Supplemental Material

Table of Contents

Supplemental Methods	2
Supplemental Methods	2
Multiple Imputation Details and R Code	5
Supplemental Figures	8
Supplemental Figure 1. Worldwide crude prevalence of hypertension in adults 20 years and older by country (upper) and 2000 (lower)	
Supplemental Figure 2. Worldwide age- and sex-standardized prevalence of hypertension in adults 20 years country in 2010 (upper) and 2000 (lower), countries with imputed data left blank	
Supplemental Tables	10
Supplemental Table 1. Characteristics of included studies for 2010 hypertension prevalence by world region	10
Supplemental Table 2. Characteristics of included studies for 2000 hypertension prevalence by world region	15
Supplemental Table 3. Gender-specific hypertension awareness, treatment, and control in 2010 in countries world region	
Supplemental Table 4. Gender-specific hypertension awareness, treatment, and control in 2000 in countries world region	
Supplemental Table 5. Total population, hypertension prevalence estimates, and data sources by country in 2	201024
Supplemental Table 6. Total population, hypertension prevalence estimates, and data sources by country in 2	200033
Supplemental Table 7. Age-specific and age-adjusted prevalence estimates and absolute numbers of men and with hypertension in 2010 by world region	
Supplemental Table 8. Age-specific and age-adjusted prevalence estimates and absolute numbers of men and with hypertension in 2000 by world region	
Supplemental Table 9. Sensitivity analysis of age-standardized prevalence estimates and absolute numbers o women with hypertension worldwide and in high-income and low- and middle-income countries in 2000 and only countries with data for both 2000 and 2010	d 2010 using
Supplemental References	50

Supplemental Methods

Study Selection

A search of MEDLINE was conducted using the medical subject headings "hypertension" or "blood pressure" or keywords "hypertension awareness" or "hypertension treatment" or "hypertension control" and the medical subject headings "prevalence" or "cross-sectional studies" to identify population-based studies reporting hypertension prevalence, awareness, treatment, and control. The search was limited to studies conducted in humans and published from January 1st, 1995 to December 31st, 2014. Additional studies were identified by manual review of references cited in reviews, meta-analyses, and original studies, including the previously reported pooling analysis of the global burden of hypertension in 2000.¹ Country-specific searches of the World Health Organization Global Infobase were also conducted.² Publications in other languages were translated into English. Eligibility criteria for inclusion were: (1) population-based cross-sectional survey in which sex-specific prevalence of hypertension (or data to calculate it) was reported; (2) blood pressure measurement methods were standardized; and (3) hypertension was defined as average systolic blood pressure 140 mm Hg or greater, average diastolic blood pressure 90 mm Hg or greater, and/or use of antihypertensive medication.

Literature searches, study selection, and data abstraction were conducted independently and in duplicate by three investigators (KTM, JDB, JER) with a standardized protocol and data-collection form, and discrepancies were resolved by consensus. The prevalence of prehypertension, defined as blood pressure between 120/80 mm Hg and 140/90 mm Hg, was also abstracted but was reported by so few publications that it was not included in the analyses. If no peer-reviewed studies were available for a country, government reports were used if the following blood pressure measurement requirements were met: (1) patients were required to rest at least 5 minutes before blood pressure measurements; (2) at least two blood pressure measurements were taken; and (3) blood pressure monitoring devices were validated according to either British Hypertension Society or European Hypertension Society protocols.^{3,4} If nationally representative studies were available, they were used; otherwise, data from multisite or regional studies were used. If multiple regional or multisite studies were available for a given country (India, Ethiopia, and Brazil in 2010 and India, Cameroon, and Brazil in 2000), gender-specific random effects meta-regression models were used to estimate the association between the median age for each age category from the available publications and hypertension prevalence in each country, and then median age values in each age category of interest were used to calculate age- and gender-specific prevalence estimates for each country. Study authors were contacted to request additional information if necessary. We calculated age- and sex-specific prevalence of hypertension in the US population using data from the National Health and Nutrition Examination Survey (NHANES) 2007-2012, in Ghana, India, Mexico, Russia, and South Africa using data from the World Health Organization's Study on global AGEing and adult health (SAGE), and in Argentina and Uruguay using data from the CESCAS I study. Studies were included in the 2010 hypertension analysis if data collection took place in 2005 or later. Studies with data collection from 1995 to 2004 were used in the 2000 hypertension analysis. A total of 131 reports (135 studies) from 90 countries were included in the analyses (Supplemental Figure 1).

Proportions of hypertension awareness, treatment, and control were abstracted from reports included in the 2000 and 2010 prevalence analyses. Hypertension awareness was defined as self-reported previous diagnosis of hypertension among those with hypertension, treatment was defined as self-reported use of antihypertensive medication among those with hypertension, and control was defined as systolic blood pressure <140 mm Hg and diastolic blood pressure <90 mm Hg among those with hypertension. In addition, hypertension control was calculated among patients with treated hypertension. Data from 61 countries were used to estimate regional and global proportions of hypertension awareness, treatment, and control.

Country-Specific Estimates

Countries were grouped into regions using the World Bank classification system updated in July 2014, which groups the high-income countries into one region and the low-and middle income countries into six geographic regions. The included regions were: High-income Economies, East Asia and Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, South Asia, and Sub-Saharan Africa. The criteria used by the World Bank to define these regions include the level of socioeconomic development, epidemiologic homogeneity, and geographic proximity. 8 Multiple imputation procedures were used to obtain estimates for countries without data available for 2010 or 2000 prevalence, awareness, treatment, or control. Specifically, three countries that are the most similar in terms of gross national income and geographic proximity to each country with missing data were selected, logit transformations were applied to age- and gender-specific prevalence and variance estimates, and 100 values were drawn from each of their sample distributions. Three values, one from each of the three countries, were combined and logit transformed, and 100 values were drawn from each sample distribution. Ten thousand complete data sets were generalized based on the Binomial distribution with the age- and gender-specific population of each country with missing data and the probability based on the inverse-logit transformation of the values drawn. The age- and gender- specific prevalence was estimated for each of the 10,000 complete data sets and the overall age- and gender-specific prevalence was calculated based on the multiple imputation procedure. Additional multiple imputation details and an example of multiple imputation R code follows the Supplemental Methods section (Supplemental Material page 5). In Saudi Arabia, the Philippines, Vietnam, and Malaysia, self-reported history of hypertension, instead of self-reported antihypertensive medication use, was used as part of the hypertension definition. 10-13 For these countries, data from a country in the same region (USA⁵ was used for Saudi Arabia and China¹⁴ for the Philippines, Vietnam and Malaysia) was used to calculate a conversion factor using both hypertension definitions (blood pressure ≥140/90 mm Hg and/or use of antihypertensive medication vs. blood pressure ≥140/90 mm Hg and/or self-reported history of hypertension). The age- and gender-specific conversion factor was applied to estimate the hypertension prevalence according to the blood pressure definition necessary for inclusion in our analyses. Conversion factors were also created for awareness, treatment, and control and were applied to reported estimates of awareness, treatment, and control from Saudi Arabia and Vietnam to generate estimates consistent with the hypertension definition used in this study.

For studies that did not report prevalence data in the 10-year age groups of interest (i.e., 20-29, 30-39, etc), agespecific prevalence was imputed using logistic regression models for each sex in each region, separately. The predictive models on the relation between age group and prevalence of hypertension were generated from studies with age-specific data within each region-sex subgroup. In addition, mean age and prevalence for men and women from each study with missing age-specific prevalence were used to calibrate the estimates of age-specific prevalence for that country. Predictive models were created separately for the 2010 and 2000 prevalence data. We tested the goodness of fit of the logistic models by calculating Cragg and Uhler's pseudo R-square for all models. The pseudo R-squares indicated good fit of all models (all P<0.001) for the 2010 data (High-Income Economies 0.84 in men and 0.89 in women; East Asia and Pacific 0.78 in men and 0.85 in women; Europe and Central Asia 0.75 in men and 0.92 in women; Latin America and the Caribbean 0.74 in men and 0.81 in women; Middle East and North Africa 0.81 in men and 0.89 in women; South Asia 0.74 in men and 0.57 in women; and Sub-Saharan Africa 0.46 in men and 0.57 in women) and the 2000 data (High-Income Economies 0.75 in men and 0.87 in women; East Asia and Pacific 0.70 in men and 0.79 in women; Europe and Central Asia 0.94 in men and 0.85 in women; Latin America and the Caribbean 0.53 in men and 0.79 in women; Middle East and North Africa 0.93 in men and 0.92 in women; South Asia 0.55 in men and 0.72 in women; and Sub-Saharan Africa 0.44 in men and 0.59 in women). If studies did not provide age-specific data in the 10-year age groups of interest (i.e., 20-29, 30-39, etc), we averaged the prevalence from the two closest age groups, weighting by the country's age-specific population size, to estimate the prevalence of hypertension for the age ranges of interest.

The majority of studies reported awareness, treatment, and control of hypertension by gender, but not age group. Therefore, gender-specific proportions of awareness, treatment, and control were used in analyses. For studies that did not include participants in the full age range of 20 to \geq 70 years, we estimated the proportion of awareness, treatment, and control of hypertension for the entire age range. The sex-specific predictive models were created separately for 2010 and 2000 and for high-income countries and low- and middle-income countries using median age and the proportions of awareness, treatment, and control within each age- and gender-group from studies that reported age- and sex-specific awareness, treatment, and control. The proportion of control was either reported among all hypertensive individuals, among those receiving treatment, or both. If only one control proportion was reported, the other was calculated using the reported proportions of treatment and control.

Statistical Analysis

In order to estimate the 2010 hypertension prevalence and absolute burden, defined as the number of adults with hypertension, by world region, sex- and age-specific prevalences of hypertension for each country were applied to the United Nations sex- and age-specific population counts in 2010 to estimate the number of people with hypertension in the country for each sex- and age-group. ¹⁵ The total number of persons with hypertension in each country was summed to provide an estimate of the total number of persons with hypertension for each region by sex- and age-groups, and the number from each region was added to obtain the worldwide count. The sex- and age-specific regional prevalences of hypertension for 2010 were calculated by dividing the total number of people with hypertension in each region by the number of people living in that region by sex- and age-groups. Worldwide prevalence was estimated by dividing the total number of persons with hypertension by the total adult world population. The prevalences of hypertension within each world region and worldwide were standardized by age to the 2010 world population separately for each sex and overall using the direct method. ¹⁶ A sensitivity analysis was conducted including only countries with reports of prevalence from both 2000 and 2010.

The same statistical methods were used to estimate the regional and global prevalence of hypertension for 2000 and 2010 using the WHO sex- and age-specific population counts in the year 2000 and 2010, respectively. Age-standardized prevalence estimates in both the year 2000 and 2010 were calculated using the 2010 world population age distribution.

Regional and global proportions of hypertension awareness, treatment, and control in 2000 and 2010 were estimated by applying sex-specific proportions of hypertension awareness, treatment, and control to the sex-specific number of people with hypertension in each country in 2000 and 2010 in order to get the number of men and women with hypertension that are aware, treated, and controlled. These numbers were summed within regions and globally and then divided by the total number of people with hypertension in each region and worldwide to get the sex-specific regional and global proportions of hypertension awareness, treatment, and control. The number of individuals in each region and globally with controlled hypertension was also divided by the total number of people with treated hypertension to get the sex-specific proportions of hypertension control among those who are treated. Due to limited awareness, treatment, and control data for some world regions in 2000, final sex-specific estimates are reported in high-income and low- and middle-income countries instead of by world region.

Standard errors for all estimates were abstracted from those studies that report them. For the remaining studies, standard errors were estimated as the square root of ([prevalence of hypertension × (1-prevalence of hypertension)]/sample size in the survey), which may slightly overestimate the standard error for surveys utilizing complex sampling designs. The standard errors for the numbers of persons with hypertension within a region and worldwide were then estimated with Taylor series approximation methods and used to calculate 95% confidence intervals.¹⁷ Differences between prevalence and absolute burden estimates for 2000 and 2010 were tested using a two-tailed z-test for the difference in proportions.

Multiple Imputation

Steps for Multiple Imputation

- 1. For each of the three countries used for imputation, use the prevalence and variance to estimate the distribution of the log-transformed prevalence.
- 2. Randomly draw a set of 100 values from each of the three distributions and perform inverse logit transformation.
- 3. Use the 3 sets of 100 prevalence values to create 100 sets of three prevalence values with one prevalence value from each country. For example, the 1st prevalence value drawn from country 1's distribution would be combined with the 1st prevalence value drawn from country 2's distribution and the 1st prevalence value drawn from country 3's distribution to get a set of 3 prevalence values with one from each country. This would be repeated for the 2nd prevalence estimates drawn, etc.
- 4. For each of the 100 sets of 3 prevalence values, estimate the distribution of the logit-transformed prevalence from countries used for imputation
- 5. Randomly draw a set of 100 values from each of the distributions and perform inverse logit transformation to obtain a total of 10,000 values of the prevalence for the country with missing data
- 6. For the 10,000 values $(p_i, i = 1, 2, ..., 10,000)$ of the prevalence and the mean sample size (N) of the three studies used for imputation, generate 10,000 datasets based on the binomial distribution [Binomial (N, p_i)]
- 7. For each of the 10,000 datasets, estimate the prevalence, as well as its variance, using standard statistical methods
- 8. Combine the estimated values of the prevalence and variance to get summary estimates of prevalence and variance (calculated from the between- and within-imputation variance) based on the multiple imputation procedure.

An Example of R Code for Implementing Multiple Imputation

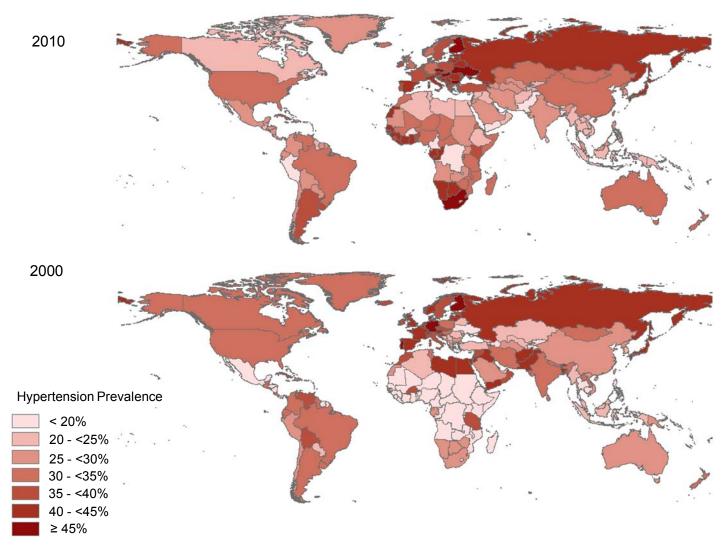
To estimate age-specific (20-29 years old) prevalence of Antigua based on the age-specific (20-29 years old) prevalence of the US, Canada, and Puerto Rico by multiple imputation

```
## prevalence, standard error, and sample size for the 3 countries
## 2010 men 20-29 US prevalence, variance, and sample size
p1 = 0.054
s1 = 0.007
n1 = 1392
## 2010 men 20-29 Canada prevalence, standard error, and sample size
p2=0.058
s2 = 0.014
n2 = 278
## 2010 men 20-29 Puerto Rico prevalence, standard error, and sample size
p3 = 0.126
s3 = 0.060
n3 = 31
## prevalence from 3 countries used for imputation are logit transformed
pl1 = log(p1/(1-p1))
pl2 = log(p1/(1-p1))
pl3 = log(p1/(1-p1))
```

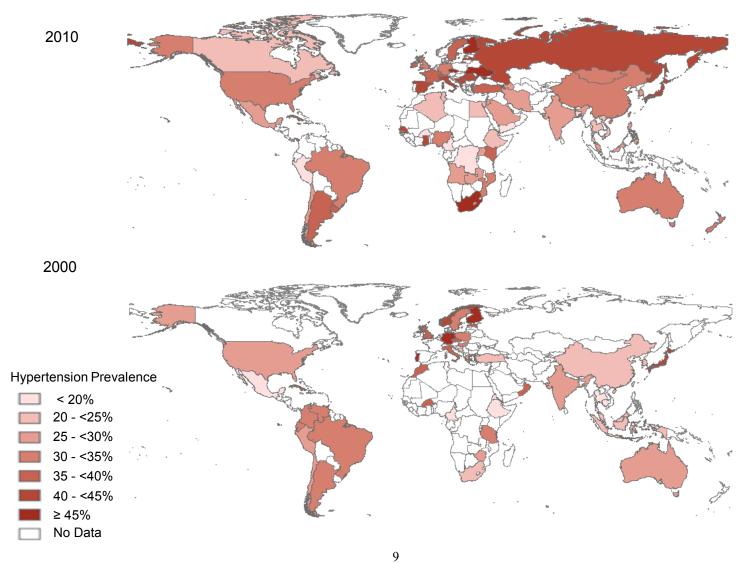
```
s11=sqrt((s1^2)/(p1*(1-p1))^2)
s12=sqrt((s2^2)/(p2*(1-p2))^2)
s13 = sqrt((s3^2)/(p3*(1-p3))^2)
##100 values are drawn from the distribution of each of the 3 countries
pr1=rnorm(100, pl1, sl1)
pr2=rnorm(100, pl2, sl2)
pr3=rnorm(100, pl3, sl3)
##3 sets of 100 values are transformed back to the prevalence from the logit and combined into 3 sets of 100
p1 = \exp(pr1)/(1 + \exp(pr1))
p2 = \exp(pr2)/(1 + \exp(pr2))
p3 = \exp(pr3)/(1+\exp(pr3))
pd1=rbind(pd1, p1)
pd2=rbind(pd2, p2)
pd3=rbind(pd3, p3)
## calculating the mean sample size from the studies used for multiple imputation
N=(n1+n2+n3)/3
## the three sets of 100 values are combined into 100 sets of 3 values (one from the distribution of each of the
three countries. Then each of the sets of 3 prevalence values are used to create a normal distribution and 100
random samples are drawn from each one.
for (i in 1:100) {
##the 3 sets of 100 values are combined to create 100 sets of three prevalence values (one from the distribution of
each of the three countries).
p=c(pd1[i], pd2[i],pd3[i]);
##each of the 3 prevalence values is logit transformed
lgp = log(p/(1-p));
## the mean and variance of a normal distribution of each of the 100 sets of the transformed prevalence are
estimated
mlp=mean(lgp);
selp=sqrt(var(lgp));
##100 values of the logit transformed prevalence are randomly drawn for 100 imputation samples from each of
the 100 sets of transformed prevalence values
glp=rnorm(100,mlp,selp);
##transform 100 values back to prevalence from the logit of the prevalence
gp=exp(glp)/(1+exp(glp));
##generate 100 imputation samples with the mean sample size of the three countries used for multiple imputation
for each of the 100 values drawn from each of the 100 sets of prevalence values
sa=matrix(nrow=100,ncol=N);
for (j in 1:100){sa[j,]=rbinom(N,1,gp[j]}
```

```
##combine 100 imputation samples from each of 100 prevalence estimates into one matrix that is (100 x 100)
10,000 rows with columns equal to the mean sample size of the three countries used for multiple imputation
dist=rbind(dist, sa)}
##estimate the prevalence of each imputation sample
rmeans=apply(dist,1,mean)
## estimate variance of each imputation sample
rvar=apply(dist,1,var)
##overall prevalence and variance estimated by multiple imputation procedure
##combined prevalence estimate
estimate=mean(rmeans)
##calculate the within imputation variance
ubar=mean(rvar)
## calculate the between imputation variance
vectorcircle=rmeans-estimate;
vectorcir2=vectorcircle^2
B=sum(vectorcir2)/9,999
## calculate the total variance
totalvar=ubar+(1+10,000^{(-1)})*B
## print results
print(estimate)
print(totalvar)
```

Supplemental Figure 1. Worldwide crude prevalence of hypertension in adults 20 years and older by country in 2010 (upper) and 2000 (lower)



Supplemental Figure 2. Worldwide age- and sex-standardized prevalence of hypertension in adults 20 years and older by country in 2010 (upper) and 2000 (lower), countries with imputed data left blank



Supplemental Table 1. Characteristics of included studies for 2010 hypertension prevalence by world region

•	Data	Study	Sample	Age,	Response		Blood Pressure Method	ls
Country	Collection Year	sample	size	years	Rate, %	Device	Measures/visits (n)	Preparation
				High	income Coun	tries		
Australia ¹⁸	2011-2012	National	24,392	≥20	85	Automated	2/1 (2 nd reading used)	
Canada ^{19,20}	2009-2011	National	3,659	20-79	55	Automated	6/1 (mean of last 5)	5 minutes rest
Chile ²¹	2009-2010	National	5,416	15-65	72	Automated	3/1	5 minutes rest
Czech Republic ²²	2007-2008	Multisite	2,246	25-64	63	Standard mercury	3/1 (mean of last 2)	5 minutes rest
Finland ²³	2007	Multisite	2,925	25-64	61	Standard mercury	3/1 (mean of first 2)	5 minutes rest
France ²⁴	2006-2007	National	2,266	18-74	46	Automated	3/1 (mean of last 2)	5 minutes rest
Germany ²⁵	2008-2011	National	7,096	18-79	50	Automated	3/1 (mean of last 2)	5 minutes rest
Ireland ^{26,27}	2007	National	1,207	≥45	62	Automated	3/1 (mean of last 2)	Resting
Italy ²⁸	2002-2008	Regional	9,845	≥18	80	Standard mercury	2/1	Several minutes rest
Japan ²⁹	2010	National	2,759	≥30	77	Standard mercury	1/1	5 minutes rest
Republic of Korea ³⁰	2011	National	5,342	≥30	80	Standard mercury	3/1 (mean of last 2)	5 minutes rest
Latvia ³¹	2008-2009	National	3,807	25-74	64	Automated	3/1 (mean of last 2)	5 minutes rest
Luxembourg ^{32,33}	2007-2009	National	1,432	18-69	32	Automated	3/1 (mean of last 2)	5 minutes rest
New Zealand ³⁴	2008-2009	National	4,407	≥15	61	Automated	3/1 (mean of last 2)	<u></u> _

Puerto Rico ³⁵	2013*	Regional	452	18-79	63	Aneroid	3/1 (mean of all 3)	5 minutes rest
Qatar ³⁶	2012	National	2,437	18-64	88	Automated	3/1 (mean of last 2)	15 minutes rest
Russian Federation ^{6†}	2007-2010	National	4,355	≥18	83	Automated	3/1 (mean of all 3)	Seated and relaxed
Saudi Arabia ¹⁰	2005	National	4,758	15-64	98	Automated	3/1 (mean of all 3)	5 minutes rest
Singapore ³⁷	2010	National	4,337	30-69	58	Standard mercury	2/1 (mean of 2)	Adequately rested
Spain ³⁸	2008-2010	National	11,957	≥18	51	Automated	6/1 (mean of at least 3 of last 5)	3-5 minutes rest
Sweden ³⁹	2009	Regional	1,729	25-74	69	Random-zero mercury	2/1 (mean of 2)	5 minutes rest
Switzerland ⁴⁰	2003-2006	Regional	6,182	35-75	41	Automated	3/1 (mean of last 2)	10 minutes rest
United Kingdom (England) ⁴¹	2011	National	4,753	≥16	59	Automated	3/1 (mean of last 2)	5 minutes rest
United Kingdom (Scotland) ⁴²	2010-2011	National	1,714	≥16	56	Automated	3/1 (mean of last 2)	5 minutes rest
United States ⁵	2007-2012	National	17,036	≥20	69	Standard mercury	3/1 (mean of last 2)	5 minutes rest
Uruguay ⁷	2010-2012	Regional	1,584	35-74	73	Aneroid	3/1 (mean of last 2)	5 minutes rest
				East	Asia and Pa	acific		
China ¹⁴	2010	National	98,658	≥18	90	Automated	3/1 (mean of all 3)	5 minutes rest
Malaysia ¹³	2005-2006	National	2,572	25-64	85	Standard mercury	2/1	5 minutes rest
Mongolia ⁴³	2009	National	5,438	15-64	95	Automated	3/1 (mean of all 3)	5 minutes rest
Philippines ¹¹	2008	National	7,215	≥20	93	Standard mercury	3/1 (mean of all 3)	5 minutes rest
Thailand ⁴⁴	2009	National	20,426	≥15	93	Automated	3/1 (mean of last 2)	5 minutes rest
Vietnam ¹²	2002-2008	National	9,823	≥25	93	Automated	2/1	5 minutes rest

				Europe	and Centra	al Asia		
Albania ^{45, 46}	2008-2009	National	6,417	15-49	96	Automated	3/1 (mean of all 3)	10 minutes between measurements
Armenia ^{45,47}	2005	National	7,381	15-49	93	Automated	3/1 (mean of last 2)	5 minutes between measurements
Azerbaijan ^{45,48}	2006	National	10,949	15-59	96	Automated	3/1 (mean of last 2)	10 minutes between measurements
Bosnia ⁴⁹	2012	National	2,435	25-64	91	Standard mercury	3/1 (mean of last 2)	5 minutes rest
Romania ⁵⁰	2011-2012	National	1,975	18-80	69	Automated	3/2 (mean of last 2 at each visit)	5 minutes rest
Serbia ⁵¹	2006	National	14,204	≥20	81		3/1 (mean of first 2)	5 minutes rest
Turkey ⁵²	2007-2009	National	10,748	≥18			2/1 (mean of 2)	
Ukraine ^{45,53}	2007	National	7,454	15-49	95	Automated	3/1 (mean of last 2)	10 minutes between measurements
				Latin Ameri	ica and the	Caribbean		
Argentina ⁷	2010-2012	Multisite	3,990	35-74	73	Aneroid	3/1 (mean of last 2)	5 minutes rest
Brazil ⁵⁴	2007	Regional	2,022	20-59	99	Automated	2/1 (last measurement used)	Seated with relaxed arm, after questionnaire
Brazil ⁵⁵	2006	Regional	1,003	≥18		Automated	2/1 (last measurement used)	Seated with relaxed arm
Brazil ⁵⁶	2004-2005	Regional	1,717	18-93	95	Aneroid	3/1 (mean of all 3)	5-10 minutes rest
Brazil ⁵⁷	2008-2009	Regional	198	≥30	85	Automated	3/1 (mean of all 3)	5 minutes rest
Cuba ⁵⁸	2010-2011	Regional	1,496	15-74		Standard mercury	3/1 (mean of last 2)	
Grenada ⁵⁹	2008-2009	National	2,827	≥18	60	Automated	3/1 (mean of all 3)	5 minutes rest
Jamaica ^{60,61}	2007-2008	National	2,848	15-74	98	Standard mercury	3/1	5 minutes rest

Mexico ^{6†}	2009-2010	National	2,742	≥18	53	Automated	3/1 (mean of all 3)	Seated and relaxed
Panama ⁶²	2010-2011	Regional	3,406	≥18		Automated	3/1 (mean of all 3)	5 minutes rest
Peru ⁶³	2004-2006	Regional	1,878	20-80	85	Standard mercury	2/2	5 minutes rest
				Middle Ea	ast and No	rth Africa		
Algeria ⁶⁴	2010	Regional	722	≥40	80	Automated	3/1 (mean of last 2)	5 minutes rest
Egypt ⁶⁵	2008	National	12,008	15-59	93	Automated	3/1 (mean of last 2)	10 minutes between measurements
Iran ⁶⁶	2004-2005	National	68,250	25-64		Aneroid	2/1 (mean of 2)	10 minutes rest
Jordan ⁶⁷	2009	National	4,117	≥25	68	Standard mercury	1/1	5 minutes rest
Tunisia ⁶⁸	2009-2010	National	8,007	35-74	80	Standard mercury	2/1 (mean of 2)	5 minutes rest
Yemen ⁶⁹	2008	Multisite	10,242	15-69		Automated	3/2 (mean of last 2 from each visit)	15 minutes rest
				;	South Asia			
Bangladesh ⁷⁰	2009-2010	National	9,275	≥25	85	Aneroid	2/1 (mean of 2)	5 minutes rest
India ⁷¹	2013*	Regional	3,489	15-64		Automated	2/1 (mean of 2)	5 minutes between measurements
India ⁷²	2004-2007	Multisite	4,624	35-70	58	Automated	3/1 (mean of 3)	5 minutes rest
India ⁷³	2007-2008	Regional	4,711	≥30	80	Standard mercury	2/1 (mean of 2)	5 minutes rest
India ^{6†}	2007-2008	National	11,230	≥18	68	Automated	3/1 (mean of all 3)	Seated and relaxed
India ⁷⁴	2011*	Regional	1,477	≥18	71	Automated	3/1(mean of last 2)	15 minutes rest
				Sub-	Saharan A	frica		
Angola ⁷⁵	2011	Regional	1,464	18-64		Automated	3/1(mean of last 2)	15 minutes rest
Burkina Faso ⁷⁶	2012	Regional	1,481	≥18	90	Automated	3/1(mean of last 2)	25-30 minutes rest

Cameroon ⁷⁷	2007	Regional	1,623	≥25	83	Automated	3/1(mean of last 2)	5 minutes rest
Democratic Republic of the Congo ⁷⁸	2005	Regional	1,952	≥15	98	Automated	3/1	5 minutes rest
Ethiopia ⁷⁹	2006	Regional	3,273	25-64	93	Automated	3/1(mean of last 2)	5 minutes rest
Ethiopia ⁸⁰	2010-2011	Regional	1,183	≥18		Standard mercury	2/1 (mean of 2)	5 minutes rest
Ghana ^{6†}	2008-2009	National	5,108	≥18	81	Automated	3/1 (mean of all 3)	Seated and relaxed
Kenya ⁸¹	2008	Regional	469	≥18		Aneroid	1/1	10 minutes rest
Lesotho ⁸²	2009-2010	National	7,289	≥18	94	Automated	3/1(mean of last 2)	10 minutes between measurements
Mozambique ⁸³	2005	National	3,323	25-64	98	Automated	2/1 (mean of 2)	5 minutes rest
Nigeria ⁸⁴	2007	Regional	2, 097	≥20	93	Automated	3/1	10 minutes rest
Senegal ⁸⁵	2009	Regional	500	≥50		Automated	2/1	Measurements taken at midpoint and end of survey
South Africa ^{6†}	2007-2008	National	4,223	≥18	75	Automated	3/1 (mean of all 3)	Seated and relaxed
Uganda ⁸⁶	2006	Regional	842	≥20		Automated	3/1(mean of last 2)	5 minutes rest
Zambia ⁸⁷	2008	Multisite	2,093	≥25		Automated	3/1 (mean of all 3)	15 minutes rest

^{*}Year of publication as year of survey not given; [†]The World Health Organization's Study on global AGEing and adult health (SAGE) study defined hypertension as systolic blood pressure ≥ 140 mm Hg, diastolic blood pressure ≥ 90 mm, or self-reported "medications or other treatment" in the last two weeks, where "other treatment might include weight loss program or change in eating habits".

Supplemental Table 2. Characteristics of included studies for 2000 hypertension prevalence by world region

Country	Data Collection	Study	Sample	Age,	Response		Blood Pressure Method	ds
Country	Year	sample	size	years	Rate, %	Device	Measures/visits (n)	Preparation
				High-i	ncome Econo	mies		
Australia ^{88, 89}	1999-2000	National	11,247	≥25	55	Automated or standard mercury	2/1 (mean of 2)	5 minutes rest
Chile ^{90,91}	2003-2005	Regional	1,655	25-64		Standard mercury	2/1 (mean of 2)	5 minutes rest
Czech Republic ⁹²	2000-2001	National	3,320	25-64	63	Standard mercury	3/1 (mean of last 2)	5 minutes rest
Estonia ⁹³	1999-2001	Regional	1,326	20-54	64	Standard mercury	2/1 (mean of 2)	5 minutes rest
Finland ⁹⁴	1997	Multisite	4,399	25-64	73	Standard mercury	2/1 (mean of 2)	5 minutes rest
Germany ⁹⁵	1997-1999	National	7,124	18-79		Standard mercury	3/1 (mean of last 2)	5 minutes rest
Greece ⁹⁶	1997	Regional	665	18-91	76	Standard mercury	3/1 (mean of 3)	5 minutes rest
Hong Kong ⁹⁷	1995-1996	National	1,010	25-74	80	Standard mercury	2/1 (mean of 2)	10 minutes rest
Italy ⁹⁸	1998	National	8,233	35-74		Standard mercury	2/1 (mean of 2)	5 minutes rest
Japan ³⁰	2000	National	5,570	≥30		Standard mercury	1/1	5 minutes rest
Republic of Korea ⁹⁹	2001	National	6,074	≥20		Standard mercury	2/1 (mean of 2)	10 minutes rest
Norway ¹⁰⁰	1995-1997	Regional	62,104	20-79	71	Automated	3/1 (mean of last 2)	2 minutes rest
Oman ¹⁰¹	2000	National	7,011	≥20	91	Standard mercury	2/1 (mean of 2)	5 minutes rest
Poland ¹⁰²	2002	National	3,051	≥18	78	Automated	3/3	Several minutes rest
Portugal ¹⁰³	2003	National	5,023	18-90		Automated	3/1 (mean of all 3)	
Sweden ¹⁰⁴	2001-2002	Regional	1,032	25-64	39	Automated	2/1	2 minutes rest

- 105			7.500				0/4	
Taiwan ¹⁰⁵	2002	National	7,566	≥19	67	Standard mercury	2/1	5-10 minutes rest
Trinidad and Tobago ¹⁰⁶	2001	Regional	461	≥24	74	Automated	3/1 (mean of last 2)	5 minutes
United Kingdom ¹⁰⁷	1998	National	11,529	≥20	51	Automated	3/1 (mean of last 2)	5 minutes rest
United States ¹⁰⁸	1999-2000	National	4,444	≥20	69	Standard mercury	3/1 (mean of 3)	5 minutes rest
				East A	Asia and Pa	cific		
Cambodia ¹⁰⁹	2004	Multisite	2,246	≥25	95		2/1 (mean of 2)	-
China ^{110,111}	2002	National	141,892	≥18	88	Standard mercury	2/1	5 minutes rest
Indonesia ¹¹²	2002	Regional	2,963	15-74	95	Automated	2/1	
Malaysia ¹¹³	2004	National	16,440	≥15	93	Standard mercury	2/1 (mean of 2)	
Thailand ¹¹⁴	2000-2001	National	5,350	≥35	68	Standard mercury	3/1	5 minutes rest
				Europe	and Centra	al Asia		
Bosnia and Herzegovina ¹¹⁵	2002	National	2,750	25-64	92	Standard mercury	2/1 (mean of 2)	5 minutes rest
Hungary ¹¹⁶	1996	Regional	19,961	30-65	92		2/1	5 minutes rest
Turkey ¹¹⁷	2003	National	4,910	≥18	99	Standard mercury	3/1 (mean of all 3)	30 minutes rest
			L	_atin Ameri	ca and the	Caribbean		
Argentina ^{90,91}	2003-2005	Regional	1,482	25-64		Standard mercury	2/1 (mean of 2)	5 minutes rest
Brazil ¹¹⁸	1999-2000	Regional	1,439	≥20	82	Automated	6/1 (mean of last 5)	
Brazil ¹¹⁹	1999-2000	Regional	2,268	25-64	73	Standard mercury	3/1 (mean of last 2)	5 minutes rest
Brazil ¹²⁰	2004*	Regional	400	≥25		Standard mercury	1/1	
Brazil ¹²¹	2004	Regional	285	≥18	85	Automated	2/1 (mean of 2)	
Brazil ¹²²	2003	Regional	1,020	20-60	94	Aneroid	2/1	BP measured at middle and end of

Columbia ^{90,91}	2003-2005	Regional	1,553	25-64		Standard mercury	2/1 (mean of 2)	5 minutes rest
Cuba ¹²³	2001-2002	Regional	1,475	25-74	80	Standard mercury	3/1(mean of last 2)	
Ecuador ^{90,91}	2003-2005	Regional	1,638	25-64		Standard mercury	2/1 (mean of 2)	5 minutes rest
Haiti ¹²⁴	2002-2003	Regional	1,113	≥20	69	Standard mercury	2/1 (mean of 2)	10 minutes rest
Mexico ^{90,91}	2003-2005	Regional	1,722	25-64		Standard mercury	2/1 (mean of 2)	5 minutes rest
Peru ^{90,91}	2003-2005	Regional	1,652	25-64		Standard mercury	2/1 (mean of 2)	5 minutes rest
Venezuela ¹²⁵	1996	National	7,424	≥20		Standard mercury	3/1	
				Middle Eas	st and Nort	h Africa		
Morocco ¹²⁶	2000	National	1,802	≥20	90	Aneroid	2/1 (mean of 2)	10 minutes rest
				s	outh Asia			
India ¹²⁷	1994-1995	Regional	2,559	21-70	86	Random zero	3/2 (mean of 3)	5 minute rest
India ¹²⁸	1997	Regional	1,806	25-64	90	Standard mercury	3/1 (mean of last 2)	5 minute rest
India ¹²⁹	1997	Regional	1,935	≥25	87	Standard mercury	1/1	5 minute rest
India ¹³⁰	2001	Regional	2,350	≥20	90	Standard mercury	2/1 (mean of 2)	5 minutes between measurements
India ¹³¹	2001	Regional	4,955	≥30			2/1 (mean of 2)	10 minutes between measurements
				Sub-S	Saharan Afi	rica		
Burkina Faso ¹³²	2004	Regional	2,087	≥35		Automated	3/1 (mean of 2)	10 minutes rest
Cameroon ¹³³	2003	Multisite	10,011	≥15	93	Automated	3/1 (mean of all 3)	5 minutes rest
Cameroon ¹³⁴	1998*	Multisite	1,798	25-74	91	Standard mercury	3/1 (mean of last 2)	30 minutes rest

Cameroon ¹³⁵	1995	Regional	1,467	≥25	90 - 99	Standard mercury	3/1	10 minutes rest
Eritrea ¹³⁶	2004	National	2,352	15-64	96	Automated	2/1	5 minutes rest
Ethiopia ¹³⁷	2003-2004	Regional	4,050	25-64		Automated	3/1(mean of last 2)	5 minutes rest
Seychelles ¹³⁸	2004	National	1,255	25-64	86	Standard mercury	3/1(mean of last 2)	30 minutes rest
South Africa ¹³⁹	1998	National	13,802	15-65	92	Automated	3/1 (mean of 2 or 3)	5 minutes rest
Tanzania ¹⁴⁰	1996-1997	Multisite	1,698	≥15	64 - 85	Standard mercury	2/1 (mean of 2)	
Zimbabwe ¹⁴¹	1995	Regional	775	≥25	57	Automated	3/1 (mean of last 2)	5 minutes rest

^{*}Year of publication as year of survey not given.

Supplemental Table 3. Gender-specific hypertension awareness, treatment, and control in 2010 in countries with data by world region

0	Awa	reness	Trea	atment	Control (ar	nong treated)	Control (amor	g hypertension)
Country	Men	Women	Men	Women	Men	Women	Men	Women
				High Income E	conomies			
Australia			52.5	59.1	58.7	55.8	30.8	33.0
Chile	55.2	75.6	25.8	49.5	33.8	50.1	8.7	24.8
Czech Republic	68.4	71.4	58.2	58.9	41.9	42.2	24.4	24.9
Finland	63.3	72.7	31.3	39.9	33.8	39.9	10.6	15.9
France	46.9	58.8	41.0	62.0	41.7	58.4	17.1	36.2
Germany	77.9	86.6						
Ireland			30.4	45.2	27.8	40.7	8.5	18.4
Italy	46.6	61.6	38.3	53.4	46.7	42.7	17.9	22.8
Japan			47.1	51.4	32.5	41.6	36.9	49.4
Korea, Rep.	58.5	76.1	51.7	71.3	70.5	68.4	15.3	21.4
Luxembourg	38.5	42.4						
Puerto Rico	82.9	80.7	71.4	76.5				
Russian Federation	53.3	64.9	42.4	54.2	14.3	22.5	6.1	12.2
Saudi Arabia	35.6	52.0	33.1	42.7	32.0	41.1	7.5	13.6
Singapore	70.8	77.2						
Spain	50.9	64.6						
Sweden			45.6	55.7	50.3	46.2	22.9	25.7
Switzerland	60.0	65.0	46.0	52.0	45.0	50.0	21.0	26.0
United Kingdom	61.0	66.0	52.4	58.2	61.8	59.8	32.4	34.8
United States	78.1	84.4	69.3	79.2	69.6	68.1	48.3	54.1
Uruguay	54.8	82.0	43.3	68.3	36.8	52.9	15.9	36.1

				East Asia an	d Pacific			
China	30.4	36.7	20.6	27.7	17.0	15.5	3.5	4.3
Mongolia	25.7	51.3	28.1	54.1	26.7	39.6	7.5	21.4
Thailand	39.5	59.4	30.3	51.3				
Vietnam	37.9	53.2	22.1	36.7	28.0	40.3	3.8	9.9
			ļ	Europe and Co	entral Asia			
Albania	14.4	29.9	6.1	16.7	19.7	17.9	1.2	3.0
Armenia	25.8	25.7	10.3	19.1	23.1	36.6	2.4	7.0
Azerbaijan	17.6	53.0	12.0	46.2	36.2	47.6	4.4	22.0
Bosnia	40.2	57.2	35.5	54.2	25.4	41.0	9.0	22.2
Romania	62.2	75.6	49.7	66.9	27.4	23.6	13.6	15.8
Serbia	48.6	66.5	56.2	63.2	18.8	22.1	10.6	14.0
Turkey	36.9	55.7	23.6	38.9				
Ukraine	31.9	64.6	16.8	57.4	21.9	20.9	3.7	12.0
			Latin	America and	the Caribbean			
Argentina	46.7	64.6	32.6	52.1	31.6	37.4	10.3	19.5
Brazil			44.0	73.0	30.3	47.7	13.3	34.9
Cuba	54.8	76.0	44.1	67.9	46.2	49.4	20.3	33.5
Jamaica	30.6	69.6	21.0	57.8	31.2	44.9	6.6	26.0
Mexico	24.8	41.0	17.4	33.8	17.4	24.9	3.0	8.4
Panama	53.1	73.6	51.9	71.9	35.3	50.9	17.9	34.6
Peru	45.4	50.5	35.7	43.4	34.7	36.2	12.4	15.7
			Mi	ddle East and	North Africa			
Algeria			22.2	39.6	20.5	24.3	4.5	9.6
Egypt	55.7	79.7	33.9	48.5	50.7	55.7	17.2	27.0
Iran, Islamic Rep.	22.5	44.7	16.1	33.1	25.7	23.5	4.1	7.7

Jordan	54.7	56.7	36.7	35.1	42.9	38.2	15.6	13.5	
Tunisia	28.8	44.8	24.6	37.9	27.5	22.8	6.5	8.6	
Yemen	40.7	47.6	36.5	43.6	17.2	28.8	6.3	12.5	
				South A	Asia				
India	20.4	36.7	14.2	19.2	51.4	40.8	7.3	7.8	
	Sub-Saharan Africa								
Angola	15.3	27.5							
Ghana	12.8	17.7	9.6	10.6	20.6	12.8	2.0	1.4	
Kenya	26.5	57.6	16.2	39.4	9.1	26.9	1.5	10.6	
Mozambique	10.6	18.4	3.5	11.2	28.7	42.9	1.0	4.8	
Senegal	21.2	50.3	14.3	36.5	17.9	27.7	2.6	10.1	
South Africa	12.1	25.1	10.1	22.3	20.1	19.3	2.0	4.3	

Supplemental Table 4. Gender-specific hypertension awareness, treatment, and control in 2000 in countries with data by world region

Country	Awa	reness	Trea	Treatment Control (amo		nong treated)	Control (among hypertension)		
Country	Men	Women	Men	Women	Men	Women	Men	Women	
			H	ligh Income Ed	conomies				
Australia			37.6	56.5	34.3	46.4	12.9	26.2	
Czech Republic	63.0	73.4	44.3	60.7	37.0	41.8	16.4	25.4	
Finland	57.5	67.6	24.7	28.5	20.5	27.4	5.1	7.8	
Greece	50.0	69.5	45.2	61.9	50.0	49.3	22.6	30.5	
Japan			36.8	47.1	20.0	24.3	7.4	11.5	
Korea, Republic of	25.9	33.5	18.6	27.0	41.5	51.8	7.7	14.0	
Portugal	36.7	56.1	30.6	48.1	23.4	32.1	7.2	15.4	
Taiwan	55.8	73.6	44.3	59.4	47.4	48.0	21.0	28.5	
United Kingdom	40.3	52.2	25.7	38.0	31.1	28.2	8.0	10.7	
United States	66.3	71.7	54.8	62.4	59.8	47.8	33.0	30.0	
				East Asia and	Pacific				
China	27.2	33.1	21.6	27.7	26.2	24.1	5.6	6.5	
Malaysia	29.4	40.6	27.3	38.1	26.9	26.3	7.4	10.0	
			E	Europe and Cer	ntral Asia				
Turkey	26.7	46.9	21.0	37.7	31.1	17.5	6.5	6.6	
			Latin	America and t	he Caribbean				
Cuba	69.3	85.8	48.1	71.6	60.1	68.0	28.9	48.7	
Venezuela			13.1	26.0	25.2	23.8	3.3	6.2	
			Mic	dle East and N	lorth Africa				
Morocco	13.5	27.3	3.6	12.3	19.4	11.4	0.7	1.4	

South Asia								
India	20.6	27.2	16.4	22.1	28.0	34.4	4.6	7.6
Sub-Saharan Africa								
Cameroon			13.0	22.6				
Seychelles	55.0	75.0	49.0	72.0	24.5	41.7	12.0	30.0
South Africa	26.0	51.0	21.0	36.0	47.6	50.0	10.0	18.0

Supplemental Table 5. Total Population and Hypertension Prevalence Estimates by Country in 2010

Country		Population, usands	Crude Prevalence	e (Standard Error)	Data Source
,	Men	Women	Men	Women	
		ŀ	ligh Income Econom	ies	
Antigua and Barbuda	26	30	25.8 (17.4)	24.8 (16.0)	Imputed from the US, Canada, and Puerto Rico
Aruba	34	39	30.2 (18.2)	30.2 (17.3)	Imputed from the US, Canada, and Puerto Rico
Australia	8199	8454	34.8 (0.4)	32.8 (0.3)	National survey
Austria	3200	3459	44.9 (18.4)	38.8 (16.3)	Imputed from the Czech Republic, Germany, and Luxembourg
Bahamas	119	128	25.2 (17.1)	25.6 (15.8)	Imputed from the US, Canada, and Puerto Rico
Bahrain	620	315	23.8 (19.9)	27.4 (19.4)	Imputed from Saudi Arabia, Qatar, and Germany
Barbados	101	105	28.1 (17.3)	29.8 (16.3)	Imputed from the US, Canada, and Puerto Rico
Belgium	4087	4356	39.4 (18.1)	35.0 (16.2)	Imputed from the UK, Germany, and Luxembourg
Brunei Darussalam	130	129	29.1 (19.2)	32.0 (19.5)	Imputed from Saudi Arabia, Qatar, and Germany
Canada	12900	13377	22.7 (0.9)	23.9 (0.8)	National Survey
Channel Islands	62	64	38.6 (18.2)	34.2 (16.2)	Imputed from the Czech Republic, Germany, and the UK
Chile	5791	6070	31.7 (1.0)	28.2 (0.7)	National Survey
Croatia	1626	1802	43.7 (18.7)	38.5 (16.9)	Imputed from Latvia, the Czech Republic, and Germany
Curacao	47	60	32.3 (18.1)	32.5 (17.3)	Imputed from the US, Canada, and Puerto Rico
Cyprus	418	405	34.0 (17.7)	29.5 (14.8)	Imputed from the Czech Republic, Germany, and the UK
Czech Republic	4101	4343	48.2 (1.0)	42.6 (0.8)	Multisite Survey
Denmark	2062	2139	39.9 (18.2)	34.6 (16.4)	Imputed from the UK, Germany, and Luxembourg
Equatorial Guinea	183	167	28.2 (19.0)	25.2 (17.3)	Imputed from Uruguay, Chile, and Saudi

					Arabia
Estonia	461	564	45.5 (19.0)	42.9 (16.9)	Imputed from Latvia, the Czech Republic, and Russia
Finland	2010	2136	54.6 (1.1)	46.6 (0.9)	Multisite Survey
France	22676	25111	38.0 (1.6)	38.5 (1.2)	National Survey
French Polynesia	92	87	30.5 (18.3)	24.5 (15.7)	Imputed from Australia, New Zealand, and Chile
Germany	32745	34812	35.6 (0.9)	34.2 (0.8)	National Survey
Greece	4366	4583	39.2 (17.9)	36.4 (16.2)	Imputed from the Czech Republic, Germany, and the UK
Guam	51	50	30.0 (17.9)	21.9 (13.7)	Imputed from Korea, Japan, and Singapore
Hong Kong	2638	3125	34.5 (18.2)	24.7 (14.5)	Imputed from Korea, Japan, and Singapore
Iceland	114	114	36.2 (17.8)	31.0 (15.3)	Imputed from the Czech Republic, Germany, and the UK
Ireland	1588	1652	46.0 (1.2)	32.2 (1.1)	National Survey
Israel	2339	2496	33.8 (17.6)	40.1 (17.2)	Imputed from Saudi Arabia, Qatar, and Germany
Italy	23471	25592	45.7 (0.7)	36.5 (0.5)	Regional Survey
Japan	50262	54114	46.7 (1.4)	37.5 (0.9)	National Survey
Korea, South	18204	18952	28.6 (0.9)	23.5 (0.7)	National Survey
Kuwait	1291	733	24.5 (19.9)	26.5 (19.7)	Imputed from Saudi Arabia, Qatar, and Germany
Latvia	738	928	44.7 (1.6)	36.7 (1.0)	National Survey
Lithuania	1068	1320	43.5 (19.3)	40.5 (16.7)	Imputed from Latvia, the Czech Republic, and Russia
Luxembourg	191	197	48.5 (1.5)	37.1 (1.3)	National Survey
Macao	202	226	29.7 (18.1)	20.0 (14.0)	Imputed from Korea, Japan, and Singapore
Malta	164	167	43.3 (18.7)	36.2 (16.6)	Imputed from Latvia, the Czech Republic, and Germany
The Netherlands	6217	6471	39.1 (18.3)	33.8 (16.3)	Imputed from the UK, Germany, and Luxembourg
New Caledonia	84	83	33.3 (18.0)	27.7 (15.8)	Imputed from Australia, New Zealand, and Chile
New Zealand	1521	1631	36.4 (1.6)	30.9 (1.2)	National Survey

Norway	1807	1842	38.2 (18.0)	33.0 (15.9)	Imputed from the UK, Germany, and Luxembourg
Oman	1110	648	22.2 (19.9)	26.2 (19.2)	Imputed from Saudi Arabia, Qatar, and Germany
Poland	14236	15742	40.9 (18.9)	35.0 (16.3)	Imputed from Latvia, the Czech Republic, and Germany
Portugal	4020	4412	38.6 (17.9)	35.7 (16.0)	Imputed from the Czech Republic, Germany, and the UK
Puerto Rico	1240	1415	35.9 (3.2)	38.5 (2.5)	Regional Survey
Qatar	1163	286	26.8 (1.4)	36.2 (1.2)	National Survey
Russia	50886	62492	39.3 (3.9)	42.1 (1.7)	National Survey
Saudi Arabia	9946	6689	25.6 (0.9)	27.0 (0.8)	National Survey
Singapore	1876	1967	25.7 (0.8)	22.1 (0.7)	National Survey
Slovak Republic	2034	2214	39.5 (19.0)	33.7 (16.1)	Imputed from Latvia, the Czech Republic, and Germany
Slovenia	817	845	42.5 (18.9)	37.2 (16.7)	Imputed from Latvia, the Czech Republic, and Germany
Spain	18124	18960	44.0 (0.6)	37.1 (0.5)	National Survey
Sweden	3545	3644	41.8 (1.3)	37.0 (1.2)	Regional Survey
Switzerland	3013	3181	38.6 (0.7)	31.7 (0.7)	Regional Survey
Taiwan	8869	8963	31.8 (17.9)	23.6 (14.3)	Imputed from Korea, Japan, and Singapore
Trinidad and Tobago	467	486	26.2 (17.1)	26.1 (15.5)	Imputed from the US, Canada, and Puerto Rico
United Arab Emirates	4976	1688	17.9 (22.9)	19.2 (21.9)	Imputed from Saudi Arabia, Qatar, and Germany
United Kingdom	22963	24348	31.7 (0.8)	29.9 (0.6)	2 National Surveys
United States	110538	117666	31.1 (0.6)	31.8 (0.5)	National Survey
Uruguay	1104	1242	37.5 (1.5)	38.8 (1.2)	Regional Survey
Virgin Islands	36	41	33.1 (18.2)	32.6 (17.0)	Imputed from the US, Canada, and Puerto Rico
			East Asia and Pacifi	ic	
Cambodia	3790	4318	25.5 (18.5)	24.1 (16.0)	Imputed from Malaysia, China, and Vietnam
China	514137	490607	35.7 (0.3)	32.3 (0.2)	National Survey

Fiji	268	261	27.6 (18.3)	25.0 (16.5)	Imputed from Malaysia, China, and Vietnam
Indonesia	73582	74522	25.0 (18.0)	24.7 (16.7)	Imputed from Malaysia, Vietnam, and India
Kiribati	26	28	26.0 (18.6)	23.7 (16.3)	Imputed from Malaysia, China, and Vietnam
Korea, North	8100	8826	34.3 (19.6)	32.4 (17.2)	Imputed from Malaysia, China, and Vietnam
Laos	1573	1671	25.0 (18.5)	22.3 (15.9)	Imputed from Malaysia, China, and Vietnam
Malaysia	8544	9069	26.5 (1.3)	25.2 (1.0)	National Survey
Micronesia	26	26	25.9 (18.6)	24.1 (16.1)	Imputed from Malaysia, China, and Vietnam
Mongolia	838	869	37.3 (1.0)	30.6 (0.7)	National Survey
Myanmar	16019	17614	24.7 (18.2)	25.5 (17.0)	Imputed from China, India, and Bangladesh
Papua New Guinea	1751	1730	24.7 (18.9)	21.8 (16.3)	Imputed from Malaysia, China, and Vietnam
Philippines	25016	25757	28.0 (0.7)	23.5 (0.6)	National Survey
Samoa	49	47	27.6 (18.3)	25.6 (16.1)	Imputed from Malaysia, China, and Vietnam
Solomon Islands	128	129	25.5 (18.6)	21.0 (16.2)	Imputed from Malaysia, China, and Vietnam
Thailand	23601	25204	23.4 (0.5)	23.8 (0.4)	National Survey
Timor-Leste	220	215	25.5 (18.4)	23.3 (16.1)	Imputed from Malaysia, China, and Vietnam
Tonga	26	28	27.5 (18.0)	25.7 (15.9)	Imputed from Malaysia, China, and Vietnam
Vanuatu	62	62	25.9 (18.3)	22.0 (16.2)	Imputed from Malaysia, China, and Vietnam
Vietnam	28501	30617	22.3 (0.7)	19.7 (0.4)	National Survey
		E	urope and Central A	sia	
Albania	1054	1070	41.6 (0.9)	39.4 (3.4)	National Survey
Armenia	1034	1066	41.2 (1.1)	43.4 (0.5)	National Survey
Azerbaijan	2942	3176	25.9 (1.7)	31.4 (0.5)	National Survey
Belarus	3376	4099	43.9 (19.5)	45.5 (17.0)	Imputed from Bosnia, Serbia, and Ukraine
Bosnia and Herzegovina	1391	1508	45.6 (1.2)	43.2 (1.0)	National Survey

Bulgaria	2893	3127	45.5 (18.9)	46.5 (17.0)	Imputed from Bosnia, Serbia, and Albania
Georgia	1499	1795	40.2 (18.7)	41.0 (16.9)	Imputed from Bosnia, Serbia, and Iran
Hungary	3697	4250	46.2 (19.2)	47.4 (17.0)	Imputed from Bosnia, Serbia, and Ukraine
Kazakhstan	4942	5643	33.9 (19.9)	33.1 (17.4)	Imputed from China, Mongolia, and Iran
Kyrgyz Republic	1513	1620	27.2 (19.4)	27.9 (17.4)	Imputed from China, India, and Iran
Macedonia	783	794	42.4 (19.3)	40.1 (17.1)	Imputed from Bosnia, Serbia, and Albania
Moldova	1245	1441	43.3 (19.5)	42.2 (17.1)	Imputed from Bosnia, Serbia, and Ukraine
Montenegro	220	234	43.4 (19.3)	41.9 (17.0)	Imputed from Bosnia, Serbia, and Albania
Romania	8330	8999	39.1 (1.5)	46.7 (1.3)	National Survey
Serbia	3547	3813	43.5 (0.6)	41.6 (0.5)	National Survey
Tajikistan	1993	2027	26.3 (19.6)	25.4 (17.7)	Imputed from China, India, and Iran
Turkey	22426	24159	38.3 (0.7)	35.1 (0.5)	National Survey
Turkmenistan	1453	1556	26.9 (19.1)	27.8 (17.3)	Imputed from China, Iran, and Azerbaijan
Ukraine	16523	20326	47.7 (0.9)	50.6 (0.6)	National Survey
Uzbekistan	8002	8341	27.1 (19.0)	27.7 (17.2)	Imputed from China, Iran, and Azerbaijan
		Latin	America and the Ca	ribbean	
Argentina	12909	14005	41.8 (0.9)	32.9 (0.9)	Multisite Survey
Belize	82	84	24.3 (18.2)	25.1 (16.2)	Imputed from Mexico, Jamaica, and Grenada
Bolivia	2640	2753	27.4 (19.3)	27.2 (17.8)	Imputed from Ecuador, Venezuela, and Peru
Brazil	62356	66587	28.1 (1.5)	38.5 (1.7)	4 Regional Surveys
Colombia	13812	14899	28.7 (19.1)	28.7 (17.9)	Imputed from Argentina, Brazil, and Peru
Costa Rica	1554	1522			Imputed from Mexico, Jamaica, and Grenada
Cuba	8555	4271	40.3 (1.8)	37.4 (1.4)	Regional Survey
Dominican Republic	2929	2979	27.4 (17.4)	29.3 (16.3)	Imputed from Mexico, Jamaica, and Grenada
Ecuador	4413	4517	28.5 (18.9)	28.6 (17.8)	Imputed from Argentina, Brazil, and Peru
El Salvador	1569	1928	27.1 (17.2)	30.0 (15.9)	Imputed from Mexico, Jamaica, and Grenada
Grenada	32	33	20.0 (0.9)	28.1 (0.8)	National Survey

Guatemala	3178	3622	25.6 (17.6)	26.5 (15.7)	Imputed from Mexico, Jamaica, and Grenada
Guyana	204	215	26.2 (20.1)	26.3 (18.3)	Imputed from Argentina, Brazil, and Peru
Haiti	2530	2714	25.5 (17.9)	26.7 (15.8)	Imputed from Mexico, Jamaica, and Grenada
Honduras	1943	2011	25.5 (18.1)	25.7 (15.8)	Imputed from Mexico, Jamaica, and Grenada
Jamaica	811	868	30.4 (1.5)	33.6 (1.0)	National Survey
Mexico	33224	37893	29.3 (4.0)	28.5 (2.3)	National Survey
Nicaragua	1523	1625	25.4 (18.0)	26.2 (15.9)	Imputed from Mexico, Jamaica, and Grenada
Panama	1142	1132	27.7 (1.4)	24.6 (0.8)	Regional Survey
Paraguay	1814	1804	27.8 (19.1)	27.2 (17.9)	Imputed from Ecuador, Venezuela, and Peru
Peru	8734	8869	16.2 (1.2)	17.8 (1.0)	Regional Survey
Saint Lucia	56	60	29.6 (17.5)	32.5 (16.6)	Imputed from Mexico, Jamaica, and Grenada
Saint Vincent and the Grenadines	35	35	27.9 (17.7)	30.7 (16.4)	Imputed from Mexico, Jamaica, and Grenada
Suriname	164	166	28.6 (19.1)	29.4 (17.8)	Imputed from Argentina, Brazil, and Peru
Venezuela	8814	8941	28.4 (19.0)	28.2 (17.8)	Imputed from Argentina, Brazil, and Peru
		Mid	ldle East and North A	Africa	
Algeria	11735	11595	22.3 (1.6)	23.0 (1.0)	Regional Survey
Djibouti	226	227	19.8 (16.7)	22.3 (16.0)	Imputed from Iran, Egypt, and Tunisia
Egypt	22797	23157	17.1 (0.6)	23.9 (0.6)	National Survey
Iran	25009	24652	26.4 (0.3)	25.9 (0.3)	National Survey
Iraq	7418	7496	24.8 (19.2)	23.9 (16.2)	Imputed from Iran, Egypt, and Serbia
Jordan	1808	1723	29.3 (1.4)	26.3 (0.7)	National Survey
Lebanon	1490	1378	30.6 (18.1)	29.6 (15.7)	Imputed from Iran, Egypt, and Serbia
Libya	1871	1820	23.4 (17.5)	23.6 (16.3)	Imputed from Egypt, Tunisia, and Bosnia
Morocco	9367	10164	33.5 (20.6)	33.0 (19.5)	Imputed from Ghana, Tunisia, and Bosnia
Syria	5885	5710	25.7 (18.9)	23.8 (16.2)	Imputed from Iran, Egypt, and Serbia
Tunisia	3505	3661	20.9 (0.6)	25.2 (0.5)	National Survey

West Bank and Gaza	924	910	24.9 (19.3)	22.9 (16.3)	Imputed from Iran, Egypt, and Serbia
	924 5151	5196	9.6 (0.4)	` ,	Multisite Survey
Yemen	5151	5196	9.6 (0.4) South Asia	12.4 (0.4)	Multisite Survey
					Imputed from Bangladesh, India, and
Afghanistan	5772	5714	18.6 (17.3)	19.8 (16.5)	Thailand
Bangladesh	44201	43208	15.2 (0.5)	17.4 (0.5)	National Survey
Bhutan	238	189	19.7 (16.9)	20.4 (16.3)	Imputed from Bangladesh, India, and Thailand
India	371245	353796	25.8 (0.9)	29.2 (1.3)	5 National, Regional, and Multisite Surveys
Maldives	95	96	20.0 (16.8)	20.2 (16.4)	Imputed from Bangladesh, India, and Thailand
Nepal	6617	7434	21.6 (16.6)	22.1 (16.2)	Imputed from Bangladesh, India, and Thailand
Pakistan	47071	45245	20.1 (16.8)	21.1 (16.3)	Imputed from Bangladesh, India, and Thailand
Sri Lanka	6719	7200	23.0 (16.7)	25.8 (16.6)	Imputed from Bangladesh, India, and Thailand
			Sub-Saharan Africa	l	
Angola	3973	4169	31.1 (1.9)	25.2 (1.4)	Regional Survey
Benin	2142	2219	39.9 (23.9)	40.3 (22.8)	Imputed from Ghana, Kenya, and Senegal
Botswana	535	538	42.2 (25.0)	41.0 (22.8)	Imputed from South Africa, Senegal, and Ghana
Burkina Faso	3210	3491	9.0 (1.1)	12.4 (1.1)	Regional Survey
Burundi	2035	2100	32.6 (23.5)	30.8 (21.1)	Imputed from Mozambique, Nigeria, and Uganda
Cameroon	4652	4743	18.5 (1.6)	17.9 (1.3)	Regional Survey
Cape Verde	134	139	40.3 (23.8)	42.4 (21.8)	Imputed from Ghana, Kenya, and Senegal
Central African Republic	1026	1086	33.6 (22.9)	33.2 (20.2)	Imputed from Mozambique, Nigeria, and Uganda
Chad	2335	2380	32.7 (23.4)	31.3 (20.8)	Imputed from Mozambique, Nigeria, and Uganda
Comoros	164	165	43.6 (23.9)	41.5 (22.7)	Imputed from South Africa, Senegal, and Ghana
Congo, Democratic Republic of the	13329	13847	18.2 (1.4)	19.3 (1.2)	Regional Survey
Congo, Republic of the	975	990	40.1 (23.5)	40.3 (22.7)	Imputed from Ghana, Kenya, and Senegal

Cote d'Ivoire	4689	4334	41.1 (22.8)	39.9 (23.0)	Imputed from Ghana, Kenya, and Senegal
Eritrea	1289	1367	32.2 (24.4)	30.5 (21.2)	Imputed from Mozambique, Nigeria, and Uganda
Ethiopia	19019	19549	27.5 (1.1)	22.2 (1.5)	2 Regional Surveys
Gabon	395	397	44.7 (22.9)	43.6 (21.4)	Imputed from South Africa, Senegal, and Ghana
Gambia, The	354	377	33.0 (23.1)	30.4 (21.3)	Imputed from Mozambique, Nigeria, and Uganda
Ghana	5851	6349	41.5 (2.8)	41.4 (2.8)	National Survey
Guinea	2506	2545	40.6 (23.3)	41.0 (22.5)	Imputed from Ghana, Kenya, and Senegal
Guinea-Bissau	371	381	40.0 (23.6)	40.3 (22.9)	Imputed from Ghana, Kenya, and Senegal
Kenya	9498	9693	34.7 (3.6)	36.8 (2.6)	Regional Survey
Lesotho	482	527	17.5 (0.7)	35.0 (0.6)	National Survey
Liberia	914	929	39.9 (23.6)	40.3 (22.7)	Imputed from Ghana, Kenya, and Senegal
Madagascar	4754	4871	33.1 (22.6)	32.2 (20.5)	Imputed from Mozambique, Nigeria, and Uganda
Malawi	3189	3260	33.4 (23.2)	32.6 (20.4)	Imputed from Mozambique, Nigeria, and Uganda
Mali	2961	3023	32.6 (23.4)	32.1 (20.5)	Imputed from Mozambique, Nigeria, and Uganda
Mauritania	881	887	26.3 (20.2)	29.5 (18.8)	Imputed from Lesotho, Zambia, and Angola
Mauritius	426	443	49.0 (21.4)	48.4 (20.1)	Imputed from South Africa, Senegal, and Ghana
Mozambique	4984	5613	36.1 (1.5)	31.5 (1.0)	National Survey
Namibia	518	586	43.2 (24.0)	41.9 (22.3)	Imputed from South Africa, Senegal, and Ghana
Niger	3176	3233	33.8 (21.8)	32.4 (20.5)	Imputed from Mozambique, Nigeria, and Uganda
Nigeria	36847	36185	37.2 (2.3)	31.4 (1.5)	Regional Survey
Rwanda	2375	2592	32.2 (23.8)	30.4 (21.1)	Imputed from Mozambique, Nigeria, and Uganda
Sao Tome and Principe	41	44	25.7 (20.8)	28.4 (19.0)	Imputed from Lesotho, Zambia, and Angola
Senegal	2772	3108	42.3 (2.2)	40.4 (2.2)	Regional Survey
Seychelles	32	31	47.0 (22.1)	46.8 (20.6)	Imputed from South Africa, Senegal, and Ghana

Sierra Leone	1346	1386	39.8 (23.9)	39.7 (23.2)	Imputed from Ghana, Kenya, and Senegal
Somalia	1975	2055	33.5 (22.7)	32.7 (20.3)	Imputed from Mozambique, Nigeria, and Uganda
South Africa	14795	16380	47.0 (5.2)	45.9 (3.5)	National Survey
South Sudan	2266	2326	26.6 (20.0)	29.5 (18.7)	Imputed from Lesotho, Zambia, and Angola
Sudan	8369	8503	26.7 (20.2)	29.1 (18.9)	Imputed from Lesotho, Zambia, and Angola
Swaziland	276	300	42.3 (25.3)	41.0 (23.0)	Imputed from South Africa, Senegal, and Ghana
Tanzania	9938	10129	33.4 (23.1)	32.3 (20.5)	Imputed from Mozambique, Nigeria, and Uganda
Togo	1436	1536	39.5 (24.2)	40.1 (23.2)	Imputed from Ghana, Kenya, and Senegal
Uganda	6789	6824	24.6 (2.0)	32.7 (2.2)	Regional Survey
Zambia	2794	2816	27.2 (1.6)	27.4 (1.3)	Multisite Survey
Zimbabwe	2928	3138	33.2 (24.6)	32.0 (21.0)	Imputed from Mozambique, Nigeria, and Uganda

Supplemental Table 6. Total Population and Hypertension Prevalence Estimates by Country in 2000

Country	Total 2000 Population, in thousands		Crude Prevalence (Standard Error)		Data Source
	Men	Women	Men	Women	
		ŀ	ligh Income Econom	ies	
Antigua and Barbuda	23	27	28.2 (18.8)	23.7 (15.2)	Imputed from the US, Trinidad, and Chile
Aruba	30	34	30.3 (19.1)	26.3 (16.2)	Imputed from the US, Trinidad, and Chile
Australia	6827	7103	28.9 (0.6)	25.5 (0.4)	National Survey
Austria	2927	3237	42.3 (19.0)	37.1 (15.7)	Imputed from the Czech Republic, the UK, and Norway
Bahamas	87	95	27.0 (18.6)	23.2 (15.2)	Imputed from the US, Trinidad, and Chile
Bahrain	251	162	28.3 (21.5)	22.0 (17.8)	Imputed from Oman, Taiwan, and the Czech Republic
Barbados	92	97	30.7 (18.1)	29.6 (15.5)	Imputed from the US, Trinidad, and Chile
Belgium	3787	4069	43.8 (18.8)	37.9 (15.8)	Imputed from the Czech Republic, the UK, and Norway
Brunei Darussalam	102	101	28.8 (21.0)	21.8 (17.7)	Imputed from Oman, Taiwan, and the Czech Republic
Canada	11109	11608	32.5 (18.4)	30.9 (16.0)	Imputed from the US, Trinidad, and Chile
Channel Islands	55	60	42.8 (19.0)	34.8 (15.6)	Imputed from the Czech Republic, the UK, and Norway
Chile	4786	5047	28.4 (1.4)	24.7 (1.2)	Regional Survey
Croatia	1606	1796	42.2 (18.9)	36.1 (16.1)	Imputed from the Czech Republic, the UK, and Estonia
Curacao	40	49	33.3 (18.9)	30.4 (16.7)	Imputed from the US, Trinidad, and Chile
Cyprus	327	328	40.9 (19.4)	35.4 (16.8)	Imputed from Oman, the Czech Republic, and Estonia
Czech Republic	3775	4105	39.7 (1.1)	35.0 (0.8)	National Survey
Denmark	1992	2081	43.3 (19.0)	36.6 (15.9)	Imputed from Oman, the Czech Republic, and Estonia
Equatorial Guinea	133	121	29.3 (20.5)	25.0 (17.8)	Imputed from Chile, Oman, and Australia
Estonia	451	566	42.8 (1.5)	35.0 (1.3)	Regional Survey
Finland	1877	2028	52.7 (1.0)	45.4 (0.8)	Multisite Survey

France	20887	23117	43.3 (18.8)	37.2 (15.7)	Imputed from the Czech Republic, the UK, and Norway
French Polynesia	72	67	26.1 (18.2)	18.0 (13.6)	Imputed from Australia, Taiwan, and Japan
Germany	31582	34090	61.6 (1.1)	54.0 (0.9)	National Survey
Greece	4175	4405	25.9 (2.6)	26.3 (1.9)	Regional Survey
Guam	49	47	28.3 (18.5)	19.6 (13.7)	Imputation from Korea, Japan, and Taiwan
Hong Kong	2477	2714	20.1 (1.8)	21.2 (1.6)	National Survey
Iceland	96	98	40.0 (18.9)	30.6 (15.2)	Imputed from the Czech Republic, the UK, and Estonia
Ireland	1297	1351	40.7 (19.1)	32.0 (15.1)	Imputed from the Czech Republic, the UK, and Norway
Israel	1826	1971	35.8 (18.7)	33.0 (16.5)	Imputed from Oman, Taiwan, and the Czech Republic
Italy	21825	23947	39.9 (0.7)	31.3 (0.7)	National Survey
Japan	48246	51602	44.6 (0.9)	37.1 (0.6)	National Survey
Korea, South	16063	16585	26.8 (0.8)	20.7 (0.6)	National Survey
Kuwait	814	481	29.3 (21.0)	20.8 (17.9)	Imputed from Oman, Taiwan, and the Czech Republic
Latvia	784	987	42.7 (19.2)	37.9 (16.2)	Imputed from the Czech Republic, Norway, and Estonia
Lithuania	1146	1391	41.9 (19.3)	35.9 (15.8)	Imputed from the Czech Republic, Norway, and Estonia
Luxembourg	160	169	41.8 (19.2)	35.3 (15.6)	Imputed from the Czech Republic, the UK, and Norway
Macao	140	159	30.9 (19.6)	19.4 (14.1)	Imputed from Korea, Japan, and Taiwan
Malta	143	148	41.2 (19.6)	33.5 (16.2)	Imputed from the Czech Republic, the UK, and Norway
The Netherlands	5864	6124	42.0 (19.2)	35.0 (15.7)	Imputed from the Czech Republic, the UK, and Norway
New Caledonia	66	65	28.3 (17.7)	20.1 (13.8)	Imputed from Australia, Taiwan, and Japan
New Zealand	1303	1402	32.5 (17.7)	26.2 (14.7)	Imputed from Australia, Taiwan, and Japan
Norway	1626	1701	46.2 (0.3)	38.1 (0.2)	Regional Survey
Oman	689	446	35.8 (0.8)	34.3 (0.7)	National Survey

Poland	13083	14496	31.4 (1.1)	34.8 (1.0)	National Survey
Portugal	3762	4176	49.7 (1.0)	44.7 (0.9)	National Survey
Puerto Rico	1211	1379	32.1 (17.7)	30.1 (15.7)	Imputed from the US, Trinidad, and Chile
Qatar	281	113	29.9 (22.3)	21.7 (18.8)	Imputed from Oman, Taiwan, and the Czech Republic
Russia	48722	59182	40.9 (19.8)	35.2 (15.9)	Imputation from Estonia, Norway, and the Czech Republic
Saudi Arabia	5959	4491	28.5 (20.7)	22.4 (17.1)	Imputed from Oman, Taiwan, and the Czech Republic
Singapore	1392	1431	30.2 (19.0)	21.2 (14.4)	Imputed from Korea, Japan, and Taiwan
Slovak Republic	1845	2032	40.5 (19.7)	32.3 (15.6)	Imputed from the Czech Republic, Norway, and Estonia
Slovenia	738	795	41.4 (19.3)	35.8 (15.6)	Imputed from the Czech Republic, the UK, and Norway
Spain	15320	16395	42.4 (18.7)	36.0 (15.2)	Imputed from the Czech Republic, the UK, and Norway
Sweden	3287	3443	33.6 (1.8)	36.1 (1.5)	Regional Survey
Switzerland	2645	2856	43.1 (19.0)	36.5 (15.8)	Imputed from the Czech Republic, the UK, and Norway
Taiwan	7794	7568	23.8 (0.7)	16.8 (0.5)	National Survey
Trinidad and Tobago	394	406	32.0 (3.1)	26.0 (2.4)	Regional Survey
United Arab Emirates	1544	518	26.3 (22.5)	18.5 (18.5)	Imputed from Oman, Taiwan, and the Czech Republic
United Kingdom	21129	22983	42.2 (0.6)	35.8 (0.5)	National Survey
United States	98039	105341	27.8 (0.9)	30.9 (0.8)	National Survey
Uruguay	1061	1190	31.8 (17.6)	32.0 (15.4)	Imputed from the US, Trinidad, and Chile
Virgin Islands	33	38	32.8 (18.9)	29.3 (16.7)	Imputed from the US, Trinidad, and Chile
			East Asia and Pacifi	С	
Cambodia	2570	3010	13.0 (1.2)	15.1 (0.9)	Multisite Survey
China	433232	412516	20.8 (0.2)	19.2 (0.1)	National Survey
Fiji	220	218	22.5 (17.5)	20.4 (15.2)	Imputed from China, Thailand, and Malaysia
Indonesia	60757	62145	21.3 (1.1)	19.2 (1.0)	Regional Survey
Kiribati	20	21	22.2 (17.8)	20.4 (15.3)	Imputed from China, Thailand, and Malaysia

Korea, North	7140	7883	24.0 (17.7)	24.7 (15.5)	Imputed from China, Thailand, and Malaysia
Laos	1199	1262	21.7 (17.3)	19.8 (14.5)	Imputed from China, Thailand, and Malaysia
Malaysia	6732	6571	32.5 (0.6)	28.6 (0.4)	National Survey
Micronesia	25	26	22.2 (17.5)	19.7 (14.9)	Imputed from China, Thailand, and Malaysia
Mongolia	639	656	15.2 (15.1)	14.9 (13.3)	Imputed from China, India, and Thailand
Myanmar	13577	14586	22.2 (17.3)	20.4 (14.9)	Imputed from China, Thailand, and Malaysia
Papua New Guinea	1331	1308	22.2 (18.3)	19.6 (15.1)	Imputed from China, Indonesia, and Malaysia
Philippines	19617	19908	23.2 (18.2)	20.9 (15.3)	Imputed from China, Indonesia, and Malaysia
Samoa	44	42	22.6 (17.2)	21.2 (14.8)	Imputed from China, Thailand, and Malaysia
Solomon Islands	99	95	22.5 (18.0)	19.5 (15.0)	Imputed from China, Indonesia, and Malaysia
Thailand	20119	21696	17.4 (0.8)	16.2 (0.6)	National Survey
Timor-Leste	172	166	22.6 (17.4)	20.8 (15.4)	Imputed from China, Thailand, and Malaysia
Tonga	24	25	23.4 (16.9)	22.9 (14.7)	Imputed from China, Thailand, and Malaysia
Vanuatu	44	43	22.6 (17.3)	18.5 (14.8)	Imputed from China, Thailand, and Malaysia
Vietnam	22448	24404	22.5 (17.4)	21.9 (14.8)	Imputed from China, Thailand, and Malaysia
		E	urope and Central A	sia	
Albania	977	1004	31.7 (18.6)	39.5 (18.3)	Imputed from Bosnia, Morocco, and Turkey
Armenia	888	1095	33.6 (18.6)	43.6 (18.3)	Imputed from Bosnia, Morocco, and Turkey
Azerbaijan	2259	2534	29.2 (19.3)	37.2 (19.1)	Imputed from Bosnia, Morocco, and Turkey
Belarus	3318	4000	33.8 (18.6)	48.1 (17.7)	Imputed from Bosnia, Morocco, and Turkey
Bosnia and Herzegovina	1314	1457	33.7 (1.3)	44.5 (1.1)	National Survey
Bulgaria	2975	3227	36.9 (18.2)	49.5 (17.6)	Imputed from Bosnia, Morocco, and

					Turkey
Georgia	1526	1805	34.4 (18.3)	46.5 (17.6)	Imputed from Bosnia, Morocco, and Turkey
Hungary	3644	4194	37.4 (0.5)	37.5 (1.3)	Regional Survey
Kazakhstan	4221	4940	30.1 (19.0)	41.2 (18.2)	Imputed from Bosnia, Morocco, and Turkey
Kyrgyz Republic	1297	1401	28.3 (19.2)	37.3 (18.6)	Imputed from Bosnia, Morocco, and Turkey
Macedonia	711	716	33.5 (18.5)	43.9 (18.0)	Imputed from Bosnia, Morocco, and Turkey
Moldova	1282	1485	33.0 (18.7)	45.1 (18.1)	Imputed from Bosnia, Morocco, and Turkey
Montenegro	207	224	34.3 (18.5)	45.7 (17.7)	Imputed from Bosnia, Morocco, and Turkey
Romania	7962	8629	34.7 (18.2)	46.7 (17.6)	Imputed from Bosnia, Morocco, and Turkey
Serbia	3578	3811	35.0 (18.4)	46.4 (17.7)	Imputed from Bosnia, Morocco, and Turkey
Tajikistan	1404	1437	27.2 (19.5)	33.2 (19.3)	Imputed from Bosnia, Morocco, and Turkey
Turkey	17998	19352	28.5 (0.9)	36.9 (0.8)	National Survey
Turkmenistan	1152	1234	27.0 (19.4)	35.2 (19.0)	Imputed from Bosnia, Morocco, and Turkey
Ukraine	16429	20246	34.6 (18.4)	49.1 (17.7)	Imputed from Bosnia, Morocco, and Turkey
Uzbekistan	6293	6591	27.3 (19.5)	34.9 (19.0)	Imputed from Bosnia, Morocco, and Turkey
		Latin	America and the Car	ibbean	
Argentina	11183	12157	39.0 (1.6)	27.5 (1.3)	Regional Survey
Belize	57	58	25.2 (19.2)	20.4 (15.0)	Imputed from Mexico, Columbia, and Venezuela
Bolivia	2065	2175	24.4 (19.0)	20.0 (15.0)	Imputed from Peru, Argentina, and Ecuador
Brazil	50789	53891	36.0 (0.9)	33.8 (0.7)	5 Regional Surveys
Colombia	10973	11820	14.6 (1.2)	14.7 (1.0)	Regional Survey
Costa Rica	1161	1138	26.1 (18.8)	21.9 (15.4)	Imputed from Mexico, Columbia, and Venezuela
Cuba	3975	3998	24.8 (1.6)	26.3 (1.2)	Regional Survey

Dominican Republic	2369	2373	26.4 (18.8)	21.1 (15.2)	Imputed from Mexico, Columbia, and Venezuela
Ecuador	3444	3498	7.6 (0.8)	12.9 (1.0)	Regional Survey
El Salvador	1395	1659	26.9 (18.9)	22.8 (18.9)	Imputed from Mexico, Columbia, and Venezuela
Grenada	26	28	26.8 (18.6)	25.9 (14.9)	Imputed from Mexico, Columbia, and Venezuela
Guatemala	2381	2630	26.3 (19.2)	20.4 (15.0)	Imputed from Mexico, Columbia, and Venezuela
Guyana	207	207	26.6 (19.2)	20.2 (15.4)	Imputed from Venezuela, Columbia, and Peru
Haiti	1978	2139	38.9 (2.7)	25.7 (1.3)	Regional Survey
Honduras	1423	1469	25.3 (19.4)	19.9 (15.0)	Imputed from Mexico, Columbia, and Venezuela
Jamaica	726	762	27.5 (18.4)	23.6 (15.1)	Imputed from Mexico, Columbia, and Venezuela
Mexico	27175	30723	11.9 (1.0)	14.0 (1.0)	Regional Survey
Nicaragua	1173	1236	24.7 (19.6)	19.7 (15.2)	Imputed from Mexico, Columbia, and Venezuela
Panama	893	886	26.3 (18.8)	21.9 (15.2)	Imputed from Mexico, Columbia, and Venezuela
Paraguay	1368	1348	24.7 (18.8)	20.6 (15.1)	Imputed from Argentina, Peru, and Columbia
Peru	7187	7278	14.5 (1.2)	12.8 (1.0)	Regional Survey
Saint Lucia	44	47	27.5 (18.4)	23.8 (14.9)	Imputed from Mexico, Columbia, and Venezuela
Saint Vincent and the Grenadines	31	31	26.5 (18.7)	23.6 (15.0)	Imputed from Mexico, Columbia, and Venezuela
Suriname	139	139	26.8 (19.1)	21.9 (15.2)	Imputed from Venezuela, Columbia, and Peru
Venezuela	6817	6871	47.3 (0.8)	32.8 (0.5)	National Survey
		Mid	dle East and North A	Africa	
Algeria	84794	84395	29.5 (20.6)	34.8 (20.1)	Imputed from Turkey, Morocco, and Tanzania
Djibouti	1739	1744	29.1 (20.5)	34.5 (20.0)	Imputed from Turkey, Morocco, and Tanzania
Egypt	175741	178259	32.1 (19.7)	39.6 (19.0)	Imputed from Turkey, Morocco, and Tanzania

Iran	173212	169386	30.6 (20.2)	35.0 (20.0)	Imputed from Turkey, Morocco, and Tanzania
Iraq	54451	55398	29.1 (20.7)	34.3 (20.1)	Imputed from Turkey, Morocco, and
·			, ,	, ,	Tanzania Imputed from Turkey, Morocco, and
Jordan	12282	11038	28.7 (20.9)	33.4 (20.4)	Tanzania
Lebanon	9678	10280	32.9 (19.3)	39.0 (19.1)	Imputed from Turkey, Morocco, and Tanzania
Libya	14883	13430	30.1 (20.3)	34.2 (20.1)	Imputed from Turkey, Morocco, and Tanzania
Morocco	75808	80437	29.1 (1.7)	36.7 (1.3)	National Survey
Syria	39041	38247	29.0 (20.8)	33.3 (20.5)	Imputed from Turkey, Morocco, and Tanzania
Tunisia	28014	28509	32.3 (19.6)	37.4 (19.4)	Imputed from Turkey, Morocco, and Tanzania
West Bank and Gaza	6746	6675	28.7 (20.9)	33.1 (20.5)	Imputed from Turkey, Morocco, and Tanzania
Yemen	34879	34832	30.6 (20.4)	35.2 (20.0)	Imputed from Turkey, Morocco, and Tanzania
			South Asia		
Afghanistan	4181	4085	18.3 (16.7)	21.2 (15.8)	Imputed from China, India, and Turkey
Bangladesh	35768	32961	16.5 (14.9)	15.5 (13.2)	Imputed from China, India, and Thailand
Bhutan	141	129	16.9 (14.8)	15.5 (13.2)	Imputed from China, India, and Thailand
India	298654	280731	14.4 (0.6)	18.3 (0.9)	5 Regional Surveys
Maldives	64	62	17.3 (14.9)	15.1 (13.3)	Imputed from China, India, and Thailand
Nepal	5560	5817	16.6 (14.9)	16.1 (13.3)	Imputed from China, India, and Thailand
Pakistan	35478	33126	20.9 (16.2)	23.0 (15.7)	Imputed from China, India, and Turkey
Sri Lanka	5870	6048	25.2 (17.3)	24.8 (15.8)	Imputed from India, Indonesia, and Malaysia
			Sub-Saharan Africa	1	
Angola	2831	2992	14.7 (15.6)	13.1 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Benin	1469	1594	14.9 (15.6)	13.9 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Botswana	426	445	19.3 (17.6)	24.1 (17.5)	Imputed from South Africa, Zimbabwe, and Cameroon
Burkina Faso	2286	2595	33.7 (1.4)	36.1 (1.0)	Regional Survey

Burundi	1271	1347	15.3 (15.4)	14.0 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Cameroon	3421	3538	16.4(1.5)	16.6 (1.0)	3 Multisite and Regional Surveys
Cape Verde	95	110	36.3 (22.2)	36.6 (19.7)	Imputed from Seychelles, Burkina Faso, and Tanzania
Central African Republic	822	880	15.8 (15.3)	15.0 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Chad	1652	1712	15.3 (15.5)	13.7 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Comoros	122	124	35.5 (22.3)	34.0 (20.5)	Imputed from Seychelles, Burkina Faso, and Tanzania
Congo, Democratic Republic of the	9897	10399	15.3 (15.6)	13.9 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Congo, Republic of the	731	748	15.5 (15.5)	14.1 (13.0)	Imputed from Eritrea, Cameroon, and Ethiopia
Cote d'Ivoire	4067	3555	15.8 (15.4)	13.1 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Eritrea	773	836	14.3 (1.1)	13.3 (0.9)	National Survey
Ethiopia	13894	14251	14.0 (0.8)	10.5 (0.7)	Regional Survey
Gabon	292	308	22.8 (16.7)	28.9 (16.8)	Imputation from South Africa, Zimbabwe, and Cameroon
Gambia, The	260	269	15.0 (15.4)	12.0 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Ghana	4478	4494	15.3 (15.5)	13.4 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Guinea	1965	2025	15.9 (15.4)	14.5 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Guinea-Bissau	285	295	15.2 (15.6)	13.8 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Kenya	6758	6960	14.6 (15.8)	12.6 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Lesotho	401	472	15.7 (15.5)	15.4 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Liberia	653	673	15.5 (15.5)	13.8 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Madagascar	3477	3554	15.1 (15.5)	13.1 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Malawi	2428	2545	15.4 (15.5)	13.6 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia

Mali	2125	2264	15.4 (15.4)	14.4 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Mauritania	619	639	15.0 (15.6)	13.9 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Mauritius	381	396	28.8 (19.2)	27.3 (16.9)	Imputed from Seychelles, South Africa, and Cameroon
Mozambique	3811	4524	15.4 (15.4)	13.6 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Namibia	447	481	27.1 (20.3)	28.5 (18.6)	Imputed from South Africa, Seychelles, and Zimbabwe
Niger	2298	2364	15.5 (15.5)	13.6 (13.3)	Imputed from Eritrea, Cameroon, and Ethiopia
Nigeria	28100	27918	15.3 (15.5)	13.6 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Rwanda	1657	1801	15.0 (15.7)	12.9 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Sao Tome and Principe	28	31	27.0 (19.3)	24.0 (16.3)	Imputed from Seychelles, South Africa, and Cameroon
Senegal	2046	2247	15.4 (15.5)	13.7 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Seychelles	24	25	41.6 (2.1)	35.8 (1.6)	National Survey
Sierra Leone	929	965	15.1 (15.5)	12.8 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Somalia	1548	1618	15.4 (15.3)	13.8 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
South Africa	12140	13066	23.7 (0.6)	24.7 (0.5)	National Survey
South Sudan	1478	1530	15.5 (15.4)	13.9 (13.2)	Imputed from Eritrea, Cameroon, and Ethiopia
Sudan	6268	6350	15.2 (15.5)	13.4 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Swaziland	211	247	28.4 (19.9)	28.9 (18.6)	Imputed from South Africa, Seychelles, and Zimbabwe
Tanzania	7383	7662	33.4 (1.8)	35.8 (1.5)	Multisite Survey
Togo	1026	1131	15.1 (15.5)	13.5 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Uganda	4794	4900	14.8 (15.6)	13.2 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia
Zambia	2163	2199	14.6 (15.8)	13.0 (13.1)	Imputed from Eritrea, Cameroon, and Ethiopia

Zimbabwe	2764	2868	20.6 (2.3)	32 9 (2 5)	Regional Survey
ZIIIIDabwe	2107	2000	20.0 (2.3)	32.3 (2.3)	rtegioriai ourvey

Supplemental Table 7. Age-specific and age-adjusted prevalence estimates and absolute numbers of men and women with hypertension in 2010 by world region

A	Prevalence	% (95% Cls)	Absolute Numbers in Millions (95% CIs)		
Age, years	Men	Women	Men	Women	
		Global			
20-29	14.5 (11.3, 17.7)	9.4 (6.6, 12.3)	87.1 (67.7, 106.5)	54.4 (37.9, 70.8)	
30-39	21.4 (17.7, 25.1)	15.9 (12.5, 19.3)	107.6 (89.1, 126.1)	77.8 (61.0, 94.6)	
40-49	31.2 (27.3, 35.1)	28.8 (24.9, 32.7)	137.0 (119.9, 154.1)	124.4 (107.4, 141.4)	
50-59	44.4 (40.4, 48.4)	45.6 (41.4, 49.7)	146.5 (133.3, 159.8)	151.6 (137.8, 165.5)	
60-69	57.0 (53.1, 60.8)	61.6 (57.5, 65.7)	112.8 (105.2, 120.4)	131.4 (122.5, 140.2)	
≥70	68.6 (65.1, 72.1)	75.8 (72.5, 79.1)	103.4 (98.2, 108.7)	153.9 (147.2, 160.6)	
Total	31.9 (30.3, 33.5)	30.1 (28.5, 31.6)	694.4 (658.7, 730.1)	693.5 (659.5, 727.5)	
		High-Income Economies	3		
20-29	10.7 (5.9, 15.5)	4.3 (1.9, 6.6)	10.0 (5.5, 14.4)	3.7 (1.7, 5.8)	
30-39	18.5 (14.1, 22.9)	9.1 (6.3, 12.0)	17.4 (13.3, 21.5)	8.2 (5.6, 10.8)	
40-49	31.0 (26.8, 35.3)	22.0 (18.5, 25.5)	29.0 (25.0, 33.0)	20.5 (17.2, 23.8)	
50-59	48.5 (43.6, 53.4)	41.0 (36.3, 45.7)	40.4 (36.3, 44.5)	35.9 (31.8, 40.1)	
60-69	60.8 (56.8, 64.8)	60.9 (56.7, 65.0)	36.4 (34.0, 38.8)	40.8 (38.0, 43.5)	
≥70	73.6 (70.0, 77.3)	77.5 (73.9, 81.0)	41.1 (39.0, 43.1)	65.5 (62.5, 68.4)	
Total	31.6 (29.6, 33.6)	25.3 (23.9, 26.7)	174.2 (165.3, 183.2)	174.7 (167.2, 182.1).	
	L	ow- and Middle-income Ecor	nomies		
20-29	15.2 (11.5, 18.9)	10.4 (7.0, 13.7)	77.1 (58.3, 96.0)	50.6 (34.3, 66.9)	
30-39	22.1 (17.7, 26.5)	17.4 (13.3, 21.6)	90.2 (72.2, 108.3)	69.6 (53.0, 86.2)	
40-49	31.2 (26.4, 36.0)	30.6 (25.7, 35.6)	108.0 (91.4, 124.6)	103.9 (87.3, 120.6)	
50-59	43.0 (37.9, 48.1)	47.2 (41.8, 52.6)	106.1 (93.5, 118.7)	115.7 (102.5, 128.9)	
60-69	55.3 (50.1, 60.6)	61.9 (56.2, 67.7)	76.4 (69.1, 83.6)	90.6 (82.2, 99.0)	

≥70	65.6 (60.6, 70.7)	74.7 (69.6, 79.7)	62.4 (57.5, 67.2)	88.5 (82.5, 94.5)
Total	31.7 (29.7, 33.6)	31.2 (29.3, 33.1)	520.1 (485.6, 554.7)	518.8 (485.7, 552.0)
		East Asia and Pacific		
20-29	13.9 (6.5, 21.4)	7.6 (0.6, 14.5)	24.9 (11.6, 38.3)	12.9 (1.1, 24.6)
30-39	23.5 (14.1, 32.9)	14.7 (6.0, 23.5)	36.8 (22.1, 51.5)	22.4 (9.2, 35.7)
40-49	34.0 (25.1, 43.0)	29.7 (20.5, 38.8)	52.6 (38.7, 66.5)	44.1 (30.6, 57.7)
50-59	46.6 (37.4, 55.8)	47.8 (38.3, 57.2)	51.6 (41.5, 61.8)	50.6 (40.6, 60.6)
60-69	59.1 (50.5, 67.6)	62.5 (53.1, 71.9)	36.5 (31.3, 41.8)	38.9 (33.1, 44.8)
≥70	68.4 (61.2, 75.7)	72.4 (64.8, 80.1)	29.9 (26.8, 33.1)	38.1 (34.1, 42.2)
Total	33.3 (29.5, 37.0)	29.6 (26.0, 33.3)	232.4 (205.4, 259.4)	207.1 (181.6, 232.5)
		Europe and Central Asia	1	
20-29	17.2 (6.6, 25.6)	9.2 (0.7, 17.8)	4.0 (1.5, 5.9)	2.1 (0.2, 4.1)
30-39	27.9 (16.6, 38.1)	19.0 (9.0, 29.0)	5.5 (3.3, 7.5)	3.8 (1.8, 5.8)
10-49	41.0 (28.7, 53.9)	37.0 (24.9, 49.2)	6.9 (4.8, 9.1)	6.6 (4.4, 8.8)
50-59	54.0 (41.9, 67.5)	56.9 (45.2, 68.7)	7.6 (5.9, 9.5)	9.3 (7.4, 11.2)
60-69	66.9 (55.7, 80.7)	73.8 (63.1, 84.6)	5.2 (4.4, 6.3)	7.4 (6.3, 8.5)
≥70	77.4 (67.8, 92.3)	86.7 (78.0, 95.5)	5.5 (4.9, 6.6)	10.6 (9.5, 11.7)
Total	39.0 (34.0, 44.0)	36.0 (31.5, 40.5)	34.8 (30.4, 39.2)	39.8 (35.5, 44.1)
		Latin America and the Carib	bean	
20-29	16.1 (7.2, 25.1)	12.8 (5.6, 20.0)	7.9 (3.5, 12.3)	6.3 (2.8, 9.9)
30-39	21.4 (12.4, 30.4)	19.5 (11.4, 27.6)	8.8 (5.1, 12.5)	8.4 (4.9, 11.8)
40-49	28.3 (17.8, 38.8)	33.6 (23.4, 43.7)	9.2 (5.8, 12.7)	11.9 (8.3, 15.5)
50-59	41.8 (30.1, 53.4)	46.9 (34.9, 58.8)	9.8 (7.0, 12.5)	12.1 (9.0, 15.2)
60-69	53.0 (41.4, 64.6)	61.0 (49.3, 72.6)	7.4 (5.8, 9.0)	9.7 (7.8, 11.6)
≥70	60.2 (48.3, 72.1)	73.9 (63.1, 84.8)	6.3 (5.1, 7.6)	10.4 (8.9, 12.0)
Total	30.4 (26.0, 34.7)	32.7 (28.7, 36.6)	49.4 (41.9, 57.0)	58.8 (51.6, 66.1)

		Middle East and North Afri	ica	
20-29	10.8 (0.9, 20.8)	8.0 (-0.8, 16.7)	3.6 (0.3, 7.0)	2.6 (-0.3, 5.5)
30-39	15.4 (3.6, 27.3)	13.7 (2.4, 24.9)	3.6 (0.8, 6.3)	3.1 (0.6, 5.7)
40-49	24.2 (11.0, 37.4)	25.7 (12.1, 39.3)	4.3 (1.9, 6.6)	4.5 (2.1, 6.8)
50-59	37.9 (23.8, 51.9)	45.9 (31.5, 60.3)	4.5 (2.9, 6.2)	5.5 (3.8, 7.3)
60-69	52.6 (39.5, 65.6)	61.3 (48.6, 74.0)	3.3 (2.5, 4.2)	4.2 (3.3, 5.1)
≥70	70.1 (57.7, 82.4)	78.3 (65.7, 90.8)	3.2 (2.6, 3.8)	4.2 (3.6, 4.9)
Total	27.0 (21.8, 32.2)	28.8 (23.7, 33.8)	22.5 (17.2, 27.8)	24.2 (19.2, 29.2)
		South Asia		
20-29	12.4 (5.5, 19.4)	10.1 (3.7, 16.4)	18.5 (8.2, 28.8)	14.1 (5.2, 23.0)
30-39	18.1 (11.2, 25.0)	17.4 (10.4, 24.4)	21.3 (13.1, 29.4)	19.4 (11.6, 27.2)
40-49	25.9 (17.8, 33.9)	28.7 (19.6, 37.9)	23.9 (16.4, 31.3)	24.9 (17.0, 32.9)
50-59	35.4 (26.0, 44.9)	42.9 (31.0, 54.8)	23.3 (17.0, 29.5)	26.7 (19.3, 34.0)
60-69	45.7 (33.5, 57.9)	57.6 (43.0, 72.2)	16.3 (11.9, 20.6)	21.3 (15.9, 26.7)
≥70	58.6 (44.1, 73.1)	73.7 (58.3, 89.1)	13.0 (9.8, 16.3)	18.7 (14.8, 22.6)
Гotal	26.4 (22.9, 30.0)	29.6 (25.8, 33.5)	116.2 (99.0, 133.4)	125.1 (107.8, 142.5)
		Sub-Saharan Africa		
20-29	24.6 (16.7, 32.5)	17.1 (10.3, 23.8)	18.2 (12.3, 24.)	12.6 (7.6, 17.5)
30-39	28.3 (20.2, 36.5)	25 (17.3, 32.8)	14.3 (10.2, 18.3)	12.5 (8.6, 16.4)
40-49	34.9 (26.5, 43.3)	36.2 (27.9, 44.6)	11.2 (8.5, 13.9)	11.9 (9.2, 14.7)
50-59	44.6 (35.9, 53.3)	50.6 (42.2, 59.1)	9.3 (7.5, 11.1)	11.5 (9.6, 13.4)
60-69	61.2 (52.1, 70.4)	63.7 (55.3, 72.1)	7.6 (6.5, 8.8)	9.0 (7.8, 10.2)
≥70	63.6 (53.8, 73.5)	73.2 (65.5, 80.8)	4.3 (3.6, 5.0)	6.3 (5.7, 7.0)
Total	36.9 (33.2, 40.5)	36.3 (32.9, 39.6)	64.8 (56.8, 72.8)	63.8 (56.6, 71.1)

Supplemental Table 8. Age-specific and age-adjusted prevalence estimates and absolute numbers of men and women with hypertension in 2000 by world region

A	Prevalence	% (95% CIs)	Absolute Numbers in Millions (95% CIs)		
Age, years —	Men	Women	Men	Women	
		Global			
20-29	9.9 (6.4, 13.4)	5.4 (2.7, 8.1)	51.3 (33.3, 69.4)	27.0 (13.7, 40.4)	
30-39	15.4 (11.6, 19.2)	10.2 (7.1, 13.4)	70.7 (53.3, 88.1)	45.5 (31.4, 59.6)	
40-49	25.6 (20.8, 30.3)	23.1 (18.4, 27.9)	91.4 (74.3, 108.5)	80.7 (64.2, 97.2)	
50-59	38.0 (33.1, 42.9)	40.3 (35.0, 45.6)	89.0 (77.5, 100.5)	95.8 (83.2, 108.3)	
60-69	51.6 (46.1, 57.1)	56.5 (50.0, 62.9)	84.0 (75.1, 93.0)	99.9 (88.5, 111.3)	
≥70	63.1 (57.9, 68.2)	72.8 (66.8, 78.9)	70.6 (64.8, 76.3)	115.2 (105.6, 124.8)	
Total	26.4 (24.6, 28.2)	25.1 (23.4, 26.9)	457.0 (422.9, 491.2)	464.1 (432.0, 496.2)	
		High-Income Eco	nomies		
20-29	16.3 (5.1, 27.6)	5.5 (-1.1, 12.1)	14.4 (4.5, 24.3)	4.7 (-0.9, 10.2)	
30-39	22.5 (11.1, 33.9)	9.8 (2.2, 17.4)	21.1 (10.4, 31.8)	9.0 (2.1, 15.9)	
40-49	35.1 (20.9, 49.2)	23.7 (10.6, 36.8)	30.8 (18.4, 43.3)	21.0 (9.4, 32.6)	
50-59	49.3 (37.6, 60.9)	44.2 (31.4, 57.1)	33.1 (25.3, 41.0)	31.1 (22.1, 40.1)	
60-69	63.7 (50.9, 76.4)	62.8 (47.1, 78.5)	32.1 (25.7, 38.6)	36.6 (27.5, 45.8)	
≥70	72.7 (63.1, 82.4)	80.1 (68.8, 91.4)	31.2 (27.1, 35.4)	57.1 (49.0, 65.2)	
Total	35.1 (29.8, 40.3)	26.9 (22.6, 31.3)	162.8 (140.7, 184.9)	159.5 (138.4, 180.6)	
		Low- and Middle-Incom	e Economies		
20-29	8.6 (5.1, 12.1)	5.4 (2.5, 8.3)	36.9 (21.8, 52.0)	22.4 (10.2, 34.5)	
30-39	13.6 (9.8, 17.4)	10.4 (6.9, 13.8)	49.6 (35.9, 63.4)	36.5 (24.3, 48.8)	
40-49	22.5 (18.1, 26.8)	22.9 (18.4, 27.4)	60.6 (48.9, 72.3)	59.7 (48.0, 71.4)	
50-59	33.5 (28.4, 38.5)	38.6 (33.4, 43.9)	55.9 (47.5, 64.2)	64.7 (55.9, 73.4)	
60-69	46.2 (40.6, 51.7)	53.3 (47.6, 59.1)	51.9 (45.7, 58.1)	63.2 (56.5, 70.0)	

≥70	57.0 (51.2, 62.8)	66.9 (60.9, 72.8)	39.4 (35.4, 43.4)	58.1 (53.0, 63.2)
Total	23.4 (21.6, 25.2)	24.1 (22.4, 25.9)	294.3 (268.2, 320.3)	304.6 (280.5, 328.8)
		East Asia and Pa	acific	
20-29	7.8 (3.7, 11.8)	3.3 (0.3, 6.2)	12.5 (5.9, 19.1)	5.1 (0.5, 9.6)
30-39	13.5 (9.3, 17.7)	7.7 (4.0, 11.4)	21.5 (14.8, 28.2)	11.8 (6.1, 17.4)
40-49	22.7 (17.9, 27.5)	20.4 (15.3, 25.6)	26.6 (21.0, 32.3)	22.6 (16.9, 28.3)
50-59	33.5 (28.9, 38.1)	36.1 (30.9, 41.4)	24.0 (20.7, 27.3)	25.1 (21.4, 28.7)
60-69	46.5 (42.0, 51.1)	49.2 (43.6, 54.8)	23.1 (20.8, 25.3)	24.5 (21.7, 27.3)
≥70	53.9 (49.0, 58.8)	59.0 (52.6, 65.4)	16.6 (15.1, 18.1)	23.0 (20.5, 25.5)
Total	23.0 (21.1, 24.9)	21.1 (19.3, 23.0)	124.4 (112.6, 136.1)	112.0 (101.4, 122.6)
		Europe and Centra	al Asia	
20-29	13.7 (-2.7, 30.1)	12.1 (-3.6, 27.7)	2.9 (-0.6, 6.3)	2.5 (-0.7, 5.8)
30-39	20.0 (0.2, 39.7)	22.1 (1.7, 42.4)	3.6 (0.0, 7.1)	4.1 (0.3, 7.8)
40-49	33.0 (7.4, 58.7)	43.6 (16.5, 70.8)	5.3 (1.2, 9.4)	7.6 (2.9, 12.3)
50-59	45.3 (17.7, 72.9)	64.8 (37.2, 92.3)	4.5 (1.8, 7.3)	7.4 (4.2, 10.5)
60-69	58.6 (29.5, 87.8)	76.1 (48.5, 103.7)	5.3 (2.6, 7.9)	8.5 (5.4, 11.6)
≥70	69.5 (41.3, 97.7)	79.7 (51.0, 108.5)	3.9 (2.3, 5.4)	8.1 (5.2, 11.0)
Total	32.1 (22.5, 41.7)	39.5 (29.8, 49.2)	25.4 (17.8, 33.1)	38.1 (29.5, 46.8)
		Latin America and the	Caribbean	
20-29	12.4 (9.1, 15.8)	5.9 (3.8, 8.0)	5.5 (4.0, 6.9)	2.6 (1.7, 3.6)
30-39	18.2 (15.4, 21.0)	11.8 (9.6, 14.0)	6.3 (5.4, 7.3)	4.4 (3.5, 5.2)
40-49	29.5 (26.0, 33.0)	25.6 (22.2, 29.0)	7.6 (6.7, 8.5)	7.0 (6.1, 7.9)
50-59	46.2 (41.7, 50.7)	43.0 (38.7, 47.3)	7.6 (6.9, 8.3)	7.6 (6.9, 8.4)
60-69	55.3 (49.9, 60.7)	56.6 (51.5, 61.7)	5.7 (5.2, 6.3)	6.7 (6.1, 7.3)
≥70	65.2 (60.1, 70.2)	78.8 (74.5, 83.2)	5.0 (4.6, 5.4)	8.0 (7.5, 8.4)
Total	30.2 (28.6. 31.7)	27.0 (25.7. 28.3)	37.7 (35.5. 39.9)	36.3 (34.4. 38.2)

		Middle East and Nort	h Africa	
20-29	17.2 (-10.7, 45.1)	15.9 (-10.9, 42.7)	4.3 (-2.7, 11.2)	3.8 (-2.6, 10.3)
30-39	23.1 (-8.5, 54.7)	24.7 (-7.1, 56.6)	4.1 (-1.5, 9.6)	4.3 (-1.2, 9.9)
40-49	36.1 (-1.0, 73.2)	44.4 (6.4, 82.3)	4.6 (-0.1, 9.4)	5.6 (0.8, 10.4)
50-59	45.2 (5.0, 85.4)	63.8 (24.7, 102.9)	3.4 (0.4, 6.4)	4.9 (1.9, 7.9)
60-69	59.9 (21.1, 98.7)	74.7 (40.3, 109.2)	3.1 (1.1, 5.1)	4.1 (2.2, 6.0)
≥70	69.9 (33.8, 106.0)	78.7 (45.8, 111.7)	2.3 (1.1, 3.5)	3.1 (1.8, 4.4)
Total	34.5 (19.9, 49.0)	40.9 (26.6, 55.2)	21.7 (10.9, 32.5)	25.9 (15.4, 36.3)
		South Asia		
20-29	5.3 (-1.8, 12.5)	4.3 (-1.7, 10.3)	6.6 (-2.2, 15.4)	4.9 (-2.0, 11.8)
30-39	9.6 (0.8, 18.3)	9.2 (1.0, 17.4)	9.4 (0.8, 18.0)	8.3 (0.9, 15.7)
40-49	16.0 (6.5, 25.5)	18.7 (8.7, 28.6)	11.7 (4.8, 18.7)	12.4 (5.8, 19.1)
50-59	26.0 (13.6, 38.4)	33.4 (20.3, 46.4)	11.7 (6.1, 17.3)	14.6 (8.9, 20.3)
60-69	38.8 (24.1, 53.6)	51.2 (36.3, 66.2)	11.2 (6.9, 15.4)	15.1 (10.7, 19.5)
≥70	53.4 (35.9, 71.0)	69.0 (52.5, 85.4)	8.9 (6.0, 11.9)	12.1 (9.2, 14.9)
Total	18.3 (14.1, 22.5)	21.9 (17.8, 26.0)	59.5 (43.5, 75.6)	67.4 (53.0, 81.8)
		Sub-Saharan Af	rica	
20-29	9.4 (-2.7, 21.5)	6.2 (-3.0, 15.4)	5.2 (-1.5, 11.9)	3.4 (-1.7, 8.5)
30-39	13.0 (-0.9, 26.8)	9.9 (-1.4, 21.2)	4.7 (-0.3, 9.8)	3.7 (-0.5, 7.8)
40-49	19.2 (2.6, 35.8)	17.5 (2.9, 32.2)	4.7 (0.7, 8.8)	4.5 (0.7, 8.3)
50-59	28.3 (8.3, 48.3)	29.4 (10.2, 48.5)	4.6 (1.4, 7.9)	5.1 (1.8, 8.5)
60-69	37.2 (15.7, 58.7)	40.5 (19.3, 61.7)	3.6 (1.5, 5.6)	4.4 (2.1, 6.7)
≥70	53.4 (32.5, 74.2)	62.4 (42.7, 82.1)	2.7 (1.6, 3.7)	3.8 (2.6, 5.1)
Total	20.9 (14.2, 27.7)	20.3 (14.4, 26.2)	25.5 (15.3, 35.7)	24.9 (16.3, 33.6)

Supplemental Table 9. Sensitivity analysis of age-standardized prevalence estimates and absolute numbers of men and women with hypertension worldwide and in high-income and low-and middle-income countries in 2000 and 2010 using only countries with data for both 2000 and 2010

Age, years	Prevalence % (95% Cls)		Absolute Numbers in Millions (95% Cls)	
	2000	2010	2000	2010
		World	wide	
Overall	25.9 (24.4, 27.5)	30.8 (29.2, 32.5)	924.2 (868.0, 980.5)	1,377.9 (1,305.6, 1,450.2)
Men	26.6 (24.4, 28.8)	32.1 (29.7, 34.4)	461.2 (420.2, 502.2)	697.5 (645.0, 750.1)
Women	25.1 (23.0, 27.2)	29.5 (27.3, 31.7)	463.0 (424.6, 501.5)	680.3 (630.7, 729.9)
High-Income Countries				
Overall	33.4 (29.6, 37.3)	28.1 (24.7, 31.6)	343.1 (309.6, 376.5)	345.6 (312.0, 379.3)
Men	37.6 (31.8, 43.3)	31.7 (26.5, 36.9)	173.6 (149.9, 197.4)	174.9 (151.1, 198.7)
Women	29.1 (23.9, 34.2)	24.5 (20.0, 28.9)	169.4 (145.9, 193.0)	170.7 (146.9, 194.6)
Low- and Middle-Income Countries				
Overall	23.2 (21.6, 24.8)	31.3 (29.5, 33.1)	581.1 (535.9, 626.3)	1,032.3 (968.3, 1,096.2)
Men	22.9 (20.6, 25.2)	31.8 (29.2, 34.4)	287.5 (254.1, 321.0)	522.6 (475.8, 569.5)
Women	23.3 (21.1, 25.5)	30.6 (28.1, 33.1)	293.6 (263.2, 324.0)	509.6 (466.1, 553.1)

Supplemental References

- 1 Kearney PM, Whelton M, Reynolds K, Muntner P, Whelton PK, He J. Global burden of hypertension: analysis of worldwide data. Lancet. 2005;**365**:217–223.
- World Health Organization Chronic Disease and Health Promotion. WHO Global Infobase, https://apps.who.int/infobase/Index.aspx (last accessed September 2014).
- O'Brien E, Pickering T, Asmar R, Myers M, Parati G, Staessen J, Mengden T, Imai Y, Waeber B, Palatini P, Gerin W; Working Group on Blood Pressure Monitoring of the European Society of Hypertension. Working Group on Blood Pressure Monitoring of the European Society of Hypertension International Protocol for validation of blood pressure measuring devices in adults. Blood Press Monit. 2002;7:3–17.
- O'Brien E, Petrie J, Littler W, de Swiet M, Padfield PL, Altman DG, Bland M, Coats A, Atkins N. The British Hypertension Society protocol for the evaluation of blood pressure measuring devices. J Hypertension. 1993;11 (Suppl 2):S43–S62.
- Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). National Health and Nutrition Survey Data. Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2007-2012, http://www.cdc.gov/nchs/nhanes.htm (last accessed August 2014).
- Kowal P, Chatterji S, Naidoo N, Biritwum R, Fan W, Lopez Ridaura R, Maximova T, Arokiasamy P, Phaswana-Mafuya N, Williams S, Snodgrass JJ, Minicuci N, D'Este C, Peltzer K, Boerma JT; SAGE Collaborators. Data resource profile: the World Health Organization Study on global AGEing and adult health (SAGE). Int J Epidemiol. 2012;41:1639–49.
- Rubinstein AL, Irazola VE, Poggio R, Bazzano L, Calandrelli M, Lanas Zanetti FT, Manfredi JA, Olivera H, Seron P, Ponzo J, He J. Detection and follow-up of cardiovascular disease and risk factors in the Southern Cone of South America: the CESCAS I study. BMJ Open 2011;1:e000126.
- 8 The World Bank. Country and Lending Groups. http://data.worldbank.org/about/country-and-lending-groups (last accessed August 2014).
- 9 Rubin DR. (1987). Multiple Imputation for Nonresponse in Surveys. New York: John Wiley & Sons.
- Saeed AA, Al-Hamdan NA, Bahnassy AA, Abdalla AM, Abbas MA, Abuzaid LZ. Prevalence, awareness, treatment, and control of hypertension among Saudi adult population: a national survey. Int J Hypertens. 2011;2011:174135.
- Sy RG, Morales DD, Dans AL, Paz-Pacheco E, Punzalan FE, Abelardo NS, Duante CA. Prevalence of atherosclerosis-related risk factors and diseases in the Philippines. J Epidemiol. 2012;22:440–447.
- Son PT, Quang NN, Viet NL, Khai PG, Wall S, Weinehall L, Bonita R, Byass P. Prevalence, awareness, treatment and control of hypertension in Vietnam results for a national survey. J Hum Hypertens. 2012;26:268–80.

- Disease Control Division (NCD). Malaysia NCD Surveillance 2006: NCD Risk Factors in Malaysia. Ministry of Health, Malaysia.
- Li YC, Wang LM, Jiang Y, Li XY, Zhang M, Hu N. Prevalence of hypertension among Chinese adults in 2010. Zhonghua Yu Fang Yi Xue Za Zhi. 2012;46:409–13 (in Chinese).
- Inskip H, Beral V, Fraser P, Haskey J. Methods for age-adjustment of rates. Stat Med. 1983;2:455-66.
- United Nations, Department of Economic and Social Affairs. World population prospects: the 2012 revision. http://esa.un.org/wpp/ (last accessed August 2014).
- Burt VL, Cohen SB. A comparison of methods to approximate standard errors for complex survey data. Rev Public Data Use. 1984;12:159-63.
- Australian Bureau of Statistics. Australian Health Survey 2011-2013 (AHS), http://www.abs.gov.au/australianhealthsurvey (last accessed August 2014)
- Wilkins K, Campbell NR, Joffres MR, McAlister FA, Nichol M, Quach S, Johansen HL, Tremblay MS. Blood pressure in Canadian adults. Statistics Canada, Catalogue no. 82-003-XPE. Health Reports. 2010;21:37–46.
- Statistics Canada. Blood pressure of Canadian adults, 2009 to 2011. Ministry of Industry 2012. Report No:82-635-x.
- Ministry of Health, Santiago, Chile. National Health Survey Chile 2009-2010. (Last accessed August 2014 at http://epi.minsal.cl/estudios-y-encuestas-poblacionales/encuestas-p
- Cífková R, <u>Š</u>kodová Z, Bruthans J, Holub J, Adámková V, Jozífová N, Galovcová M, Wohlfahrt P, Krajčoviechová A, Petržílková Z, Lánská V. Longitudinal trends in cardiovascular mortality and blood pressure levels, prevalence, awareness, treatment, and control of hypertension in the Czech population from 1985 to 2007/2008. J Hypertens. 2010;28:2196–2203.
- 23 Kastarinen M, Antikainen R, Peltonen M, Laatikainen T, Barengo NC, Jula A, Salomaa V, Jousilahti P, Nissinen A, Vartiainen E, Tuomilehto J. Prevalence, awareness and treatment of hypertension in Finland during 1982-2007. J Hypertens. 2009;27:1552–59.
- Godet-Mardirossian H, Girerd X, Vernay M, Chamontin B, Castetbon, de Peretti C. Patterns of hypertension management in France (ENNS 2006-2007). Eur J Prev Cardiol. 2012;19:213–220.
- Neuhauser H, Thamm M, Ellert U. Blood pressure in Germany 2008-2011: results of the German Health Interview and Examination Survey for Adults (DEGS1). Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz. 2013;56:795–801.
- Barron S, Balanda K, Hughes J, Fahy L. National and subnational hypertension prevalence estimates for the Republic of Ireland: better outcome and risk factor data are needed to produce better prevalence estimates. BMC Public Health. 2014;14:24.

- Morgan K, McGee H, Watson D, Perry I, Barry M. SLAN 2007: Survey of Lifestyle, Attitude and Nutrition in Ireland: Main Report. Dublin: Department of Health and Children; 2008.
- Biino G, Parati G, Pina Concas M, Adamo M Angius A, Vaccargiu S, Pirastu M. Environmental and genetic contribution to hypertension prevalence: data from an epidemiological survey on Sardinian genetic isolates. PLoS ONE. 2013;8:e59612.
- 29 Miura K, Nagai M, Ohkubo T. Epidemiology of hypertension in Japan. Circ J. 2013;77:2226–31.
- 30 Korea Centers for Disease Control and Prevention. National Health Statistics 2011, National Health and Nutrition Survey. Chungcheongbuk-do, Korea: Department of Health and Human Services and Health Policy (in Korean).
- Erglis A, Dzērve V, Pahomova-Strautina J, Narbute I, Jēgere S, Mintāle I, Ligere R, Apinis P, Lejnieks A, Misiņa D,Rozenbergs A. A population-based cross-sectional study of cardiovascular risk factor in Latvia. Medicina (Kaunas). 2012;48:310–16.
- Alkerwi A, Sauvageot N, Donneau AF, Lair ML, Couffignal S, Beissel J, Delagardelle C, Wagener Y, Albert A, Guillaume M. First nationwide survey on cardiovascular risk factors in Grand-Duchy of Luxembourg (ORISCAV-LUX). BMC Public Health. 2010;10:468.
- Alkerwi A, Pagny S, Lair ML, Delagardelle C, Beissel J. Level of unawareness and management of diabetes, hypertension, and dyslipidemia among adults in Luxembourg: findings from ORISCAV-LUX study. PLoS One. 2013;8:e57920.
- McLean RM, Williams S, Mann JI, Miller JC, Parnell WR. Blood pressure and hypertension in New Zealand: results from the 2008/09 Adult Nutrition Survey. N Z Med J. 2013;126:66–79.
- Allende-Vigo MZ, Perez CM, Hernandez JJ, Torres CR, Valle Y, Rosario R, Suarez E. Unequal burden of diabetes and hypertension in the adult population of the San Juan metropolitan area of Puerto Rico. J Diabetes Metab. 2013;4:261.
- Haj Bakri A, Al-Thani A. Qatar STEPS report 2012: chronic disease risk factor surveillance. Qatar: The Supreme Council of Health; 2013.
- Epidemiology and Disease Control Division, Ministry of Health, Singapore. National health survey 2010 Singapore. Singapore, Republic of Singapore: Ministry of Health; 2010.
- Banegas JR, Graciani A, de la Cruz-Troca JJ, León-Muñoz LM, Guallar-Castillón P, Coca A, Ruilope LM, Rodríguez-Artalejo F. Achievement of cardiometabolic goals in aware hypertensive patients in Spain: a nationwide population-based study. Hypertension. 2012;60:898–905.
- Eriksson M, Holmgren L, Janlert U, Jansson JH, Lundblad D, Stegmayr B, Söderberg S, Eliasson M. Large improvements in major cardiovascular risk factors in the population of northern Sweden: the MONICA study 1986-2009. J Intern Med. 2010;269:219–231.

- Danon-Hersch N, Marques-Vidal P, Bovet P, Chiolero A, Paccaud F, Pécoud A, Hayoz D, Mooser V, Waeber G, Vollenweider P. Prevalence, awareness, treatment and control of high blood pressure in a Swiss city general population: the CoLaus study. Eur J Cardiovasc Prev Rehabil. 2009;16:66–72.
- Knott C, Mindell J. Health Survey for England 2011: Chapter 3, Hypertension. Leeds, UK: Health and Social Care Information Centre, 2012.
- Rutherford L, Sharp C, Bromley, C. for the Scottish Health Survey Team. The Scottish Health Survey 2011, Volume 1: Adults. Edinburgh: The Scottish Government; 2012.
- National Public Health Institute, Ministry of Health. Mongolian STEPS survey on the prevalence of noncommunicable disease and injury risk factors 2009. Manila, Philippines: World Health Organization, 2010.
- Aekplakorn W, Sangthong R, Kessomboon P, Putwatana P, Inthawong R, Taneepanichskul S, Sritara P, Sangwatanaroj S, Chariyalertsak S; National Health Examination Survey IV study group. Changes in prevalence, awareness, treatment and control of hypertension in Thai population, 2004-2009: Thai National Health Examination Survey III-IV. J Hypertens. 2012;30:1734–42.
- Harhay MO, Harhay JS, Nair MM. Education, household wealth and blood pressure in Albania, Armenia, Azerbaijan and Ukraine: findings from the demographic health surveys, 2005-2009. Eur J Intern Med. 2013;24:117–126.
- Institute of Statistics, Institute of Public Health [Albania] and ICF Macro. 2010. Albania demographic and health survey 2008-09. Tirana, Albania: Institute of Statistics, Institute of Public Health and ICF Macro.
- National Statistical Service [Armenia], Ministry of Health [Armenia], and ORC Macro. 2006. Armenia demographic and health survey 2005. Calverton, Maryland: National Statistical Service, Ministry of Health, and ORC Macro.
- 48 State Statistical Committee (SSC) [Azerbaijan] and Macro International Inc. 2008. Azerbaijan demographic and health survey 2006. Calverton, Maryland, USA: State Statistical Committee and Marco International Inc.
- 49 Pilav A, Doder V, Branković S. Awareness, treatment, and control of hypertension among adult population in the Federation of Bosnia and Herzegovina over the past decade. J Public Health Res. 2014;3:323.
- Dorobanţu M, Bartoş D, Apetrei E, Arsenescu-Georgescu C, Pop D, Ghiorghe S, Tanasescu R, Craiu E, Manitiu I, Tautu O. Hypertension in Romania: where are we and what can we do? results from SEPHAR II study. Romanian Journal of Cardiology. 2012;22:285–92.
- Vera G, Natasa D, Svetlana K, Sonja S, Jasmina G, Sonja T. Epidemiology of hypertension in Serbia: results of a national survey. J Epidemiol. 2012;22:261–266.
- Altun B, Süleymanlar G, Utaş C, Arinsoy T, Ateş K, Ecder T, Camsarı T, Serdengeçti K. Prevalence, awareness, treatment and control of hypertension in adults with chronic

- kidney disease in Turkey: results from the CREDIT study. Kidney Blood Press Res. 2012;36:36–46.
- Ukrainian Center for Social Reforms (UCSR), State Statistical Committee (SSC) [Ukraine], Ministry of Health (MOH) [Ukraine], and Macro International Inc. Ukraine demographic and health survey 2007. Calverton, Maryland, USA: UCSR and Macro International.
- Longo GZ, Neves Jd, Luciano VM, Peres MA. Prevalence of high blood pressure levels and associated factors among adults in Southern Brazil. Arq Bras Cardiol.2009;93:360–366.
- Rosário TM, Scala LC, França GV, Pereira MR, Jardim PC. Prevalence, control and treatment of arterial hypertension in Nobres MT. Arq Bras Cardiol. 2009;93:622–628.
- Cipullo JP, Martin JF, Ciorlia LA, Godoy MR, Cação JC, Loureiro AA, Cesarino CB, Carvalho AC, Cordeiro JA, Burdmann Ede A. Hypertension prevalence and risk factors in a Brazilian urban population. Arq Bras Cardiol. 2010;94:488–494.
- Lyra R, Silva RS, Montenegro RM Jr, Matos MV, Cézar NJ, Fernandes VO, Maurício-da-Silva L. High prevalence of arterial hypertension in a Brazilian northeast population of low education and income level, and its association with obesity and metabolic syndrome. Rev Assoc Med Bras. 2012;58:209–214.
- Ordúñez P, Kaufman JS, Benet M, Morejon A, Silva LC, Shoham DA, Cooper RS. Blacks and whites in Cuba have equal prevalence of hypertension: confirmation from a new population survey. BMC Public Health. 2013;13:169.
- Bansilal S, Vedanthan R, Woodward M, Iyengar R, Hunn M, Lewis M, Francis L, Charney A, Graves C, Farkouh ME, Fuster V. Cardiovascular risk surveillance to develop a nationwide health promotion strategy: the Grenada Heart Project. Global Heart. 2012;7:87–94.
- Wilks R, Younger N, Tulloch-Reid M, McFarlane S, Francis D, for the Jamaica Health and Lifestyle Survey Research Group. Jamaica health and lifestyle survey 2007-8: technical report. Kingston, Jamaica: Tropical Medicine Research Institute, University of the West Indies; 2008.
- Tulloch-Reid MK, Younger NO, Ferguson TS, Francis DK, Abdulkadri AO, Gordon-Strachan GM, McFarlane SR, Cunningham-Myrie CA, Wilks RJ, Anderson SG. Excess cardiovascular risk burden in Jamaican women does not influence predicted 10-year CVD risk profiles of Jamaica adults: an analysis of the 2007/08 Jamaica Health and Lifestyle Survey. PLoS One. 2013 Jun 21;8:e66625.
- Mc Donald Posso AJ, Motta Borrel JA, Fontes F, Cruz Gonzalez CE, Pachón Burgos AA, Cumbrera Ortega A. High blood pressure in Panama: prevalence, sociodemographic and biologic profile, treatment, and control (STROBE). Medicine. 2014;93:e101.
- Medina-Lezama J, Zea-Diaz H, Morey-Vargas OL, Bolaños-Salazar JF, Postigo-Macdowall M, Paredes-Díaz S, Corrales-Medina F, Valdivia-Ascuña Z, Cuba-Bustinza C, Villalobos-Tapia P, Muñoz-Atahualpa E, Chirinos-Pacheco J, Raij L, Chirinos JA.

- Prevalence and patterns of hypertension in Peruvian Andean Hispanics: the PREVENCION study. J Am Soc Hypertens. 2007;1:216–225.
- Hamida F, Atif ML, Temmar M, Chibane A, Bezzaoucha A, Bouafia MT. Prevalence of hypertension in El-Menia oasis, Algeria, and metabolic characteristics in population. Ann Cardiol Angeiol (Paris). 2013;62:172–178 (in French).
- 65 El-Zanaty F, Way A. Egypt demographic and health survey 2008. Cairo, Egypt: Ministry of Health, El-Zanaty and Associates, and Macro International.
- Esteghamati A, Abbasi M, Alikhani S, Gouya MM, Delavari A, Shishehbor MH, Forouzanfar M, Hodjatzadeh A, Ramezani RD. Prevalence, awareness, treatment, and risk factors associated with hypertension in the Iranian population: the National Survey of Risk Factors for Noncommunicable Diseases of Iran. Am J Hypertens. 2008;21:620–626.
- Jaddou HY, Batieha AM, Khader YS, Kanaan AH, El-Khateeb MS, Ajlouni KM. Hypertension prevalence, awareness, treatment and control, and associated factors: results from a national survey, Jordan. Int J Hypertens. 2011;2011:828797.
- Ben Romdhane H, Ben Ali S, Skhiri H, Traissac P, Bougatef S, Maire B, Delpeuch F, Achour N. Hypertension among Tunisian adults: results of the TAHINA project. Hypertens Res. 2012;35:341–347.
- Modesti PA, Bamoshmoosh M, Rapi S, Massetti L, Al-Hidabi D, Al Goshae H. Epidemiology of hypertension in Yemen: effects of urbanization and geographical area. Hypertens Res. 2013;36:711–17.
- Bangladesh Society of Medicine, Directorate General of Health Services, Ministry of Health and Family Welfare. Non-communicable disease risk factor survey Bangladesh 2010. Bangladesh: World Health Organization Country Office of Bangladesh 2011.
- Bhagyalaxmi A, Atul T, Shikha J. Prevalence of risk factors of non-communicable diseases in a district of Gujarat, India. J Health Popul Nutr. 2013;31:78–85.
- Gupta R, Pandey RM, Misra A, Agrawal A, Misra P, Dey S, Rao S, Menon VU, Kamalamma N, Vasantha Devi KP, Revathi K, Vikram NK, Sharma V, Guptha S. High prevalence and low awareness, treatment and control of hypertension in Asian Indian women. J Hum Hypertens. 2012;26:585–93.
- Jonas JB, Nangia V, Matin A, Joshi PP, Ughade SN. Prevalence, awareness, control, and associations of arterial hypertension in a rural central India population: the Central India Eye and Medical study. Am J Hypertens. 2010;23:347–50.
- 74 Thrift AG, Evans RG, Kalyanram K, Kartik K, Fitzgerald SM, Srikanth V. Gender-specific effects of caste and salt on hypertension in poverty: a population-based study. J Hypertens. 2011;29:443–50.
- Pires JE, Sebastiao YV, Langa AJ, Nery SV. Hypertension in Northern Angola: prevalence, associated factors, awareness, treatment and control. BMC Public Health. 2013;13:90.

- Doulougou B, Kouanda S, Bado A, Nikièma L, Zunzunegui MV. Hypertension in the adult population of Kaya Health and Demographic Surveillance System in Burkina Faso: prevalence and associated factors. Int J Trop Dis Health. 2014;4:94–110.
- Kufe CN, Klipstein-Grobusch K, Leopold F, Assah F, Hgufor G, Mbeh G, Mbanya VN, Nbanya JC. Risk factors of impaired fasting glucose and type 2 diabetes in Yaoundé, Cameroon: a cross sectional study. BMC Public Health. 2015;15:59.
- Longo-Mbenza B, Ngoma DV, Nahimana D, Mayuku DM, Fuele SM, Ekwanzala F, Beya C. Screen detection and the WHO stepwise approach to the prevalence and risk factors of arterial hypertension in Kinshasa. Eur J Cardiovasc Prev Rehabil. 2008;15:503–508.
- 79 Tesfaye F, Byass P, Wall S. Population based prevalence of high blood pressure among adults in Addis Ababa: uncovering a silent epidemic. BMC Cardiovasc Disord. 2009:9:39.
- Mengistu MD. Pattern of blood pressure distribution and prevalence of hypertension and prehypertension among adults in Northern Ethiopia: disclosing the hidden burden. BMC Cardiovasc Disord. 2014;14:33.
- Jenson A, Omar AL, Omar MA, Rishad AS, Khoshnood K. Assessment of hypertension control in a district of Mombasa, Kenya. Glob Public Health. 2011;6:293–306.
- Ministry of Health and Social Welfare (MOHSW) [Lesotho] and ICF Macro. 2010. Lesotho demographic and health survey. Maseru, Lesotho: MOHSW and ICF Macro.
- Damasceno A, Azevedo A, Silva-Matos C, Prista A, Diogo D, Lunet N. Hypertension prevalence, awareness, treatment, and control in Mozambique: urban/rural gap during epidemiological transition. Hypertension. 2009;54:77–83.
- Adedoyin RA, Mbada CE, Balogun MO, Martins T, Adebayo RA, Akintomide A, Akinwusi PO. Prevalence and pattern of hypertension in a semiurban community in Nigeria. Eur J Cardiovasc Prev Rehabil. 2008;15:683–687.
- Macia E, Duboz P, Gueye L. Prevalence, awareness, treatment and control of hypertension among adults 50 years and older in Dakar, Senegal. Cardiovasc J Afr. 2012;23:265–269.
- Wamala JF, Karyabakabo Z, Ndungutse D, Guwatudde D. Prevalence factors associated with hypertension in Rukungiri District, Uganda a community-based study. Afr Health Sci. 2009;9:153–160.
- Mulenga D, Siziya S, Rudatsikira E, Mukonka VM, Babaniyi O, Songolo P, Muula AS. District specific correlates for hypertension in Kaoma and Kasama rural districts of Zambia. Rural Remote Health. 2013;13:2345.
- Dunstan D, Zimmet P, Welborn T, Sicree R, Armstrong T, Atkins R, Cameron A, Shaw J, Chadban S. Diabesity and associated disorders in Australia 2000: the accelerating epidemic. The Australian Diabetes, Obesity and Lifestyle Study (AusDiab). Melbourne Australia: International Diabetes Institute, 2001.

- Dunstan DW, Zimmet PZ, Welborn TA, Cameron AJ, Shaw J, de Courten M, Jolley D, McCarty DJ; Australian Diabetes, Obesity and Lifestyle Study (AusDiab). The Australian Diabetes, Obesity and Lifestyle Study (AusDiab) methods and response rates. Diabetes Res Clin Pract. 2002;57:119–29.
- Hernandez-Hernandez R, Silva H, Velasco M, Pellegrini F, Macchia A, Escobedo J, Vinueza R, Schargrodsky H, Champagne B, Pramparo P, Wilson E; CARMELA Study Investigators. Hypertension in seven Latin American cities: the Cardiovascular Risk Factor Multiple Evaluation in Latin America (CARMELA) study. J Hypertens. 2010;28:24–34.
- 91 Silva H, Hernandez-Hernandez R, Vinueza R, Velasco M, Biossonnet CP, Escobedo J, Silva HE, Pramparo P, Wilson E; CARMELA Study Investigators. Cardiovascular risk awareness, treatment, and control in urban Latin America. Am J Ther. 2010;17:159–66.
- Cífková R, <u>Š</u>kodová Z, Lánská V, Adámková V, Novozámská E, Jozífová M, Plásková M, Hejl Z, Petrzílková Z, Galovcová M, Palous D. Prevalence, awareness, treatment, and control of hypertension in the Czech Republic. Results of two nationwide cross-sectional surveys in 1997/1998 and 2000/2001, Czech Post-MONICA study. J Hum Hypertens. 2004;18:571–9.
- Abina J, Volozh O, Solodkaya E, Saava M. Blood pressure and contributing factors in inhabitants of Estonia: 15-year trends. Blood Pressure. 2003;12:111–21.
- 94 Kastarinen MJ, Antikainen RL, Laatikainen TK, Salomaa VV, Tuomilehto JO, Nissinen AM, Vartiainen EA. Trends in hypertension care in eastern and south-western Finland during 1982-2002. J Hypertens. 2006;24:829–36.
- Thamm M. Blood pressure in Germany: current status and trends. Gesundheitswesen. 1999;61 Spec No: S90–93.
- Stergiou GS, Thomopoulou GC, Skeva II, Mountokalakis TD. Prevalence, awareness, treatment, and control of hypertension in Greece: the Didima study. Am J Hypertens. 1999;12:959–65.
- 97 Ho SC, Chen YM, Woo JLF, Leung SSF, Lam TH, Janus ED. Association between simple anthropometric indices and cardiovascular risk factors. Int J Obesity. 2001;25:1689–97.
- Giampaoli S, Palmieri L, Dima F, Pilotto L, Vescio MF, Vanuzzo D. Socioeconomic aspects and cardiovascular risk factors: experience at the Cardiovascular Epidemiologic Observatory. Ital Heart J. 2001;2:294–302.
- Choi KM, Park HS, Han JH, Lee JS, Lee J, Ryu OH, Lee KW, Cho KH, Yoon D, Baik SH, Choi DS, Kim SM. Prevalence of prehypertension and hypertension in a Korean population: Korean National Health and Nutrition Survey 2001. J Hypertens. 2006;24:1515–21.
- Getz L, Kirkengen AL, Hetlevik I, Romundstad S, Sigurdsson JA. Ethical dilemmas arising from implementation of the European guidelines on cardiovascular disease prevention in clinical practice: a descriptive epidemiological study. Scand J Prim Health Care. 2004;22:202-08.

- Al-Riyami AA, Afifi M. Hypertension in Oman: distribution and correlates. J Egypt Public Health Assoc. 2002;77:383–407.
- Zdrojewski T, Wyrzykowski B, Szczech R, Wierucki L, Naruszewicz M, Narkiewicz K, Zarzeczna-Baran M; Steering Committees of the Programmes NATPOL PLUS; SMS; Polish 400-Cities Project. Epidemiology and prevention of arterial hypertension in Poland. Blood Press. 2005;14 (Suppl 2):10–16.
- Macedo ME, Lima MJ, Silva AO, Alcantara P, Ramalhinho V, Carmona J. Prevalence, awareness, treatment and control of hypertension in Portugal: the PAP study. J Hypertens. 2005;23:1661–66.
- Berg CM, Lissner L, Aires N, Lappas G, Torén K, Wilhelmsen L, Rosengren A, Thelle DS. Trends in blood lipid levels, blood pressure, alcohol and smoking habits from 1985 to 2002: results from INTERGENE and GOT-MONICA. Eur J Cardiovasc Prev Rehabil. 2005;12:115–125.
- Su TC, Bai CH, Chang HY, You SL, Chien KL, Chen MF, Chen HJ, Pan WH, Tseng CH, Cheng SH, Hurng BS, Hwang LC, Chen CJ. Evidence for improved control of hypertension in Taiwan: 1993-2002. J Hypertens. 2008;26:600–6.
- Gulliford MC, Mahabir D, Rocke B. Socioeconomic inequality in blood pressure and its determinants: cross-sectional data from Trinidad and Tobago. J Hum Hypertens. 2004;18:61–70.
- Primatesta P, Brookes M, Poulter NR. Improved hypertension management and control: results from the Health Survey for England 1998. Hypertension. 2001;38:827–32.
- Centers for Disease Control and Prevention (CDC). National Center for Health Statistics (NCHS). National Health and Nutrition Examination Survey Data. Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 1999-2000. (Last accessed August 2014 at http://www.cdc.gov/nchs/nhanes.htm)
- King H, Keuky L, Seng S, Khun T, Roglic G, Pinget M. Diabetes and associated disorders in Cambodia: two epidemiological surveys. Lancet. 2005;366:1633–39.
- Wu Y, Huxley R, Li L, Anna V, Xie G, Yao C, Woodward M, Li X, Chalmers J, Gao R, Kong L, Yang X; China NNHS Steering Committee; China NNHS Working Group. Prevalence, awareness, treatment, and control of hypertension in China: data from the China National Nutrition and Health Survey 2002. Circulation. 2008;118:2679–86.
- Wu XG, Duan XF. Epidemiology of Hypertension. In: Li LM, eds. The 2002 China National Nutrition and Health Survey Report. Series 4: Hypertension. Beijing: People's Health Press. 2008:23-36.
- Ng N, Stenlund H, Bonita R, Hakimi M, Wall S, Weinehall L. Preventable risk factors for noncommunicable diseases in rural Indonesia: prevalence study using WHO STEPS approach. Bull World Health Organ. 2006;84:305–13.
- Rampal L, Rampal S, Azhar MZ, Rahman AR. Prevalence, awareness, treatment and control of hypertension in Malaysia: a national study of 16,440 subjects. Public Health. 2008;122:11–18.

- InterASIA Collaborative group. Cardiovascular risk factor levels in urban and rural Thailand: the International Collaborative Study of Cardiovascular Disease in Asia (InterASIA). Eur J Cardiovasc Prev Rehabil. 2003;10:249–57.
- Pilav A, Nissinen A, Haukkala A, Nikšić D, Laatikainen T. Cardiovascular risk factors in the Federation of Bosnia and Herzegovina. Eur J Public Health. 2007;17:75–79.
- Jenei Z, Páll D, Katona É, Kakuk G, Polgár P. The epidemiology of hypertension and its associated risk factors in the city of Debrecen, Hungary. Public Health. 2002;116:138–44.
- Altun B, Arici M, Nergizoglu G, Derici U, Karatan O, Turgan C, Sindel S, Erbay B, Hasanoğlu E, Cağlar S; Turkish Society of Hypertension and Renal Diseases. Prevalence, awareness, treatment and control of hypertension in Turkey (the PatenT study) in 2003. J Hypertens. 2005;23:1817–23.
- Lessa Í, Magalhães L, Araújo MJ, de Almeida Filho N, Aquino E, Oliveira MM. Arterial hypertension in the adult population of Salvador (SA) Brazil. Arq Bras Cardiol. 2006;87:683–92.
- Mill JG, Molina MC, Silva IO, Marquezini AJ, Ferreira AVL, Cunha RS, Herkenhoff FL. Epidemiologia da hipertensão arterial na cidade de Vitória, Espírito Santo. Hipertensão. 2004;7:109–16.
- Ala L, Gill G, Gurgel R, Cuevas L. Evidence for affluence-related hypertension in urban Brazil. J Hum Hypertens. 2004;18:775–79.
- 121 Castro RA, Moncau JE, Marcopito LF. Hypertension prevalence in the city of Formiga, MG (Brazil). Arq Bras Cardiol. 2007;88:334–39.
- Hartmann M, Dias-da-Costa JS, Anselmo Olinto MT, Pattussi MP, Tramontini A. Prevalence of systemic hypertension and associated factors: a population-based study among women in the south of Brazil. Cad Saude Publica. 2007;23:1857–66 (in Portuguese).
- Ordunez P, Barcelo A, Bernal JL, Espinosa A, Silva LC, Cooper RS. Risk factors associated with uncontrolled hypertension: findings from the baseline CARMEN survey in Cienfuegos, Cuba. J Hypertens. 2008;26:663–71.
- Jean-Baptiste ED, Larco P, Charles-Larco N, Vilgrain C, Simon D, Charles R. Glucose intolerance and other cardiovascular risk factors in Haiti (PREDIAH). Diabetes Metab. 2006;32:443–51.
- Sulbaran T, Silva E, Calmon G, Vegas A. Epidemiologic aspects of arterial hypertension in Maracaibo, Venezuela. J Hum Hypertens. 2000;14:S6–S9.
- Tazi MA, Abir-Khalil S, Lahmouz F, Arrach ML, Chaouki N. Risk factors for hypertension among the adult Moroccan population. East Mediterr Health J. 2009;15:827–41.
- Malhotra P, Kumari S, Kumar R, Jain S, Sharma BK. Prevalence and determinants of hypertension in an un-industrialized rural population of North India. J Hum Hypertens. 1999;13:467–72.

- Singh RB, Beegom R, Ghosh S, Niaz MA, Rastogi V, Rastogi SS, Singh NK, Nangia S. Epidemiological study of hypertension and its determinants in an urban population of North India. J Hum Hypertens. 1997;11:679–85.
- Singh RB, Sharma JP, Rastogi V, Niaz MA, Signh NK. Prevalence and determinants of hypertension in the Indian social class and heart survey. J Hum Hypertens. 1997;11:51– 56.
- Mohan V, Deepa M, Farooq S, Datta M, Deepa R. Prevalence, awareness and control of hypertension in Chennai the Chennai Urban Rural Epidemiology study (CURES 52). J Assoc Physician I. 2007;55:326–32.
- Thankappan KR, Sivasankaran S, Sarma PS, Mini G, Khader SA, Padmanabhan P, Vasan R. Prevalence, correlates, awareness, treatment, and control of hypertension in Kumarakom, Kerala: baseline results of a community-based intervention program. Indian Heart J. 2006;58:28–33.
- Niakara A, Fournet F, Gary J, Harang M, Nébié LV, Salem G. Hypertension, urbanization, social and spatial disparities: a cross-sectional population-based survey in a West African urban environment (Ouagadougou, Burkina Faso). Trans R Soc Trop Med Hyg. 2007;101:1136–42.
- Kamadjeu RM, Edwards R, Atanga JS, Unwin N, Kiawi EC, Mbanya JC. Prevalence, awareness and management of hypertension in Cameroon: findings of the 2003 Cameroon Burden of Diabetes Baseline Survey. J Hum Hypertens. 2006;20:91–92.
- Mbanya JC, Minkoulou EM, Salah JN, Balkau B. The prevalence of hypertension in rural and urban Cameroon. Int J Epidemiol. 1998;27:181–85.
- Cooper R, Rotimi C, Ataman S, McGee D, Osotimehin B, Kadiri S, Muna W, Kinque S, Fraser H, Forrester T, Bennett F, Wilks R. The prevalence of hypertension in seven populations of West African origin. Am J Public Health. 1997;87:160–68.
- Mufunda J, Mebrahtu G, Usman A, Nyarango P, Kosia A, Ghebrat Y, Ogbamariam A, Masjuan M, Gebremichael A. The prevalence of hypertension and its relationship with obesity: results from a national blood pressure survey in Eritrea. J Hum Hypertens. 2006;20:59–65.
- Tesfaye F, Nawi NG, Van Minh H, Byass P, Berhane Y, Bonita R, Wall S. Association between body mass index and blood pressure across three populations in Africa and Asia. J Hum Hypertens. 2007;21:28–37.
- Danon-Hersch N, Chiolero A, Shamlaye C, Paccaud F, Bovet P. Decreasing association between body mass index and blood pressure over time. Epidemiology. 2007;18:493–500.
- Steyn K, Gaziano TA, Bradshaw D, Laubscher R, Fourie J. South African Demographic and Health Coordinating Team. Hypertension in South African Adults: results from the Demographic and Health Survey, 1998. J Hypertens. 2001;19:1717–25.

- Edwards R, Unwin N, Mugusi F, Whiting D, Rashid S, Kissima J, Aspray TJ, Alberti KG. Hypertension prevalence and care in an urban and rural area of Tanzania. J Hypertens. 2000;18:145–52.
- Mufunda J, Scott LJ, Chifamba J, Matenga J, Sparks B, Cooper R, Sparks H. Correlates of blood pressure in an urban Zimbabwean population and comparison to other populations of African origin. J Human Hypertens. 2000;14:65–73.