

Hypertension Control: The Caribbean Needs Intervention Studies to Learn How to Do Better

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Hypertension is an important risk factor for cardiovascular disease in the Caribbean (1) and globally (2). It is responsible for 51% of deaths due to cerebrovascular disease (stroke) and 45% of deaths due to ischaemic heart disease (3), which are the leading causes of death in the Caribbean (1, 4). The prevalence of hypertension in the Caribbean is high, affecting 21% of adults in Barbados and Trinidad and Tobago (5), 25% in Jamaica (6), and 35%–38% in St Kitts, British Virgin Islands and Grenada (5), contributing to the large economic burden from this condition and its complications (4, 7). The benefits from adequate treatment and control of hypertension are considerable (8). There is strong high-quality evidence from clinical trials and meta-analysis that lowering blood pressure reduces the risk of cardiovascular disease (stroke, coronary heart disease and heart failure), diabetes complications, chronic kidney disease and premature death (9–11).

Although, medication for the treatment of hypertension is readily available throughout the Caribbean, many persons are unaware of their hypertension and among persons being treated, levels of adequate control are low. Clinical audit surveys during the 1990s found that the proportion of patients adequately controlled in the public sector was 18% in Jamaica (12) and 23% in patients sampled in Barbados, Trinidad and Tobago and Tortola (13).

A more recent survey in Jamaica found that 28% of patients were adequately controlled and assessed that the improvement between 1995 and 2013 was due to the increased use and availability of more effective medications such as angiotensin converting enzyme inhibitors, calcium channel blockers and angiotensin receptor blockers (14).

It is of grave concern that the levels of adequate control of hypertension are so low in the Caribbean. There have been attempts to improve the management of hypertension in the Caribbean with the preparation of several treatment guidelines (15, 16), conference presentations, training workshops (13),

essential drug lists, subsidizing medication and exhortation. None of these approaches has made any substantial difference to improving blood pressure control though some indicators of medical management have improved (17). A randomized controlled trial (RCT) in Jamaica in 2012 tested a physician-based intervention of audit feedback, reminders and training in motivational interviewing to practitioners and cue cards to patients. However, there was no improvement in hypertensive control (18).

The Caribbean may not be unique in having inadequate levels of hypertension control. For instance, in Chile the awareness rate of hypertension was 65%, the treatment rate 37.5%, the proportion of persons treated and fully controlled was 45.3% and the population control rate was 16.5% (1). However, there are examples of much better performance such as the increase in hypertension control from 44% in 2001 to 80% in 2009 among Kaiser Permanente of Northern California patients (19). In Canada, 82.5% of persons with hypertension are aware of it and 81.8% of those on treatment are controlled resulting in a population control rate of > 50% (1). More recently, efforts to improve blood pressure control have been taking place in Barbados and the effectiveness and sustainability of these efforts are still to be reported.

More intervention trials are needed in the Caribbean to establish how to improve the management of hypertension and other chronic non-communicable diseases. We need to design and implement studies that test evidence-based strategies adapted to our setting and establish sustainable approaches that can be scaled up at low cost. This needs to begin with a rigorous analysis of how medical care is practised and the likely factors contributing to such poor levels of management and control.

The population of Jamaica is 2.7 million, the majority of whom are of African descent due to the history of slavery under the Spanish and later British colonialism. There is a well-developed network of 24 public hospitals and 331 health centres throughout the island. An estimated 48% of persons seeking primary care attend public health centres free of charge and 46% visit a private practitioner on a fee for service basis; 5% attend both (20). The Government heavily subsidizes hypertensive medication for all patients through the National Health Fund.

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There is no established system of monitoring hypertension control on an ongoing basis in either the public or private health system in Jamaica. There are periodic surveys but these do not provide timely feedback to practitioners about the quality of their care. Nor is there a clearly established target for hypertension control in the Ministry of Health or the four Regional Health Authorities responsible for delivering health-care services. It is unlikely that hypertension control will improve in Jamaica without setting clear targets and establishing a system for monitoring them. The ideal approach would be to have a computerized health information system that could provide this information in real time. However, this is unlikely in the foreseeable future. Therefore a system of rapid chart review audits needs to be developed and implemented widely.

These audits will provide critical information on the management of hypertension that will facilitate a range of additional measures to improve care. The selection of medication can be reviewed, simplified and tailored to the specific needs of patients. Adherence to medication can be tracked and problems contributing to adherence failure addressed. It will be essential to involve health providers and patients in an active collaborative manner to achieve the best results. Where indicated, qualitative studies can be conducted to provide insight into the thinking underlying patient or provider behaviours contributing to poor outcomes.

There are significant challenges to be faced. Management and accountability systems tend to be weak in the health services. Health literacy is poor among many patients while folk and traditional belief systems are strong. Obesity is increasing with limited recognition of it or its contribution to poor health among the public (21–23). The majority of adults have inadequate levels of physical activity and the environment is not structured to support more physical activity especially given the high crime rate. While there is the talk of the need to promote a healthy lifestyle, reduce the prevalence of obesity and increase physical activity, there are few national policies or measures to address these challenges in a strategic and structured way on a population-wide basis. There is now good evidence to show that population approaches can contribute significantly to reducing the prevalence of hypertension and risk of cardiovascular disease and death (3, 24–26).

Health researchers in the Caribbean need to conduct carefully planned intervention studies to show that we can improve hypertension control and establish systems that will work. This will provide the evidence to stimulate system-wide improvements that will contribute to reducing cardiovascular disease and improving health.

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