**Australia lacks a high-quality national database system on blood pressure**

Alexandra Gallagher1\*, Lachlan L. Dalli2\*, Heidi Dietz,3 Amirul Islam,4 Markus Schlaich,5 Nelson Wang,6 Xiaoyue Xu7, James E. Sharman8 on behalf of the National Hypertension Taskforce Working Group 4. NHMRC Clinical Trials Centre, University of Sydney, Camperdown, NSW, Australia1; School of Clinical Sciences, Monash University, Clayton, VIC, Australia2; Cardiovascular, Diabetes and Kidney Unit, AIHW, Australia;3 Swinburne University of Technology, Hawthorn, VIC, Australia;4 University of Western Australia, Perth, WA, Australia;5 Brigham and Women’s Hospital, Boston, MA, USA;6 School of Population Health, University of NSW, Sydney, NSW, Australia;7 Menzies Institute for Medical Research, University of Tasmania, Hobart, TAS, Australia.8 *\*AG and LD are co first authors*

**Introduction.** Raised blood pressure (BP) in Australia remains underdiagnosed and undertreated, leaving many people at risk of preventable complications. A high-quality national database will inform health care providers and policy makers on the incidence, prevalence and complications of raised BP. It is unclear if any such databases currently exist.

**Aims**. To conduct a review of existing national databases in Australia that collect BP and cardiovascular disease data and (1) evaluate their quality, and (2) identify gaps to inform future needs for a national BP database.

**Methods**. A comprehensive environmental scan was conducted to identify Australian national databases containing BP and cardiovascular disease data. This involved systematic searches of Google and PubMed and targeted searches of government websites and research institution repositories, in addition to contacting key stakeholders from relevant organisations. A standardised data extraction and analysis framework was used to evaluate database quality, features, map overlap, and identify gaps.

**Results.** There were 12 national databases identified containing BP and/or cardiovascular disease data. The database with highest quality BP data was the National Health Survey—the only source with standardised BP measurement and representative data collection. Notable gaps were found in the quality of BP measurements and inclusion of non-representative rather than probability sampling. None of the databases had real-time monitoring capabilities and there were no standardised BP measurement protocols within and across databases.

**Discussion.** Current BP databases have inconsistent data standards, which limit their utility to estimate the prevalence and control of hypertension in Australia. Action now is necessary to develop a coordinated national surveillance framework to help increase hypertension control rates and lower Australia’s burden of cardiovascular disease.