Position Statement

High Blood Pressure and Stroke

Background

High blood pressure, also known as hypertension, is a major risk factor for many chronic conditions, including stroke, and affects six million (34%) of Australians aged 18 years and over.[1]

Blood pressure is a measure of the force exerted by blood on the walls of your arteries as it is pumped around your body. It is expressed with two numbers: (1) the systolic blood pressure (the force your blood puts on blood vessel walls as your heart pumps) and (2) the diastolic blood pressure (the force your blood puts on blood vessel walls when your heart is resting between beats), expressed as systolic blood pressure/ diastolic blood pressure. A normal blood pressure is defined as 120/80 mmHg, and you are considered to have high blood pressure if your blood pressure is regularly measured at 140/90 mmHg or over.[2]

Important risk factors linked to high blood pressure include a family history, higher age, and sex (men are more likely to have high blood pressure than women). Key modifiable risk factors for high blood pressure include unhealthy diets (in particular diets high in salt), overweight and obesity, excessive alcohol consumption, smoking, diabetes, and physical inactivity. The Australian Burden of Disease Study has shown that approximately 21% of the burden of high blood pressure is due to a diet high in salt.[3]

Importantly, high blood pressure can be controlled through lifestyle modifications and the use of antihypertensive medications. Despite this, rates of uncontrolled high blood pressure in Australia remain unacceptably high, affecting 4.1 million (23%) Australians aged 18 years and over.[1] Most Australians living with uncontrolled high blood pressure remain unaware, as they often do not experience symptoms. The only way to know if you are suffering from this 'silent killer' is to get your blood pressure checked regularly.

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High blood pressure and stroke

Blood vessels are damaged by high blood pressure, which causes vessel thickening and weakening of blood vessel walls, leading to cholesterol build-up. These changes can lead to stroke, either by causing the blood vessels to block (restricting brain blood flow) or burst (causing bleeding within the brain).

High blood pressure is the leading modifiable risk factor for stroke and the most preventable cause of stroke worldwide.[4] The higher your blood pressure, the greater your stroke risk.[5] **The number of strokes experienced globally would be almost halved (48% reduction) if high blood pressure was eliminated.**[6]

Modelling commissioned by Stroke Foundation, and undertaken by Deloitte Access Economics, has shown that **if the rate of uncontrolled hypertension in the Australian population were reduced from its current rate of 23% to a target rate of 17%, then 1,217 strokes would have been avoided in 2020.**[7] **The potential savings from meeting this benchmark in 2020 were estimated to be $1.3 billion over five years (in net present value terms).**[7]

Reducing high blood pressure-related stroke risk in the Australian Community

As part of our Stroke Strategy 2024, Stroke Foundation is committed to empowering more Australians to recognise the risks of stroke which can be changed, including high blood pressure, and in doing so increase their chances of preventing stroke. **Specifically, our goal is to ensure that by 2024, 65% of adult Australians will recognise stroke risks that they can change.**

Australian Federal and State and Territory governments need to invest in evidence-based approaches to reduce high blood pressure-related stroke risk in the Australian community. This can be achieved by addressing the risk factors for high blood pressure, as well as improving its identification and management.

Stroke Foundation recommends that Australian governments:

1. Improve health literacy and awareness of high blood pressure in the community through public education programs and campaigns. Information to be communicated should include risk factors, the potential lack of observable symptoms, the importance of regular monitoring, and adherence to medications.
2. Support and build the capacity of primary health care professionals to better identify high blood pressure in the community, treat it to guideline-recommended targets, and ensure adherence to medications.
3. Promote better quality blood pressure measurement using reliable devices that have been validated for accuracy.
4. Build on and strengthen existing work to reduce tobacco use and exposure to tobacco smoke in the community (please refer to Stroke Foundation's position statement on 'Smoking and Stroke' for specific recommendations).
5. Improve access to healthy diets through the development and funding of a National Nutrition Strategy. This should include community-focused initiatives such as raising public awareness of high dietary salt intake as a risk factor for high blood pressure, and helping consumers to make healthy choices guided by the Health Star Rating front-of-pack labelling system displayed on all packaged food products. There should also be engagement with industry to reduce the salt content of packaged and processed foods through reformulation and serving size reduction.
6. Reduce alcohol-related harm in the community by implementing taxation reforms, restricting exposure to alcohol marketing for children and younger people and building consumer awareness of the 'Australian guidelines to reduce health risks from drinking alcohol'. There is also a need for public health campaigns that promote better understanding of the risks and harms associated with alcohol consumption.
7. Ensure Australians are supported to be physically active, through the development and funding of a National Physical Activity Action Plan. This should include creating healthy built environments, promoting and facilitating increased physical activity and reduced sedentary behaviour in a wide variety of settings, and implementing mass media public education campaigns that raise awareness of the importance of physical activity.

Many of these policy actions can be realised through the funding and implementation of key national strategies and plans that have been endorsed by Australian governments, including the National Strategic Action Plan for Heart Disease and Stroke, National Preventive Health Strategy 2021–2030, National Tobacco Strategy 2012–2018, National Obesity Strategy 2022–2032, National Alcohol Strategy 2019–2028, and Australia's Primary Health Care 10 Year Plan 2022–2032.

Stroke Foundation campaign and program activities

Australia's Biggest Blood Pressure Check

Stroke Foundation's annual 'Australia's Biggest Blood Pressure Check (ABBPC)' campaign, that began in 2014, is central to our mission to increase awareness of the link between high blood pressure and stroke.

Initially a one-day national campaign held at outdoor activation sites and pharmacy stores, it has expanded to a month-long campaign coinciding with World Hypertension Day in May.

The activities undertaken as part of this campaign have included the delivery of free health checks in community settings across Australia, including workplaces, pharmacies, and public events. Since the beginning of ABBPC over one million Australians have had a free health check. This campaign has demonstrated that opportunistic health checks are an effective tool for increasing community awareness of stroke risk factors, by identifying those at high risk and prompting them to act.

In recent years, ABBPC has largely been a media-based campaign, which has encouraged Australians to visit pharmacies or their GP to get their blood pressure checked.

'Right Monitor, Right Method, Right Result' Program

It is now recommended that home blood pressure measurements, rather than in-clinic measurements, be used for confirming the diagnosis of high blood pressure and for treatment titration.[8] Importantly however, less than one quarter of blood pressure monitors available for sale in Australian pharmacies have been appropriately validated for accuracy.

To address this, Stroke Foundation is developing a national awareness and education program, 'Right Monitor, Right Method, Right Result', to improve blood pressure measurement for consumers and pharmacists, and empower Australians to correctly identify and manage high blood pressure, helping them avoid stroke.

First, the program will encourage best-practice blood pressure measurement using validated (tested) monitors (Right Monitor).

Second, targeted consumer and health professional engagement and education activities will be co-developed and co-delivered with consumers and key professional bodies, focused on the best-practice in-pharmacy and home blood pressure measurement protocols (Right Method).

Third, Australians will be supported to measure, record, monitor and act to manage their blood pressure and subsequent cardiovascular disease risk (Right Result).

Behaviour modification programs for primary and secondary stroke prevention

Stroke Foundation is currently delivering behaviour modification programs aimed at primary and secondary stroke prevention. These programs are identifying Australians with, or at high risk of, high blood pressure, and are detailed in our position statement on 'Stroke Prevention'.

References

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Stroke FOUNDATION

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How to get more involved

- **Give time** – become a volunteer.
- **Raise funds** – donate or hold a fundraising event.
- **Speak up** – join our advocacy team.
- **Leave a lasting legacy** – include a gift in your Will.
- **Know your numbers** – check your health regularly.
- **Stay informed** – keep up-to-date and share our message.