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Background

- Few data exist on secular trends of high blood pressure (HBP) detection and control in low and middle income countries, particularly in the African region.
- This study examines trends of HBP over 25 years based on 4 independent population surveys.
- In the Seychelles, health care is free to all inhabitants within a national health system, inclusive all HBP medications.
- Previous studies have shown a transition from traditional to cardiometabolic cardiovascular risk factors in Seychelles.
- Age adjusted cardiovascular disease mortality rates is high but decreasing over the last two decades.

Methods

- 4 independent population-based surveys were conducted in 1989, 1994, 2004 and 2012 (Seychelles Heart Studies I, II, III and IV) in random samples of the population aged 25-64 (N~1200 and participation rate >70% in each survey).
- Clinical measurements and self reported information on personal and lifestyle were gathered by trained health officers using same instruments in each survey.
- BP was measured with an oscillometric device in 2013 (Omron M3) and a mercury device (Boso) in previous surveys, with cuff width adapted to arm circumference. The mean of the second and third BP readings is considered.
- Data in this poster are presented for age 45-64 in view of small proportions of persons treated for hypertension before age of 45, i.e.

6%/5% men/women in 1989
 3%/4% men/women in 1994
 9%/11% men/women in 2004
 9%/10% men/women in 2014

Results

Table 1. Proportions of awareness, treatment and control of HBP and distribution of overweight/obesity and mean arterial pressure (MAP) by survey year, age 45-64.

	Men				P	Women				P
	1989	1994	2004	2013		1989	1994	2004	2013	
n	281	261	308	311		302	278	362	378	
BMI ≥25	27.0	43.7	57.0	60.6	*	64.3	71.9	80.4	83.2	*
BMI ≥30	4.7	9.2	19.4	19.7	*	30.0	37.0	43.9	45.4	*
Median MAP (mmHg)	107.0	110.5	106.3	104.9	*	106.2	106.9	102.5	100.1	*
BP ≥140/90	60.0	67.9	57.0	52.4	*	53.3	53.4	43.9	40.7	*
BP ≥140/90 or Rx (HBP/Rx)	61.4	69.0	64.5	61.8	ns	56.9	56.7	61.0	63.2	ns
% aware (of HBP)	37.7	34.8	64.7	65.3	*	52.8	57.1	80.4	75.0	*
% treated (of aware)	39.5	61.6	74.4	77.5	*	67.5	70.9	82.5	89.0	*
% controlled (of Rx)	9.4	7.5	24.7	32.4	ns	18.7	14.6	41.1	55.0	*
% controlled (of HBP/Rx)	0.9	1.1	7.7	10.1	*	3.8	3.4	16.7	23.2	*

Figure 1. Proportions of awareness treatment and control of hypertension, age 45-64 (percentages refer to the total numbers of men/women with HBP).

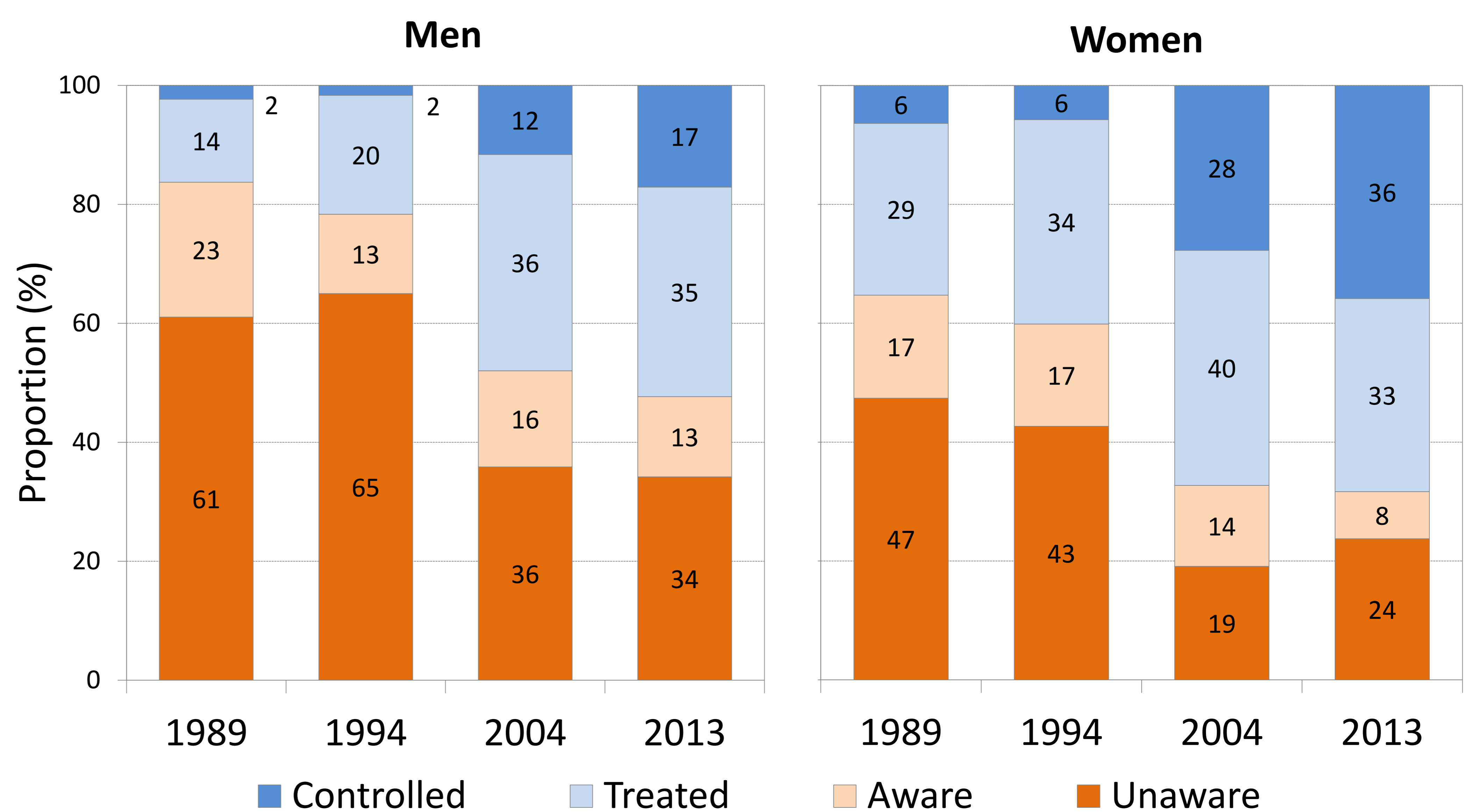
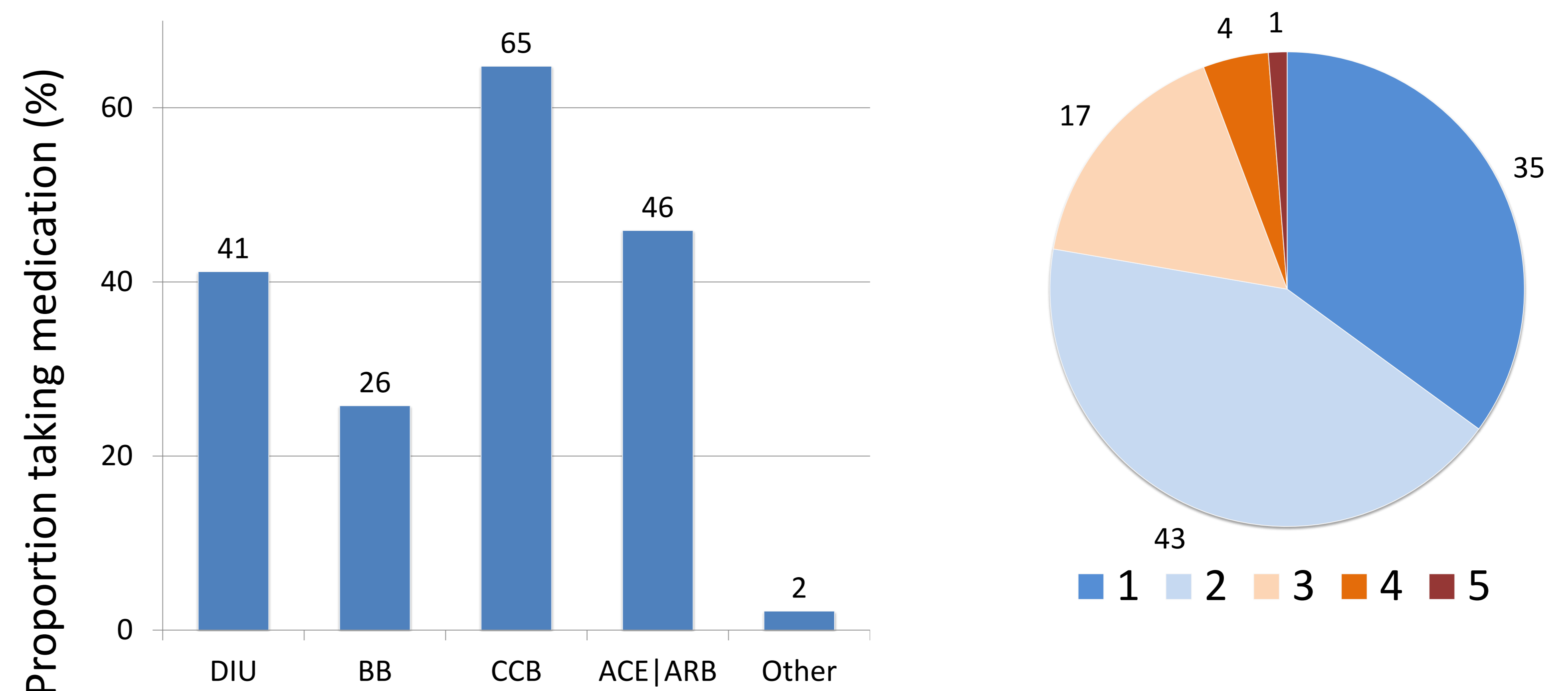


Figure 2. Proportions of persons treated for HBP taking specific medications (left panel) and proportions taking combinations (right panel)



Conclusion

- Awareness, treatment and control improved substantially during the past 24 years, but control should be further improved (only 17% of men and 36% of women are controlled in 2013).
- Mean arterial BP decreased significantly despite a marked increase in mean BMI.
- Diuretics, calcium channel blockers and ACEI/ARB are used in similar proportions.
- Large proportions of persons treated for HBP take combinations of antihypertensive medications.