

HEALTHY HEART AFRICA: THE KENYAN EXPERIENCE

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PASCAR Hypertension Task Force Meeting

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Healthy Heart Africa



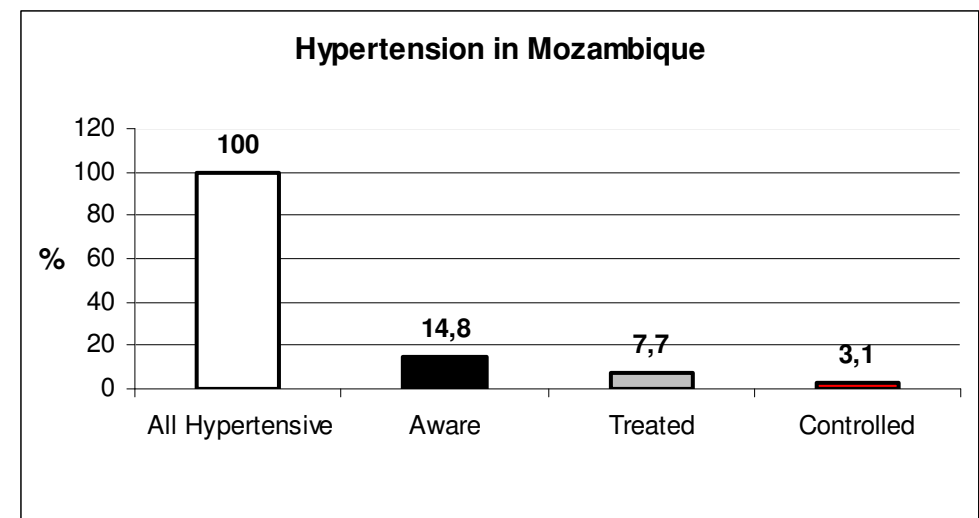
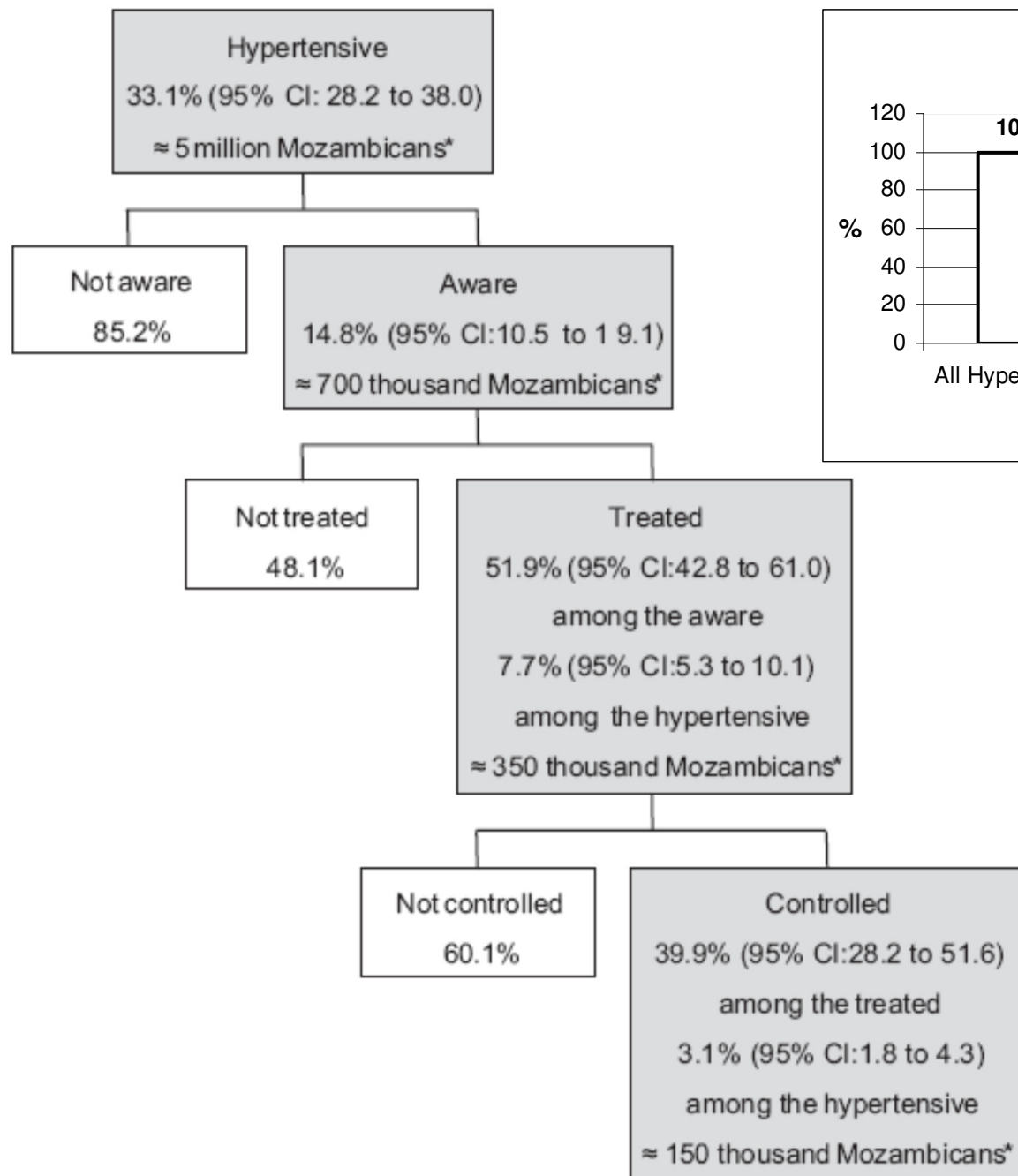
Professor Elijah Ogola

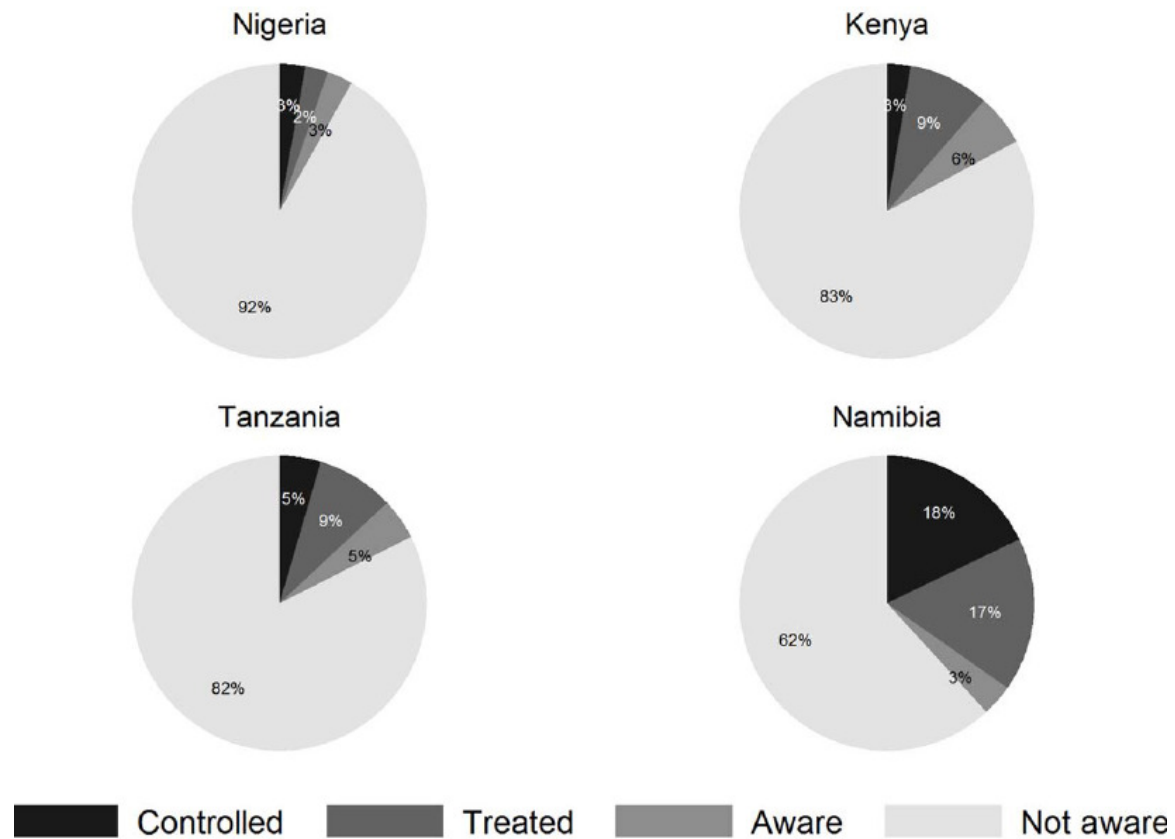
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Hypertension in Africa: History

In 1929, an article in *The Lancet* described blood pressure (BP) patterns in an Africa community living in “conditions which have probably undergone no appreciable change for many centuries,” Donnison wrote. “Over two years at a native hospital in the South of Kavirondo in Kenya, during which period approximately 1800 patients were admitted, no case of raised blood pressure was encountered, although abnormally low blood pressure was not uncommonly encountered. On no occasion was a diagnosis of arteriosclerosis or chronic interstitial nephritis made.”² He pointed out that similar BP

Lancet - 1929...





Awareness and control rates

Hendriks ME et al . Plos ONE 7(3): e32638

Population awareness and control

Study	Awareness %	Treatment %	Control %
Mathenge (Nakuru)		15 (17.3)	29
Van de Vijver	19.51	46.77	21.57

Summary of Challenges

- High, rising prevalence
- Low awareness rates
- Late diagnosis, hence complications
- Low rates of initiation of therapy
- Poor retention in therapy
- Hence poor control rates
- Vicious circle of morbidity and mortality

Healthy Heart Africa: tackling the challenges of hypertension

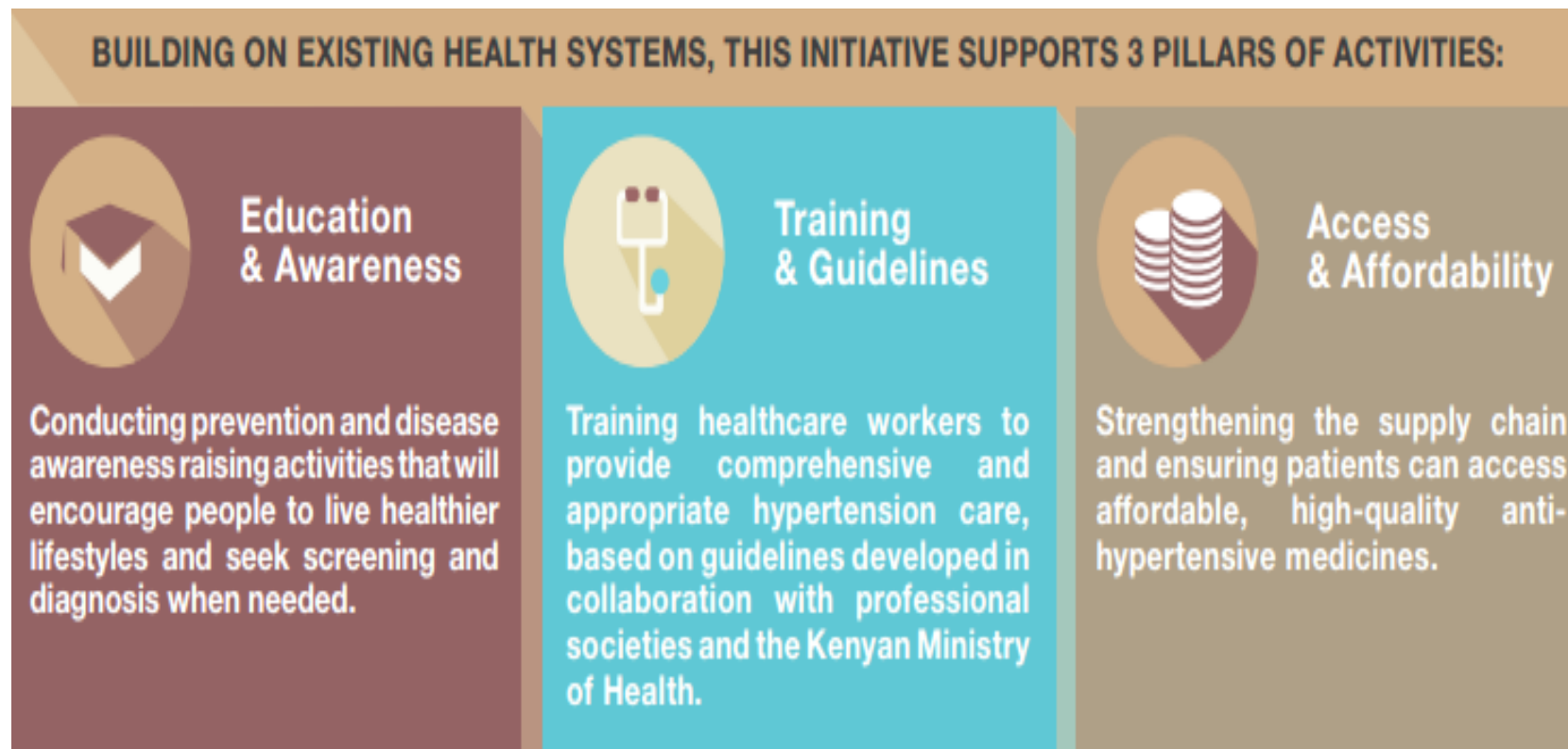


AstraZeneca's **HEALTHY HEART AFRICA** is an **innovative programme** committed to **tackling hypertension** and the increasing **burden of cardiovascular disease (CVD)** across Africa.

HEALTHY HEART AFRICA aspires to reach **10 million hypertensive patients across Sub-Saharan Africa by 2025**, supporting the World Health Organization's global hypertension target (25% reduction by 2025).



A holistic approach to healthcare delivery



AstraZeneca's Approach to Combating Hypertension



With over a century of experience in developing products to treat heart disease, AstraZeneca launched Healthy Heart Africa (HHA) to support reducing the burden of hypertension, and by extension CVD, in Africa along three pillars



Awareness and Education

- Conducting awareness-raising activities in communities (e.g., churches, marketplaces, workplaces) to encourage people to seek hypertension screening and diagnosis, and if needed, treatment



Provider Training and Guideline Development

- Training health care workers to provide comprehensive and appropriate hypertension care, based on guidelines developed in collaboration with the Kenyan MOH, HHA partners, and Kenyan cardiologists



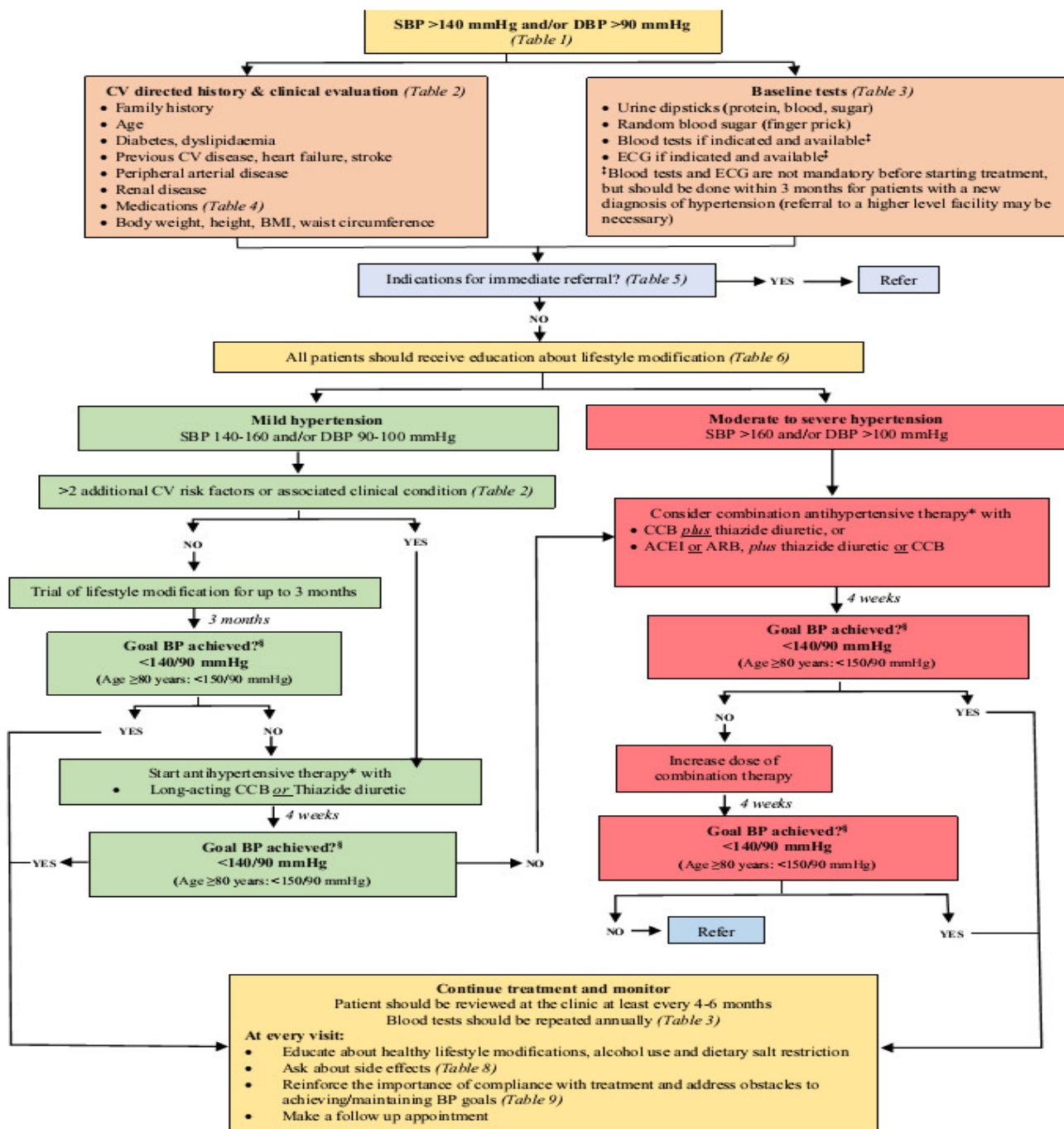
Treatment Access and Affordability

- Equipping facilities to provide screening services and ensuring a consistent supply of antihypertensives at a significantly reduced price, in part through an innovative supply chain system for all HHA sites

HHA's aspiration is to reach 10 million hypertensive patients across Africa in the next ten years, supporting WHO's global hypertension target of a 25% reduction in hypertension prevalence by 2025



Protocol for the identification and management of hypertension in adults in primary care



Taking a Sustainable Approach

AstraZeneca partnered with Mission for Essential Drugs (MEDs) to establish a lean, low-cost, and secure supply chain to ensure that medicines are always available to patients served by each of the five HHA implementation partners and enable up to a 90% reduction in the cost of its medicines

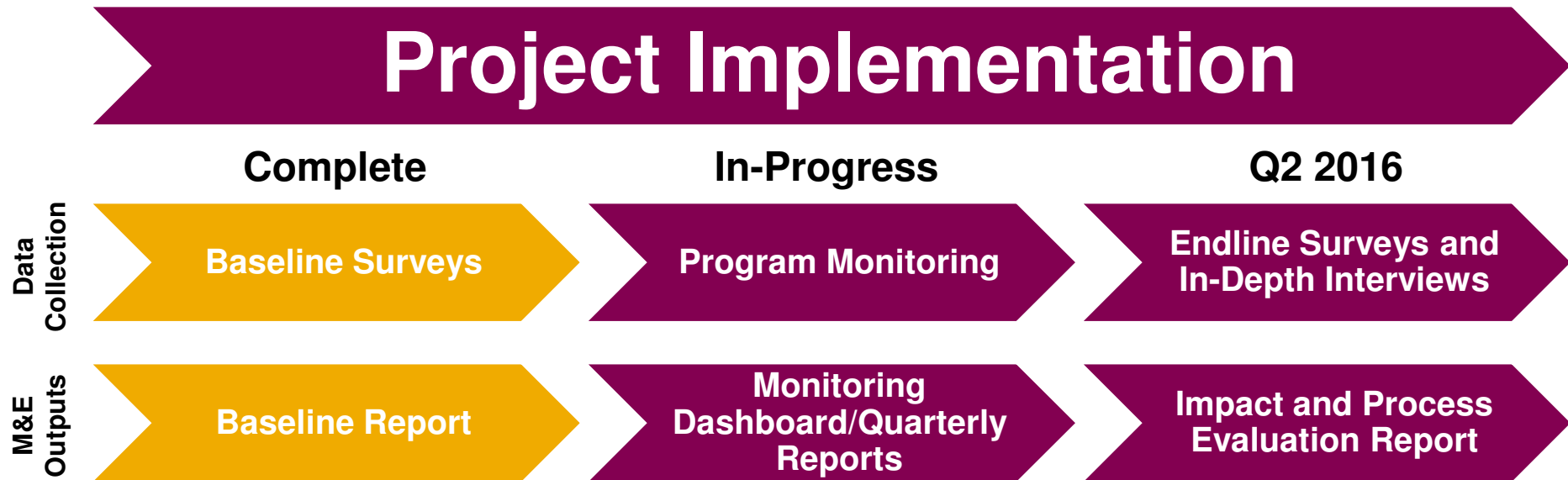


By establishing a profitable drug delivery model that is affordable for patients AstraZeneca is:

- 1 Ensuring patient access to HHA treatment
- 2 Establishing sustainable programme funding by reinvesting profits into HHA operations



HHA Monitoring and Evaluation Plan



- **Baseline Surveys:** In partnership with the Kenyan Ministry of Health, Abt Associates conducted household and facility surveys across 17 Kenyan counties to understand hypertension awareness, screening and treatment trends before the launch of HHA.
- **Endline Surveys:** These data points will be re-measured at the conclusion of the 18-month demonstration project phase and compared to the baseline data to establish the impact of HHA on rates of hypertension awareness, screening and treatment.



Baseline Survey

The baseline survey was conducted from **February - March 2015**, and the data sample used for this analysis is as follows:

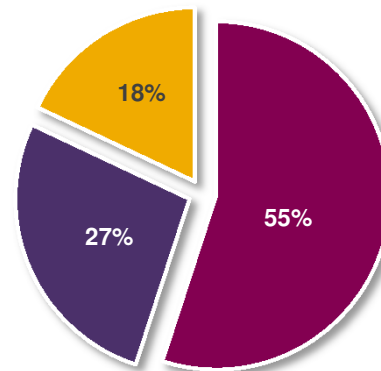


Households Surveyed: The survey interviewed 2,937 people 18 and older in 1,560 households across 17 counties



The Facilities Surveyed: A total of 148 facilities were visited representing a mix of public, private and faith-based facilities

Breakdown by Facility Level



- Dispensaries (level 2)
- Health centers and clinics (level 3)
- Hospitals (level 4)



Hypertension Awareness

Knowledge around risk factors and health risks associated with hypertension is low, particularly among rural and lower income populations

Awareness of the health risks associated with elevated blood pressure is low

- While the majority of respondents – 58% – mentioned death as a potential health risk of hypertension, only 30% and 29% of the population surveyed knew that heart attacks and strokes are health risks associated with high blood pressure, respectively

Despite the very low knowledge around risk factors among the population surveyed, activities to address hypertension awareness and education seem limited

- Availability of point of service communication materials for hypertension at the facilities was very low, as only 10% had posters about hypertension and only 20% of the facilities conduct hypertension outreach services
- Perhaps because of the reality that other diseases have received greater attention by health care providers and front line healthcare workers, while over 70% of respondents said they had heard of hypertension from friends and family, fewer than 10% of respondents had heard about hypertension from a community health worker or a community event



Provider Training

Poor provider knowledge around hypertension risk factors and diagnostic procedures contribute to inconsistent quality of hypertension care, particularly at lower levels of the health system

Providers showed poor knowledge around hypertension risk factors

- Awareness of hypertension risk factors among health care providers is low, particularly at dispensaries where only family history and high stress were cited by more than half of providers, while lack of physical activity, alcohol and tobacco consumption and age were much less frequently cited
- Providers surveyed often did not understand the full extent of health related consequences of hypertension, frequently failing to make the link between hypertension and heart attacks or renal disease

Providers are generally not aware of diagnostic protocols

- Fewer than 50% of providers surveyed were able to correctly identify the BP threshold which indicates that a patient is hypertensive
- Provider knowledge of severe blood pressure thresholds is low at all levels of the health system; fewer than 15% of providers knew the correct threshold for severe hypertension
- Fewer than 40% of providers correctly identified the need to take a BP reading on more than one occasion (i.e., not during the same visit) to accurately diagnose a patient



Hypertension Treatment

Availability of anti-hypertensives varies quite considerably across the different levels of the health system, and not all appropriate treatments are consistently available

HCTZ was one of the more consistently available anti-hypertensives, but at level 2 facilities HCTZ was in stock at less than half the facilities surveyed

- CCB availability was very inconsistent. Lower levels of care showed significant variability in stock, particularly for Amlodipine, where it was observed that over 70% of level 2 and level 3 facilities did not have the drug in stock; additionally, individuals at higher wealth quintiles appeared to have greater access to CCBs compared to lower wealth quintiles
- Treatments for more advanced stages of hypertension were also generally available less frequently – beta blockers and ACE inhibitors were not stocked in more than 50% of level 2 facilities and nearly half of level 3 facilities

Patient perception of the availability of these medicines was relatively low

- Nearly 40% of those survey respondents who were prescribed hypertension medication noted that drugs were either only sometimes available or almost never available



Expected Findings from HHA

Abt Associates is leading an external evaluation of the five demonstration projects over the 18-month implementation period, after which AstraZeneca expects to answer the following questions:

As HHA is scaled both within and outside of Kenya, AstraZeneca expects to answer the following questions over the long-term:

- **Integration:** Is integrating hypertension care into existing healthcare service infrastructure feasible?
 - **Lessons Learned:** Of the various models being implemented, which elements are most effective at addressing HHA's three-pillars?
 - **Cost of Care:** What is the facility cost to integrate hypertension programming into existing service delivery infrastructure?
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- **Health Impact:** What is the impact of HHA programme activities on hypertension related cardiovascular disease mortality?
 - **Cost-Benefit:** What is the cost-benefit of investing in hypertension control (i.e., cost difference to a healthcare system between uncontrolled and controlled hypertension)?

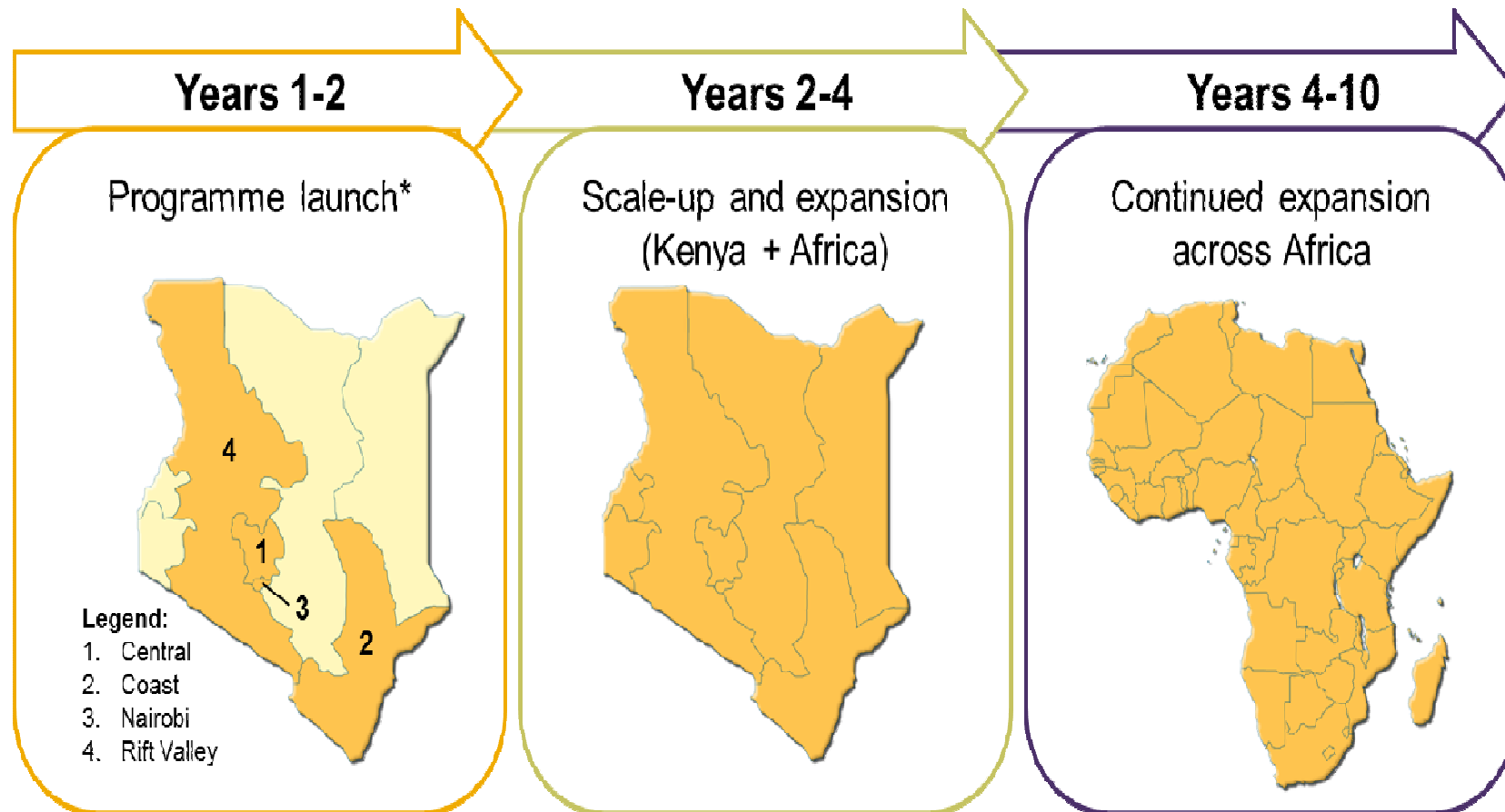
Baseline report due early September 2015



AstraZeneca's Long-Term Vision



AstraZeneca intends to share findings from the 18-month demonstration projects with key stakeholders to help **inform HHA scale up in the coming decade**, as well as contribute to the public health dialogue around reducing rates of hypertension, raising awareness around CVD, and improving chronic care more broadly in resource-limited settings





1 June 2015

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