Table S1. Demographic characteristics of men and women with available blood pressure measurements and information on the use of specific drug treatment within the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

			ME	N		
	1998-	2002	2008-	2012	2018-	-2019
Age class (years)						
	n	%	n	%	n	%
35-44	717	24	530	24	248	24
45-54	752	25	588	27	248	24
55-64	784	26	564	25	277	27
65-74	732	25	536	24	258	25
Educational level						
	n	%	n	%	n	%
Higher education	1249	42	1183	54	725	71
Lower education	1730	58	1018	46	303	29
			WON	ЛEN		
	1998-	2002	2008-	2012	2018-	-2019
Age class (years)						
	n	%	n	%	n	%
35-44	715	24	514	23	237	22
45-54	769	26	577	26	271	25
55-64	778	26	584	27	280	26
65-74	693	23	529	24	278	26
Educational level						
	n	%	n	%	n	%
Higher education Lower education	1052 1887	36 64	1167 1017	53 47	725 339	68 32

Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily. Higher education - high school or college; lower education - primary or middle school.

Table S2. Blood pressure and heart rate measurements mean levels by age class and period. Italian resident men aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

												MEI	N									
										Syst	olic blo	ood pre	ssur	e (mm	Hg)							
		19	998-2	2002		ANOVA within		20	08-2	012		ANOVA within		20	18-2	019		ANOVA within	2018- vs 1998		2018- vs 2008	
Age class (years)	n	mean	DS	95%	6 CI	period sign	n	mean	DS	95%	s cı	period sign	n	mean	DS	959	% CI	period sign	Diff	t-test sign	Diff	t-test sign
35-44	717	128	15	127	129	***	530	125	13	124	126	***	248	127	11	126	128	***	-1	ns	2	*
45-54	752	133	18	131	134		588	131	16	130	132		248	130	16	128	132		-2	*	-1	ns
55-64	784	141	20	139	142		564	135	17	134	136		277	134	14	132	135		-7	***	-1	ns
65-74	732	148	20	146	149		536	141	18	139	142		258	136	17	134	138		-11	***	-4	**
										Diast	olic bl	ood pr	essu	re (mn	nHg)							
		19	998-2	2002		ANOVA within		20	08-2	012		ANOVA within		20	18-2	019		ANOVA within	2018- vs 1998		2018- vs 2008	
Age class						period						period						period	Diff	t-test	Diff	t-test
(years)	n	mean	DS	95%	6 CI	sign - ***	n	mean	DS	95%	s CI	sign ***	n	mean	DS	959	6 CI	sign **	Dill	sign	Dill	sign
35-44	717	85	11	84	86		530	83	10	82	83		248	76	10	75	77		-9	***	-7	***
45-54	752	87	11	87	88		588	86	10	85	87		248	79	11	77	80		-9	***	-7	***
55-64 65-74	784 732	87 86	11 10	87 85	88 86		564 536	84 81	10 10	83 80	85 82		277 258	79 76	9 10	78 75	80 77		-8 -10	***	-5 -5	***
03-74	132	00	10	00	00														-10		-5	
								Systoli	c blo	od pre	ssure	not un	der d	rug tr	eatm	ent (n	nmHg)		2018-	2010	2018-	2010
		19	998-2	2002		ANOVA within		20	08-2	012		ANOVA within		20	18-2	019		ANOVA within	vs 199		vs 200	
Age class (years)						period sign						period sign						period sign	Diff	t-test sign	Diff	t-test sign
(years)	n	mean	DS	959	6 CI	***	n	mean	DS	95%	s CI	***	n	mean	DS	959	6 CI	***		Jigii		31511
35-44	682	127	14	126	128		504	125	13	123	126		237	127	11	125	128		-0.2	ns	2	*
45-54	640	131	17	130	132		481	129	16	127	130		212	128	14	126	130		-3	*	-1	ns
55-64	581 454	137 143	19 20	136 142	139 145		370 252	133 138	17 18	131 136	135 140		170 125	133 138	14 18	131 134	135 141		-4 -6	**	-0.2 -1	ns
65-74	404	145	20	142	145							not un						١	-0		-1	ns
		4.	998-2			ANOVA			08-2			ANOVA	uei (18-2		шшп	ANOVA	2018-	2019	2018-	-2019
		15	198-2	2002		within		20	U8-Z	012		within		20	18-2	019		within	vs 199		vs 200	
Age class (years)	n	mean	DS	959	6 CI	period sign	n	mean	DS	95%	s cı	period sign	n	mean	DS	959	6 CI	period sign	Diff	t-test sign	Diff	t-test sign
35-44	682	85	10	84	85	**	504	82	10	81	83	***	237	75	10	74	77	ns	-9	***	-7	***
45-54	640	86	11	86	87		481	85	10	84	86		212	77	10	76	78		-9	***	-8	***
55-64	581	86	10	85	87		370	84	10	83	85		170	78	9	77	79		-8	***	-6	***
65-74	454	84	10	83	85		252	81	10	80	82		125	77	11	75	79		-8	***	-4	**
										Hea	art rate	e (beat	s per	minu	te)							
		19	998-2	2002		ANOVA within		20	08-2	012		ANOVA within		20	18-2	019		ANOVA within	2018- vs 199		2018- vs 2008	
Age class						period						period						period	Diff	t-test	Diff	t-test
(years)	n	mean	DS	959	6 CI	sign -	n	mean	DS	95%	CI	sign	n	mean	DS	959	6 CI	sign		sign		sign
35-44	715	66	10	65	67	ns	530	68	9	67	69	ns	248	72	12	70	73	ns	6	***	4	***
45-54	750	66	11	65	67		588	69	10	68	70		248	72	11	71	74		6	***	3	***
55-64	783	66	11	65	67		564	68	10	68	69		277	72	12	70	73		6	***	3	***
65-74	732	66	11	65	67		536	69	10	68	69		258	70	12	69	72		4	***	2	ns

SD: standard deviation; CI: confidence interval. Diff: mean difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of means. ANOVA: Analysis of Variance to compare variables among age classes within periods. t-test to compare variables between periods. *** p-value<0.001; ** p-value<0.01; *p-value<0.05; ns not significant p-value. Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

65-74

690 **69** 11

Table S3. Blood pressure and heart rate measurements mean levels by age class and period. Italian resident women aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

												WOME										
										Systol	ic blo	od press	ure ((mmHg)								
		19	98-2	002		ANOVA within		20	08-2	012		ANOVA within		2018	3-201	.9		ANOVA within	2018 vs 199	-2019 8-2002	2018- vs 200	-2019 8-201
Age class						period						period						period	Diff	t-test	Diff	t-tes
(years)	n	mean	DS	95%	6 CI	sign - ***	n	mean	DS	959	% CI	sign ***	n	mean	DS	95%	<u>:</u>	sign ***	DIΠ	sign	DIIT	sigr
35-44	715	118	14	117	119	***	514	114	13	113	116	***	237	113	13	111 1	14	***	-6	***	-2	ns
45-54	769	128	18	126	129		577	122	15	121	123		271	120	16	118 1	21		-8	***	-2	*
55-64	778	139	20	137	140		584	132	18	131	134		280	125	16		27		-14	***	-7	**
65-74	693	147	20	146	149		529	143	20	141	144		278	133	19	130 1	35		-15	***	-10	**
									ı	Diasto	lic blo	od pres	sure	(mmHg	:)				2010	2010	2010	2010
		19	98-2	002		ANOVA within		20	08-2	012		ANOVA within		2018	3-201	.9		ANOVA within	2018 vs 199	-2019 8-2002	2018- vs 200	
ge class						period						period						period	Diff	t-test	Diff	t-te
years)	n	mean	DS	95%	6 CI	sign -	n	mean	DS	95%	6 CI	sign –	n	mean	DS	95%	<u> </u>	sign	J.III	sign	D	sig
35-44	715	78	10	77	78	***	514	75	9	74	75	***	237	70	10	68	71	***	-8	***	-5	**
45-54	769	83	11	82	83		577	79	9	78	79		271	74	11		75		-9	***	-5	**
55-64	778	85	10	84	85		584	81	10	80	82		280	74	11		76		-10	***	-7	**
65-74	693	85	10	84	85		529	81	10	80	82		278	74	11	72	75		-11	***	-7	**
							Sys	stolic k	olooc	d press	ure n	ot unde	r dru	g treat	ment	t (mm	lg)					
		19	98-2	002		ANOVA		20	08-2	012		ANOVA		2018	3-201	.9		ANOVA	2018 vs 199		2018- vs 200	
ge class						within period						within period						within period		t-test		t-te
years)	n	mean	DS	95%	6 CI	sign - ***	n	mean	DS	959	6 CI	sign - ***	n	mean	DS	95%	<u> </u>	sign ***	Diff	sign	Diff	sig
35-44	698	118	14	116	119		499	114	12	113	115		234	112	13	111 1	14		-5	***	-1	n
45-54	657	125	17	124	126		510	120	15	119	122		238	118	15		20		-7	***	-2	*:
55-64 65-74	539 374	134 142	18 18	132 140	135 144		401 244	128 138	17 20	126 135	130 140		203 122	123 127	17 16	121 1 124 1			-10 -15	***	-4 -10	**
							Dia	stolic	bloo	d pres	sure r	ot und	er dru	ug treat	men	t (mm	Hg)					
		19	98-2	002		ANOVA		20	08-2	012		ANOVA		2018	3-201	.9		ANOVA	2018	-2019 8-2002	2018 vs 200	
ge class						- within period						- within period						within period		t-test		t-te
(years)	n	mean	DS	95%	6 CI	sign	n	mean	DS	959	6 CI	sign	n	mean	DS	95%	<u>:</u>	sign	Diff	sign	Diff	sig
35-44	698	77	10	76	78	***	499	74	8	74	75	***	234	70	10	68	71	**	-8	***	-5	**
45-54	657	81	10	81	82		510	78	9	77	79		238	73	11		74		-9	***	-5 -5	**
55-64	539	83	10	82	83		401	79	9	79	80		203	73	11	72	75		-9	***	-6	**
65-74	374	83	9	82	83		244	80	9	79	81		122	71	9	70	73		-11	***	-9	**
										Hear	t rate	(beats	oer m	ninute)								
		19	98-2	002		ANOVA within		20	08-2	012		ANOVA within		2018	3-201	.9		ANOVA within	2018 vs 199	-2019 8-2002	2018- vs 200	
ge class						period						period						period	Diff	t-test	Diff	t-te
(years)	n	mean	DS	95%	6 CI	sign - **	n	mean	DS	95%	% CI	sign - ns	n	mean	DS	95%	<u>:</u>	sign ns	DIII	sign	DIII	sig
35-44	711	71	11	70	72		514	72	9	71	72	115	237	74	11	73	75	113	3	**	2	*:
45-54 55-64	769 776	70 69	10 10	69 68	71 70		577 584	71 71	9	70 70	71 72		271 280	73 72	10 10	72 71	74 73		3	***	3 1	**

SD: standard deviation; CI: confidence interval. Diff: mean difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of means. ANOVA: Analysis of Variance to compare variables among age classes within periods. t-test to compare variables between periods. *** p-value<0.001; ** p-value<0.05; ns not significant p-value. Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

72

278 **72** 11 71 73

529 **71** 10

Table S4. Blood pressure measurements and heart rate mean levels by educational level and period. Italian resident men aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

											N	1EN										
								S۱	/sto	lic bl	ood ı	oressur	e (m	mHg)								
		1998	-20	02		ANOVA within		2008	3-20)12		ANOVA within	·	201	8-20	19		ANOVA within		18-)19		18-)19
Educational level	n	mean	DS	95%	s CI	period sign	n	mean	DS	95%	6 CI	period sign	n	mean	DS .	95%	6 CI	period sign	Diff	t-test sign	Diff	t-test sign
Higher education Lower education	1249 1730	135 136		134 135			1183 1018	130 133		129 132	131 134		725 303	131 134		130 132			-4 -3	***	1 0.2	ns ns
								Di	asto	olic b	lood	pressu	re (n	nmHg)								
		1998	3-20	02		ANOVA		2008	3-20)12		ANOVA		201	8-20)19		ANOVA		18-)19		18-)19
Educational level			DC	050	· .c.	within period sign	_		DC	050	/ CI	within period sign	_		DC	050	/ CI	within period sign		t-test	Diff	t-test
	n	mean		95%		ns	n	mean		95%		ns	n	mean		95%		ns		sign	Diff	sign
Higher education Lower education	1249 1730	87 86	11 11	86 86	87 87		1183 1018	83 84	10 10	83 83	84 85		725 303	77 78	10 10	77 77	78 79		-9 -8	***	-6 -6	***
						Syst	tolic b	lood p	res	sure	not	under d	lrug	treatn	nen	t (mı	mHg)					
		1998	20	02		ANOVA		2008				ANOVA		201		•	0,	ANOVA		18-)19		18-)19
		1550	-20	02		within period		2000)- <u>Z</u> (112		within		201	5-2 (113		within period			20	
Educational level	n	mean	DS .	95%	S CI	sign ***	n	mean	DS	95%	6 CI	sign ***	n	mean	DS .	95%	6 CI	sign ***	Diff	t-test sign	Diff	t-test sign
Higher education	1046	133	16	132	134		913	129	15	128	130		537	130	13	129	131		-3	***	1	ns
Lower education	1305	134	17	133	135		680	131	16	130	133		205	133	15	131	135		-1	ns	1	ns
						Dias	tolic b	olood	pre	ssure	not	under	drug	treati	mer	ıt (m	mHg	:)				
		1998	-20	02		ANOVA		2008	3-20)12		ANOVA		201	8-20	19		ANOVA		18-)19		18- 019
Educational level						within period						within period						within period		t-test		t-test
	n	mean	DS	95%	CI	sign	n	mean	DS	95%	6 CI	sign	n	mean	DS .	95%	6 CI	sign ns	Diff	sign	Diff	sign
						ns						ns										
Higher education	1046	86	10	85	86	ns	913	83	10	82	83	ns	537	77 77	10	76 76	78 70		-9	***	-6	***
Higher education Lower education	1046 1305			85 85	86 86	ns	913 680	83 83	10 10	82 83	83 84	ns	537 205	77 77	10 9	76 76	78 78		-9 -8	***	-6 -6	***
· ·		86	10			ns		83	10	83	84	eats pe	205	77					-8	***	-6	***
· ·		86	10 10	85		ns ANOVA within		83	10 lea	83 rt rat	84		205	77	9	76		ANOVA within	-8		-6	*** *** 18- 19
S .		86 85	10 10	85	86	ANOVA		83 F	10 lea 3- 20	83 rt rat	84 :e (be	eats per	205	77 iute)	9 8-2 (76	78		-8 20 20	***	-6 20 20	

Means and standard deviations age-standardized by ISTAT Italian population 2000, 2010 and 2019 respectively. SD: standard deviation; CI: confidence interval. Diff: mean difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of means. Higher education - high school or college; lower education - primary or middle school. ANOVA: Analysis of Variance to compare variables among age classes within periods. t-test to compare variables between periods. *** p-value<0.001; *p-value<0.05; ns not significant p-value. Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

1018 68 10 68

1730 66 11 65 67

Lower education

303 **74** 12 73

WOMEN

339 126 17 124 127

Lower education

Table S5. Blood pressure measurements and heart rate mean levels by educational level and period. Italian resident women aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

								Sys	toli	ic blo	od pı	ressure	(mm	Hg)								
	1998-2002					ANOVA - within		2008	-20	12		ANOVA within		201	8-20)19		ANOVA within)18-)19		018- 019
Educational level	n	mean	std	95%	6 CI	period sign	n	mean	std	95%	% CI	period sign	n	mean	std	95	% CI	period sign	Diff	t-test sign	Diff	t-test sign
Higher education	1052	130	16	129	131		1167	124	15	123	124		725	120	15	119	122		-9	***	-3	***

							Dia	stol	ic blo	ood p	ressure	e (mn	nHg)								
		1998	3-20	02	ANOVA within		2008	3-20:	12		ANOVA within		201	8-20	19		ANOVA within		18-)19)18-)19
Educational level	n	mean	std	95% C	period sign ***	n	mean	std	95%	% CI	period sign - ***	n	mean	std	95%	6 CI	period sign - **	Diff	t-test sign	Diff	t-test sign
Higher education	1052	81	10	81 8	82	1167	78	9	77	78		725	72	11	72	73		-9	***	-5	***
Lower education	1887	83	10	82 8	83	1017	79	10	79	80		339	74	10	73	75		-8	***	-5	***

1017 129 18 128 130

1887 **133** 18 132 134

						Syst	olic bl	ood p	ress	ure r	ot u	nder dr	ug tr	eatme	nt (mml	Hg)					
		1998	3-20	02		ANOVA within		2008	3-20	12		ANOVA within		201	8-20	19		ANOVA within)18-)19)18-)19
Educational level	n	mean	std	95%	% CI	period sign ***	n	mean	std	95%	6 CI	period sign ***	n	mean	std	95%	% CI	period sign ***	Diff	t-test sign	Diff	t-test sign
Higher education	928	128	16	127	129		992	121	14	120	122		593	119	15	118	120		-9	***	-2	**
Lower education	1331	129	16	129	130		651	127	16	126	128		203	124	16	121	126		-6	***	-3	*

						Diast	olic b	lood p	ress	ure i	not u	nder dı	ug tr	reatmo	ent ((mm	Hg)					
		1998	3-20	02		ANOVA within		2008	-20:	12		ANOVA within		201	8-20	19		ANOVA within)18-)19		18-)19
Educational level	n	mean	std	95%	s CI	period sign ***	n	mean	std	95%	6 CI	period sign	n	mean	std _	95%	6 CI	period sign *	Diff	t-test sign	Diff	t-test sign
Higher education	928	81	10	80	81		992	77	9	76	78		593	71	10	71	72		-9	***	-6	***
Lower education	1331	81	10	81	82		651	78	9	78	79		203	73	10	72	75		-8	***	-5	***

								Н	eart	rate	(bea	its per i	minu	te)								
		1998	3-20	02		ANOVA within		2008	-20:	12		ANOVA within		201	8-20)19		ANOVA within)18-)19		018- 019
Educational level	n	mean	std	95%	CI	period sign	n	mean	std _	95%	6 CI	period sign	n	mean	std _	95%	6 CI	period sign	Diff	t-test sign	Diff	t-test sign
Higher education	1047	69	11		70	ns	1167	71	9	70	72	ns	725	73	10	72	73	ns	3	***	2	**
Lower education	1884	70	11	69	70		1017	71	10	71	72		339	73	11	72	74		3	***	2	**

Means and standard deviations age-standardized by ISTAT Italian population 2000, 2010 and 2019 respectively. SD: standard deviation; CI: confidence interval. Diff: mean difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of means. Higher education - high school or college; lower education - primary or middle school. ANOVA: Analysis of Variance to compare variables among age classes within periods. t-test to compare variables between periods. *** p-value<0.001; ** p-value<0.01; *p-value<0.05; ns not significant p-value. Pool of the following Italian Regions: Lombardy, Piedmont, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S6. Prevalence of blood pressure treatment, raised blood pressure, hypertension and state of hypertension control based on measurements, by age class and period. Italian resident men aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

2002,				11U ZU16				N	1EN							
							Blo	od pressure	drug	treat	ment					
	1	1998-2	2002	Chi-squared	2	2008-2	2012	Chi-squared	2	018-2	2019	Chi-squared		18-2019 998-2002		3-2019 08-2012
Age class				test within period				test within period				test within period	Diff	chi- squared	Diff	chi- squared
(years)	n	%	95% CI	sign _	n	%	95% CI	sign	n	%	95% CI	sign	J	sign	J	sign
35-44	717	5	3 6	***	530	5	3 7	***	248	4	2 7	***	-0.4	ns	-0.5	ns
45-54	752	15	12 17		588	18	15 21		248	15	10 19		-0.4	ns	-4	ns
55-64 65-74	784 732	26 38	23 29 34 41		564 536	34 53	30 38 49 57		277 258	39 52	33 44 45 58		13 14	***	-1	ns
65-74	/32	36	34 41		330	33	49 37	Raised blo					14		-1	ns
		1998-2	2002		,	2008-2	2012			2018-2			20	18-2019	2018	3-2019
		1990-2	2002	Chi-squared test within		2008-2	2012	Chi-squared test within	-	.010-2	2019	Chi-squared test within	vs 1	998-2002 chi-	vs 20	08-2012 chi-
Age class (years)				period sign				period sign				period sign	Diff	squared	Diff	squared
(years)	n	%	95% CI	- ***	n	%	95% CI	***	n	%	95% CI	***		sign		sign
35-44	717	33	30 37	***	530	26	22 29	***	248	19	14 23	***	-15	***	-7	*
45-54	752	46	43 50		588	40	36 44		248	26	20 31		-21	***	-14	***
55-64	784	59	56 63		564	46	41 50		277	35	29 40		-25	***	-11	**
65-74	732	70	67 73		536	55	51 60		258	43	37 49		-27	***	-12	**
								Нуре	tensio	on						
	1	1998-2	2002	Chi-squared	2	2008-2	2012	Chi-squared	2	018-2	2019	Chi-squared		18-2019 998-2002		3-2019 08-2012
Ago class				test within period				test within period				test within	VS I	chi-	VS 201	chi-
Age class (years)	-	0/	050/ 64	sign		0/	050/ 01	sign	-	0/	050/ 61	sign	Diff	squared	Diff	squared
	n	%	95% CI	***	n	%	95% CI	***	n	%	95% CI	**		sign		sign
35-44	717	35	31 38		530	28	24 32		248	21	16 26		-14	***	-7	*
45-54	752	51	47 54		588	46	42 50		248	32	26 38		-19	***	-14	**
55-64	784	64	61 68		564	62	58 66		277	58	53 64		-6	ns	-3	ns
65-74	732	76	72 79		536	76	72 80		258	74	69 79		-2	ns	-2	ns
							U	ndiagnosed	nype	rtens	ion		20	18-2019	2019	3-2019
	1	1998-2	2002	Chi-squared	2	2008-2	2012	Chi-squared	2	018-2	2019	Chi-squared		998-2002		08-2012
Age class				test within period				test within period				test within period	Diff	chi- squared	Diff	chi- squared
(years)	n	%	95% CI	sign	n	%	95% CI	sign	n	%	95% CI	sign	D	sign	D	sign
35-44	249	67	62 73	**	149	54	46 62	***	52	62	48 75	***				
45-54	380	52	47 57		269	40	34 46		79	35	25 46		-6 -16	ns **	-4	ns ns
55-64	505	48	44 52		349	32	27 37		162	23	17 30		-25	***	-8	ns
65-74	553	39	35 43		407	25	20 29		191	21	16 27		-18	***	-3	ns
							Diagnos	ed but unt	reate	d hyp	ertensio	n				
		1998-2	2002	Chi-squared	2	2008-2	2012	Chi-squared	2	018-2	2019	Chi-squared		18-2019		3-2019
				test within				test within	-			test within	vs 1	998-2002 chi-	vs 20	08-2012 chi-
Age class (years)		0.0		period sign				period sign				period sign	Diff	squared	Diff	squared
	n	%	95% CI	***	n	%	95% CI	***	n	%	95% CI	ns ns		sign		sign
35-44	249	18	14 23		149	29	22 36		52	17	7 28		-1	ns	-12	ns
45-54	380	19	15 23		269	20	16 25		79	19	10 28		0.0	ns	-1	ns
55-64	505	12	9 14		349	13	9 16		162	10	6 15		-1	ns	-2	ns
65-74	553	10	8 13		407	6	3 8		191	9	5 13		-1	ns	3	ns
							U	ncontrolled	l hype	rtens	ion					
	1	1998-2	2002	Chi-squared	2	2008-2	2012	Chi-squared	2	018-2	2019	Chi-squared		18-2019 998-2002		3-2019 08-2012
Age class				test within period				test within period				test within period	- 03.1	chi-	V3 20	chi-
(years)	n	%	95% CI	sign	n	%	95% CI	sign	n	%	95% CI	sign	Diff	squared sign	Diff	squared sign
	"	70	33% CI	***	"	/0	33% CI	***	"	/0	55% CI	ns		Jigii		Jigii
35-44	249	10	7 14		149	9	4 13		52	10	2 18		-1	ns	1	ns
45-54	380	21	17 25		269	27	22 32		79	27	17 36		5	ns	-1	ns
55-64	505	32	28 37		349	29	24 34		162	25	19 32		-7	ns **	-4	ns **
65-74	553	43	39 47		407	43	38 48		191	28	22 35		-15		-14	
							(Controlled	hyper	tensio	on					
	1	1998-2	2002	Chi-squared	2	2008-2	2012	Chi-squared	2	018-2	2019	Chi-squared		18-2019 998-2002		3-2019 08-2012
Age class				test within period				test within period				test within period		chi-		chi-
(years)	n	%	95% CI	sign	n	%	95% CI	sign	n	%	95% CI	sign	Diff	squared sign	Diff	squared sign
		70	33/0 CI	ns		,0	3370 CI	***		70	33/6 CI	***				J.B.I.
35-44	249	4	1 6		149	9	4 13		52	12	3 20		8	*	3	ns
45-54	380	8	5 11		269	13	9 17		79	19	10 28		11	**	6	ns **
55-64	505	8	5 10		349	26	22 31		162	41	33 48		33	***	14	**
65-74	553	7	5 9		407	27	23 31		191	41	34 48		34	***	14	**

CI: confidence interval. Diff: prevalence difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of prevalence. Chi-squared test to compare prevalences between periods and among age classes within the period. Raised blood pressure: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg and/or under specific pharmacological treatment. Hypertension is divided into 'undiagnosed, 'diagnosed but untreated', 'uncontrolled' (treated and SBP≥ 140 mmHg or DBP≥ 90 mmHg) and 'controlled' (treated and SBP < 140 mmHg and DBP < 90 mmHg). Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S7. Prevalence of blood pressure treatment, raised blood pressure, hypertension and state of hypertension control based on measurements, by age class and period. Italian resident women aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

								D.I.	•	WOMEN		•						
								Blood	pres	sure drug	trea	tme	nt		20	18-2019	20	18-2019
	1	1998	3-200)2	Chi-squared test within	-	200	8-201	12	Chi-squared test within		201	8-20	19		998-2002		008-2012
Age class (years)					period sign					period sign					Diff	chi- squared	Diff	chi- squared
(years)	n	%	959	6 CI	***	n	%	959	6 CI	***	n	%	959	% CI		sign		sign
35-44	715	2	1	3		514	3	1	4		237	1	0	3	-1	ns	-2	ns
45-54 55-64	769 778	15	12 27	17 34		577 584	12 31	9 28	14 35		271 280	12 28	8 22	16 33	-2 -3	ns ns	1 -4	ns ns
65-74	693		42	50		529	54	50	58		278		50	62	10	**	2	ns
								F	Raised	blood pre	essur	e						
	1	998	3-200)2	Chi-squared		200	8-201	12	Chi-squared		201	8-20:	19		18-2019		18-2019
				teell .	test within					test within				odele	vs 1	chi-	vs 2	008-201: chi-
Age class (years)	n	%	059	6 CI	sign	n	%	050	6 CI	sign	n	%	050	% CI	Diff	squared sign	Diff	squared sign
			33/	o Cr	***		70	337		***		70		, o C1				Jigii
35-44	715		12	17		514	6	4	9		237	5	2	8	-9	**	-1	ns *
45-54 55-64	769 778	33	30 47	37 54		577 584	18 34	15 30	21 38		271 280	13	9 15	16 25	-21 -30	***	-5 -14	***
65-74	693		65	72		529		50	58		278		25	36	-38	***	-23	***
									н	ypertensic	on							
	1	998	3-200	12			200	8-201	12			201	8-20:	19		18-2019		18-2019
			LUC		Chi-squared test within			0 201		Chi-squared test within			0 20.		vs 1	chi-	vs 2	008-201: chi-
Age class (years)	n	%	959	/ CI	period sign	n	%	95%	V 61	period sign	n	%	050	% CI	Diff	squared sign	Diff	squared
		76	957	o CI	***		70	957	o CI	***		70	957	70 CI		sign		sign
35-44		15	13	18		514	8	6	11		237	6	3	9	-9	**	-2	ns
45-54 55-64	769 778	38	35 55	41 61		577 584	25 49	21 45	28 53		271	21 40	17 35	26 46	-17	***	-4 -8	ns *
65-74	693		74	80		529		69	76		278		59	70	-18 -12	***	-8	*
	-																_	
								Und	diagn	osed hype	rtens	sion						
	1	1998	3-200)2	Chi-squared	1	200	8-201	L 2	Chi-squared		201	8-20	19		18-2019 1998-2002		18-2019 008-2012
Age class					test within period					test within period					Diff	chi- squared	Diff	chi- squared
(years)	n	%	959	6 CI	sign	n	%	959	6 CI	sign	n	%	959	% CI		sign	J	sign
35-44	110	62	53	71	***	43	40	25	54	***	15	47	21	72	-15	ns	7	ns
45-54	292		40	51		144	39	31	47		58	29	18	41	-16	*	-10	ns
55-64	451	33	29	38		285	24	19	28		113	21	14	29	-12	*	-2	ns
65-74	532	32	28	36		384	20	16	23		179	11	6	15	-22	***	-9	**
							Diag	nose	d but	untreated	d hyp	ert	ensio	n				
	1	998	3-200)2	Chi-squared		200	8-201	12	Chi-squared		201	8-20:	19		18-2019		18-2019
Age class					test within period					test within						chi-		008-2012 chi-
(years)	n	%	959	6 CI	sign	n	%	959	6 CI	sign	n	%	959	% CI	Diff	squared sign	Diff	squared sign
					***					**								
35-44 45-54	110 292		15 12	31 21		43 144	26 15	13 9	39 20		15 58	33 14	9	57 23	11 -3	ns ns	8 -1	ns ns
55-64	451		10	17		285	12	8	16				5	16	-3	ns	-2	ns
65-74	532	8	6	10		384	6	4	9		179	2	0	4	-6	***	-4	***
								Und	ontr	olled hype	rtens	sion						
	-	000	3-200	12			200	8-201					8-20:	10	20	18-2019	20	18-2019
	15.	.990	3-20 0	,,	Chi-squared test within		200	8-201	LZ	Chi-squared test within		201	6-20 .	19	vs 1	chi-	vs 2	008-2012 chi-
Age class (years)		0.6			period sign		0.0			period sign		0.6			Diff	squared	Diff	squared
	n	%	959	6 CI	***	n	%	959	6 CI	***	n	%	95	% CI		sign		sign
35-44	110		4	16		43	12	2	21		15	0	0	0	-10	-	-12	-
45-54 55-64	292		21	31		144 285		12	25 39		58 113	16	6	25	-11	ns ***	-3	ns **
65-74	451 532		35 45	<i>44 53</i>		384		28 43	53		179		11 28	25 42	-22 -14	***	-16 -14	***
										lled hypert					20	18-2019	20	18-2019
	1	1998	3-200)2	Chi-squared test within		200	8-201	12	Chi-squared test within		201	8-20:	19		1998-2002		008-2012
Age class					period					period					Diff	chi- squared	Diff	chi- squared
(years)	n	%	959	6 C I	sign - ns	n	%	959	% CI	sign - ns	n	%	959	% CI		sign		sign
35-44	110		1	10		43	23	11	36		15	20	0	40	15	*	-3	ns
							28	20	35		58	41	29	54	29	***	14	ns
45-54	292		8	16		144												
	292 451 532	14	8 10 8	16 17 14		285 384	31	26 21	36 30		113 179	50	41 45	60 60	37 41	***	20	**

CI: confidence interval. Diff: prevalence difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of prevalence. Chi-squared test to compare prevalences between periods and among age classes within the period. Raised blood pressure: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg and/or under specific pharmacological treatment. Hypertension is divided into 'undiagnosed, 'diagnosed but untreated', 'uncontrolled' (treated and SBP≥ 140 mmHg or DBP≥ 90 mmHg) and 'controlled' (treated and SBP < 140 mmHg and DBP < 90 mmHg). Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S8. Prevalence of blood pressure treatment, raised blood pressure, hypertension and state of hypertension control based on measurements, by educational class and period. Italian resident men aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

							Dla -	d pressure		tros	tmort					
	1.	000	2002			000		a pressure					20	18-2019	201	8-2019
	1	998-	2002	Chi-squared test within period		008-	2012	Chi-squared test within period		018	-2019	Chi-squared test within period	vs 1	998-2002 chi-		008-2012 chi-
ational level	n	%	95% CI	sign - ns	n	%	95% CI	sign - ns	n	%	95% CI	sign ns	Diff	squared sign	Diff	squared sign
er education er education	1249 1730	18 19	16 20 18 21	113	1183 1018	24 25	22 27 22 28	115	725 303	26 24	23 29 19 29	113	8	*** ns	2 -1	ns ns
reducation	1700		,0 2,		1010			Data ad blas						113		113
	1	998-	2002		2	008	2012	Raised bloc			-2019			18-2019	201	.8-2019
		330-	2002	Chi-squared test within period		.000-	2012	Chi-squared test within period		.010	-2013	Chi-squared test within period		998-2002 chi-		008-2012 chi-
cational level	n	%	95% CI	sign	n	%	95% CI	sign	n	%	95% CI	sign	Diff	squared sign	Diff	squared sign
er education	1249	48	45 51	ns	1183	35	33 38	**	725	28	25 31	ns	-20	***	-7	**
education	1730	51	49 54		1018	43	40 46		303	34	29 39		-17	***	-9	**
								Hypert	ensio	n						
	1	998-	2002	Chi-squared test within	2	008-	2012	Chi-squared test within	2	2018	-2019	Chi-squared test within		18-2019 998-2002		.8-2019 008-2012
ational level				period sign				period sign				period sign	Diff	chi- squared	Diff	chi- squared
	n	%	95% CI	*	n	%	95% CI	- ns	n	%	95% CI	ns		sign		sign
er education er education	1249 1730	51 55	49 54 53 58		1183 1018	48 51	45 51 48 54		725 303	43 46	40 47 40 52		-8 -9	**	-4 -5	ns ns
							Un	diagnosed	hvper	tens	sion					
	1	998-	2002	Chi-squared	2	.008-	2012	Chi-squared			-2019	Chi-squared		18-2019 998-2002		.8-2019 008-2012
cational level				test within period				test within period				test within period		chi- squared	Diff	chi-
cational level	n	%	95% CI	sign -	n	%	95% CI	sign —		%	95% CI	sign	υш	squared	υш	squared sign
er education	621	53	49 57	ns	555	38	34 42	ns	n 314	36	30 41	ns	-18	***	-2	ns
er education	1063	54	51 57		610	40	36 44		168	38	30 45		-16		-2	ns
			12227					ed but untr				1 	20	18-2019	201	.8-2019
	1	998-	2002	Chi-squared test within	2	.008-	2012	Chi-squared test within	2	2018	-2019	Chi-squared test within	vs 1	998-2002 chi-	vs 20	008-2012 chi-
icational level	n	%	95% CI	period sign	n	%	95% CI	period sign	n	%	95% CI	period sign	Diff	squared sign	Diff	squared sign
ner education	621	16	13 19	ns	555	20	17 23	ns	314	13	10 17	ns	-3	ns	-6	*
er education	1063	15	13 17		610	16	13 19		168	16	10 21		1	***	-0.4	ns
							Un	controlled	hyper	tens	ion					
	1	998-	2002	Chi-squared test within	2	008-	2012	Chi-squared test within	2	2018	-2019	Chi-squared test within		18-2019 998-2002		.8-2019 008-2012
cational level		220		period sign				period sign				period sign	Diff	chi- squared	Diff	chi- squared
	n	%	95% CI	- ns	n	%	95% CI	**	n	%	95% CI	ns		sign		sign
er education er education	621 1063	24 25	21 28 22 27		555 610	21 29	18 25 25 32		314 168	21 26	17 26 20 33		-3 2	ns ***	0.1 -2	ns ns
							c	ontrolled h	ypert	ensi	on					
	1:	998-	2002	Chi-squared	2	.008-	2012	Chi-squared			-2019	Chi-squared		18-2019		.8-2019
cational level				test within period				test within period				test within period		chi- squared		chi- squared
adonal level	n	%	95% CI	sign - ns	n	%	95% CI	sign - **	n	%	95% CI	sign *	Dill	squared	5111	squared
er education	621	6	4 8	.13	555	21 15	18 25 12 18		314 168	30 20	25 35 14 26		24	***	8	**
er education	1063	7	5 8		610								13	**	5	ns

Prevalence are age-standardized by ISTAT Italian population 2000, 2010 and 2019 respectively. CI: confidence interval. Diff: prevalence difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of prevalence. Higher education - high school or college; lower education - primary or middle school. Chi-squared test to compare prevalences between periods and among age classes within the period. Raised blood pressure: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg and/or under specific pharmacological treatment. Hypertension is divided into 'undiagnosed, 'diagnosed but untreated', 'uncontrolled' (treated and SBP ≥ 140 mmHg or DBP≥90 mmHg) and 'controlled' (treated and SBP < 140 mmHg and DBP < 90 mmHg). Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S9. Prevalence of blood pressure treatment, raised blood pressure, hypertension and state of hypertension control based on measurements, by educational class and period. Italian resident women aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

								Blo	ood p	WOME pressure dr		eatm	ent						
	1	998-	2002			2	008-	2012				018-		,			18-2019		8-2019
tional level					Chi-squared test within period sign		-550			Chi-squared test within period sign					Chi-squared test within period sign		chi- squared		chi- squared
	n	%	95%	6 CI		n	%	959	% C I		n	%	95%	s CI			sign		sign
ducation	1052	16	14	19	***	1167	19	16	21	***	725	19	17	22	**	3	ns	1	ns
ucation	1887	23	22	25		1017	26	23	28		339	27	23	32		4	ns	2	ns
									Rai	ised blood	press	ure							
	1	998-	2002		Chi-squared	2	008-	2012	2	Chi-squared	2	018-	2019)	Chi-squared		18-2019 998-2002		8-2019 08-2012
nal level					test within period sign					test within period sign					test within period sign	Diff	chi- squared sign	Diff	chi- squared sign
	n	%	95%	6 CI	**	n	%	959	6 CI	***	n	%	95%	S CI	**				
ication ication	1052 1887	35 42	32 40	38 44		1167 1017	22 29	19 26	24 32		725 339	14 21	12 17	17 25		-21 -21	***	-7 -8	***
										Hyperter	sion								
	1	998-	2002		Chi-squared	2	008-	2012	2	Chi-squared	2	018-	2019	,	Chi-squared		18-2019 998-2002		8-2019 08-2012
nal level					test within period					test within period					test within period	Diff	chi- squared	Diff	chi- squared
	n	%	959	6 CI	sign **	n	%	959	% C I	sign ***	n	%	95%	s CI	sign **		sign		sign
education education	1052 1887	40 47	37 45	43 49		1167 1017	31 40	28 37	34 43		725 339	28 39	25 34	31 44		-12 -8	***	-3 -1	ns ns
								ı	Jndia	gnosed hy	perte	nsio	n						
	1	998-	2002		a	2	008-	2012	2	al: 1	2	018-	2019)	al: 1		18-2019 998-2002		.8-2019 008-2012
					Chi-squared test within period					Chi-squared test within period					Chi-squared test within period		chi-		chi-
ational level	n	%	959	6 CI	sign ns	n	%	959	% CI	sign **	n	%	95%	s CI	sign	Diff	squared sign	Diff	squared sign
r education r education	337 1037	47 43	42 40	53 46	715	311 534	36 25	31 21	42 28		192 172	27 29	21 23	34 36	ns	-20 -14	***	-9 5	* ns
							Di	iagno	sed	but untrea	ted h	yper	tens	ion					
	1	998-	2002		Chi-squared	2	008-	2012	2	Chi-squared	2	018-	2019)	Chi-squared		18-2019 998-2002		.8-2019 008-2012
onal level		%	959	% CI	test within period sign		%	959	% CI	test within period sign	п	%	95%	s cı	test within period sign		chi- squared sign	Diff	chi- squared sign
r education	337	19	14	23	ns	311	15	11	19	ns	192	16	11	22	ns	-2	ns	1	ns
education	1037	15	13	18		534	17	13	20		172	13	8	18		-3	***	-4	*
										ntrolled hy						20:	18-2019	201	8-2019
	1	998-	2002		Chi-squared test within period	2	.008-	2012	2	Chi-squared test within period	2	2018-	2019		Chi-squared test within period	vs 1	998-2002 chi-	vs 20	008-2012 chi-
ational level	n	%	959	6 CI	sign **	n	%	959	% C I	sign	n	%	95%	СІ	sign	Diff	squared sign	Diff	squared sign
r education r education	337 1037	23 31	19 29	28 34		311 534	22 28	18 25	27 32	113	192 172	15 17	10 12	20 23	113	-8 -14	*	-7 -11	* ns
									Con	trolled hyp	erten	sion							
	1	998-	2002		Chi-squared	2	008-	2012	2	Chi-squared	2	018-	2019)	Chi-squared		18-2019 998-2002		8-2019 008-2012
itional level		0.			test within period sign		0,		·	test within period sign		0.			test within period sign	Diff	chi- squared sign	Diff	chi- squared sign
	n	%	959		ns	n	%		6 CI	ns	n	%	95%		ns			100.000	
r education r education	337 1037	11	7 8	14		311 534	26 31	21 27	31 34		192 172	41 40	34 33	48 48		31	***	15 10	**

Prevalence are age-standardized by ISTAT Italian population 2000, 2010 and 2019 respectively. CI: confidence interval. Diff: prevalence difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of prevalence. Higher education - high school or college; lower education - primary or middle school. Chi-squared test to compare prevalences between periods and among age classes within the period. Raised blood pressure: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90. Hypertension is divided into 'undiagnosed, 'diagnosed but untreated', 'uncontrolled' (treated and SBP≥ 140 mmHg or DBP≥ 90 mmHg) and 'controlled' (treated and SBP < 140 mmHg and DBP < 90 mmHg). Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S10. Age-standardized blood pressure mean values, and prevalence of raised blood pressure, hypertension and controlled hypertension based on measurements by sex and Italian Region. Italian resident men and women aged 35–74 years, the CUORE Project Survey 2018-2019.

201	8-2	2019
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									М	EN								
		Syst		od pres nHg)	sure	Diast		ood pres nHg)	sure		ised blo pressure		Ну	pertens	ion		ontrolle pertens	
Italian Region	n	mean	SD	95	%CI	mean	SD	959	%CI	%	95%	í CI	%	95%	S CI	%	95%	S CI
Abruzzo	102	134	14	132	137	78	10	76	80	36	27	45	47	37	56	18	10	25
Calabria	101	132	13	130	135	76	9	<i>75</i>	<i>78</i>	31	22	40	49	39	59	31	22	40
Liguria	104	127	12	125	130	76	10	74	<i>78</i>	20	12	27	40	30	49	31	22	40
Lazio	99	130	13	127	133	79	10	77	81	29	20	38	47	37	57	31	22	40
Lombardy	98	134	15	131	137	78	9	76	80	37	27	46	48	38	58	19	11	26
Piedmont	104	129	13	126	131	75	9	73	77	18	11	26	35	26	45	43	34	53
Emilia Romagna	104	134	15	131	137	79	10	77	81	30	21	39	42	33	51	20	12	27
Basilicata	106	134	15	132	137	80	10	<i>78</i>	82	35	26	44	48	39	58	27	19	36
Tuscany	108	129	13	127	132	77	9	<i>75</i>	79	28	20	37	40	31	50	25	17	33
Sicily	105	132	13	129	134	78	10	76	80	33	24	42	44	35	54	27	18	35

WOMEN

		Syste	(mmHg) SD 95%CI m 17 118 125 14 119 124 15 114 120 14 122 127 18 124 131 13 115 119 16 124 130 16 118 124					od pres nHg)	sure		ised blo pressure		Ну	pertens	ion	_	ontrolle pertensi	
Italian Region	n	mean	SD	959	%CI	mean	SD	959	%CI	%	95%	6 CI	%	95%	6 CI	%	95%	6 CI
Abruzzo	104	122	17	118	125	73	10	71	<i>7</i> 5	14	8	21	31	22	40	45	35	54
Calabria	109	121	14	119	124	70	10	68	72	16	9	23	40	31	50	48	38	57
Liguria	107	117	15	114	120	72	11	70	74	15	8	22	30	21	38	32	23	40
Lazio	114	124	14	122	127	76	9	74	78	16	9	22	35	26	43	68	60	77
Lombardy	100	127	18	124	131	75	11	73	77	24	16	33	37	27	46	35	25	44
Piedmont	113	117	13	115	119	70	9	68	71	8	3	13	16	10	23	43	34	53
Emilia Romagna	106	127	16	124	130	76	11	74	78	24	16	32	40	30	49	32	23	41
Basilicata	114	121	16	118	124	72	10	70	74	16	9	23	31	23	39	22	15	30
Tuscany	97	120	15	117	123	72	9	70	74	15	8	23	22	14	31	22	14	30
Sicily	102	124	14	121	127	74	9	72	76	17	10	24	37	27	46	63	54	73

SD: standard deviations. Means, standard deviations and prevalences were age-standardized by Italian National Institute of Statistics-ISTAT Italian population 2019. Raised blood pressure: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg and/or under specific pharmacological treatment. Controlled hypertension: treated and SBP < 140 mmHg and DBP < 90 mmHg. Regional data for 1998–2002 and 2008–2012 CUORE Project surveys were available at http://www.cuore.iss.it/eng/survey/cuoredata.

Table S11. Blood pressure and heart rate measurements and prevalence of blood pressure treatment, raised blood pressure, hypertension and state of hypertension control, (age-adjusted using the European standard population) by sex and period. Italian resident men and women aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

								Г	MEN							
		1998-	2002		2	800	-2012	2	2	018	- 201 9)	201	8-2019	201	8-2019
		n=29	985			n=2	218			n=1	031		vs 19	98-2002	vs 20	08-2012
	mean	SD	959	6 CI	mean	SD	959	% CI	mean	SD	959	6 CI	Diff	t-test p-value	Diff	t-test p-value
Systolic blood pressure - SBP (mmHg)	136	18	136	137	132	16	132	133	132	14	131	132	-5	***	-1	ns
Diastolic blood pressure - DBP (mmHg)	86	11	86	87	84	10	83	84	77	10	77	78	-9	***	-6	***
SBP not under drug treatment (mmHg)	134	17	133	135	131	16	130	131	131	14	130	132	-3	***	0.3	ns
DBP not under drug treatment (mmHg)	85	10	85	86	83	10	83	84	77	10	76	77	-9	***	-6	***
Heart rate (beats per minute)	66	11	66	66	69	10	68	69	72	12	71	72	6	***	3	***
													Diff	chi- squared	Diff	chi- squared
	%	959	6 CI		%	959	% CI		%	95	% CI			p-value		p-value
Blood pressure drug treatment	20	18	21		26	24	27		25	23	28		6	**	-0.4	ns
Raised blood bressure	51	49	53		41	39	43		30	27	32		-21	***	-11	***
Hypertension	55	53	57		51	49	53		44	41	47		-11	***	-7	**
Hypertension																
Undiagnosed	53	50	55		39	36	41		37	32	41		-16	***	-2	ns
Diagnosed but untreated	15	14	17		18	16	20		14	11	17		-1	ns	-3	ns
Uncontrolled	26	23	28		26	23	28		22	18	26		-4	ns	-4	ns
Controlled	7	5	8		18	16	20		27	23	31		20	***	9	***

								W	OMEN							_
		1998-	2002		2	008	-2012		2	018	-2019			8-2019 98-2002		8-2019 08-2012
	mean	SD		% CI	mean			% CI	mean	SD	959	% CI	Diff	t-test p-value	Diff	t-test p-value
Systolic blood pressure - SBP (mmHg)	132	18	131	132	127	17	126	127	122	16	121	123	-10	***	-5	***
Diastolic blood pressure - DBP (mmHg)	82	10	82	83	79	9	78	79	73	11	72	73	-9	***	-6	***
SBP not under drug treatment (mmHg)	129	16	128	129	124	15	123	125	120	15	119	121	-9	***	-4	***
DBP not under drug treatment (mmHg)	81	10	80	81	78	9	77	78	72	10	71	72	-9	***	-6	***
Heart rate (beats per minute)	70	11	69	70	71	9	71	71	73	11	72	73	3	***	2	***
													Diff	chi- squared	Diff	chi- squared
	%	959	% CI		%	95	% CI		%	95	% CI			p-value		p-value
Blood pressure drug treatment	22	20	23		23	21	25		22	19	24		0.3	ns	-1	ns
Raised blood bressure	40	38	41		26	24	28		16	14	18		-23	***	-10	***
Hypertension	45	43	46		36	34	38		31	28	34		-14	***	-5	**
Hypertension																
Undiagnosed	44	42	47		31	28	34		28	24	33		-16	***	-3	ns
Diagnosed but untreated	16	14	18		15	13	18		16	12	20		0.3	ns ***	1	ns ***
Uncontrolled	30	27	32		26	24	29		16	12	19		-14	***	-11	***
Controlled	10	9	12		27	24	30		40	35	45		30	***	13	***

Means, standard deviation and prevalence are age-standardized by European standard population 2013.SD: standard deviation. CI: confidence interval. Diff: mean or percentage difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of means or prevalence. t-test to compare mean values between periods. Chi-squared test to compare prevalences between periods. Raised blood pressure ≥90 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension is divided into 'undiagnosed, 'diagnosed but untreated', 'uncontrolled' (treated and SBP≥ 140 mmHg or DBP≥ 90 mmHg) and 'controlled' (treated and SBP < 140 mmHg and DBP < 90 mmHg). Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S12. Blood pressure measurements and heart rate mean levels by educational level and period (age-adjusted using the European standard population). Italian resident men aged 35–74 years, the CUORE Project Surveys 1998–2002, 2008–2012, and 2018–2019.

·												MEN										
										Systo	lic bloo	d press	ure (mmHg	g)							
																				-2019		-2019
		199	98-2	002		ANOVA within		20	08-2	012		ANOVA within		20	18-2	2019		ANOVA within	vs 199	8-2002 t-test	vs 200	18-2012 t-test
Educational level	n	mean	SD	95%	6 CI	period sign	n	mean	SD	95	% CI	period sign	n	mean	SD	95	% CI	period sign	Diff	sign	Diff	sign
Higher education	1249	135	17	135	136	***	1183	131	15	130	131	***	725	131	14	130	132	***	-5	***	0.1	ns
Lower education	1730	137	18	136	138		1018	134	17	133	135		303	134	16	132	135		-3	**	-0.3	ns
										Diasto	lic blo	od press	sure	(mmH	g)							
		199	98-2	002		ANOVA		20	08-2	012		ANOVA		20	18-2	2019		ANOVA		-2019 8-2002		-2019 8-2012
						within						within						within		t-test		t-test
Educational level	n	mean	SD	95%	6 CI	sign	n	mean	SD	95	% CI	sign	n	mean	SD_	95	% CI	sign	Diff	sign	Diff	sign
Higher education	1249	87	11	86	87	ns	1183	83	10	83	84	ns	725	77	10	77	78	ns	-9	***	-6	***
Lower education	1730	86	11	86	87		1018	84	10	83	84		303	78	10	77	79		-8	***	-6	***
							Sys	tolic k	oloo	d pres	sure no	ot unde	r dru	g trea	tme	nt (m	mHg)					
		400				ANOVA						ANOVA						ANOVA		-2019		-2019
		199	98-2	002		within		20	08-2	012		within		20	18-2	2019		within	vs 199	8-2002 t-test	vs 200	8-2012 t-test
Educational level	n	mean	SD	95%	6 CI	period sign	n	mean	SD	95	% CI	period sign	n	mean	SD	95	% CI	period sign	Diff	sign	Diff	sign
Higher education	1046	134	16	133	135	***	913	129	15	128	130	***	537	130	13	129	131	***	-4	***	1	ns
Lower education	1305	134	17	133	135		680	132	16	131	133		205	133	15	131	135		-1	ns	1	ns
							Dia	stolic	bloo	d pres	ssure n	ot unde	er dru	ıg trea	tme	nt (m	mHg)					
										•				.g						-2019		-2019
		199	98-2	002		ANOVA within		20	08-2	012		ANOVA within		20	18-2	2019		_ ANOVA within	vs 199	8-2002	vs 200	8-2012
Educational level	n	mean	SD	95%	<i>(</i> 6)	period sign	n	mean		05	% CI	period sign	n	mean		05	% CI	period sign	Diff	t-test sign	Diff	t-test sign
						ns						ns ns			"			ns ns				
Higher education Lower education	1046 1305	86 85	10 10	85 85	86 86		913 680	83 83	10 10	82 83	83 84		537 205	77 77	10 9	76 76	78 78		-9 -8	***	-6 -6	***
										Hear	t rate	(beats p	er m	inute)					2019	-2019	2019	-2019
		199	98-2	002		ANOVA		20	08-2	012		ANOVA		20	18-2	2019		ANOVA		8-2002		8-2012
Educational level						within period						within period						within period	Diff	t-test	Diff	t-test
	n	mean	SD	95%	6 CI	sign ns	n	mean	SD .	95	% CI	sign ns	n	mean	SD	95	% CI	sign **		sign		sign
Higher education	1244	66	11	65	67	115	1183	66	11	65	67	115	725	71	11	70	71		5	***	5	***
Lower education	1730	66	11	65	67		1018	66	12	66	67		303	74	12	73	76		8	***	8	***

Means and standard deviations age-standardized by European standard population 2013. SD: standard deviation; CI: confidence interval. Diff: mean difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of means. Higher education - high school or college; lower education - primary or middle school. ANOVA: Analysis of Variance to compare variables among age classes within periods. t-test to compare variables between periods. *** p-value<0.001; ** p-value<0.005; ns not significant p-value. Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S13. Blood pressure measurements and heart rate mean levels by educational level and period (age-adjusted using the European standard population). Italian resident women aged 35–74 years, the CUORE Project Surveys 1998–2002, 2008–2012, and 2018–2019.

•											V	VOMEN	l									
									9	Systoli	c bloo	d press	ure (mmHg	;)							
		100	0 20	2		ANOVA		200		112		ANOVA		201	0 20	10		ANOVA		-2019 8-2002		-2019 8-2012
		199	8-20	UZ		within		200	08-20)12		within		201	8-20	19		within	VS 199		VS 200	
Educational level	n	mean	SD	059	% CI	sign	n	mean	SD	059	6 CI	sign	n	mean	SD	95%	. CI	sign	Diff	t-test sign	Diff	t-test sign
High an advention	1052	130	16	129		***	1167	124		123	125	***	725	120		119		***	10	***		***
Higher education Lower education	1887	133	18	132			1017	130	15 18	123	131		339	125	15 17	123			-10 -8	***	-4 -4	***
									D	iastol	ic bloc	d press	ure ((mmH _i	g)							
		400				ANOVA						ANOVA						ANOVA		-2019		-2019
		199	8-20	02		within		200	08-20)12		within		201	8-20	19		within	vs 199	8-2002	vs 200	8-2012
Educational level	n	mean	SD	959	% CI	sign	n	mean	SD	959	6 CI	sign	n	mean	SD	95%	6 CI	sign	Diff	t-test sign	Diff	t-test sign
Higher education	1052	81	10	81	82	***	1167	78	9	77	78	***	725	72	11	72	73	**	-9	***	-6	***
Lower education	1887	83	10	82	83		1017	79	10	79	80		339	74	10	73	75		-9	***	-5 -5	***
							Svs	tolic b	lood	press	ure no	t unde	r dru:	g treat	men	ıt (mr	nHg)					
						ANOVA	.,.			•		ANOVA		-		•	σ,	ANOVA		-2019		-2019
		199	8-20	02		within		200)8-20)12		within		201	8-20	19		within	vs 199	8-2002	vs 200	8-2012
Educational level	n	mean	SD	959	% CI	period sign	n	mean	SD	959	6 CI	sign	n	mean	SD	95%	6 CI	period sign	Diff	t-test sign	Diff	t-test sign
Higher education	928	128	16	127		***	992	122	14	121	122	***	593	119	15	117		***	-9	***	-3	***
Lower education	1331	129	16	129	130		651	127	16	126	128		203	123	16	121			-6	***	-4	**
							Diag	stolic b	lood	nress	ure no	ot unde	r dru	ıg trea	tmei	nt (m	mHø)				
						44101/4				•				_			8			-2019		-2019
		199	8-20	02		ANOVA within		200)8-20)12		ANOVA		201	8-20	19		ANOVA	vs 199	8-2002	vs 200	8-2012
Educational level	n	mean	SD	056	% CI	period sign	n	mean	SD	056	6 CI	period sign	n	mean	SD	95%	/ CI	period sign	Diff	t-test sign	Diff	t-test sign
11:-1	928	81	10	80	81	***	992	77	9		78	***	593	71	10	70	72	*	•	***		***
Higher education Lower education	1331	81	10	81	82		651	78	9	78	79		203	73	10	72	75		-9 -8	***	-6 -5	***
												. .		•								
										Heart	rate (beats p	er m	inute)					2018	-2019	2018	-2019
		199	8-20	02		ANOVA within		200	08-20)12		ANOVA within		201	8-20	19		ANOVA within	vs 199	8-2002	vs 200	8-2012
Educational level						period sign						period sign						period sign	Diff	t-test sign	Diff	t-test sign
	n	mean	SD	959	% CI	ns	n	mean	SD		6 CI	- ns	n	mean	SD	95%	6 CI	ns		-		
Higher education Lower education	1047 1884	69 70	11 11	69 69	70 70		1167 1017	71 71	9 9	70 71	71 72		725 339	73 73	10 11	72 72	73 75		3 4	***	2	**
																					_	

Means and standard deviations age-standardized by European standard population 2013. SD: standard deviation; CI: confidence interval. Diff: mean difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of means. Higher education - high school or college; lower education - primary or middle school. ANOVA: Analysis of Variance to compare variables among age classes within periods. t-test to compare variables between periods. *** p-value<0.001; ** p-value<0.005; ns not significant p-value. Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S14. Prevalence of blood pressure treatment, raised blood pressure, hypertension and state of hypertension control based on measurements, by educational class and period (age-adjusted using the European standard population). Italian resident men aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

								ME	N							
							Bloo	l pressure d	rug tı	eatn	nent			10 2010	201	0.2010
	1	998-2	2002		2	008-	2012		2	2018-	2019			18-2019 998-2002		18-2019 108-2012
Educational level	n	%	95% CI	Chi-squared test within period sign	n	%	95% CI	Chi-squared test within period sign ns	n	%	95% CI	Chi-squared test within period sign	Diff	chi- squared sign	Diff	chi- squared sign
Higher education Lower education	1249 1730	19 20	16 21 18 22		1183 1018	26 26	23 28 24 29		725 303	26 24	23 29 19 29		7	** ns	0.2 -2	ns ns
							1	Raised blood	pres	sure						
	1:	998-2	2002		2	008-	2012		2	2018-	2019			18-2019 998-2002		18-2019 108-2012
Educational level	n	%	95% CI	Chi-squared test within period sign	n	%	95% CI	Chi-squared test within period sign	n	%	95% CI	Chi-squared test within period sign	Diff	chi- squared sign	Diff	chi- squared sign
Higher education Lower education	1249 1730	49 52	46 52 50 55	ns	1183 1018	36 44	33 39 41 47	**	725 303	28 34	25 31 29 39	ns	-21 -18	***	-8 -10	**
								Hyperte	neion							
	1:	998-2	2002	Chi-squared	2	008-	2012	Пуретсе			2019			18-2019		18-2019
Educational level	n	%	95% CI	test within period sign	n	%	95% CI	Chi-squared test within period sign	n	%	95% CI	Chi-squared test within period sign		chi- squared	Diff	chi- squared sign
Higher education Lower education	1249 1730	53 56	50 55 54 59	*	1183 1018	49 53	46 52 50 56		725 303	43 46	40 47 40 52	ns	-9 -10	***	-6 -7	*
							Un	diagnosed h	ypert	ensid	on					
	1	998-2	2002		2	008-	2012	Chi-squared	2	2018-	2019	Chi-squared		18-2019 998-2002		18-2019 108-2012
Educational level	n	%	95% CI	Chi-squared test within period sign	n	%	95% CI	test within period sign	n	%	95% CI	test within period sign	Diff	chi- squared sign	Diff	chi- squared sign
Higher education Lower education	621 1063	53 53	49 57 50 56	ns	555 610	36 39	32 40 35 43		314 168	36 38	31 41 31 46	ns	-17 -15	***	-0.2 -1	ns ns
						D	iagnose	d but untre	ated	hype	rtension					
	1	998-2	2002		2	008-	2012		2	2018-	2019			18-2019 998-2002		18-2019 008-2012
Educational level	n	%	95% CI	Chi-squared test within period sign	n	%	95% CI	Chi-squared test within period sign	n	%	95% CI	Chi-squared test within period sign		chi- squared sign	Diff	chi- squared sign
Higher education Lower education	621 1063	16 15	13 19 12 17	ns	555 610	19 16	16 22 13 18		314 168	13 15	10 17 10 21	ns	-2 1	ns ***	-6 -0.1	* ns
							Un	ontrolled h	ypert	ensid	on					
	1	998-2	2002		2	008-	2012		2	2018-	2019			18-2019 998-2002		18-2019 108-2012
Educational level		0/		Chi-squared test within period		0/		Chi-squared test within period		0/		Chi-squared test within period	Diff	chi- squared	Diff	chi- squared
Higher education	n 621	% 25	95% CI 22 29	sign ns	n 555	%	95% CI	sign **	n 314	% 21	95% CI 17 26	sign ns	-4	sign ns	-1	sign ns
Lower education	1063	26	23 28		610	30	26 33		168	26	19 33		0.5	***	-4	ns
								ntrolled hy					20	18-2019	201	8-2019
Educational level	1	998-2	2002	Chi-squared test within period	2	-800	2012	Chi-squared test within period	2	2018-	-2019	Chi-squared test within period	vs 1	chi- squared		chi- squared
Higher education	n 621	6	95% CI 4 8	sign ns	n 555	% 22	95% CI	sign **	n 314	% 30	95% CI 24 35	sign *	23	sign ***	7	sign *
Lower education	1063	7	5 8		610	15	12 18		168	20	14 26		13	**	5	ns

Prevalence are age-standardized by age-standardized by European standard population 2013. CI: confidence interval. Diff: prevalence difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of prevalence. Higher education - high school or college; lower education - primary or middle school. Chi-squared test to compare prevalences between periods and among age classes within the period. Raised blood pressure: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 and/or under specific pharmacological treatment. Hypertension is divided into 'undiagnosed, 'diagnosed but untreated', 'uncontrolled' (treated and SBP≥ 140 mmHg or DBP≥ 90 mmHg) and 'controlled' (treated and SBP < 140 mmHg and DBP < 90 mmHg). Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.

Table S15. Prevalence of blood pressure treatment, raised blood pressure, hypertension and state of hypertension control based on measurements, by educational class and period (age-adjusted using the European standard population). Italian resident women aged 35–74 years, the CUORE Project Surveys 1998-2002, 2008-2012 and 2018-2019.

									WON	1EN								
									pressure o						20	18-2019	201	8-2019
	1	998-	2002	Chi-squared	2	:008-	2012	<u> </u>	Chi-squared	2	2018	-2019	Chi-squ			998-2002 chi-		008-2012 chi-
Educational level	n	%	95% CI	test within period sign	n	%	959	6 CI	test within period sign	n	%	95%	test wi	bd	Diff	squared sign	Diff	squared sign
Higher education Lower education	1052 1887	16 24	14 19 22 25		1167 1017	19 26	17 24	21 29		725 339	19 27		22 31		2	ns ns	-0.4 0.4	ns ns
								R	aised bloo	d pre	ssure	•						
	1	998-	2002		2	008-	2012	2		2	2018	-2019				18-2019 998-2002		.8-2019 008-2012
Educational level	n	%	95% CI	Chi-squared test within period sign	n	%	959	6 CI	Chi-squared test within period sign	n	%	95%	Chi-squ test w peri-	thin od	Diff	chi- squared sign	Diff	chi- squared sign
Higher education	1052	35	32 38	**	1167	22	20	24	***	725	14		16		-21	***	-8	***
ower education	1887	42	40 44		1017	30	27	32		339	21	16	25		-21	***	-9	**
									Hyperte						20	18-2019	201	8-2019
	1	998-	2002		2	2008-	2012	4		2	2018	2019				998-2002		008-2012
Educational level	n	%	95% CI	Chi-squared test within period sign	n	%	959	6 CI	Chi-squared test within period sign	n	%	95%		thin od	Diff	chi- squared sign	Diff	chi- squared sign
Higher education Lower education	1052 1887	40 47	37 43 45 49	**	1167 1017	32 41	29 38	34 44	***	725 339	27 38		** 30 43		-13 -9	***	-5 -3	*
								Und	iagnosed h			ion						
	1	998-	2002		2	008-	2012		iagiioseu i			-2019				18-2019		8-2019
		-	2002	Chi-squared	_	-			Chi-squared			2015	Chi-squ		vs 1	998-2002 chi-	vs 20	008-2012 chi-
Educational level	n	%	95% CI	test within period sign	n	%	959	6 CI	test within period sign	n	%	95%		od	Diff	squared sign	Diff	squared sign
Higher education Lower education	337 1037	47 43	42 52 40 46	ns	311 534	36 25	30 21	41 28		192 172	28 31		ns 34 38		-19 -12	***	-8 6	ns ns
							Diagn	osec	l but untre	ated	hype	ertens	ion					
	1	998-	2002		2		2012					-2019				18-2019		8-2019
Educational level				Chi-squared test within period					Chi-squared test within period				Chi-squ test w	thin od		chi- squared		chi- squared sign
Higher education	n 337	%	95% CI	sign ns	n 311	%	959	6 CI 19	sign ns	n 192	%	95%	21 sig. ns 23	7	-1	ns	2	ns
Lower education	1037	15	13 18		534	16	13	19		172	13	8	18		-2	***	-3	*
									ontrolled h						20	18-2019	201	8-2019
	1	998-	2002	Chi-squared	2	008-	2012		Chi-squared	2	2018	-2019	Chi-squ	ared		998-2002 chi-		008-2012 chi-
Educational level	n	%	95% CI	test within period sign	n	%	95%	6 CI	test within period sign	n	%	95%		od n	Diff	squared sign	Diff	squared sign
Higher education Lower education	337 1037	24 32	19 28 29 34		311 534	23 29	18 25	27 33		192 172	14 17		ns 19 22		-9 -15	*	-8 -12	* ns
								Co	ntrolled hy	perte	ensio	n						
	1	998-	2002		2	2008	2012					-2019				18-2019 998-2002		.8-2019 008-2012
Educational level	n	%	95% CI	Chi-squared test within period sign	n	%	959	6 CI	Chi-squared test within period sign	n	%	95%	Chi-squ test w peri	thin od		chi- squared sign		chi- squared sign
Higher education	337	11	7 14 8 12	ns	311 534	27	22 26	31	ns	192	40	33	ns 47 47		30 29	***	14	**
Lower education	1037	10	0 12		534	30	20	34		172	40	32	*/		29		9	ns

Prevalence are age-standardized by age-standardized by European standard population 2013. CI: confidence interval. Diff: prevalence difference between 2018–2019 and 1998–2002 or 2018–2019 and 2008–2012; the values are approximated taking into account the first decimal of prevalence. Higher education - high school or college; lower education - primary or middle school. Chi-squared test to compare prevalences between periods and among age classes within the period. Raised blood pressure: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg. Hypertension: systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 and/or under specific pharmacological treatment. Hypertension is divided into 'undiagnosed, 'diagnosed but untreated', 'uncontrolled' (treated and SBP≥ 140 mmHg or DBP≥ 90 mmHg) and 'controlled' (treated and SBP < 140 mmHg and DBP < 90 mmHg). Pool of the following Italian Regions: Piedmont, Lombardy, Liguria, Emilia Romagna, Tuscany, Lazio, Abruzzo, Basilicata, Calabria, and Sicily.