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# **Context**

# Hypertension

- Leading global risk factor for cardiovascular diseases and chronic kidney disease
- Prevalence: 48% in women and 34% in men in Africa (among the highest worldwide)
- Deaths: 1.1 million annually in Africa



# Two main limitations of previous studies

(May Measurement Month; NCD Risk Factor Collaboration)

- Lack of (nationally) representative studies
- Heterogeneity of data collection methods
- Crucial to know the landscape of hypertension and its control to elaborate appropriate preventive strategies

# **Study objective**

To provide a global picture of the burden, awareness, treatment, and control of hypertension in the World Health Organization (WHO) African Region countries



# Study design

- Cross-sectional WHO STEPwise surveys
- **♦** Adults ≥18 y.o
- Standardized tool used by the WHO to collect information in three steps
  - ✓ Step 1: Demographic characteristics and risk factors for NCDs

✓ Step 2: Physical measurements



✓ Step 3: Biochemical measurements





# **Definitions**

# Hypertension

- SBP ≥140 mmHg or DBP ≥90 mmHg or antihypertensive medication
- Stage 1: 140–159/90–99 mmHg, stage 2: ≥160/100 mmHg (International Society of Hypertension)

### Awareness

Taking antihypertensive medication / Informed by a healthcare professional

### Treatment

Taking antihypertensive medication

### Control

SBP <140 mmHg and DBP <90 mmHg</li>



# Participants flow diagram

- East Africa: 12

- Western Africa: 12

- Middle Africa: 7

- Southern Africa: 3

- North Africa: 1

35 WHO African countries
53 WHO STEPS survey databases (2003-2022)
N=213,211

- 23 invalid data
- 83 missing for sex
- 154 missing for age
- 4922 with age out of the age range of the survey (under 18 or over 69)

N=208,029

- 13536 missing for systolic blood pressure
- 13616 missing for diastolic blood pressure

Final analysis for hypertension: N=194,336



# 35 WHO countries, 53 Surveys, 37 national surveys

N 194,336





Mean age

**Mean SBP** 

**Mean DBP** 

38.2±12.7 y.o

124.9±22.0 mmHg

79.7±13.4 mmHg

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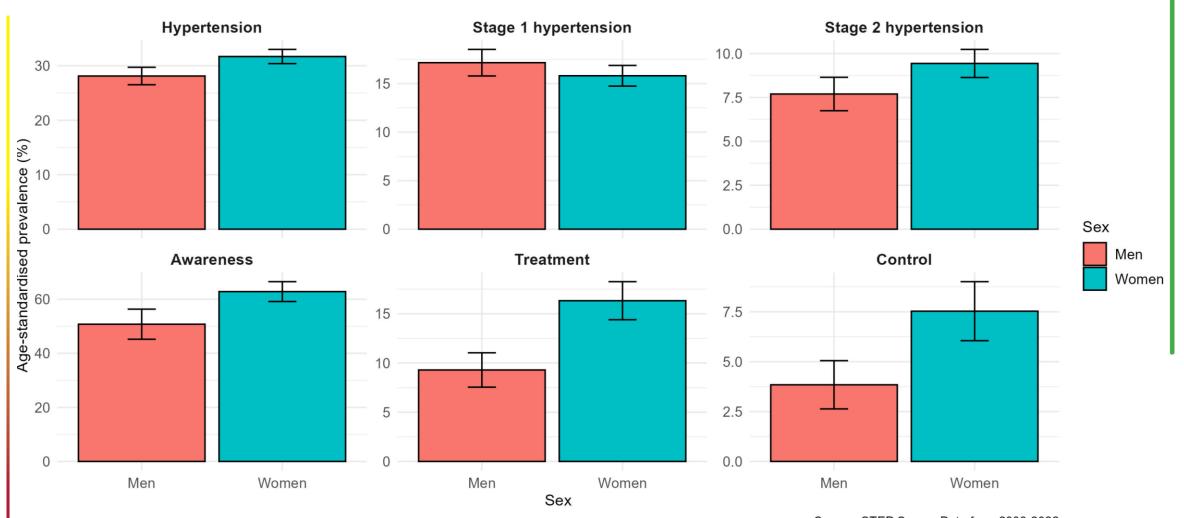
39.4<sub>±12.9 y.o</sub>

**128.6**±19.7 mmHg

79.5±13.0 mmHg



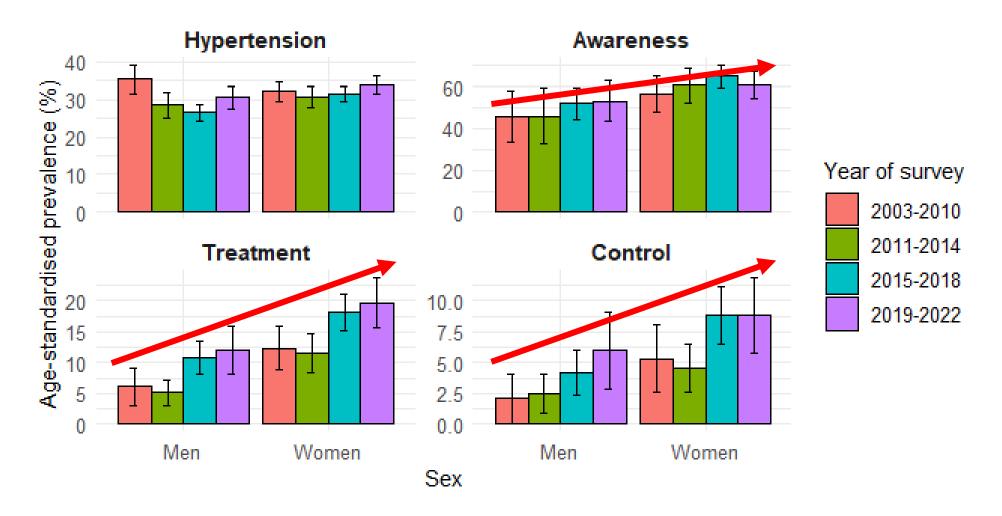
# Hypertension and its awareness, treatment, control by sex



Source: STEP Survey Data from 2003-2022

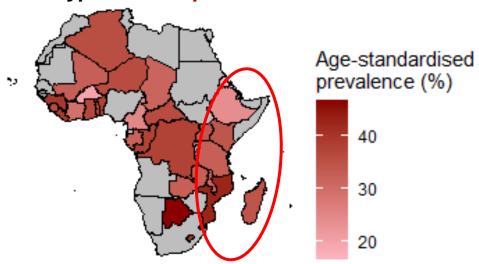


# Hypertension and its awareness, treatment, control by survey year

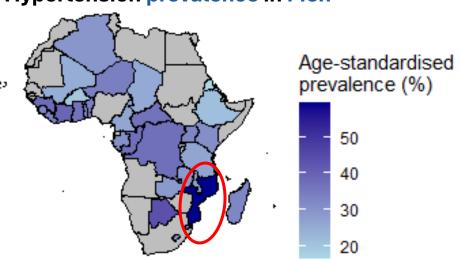




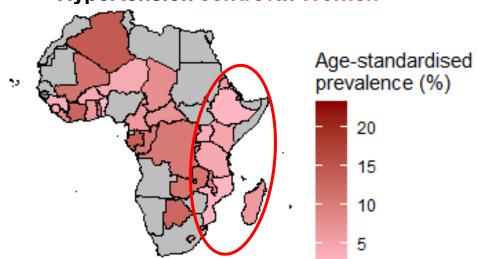
### **Hypertension prevalence in Women**



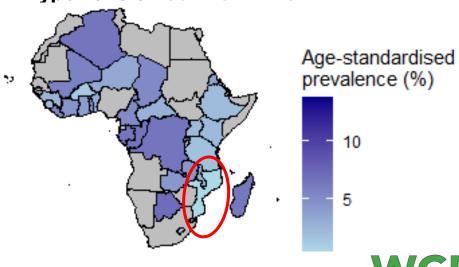
### **Hypertension prevalence in Men**



### **Hypertension control in Women**



### **Hypertension control in Men**





# Conclusion

# Data from 53 WHO STEPS surveys



Hypertension is a growing public health crisis in Africa



Increased awareness, treatment, and control

Multisectoral efforts are needed to tackle the socioeconomic and healthcare challenges



# Thank you for your attention











