

# Hypertension Control in Africa

## A Call to Action



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Hypertension (HTN) remains the single greatest contributor to death worldwide [1], and its prevalence, treatment, and control rates vary dramatically by region. The World Health Organization (WHO) notes that the prevalence of HTN is greatest in Africa, afflicting about 46% of adults aged 25 years and older [2]. The number of people with HTN in Africa has risen from 55 million in 1990 to 130 million in 2010, and if action is not taken, could increase to nearly 220 million by 2030 [3]. Notably, it has been shown that awareness rates for HTN in Africa are <30%, treatment rates <20%, and control rates <10% [4], indicating substantial room for improvement of detection, treatment, and control efforts. With better control of communicable diseases in Africa, the proportionate burden of deaths and cardiovascular events due to HTN continues to rise. One key target of the WHO's 2013 to 2020 global action plan aims to achieve a 25% relative reduction in the prevalence of raised blood pressure or to contain it. Following this, in 2015, the World Heart Federation launched a roadmap [5] focused on HTN control during the 2015 World Health Assembly in Geneva, with the objective of reducing premature cardiovascular mortality by 25%. This roadmap focused on identifying those unaware of their blood pressure (BP), those aware but with raised BP, those who had raised and uncontrolled BP, those aware but who had their BP under control, and those who were aware they had normal BP, as well as identifying practical steps for improving HTN management, and the use of generic antihypertensive medications to reduce the cost of care.

In this issue of *Global Heart*, Dzudie et al. [2] present a Pan-African Society of Cardiology (PASCAR) roadmap on HTN aimed to develop guidance on implementing strategies that would translate existing knowledge into effective action, improving detection, treatment of HTN, and cardiovascular health in sub-Saharan Africa by the year 2025. This statement notes several important barriers hampering HTN control, including government—systems-related roadblocks, health—systems-related roadblocks, healthcare—professionals-related roadblocks, and patient-related roadblocks. Clearly there has to be action by individual African national societies and local healthcare facilities to help address these roadblocks, and the solutions for each area to address them may be different. The PASCAR HTN task force identified a 10-point action plan to be implemented by African ministries of health that aims to achieve 25% control of HTN by the year 2025. This is a laudable plan, but it will require the African ministries of health not only to adopt them in concept, but to provide

sufficient funding to implement national and local programs to address each point.

PASCAR recommends steps for appropriate office BP measurement that should be disseminated throughout healthcare organizations across Africa. However, given the well-documented white-coat effects that increase with age and presence of comorbidities, patients should also be charged with and given appropriate resources, when possible, to monitor their blood pressure at home, which ultimately may be more successful in empowering self-care. A PASCAR HTN treatment algorithm is also provided that begins with screening in the healthcare facility, pharmacy, markets, and churches, identifying those with elevated blood pressure and initially focusing on lifestyle modification for those with systolic BP of 140 to 159 mm Hg or diastolic BP of 90 to 99 mm Hg. The focus on beginning with thiazide or thiazide-like diuretics (and another class if BP levels are higher, or with diabetes/target organ damage) and adding other therapy if BP is not at target, using generic medications, is a reasonable approach. The cost of such generic medications is relatively low and clearly cost-effective, so while the report points to poor universal health insurance coverage as a major roadblock, at a minimum, evidence-based generic therapies for HTN and cardiovascular disease are a “best buy,” and ideally a Pan-African policy to provide these should be developed and implemented across the continent.

Perhaps one of the most important recommendations of the report, which can have a dramatic impact on improving detection, treatment, and control rates, is the importance placed on a task-sharing approach with trained community healthcare workers or nurses who, along with leading screening efforts to increase awareness, could initiate and follow-up certain medications, namely thiazide or thiazide-like diuretics and calcium-channel blockers, which could be invaluable in the many African communities with insufficient physician availability. The dissemination of basic concepts of treatment that have been used for decades in the West, such as the value of combination therapy for improving efficacy with greater tolerability than increasing the dose of a single treatment, especially in those with grade 2 and 3 HTN, should be emphasized, along with organizing referral systems to secondary medical practitioners and tertiary specialists where needed.

A greater emphasis also needs to be made on regulation (through legislation) of the food supply, including products particularly high in sodium, as well as public promotion of healthier lifestyles through increased physical activity, cardioprotective dietary patterns, and

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achieving and maintaining optimal body weight, crucial ingredients in both the prevention and control of HTN. Community educational events such as those organized by the World Heart Federation for World Heart Day can be undertaken on a more regular basis in key gathering areas such as churches and workplaces.

While the roadmap report uses the  $\geq 140/90$  mm Hg cut point for defining HTN, if the most recent guidelines from the American College of Cardiology/American Heart Association [6] were considered, the prevalence of HTN in Africa would be  $>50\%$  based on that new cut point of  $\geq 130/80$  mm Hg for HTN. It would probably not be the case that many more would require treatment, however, because even if this lower cut point were applied to persons in the United States, where pharmacologic treatment is not recommended in the range of 130 to 139 mm Hg systolic or 80 to 89 mm Hg diastolic BP unless 10-year atherosclerotic cardiovascular disease risk is  $\geq 10\%$ , only 1.9% more persons would require treatment. While other national societies have yet to adopt this lower cut point for defining HTN, it may seem prudent to continue to focus the limited resources Africa has on addressing those at highest risk, and the current HTN treatment algorithm to try lifestyle management for 3 to 6 months before beginning pharmacologic therapy in those with systolic BP 140 to 159 or diastolic BP 90 to 99, as Dzudie et al. [2] recommend, may in fact be the most practical approach. However, lifestyle management is much more than a healthcare provider talking to the patient and giving a few written prescriptions; it is a *behavioral change* ideally requiring group meetings and discussions around exercise and dietary modification. Therefore, the protocol and resources for providing lifestyle group sessions by nurses or health coaches is essential and needs further thought.

Dzudie et al. [2] have also pointed out that only 16 (26%) of 62 African countries have clinical practice guidelines on HTN, thus further emphasizing the need to support African ministries of health with a definitive HTN roadmap. Priority actions of the roadmap aimed to reduce the burden of HTN by 2025 include the following:

1) including HTN in all noncommunicable disease programs; 2) allocating funding and resources; 3) writing or adopting clinical guidelines for HTN; 4) monitoring and reporting with a clear target; 5) integrating HTN with existing policies such as on HIV/AIDS; 6) promoting task sharing/sifting; 7) ensuring availability of essential equipment and medicines; 8) providing universal coverage for HTN; 9) investing in quality research; and 10) investing in population-level interventions. To implement all this, however, requires cooperation by the many countries in Africa, ideally with PASCAR being provided with funding from the WHO (given its greater interest now in supporting efforts to contain the epidemic of HTN and cardiovascular diseases) and from philanthropic societies specifically identifying HTN and cardiovascular disease control as a priority to help structure a taskforce and workshops between each country's ministries of health, major healthcare organizations, healthcare providers, and cardiac societies (where they exist).

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