

Cyflwynwyd yr ymateb i ymgynghoriad y [Pwyllgor Iechyd a Gofal Cymdeithasol](#) ar [Cefnogi pobl sydd â chyflyrau cronig](#)

This response was submitted to the [Health and Social Care Committee](#) consultation on [supporting people with chronic conditions](#).

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Supporting people with chronic conditions

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Scope of this response: The team are responding to this “Senedd inquiry: supporting people with chronic conditions”, with a focus on elevated blood pressure, known as hypertension, as a chronic condition and how it acts as a precursor to other life-threatening medical conditions.

Executive Summary of Key Recommendations

- Establish widespread community health measurement and monitoring centres (Community Health Hubs) for both primary and secondary prevention and conditions management.
- To better educate, assess, and monitor blood pressure and CVD risk factors in Wales.
- Improve our understanding of demographic, geographic and socio-economic factors related to BP awareness and control across Wales.
- Increase the provisions of clinical exercise services across Wales.
- Increase the provision of GP linked accurate wearable technology for widespread public and patient utility.

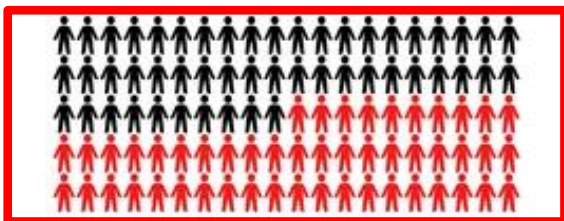
(1) Background

The term 'chronic conditions' also known as 'long term conditions' or 'longstanding illnesses', includes a broad range of health conditions which cannot be cured but can be managed with the right support and treatment.

Elevated blood pressure (BP), or hypertension, is the greatest modifiable contributor to the global burden of disease, mortality, and disability, leading to over 11 million deaths each year. Unfortunately, only half of the population with hypertension are aware of their condition. Identifying those with high BP and making people aware of their condition is of critical importance for population health promotion and disease burden prevention.

In the United Kingdom (UK), high rates of awareness and BP surveillance systems are implemented through their respective health care services, occupational services or more often through opportunistic screening. However, a high prevalence of hypertension remains a problem and results in a major health burden on our national healthcare services. Data from the 2017- 2019 UK and Ireland May Measure Month (MMM) community BP awareness campaigns involving over 23,000 participants highlighted that 36% were found to have hypertension, with only 42% of those taking antihypertensive medications. Importantly, only 40% of those with hypertension were aware of their condition. Of those receiving antihypertensive treatment, only 52% of participants had their BP controlled to target. These data highlighted the significantly high proportion of undiagnosed and uncontrolled hypertension in the UK and Ireland community setting (1).

Cardiovascular disease (CVD) is a term used to encompass coronary artery disease, stroke, vascular dementia, and heart failure. In Wales, cardiovascular disease is a considerable health and economic burden that causes 1 in 4 of all deaths but also results in very high levels of associated disease burden. These figures have not improved significantly since 2010, despite national strategies aimed at improving hypertension diagnosis and prognosis, highlighting that more needs to be done. Importantly, more than 500,000 people are known to be living with hypertension in Wales. Although hypertension is relatively easy to detect and control with low-cost pharmacotherapy or lifestyle modifications, prior to the COVID-19 pandemic, almost 50% of community-based individuals living with hypertension in Wales were not treated to target(2):



(1) McDonnell BJ, et al. Low levels of hypertension awareness and high proportions of uncontrolled blood pressure in the United Kingdom and Ireland. *Journal of Hypertension* 41(Suppl 1):p e242. (2023).

(2) Williams A, et al. "Levels of undiagnosed and uncontrolled hypertension in Wales: results from May Measurement Month 2017, 2018 and 2019 blood pressure screening campaign." *Journal of Human Hypertension* 36.SUPPL 1 (2022): P-10.

Early evidence indicates that the COVID-19 pandemic has significantly increased blood pressure at a population level, predominantly impacting women. We predict that the COVID-19 pandemic will have worsened rates of hypertension in Wales and signals a forthcoming increase in incident CVD and mortality in the medium-term. Reasons for worsening of hypertension control is not fully understood and likely multi-factorial, impacted by demographic, geographical, and socio-economic factors(3).

Currently in Wales, there is a lack of strategic planning for controlling BP and lowering CVD risk. In comparison, Public Health England have established a 10-year CVD risk plan which is already showing significant public health benefit through their focus on chronic conditions (**A**trial fibrillation, **B**lood pressure and **C**holesterol – ABC's) prevention plan and their BP PREVENT programmes designed to save lives. Application of a similar, Wales specific, strategic, and focussed approach, designed to save lives, would also benefit Wales.

By raising awareness and through early identification of high BP and CVD risk factors, we can empower people to take control of their health, make lifestyle changes or re-engagement with their health care providers to access appropriate treatment. This can improve quality of life and reduce the demand and costs placed on healthcare services. Reaching a target of 80% of BP control in hypertensive patients would avoid more than 2,000 strokes and heart attacks, whilst optimal treatment of atrial fibrillation with anticoagulants would avert 700 strokes, over 3 years. Collectively, this equates to a saving for NHS Wales of £36.8 million(4).

Recommendation 1: Establish widespread community health measurement and monitoring centres (Community Health Hubs) to:

1. Increase community accessibility to the measurement of important CVD risk factors.
2. Educate, assess, and monitor CVD risk factors.

Easily accessible community-based health screening, education and promotion initiatives are essential to attenuate the rising prevalence of hypertension and improve hypertension control in Wales.

3) Tapela N, et al. Prevalence and determinants of hypertension control among almost 100 000 treated adults in the UK. *Open Heart* 2021;8:e001461. doi: 10.1136/openhrt-2020-001461

4) The Size of the Prize in Cardiovascular Disease (CVD). Public Health England. URL: <https://www.healthcheck.nhs.uk/commissioners-and-providers/data/size-of-the-prize-and-nhs-health-check-factsheet/>

(2) Multiple conditions

(2.1) The ability of NHS and social care providers to respond to individuals with multimorbidity rather than focusing on single conditions in isolation.

High BP is known to precede the development of many co-morbidities e.g., coronary artery disease, heart failure, atrial fibrillation, stroke and transient ischaemia attack, renal disease, and type 2 diabetes. Better nationwide control and monitoring of such an influential condition needs to be of the highest priority.

Exercise is a cornerstone of disease prevention and management. It is a recommended tool for use in cancer, cardiovascular, respiratory, metabolic, musculoskeletal, renal, frailty and mental health conditions. At present, the access to exercise services through the NHS is disjointed and segregated by disease condition, with provision for high-risk patients based within hospital sites and low-risk patients within local leisure and community facilities. Furthermore, there is currently a lack of provision within the NHS for patients who are recommended to undergo exercise prior to beginning treatment/surgery, despite a profound improvement in outcomes following pre-habilitative exercise. The NHS is therefore aiming to provide exercise for all disease conditions in one multi-morbid service; however, their current locations cannot facilitate the number of patients required. Given the expertise within Cardiff Metropolitan University, the established collaborations we already hold with the NHS and the substantial engagement with our local community, we have recently set up a multi-morbidity clinical exercise service, which aims to provide a model for combined exercise therapy across multiple disease cohorts. This service provides exercise therapy for those with high blood pressure, who may be exempt from other NHS based exercise provision.

(2.2) The interaction between mental health conditions and long-term physical health conditions.

The benefits of physical activity and exercise upon well-being and mental health are well-recognised, with the Royal College of Psychiatrists endorsing exercise prescription as a treatment modality for a wide range of mental health conditions. In conjunction with a variety of cardiometabolic benefits, physical activity also promotes endorphin release and neuroendocrine changes with antidepressant and anti-stress effects, improving mood and reducing stimulation of the sympathetic nervous system. Moreover, there is a strong correlation between mental disorders and metabolic syndrome, where high BP is a major risk factor, which are both mutually exacerbated by a sedentary lifestyle. Accordingly, community-based exercise provisions offer potent therapeutic benefit to physical and mental health.

Recommendation 2: Increase the provisions of multi-morbidity clinical exercise services across Wales.

(3) Impact of additional risk factors

(3.1) The impact of the pandemic on quality of care across chronic conditions.

The Covid-19 pandemic caused significant strain on primary care and the medicines supply chain, with patients initially requesting early or extra repeat medication to ensure continuation of treatment(5). Despite this initial trend, there was a decline in antihypertensive medication dispensed by community pharmacies in England, Scotland and Wales between March 2020 and July 2021(6). This trend was not observed across all drug classes; dispensing of medication for type 2 diabetes increased in the same timeframe, highlighting the importance of ongoing detection and treatment of hypertension to avoid the predicted increase in cardiovascular events.

Early detection and continuous monitoring are critical measures used to improve BP control in the community. Nationwide prevalence of hypertension may have worsened because of the Covid-19 pandemic due to suspension or reduction in primary care services. More broadly, whilst the monitoring and control of CVD risk factors now forms part of updated (2023) clinical guidelines post stroke, it is *not* routinely undertaken and does not include high risk groups of patients who have had a previous Transient Ischaemic Attack (TIA, or mini stroke). This is highly likely to increase current and future CVD burden, which will have a tragic impact upon quality of life for many and presents a significant economic challenge in Wales.

(3.2) The extent to which services will have the capacity to meet future demand with an ageing population.

With the significant rise in demand and reliance for healthcare services related to our ageing population, prevention and delaying the development of long-term chronic conditions should be of highest priority. Raising awareness and early identification of high BP and CVD risk factors will empower people to take control of their health, make appropriate lifestyle changes or re-engage with their healthcare provider to access appropriate treatment. The delay of chronic condition development will improve both patient quality of life and reduce the demand and costs being placed on healthcare services.

Our National Health System cannot continue to rely on GP's alone to measure routine risk factors for CVD (e.g., blood pressure). We therefore need better accessibility to wider opportunities for services that can accurately measure community level BP and routine CV risk factors in Wales). These community services can and should be setup in partnership with Community pharmacy and/or GP's services to address these chronic conditions.

(5) Goodway R. Community Pharmacy Wales response to the Welsh Government Health, Social Care and Sport Committee Inquiry into The Covid-19 Outbreak in Wales [Internet],2020. Available from Pharmacy Wales.pdf

(6) Dale CE, et al. The impact of the COVID-19 pandemic on cardiovascular disease prevention and management. *Nat Med.* 2023; 29(1):219025.

Recommendation 3:

- Increased provision of CHH's to improve accessibility of BP measurements and monitoring for primary prevention in an ageing population and for secondary prevention of those with multimorbid conditions.

(4) Prevention and Lifestyle

Prevention is critical to offset the increasing numbers of people at risk of developing high BP; and for those with high BP, critical to preventing overt cardiovascular events.

(4.1) Action to improve prevention and early intervention (to stop people's health and wellbeing deteriorating).

At Cardiff Metropolitan University, we lead the UK and Ireland's community health screening campaign. The team lead the May Measure Month BP community awareness campaign from both campus sites, in a cost cost-effective manner. Further developments of this community 'Community Health Hub' will concentrate on the assessment of the strongest risk factors for CVD; **A**trial fibrillation, high **B**lood pressure and high **C**holesterol (**ABC**). The team will also offer targeted clinics for high-risk groups, including diabetes and transient ischaemic attack (TIA) patients. Within these patient groups, the 'Community Health Hub' will, in addition to ABC, address unmet needs in secondary CVD prevention, including screening for chronic kidney disease (CKD) in diabetes and global risk factor monitoring in TIA patients. Lifestyle modification advice, smoking cessation, alcohol reduction, physical activity promotion, will also be offered when required. Community and patient groups will be referred by primary care partners (GP cluster partners), with user CVD risk factor data being returned to the GP in the form of a short report, identifying those at potentially heightened CVD risk. The establishment of such a 'Community Health Hub' was supported by Stroke Hub Wales Patient Public Involvement Group who shared their experiences:

"I wish I knew of my risk of stroke following my transient ischaemic attack and how addressing my high blood pressure would benefit me. I feel like I was left alone to wonder if I would suffer another stroke". Public and Patient Involvement group member, Stroke Hub Wales.

(4.1.1) Exercise prescription and cardiac rehabilitation.

In November 2022, we created a clinical exercise service in collaboration with Move More Cardiff, Cardiff Met Sport, Aneurin Bevan and Cardiff and Vale University Health Boards. This service provides exercise referral as well as for specific condition pre and rehabilitation through the health boards. We currently have referral pathways established from University Hospital of Wales (Cardiff & Vale UHB) and St Woolos Hospital (Aneurin Bevan UHB) for cardiac, pulmonary and cancer rehabilitation. We

have a multimorbid rehabilitation working group established with colleagues from the health board (cardiac, cancer and pulmonary rehabilitation), national exercise referral (NERS) and academics (Cardiff Met).

(4.2) Effectiveness of current measures to tackle lifestyle/behavioural factors (obesity, smoking etc); and to address inequalities and barriers faced by certain groups.

(4.2.1) Addressing inequalities and socioeconomic factors associated with high blood pressure awareness and control in Wales.

Hypertension is a major but preventable condition that impacts the whole population, but some evidence suggests that successful treatment and level of control may differ due to demographic (ethnicity) or geographic factors such as rural or urban placement. For example, in England it has been shown that rural GP practices are less likely to prescribe blood pressure drugs in patients with hypertension. Therefore, this is an important issue, with potential to guide policy on the targeting of healthcare provision, particularly in Wales which has a relatively large (32.8%) rural population. A better understanding of the interaction between demographic, geographic and socio-economic factors is needed provide important evidence to guide policy aimed at reducing inequalities in health across Wales and/or identify key issues requiring further study.

(4.2.2) Issues around effective measures available to tackle lifestyle/behavioural factors – Potential to highlight visualisation platforms for education.

Health literacy has been shown to influence the ability to make appropriate health-related decisions, with low health literacy associated with lower medication adherence(7). A 2018 survey of British adults showed that 19.4% of respondents had some difficulty reading and understanding written health information(8). Furthermore, socioeconomic, and other inequalities were associated with lower health literacy: those that reported difficulty understanding health information were more likely to live in the most socially deprived quintile, have a disability or limiting health condition, lower household income or identify as being of Black Asian Minority Ethnicity.

One such method to improve the accessibility of health communication is incorporating visuals. Adding visuals to healthcare information has been shown to increase comprehension and recall, particularly in those with low health literacy. The use of visuals in the form of digital, real-time animations has been used to conceptualise hypertension in a series of feasibility studies led by Cardiff Metropolitan University.

(7) Persell SD, et al. Associations between health literacy and medication self-management among community health center patients with uncontrolled hypertension. *Patient prefer Adherence*. 2020;14:87-95

(8) Simpson RM, Knowles E, O'Cathain A, Health literacy levels of British adults: a cross-sectional survey using two domains of the Health Literacy Questionnaire (HLQ). *BMC Public Health*. 2020;20(1).

A digital hypertension visualisation platform (ViSTA-BP) has been designed for use within a pharmacist-led consultation and through our CHH, thus addressing potential inequalities to access for those without the necessary digital skills or equipment.

(4.2.3) Use of wearables to better monitor chronic conditions in the community.

The 'MedTech' industry in the UK is worth £27.6 billion annually and there is now a burgeoning focus on the development of wearable health assessment and monitoring technologies. These wearable technologies can readily collect and analyse long-term continuous data on cardiovascular health and can provide clinicians with a comprehensive real-time view of their patient's health; invaluable for early detection or management of subclinical identifiers for developing high BP or CVD. However, prior to widespread use by the public or in clinical practice, it is imperative that all devices are clinically validated and that we understand the mechanisms by which wearable devices help control CVD risk factors. This validation and knowledge are essential to ensure both user safety and that clinical decision making is based on sound evidence. Innovative research is currently underway at Cardiff Metropolitan University with 'MedTech' partners in developing and validating novel wearable technologies to better assess and monitor BP cardiovascular health. Once validated, and approved by appropriate regulatory authorities, these technologies could help support the transformation of the healthcare systems in Wales, by permitting patients to **improve the self-management and self-care of chronic conditions.**

Recommendation 4:

- Increased provision of CHH's to **improve accessibility** of BP measurements and **monitoring** for prevention of those with multimorbid conditions.
- Improve our understanding of demographic, geographic and socio-economic factors related to BP awareness and control across Wales.
- Review healthcare information to add visuals to aid condition understanding and improve medications adherence. Future implementation of **visualisation toolkits** like the ViSTA-BP app should be considered part of routine education and blood pressure consultations in the future.
- Support **lifestyle behaviour change** (e.g., increased physical activity) for both primary prevention in an ageing society and secondary prevention in patients with long term conditions management.
- Support the development of clinically validated and medical grade wearable cardiovascular **monitoring technologies** through infrastructure and funding.
- Increase the provision of GP linked accurate **wearable technology** for widespread public and patient utility.