

MMM-overview FOCUS ON SUDAN

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• **Project title:**

MAY MEASUREMENT MONTH 2017 (MMM17)

Lead organisations: International Society of Hypertension (ISH) and World Hypertension League (WHL)

Confirmed publishing partnership: The Lancet

Sponsors: International Society of Hypertension, World Hypertension League, OMRON, Centres for Disease Control and Prevention (CDC)

In 2017 World Hypertension Day will expand to become May Measurement Month

Aims:

- To highlight the need for increased screening for raised BP.
- To identify and reduce the BPs of over 2 million people whose raised BP requires intervention according to current guidelines.

MAY
WORLD
HYPERTENSION
DAY
MEASUREMENT MONTH



Initiated by the International Society of Hypertension and the World Hypertension League

MMM Design & Logistics

- A global cross-sectional survey of the BPs of 25 million volunteer adults (age ≥ 18 years) who have not had their BPs measured since April 30, 2016 will be carried out in at least 100 countries.
- Each country will establish as many screening sites as possible (100/country on average will be required).
- Each site will need on average to recruit 100 screenees per day for 25 days during the month of May 2017. Hence $100 \times 100 \times 100 \times 25 = 25$ million!
- BPs will be measured under standard conditions.

Those found to be 'hypertensive' will all be provided with written dietary and lifestyle advice which on average have been shown to lower systolic BP by at least 10mmHg. In addition, depending on local facilities such individuals will be provided with a referral to receive medications and/or follow up facilities.

- A treatment algorithm tailored to local conditions to be developed.

MMM: Recruitment of 25 million Screenees

(a) Identification of National Organisers:

- **Via 6 ISH/WHL Regional Advisory Groups (RAGs)**
 - Africa
 - Central & S America
 - Asia and Australasia
 - Eastern Europe and Middle East
 - W Europe
 - N America
- **Via ISH International Forum**
- **Via WHL member organisations, regional offices etc**
- **Via Lancet Commission on Hypertension**

(b) Site Selection via national organisers

(c) Site volunteer staff recruitment

2 volunteers/day/site

(d) Screenee recruitment

25 African Countries Involved:

Angola Benin Burundi Cameroon Cape

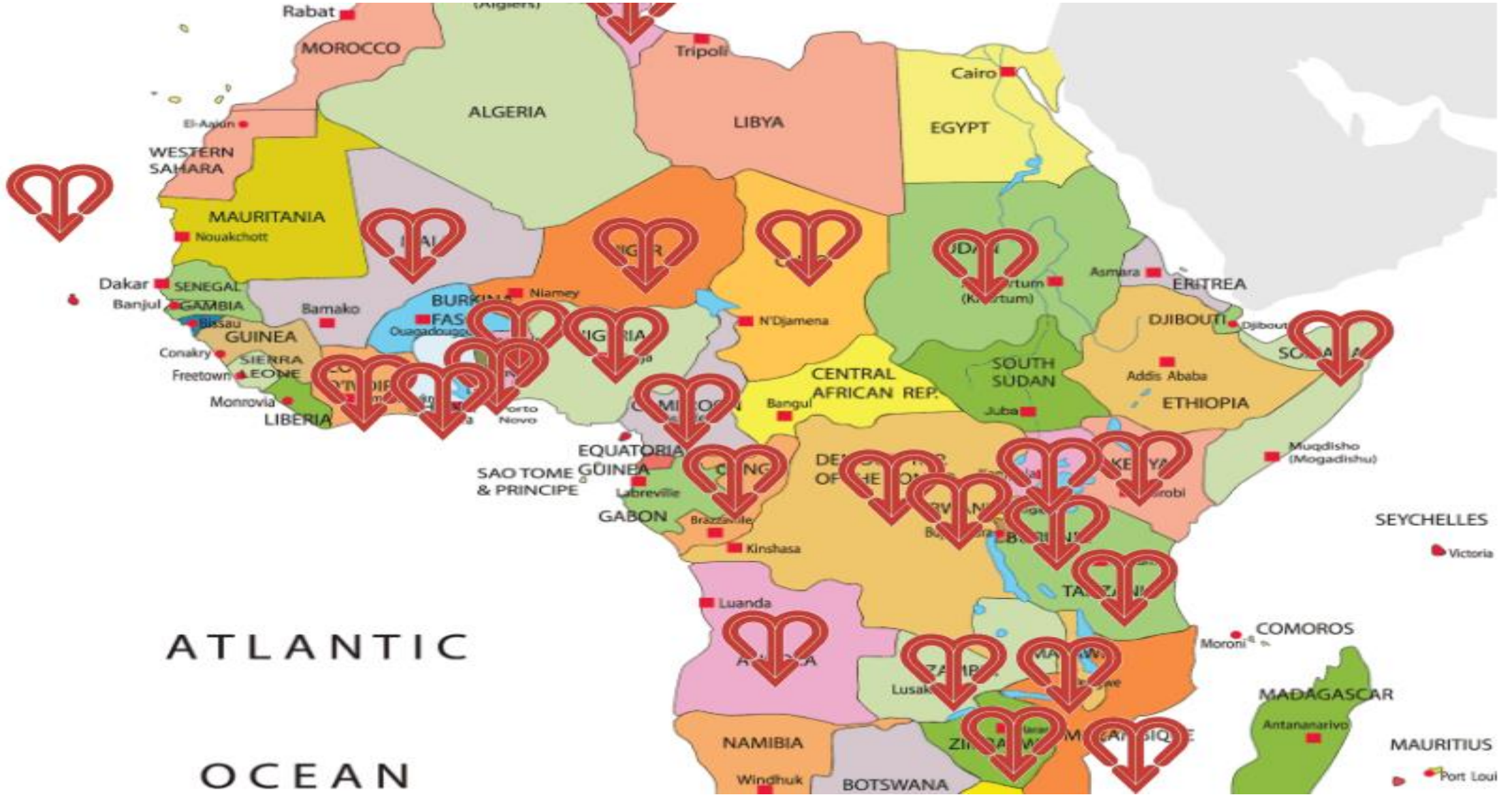
Verde Congo DRC Ghana Ivory Coast

Kenya Malawi Mali Mozambique

Niger Nigeria Rwanda Somaliland Sudan

Tanzania Chad

Togo Tunisia Uganda Zambia Zimbabwe



Sudan



The burden of HTN and its complication is high **(One fifth (20.8%) of Chronic Renal Failure cases registered in Sudan is due to HTN)** the exact burden is still far from being known

AWARENESS

IS the key elements of effective control of HTN:

In the community include:

- the population at large, and, more specifically individuals with hypertension

-Health workers :

Doctors Physician

assistants Nurses

Pharmacists".

Social workers



Sudanese Society of Hypertension



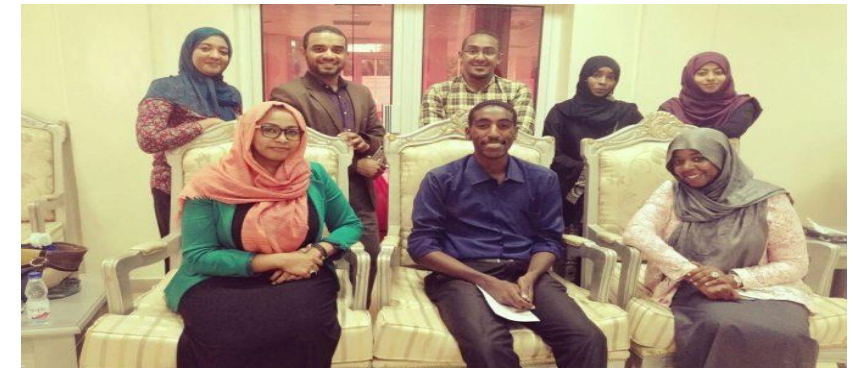
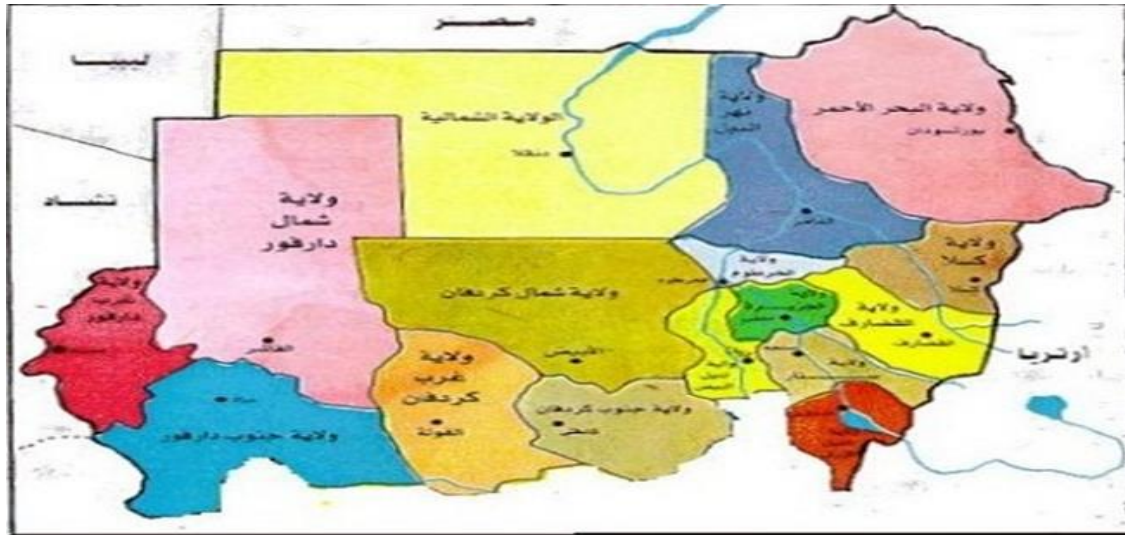
The ISH on its 50th anniversary identified raised awareness as a key issue in the fight against raised blood pressure and so in collaboration with the WHL is expanding WHD into a month of global activity. (MMM) which starts on 1 May 2017.





Sudanese Society of Hypertension

MMM - SUDAN



Four states state



Four states state

Khartoum :

Khartoum 1: center .

Khartoum 2 : periphery



Gazira : center of
Sudan : Small Sudan : all
ethnicity



Kasala : Eastern of Sudan

Blue Nile : south east –sudan



Sources of Screenings

- Occupational health –
 - Companies , - Universities , - Medical Schools , ministries
 - Pharmacy chains
 - Shopping malls
 - Sporting events
 - Clinics – health centres ,
 - Air port
 - Recreation places ex: Green yard , Nilestreet
 - Military camps
 - Mosque

MMM Data Collection

- Standardised BP measurement:
- Other data – limited
- questionnaires , entered into an Excel spreadsheet

Other Data to be collected

- demographic information
- Time of day
 - blood pressure (BP) last measured? (MM/YYYY)
 - date of birth? (MM/YYYY)
 - currently treatment ?
 - diabetes?
 - smoke?

Other Data to be collected (contd.)

- temperature of the room
- heart attack in the past?
- stroke in the past?
- Do you consume alcohol?
- Which arm will be used to take the blood pressure reading?
- SBP (1-3)
- DBP (1-3)
- Heart rate (1-3)
- Self-declared ethnicity

In addition, the following variables recorded when available/possible

- Measured or Self-declared weight (kg/lbs)
- Measured or Self-declared height (cm/inches)

- **MMM Funding**

- **Central**

- ISH

- **National**

- Local SSH ,







Four states state

Khartoum :

Khartoum 1: center .

Khartoum 2 : periphery



Gazira : center of Sudan : Small Sudan : all ethnicity



Kasala : Eastern of Sudan

● 50, 234

Blue Nile : south east
-sudan



Four states state

Khartoum :

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Kasala : Eastern of Sudan

High = 8020 : 15 %

Normal = 42 214

Blue Nile : south east
-sudan

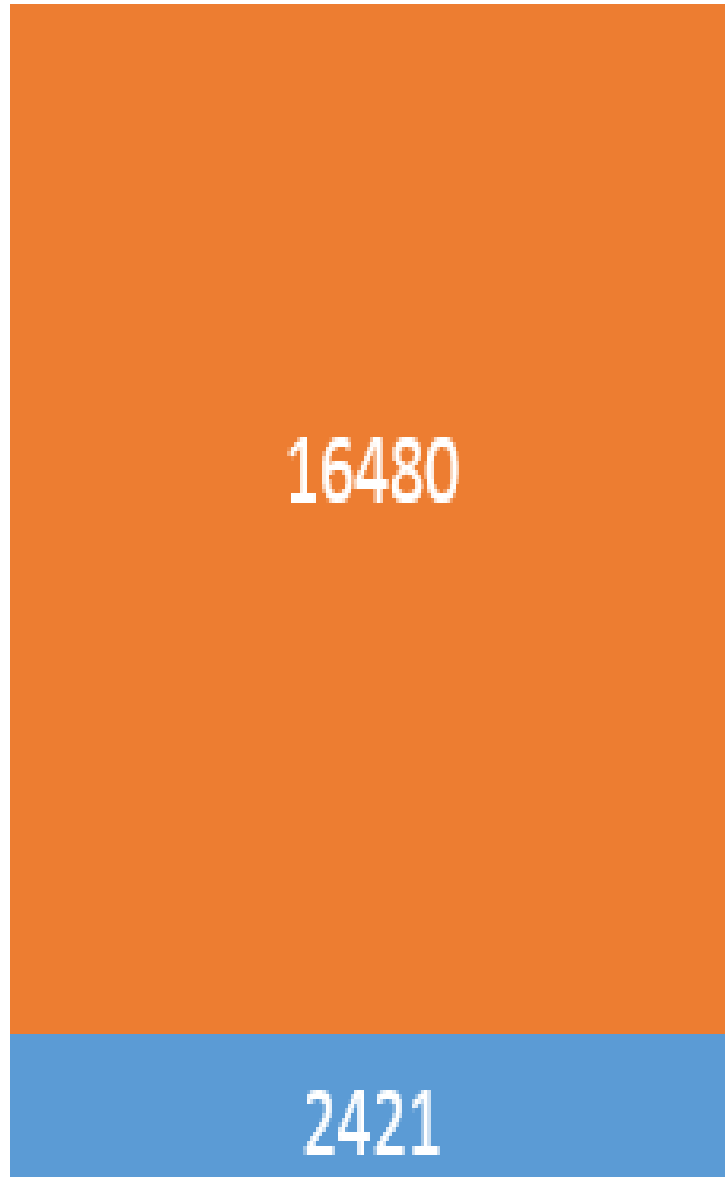


Blood Pressure and Gender

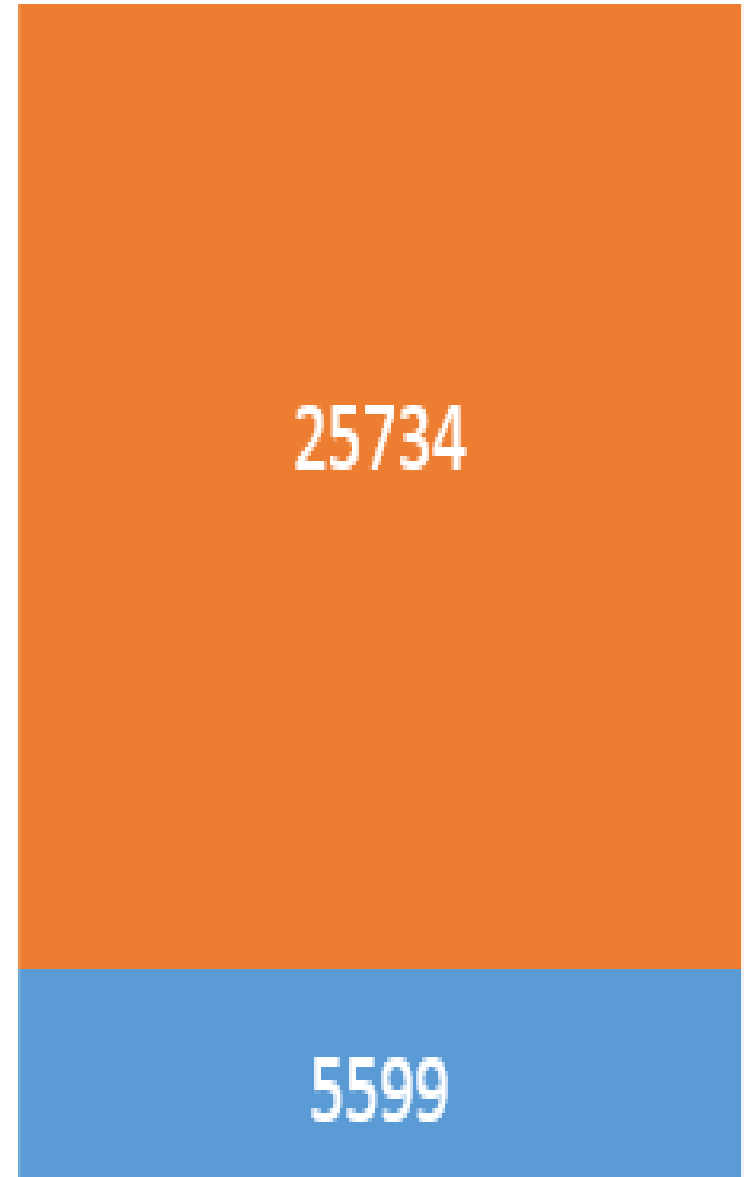
	Female	Male
High	2421	5599
Normal	16480	25734

Pearson's Chi-squared test with Yates' continuity correction
X-squared = 224.65, df = 1, p-value < 2.2e-16

Female

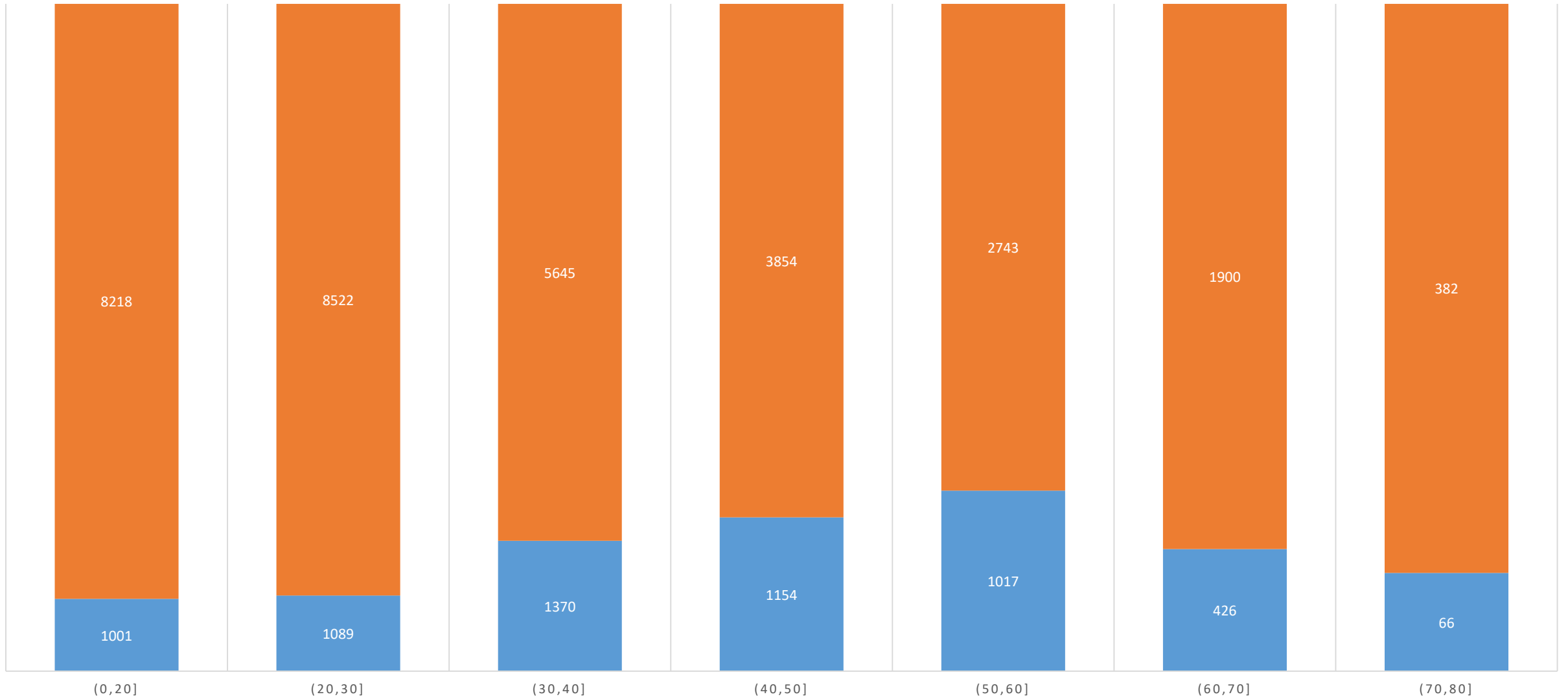


male



BLOOD PRESSURE AND AGE GROUP

■ High ■ Normal



Blood Pressure and Time since last measurement in years

	(0-5)	(5-10)	(10-20)	(20-30)	30-40)
High	1689	2761 36%	719	33	72
Normal	14325	7524	3526	176	305

Pearson's Chi-squared test with Yates' continuity correction X-squared = 21.543, df = 4, p-value = 0.000247

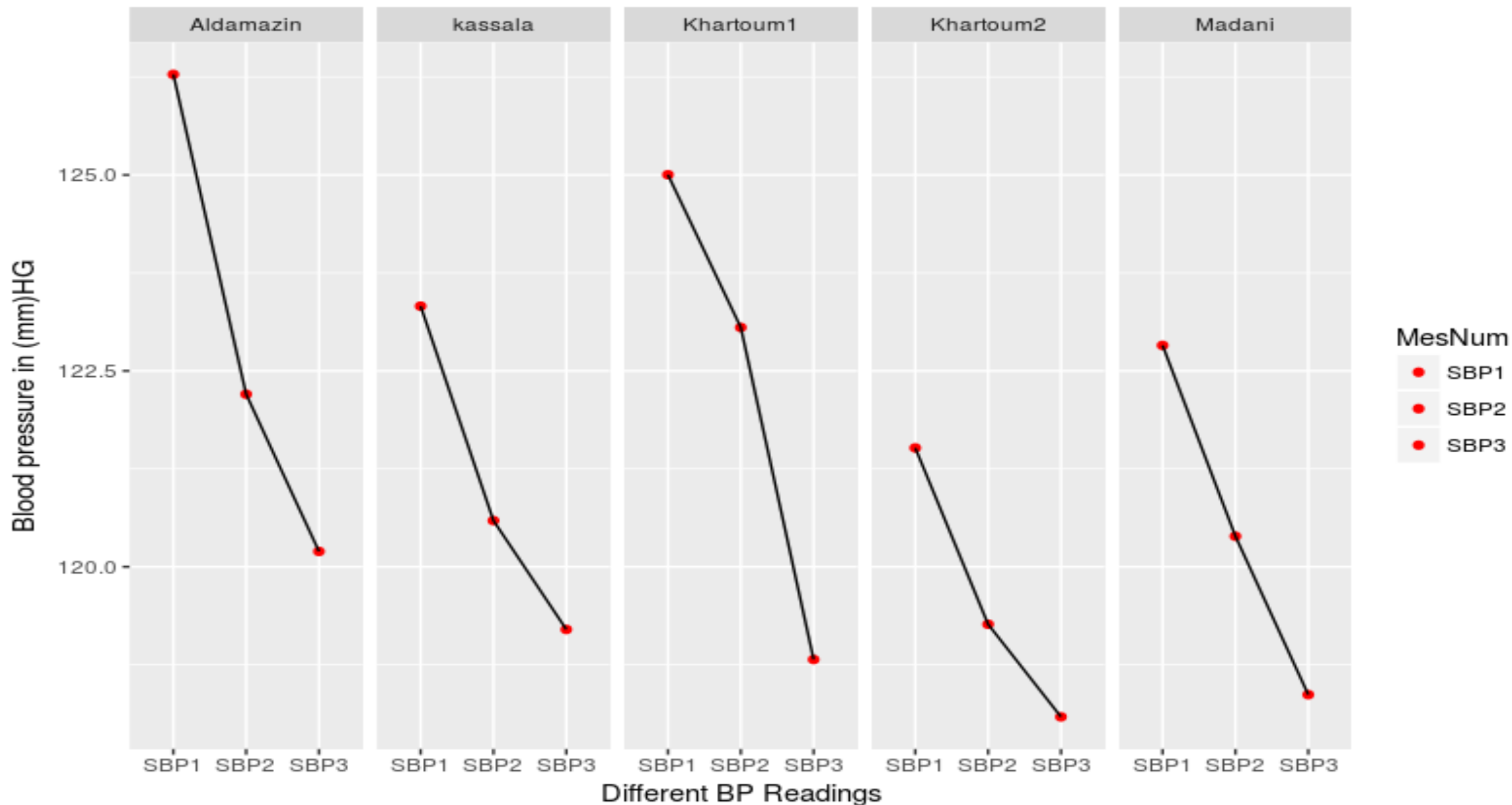
Blood Pressure and Treatment status

	No	Yes
High	7856	160
Normal	41876	293

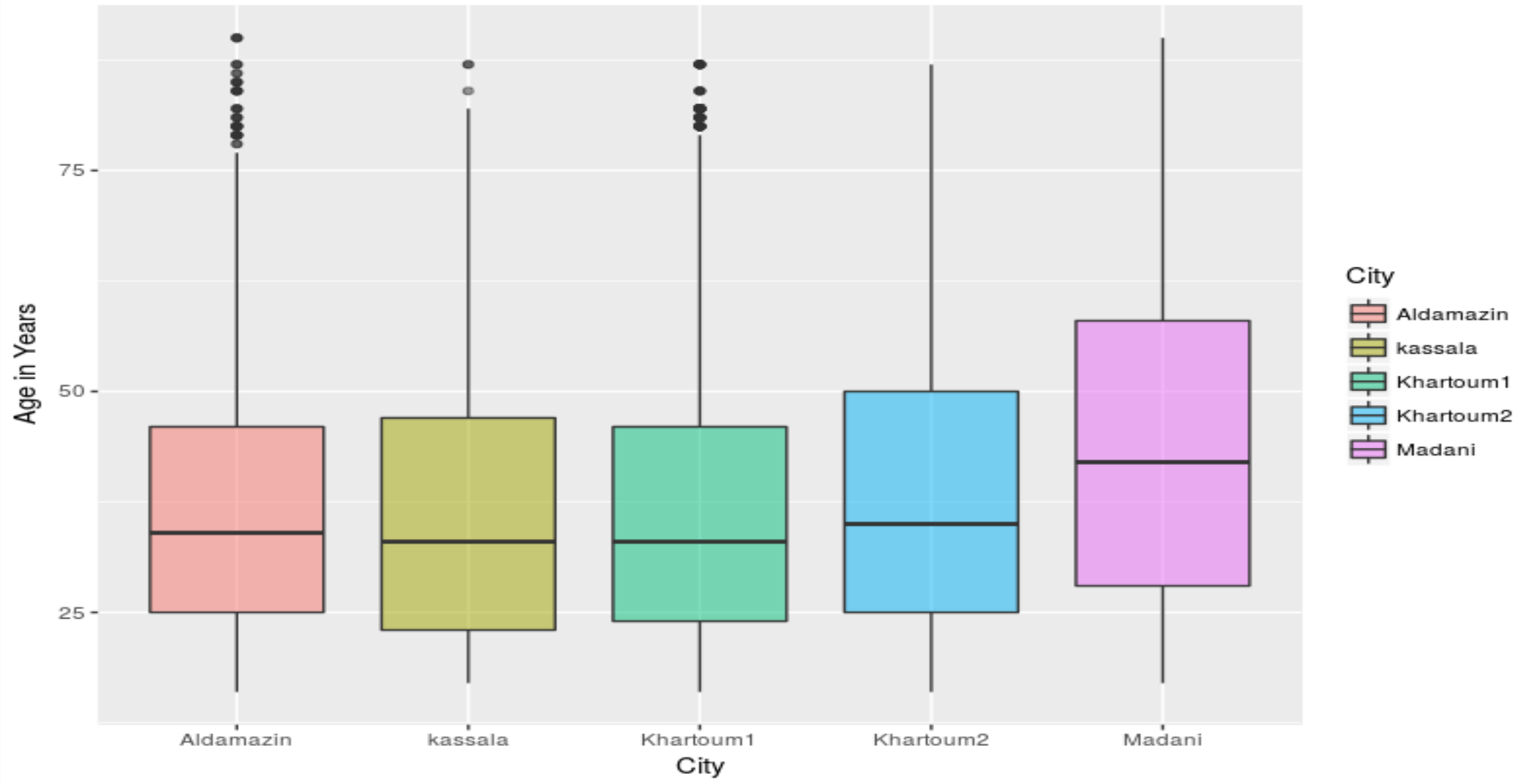
	Aldamazin	kassala	Khartoum1	Khartoum2	Madani
High	897	740	3390	1885	1108
Normal	4363	3894	18135	10610	5212

Average Blood pressure In the four Centres

Average Blood pressure is slightly higher in the first two centres



Age Distribution By City/Region



Conclusions

- 15% HTN
- The highest prevalence in the Blue Nile
- 36% of those who didn't measure the BP in 5-10 years were hypertensive

Continue -----

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Thank you!
Jim

