

ELSA-Brasil: conhecendo o povo brasileiro na perspectiva da epidemiologia

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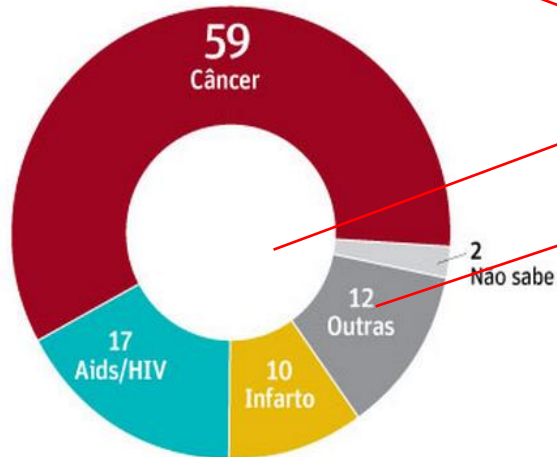
Equívoco recente sobre doenças cardiovasculares

27/11/2013 - 03h00

Brasileiro acha que câncer mata mais que infarto e AVC

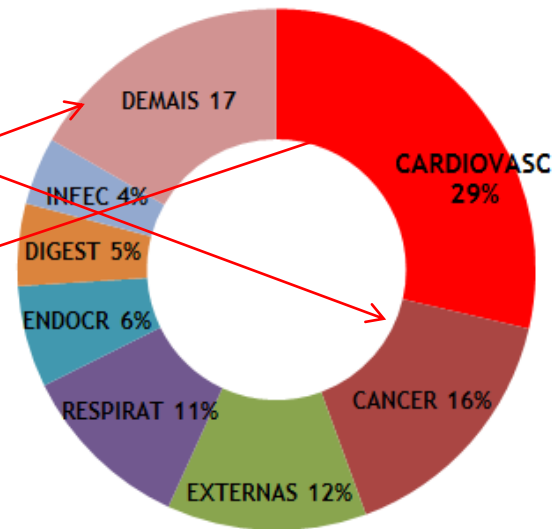
CLÁUDIA COLLUCCI
DE SÃO PAULO

Qual é a doença que mais provoca mortes no Brasil?
Em %

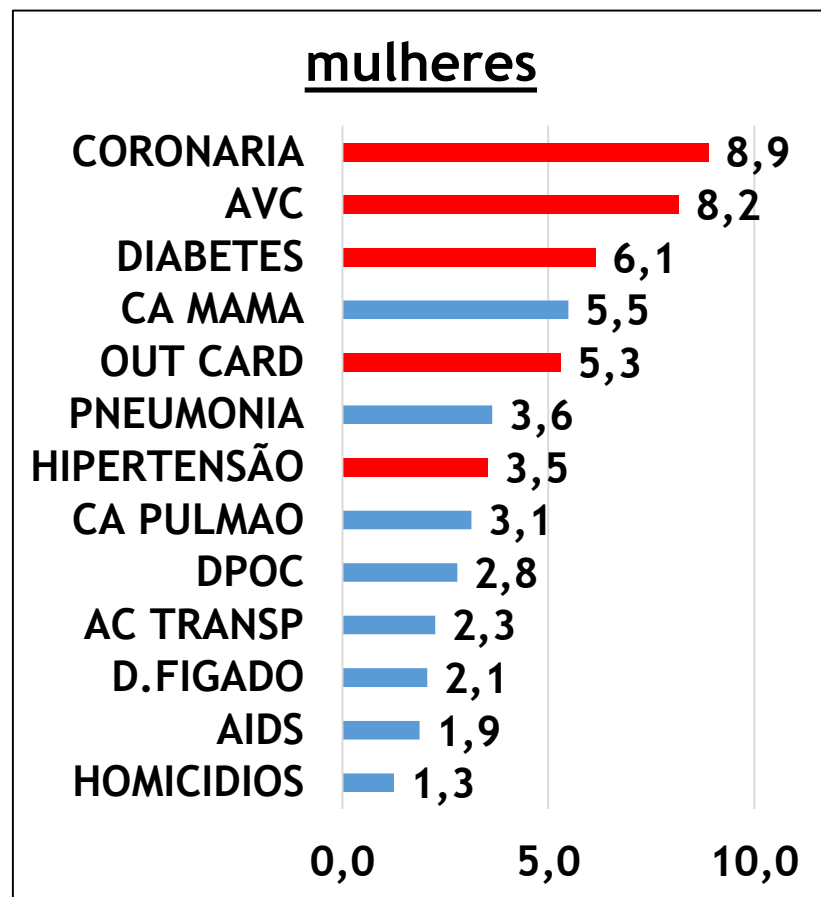
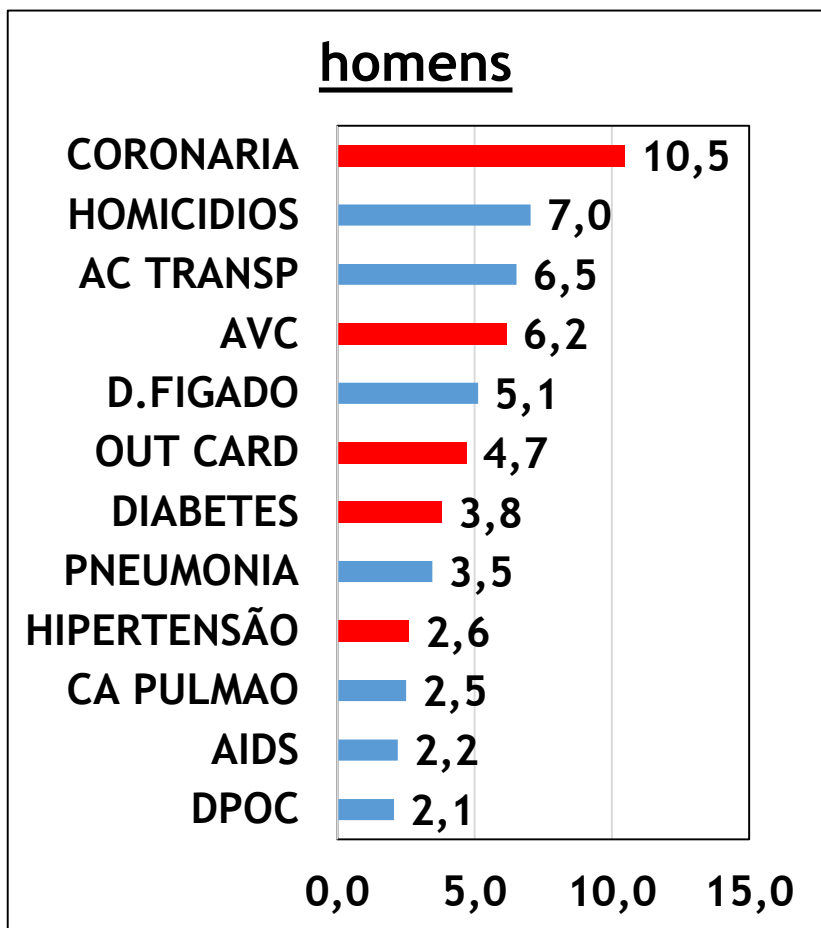


Causas de morte no Brasil, 2014

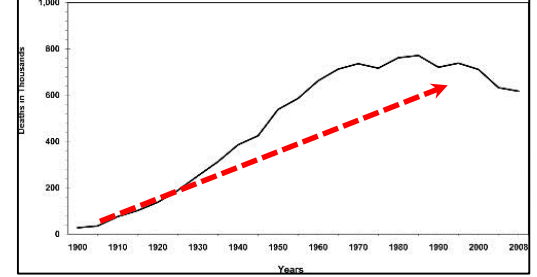
DATASUS
DE BRASÍLIA



Mortalidade Precoce (%), Brasil. 2014



Anos 50: a doença cardiovascular aumentava nos EUA a propaganda era...



He's one of the best men in town. While his door may say *Office Hours 2 to 5*, he's actually on call 24 hours a day.

The doctor is a scientist, a diplomat, and a friendly sympathetic human being all in one, no matter how long and hard his schedule.

According to a recent *Nationwide survey*:

MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE

DOCTORS in every branch of medicine—113,597 in all—were quoted in this nationwide study of cigarette preference. These leading research organizations made the survey. The gist of the story was—What cigarette do you smoke, Doctor?

The brand named most was *Camel*!

The rich, full flavor and cool mildness of Camel's superb blend of tender tobacco seem to have the same appeal to the smoking tastes of doctors as to millions of other smokers. If you are a Camel smoker, this preference among doctors will hardly surprise you. If you're not—well, try Camel now.

Your "I-Zone" Will Tell You...
 That's your
 T for Taste...
 T for Throat...
 that's your
 proving ground
 for any cigarette.
 See if Camels
 don't win your
 "I-Zone" to a "T."

CAMELS *Crestler Tobaccos*

Pure pleasure!

Seven-Up is so pure...so wholesome!

For a fact, you can even give this sparkling drink to babies—and without any qualms. Lots of mothers do just that!

Just read the ingredients on the 7-Up bottle and you'll see why. We're proud to list them for your inspection, even though regulations don't require this on soft drinks.

Seven-Up has a special fresh, clean taste that appeals to everyone at your house—he be nine months, nine years or ninety. It's the All-Family Drink!

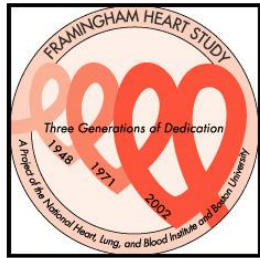
Watch "Soldiers of Fortune" on TV every week. Exciting 7-Up adventure series.

They're young... They're in love...
 They eat **LARD**

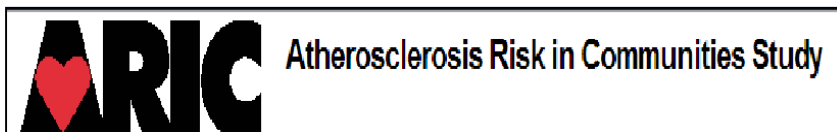
©1957. Issued by the British Lard Marketing Board in conjunction with the Department of Health.

British Lard Marketing Board

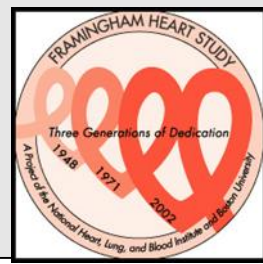
estudos de coorte mudaram o conhecimento das doenças crônicas



Conceito de fator de risco
4 “grandes”: dislipidemia, hipertensão,
tabagismo, diabetes



estudos de coorte mudaram o conhecimento das doenças crônicas



- 1960 Cigarette smoking found to increase the risk of heart disease
- 1961 Cholesterol level, blood pressure, and electrocardiogram abnormalities found to increase the risk of heart disease
- 1967 Physical activity found to reduce the risk of heart disease and obesity to increase the risk of heart disease
- 1970 High blood pressure found to increase the risk of stroke
- 1970 Atrial fibrillation increases stroke risk 5-fold
- 1976 Menopause found to increase the risk of heart disease
- 1978 Psychosocial factors found to affect heart disease
- 1988 High levels of HDL cholesterol found to reduce risk of death
- 1998 Development of simple coronary disease prediction algorithm involving risk factor categories to allow physicians to predict multivariate coronary heart disease risk in patients without overt CHD
- 1999 Lifetime risk at age 40 years of developing coronary heart disease is one in two for men and one in three for women
- 2007 Based on evaluation of a densely interconnected social network of 12,067 people assessed as part of the Framingham Heart Study, network phenomena appear to be relevant to the biologic and behavioral trait of obesity, and obesity appears to spread through social ties.
- 2009- Framingham Heart Study researchers contribute to discovering hundreds of new genes underlying major heart disease risk factors—body mass index, blood cholesterol, cigarette smoking, blood pressure and glucose/diabetes

estudos de coorte modificaram a ação médica e da saúde coletiva

NATIONAL CHOLESTEROL EDUCATION PROGRAM
Third Report of the Expert Panel on
Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III)

Risk Assessment Tool for Estimating Your 10-year Risk of Having a Heart Attack

The risk assessment tool below uses information from the Framingham Heart Study to predict a person's chance of having a heart attack in the next 10 years. This tool is designed for adults aged 20 and older who do not have heart disease or diabetes. To find your risk score, enter your information in the calculator below.

Age: years

Gender: Female Male

Total Cholesterol: mg/dL

HDL Cholesterol: mg/dL

Smoker: No Yes

Systolic Blood Pressure: mm/Hg

Are you currently on any medication to treat high blood pressure. No Yes

Age (Low-risk level)†	30-34 (2%)	35-39 (3%)	40-44 (3%)	45-49 (4%)	50-54 (5%)	55-59 (7%)	60-64 (8%)	65-69 (10%)	70-74 (13%)	Absolute Risk‡	Absolute Risk‡
Points										Total CHD‡	Hard CHD§
†											
0	1.0									2%	2%
1	1.5	1.0	1.0							3%	2%
2	2.0	1.3	1.3	1.0						4%	3%
3	2.5	1.7	1.7	1.3	1.0					5%	4%
4	3.5	2.3	2.3	1.8	1.4	1.0				7%	5%
5	4.0	2.6	2.6	2.0	1.6	1.1	1.0			8%	6%
6	5.0	3.3	3.3	2.5	2.0	1.4	1.3	1.0		10%	7%
7	6.5	4.3	4.3	3.3	2.6	1.9	1.6	1.3	1.0	13%	9%
8	8.0	5.3	5.3	4.0	3.2	2.3	2.0	1.6	1.2	16%	13%
9	10.0	6.7	6.7	5.0	4.0	2.9	2.5	2.0	1.5	20%	16%
10	12.5	8.3	8.3	6.3	5.0	3.6	3.1	2.5	1.9	25%	20%
11	15.5	10.3	10.3	7.8	6.1	4.4	3.9	3.1	2.3	31%	25%
12	18.5	12.3	12.3	9.3	7.4	5.2	4.6	3.7	2.8	37%	30%
13	22.5	15.0	15.0	11.3	9.0	6.4	5.6	4.5	3.5	45%	35%
>14	26.5	>17.7	>17.7	>13.3	>10.6	>7.6	>6.6	>5.3	>4.1	>53%	>45%

* Low absolute risk level = 10-year risk for total CHD end points for a person the same age, blood pressure < 120/<80 mmHg, total cholesterol 160-199 mg/dL, HDL-C ≥45 mg/dL, nonsmoker, no diabetes. Percentages show 10-year absolute risk for total CHD end points.

† Points = number of points estimated from Table 4

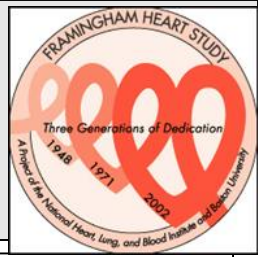
‡ 10-year absolute risk for total CHD end points estimated from Framingham data corresponding to Framingham points (Table 4)

§ 10-year absolute risk for hard CHD end points approximated from Framingham data corresponding to Framingham points (Table 4)

Color Key for Relative Risk			
Green	Violet	Yellow	Red
Below Average risk	Average risk	Moderately above average risk	High risk



por que não um Framingham brasileiro ?



Epidemiological Approaches to Heart Disease: The Framingham Study*

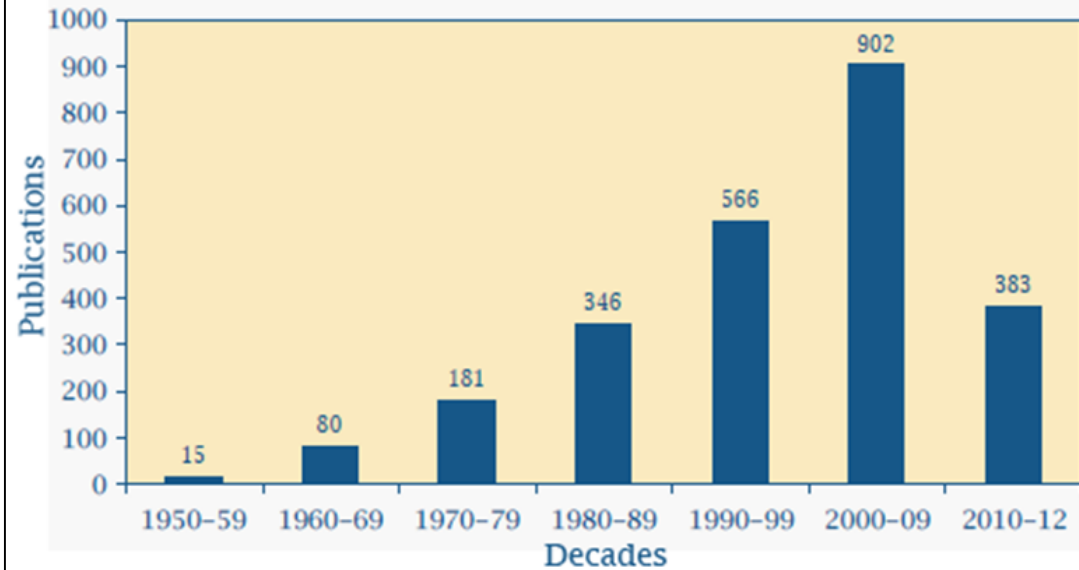
THOMAS R. DAWBER, M.D., GILCIN F. MEADORS, M.D., M.P.H., AND FELIX E. MOORE, JR.

National Heart Institute, National Institutes of Health, Public Health Service, Federal Security Agency, Washington, D. C.

THE use of the word “epidemiology” and the concept of what epidemiology as a discipline may encompass has varied widely since the days of Peter Panum and John Snow. There are today many differing definitions of the word, but nearly all workers in the field will agree on one element of the definition: The word “epidemiology” by etymology refers to the study of something “which is thrust upon the people.” There are still some who insist that epidemiology

cal diagnosis. Thus, today, the epidemiological approach is used to explore certain relationships in health and disease which, with present technological methods, cannot be observed directly. In addition to the many studies of the infectious diseases, there have been epidemiological studies in the fields of nutritional imbalance, metabolic disorders, occupational hazards, accidents, cancer, and rheumatic fever—to mention only a few.

Articles Published Per Decade Based on Framingham Data



Total articles published 1950 through 2012 = 2,473

MINISTÉRIO DA SAÚDE

CADERNOS de ATENÇÃO BÁSICA

ESTRATÉGIAS PARA O CUIDADO DA PESSOA COM DOENÇA CRÔNICA
HIPERTENSÃO ARTERIAL SISTÊMICA

Anexo A – Projeção do risco de doença arterial coronariana de acordo com o escore de Framingham

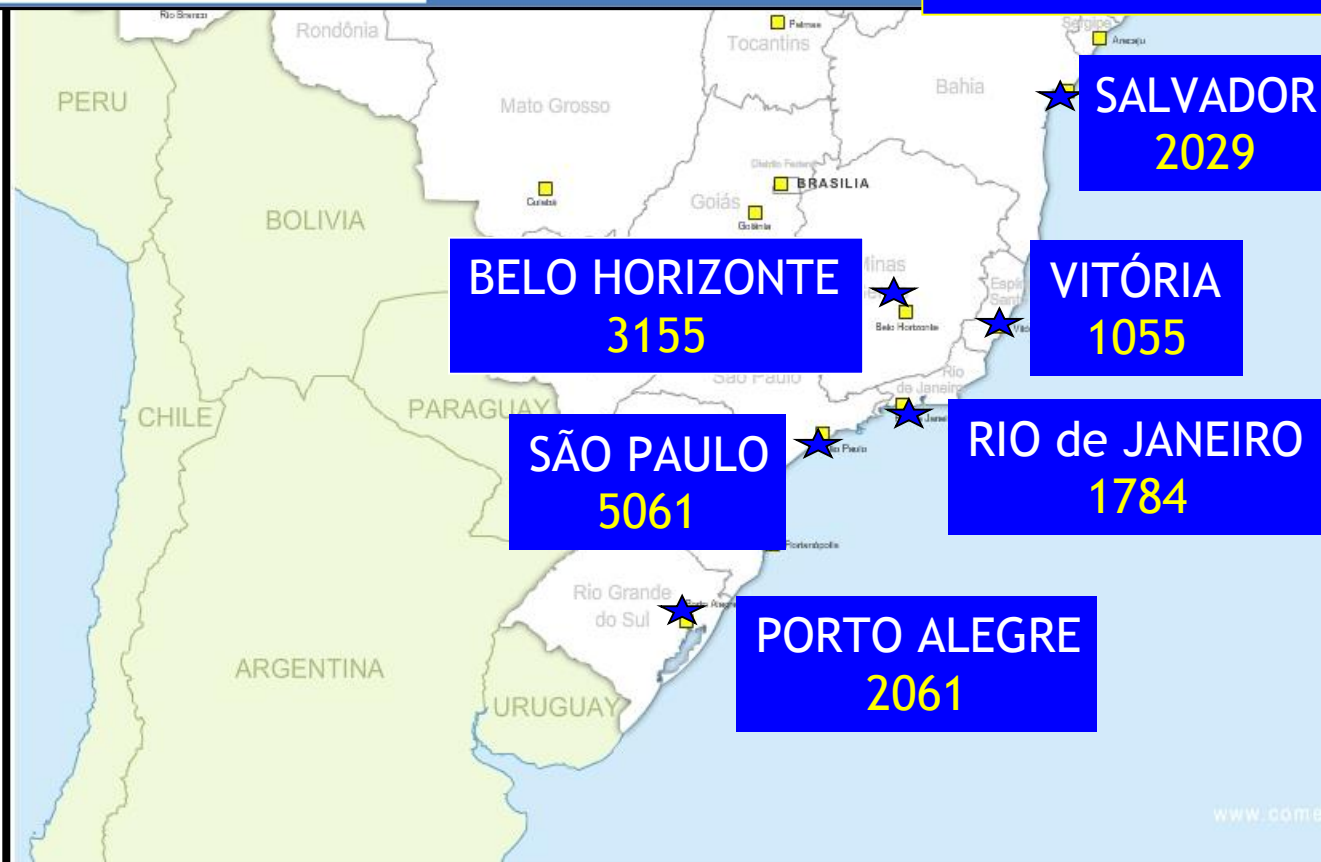




Estudo Longitudinal de Saúde do Adulto

ELSA BRASIL

15105

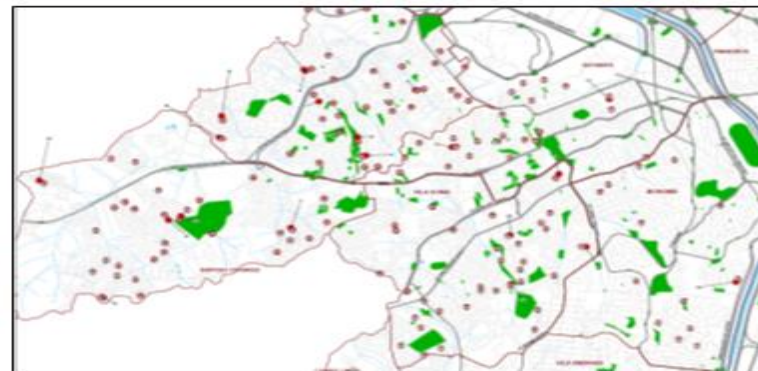


ELSA-Brasil: da molécula à sociedade

FROM
THE GENETIC CODE

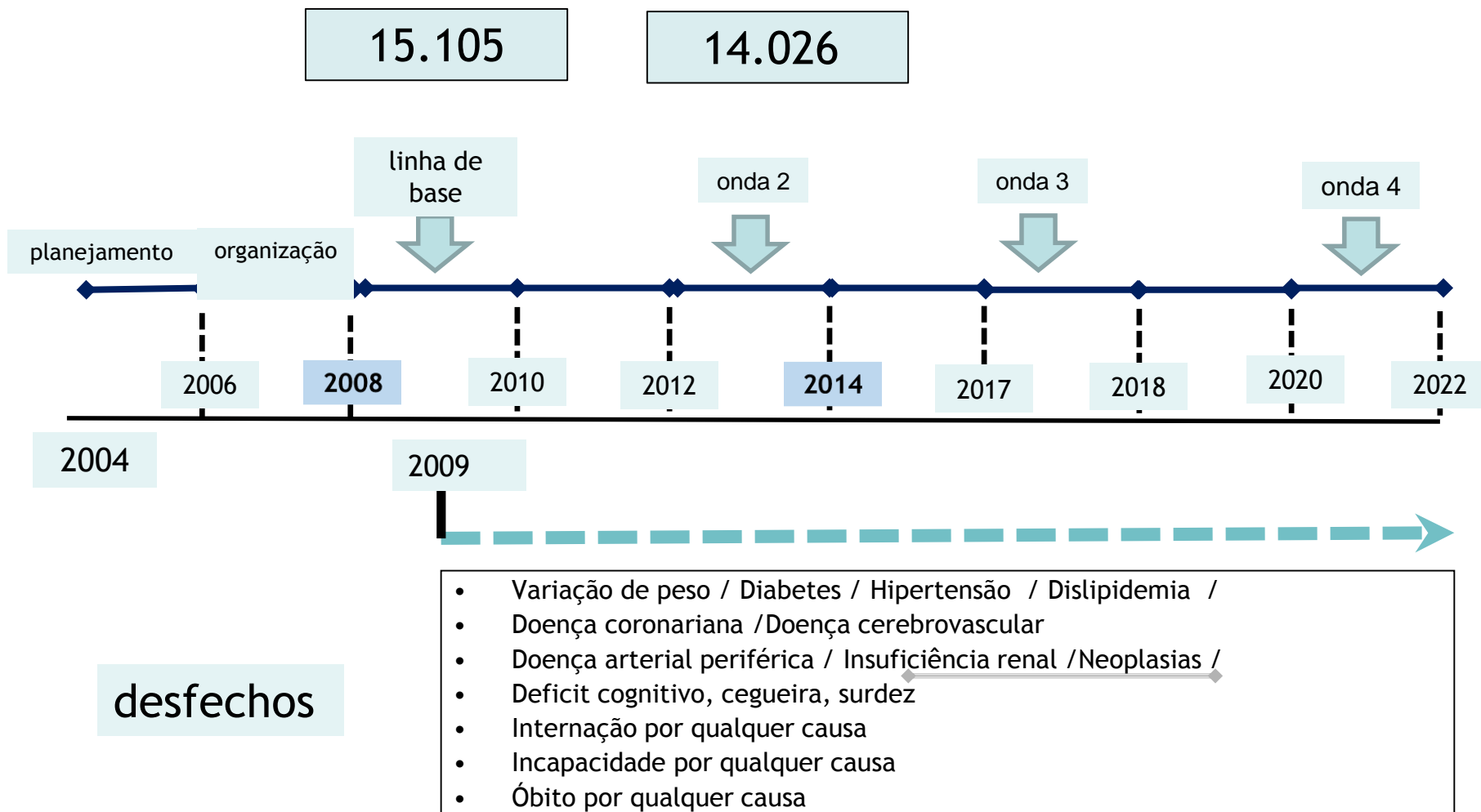


TO
THE ZIP CODE



Phase	Measurements
Baseline 2008–10 ⁶	Questionnaires with contextual and individual information on social determinants, health-related behaviours, self-reported chronic conditions, diagnosis of common mental disorders, reproductive health, cognitive function Anthropometry Blood pressure (resting and after postural change) Ankle-brachial index, pulse wave velocity Electrocardiogram (ECG), heart rate variability Retinal photographs Ultrasound (carotid; liver; abdominal fat; echocardiography) Oral glucose tolerance test (meal challenge test in diabetes) Biochemical and haematological determinations in blood, overnight urine collection Stored DNA, plasma, serum and urine in liquid nitrogen Geo-coding

a sequência: onda 2 e seguimento



resultados

- **Fatores Primordiais**
 - Dieta
 - Atividade Física
- **Fatores de Risco**
 - Hipertensão
 - Diabetes
 - Dislipidemia
 - Tabagismo
- **Aterosclerose Subclínica**
- **Prevenção Secundária**
- **Fronteira biomédica**



ELSA-Brasil vs. VIGITEL

FATORES DE RISCO AUTO-RELATADOS	ELSA Brasil	VIGITEL
INGESTÃO EXCESSIVA DE ÁLCOOL	13.2	15.0
MENOS QUE 5 DIAS / SEMANA DE FRUTAS	34.3	39.3
MENOS QUE 5 DIAS/SEMANA DE VERDURAS	37.1	51.0
SEDENTARISMO	76.9	75.2
FUMANATE ATUAL	13.1	15.7
EX FUMANTE	30.0	30.1
HIPERTENSÃO	34.1	35.3
DIABETES	8.8	9.6
OBESIDADE (IMC >30 kg/m ²)	22.9	19.1
SOBREPESO (25 < IMC < 30 kg/m ²)	40.2	46.9

International Journal of Epidemiology, 2015



4 eixos de atividades

SUS

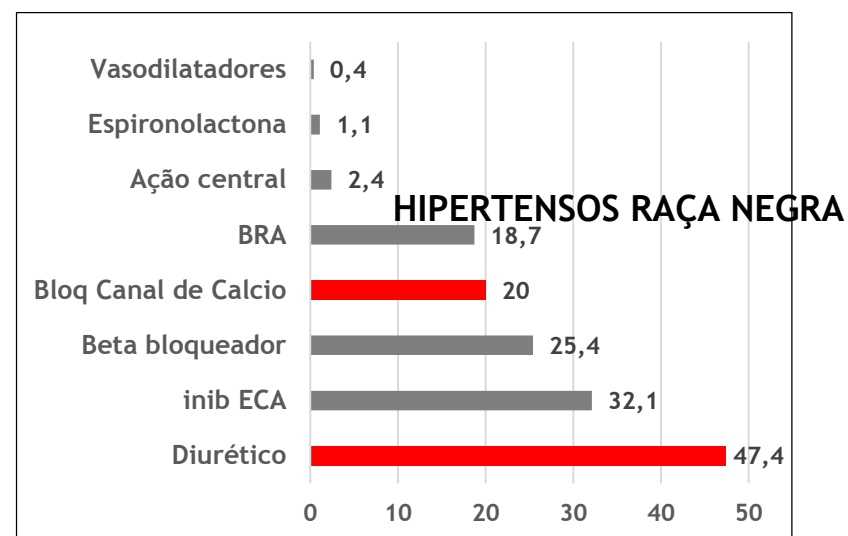
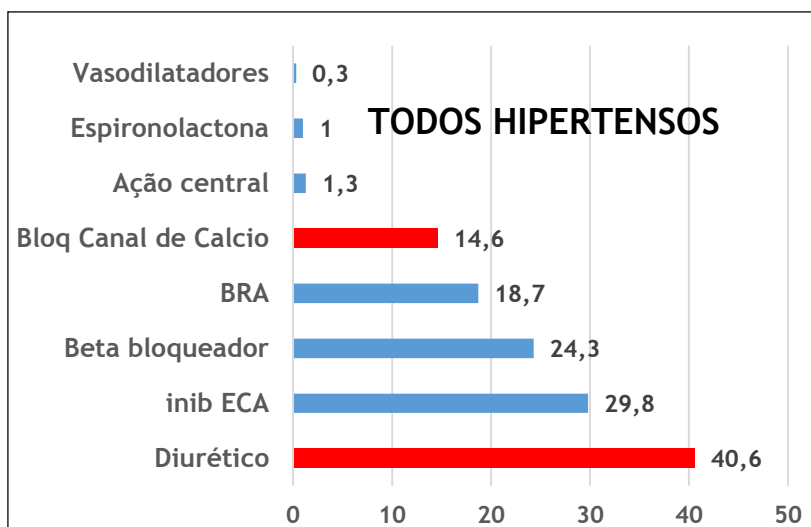
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prescrição de diuréticos e bloqueadores de canal de cálcio em hipertensos da raça negra (recomendado)



Special Communication

2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults
Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8)

Recommendation 7

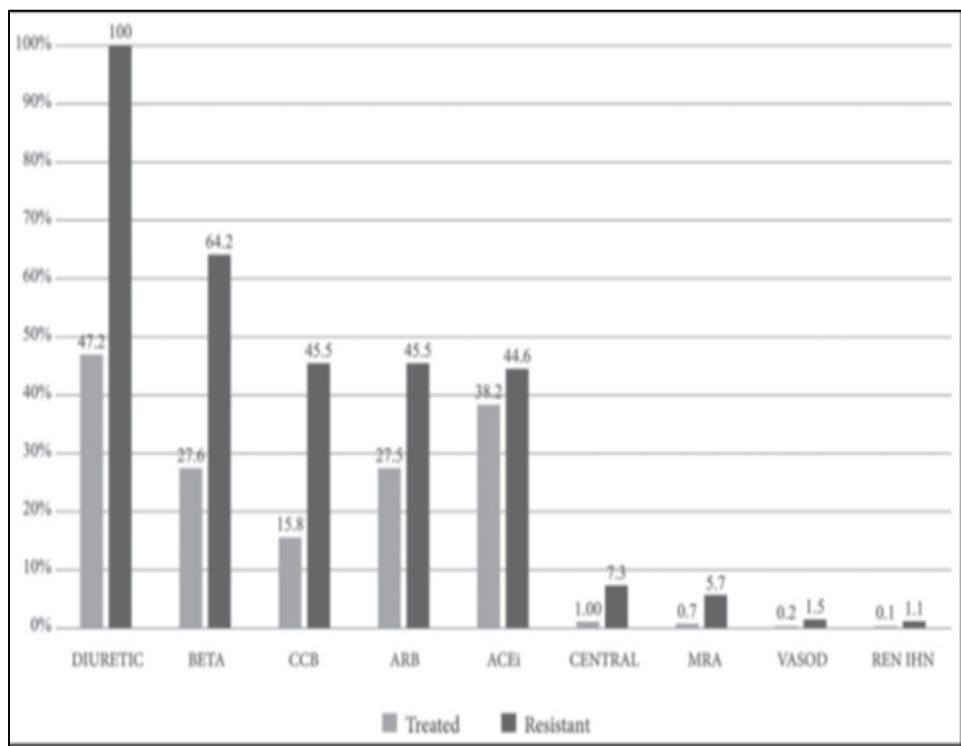
In the general black population, including those with diabetes, initial anti-hypertensive treatment should include a thiazide-type diuretic or CCB. (For general black population: Moderate Recommendation - Grade B; for black patients with diabetes: Weak Recommendation - Grade C)



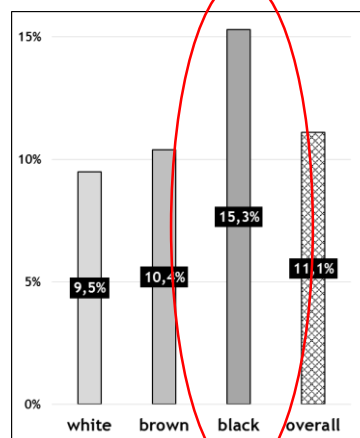
Estudo Longitudinal de Saúde do Adulto

ELSA BRASIL

hipertensão resistente

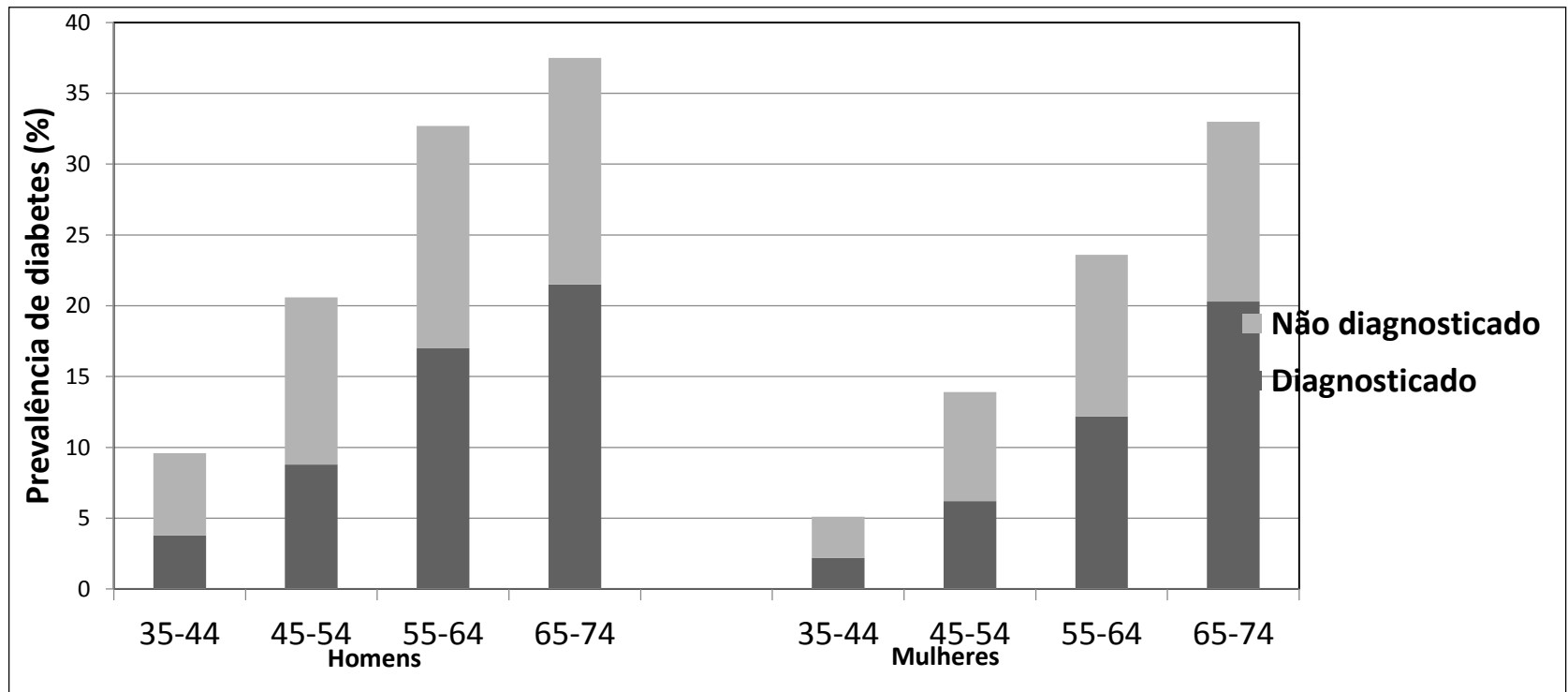


	Resistant Hypertension
Diabetes mellitus	1.44 (1.20–1.72)
Glomerular filtration rate <60 mL/min/1.72 m ²	1.95 (1.60–2.38)
Pulse wave velocity, m/s	1.07 (1.03–1.11)
Common carotid IMT, mm	2.57 (1.64–4.00)
Albumin-to-creatinine ratio >300 mg/g	2.43 (1.70–3.50)
Left ventricular hypertrophy	2.08 (1.21–3.57)
Atrial fibrillation	3.55 (2.02–6.25)
Previous stroke	1.50 (1.01–2.21)
Previous coronary heart disease	1.71 (1.33–2.19)

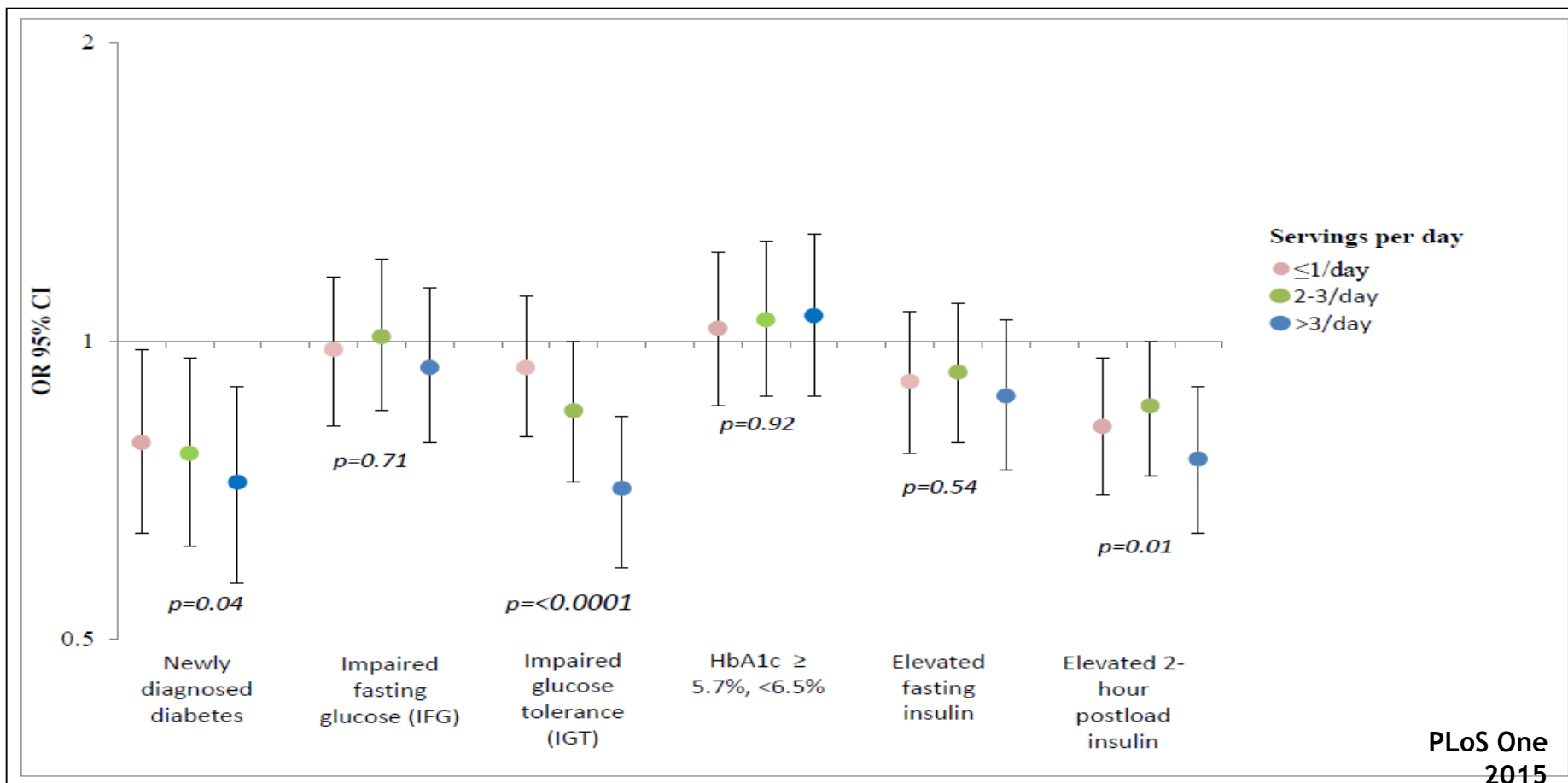


J Clin Hypert, 2015

metade dos casos de diabetes não são diagnosticados



diabetes e consumo café



aterosclerose: espessamento médio-intimal

Contents lists available at ScienceDirect

Atherosclerosis

journal homepage: www.elsevier.com/locate/atherosclerosis

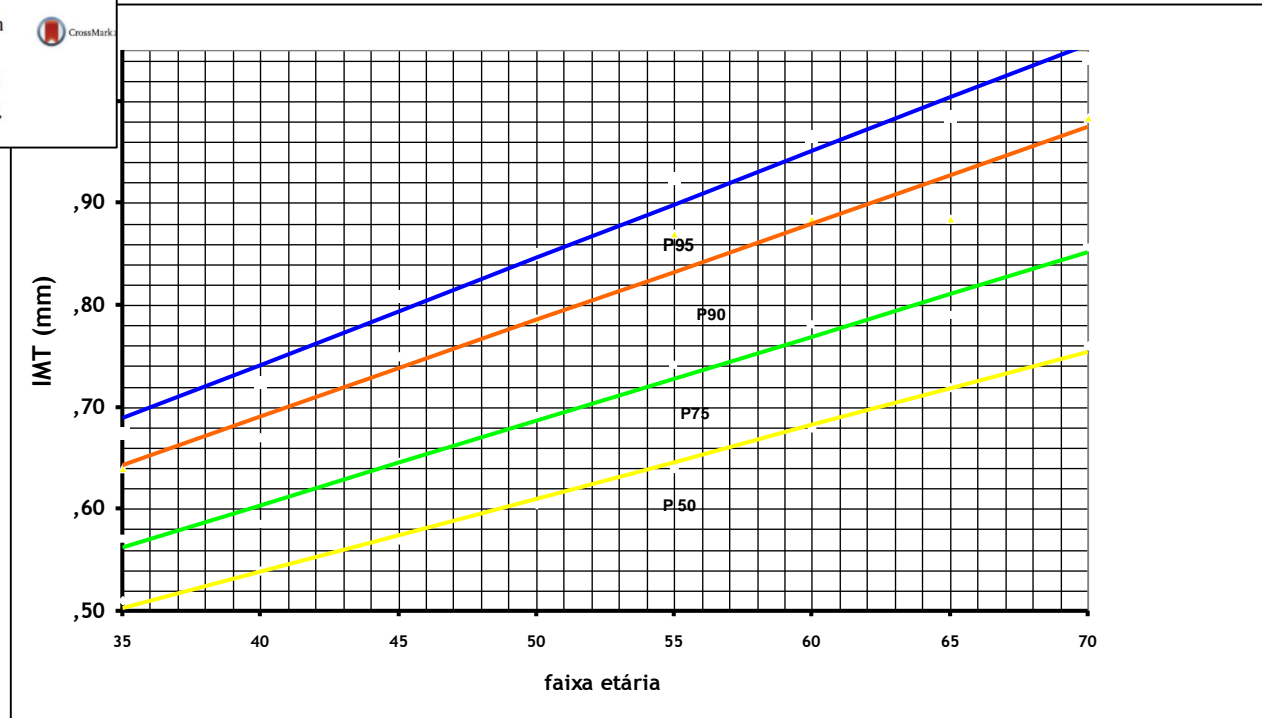
atherosclerosis

ELSEVIER

Carotid intima-media thickness value distributions in The Brazilian Longitudinal Study of Adult Health (ELSA-Brasil)

Itamar S. Santos^{a,b,*}, Márcio S. Bittencourt^b, Ilka R.S. Oliveira^{a,b}, Angelita G. Souza^b, Danilo P. Meireles^b, Tatjana Rundek^c, Murilo Foppa^d, Daniel C. Bezerra^e, Cláudia M.V. Freire^f, Leonard H. Roelke^g, Sayonara Carrilho^h, Isabela M. Benseñor^{a,b}, Paulo A. Lotufo^{a,b}

CrossMark



dislipidemia no ELSA-Brasil

(NCEP-ATP-III 2004 update)

NCEP Report

Implications of Recent Clinical Trials for the National Cholesterol Education Program Adult Treatment Panel III Guidelines

Scott M. Grundy; James I. Cleeman; C. Noel Bairey Merz; H. Bryan Brewer, Jr; Luther T. Clark; Donald B. Humminghake*; Richard C. Pasternak; Sidney C. Smith, Jr; Neil J. Stone; for the Coordinating Committee of the National Cholesterol Education Program

Endorsed by the National Heart, Lung, and Blood Institute, American College of Cardiology Foundation, and American Heart Association

Table 1
Definitions of high low-density lipoprotein cholesterol and control in the updated (2004) Third Adult Treatment Panel guidelines

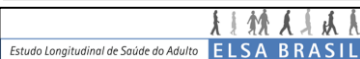
Variable	High LDL Cholesterol	Control
History of CHD at very high risk*	≥70 mg/dl or use of lipid-lowering therapy	<70 mg/dl
History of CHD [†] or risk equivalent [‡]	≥100 mg/dl or use of lipid-lowering therapy	<100 mg/dl
≥2 CHD risk factors [§] and 10-yr Framingham risk 10%–20%	≥100 mg/dl or use of lipid-lowering therapy	<100 mg/dl
10-yr Framingham risk <10%	≥130 mg/dl or use of lipid-lowering therapy	<130 mg/dl
0 or 1 CHD risk factor	≥160 mg/dl or use of lipid-lowering therapy	<160 mg/dl

* History of CHD and diabetes mellitus, cigarette smoking, and/or the metabolic syndrome.

[†] Not including subjects at very high risk.

[‡] CHD risk equivalents included diabetes mellitus and stroke.

[§] CHD risk factors include older age (≥55 years for women and ≥45 years for men), current cigarette smoking, hypertension, family history of CHD (history of myocardial infarction or angina before age 50 years in a first-degree relative), and low HDL cholesterol. HDL cholesterol ≥60 mg/dl is considered protective and offsets the presence of 1 of these risk factors.



J Clin Lipidol. 2016 May-Jun;10(3):568-76.

Journal of
Clinical
Lipidology

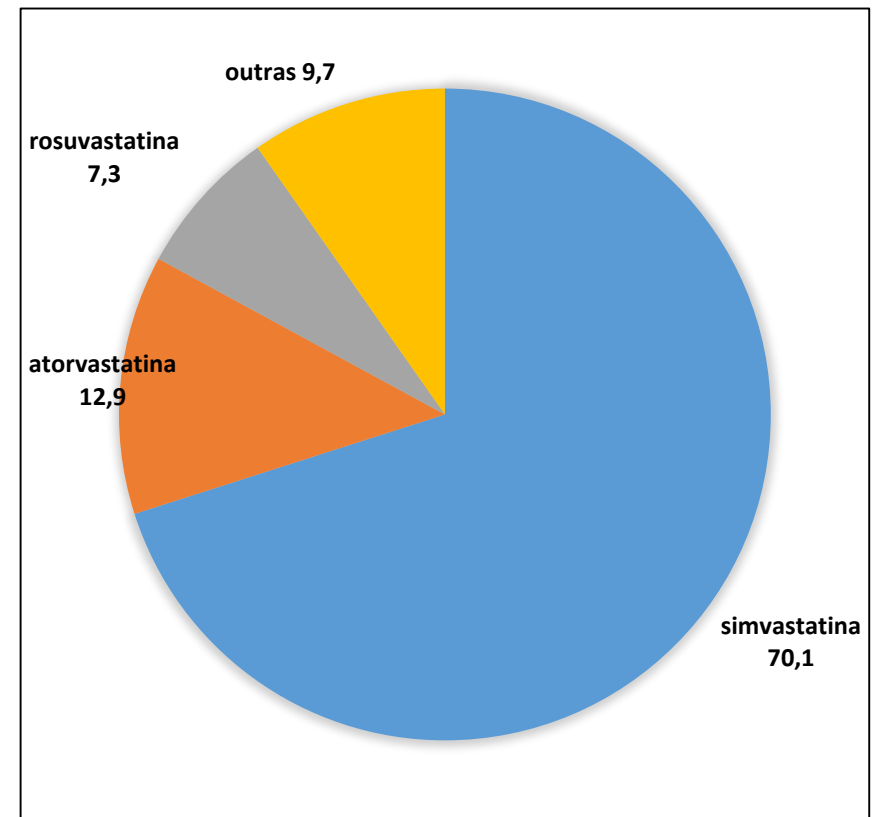
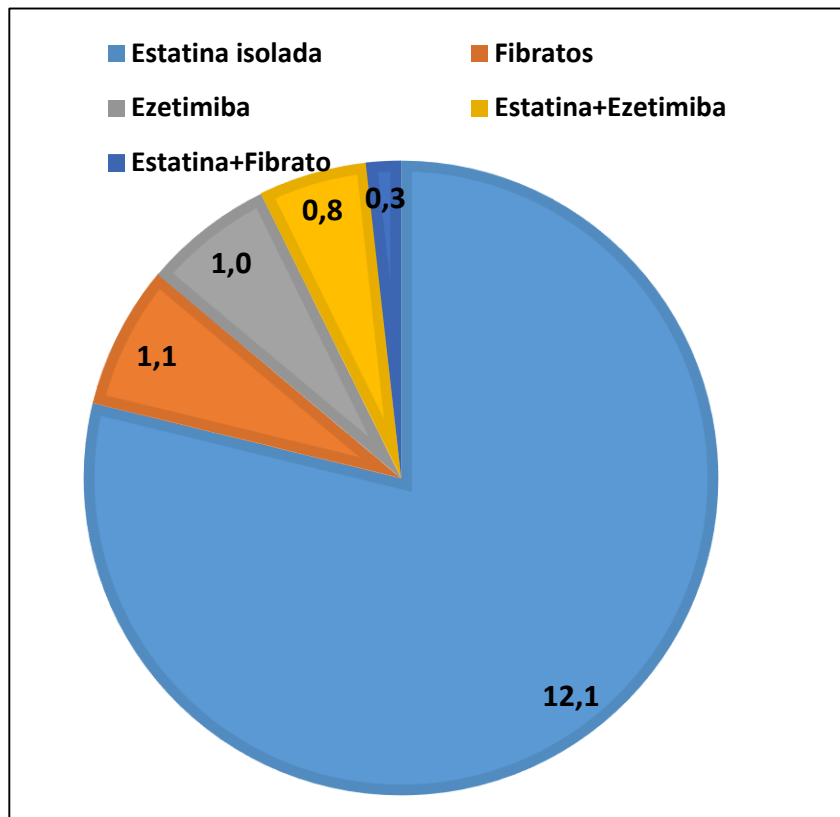
Original Article

Prevalence, awareness, treatment, and control of high low-density lipoprotein cholesterol in Brazil: Baseline of the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil)

Paulo A. Lotufo, MD, Dr PH*, Raul D. Santos, MD, PhD, Roberta M. Figueiredo, PhD, Alexandre C. Pereira, MD, PhD, Jose Geraldo Mill, MD, PhD, Sheila M. Alvim, PhD, M. Jesus Fonseca, PhD, M. Conceição Almeida, M. Carmen Molina, PhD, Dora Chor, MD, PhD, Maria Inês Schmidt, MD, PhD, Antonio L. Ribeiro, MD, PhD, Bruce B. Duncan, MD, PhD, Isabela M. Bensenor, MD, PhD

uso de hipolipemiantes

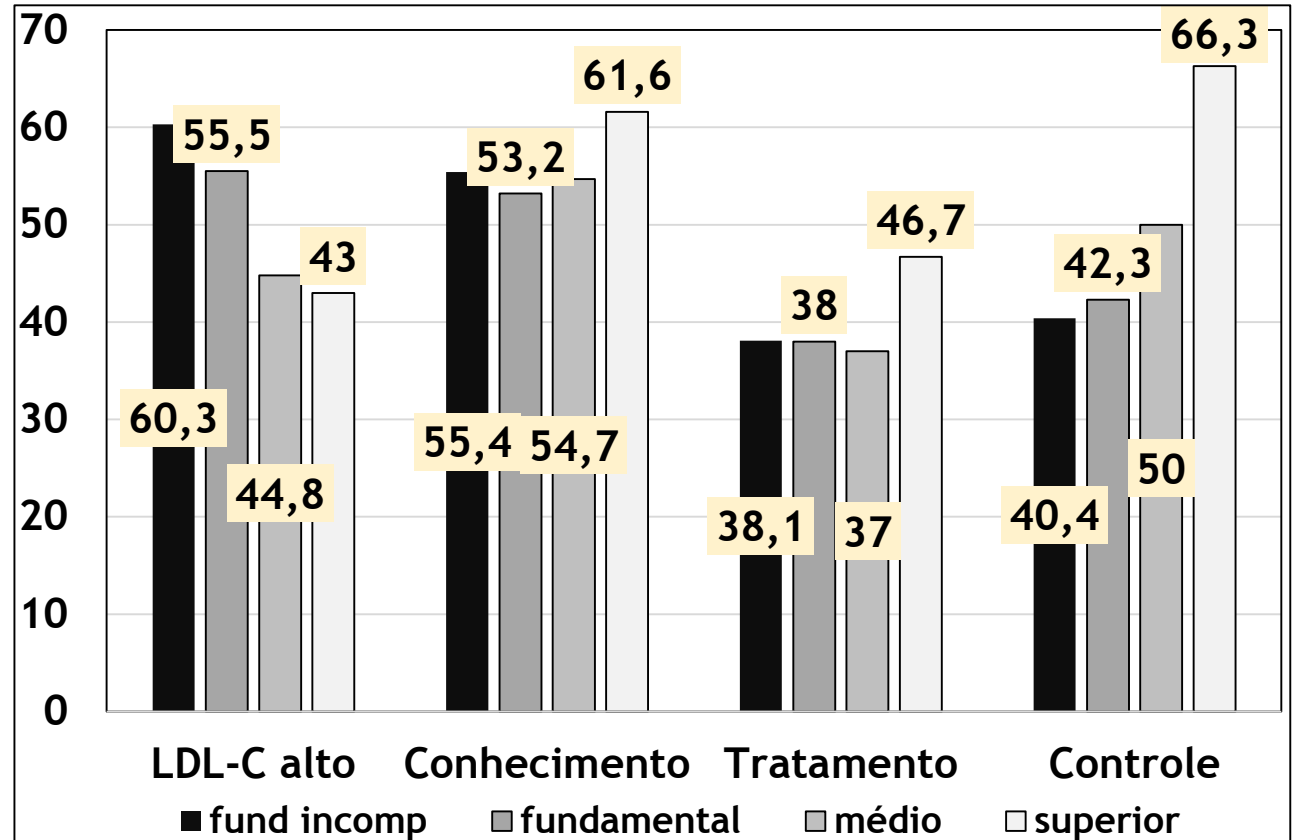
ELSA-Brasil = 15,3%



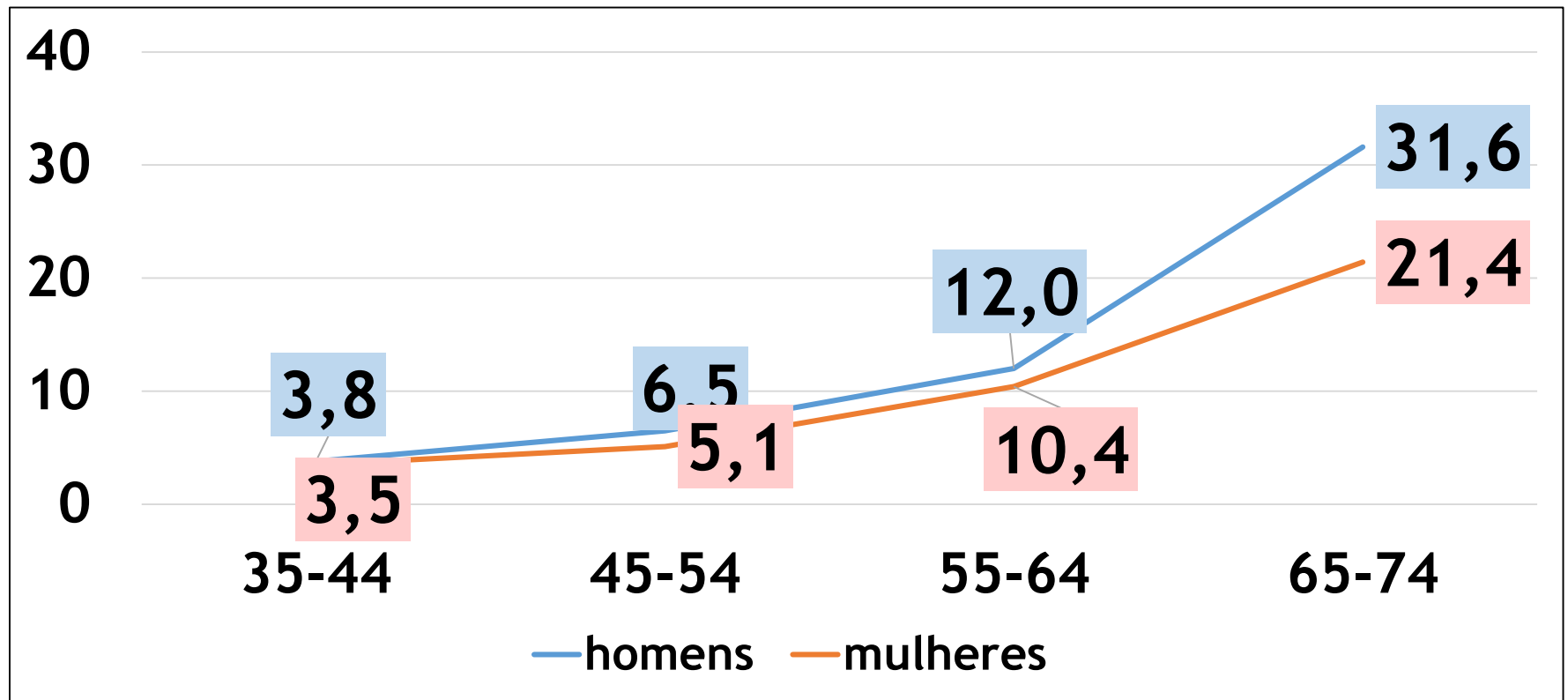
dislipidemia por nível de educação

educação

razões de
prevalência
ajustada por idade,
sexo, etnia, renda e
plano
de saúde privado



evolução da disfunção renal



enxaqueca

- [1. Enxaqueca e fatores de risco para DCV](#)
- Perfil diferenciado por sexo: proteção para HAS nos homens e associação com dyslipidemia nas mulheres. Cephalalgia. 2015.
- [2. Obesidade e enxaqueca](#). Obesidade, mas não obesidade central se associou com frequência aumentada de enxaqueca. Cephalalgia. 2014.
- [3. Eventos de vida negativos e enxaqueca](#). Problemas financeiros, hospitalização e perda de entes queridos. BMC Public Health. 2014.
- [4. Enxaqueca e transtornos psiquiátricos](#). Associação do aumento da frequência da enxaqueca com transtornos psiquiátricos (destaque para os homens). Headache. 2014
- [5. Enxaqueca e estresse no trabalho](#). Alta demanda, baixo controle e suporte social. Eur J Pain. 2014



saúde mental

- Patterns of benzodiazepine and antidepressant use among middle-aged adults. the Brazilian longitudinal study of adult health (ELSA-Brasil). J Affect Disord. 2013. Baixo uso no Brasil, utilização dos medicamentos pelos indivíduos sem doença com baixo uso pelos doentes.
- Effects of Depression, Anxiety, Comorbidity, and Antidepressants on Resting-State Heart Rate and Its Variability: An ELSA-Brasil Cohort Baseline Study. Am J Psychiatry. 2014
- The Association between Antidepressant Medications and Coronary Heart Disease in Brazil: A Cross-Sectional Analysis on the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil). Front Public Health. 2015.
- The association between mood and anxiety disorders, and coronary heart disease in Brazil: a cross-sectional analysis on the Brazilian longitudinal study of adult health (ELSA-Brasil). Front Psychol. 2015 Feb 25;6:187.
- Perfil de tratamento dos transtornos psiquiátricos. Alguns antidepressivos comprometem mais a função cardíaca do que outros. Algumas orientações gerais em termos de políticas públicas.



4 eixos de atividades

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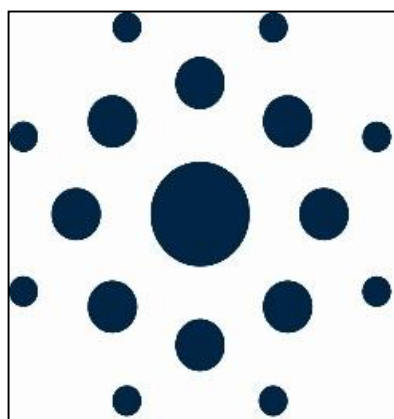
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Junte-se a nós

palotuf@usp.br





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Tecnologia e Insumos Estratégicos**

**Ministério
da Saúde**

**Ministério da
Ciência e Tecnologia**

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Apoio

