


# Assessing healthcare professional knowledge, attitudes, and practices on hypertension management. Announcing a new World Hypertension League resource

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To assist hypertension control programs and specifically the development of training and education programs on hypertension for healthcare professionals, the World Hypertension League has developed a resource to assess knowledge, attitudes, and practices on hypertension management. The resource assesses: (1) the importance of hypertension as a clinical and public health risk; (2) education in national or international hypertension recommendations; (3) lifestyle causes of hypertension; (4) measurement of blood pressure, screening, and diagnosis of hypertension; (5) lifestyle therapy counseling; (6) cardiovascular risk assessment; (7) antihypertensive drug therapy; and (8) adherence to therapy. In addition, the resource assesses the attitudes and practices of healthcare professionals for task sharing/shifting, use of care algorithms, and use of registries with performance reporting functions. The resource is designed to help support the Global Hearts Alliance to provide standardized and enhanced hypertension control globally.

Hypertension, a leading risk for death and disability globally, was attributed to just less than 20% of deaths and 9% of disability-adjusted life-years worldwide in 2015.<sup>1</sup> Reducing uncontrolled blood pressure by 25% by 2025 is a voluntary target agreed to by national governments at the World Health Assembly.<sup>2,3</sup>

To improve hypertension control, it is recommended to take a strategic approach.<sup>4,5</sup> A recommended component of a strategic approach is a situational analysis of the barriers and facilitators to controlling hypertension including assessing the knowledge, attitudes, and practices (KAP) of healthcare professionals. The KAP assessment for healthcare professionals can be used, in part, to examine what educational and training programs are needed and healthcare professionals receptivity to the newer approaches to chronic disease management that are advocated in controlling hypertension.<sup>5</sup> Assessing the confidence a healthcare professional has in performing hypertension management recommendations as well as the conviction they have that the recommendation is important can facilitate the tailoring of educational and training interventions. The “confidence conviction” model has been commonly used in assessing the likelihood that patients will follow health recommendations.<sup>6</sup> People are more likely to make a change in behavior if they are confident they can and if they are convinced the change is very important to them.

Better Hearts Better Cities is a multidisciplinary, multisector initiative of the Novartis Foundation to improve cardiovascular health in low-income urban communities by addressing the control of hypertension as a key risk factor for cardiovascular disease. The initiative will roll out in three initial cities: Ulaanbaatar, Mongolia; Dakar, Senegal; and a city in Brazil in 2017 (<http://www.novartisfoundation.org/news/more/2453/novartis-foundation-and-partners-launch-initiative-to-tackle-hypertension-in-low-income-urban-commun>). A KAP survey of healthcare professionals was planned in Ulaanbaatar; however, a literature search found no suitable resources or tools. Hence, a KAP survey was developed for the Ulaanbaatar intervention. The KAP survey was designed to identify areas that need further education and training to enhance knowledge, skills, and attitudes towards interventions recommended to improve hypertension control. It focused on key domains that relate to clinical hypertension prevention and control. The domains included: (1) the importance of hypertension as a clinical and public health risk; (2) education in national or international hypertension recommendations; (3) lifestyle causes of hypertension; (4) measurement of blood pressure, screening, and diagnosis of hypertension; (4) lifestyle therapy counseling; (5) cardiovascular risk assessment; (6) antihypertensive drug therapy; and (7) adherence to therapy. In addition, the survey assessed key health system changes recommended by the Global Hearts Initiative to improve hypertension control (task sharing/shifting, use of standardized care algorithms, and the use of registries that provide performance feedback).<sup>5</sup>

The KAP survey in Mongolia was reviewed for face validity by hypertension and primary care experts and was also pilot tested in a sample of primary care healthcare professionals. Subsequently, a World Hypertension League (WHL) committee of multidisciplinary experts from various countries (Table) revised the KAP survey based both on the experiences of administering the survey in Ulaanbaatar

**TABLE** World Hypertension League, knowledge, attitudes, and practices committee

Dr Xin-Hua Zhang	China
Dr Eugenia Velludo Veiga	Brazil
Dr Hind Mamoun Beheiry	Sudan
Dr Myagmartseren Dashtseren	Mongolia
Dr Sailesh Mohan	India
Dr Bader Almustafa	Saudi Arabia
Dr Dan Lackland (World Hypertension League President)	United States
Dr Norm R.C. Campbell (Committee Chair)	Canada

and on their own opinions. The revised survey is publicly available as an appendix to this commentary (Appendix S1). The KAP survey is currently being conducted in clinics in Ulaanbaatar as part of a quality assurance project.

The KAP survey has information for persons who wish to adopt the survey tool to use in their country (Appendix S2), a preamble to provide instructions to respondents, six questions to assess characteristics of the respondents, 16 knowledge assessment questions, five questions relating to attitudes towards hypertension management, 14 questions on current hypertension management practices, seven questions relating to the priority (conviction) placed on different hypertension management activities, three questions on confidence to perform different hypertension management activities, and two additional questions assessing the roles of nurses and pharmacists in managing hypertension. Most of the questions have multiple components.

Before using the survey, the specific questions need to be examined for applicability in the local and national context. This is particularly true of questions on the importance of hypertension, which requires national data, and therapeutic questions, which may need to be adapted to national recommendations. The survey is estimated to take approximately 30 minutes based on pilot testing in Ulaanbaatar. Some of the questions also have answers that can be distributed after the survey is conducted to aid in learning by the respondents (Appendix S3).

We encourage users of the survey to report their use to the WHL office ([mniebyski@yahoo.com](mailto:mniebyski@yahoo.com)) and to communicate with other users to facilitate comparison of results and a sharing of analytic approaches and coding. A Microsoft Word version of the survey is available from the WHL to facilitate modification.

## CONFLICTS OF INTEREST

NRCC has a contract with the Novartis Foundation to assist in hypertension control interventions in low-resource settings, has been a paid advisor to Midway Corp for providing advice on blood pressure measurement, and is an unpaid member of the World Action on Salt and Health. The Onom Foundation receives funding from the Novartis Foundation. ND, UB, MM, TU, MD, XHZ, EVV, HMB, SM, BA, and DL report no conflicts of interest. MN is a paid contractor as the chief executive officer of the WHL.

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## SUPPORTING INFORMATION

Additional Supporting Information may be found online in the supporting information tab for this article.

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