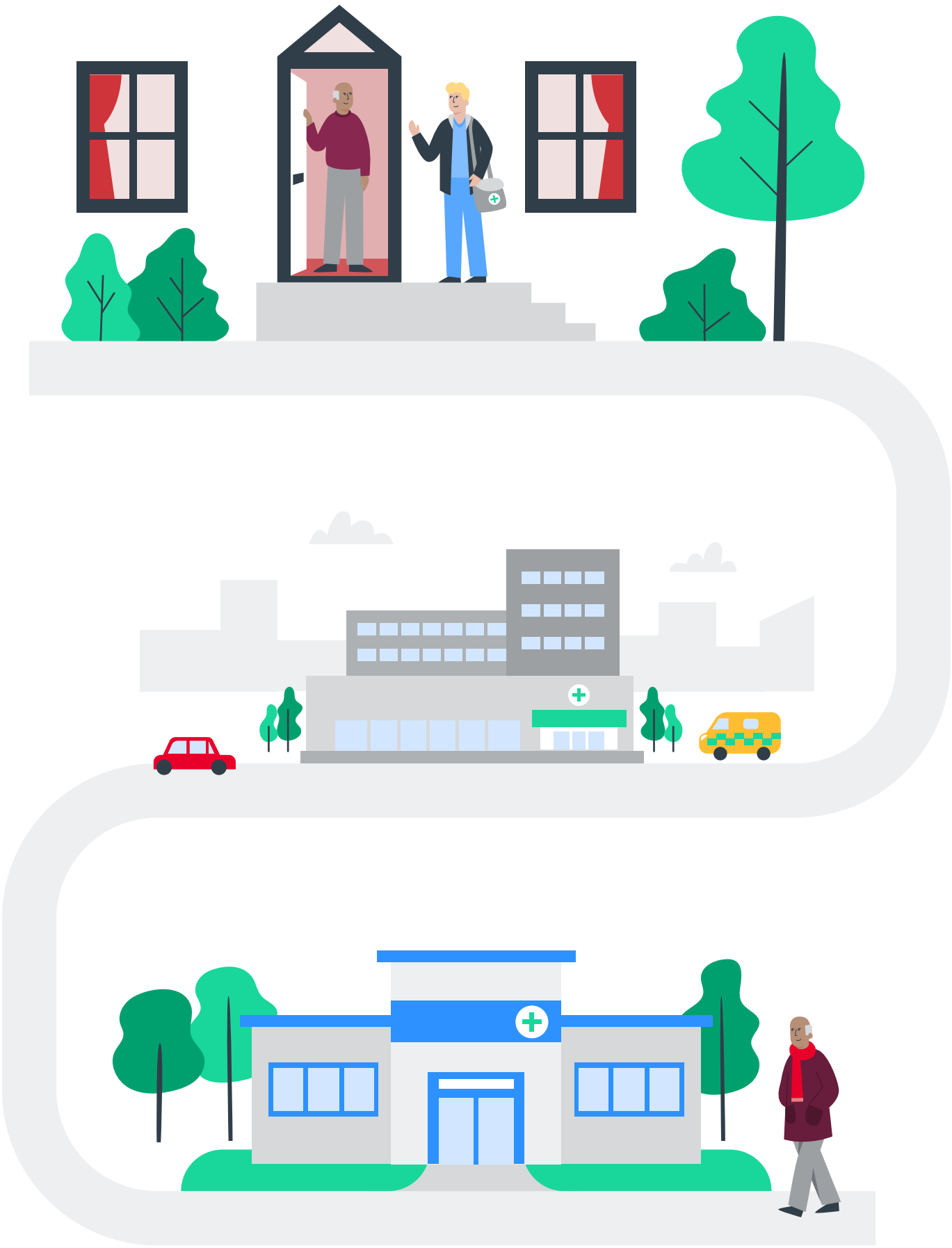
Introduced in 2019, the Single Cancer Pathway is a new, UK leading metric by which cancer should be diagnosed and treatment started within 62 days of suspicion[34]. With the aim of meeting these targets, the Wales Cancer Network has developed a series of National Optimal Cancer Pathways, which are underpinned by agreed principles to guide their implementation[35]. Similar principles should underpin the development of All Wales Cardiac Pathways, including the requirement that health boards, supported by the Wales Cardiac Network and NWIS, should be able to report total and defined component waits at a patient, cardiac site or organisational level. Business intelligence tools should also be available locally and nationally to provide intelligence on pathway performance.

To date, Wales Cardiac Network has collaborated to develop pathways for acute heart failure, acute coronary syndrome (ACS) and atrial fibrillation (AF). Engagement to implement the All-Wales AF Pathway has taken place across Wales, however, the implementation of the heart failure and ACS pathways need to be driven forward at pace.

It is important to consider what care looks like for everyone living with heart and circulatory disease so the development and implementation of All Wales Pathways should take place for all heart conditions. The development of such pathways should be co-produced with health care professionals and people living with heart disease and should consider the whole journey of care including that provided within primary, community as well as in secondary and tertiary care settings.

Once pathways are agreed, it will then be possible to identify outcomes-based indicators which can be measured against to demonstrate whether the pathway is being implemented across Wales, and where there may be opportunities for improvement. For example, one such indicator could involve identifying an appropriate target time for diagnosis of certain conditions.

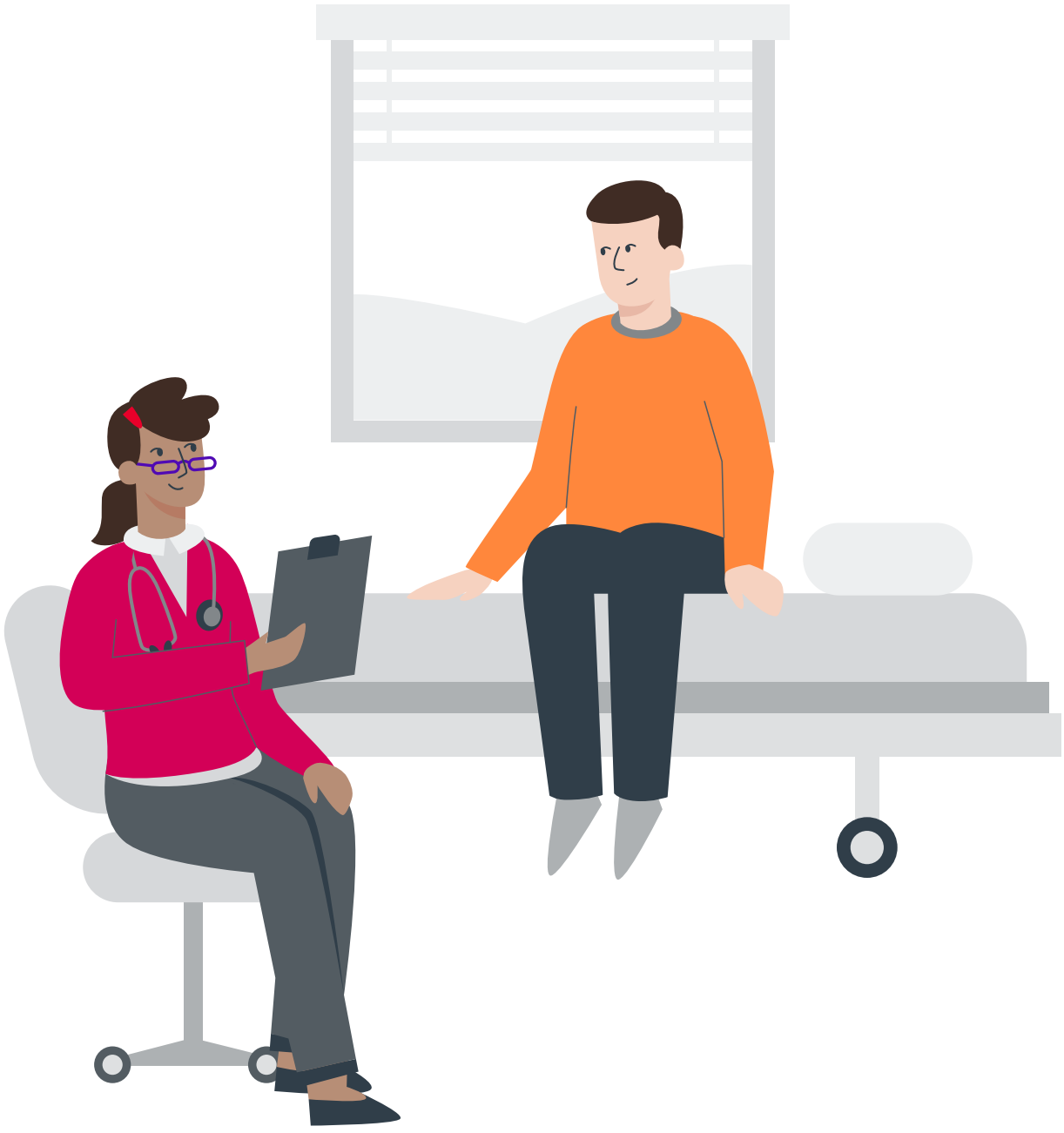
For pathways to take a whole systems approach, there are several core components that should be included in their development. These are detailed in the following pages.



3.3.1 Primary Care

A significant proportion of the care for people with heart disease takes place within primary care and this should be reflected within pathway development. This is vital to achieving the ambition outlined in *A Healthier Wales* of shifting care to the community.

The Primary Care Model for Wales sets the vision of the provision of seamless care and the enhancement of multi-disciplinary working. In order to maximise the opportunities for the management of heart and circulatory disease it is important that there is substantial primary care representation from local, cluster and national level in the development of these pathways.



3.3.2 Access to Community Services

***A Healthier Wales* sets the vision that care should be provided as close to the community as possible. To achieve this, it is important to shift to models of community cardiology and encourage multi-disciplinary working across primary and secondary care. This should form a core component of all nationally agreed pathways.**

There have been initiatives to improve access to diagnosis and treatment in the community for people living with heart and circulatory diseases. Through funds allocated to the 2017 delivery plan, several community cardiology projects were supported by the Heart Conditions Implementation Group (HCIG) to set up their own Health Board version of a community cardiology project. An evaluation of the projects identified several enablers and barriers to the scale and spread of such models[36]. This included the fact that the projects were developed in the absence of defined national pathways and so no clear core components of community cardiology were identified. There were also no key performance indicators identified below the six high level objectives, which made it difficult to evidence impact. There were challenges in identifying clear leadership to take forward the spread and scale of such models, and local clinicians implementing innovative models often had to navigate complex governance and management structures.

Provision of services in the community becomes particularly important in adapting to the challenges presented by the Covid-19 pandemic, which has limited patient access to health services. While remote consultations have increased and are supporting the delivery of care in many ways, some people still need access to face to face services, for example when diagnostic investigations are needed. The deferral of services during the lockdown period of the pandemic has increased waiting lists and current social distancing guidelines make it difficult for services to operate at the same level of capacity as before. Innovative ways to deliver such services such as diagnostic hubs and one stop clinics, are therefore required and must be an important priority for this work.

Case Study: Community Based Heart Failure Hub in Swansea

During the Covid-19 crisis, Swansea Bay University Health Board (UHB) clinicians stopped routine hospital and community heart failure clinics and designed a temporary community-based heart failure hub. This was distant to acute hospital sites and ensured rapid access for patients with a potential new diagnosis, and support for existing patients at greatest risk of hospital admission.

Based on the experience of the community cardiology projects, and the learning from adaptions to models of care throughout the Covid-19 pandemic, core components and principles of community cardiology should be identified and included within All Wales Cardiac Pathways, and relevant indicators should be developed to understand the impact. The need for clear leadership for this is discussed in detail in section 3.4.

3.3.3 Cardiac Rehabilitation

Cardiac rehabilitation services are an important part of pathway development. These services provide vital support to help people get back to everyday life as much as possible after developing a heart and circulatory disease.

The traditional model of cardiac rehabilitation is structured around exercise and education but rates of uptake across the UK have been stagnant and have been unable to reach women and black, Asian and minority ethnic (BAME) communities[37]. Cardiac rehabilitation is largely offered to patients who have had a heart attack or cardiac surgery. Contrary to NICE[38] recommendations, supported by the British Association for Cardiovascular Prevention and Rehabilitation (BACPR)[39], most heart failure patients in Wales do not have access cardiac rehabilitation services.

Exercise

Medication Adherence

Rehab Includes

Symptom Monitoring

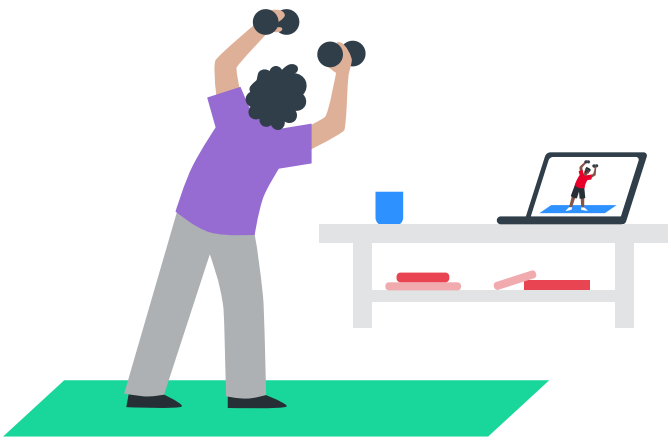
Managing Stress and Anxiety

Case Study: The Rehabilitation Enablement in Chronic Heart Failure (REACH-HF) Study

The REACH-HF study[40] investigated self-care support for patients and their carers. They found patients with heart failure who had referrals to regular cardiac rehabilitation, often did not attend. Among the reasons for this, are the lack of inclusion of their care-giver and inability to attend sessions.

The resulting workbook-based programme seeks to provide people with heart failure and their careers with a programme for exercise, medication adherence, symptom monitoring and managing stress and anxiety. The programme is followed up with face-to-face or telephone support by a cardiac rehabilitation team member and is one example of an innovative approach.

There is a need to 'reimagine' cardiac rehabilitation in line with the BACPR Core Components for Cardiovascular Disease Prevention and Rehabilitation 2017[41]. It is important to encourage new models of care that enable access in line with patient need, and to deliver rehabilitation that is individualised and person-centred. New models of care should ensure an increased focus on psychological and emotional support, to redress the balance between expert input and a non-medical approach to living well and focus on addressing inequalities in access and outcomes. In doing this, it is vital that the needs and views of those using the service are included in the design and evaluation of services.



Case Study: Rehabilitation in Aneurin Bevan UHB

The Aneurin Bevan University Health Board (ABUHB) HF team have working closely with the Value Based Health Care Team in ABUHB over the past 3 years to improve rehabilitation. The first phase of the work was collecting Patient Reported Outcome Measures (PROM) in outpatients' clinics. This allowed an accurate understanding of the preferences of those using the service. Based on those measures, patients were grouped into three categories:

- **Optimisation** – High PROM score (good Quality of Life (QOL), and psychological wellbeing). Clinically – enabled optimisation every 2 weeks.
- **Complex** – Low PROM scores (poor QOL etc). Clinically – frequent decompensation – hampered titration due to low BP/Chronic Kidney Disease.
- **Palliative** – Using the SPICT (Supportive and Palliative Care Indicators Tool) tool along with PROM.

Grouping the caseload in this way enabled a more patient centred and prudent approach to treatment and provision of care.

Many cardiac rehabilitation services were severely impacted by the Covid-19 pandemic. The BHF worked alongside partners including the BACPR to develop *an online platform* to enable people to access rehabilitation support during the pandemic. Long-term, it will be important to maintain digital offerings alongside face to face services to improve choice and improve the capacity, uptake and reach of services.

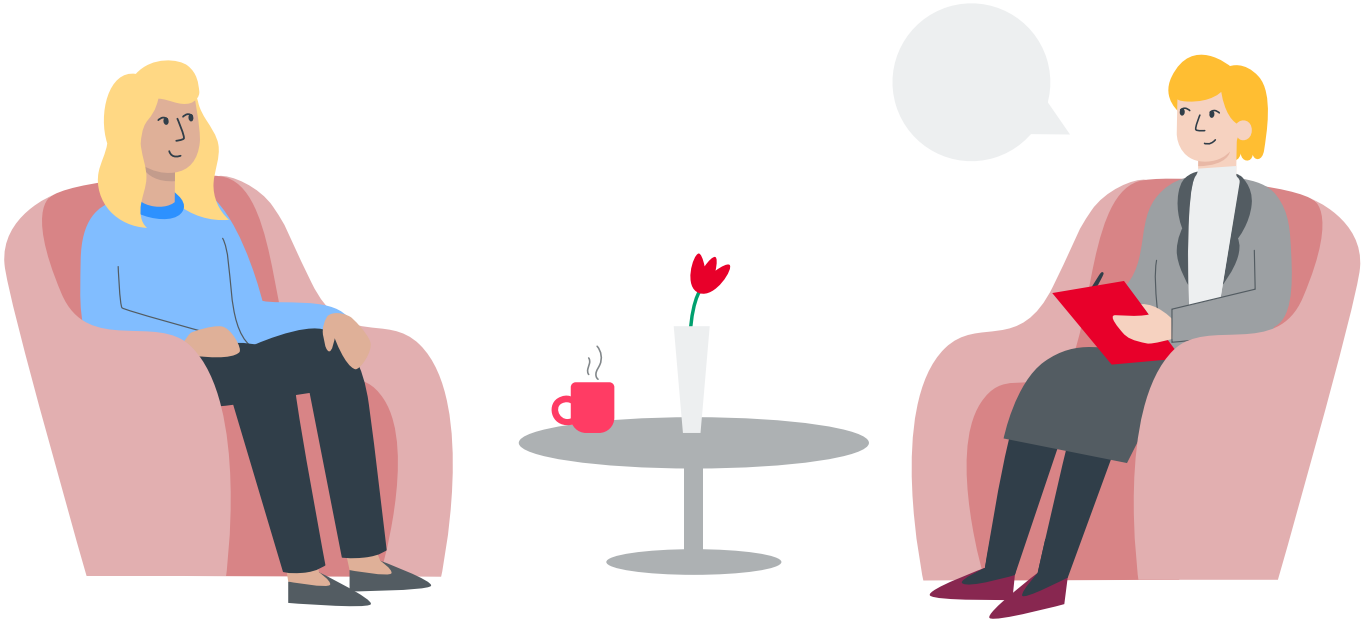
3.3.4 Psychological Support

Feelings of fear, anxiety and hopelessness are common psychological factors amongst people living with heart and circulatory disease and people often report being afraid of recurring cardiac events and the impact that their condition will have on their future quality of life[42]. People living with heart disease often suffer from depression, which is associated with a higher risk of mortality and morbidity[43].

Despite this, there is a lack of specialist psychological support available for people with heart disease in Wales. It is necessary to support the delivery of a stepped care approach, where health care professionals providing care to people with heart and circulatory disease can provide lower level interventions. These healthcare professionals must be supported by specialist intervention when required. Current NICE guidelines for heart failure already recommend this[44]. This support should form a core part of All Wales Cardiac Pathways and specialist psychologist provision for people with heart and circulatory diseases should be considered as part of the workforce review recommended in section 3.5.

Case Study: Psychological Support in Bridgend Cardiac Rehabilitation Service

At the Bridgend Cardiac Rehabilitation Service, part of Cwm Taf Morgannwg University Health Board, psychological support has been in place since the inception of the rehabilitation service in 1986. A psychologist specialising in long-term conditions works with the cardiac rehabilitation service, as a core member of the multidisciplinary team, providing rehabilitation primarily for those recovering from heart attacks and heart surgery. Families and friends of patients also receive support and guidance as part of the service. In 2016, this service was awarded BACPR certification.



3.3.5 End of Life Care

A core component of living well with heart and circulatory disease is supporting people to die well. Many people with heart and circulatory diseases do not receive the appropriate palliative care as they approach the end of their life. The Cross-Party Group on Palliative Care reported in 2018 that people with heart failure missed out on hospice and palliative care[45], and that those accessing it did so at a much later point in their disease[46].

Case Study: Palliative Care in Betsi Cadwaladr UHB

BHF funded an innovative integrated heart failure service to bring the best possible care to heart failure patients in North Wales. For people living with heart failure, timely treatment can be the difference between a well-managed condition and a hospital admission.

BHF worked with Betsi Cadwaladr University Health Board over two years, to set up a community heart failure service in Conwy and Denbighshire. It assembled a team – a GP with a special interest in community cardiology, a heart failure specialist nurse, a clinical cardiac physiologist and a pharmacist – while rapid-access echocardiogram clinics helped increase diagnoses. Results demonstrated a drop in hospital readmittance, and patient surveys also reported an improvement in quality of life.

This demonstrates the possibilities of a multi-disciplinary team in managing individual's care and the effectiveness of reducing unnecessary hospital stays.

The development of All Wales Cardiac Pathways should encompass advance care planning and end of life care to ensure that everyone who requires it can access palliative care. The End of Life Board and the Wales Cardiac Network should work together to agree shared priorities for the planning and delivery of palliative care for people with heart disease and to identify indicators to support learning and improvement.

Many people with heart disease will be living with cardiac implanted electronic devices, such as Implantable Cardiac Defibrillator devices. As a person moves closer to the end of life it may become appropriate for this type device to be switched off. However, many cardiac devices are deactivated too late or not at all. There needs to be sensitive and early conversations between professionals and patients around deactivating devices and what this means and ensuring that these conversations are appropriately recorded. This issue should be clearly addressed within the relevant pathways.

3.4 Implementing All Wales Cardiac Pathways – a Strong Leadership Role

To support the scale and wider implementation of models of care that align with the principles of the All Wales Cardiac Pathways, Welsh Government must provide adequate resources and time for the Wales Cardiac Network to support local areas in overcoming barriers and implementing new models. This function is not adequately or uniformly performed within the current structures of Wales Cardiac Network, as roles are performed on a part-time basis by clinicians and are fragmented with competing demands. It would therefore be appropriate for a specific, full time local engagement role to be created in the WCN to achieve this.

The role could report to HCIG and should have an agreed work plan and be responsible for:

- Supporting local clinicians in developing and implementing models of care in line with the All Wales Cardiac Pathways.
- Supporting clinicians in navigating local, regional and national governance structures involved in the implementation of new models of care.
- Work with HEIW to develop and deliver a standardised educational programme that supports the key aspects of the All Wales Cardiac Pathways.
- Support the development of appropriate networks or hubs to share good practice.
- Engage with GP clusters to promote new models of care including community cardiology models.
- Work with the End of Life Board to ensure palliative care for people with heart disease is included within all previous actions.

3.5 Workforce

Implementing pathways for people with heart and circulatory diseases depends on having the appropriate staff resource. Health Education and Improvement Wales (HEIW) and Social Care Wales (SCW) were commissioned to develop a long-term workforce strategy as part of the 2017 Delivery Plan. The strategy sets the ambition of a motivated, engaged and valued health and social care workforce, with the capacity, competence and confidence to meet the needs of the people of Wales. It identifies actions to improve understanding of the workforce, address attraction and recruitment and makes a commitment to the development of a multi-professional workforce plan. The Wales Cardiac Network must be supported to feed into this work, bringing to light the key workforce issues affecting services for people with heart and circulatory disease.

The development of All Wales Cardiac Pathways should be used as an opportunity to clearly set out how the wider multi-disciplinary team across primary, community and secondary care can work seamlessly together to ensure that patients can see the right professional, at the right point in their health care journey.

A workforce review of cardiology staff across Wales, clear gap analysis, and a review of training needs in line with the All Wales Cardiac Pathways, should support the Wales Cardiac Network and HEIW to work collaboratively on workforce plans; incorporating and addressing barriers to the adequate provision of care for people with heart and circulatory diseases should be at the heart of this work. An important priority for any cardiac workforce plans should be cardiac physiology and specialist nurses.

3.5.1 Cardiac Physiology

There are crucial workforce issues relating to diagnostic services.

A significant shortage of cardiac physiologists impacts on the ability to deliver timely diagnosis, treatment and care for people with heart disease. There are several challenges in this area including: many departments being reliant on locums; limited training opportunities; caps on training numbers; and a limited number of banded posts. There is an urgent need for national action to address these issues and improve workforce planning and training of cardiac physiologists.

3.5.2 Specialist Nursing

The development of workforce plans outlined in the strategy produced by Health Education and Improvement Wales (HEIW) and Social Care Wales (SCW) identify a nursing workforce plan as an area of priority. This work should consider how specialist nurses' caseloads are changing in line with the Nurse Staffing Levels (Wales) Act 2016.

Specialist nurses provide important care for people with heart disease in Wales. For example, the British Society for Heart Failure Nurse Forum reviewed[47] the need to adapt the heart failure provision across the UK, recommending that the cardiac networks of each nation work together to robustly explore the required number of heart failure nurses in an ageing population and an increasing disease prevalence.

3.5.3 Training and Professional Development

Part of reviewing the workforce should include training and professional development, as well as specialist support and supervision available to staff across the pathway.

Action should include, but not be limited to:

- **Training professionals providing care to people with heart disease to enable them to deliver lower level psychological interventions.**
- **Training and education around the delivery of digital models of care.**
- **Training and education around the prescribing and titration of specific evidenced-based medication.**
- **Training and education across the multi-disciplinary team on identification and delivery of palliative care, advance care planning, including device deactivation, for people at the end of life.**

3.6 Recommended Actions for Welsh Government

5. Develop All Wales Cardiac Pathways for all heart conditions and provide appropriate resource to support their implementation. Pathway development should include core aspects of care for people with heart and circulatory diseases, including: consideration of primary care services, access to community models of cardiology, cardiac rehabilitation, psychological support and end of life care where appropriate.

6. Identify indicators to measure the performance of the All Wales Cardiac Pathways, including timescales to diagnosis and treatment.

7. Resource the development, evaluation and wider implementation of new models of care to advance the shift to community cardiology, the transformation in cardiac rehabilitation and the provision of appropriate palliative care, in line with the agreed All Wales Cardiac Pathways. The wider implementation of these models of care should be supported by a dedicated champion within the Wales Cardiac Network. The first priority of this work should be focused on community diagnostic hubs to support the recovery of services impacted by the Covid-19 pandemic.

8. The National Clinical Plan must provide a clear governance framework for the implementation of the All Wales Cardiac Pathways, ensuring that an adequately resourced Wales Cardiac Network has a strengthened role to provide leadership and insight directly to the NHS Executive.

9. The Wales Cardiac Network should be supported by HEIW to carry out a workforce review against the agreed All Wales Cardiac Pathways, with a focus on cardiac physiology and specialist nurses for people with heart and circulatory diseases. The findings from this should be incorporated into wider workforce planning carried out by HEIW.

10. Wales Cardiac Network should work collaboratively with HEIW to review training and professional development opportunities in line with recommendations from national bodies (such as British Association for Cardiovascular Prevention and Rehabilitation, British Cardiovascular Society, and British Society for Heart Failure) and the requirements of the All Wales Cardiac Pathways. An all-Wales training offer for cardiovascular health care professionals, which ensures staff are empowered and supported to work across the cardiovascular care treatment pathway, should be developed.

4. Priority Three:

Effective use of health data

4.1 Overall Ambition

Ensuring that high quality, standardised data is available and used effectively to support clinical decision-making, understand patient outcomes and enable better service-planning, so that people experience better quality of care and improved outcomes.

Recommended Actions for Welsh Government

11. The new NWIS health authority, Public Health Wales and the Wales Cardiac Network should work together to publish and resource a Cardiac Informatics Framework which aligns with the principles of *A Healthier Wales* to drive forward the implementation of the AWACI.

12. Welsh Government should work with NICOR to ensure that NWIS has the relevant audit data available to them. This information should be used to produce Welsh specific reports, which should include reporting at health board level to enable local areas to use and benefit from the data they have compiled and contributed to the audit system.

13. Incorporate additional indicators on timelines, interventions and outcomes identified through the development of All Wales Cardiac Pathway development within the Cardiovascular Atlas of Variation. Publish the Atlas annually to support understanding of pathway implementation and to support the peer review framework for each pathway.

14. Public Health Wales and the Wales Cardiac Network should utilise the All Wales Cardiac Pathways to identify cardiac intelligence needs relevant to the timelines, interventions and outcomes of those pathways and incorporate the ability to collect information relevant to those needs into the Cardiac Informatics Framework.

4.2 Context

To support all the ambitions and actions in this plan, it is necessary for healthcare professionals and researchers to have access to a range of information and intelligence to support services and enable improvements in patient outcomes. The current lack of joined up data between the different parts of the NHS in Wales is currently a barrier.

At present there is a lack of data available on the following: out of hospital cardiac arrest survival rates; risk factors (as discussed in Priority One); access to diagnostic services for people with heart and circulatory disease; and national data collection on community services (such as specialist heart failure nursing). Furthermore, there are challenges in linking information collected across the health care system from primary and community care, through to secondary care and patient outcomes.

In October 2019, the Minister for Health and Social Services announced a £50 million Digital Priorities Investment Fund to drive improvement across five areas[48] to be delivered by NHS Wales Informatics Service (NWIS). There was also an additional £6.5 million fund announced in February 2020 to integrate local and national digital cancer services to assure patients "that their cancer care and specific needs are being taken into account wherever they are being treated"[49]. There needs to be corresponding levels of ambition and resource in this area for cardiovascular information.

4.3 Cardiac Informatics Framework

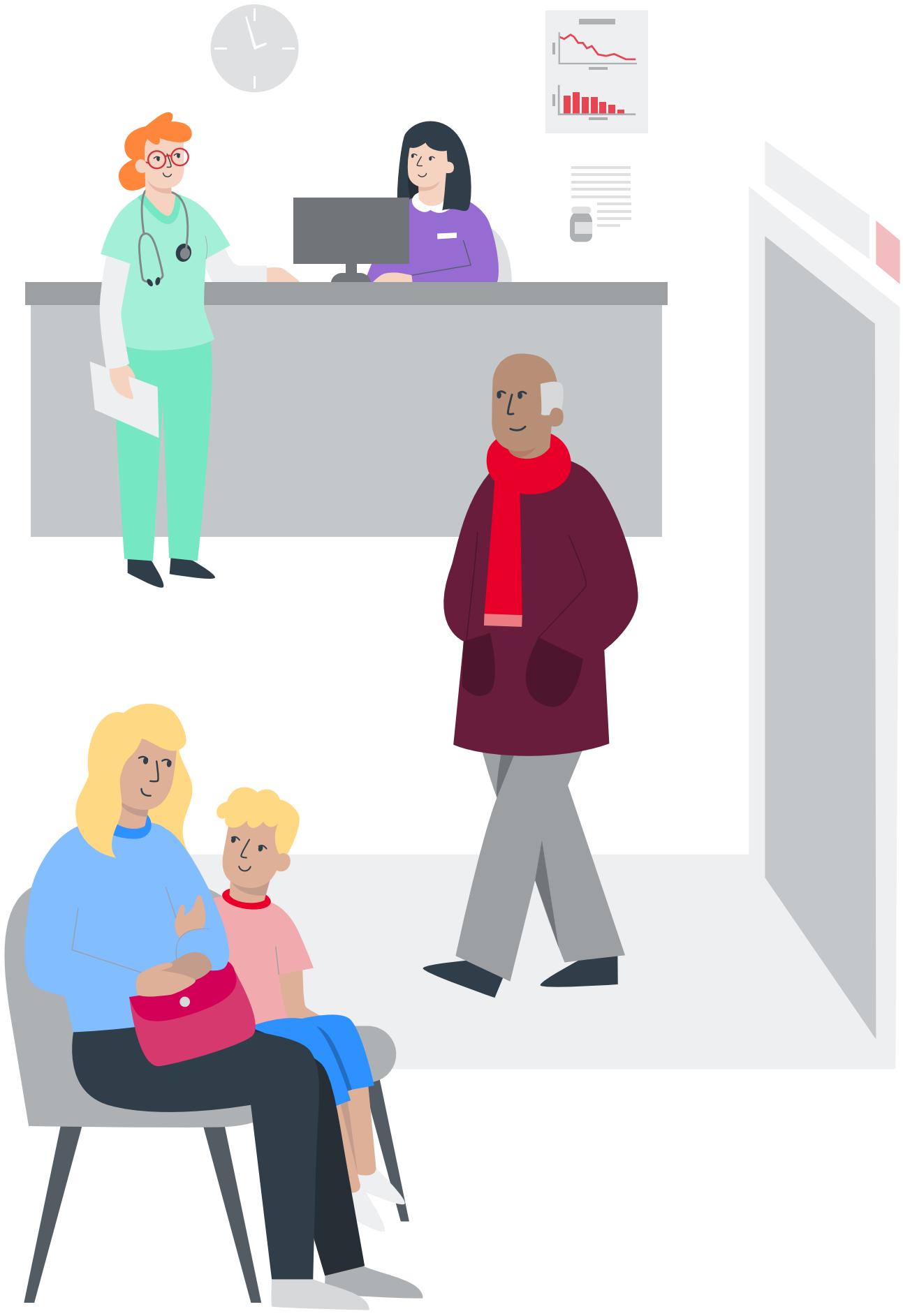
The 2017 Heart Conditions Delivery Plan identified the strategic importance of supporting learning from high-quality information to drive integration and improvement across services. The plan prioritised the development of a national cardiac informatics service to support this.

Funding was provided for the development of The All Wales Accelerating Cardiac Informatics (AWACI) programme, which aimed to support clinical pathways and enable proactive, coordinated care and visibility of clinically meaningful data. This funding has now ended and AWACI has been incorporated into NWIS, which will soon become a Special Health Authority and have responsibility for driving forward digital infrastructure in Wales in line with *A Healthier Wales*. Cardiac data and informatics need to be driven forward with investment on par with the cancer digital services and need a strong governance structure to ensure delivery.

The new NWIS health authority, Public Health Wales and the Wales Cardiac Network should collaborate to build the learning from AWACI into a Cardiac Informatics Framework which aligns with the principles of Informed Healthcare. This framework should ensure that the development of cardiac informatics is prioritised within wider work to improve digital and intelligence services and that there is a public commitment to driving forward the AWACI. A published governance structure to enhance accountability for the actions should be included within the framework.

Priority Two sets the vision of whole systems, integrated pathways of care, against which progress can be measured. To effectively achieve this, relevant data must be collected and utilised from primary care and community settings, secondary, and tertiary care. There must also be consideration given as to how to incorporate patient experience and input. Linking all this data together where appropriate provides a deeper view of quality across the pathways and provides a perspective of care closer to the patient. The proposed Framework should clearly set out an approach to effectively learning from a wide range of data from across the health care system.

Wales needs better collection, dissemination and use of data to really drive service improvement.



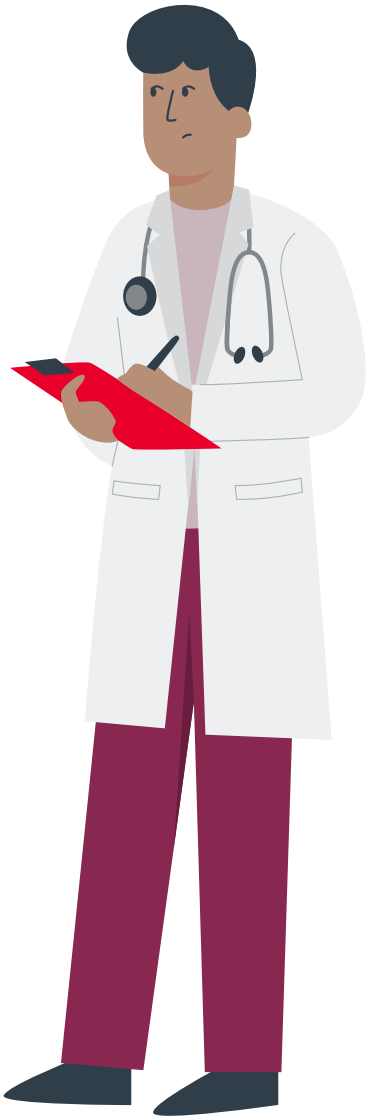
4.4 Participation in National Clinical Audits

Several clinical audits exist across the UK to monitor and improve the quality of care and outcomes of cardiovascular patients. The National Institute for Cardiovascular Outcomes Research (NICOR) collects and analyses information to support audits across six areas: adult cardiac surgery; adult percutaneous coronary interventions; cardiac rhythm management; congenital heart disease in adults and children; heart failure; and myocardial infarction. The National Audit of Cardiac Rehabilitation was established in 2005 and is funded by the British Heart Foundation. It aims to increase the availability and uptake of cardiovascular prevention and rehabilitation, promote best practice and improve service quality in cardiovascular prevention and rehabilitation services across the UK.

The data collected by these audits focuses on secondary and tertiary care. While this forms an important part of the ability to learn and identify opportunities for improvement, there remains a need to consider a wider approach to data utilisation and quality improvement that takes a whole systems approach, incorporating aspects of primary and community care.

Though all health boards send their data to the National Institute for Cardiovascular Outcomes Research (NICOR) for the audits, data entry can be complex and time-consuming. The Cardiac Informatics Framework should support the development of systems which automatically collate routinely collected data where possible for audit reporting and provide a national resource to support with compiling and reporting to the main audits.

A further issue is that NICOR audit data does not get fed back into health boards' cardiac services, because there are challenges in disaggregating the data. Welsh Government should work with NICOR to ensure that NWIS has the audit data and can produce reports for health boards.



4.5 Atlas of Variation

One key action from the 2017 plan was the development of a performance framework and the identification of indicators. In 2019 the Cardiovascular Atlas of Variation was published. This identified 22 indicators across four areas (risk factors, accute coronary syndrome (ACS), heart failure and AF). Measurement against these indicators identified unwarranted variation which should now be utilised to support improvement.

It is important that there is continued measurement against the identified indicators to understand the impact of improvement work undertaken and identify future priorities. The 2019 snapshot across these 22 indicators provides only a picture at that point in time of the care received by patients. Without regular updates, it will not be possible to measure the improvements made, and the changes developed as a result of the new pathways for ACS, heart failure and AF. It is therefore important to revisit the Cardiovascular Atlas of Variation annually to measure whether implementation has led to improvement, and to identify any continued variation.

Following on from the development of All Wales Cardiac Pathways, indicators identified as part of the pathway development should be included within the Atlas to support a whole system view of the patient journey. Key indicators for all pathways should be identified and included within the future Atlas of Variation to help understand how well the pathways are being implemented across Wales and support local areas with improvement.

4.6 Recommended Actions for Welsh Government

11. The new NWIS health authority, Public Health Wales and the Wales Cardiac Network should work together to publish and resource a Cardiac Informatics Framework which aligns with the principles of *A Healthier Wales* to drive forward the implementation of the AWACI.

12. Welsh Government should work with NICOR to ensure that NWIS has the relevant audit data available to them. This information should be used to produce Welsh specific reports, which should include reporting at health board level to enable local areas to use and benefit from the data they have compiled and contributed to the audit system.

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14. Public Health Wales and the Wales Cardiac Network should utilise the All Wales Cardiac Pathways to identify cardiac intelligence needs relevant to the timelines, interventions and outcomes of those pathways and incorporate the ability to collect information relevant to those needs into the Cardiac Informatics Framework.

Appendix

Appendix 1

BHF Cymru undertook a far-reaching engagement and evidence gathering programme between 2018 and 2020. In order to gain a deeper and more holistic understanding of how to overcome the issues faced in heart and circulatory disease care in Wales. This process aimed to explore thought on improving patient outcomes, uncover clinical experiences and consider potential solutions.

Detecting and Managing High Risk Conditions in Primary Care and Community Settings in Wales: A Commission

A series of three round tables were held between September 2018 and March 2019, to investigate how high blood pressure, atrial fibrillation, high cholesterol and pre-diabetes could be best detected and managed optimally in populations with low detection rates. It featured key professionals, academics and third sector members.

Blood Pressure Workshops

Focusing on high blood pressure, which was highlighted in the work of the commission, two workshops were held in North and South Wales in September and October 2019. These workshops included those from the clinical community and discussions centres on informing recommendations for optimal detection and treatment of hypertension.

Clinical Engagement

All sectors of care across the clinical community were invited to attend three workshops on themes which were: detection and management of high risk conditions, variation in treatment, and recovery and support. The workshops focused on issues in current working, solutions and priorities. These were held as an away day in Cardiff on 10 December 2019.

These workshops were followed by a strategic themes workday with the Heart Conditions Implementation Group on 20 January 2020, to prioritise the issues and actions agreed upon in the previous clinical workshops. Further informal engagement was carried out with senior clinicians and managers in the form of interviews and insight gathering at Welsh NHS workshops.

Patient Engagement

We held two patient workshops: Abergavenny, South Wales, and Colwyn Bay, North Wales. The aim of these sessions was to capture patient experiences and uncover what the key challenges were from the perspectives of patients and families.

Public Engagement

Using British Heart Foundation stores across Wales, we held open sessions asking members of the public about their lifestyles to inform us on population health issues such as smoking, healthy eating and physical activity and the barriers they face. We also spoke to them about their experiences of having health checks such as blood pressure measurements on an annual basis. These took place in:

- **BHF Bridgend 4 December 2019**
- **BHF Llanelli 5 December 2019**
- **BHF Swansea 5 December 2019**
- **BHF Cardiff 9 December 2019**
- **BHF Cwmbran 12 December 2019**
- **BHF Rhyl 24 February 2020**
- **BHF Llandudno 25 February 2020**
- **BHF Wrexham 25 February 2020**

Public Surveys

A survey ran between 22 January and 1 March 2020, and a YouGov survey ran on 5/6 March 2020, which yielded 1,006 results.

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