

Using the WHO Health Systems Framework to Assess Health Systems Factors Influencing Hypertension Control in Ghana

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Introduction



- Hypertension has been clearly documented to be a serious public health issue in both rural and urban communities in Ghana¹⁻¹⁷
- More importantly, it has been identified that the rates of hypertension detection, treatment and control remain low despite several proposed interventions¹⁻¹⁷
- As a result, innovative strategies developed from a health systems approach might be needed to manage hypertension in the general population in Ghana
- Although it has been recognized that effective health systems is vital to improving health outcomes, the focus on health systems strengthening and its impact on hypertension control in Ghana is not clear¹

Aim

To critically examine current literature in order to identify the health systems factors influencing hypertension awareness, treatment and control in Ghana



Method

Search strategy

The analysis was conducted primarily in the context of hypertension control. The WHO framework for health systems strengthening (HSS) was used to map the framework for achieving optimal hypertension in Ghana (Figure 2).

- Databases searched: PubMed, EbscoHost
- Combined keywords search: high blood pressure, hypertension, Ghana, health systems, awareness, treatment, control, treatment guidelines, medication adherence, health facilities, finances, workers, policies, governance

Inclusion Criteria

- Journal articles published between 1990 to 2015
- Full-text studies that reported on the health systems factors influencing hypertension control
- Studies reporting on gaps in Ghana's health system and making recommendations for improving service delivery with regards to hypertension control

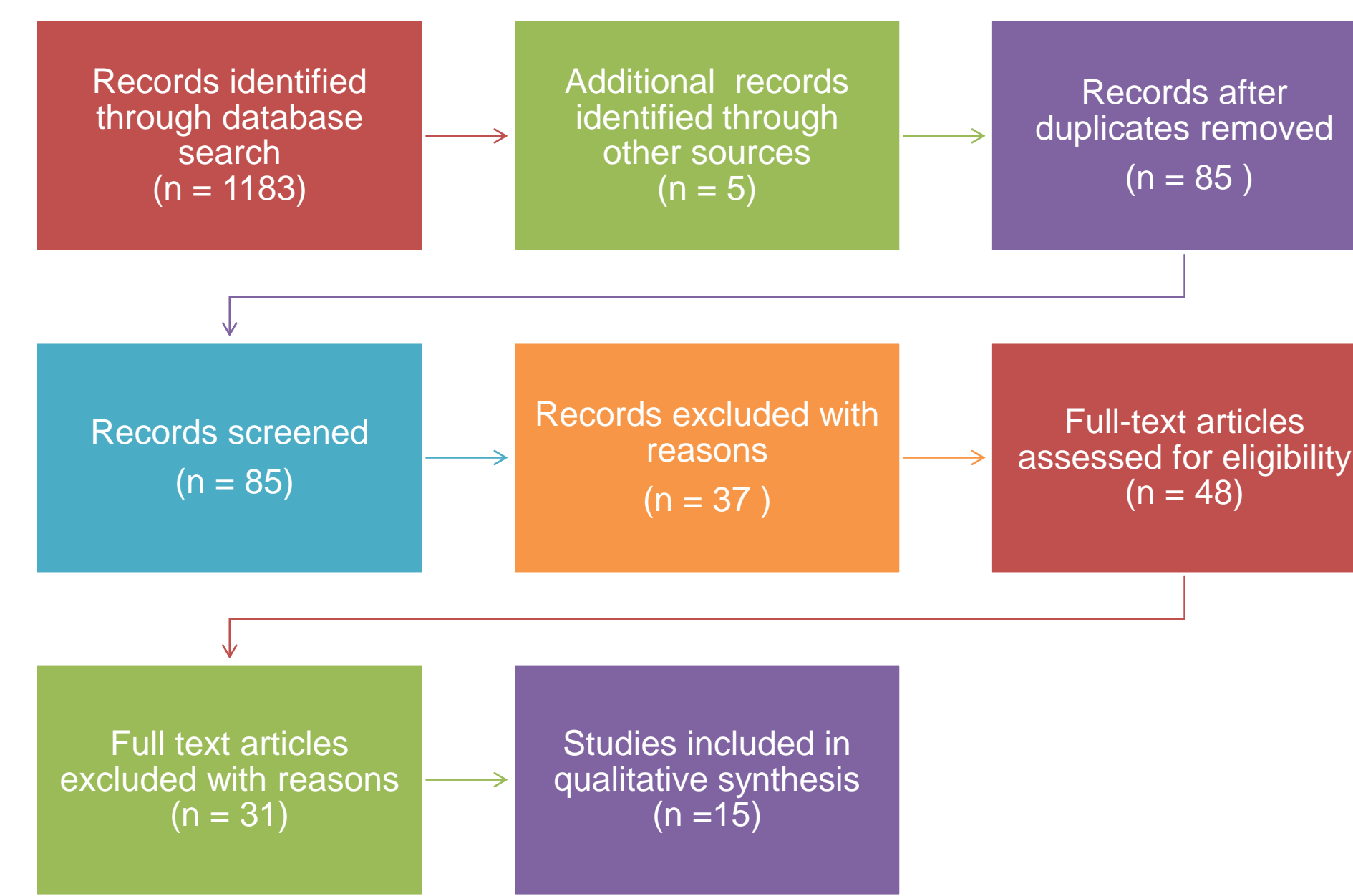


Figure 1. Selection process for included articles using PRISMA guidelines

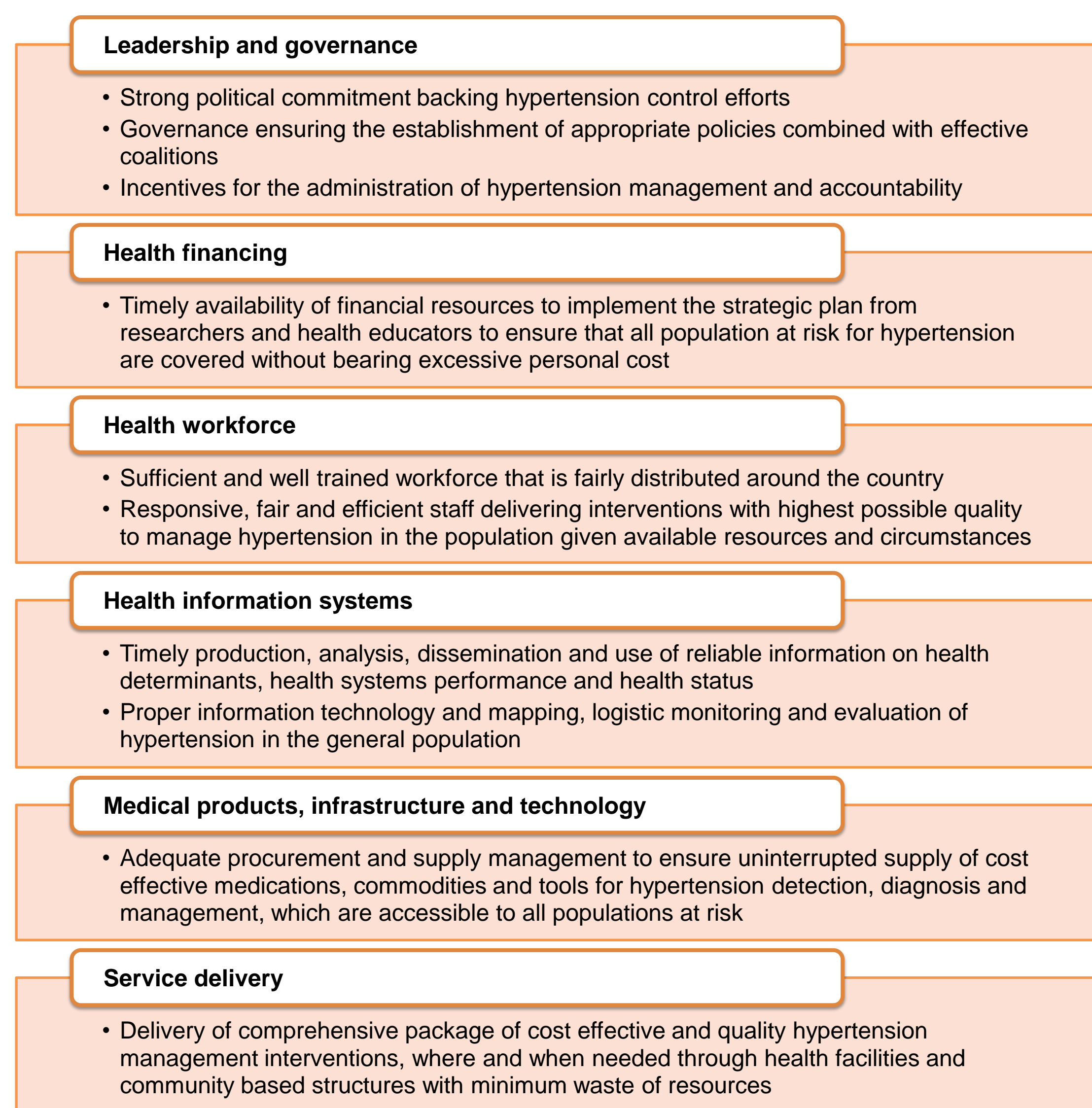


Figure 2. WHO framework for health systems strengthening for achieving optimal hypertension control in Ghana

Results

Author	Study design, sample size and setting	Health system factor/barrier identified	Detailed hypertension-related findings & Recommendations for hypertension control
Boima et al., 2015	Cross-sectional study; n= 120; Urban Ghana	Insurance status	Medication non-adherence (MNA) was associated with formal education and use of herbal preparation. MNA was found in 61.7% of uninsured participants versus 73.1% of insured participants. Poor BP control was observed in 69.7% and there was significant association between MNA and poor BP control
Bosu, 2010	Systematic review	High medication costs Poor training of health care workers Absence of treatment guidelines Lack of health programs for hypertension management Lack of chronic disease management and salt reduction policies	Low compliance to treatment Alternate use of herbal treatment Inadequate counseling of patients
Bosu, 2012	Systematic review	Low funding Inefficient program management Little political interest Low community awareness High medication costs Absence of structured screening programs Unaffordable drug costs	Effective and speedy implementation of proposed interventions hindered
Buabeng et al., 2004	Patient interviews; n = 128 ; Urban Ghana	Absence of a national control program and national guidelines for the detection and management of hypertension	Non-compliance with medication
Cappuccio et al., 2004	Cross-sectional; n= 1013; semi-urban and rural Ghana	Poor knowledge of chronic diseases and their risk factors	Low levels of detection, treatment and control of HT
De-Graft Aikins et al., 2012	Focus group discussions; n= 51; Urban Ghana	High cost of care Poor knowledge and attitudes of health practitioners Absence of chronic disease policies Congestion of tertiary level facilities	Need for training health experts to provide accurate information in practical language that lay people can understand and apply to their daily lives Need to develop sustainable behavior-change interventions Increased risk, morbidity and mortality from major chronic conditions, including hypertension
De-Graft Aikins et al., 2010	Commentary	Absence of chronic disease policies	Ghana does not have a chronic disease policy but has a national health insurance policy that covers drug treatment of some chronic diseases, a culture of patient advocacy for a broad range of chronic conditions and mass media involvement in chronic disease education
Harries et al., 2005	Prospective cohort study ; n = 86; Renal Hypertension Clinic at Komfo Anokye Teaching Hospital in Kumasi	High medication cost Lack of chronic disease education	Noncompliance with medication Reliance on alternate sources of treatment
Kretchy et al., 2014	Cross-sectional study; n = 400; Urban Ghana	Attitude of healthcare professionals High medication costs Lack of chronic disease education	About 70% of CAM users had not disclosed their CAM use to their healthcare professionals citing fear and the lack of inquiry by these health professionals as the main reasons for non-disclosure. Participants who could not afford their medications had 3.85 times likelihood of CAM use than those who could afford their medicines. In addition, a significant relationship between CAM use and experiences of anti-hypertensive side effects was observed. CAM users were 2.22 times more likely to be non-adherent than participants who did not use CAM
Kretchy et al., 2014	Hospital-based cross-sectional study; n = 400; southern and northern Ghana	Lack of multifaceted intervention programs	Medication non-adherence, experiences of medication side effects and LoC are associated Recommendation to develop multifaceted intervention programs highlighting personality characteristics like LoC may improve anti-hypertensive medication adherence
Kretchy et al., 2014	Hospital-based cross-sectional study; n = 400; southern and northern Ghana	Training of health professionals	Need for clinicians to pay attention to negative emotions and their role in medication non-adherence Recommendation to direct attention towards the use of spirituality as a possible mechanism by which negative emotions could be managed among hypertensive patients
Ogedegbe et al 2014	Cluster randomized trial (in-progress); n = 640; Urban Ghana	Poor access to care High out-of-pocket costs Burden on limited health workforce	Recommendation to use cost-effective strategies such as task-shifting
Plange-Rhule et al., 1999	Cohort study; n = 3317; Urban Ghana	Absence of specialist health facilities	Few facilities available for the detection and management of hypertension
Spencer et al., 2005	Cross sectional survey and qualitative interviews; n = 100; Urban Ghana	Poor knowledge of chronic diseases and risk factors	Recommendation to provide culturally competent patient education about hypertension

Figure 3. Health system factors associated with hypertension control in Ghana

Conclusions

- As the burden of hypertension increases in Ghana, innovative strategies to treat and control the disease need to be developed
- More information must be gathered in the broad domains of the health system framework to inform policies, programs and other health system interventions to achieve optimal control of hypertension in Ghana

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