HEP0151 - Epidemiologia das Doenças Crônicas Não-Transmissíveis

Epidemiologia do Câncer

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What Is Cancer?

American Cancer Society

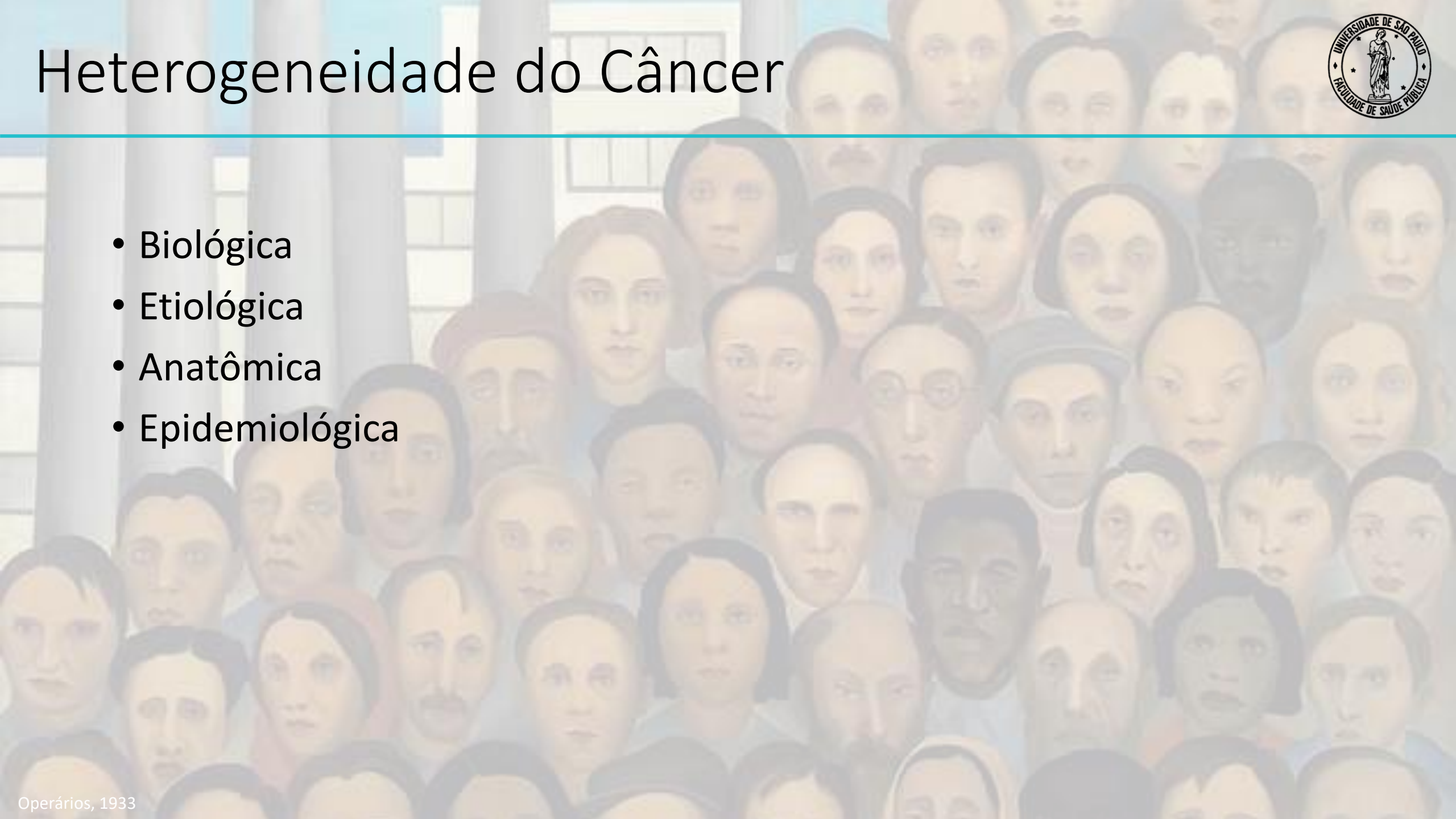
"Você é composto de trilhões de células que, ao longo de sua vida, normalmente crescem e se dividem conforme necessário. Quando as células são anormais ou envelhecem, elas geralmente morrem. O câncer começa quando algo dá errado nesse processo e suas células continuam produzindo novas células e as velhas ou anormais não morrem quando deveriam. À medida que as células cancerígenas crescem fora de controle, elas podem expulsar as células normais. Isso torna difícil para o seu corpo funcionar da maneira que deveria."

https://www.cancer.org/treatment/understanding-your-diagnosis/what-is-cancer.html

Heterogeneidade do Câncer

Heterogeneidade do Câncer

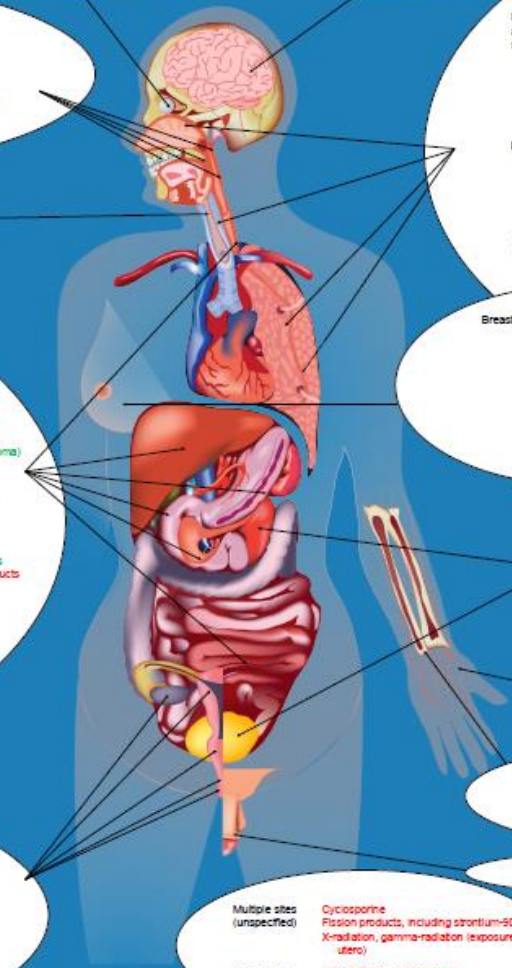
- Biológica
- Etiológica
- Anatômica
- Epidemiológica



Operários, 1933

IARC Monographs of Carcinogenic Hazards to Humans and Handbooks of Cancer Prevention

(updated 13 June 2018)



Eye
- Human immunodeficiency virus type 1
- Ultraviolet-emitting tanning devices
- Welding

Brain and central nervous system
- X-radiation, gamma-radiation
- Absence of excess body fatness (meningioma)

Oral cavity
- Alcoholic beverages
- Betel quid with tobacco
- Betel quid without tobacco
- Human papillomavirus type 16
- Quitting smoking
- Smokeless tobacco
- Tobacco smoking

Pharynx (oro-, hypo- and/or NOS)
- Alcoholic beverages
- Betel quid with tobacco
- Human papillomavirus type 16
- Quitting smoking
- Tobacco smoking

Nasopharynx
- Epstein–Barr virus
- Formaldehyde
- Salted fish, Chinese-style
- Wood dust

Tonsil
- Human papillomavirus type 16

Salivary gland
- X-radiation, gamma-radiation

Thyroid
- Absence of excess body fatness
- Radioiodines, including iodine-131 (exposure during childhood and adolescence)
- X-radiation, gamma-radiation

Lung
- Aluminium production
- Arsenic and inorganic arsenic compounds
- Asbestos (all forms)
- Beryllium and beryllium compounds
- Bis(chloromethyl)ether; chloromethyl methyl ether (technical grade)
- Cadmium and cadmium compounds
- Chromium (VI) compounds
- Coal, indoor emissions from household combustion
- Coal gasification
- Coal-tar pitch
- Coke production
- Diesel engine exhausts
- Gamma-radiation
- Haematite mining (underground)
- Iron and steel founding
- MOPP (vincristine-prednisone-nitrogen mustard-procarbazine mixture)
- Nickel compounds
- Outdoor air pollution
- Outdoor air pollution, particulate matter in
- Painter (occupational exposure as)
- Plutonium
- Quitting smoking
- Radon-222 and its decay products
- Rubber production industry
- Silica dust, crystalline
- Soot
- Sulfur mustard
- Tobacco smoke, secondhand
- Tobacco smoking
- Welding fumes
- X-radiation

Nasal cavity and paranasal sinus
- Isopropyl alcohol manufacture using strong acids
- Leather dust
- Nickel compounds
- Radium-226 and its decay products
- Radium-228 and its decay products
- Tobacco smoking
- Wood dust

Larynx
- Acid mists, strong inorganic
- Alcoholic beverages
- Asbestos (all forms)
- Quitting smoking
- Tobacco smoking

Pleura or peritoneum (mesothelioma)
- Asbestos (all forms)
- Erionite
- Painter (occupational exposure as)

Stomach
- Absence of excess body fatness (gastric cardia)
- *Helicobacter pylori*
- Quitting smoking
- Rubber production industry
- Tobacco smoking
- X-radiation, gamma-radiation

Upper aerodigestive tract
- Acetaldehyde associated with consumption of alcoholic beverages

Oesophagus
- Acetaldehyde associated with consumption of alcoholic beverages
- Alcoholic beverages
- Absence of excess body fatness (adenocarcinoma)
- Betel quid with tobacco
- Betel quid without tobacco
- Quitting smoking (squamous cell carcinoma)
- Smokeless tobacco
- Tobacco smoking
- X-radiation, gamma-radiation

Liver (hepatocellular carcinoma)
- Absence of excess body fatness
- Aflatoxins
- Alcoholic beverages
- Estrogen–progestogen contraceptives
- Hepatitis B virus
- Hepatitis C virus
- Plutonium
- Thorium-232 and its decay products
- Tobacco smoking (in smokers and in smokers' children)

Liver (angiosarcoma)
- Vinyl chloride

Gall bladder
- Absence of excess body fatness
- Thorium-232 and its decay products

Biliary tract
- 1,2-Dichloropropane
- *Clonorchis sinensis*
- *Opisthorchis viverrini*

Colon and rectum
- Alcoholic beverages
- Absence of excess body fatness
- Physical activity
- Processed meat (consumption of)
- Screening with gFOBT
- Screening with FIT
- Screening with sigmoidoscopy
- Screening with colonoscopy
- Tobacco smoking
- X-radiation, gamma-radiation

Pancreas
- Absence of excess body fatness
- Quitting smoking
- Smokeless tobacco
- Tobacco smoking

Anus
- Human immunodeficiency virus type 1
- Human papillomavirus type 16

Breast
- Alcoholic beverages
- Absence of excess body fatness (postmenopausal)
- Diethylstilbestrol
- Estrogen–progestogen contraceptives
- Estrogen–progestogen menopausal therapy
- Mammography screening (50–74 years)
- Physical activity
- X-radiation, gamma-radiation

Urinary bladder
- Aluminium production
- 4-Aminobiphenyl
- Arsenic and inorganic arsenic compounds
- Auramine production
- Benzidine
- Chlornaphazine
- Cyclophosphamide
- Magenta production
- 2-Naphthylamine
- Painter (occupational exposure as)
- Quitting smoking
- Rubber production industry
- *Schistosoma haematobium*
- Tobacco smoking
- ortho-Toluidine
- X-radiation, gamma-radiation

Kidney
- Absence of excess body fatness
- Quitting smoking
- Tobacco smoking
- Trichloroethylene
- X-radiation, gamma-radiation

Renal pelvis and ureter
- Aristolochic acid, plants containing
- Phenacetin
- Phenacetin, analgesic mixtures containing
- Tobacco smoking

Corpus uteri (endometrium)
- Absence of excess body fatness
- Estrogen menopausal therapy
- Estrogen–progestogen menopausal therapy
- Tamoxifen

Uterine cervix
- Conventional cytology screening (35–64 years)
- Diethylstilbestrol (exposure in utero)
- Estrogen–progestogen contraceptives
- Human papillomavirus testing
- Human immunodeficiency virus type 1
- Human papillomavirus types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59
- Quitting smoking
- Tobacco smoking

Vagina
- Diethylstilbestrol (exposure in utero)
- Human papillomavirus type 16

Vulva
- Human papillomavirus type 16

Ovary
- Absence of excess body fatness
- Asbestos (all forms)
- Estrogen menopausal therapy
- Tobacco smoking

Bone
- Plutonium
- Radium-224 and its decay products
- Radium-226 and its decay products
- Radium-228 and its decay products
- X-radiation, gamma-radiation

Penis
- Human papillomavirus type 16

Leukaemia/lymphoma
- Absence of excess body fatness (multiple myeloma)
- Azathioprine
- Benzene
- Busulfan
- 1,3-Butadiene
- Chlorambucil
- Cyclophosphamide
- Cyclosporine
- Epstein–Barr virus
- Etoposide with cisplatin and bleomycin
- Fission products, including strontium-90
- Formaldehyde
- *Helicobacter pylori*
- Hepatitis C virus
- Human immunodeficiency virus type 1
- Human T-cell lymphotropic virus type 1
- Kaposi sarcoma herpesvirus
- Lindane
- Melphalan
- MOPP (vincristine-prednisone-nitrogen mustard-procarbazine mixture)
- Pentachlorophenol
- Phosphorus-32, as phosphate
- Rubber production industry
- Semustine [1-(2-Chloroethyl)-3-(4-methylcyclohexyl)-1-nitrosourea, or methyl-CCNU]
- Thiotepa
- Thorium-232 and its decay products
- Tobacco smoking
- Trecosulfan
- X-radiation, gamma-radiation

Multiple sites (unspecified)
- Cyclosporine
- Fission products, including strontium-90
- X-radiation, gamma-radiation (exposure in utero)

All cancers combined
- 2,3,7,8-Tetrachlorodibenzo-*para*-dioxin

Skin (melanoma)
- Solar radiation
- Polychlorinated biphenyls
- Ultraviolet-emitting tanning devices

Skin (other malignant neoplasms)
- Arsenic and inorganic arsenic compounds
- Azathioprine
- Coal-tar distillation
- Coal-tar pitch
- Cyclosporine
- Methoxsalen plus ultraviolet A
- Mineral oils, untreated or mildly treated
- Shale oils
- Solar radiation
- Soot
- X-radiation, gamma-radiation

Endothelium (Kaposi sarcoma)
- Human immunodeficiency virus type 1
- Kaposi sarcoma herpesvirus

Group 1 agents with less than *sufficient* evidence in humans
- 2,3,4,7,8-Pentachlorodibenzofuran
- Polychlorinated biphenyls with a WHO TEF ("dioxin-like")
- 4,4′-Methylenebis(2-chloroaniline) (MOCA)
- Alpha- and beta-particle emitters
- Areca nut
- Aristolochic acid
- Benzidine, dyes metabolized to
- Benzo[*a*]pyrene
- Ethanol in alcoholic beverages
- Ethylene oxide
- Etoposide
- Ionizing radiation (all types)
- Neutron radiation
- *N*′-Nitrosonornicotine (NNN) and 4-(*N*-nitroso-methylamino)-1-(3-pyridyl)-1-butanone (NNK)
- Ultraviolet radiation

International Agency for Research on Cancer

World Health Organization

(exposure during childhood and adolescence)
X-radiation, gamma-radiation

Stomach
Absence of excess body fatness
(gastric cardia)
Helicobacter pylori
Quitting smoking
Rubber manufacturing industry
Tobacco smoking
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Vinyl chloride

Colon and rectum
Alcoholic beverages
Absence of excess body fatness
Regular physical activity
Processed meat (consumption of)
Screening with gFOBT
Screening with FIT
Screening with sigmoidoscopy
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Tobacco smoking
X-radiation, gamma-radiation

Biliary tract
1,2-Dichloropropane
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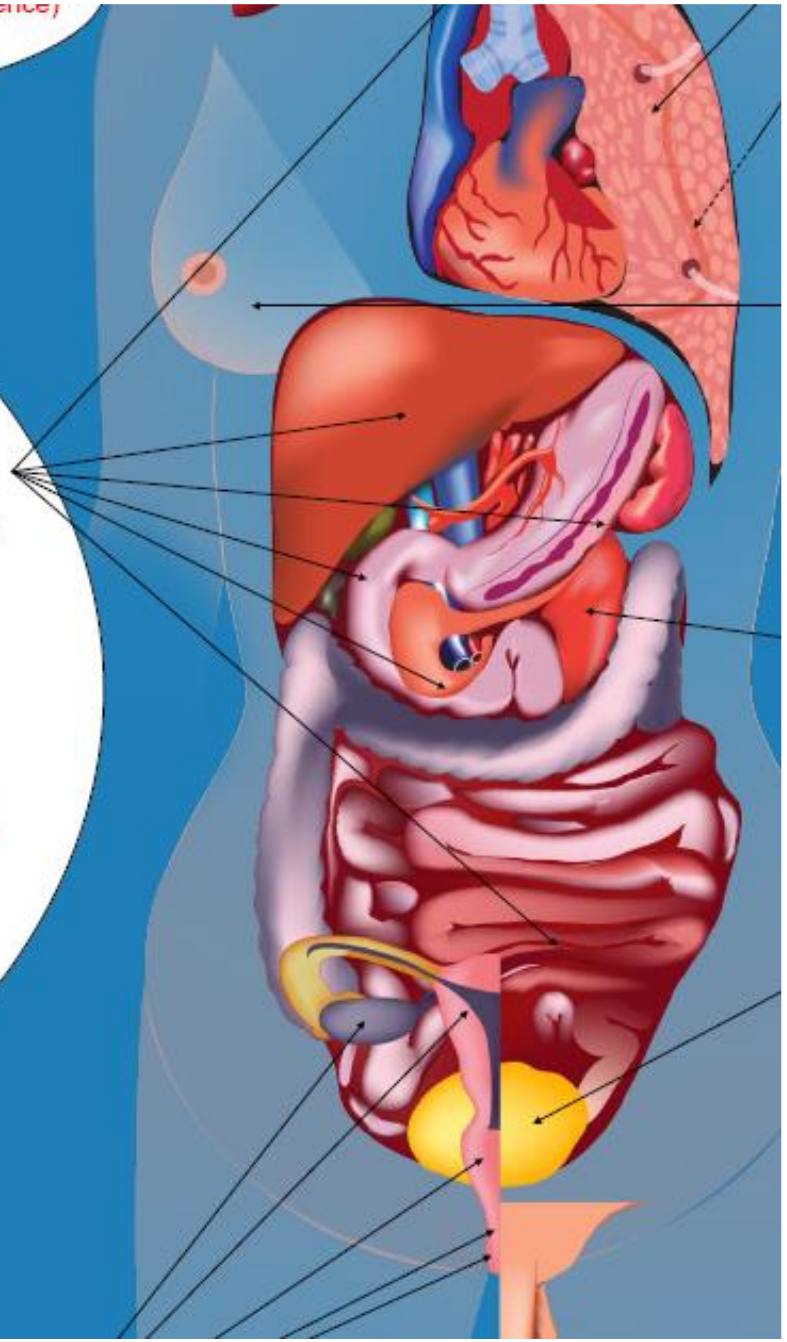
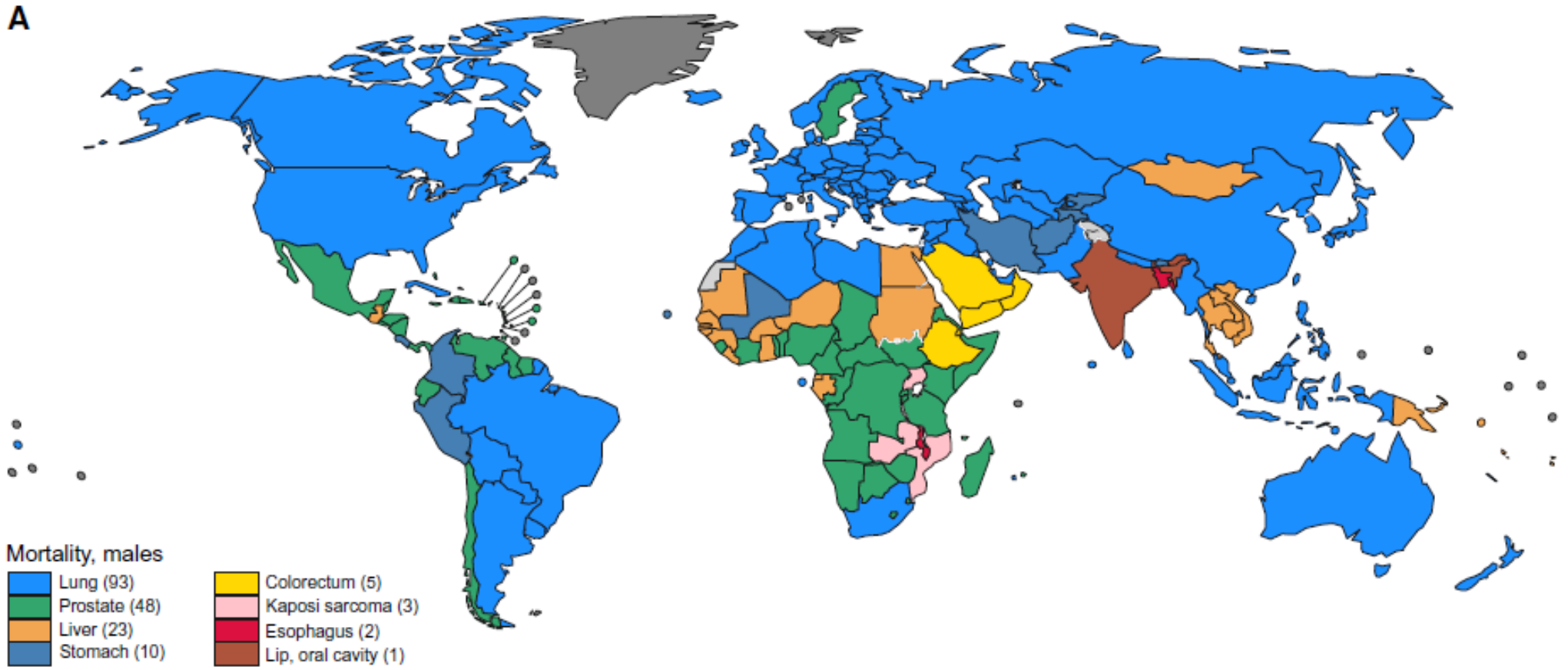


FIGURE 6. Most Common Type of Cancer Mortality by Country in 2020 Among (A) Men and (B) Women. The numbers of countries represented in each ranking group are included in the legend. Source: GLOBOCAN 2020.



Sung H, Ferlay J, Siegel RL, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA Cancer J Clin*. 2021;71(3):209-249.

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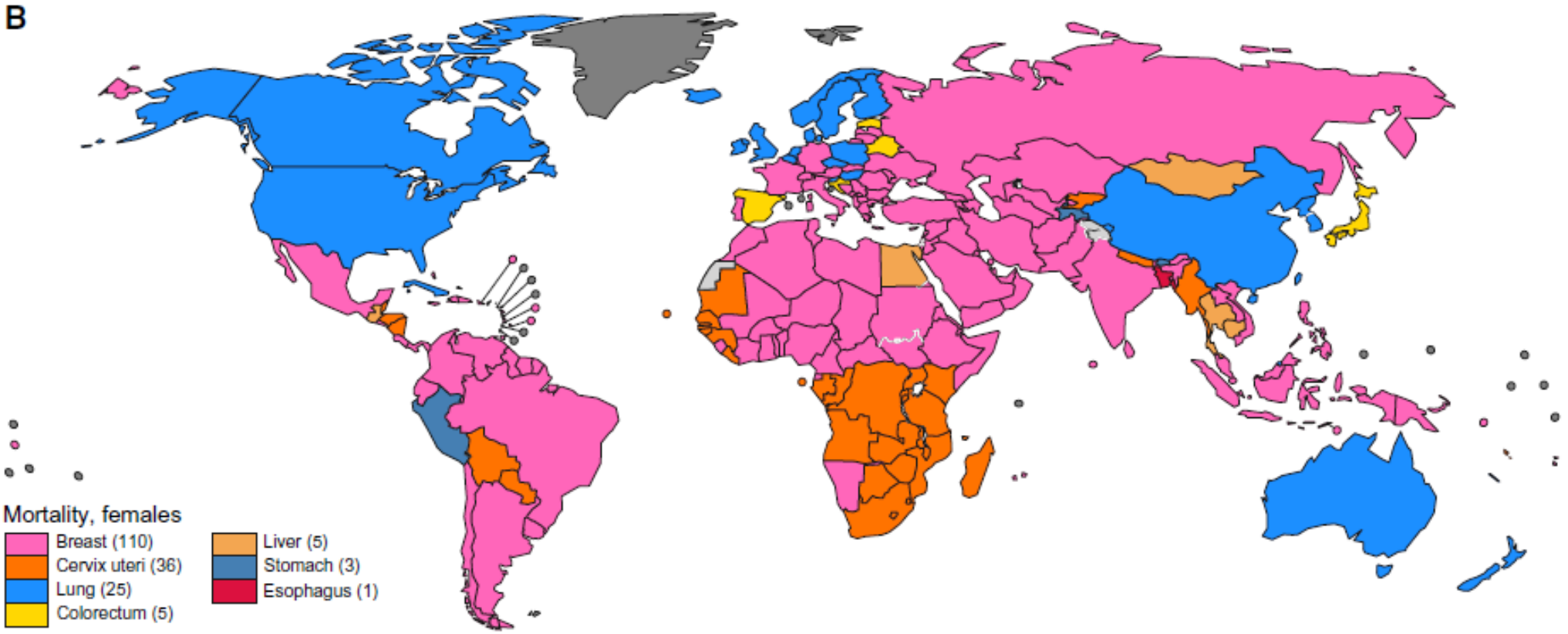

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Cancer is more than just one disease

There are many types of cancer. Cancer can develop anywhere in the body and is named for the part of the body where it started. For instance, breast cancer that starts in the breast is still called breast cancer even if it spreads (metastasizes) to other parts of the body.

There are two main categories of cancer:

- **Hematologic (blood) cancers** are cancers of the blood cells, including leukemia, lymphoma, and multiple myeloma.
- **Solid tumor cancers** are cancers of any of the other body organs or tissues. The most common solid tumors are breast, prostate, lung, and colorectal cancers.

https://www.cancer.org/treatment/understanding-your-diagnosis/what-is-cancer.html

Epidemiologia do Câncer

Epidemiologia do Câncer

"Ramo ou subespecialidade da epidemiologia que estuda os fatores que influenciam a ocorrência de doenças neoplásicas e pré-neoplásicas e distúrbios relacionados. Os resultados primários incluem incidência, prevalência, sobrevivência e mortalidade de todos os tipos de câncer."

Porta M, ed. A dictionary of epidemiology. 6th ed. New York: Oxford University Press; 2014.

Epidemiologia do Câncer

Principais medidas descritivas:

Epidemiologia do Câncer

Principais medidas descritivas:

- Incidência
- Mortalidade

Epidemiologia do Câncer

Principais medidas descritivas:

- Incidência
- Mortalidade

- Prevalência
- Dias de vida ajustado por incapacidade (DALYs)
- Anos de vida perdidos (YLLs)
- Anos vividos com incapacidade (YLDs)

Epidemiologia do Câncer

Principais medidas descritivas:

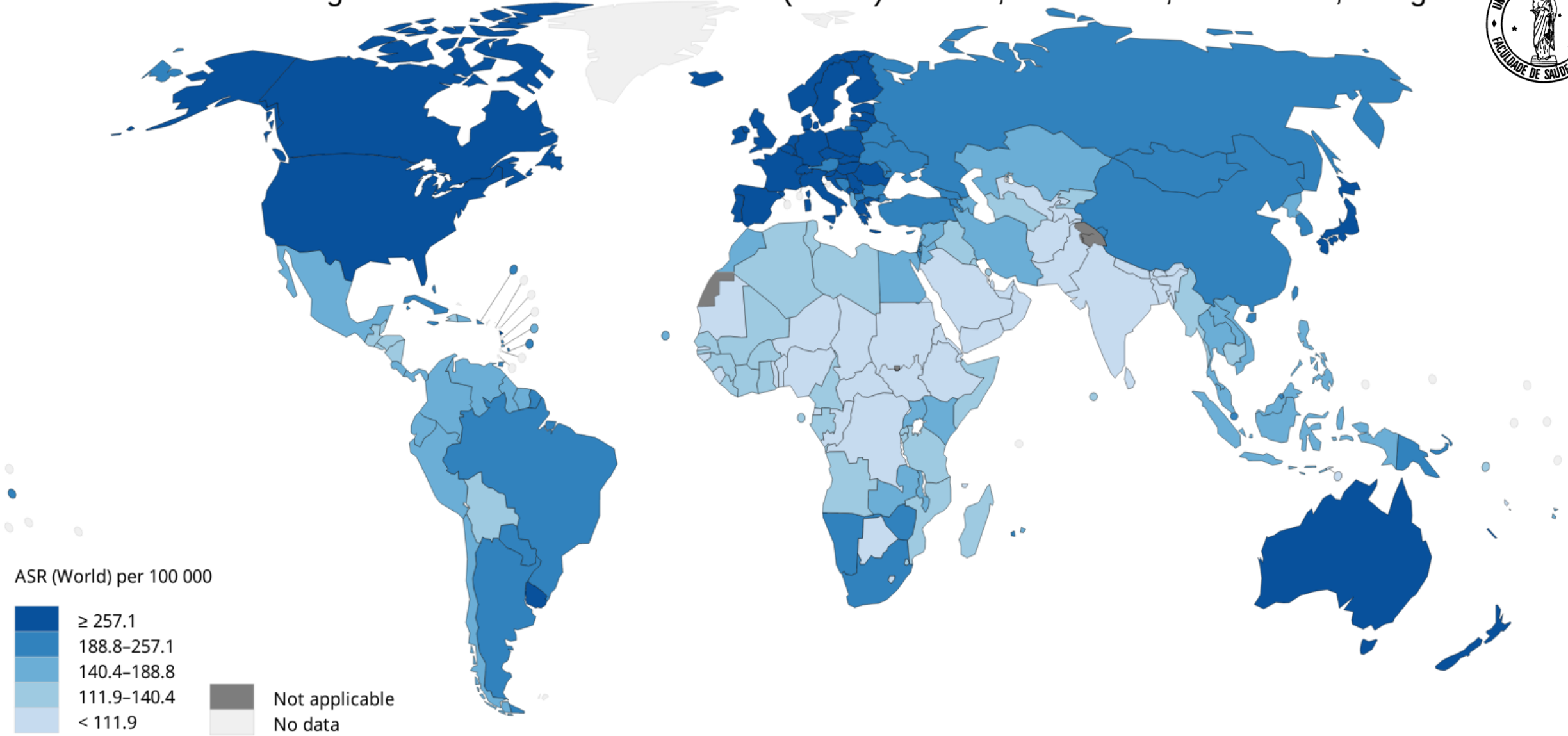
- Incidência
- Mortalidade

Epidemiologia do Câncer

Principais medidas descritivas:

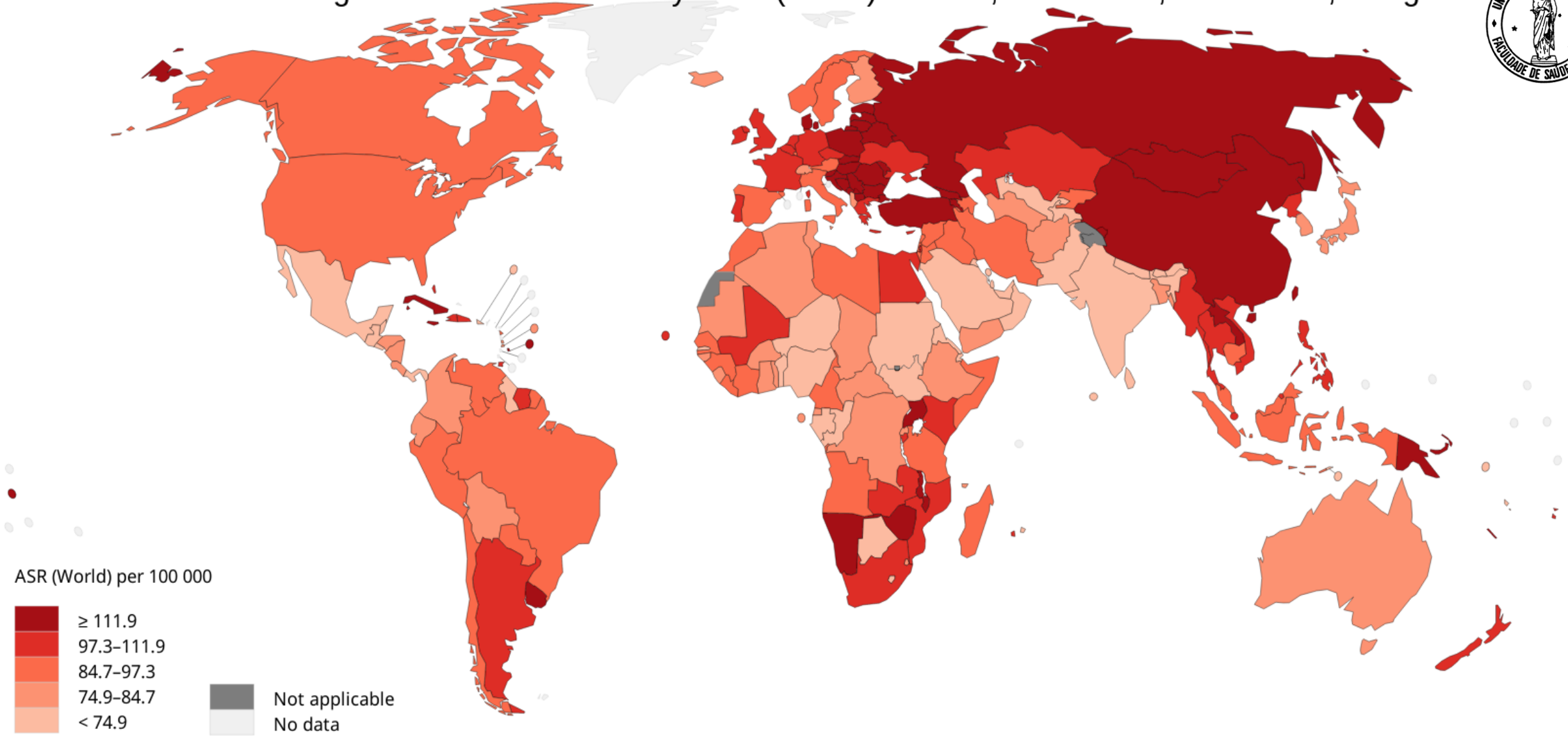
- Incidência
- Mortalidade
  - Número de casos
  - Taxas
  - Taxas específicas (por sexo, idade, raça/cor, etc.)
  - Proporções
  - Taxas ajustadas/padronizadas

Estimated age-standardized incidence rates (World) in 2020, all cancers, both sexes, all ages



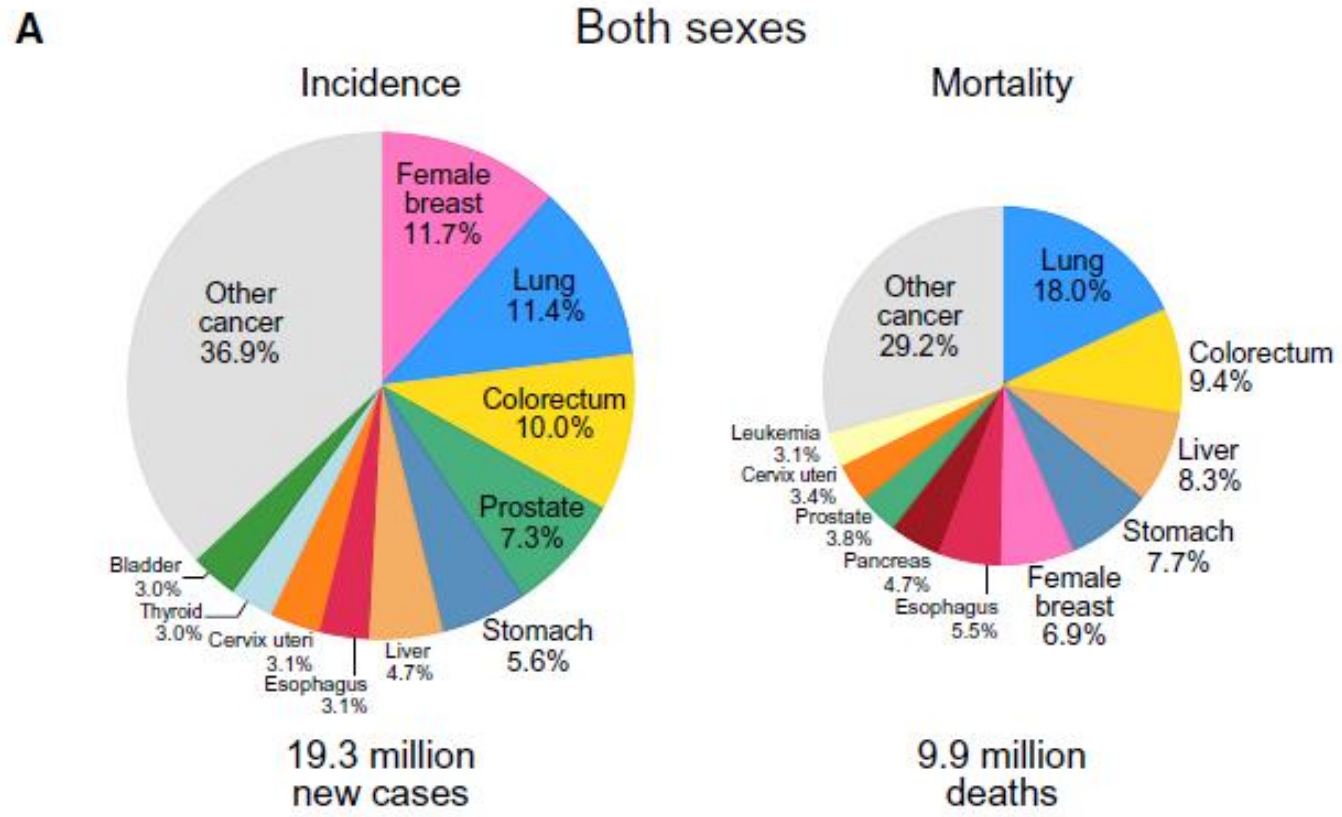
Data source: GLOBOCAN 2020
Map production: IARC
(http://gco.iarc.fr/today)
World Health Organization

Estimated age-standardized mortality rates (World) in 2020, all cancers, both sexes, all ages



Data source: GLOBOCAN 2020
Map production: IARC
(http://gco.iarc.fr/today)
World Health Organization

FIGURE 4. Distribution of Cases and Deaths for the Top 10 Most Common Cancers in 2020 for (A) Both Sexes, (B) Men, and (C) Women. For each sex, the area of the pie chart reflects the proportion of the total number of cases or deaths; nonmelanoma skin cancers (excluding basal cell carcinoma for incidence) are included in the "other" category. Source: GLOBOCAN 2020.



Sung H, Ferlay J, Siegel RL, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA Cancer J Clin*. 2021;71(3):209-249.

Câncer no Brasil

LOCALIZAÇÃO PRIMÁRIA NEOPLASIA MALIGNA	ESTIMATIVA DOS CASOS NOVOS								
	Homens			Mulheres			Total		
	Casos	Taxa bruta	Taxa ajustada	Casos	Taxa bruta	Taxa ajustada	Casos	Taxa bruta	Taxa ajustada
Mama feminina	-	-	-	73.610	66,54	41,89	73.610	66,54	41,89
Próstata	71.730	67,86	55,49	-	-	-	71.730	67,86	55,49
Cólon e reto	21.970	20,78	12,43	23.660	21,41	11,06	45.630	21,10	11,43
Traqueia, brônquio e pulmão	18.020	17,06	12,73	14.540	13,15	9,26	32.560	15,06	10,52
Estômago	13.340	12,63	9,51	8.140	7,36	4,92	21.480	9,94	7,08
Colo do útero	-	-	-	17.010	15,38	13,25	17.010	15,38	13,25
Glândula tireoide	2.500	2,33	1,84	14.160	12,79	6,68	16.660	7,68	4,83
Cavidade oral	10.900	10,30	7,64	4.200	3,83	2,61	15.100	6,99	4,95
Linfoma não Hodgkin	6.420	6,08	4,55	5.620	5,08	3,00	12.040	5,57	3,79
Leucemias	6.250	5,90	4,75	5.290	4,78	3,95	11.540	5,33	4,43
Sistema nervoso central	6.110	5,80	4,56	5.380	4,85	3,80	11.490	5,31	4,33
Bexiga	7.870	7,45	3,96	3.500	3,14	1,58	11.370	5,25	2,75
Esôfago	8.200	7,76	5,46	2.790	2,49	1,43	10.990	5,07	3,38
Pâncreas	5.290	5,00	3,74	5.690	5,15	3,22	10.980	5,07	3,31
Fígado	6.390	6,06	5,18	4.310	3,89	3,14	10.700	4,95	4,29
Pele melanoma	4.640	4,37	2,24	4.340	3,90	1,56	8.980	4,13	1,88
Corpo do útero	-	-	-	7.840	7,08	4,13	7.840	7,08	4,13
Laringe	6.570	6,21	5,07	1.220	1,09	0,72	7.790	3,59	2,68
Ovário	-	-	-	7.310	6,62	5,01	7.310	6,62	5,01
Linfoma de Hodgkin	1.500	1,40	0,84	1.580	1,41	0,78	3.080	1,41	0,75
Outras localizações	41.730	39,49	26,17	33.970	30,69	19,70	75.700	34,99	21,96
Todas as neoplasias, exceto pele não melanoma	**239.430**	**226,56**	**185,61**	**244.160**	**220,75**	**154,08**	**483.590**	**223,59**	**169,63**
Pele não melanoma	101.920	96,44	-	118.570	107,21	-	220.490	101,95	-
Todas as neoplasias	341.350	323,00	-	362.730	327,96	-	704.080	325,53	-

Tabela 1. Estimativas para o ano de 2023 de taxas brutas e ajustadas de incidência por 100 mil habitantes e do número de novos casos de câncer, segundo sexo e localização primária

[a]População-padrão mundial (1960). / *Números arredondados para múltiplos de 10.

Figura 1. Distribuição proporcional dos dez tipos de câncer mais incidentes estimados para 2023 por sexo, exceto pele não-melanoma

Localização Primária	Casos	%
Próstata	71.730	30,0%
Cólon e reto	21.970	9,2%
Traqueia, brônquio e pulmão	18.020	7,5%
Estômago	13.340	5,6%
Cavidade oral	10.900	4,6%
Esôfago	8.200	3,4%
Bexiga	7.870	3,3%
Laringe	6.570	2,7%
Linfoma não Hodgkin	6.420	2,7%
Fígado	6.390	2,7%

Homens

Mulheres

Localização Primária	Casos	%
Mama feminina	73.610	30,1%
Cólon e reto	23.660	9,7%
Colo do útero	17.010	7,0%
Traqueia, brônquio e pulmão	14.540	6,0%
Glândula tireoide	14.160	5,8%
Estômago	8.140	3,3%
Corpo do útero	7.840	3,2%
Ovário	7.310	3,0%
Pâncreas	5.690	2,3%
Linfoma não Hodgkin	5.620	2,3%

*Números arredondados para múltiplos de 10.

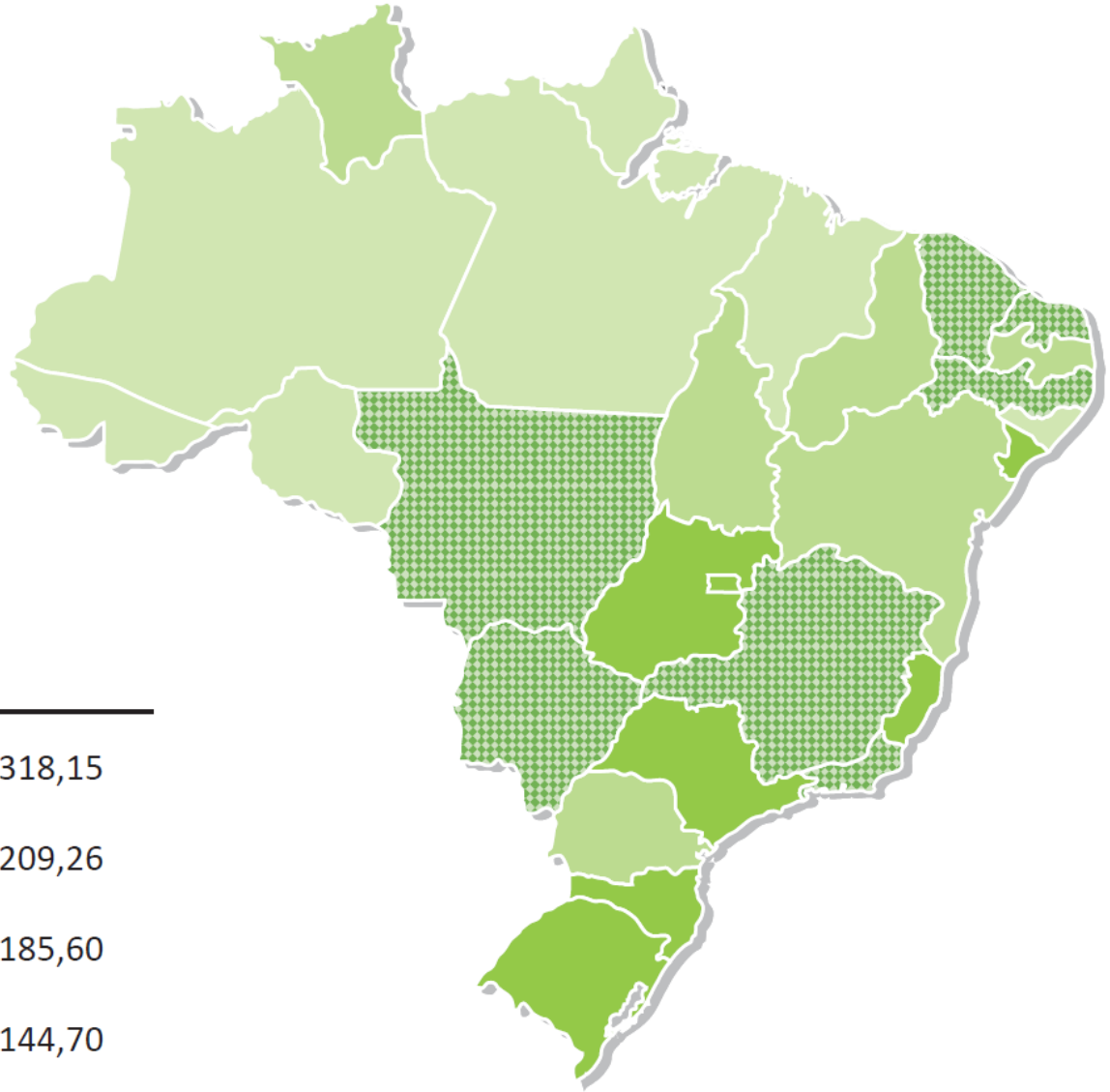


Figura 60. Representação espacial das taxas ajustadas de incidência por 100 mil homens, estimadas para o ano de 2023, segundo Unidade da Federação (todas as neoplasias malignas, exceto as de pele não melanoma)

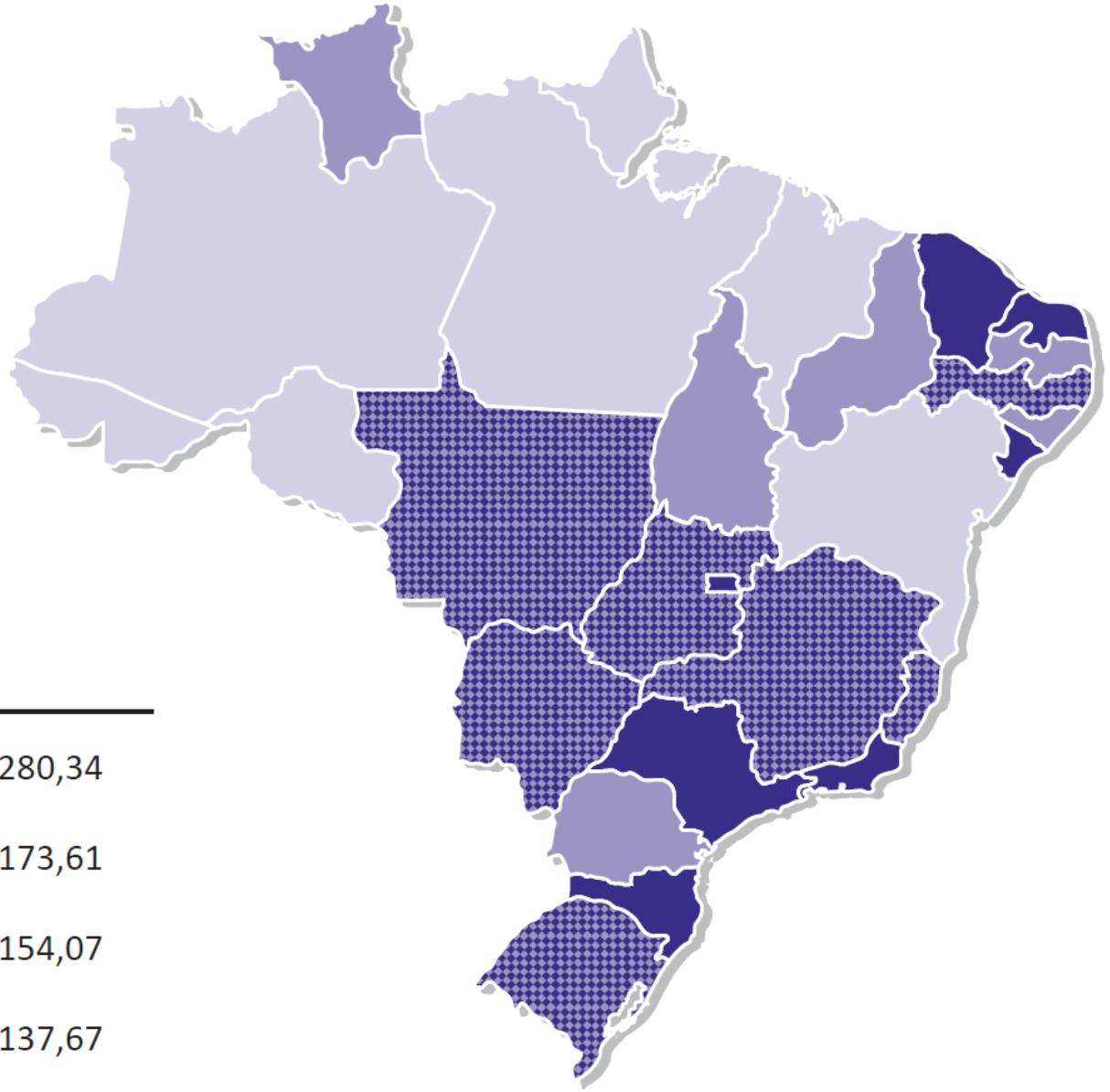


Figura 61. Representação espacial das taxas ajustadas de incidência por 100 mil mulheres, estimadas para o ano de 2023, segundo Unidade da Federação (todas as neoplasias malignas, exceto as de pele não melanoma)

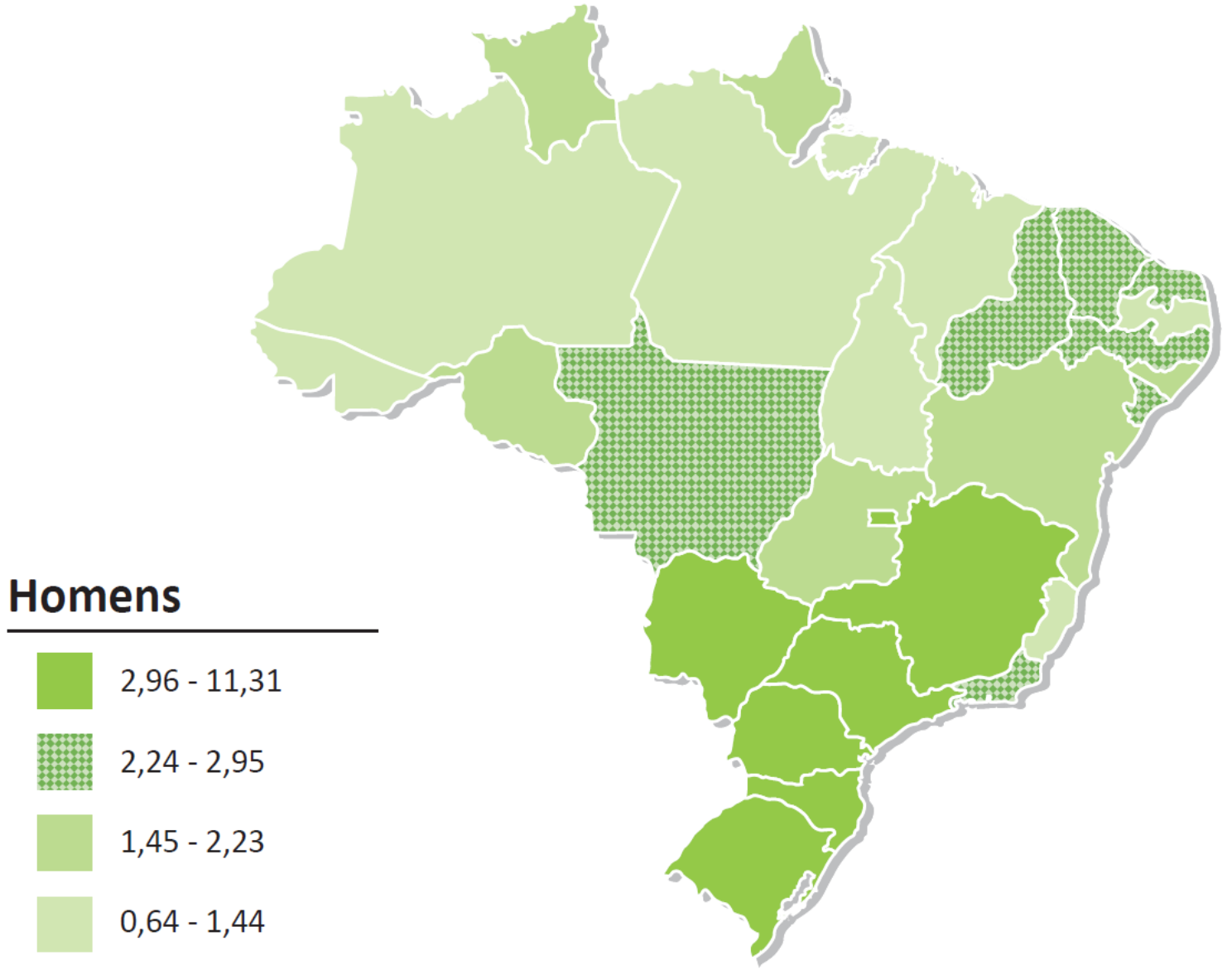
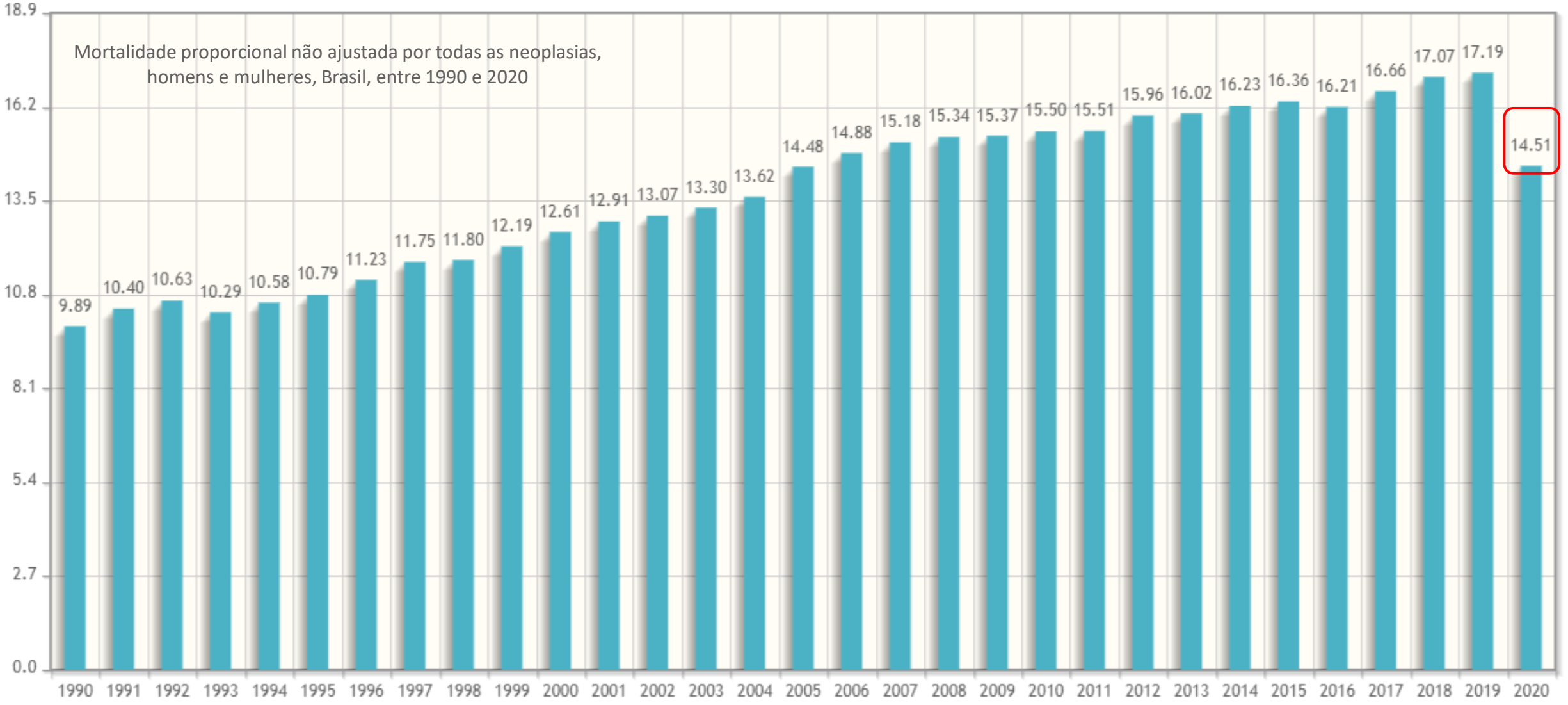


Figura 89. Representação espacial das taxas ajustadas de incidência por 100 mil homens, estimadas para o ano de 2023, segundo Unidade da Federação (**melanoma maligno da pele**)

Atlas On-line de Mortalidade



https://www.inca.gov.br/MortalidadeWeb/pages/Modelo01/consultar.xhtml

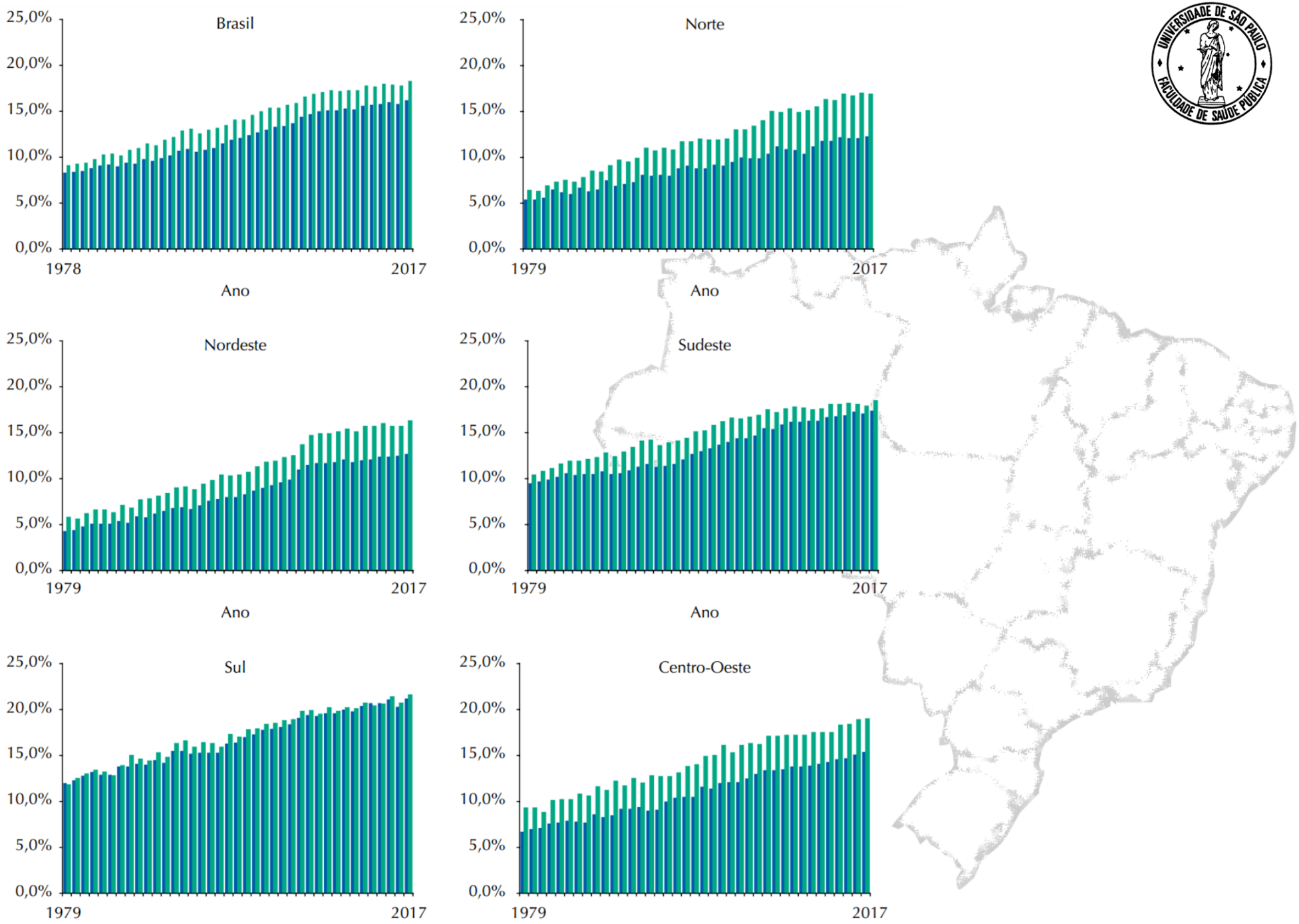
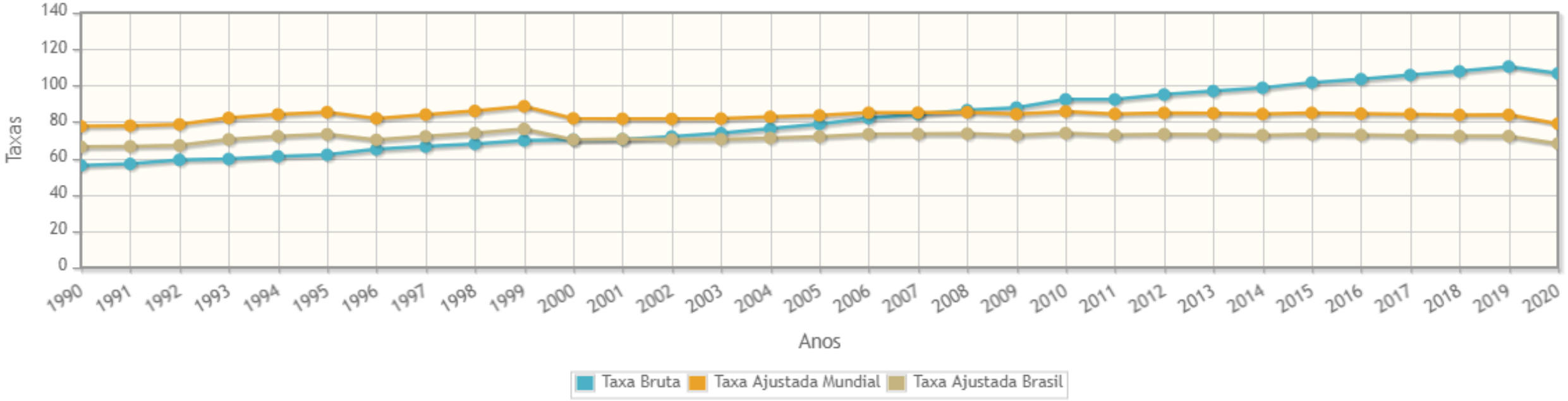


Figura 1. Mortalidade proporcional por câncer, todos os tipos, em homens e mulheres no Brasil e macrorregiões, 1978 a 2017

Silva GAE et al. Cancer mortality in the Capitals and in the interior of Brazil: a four-decade analysis. Rev Saude Publica. 2020;54:126.

Atlas On-line de Mortalidade

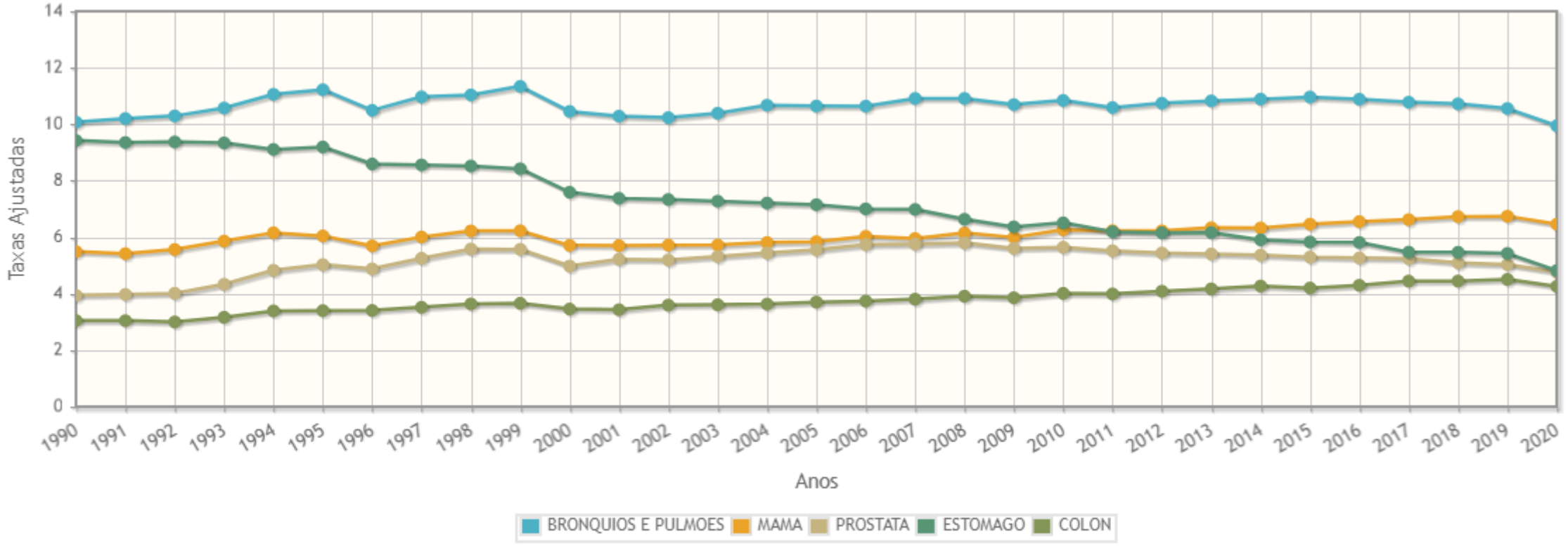
Taxas de mortalidade por todas as neoplasias, brutas e ajustadas por idade, pelas populações mundial e brasileira de 2000, por 100.000 homens e mulheres, Brasil, entre 1990 e 2020



https://www.inca.gov.br/MortalidadeWeb/pages/Modelo01/consultar.xhtml

Atlas On-line de Mortalidade

Taxas de mortalidade das 5 localizações primárias mais frequentes em 2020, ajustadas por idade, pela população mundial, por 100.000 homens e mulheres, Brasil, entre 1990 e 2020



https://www.inca.gov.br/MortalidadeWeb/pages/Modelo01/consultar.xhtml

Table 4. WHO World Standard Population Distribution (%), based on world average population between 2000-2025

Age group	World Average 2000-2025
0-4	8.86
5-9	8.69
10-14	8.60
15-19	8.47
20-24	8.22
25-29	7.93
30-34	7.61
35-39	7.15
40-44	6.59
45-49	6.04
50-54	5.37
55-59	4.55
60-64	3.72
65-69	2.96
70-74	2.21
75-79	1.52
80-84	0.91
85-89	0.44
90-94	0.15
95-99	0.04
100+	0.005
Total	100

AGE STANDARDIZATION OF RATES:

A NEW WHO STANDARD

Omar B. Ahmad
Cynthia Boschi-Pinto
Alan D. Lopez
Christopher JL Murray
Rafael Lozano
Mie Inoue

GPE Discussion Paper Series: No.31

EIP/GPE/EBD
World Health Organization 2001

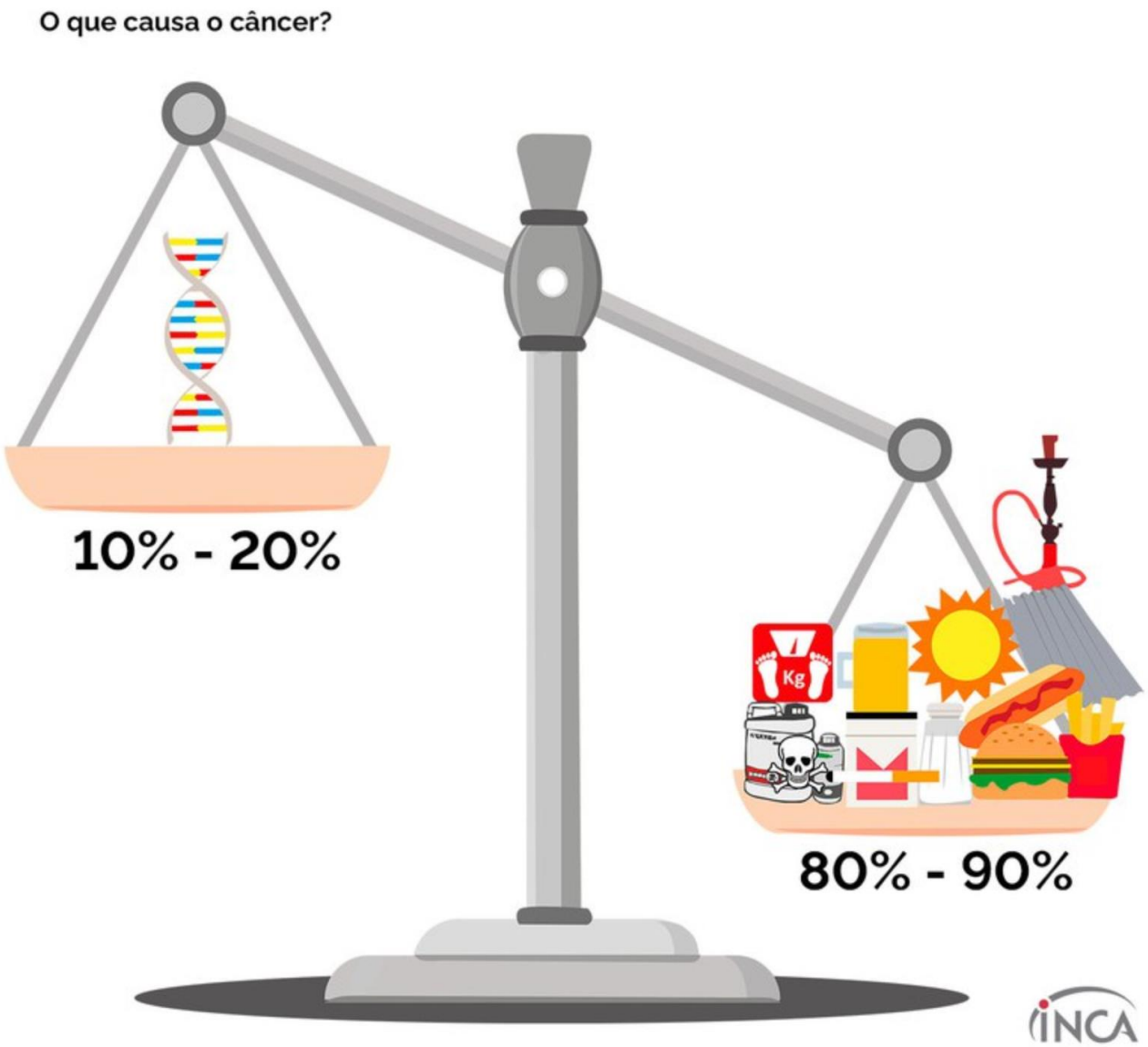
Atlas On-line de Mortalidade

Taxas de mortalidade por todas as neoplasias, brutas e ajustadas por idade, pelas populações mundial e brasileira de 2010, por 100.000 homens e mulheres, no Brasil, no ano de 2020

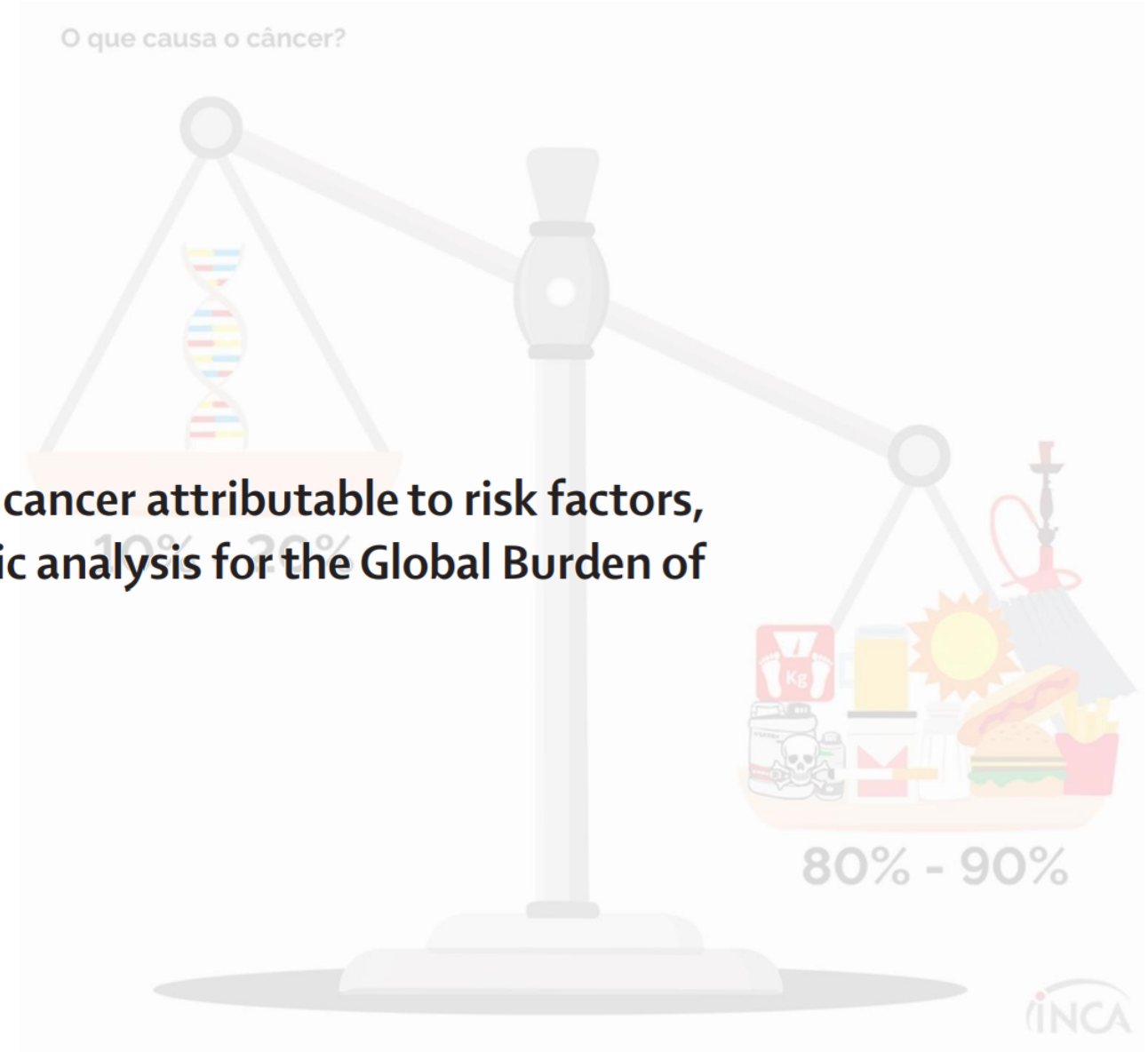
Localidade	Taxas Específicas												Taxa Bruta	Classificação	Taxas Padronizadas	
	00 a 04	05 a 09	10 a 14	15 a 19	20 a 29	30 a 39	40 a 49	50 a 59	60 a 69	70 a 79	80 ou mais	Idade ignorada			Pop. Mundial(1)	Pop. Brasil(2)
Centro-Oeste	2,78	4,27	3,33	4,77	6,76	19,52	51,20	142,18	333,35	638,61	1.165,95	0,00	91,92	3	78,01	84,79
Nordeste	4,25	3,58	3,32	4,49	7,08	18,82	55,70	140,82	305,56	537,90	987,14	0,00	88,33	4	71,72	77,49
Norte	4,72	4,75	3,63	4,85	7,13	19,74	47,86	128,85	278,20	541,81	969,39	0,00	61,69	5	68,08	73,87
Sudeste	3,20	2,92	3,80	4,51	7,31	19,98	55,97	156,92	350,45	616,81	1.060,43	0,00	118,38	2	79,47	85,62
Sul	3,63	2,49	4,01	4,31	9,03	22,76	63,30	181,02	412,49	756,79	1.231,17	0,00	142,72	1	93,39	100,59
Brasil	**3,69**	**3,37**	**3,63**	**4,53**	**7,42**	**19,99**	**55,89**	**153,74**	**344,95**	**618,03**	**1.071,82**	**0,00**	**106,65**		**79,05**	**85,27**

https://www.inca.gov.br/MortalidadeWeb/pages/Modelo01/consultar.xhtml

Fatores de Risco



https://www.gov.br/inca/pt-br/assuntos/causas-e-prevencao-do-cancer/o-que-causa-o-cancer



Lancet 2022; 400: 563–91

The global burden of cancer attributable to risk factors, 2010–19: a systematic analysis for the Global Burden of Disease Study 2019

*GBD 2019 Cancer Risk Factors Collaborators**

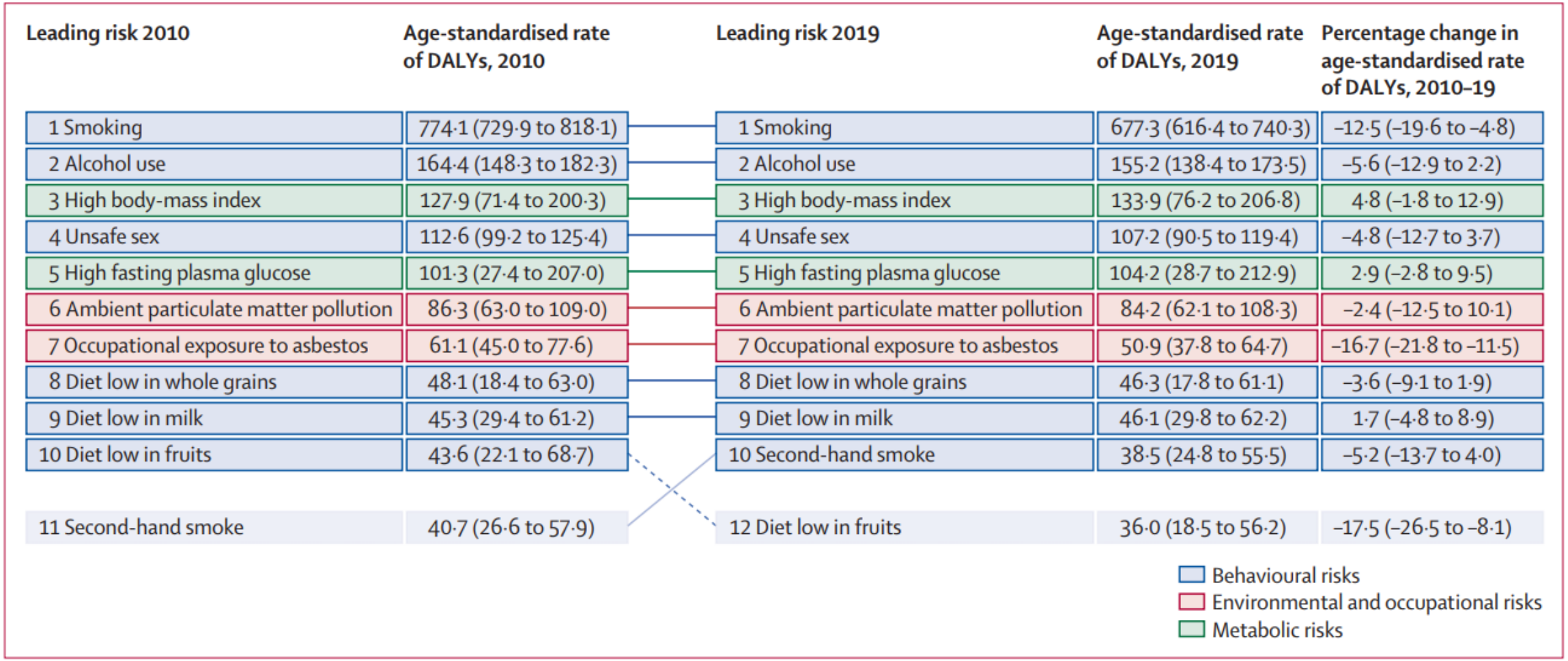
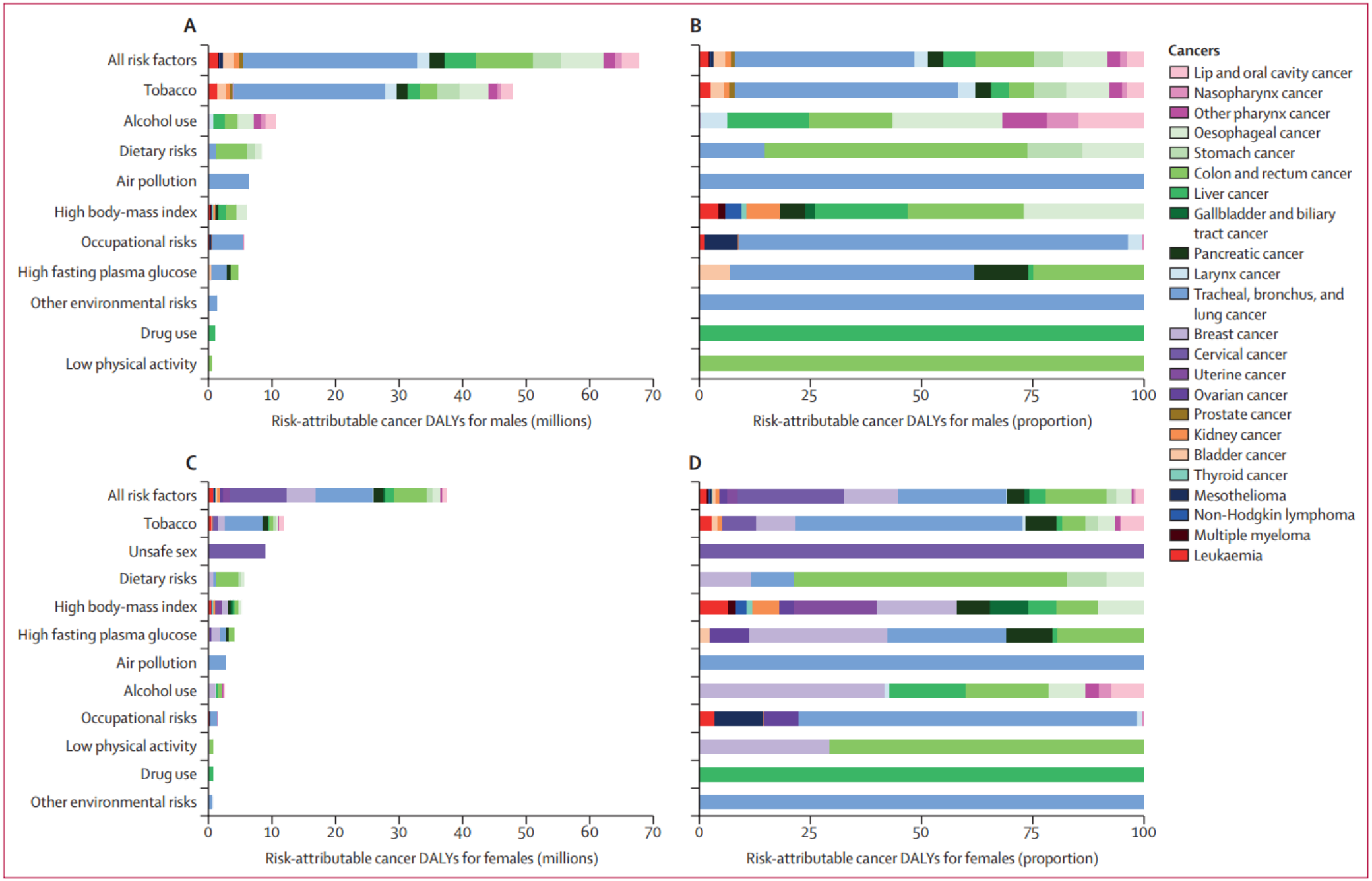


Figure 6: **Leading risk factors at the most detailed level for risk-attributable cancer age-standardised DALY rates globally, both sexes combined, 2010–19**

GBD 2019 Cancer Risk Factors Collaborators. The global burden of cancer attributable to risk factors, 2010-19: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2022;400(10352):563-591.



GBD 2019 Cancer Risk Factors Collaborators. The global burden of cancer attributable to risk factors, 2010-19: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2022;400(10352):563-591.

In the 'easy-access' inner-foil pack and sealed fresh in moisture-proof 'cellophane

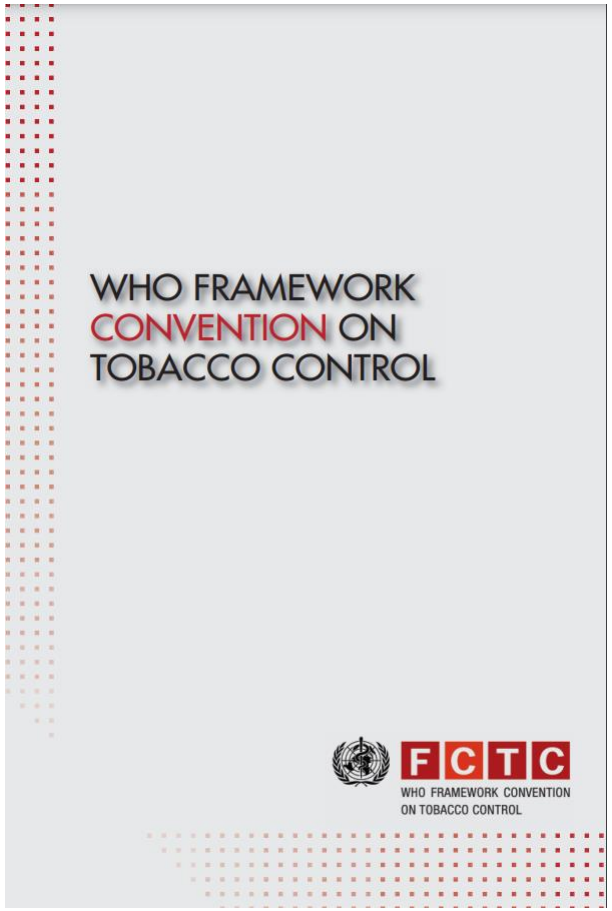
10 for **6**d. • **20** for **1**/- • **25** for **1**/**3** • **40** for **2**/-

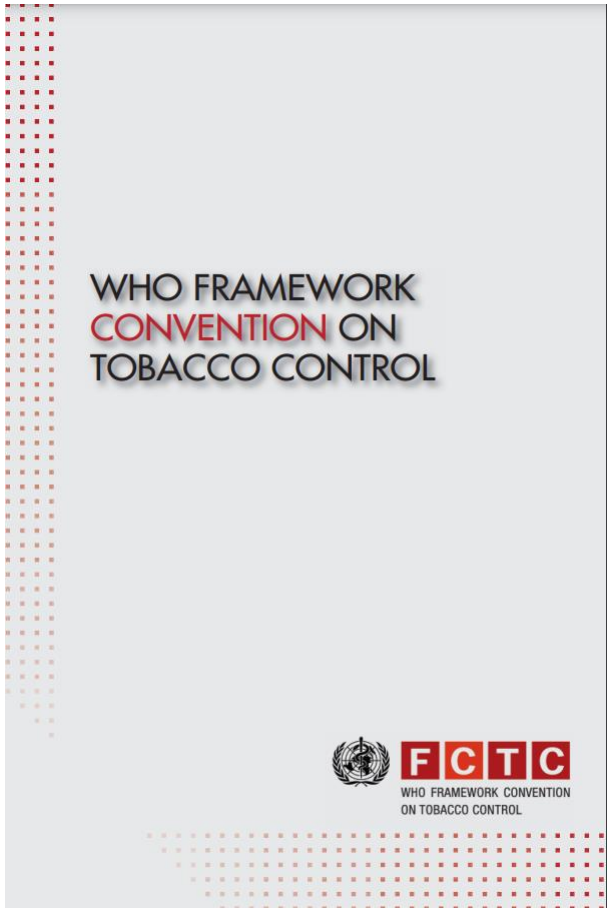
Tins: 50 for 2/6 100 for 5/-

CARRERAS LTD. — 150 YEARS' REPUTATION FOR QUALITY.

According to a recent Nationwide survey:

MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE





WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL

The WHO Framework Convention on Tobacco Control provides a global response to a global problem – namely, the tobacco epidemic. It is an evidence-based treaty that reaffirms all people's right to the highest standard of health. The WHO FCTC is a milestone in the promotion of public health and provides new legal dimensions for international health cooperation.

It is the first treaty negotiated under the auspices of WHO. The WHO FCTC was adopted by the World Health Assembly on 21 May 2003 and entered into force on 27 February 2005. Since its entry into force in 2005, this international treaty has become one of the most rapidly and widely embraced treaties in United Nations (UN) history. To date, 180 countries globally have ratified the WHO FCTC, including 50 WHO European Member States.

https://www.who.int/europe/teams/tobacco/who-framework-convention-on-tobacco-control-(who-fctc)

Smoking control in Brazil: a public health success story

Paulo Andrade Lotufo[I]

Sao Paulo Med J. 2017;135(3):203-4

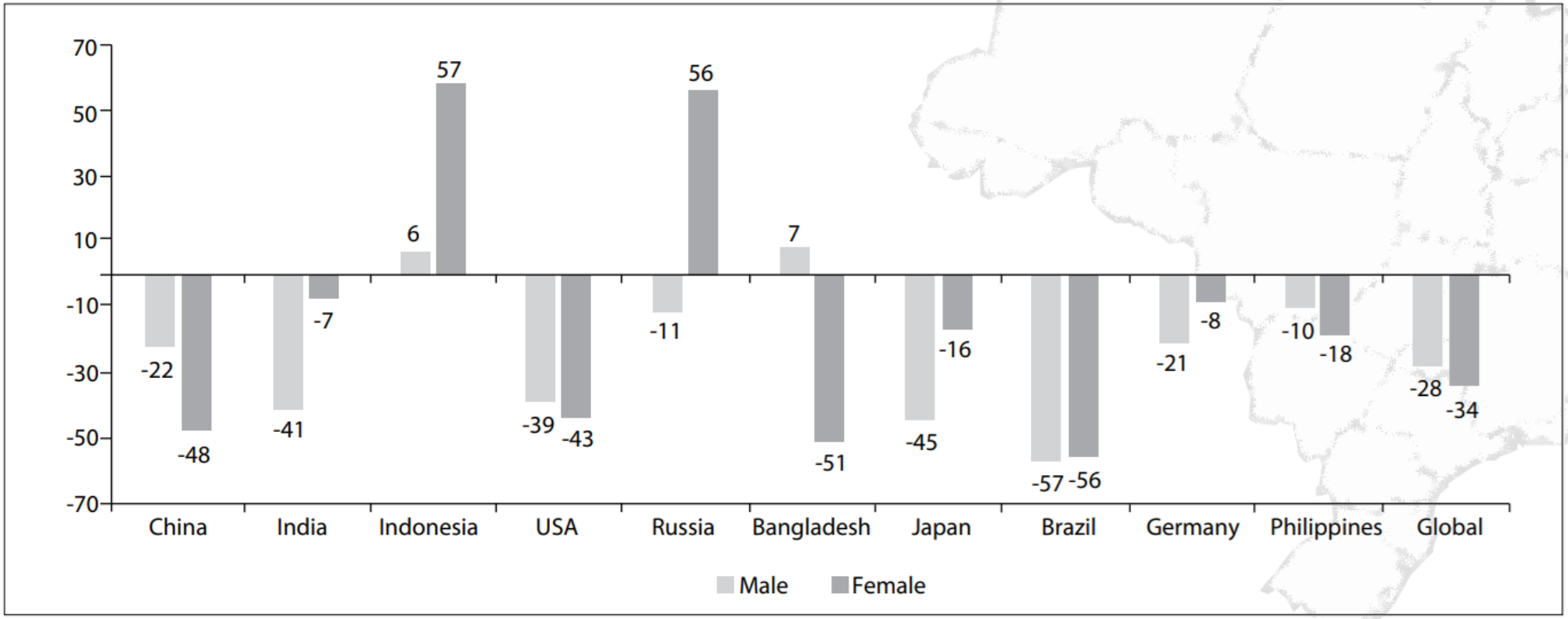


Figure 2. Difference (%) in age-adjusted prevalence rates for smoking habit between 1990 and 2015 among the 10 countries with the highest numbers of smokers, according to the Global Burden of Disease study.[1]

https://breathepa.org/teen-vaping/

VIRUS PARTICLES IN CULTURED LYMPHOBLASTS FROM BURKITT'S LYMPHOMA

M. A. EPSTEIN
M.A., M.D. Cantab.,
D.SC., PH.D. Lond., F.C.PATH.
B. G. ACHONG
M.B. Dubl.
Y. M. BARR
B.A. Dubl.

THE LANCET
MARCH 28, 1964

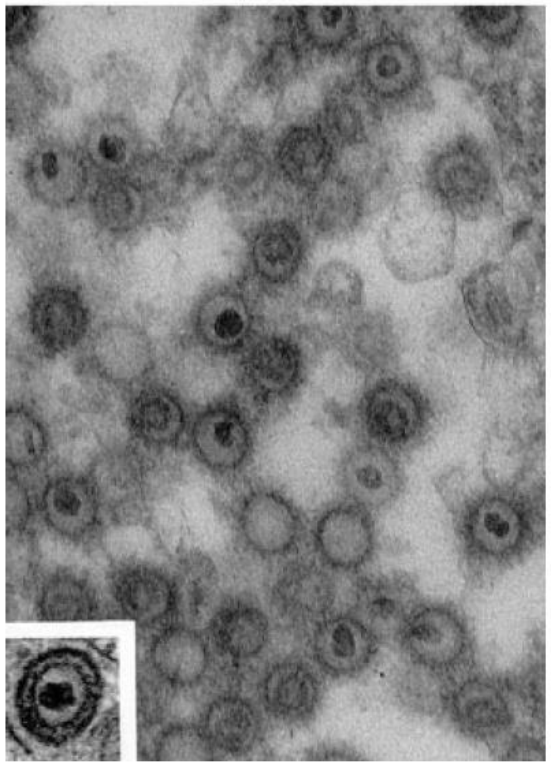


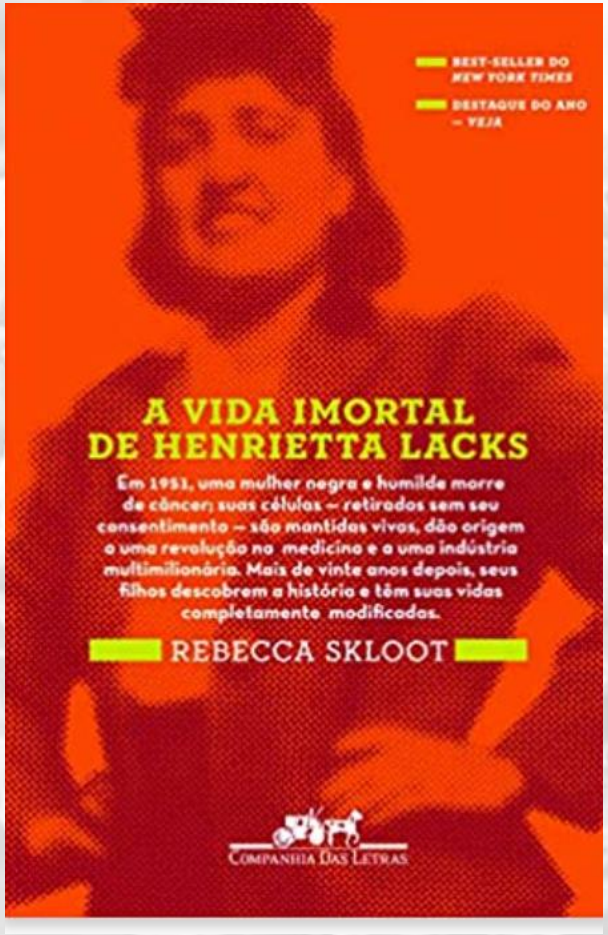
Fig 2. Electronmicrograph of thin sectioned EBV particles. Immature virions (above) cut in various planes in an infected cell. Inset (below) a mature enveloped particle. These images led to the virus being immediately recognized as a member of the herpesvirus family.

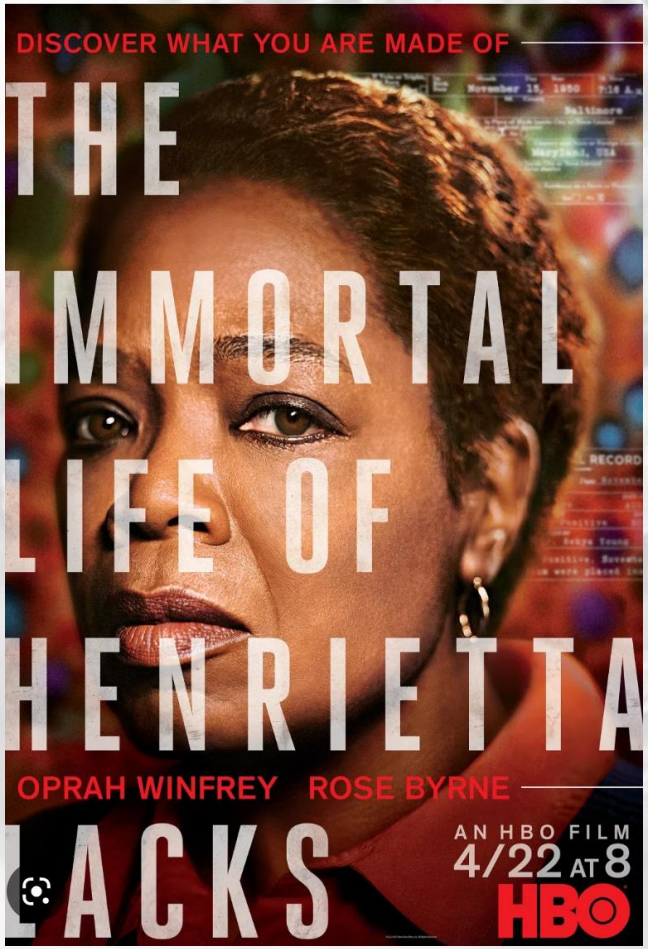
	Men		Women		Total	
	New cases	New cases attributable to infectious pathogens	New cases	New cases attributable to infectious pathogens	New cases	New cases attributable to infectious pathogens
Helicobacter pylori						
Non-cardia gastric cancer	550 000	490 000	300 000	270 000	850 000	760 000
Cardia gastric cancer	130 000	27 000	46 000	8900	180 000	36 000
Non-Hodgkin lymphoma of gastric location	12 000	8700	10 000	7600	22 000	16 000
Human papillomavirus						
Cervix uteri carcinoma*	..	..	570 000	570 000	570 000	570 000
Oropharyngeal carcinoma	110 000	34 000	26 000	8100	140 000	42 000
Oral cavity cancer	190 000	3900	91 000	2000	280 000	5900
Larynx cancer*	150 000	3600	22 000	≤1000	180 000	4100
Anus squamous cell carcinoma	9900	9900	19 000	19 000	29 000	29 000
Penis carcinoma*	34 000	18 000	..	..	34 000	18 000
Vagina carcinoma*	..	..	18 000	14 000	18 000	14 000
Vulva carcinoma*	..	..	44 000	11 000	44 000	11 000
Hepatitis B virus						
Hepatocellular carcinoma	490 000	270 000	170 000	90 000	660 000	360 000
Hepatitis C virus						
Hepatocellular carcinoma	490 000	100 000	170 000	40 000	660 000	140 000
Other non-Hodgkin lymphoma	260 000	8700	210 000	7200	480 000	16 000
Epstein-Barr virus						
Nasopharynx carcinoma*	92 000	76 000	35 000	29 000	130 000	110 000
Hodgkin lymphoma*	46 000	24 000	33 000	17 000	80 000	40 000
Burkitt lymphoma	7800	4100	3800	2500	12 000	6600
Human herpesvirus type 8						
Kaposi sarcoma*	28 000	28 000	14 000	14 000	42 000	42 000
Schistosoma haematobium						
Bladder carcinoma*	420 000	4000	120 000	1900	550 000	6000
Human T-cell lymphotropic virus						
Adult T-cell leukaemia and lymphoma	1900	1900	1700	1700	3600	3600
Opisthorchis viverrini and *Clonorchis sinensis*						
Cholangiocarcinoma	69 000	2100	56 000	1300	130 000	3500
All cancer types related to infection	..	1 100 000	..	1 100 000	..	2 200 000

The number of cases has been rounded to two significant digits. *Cancer site for which estimates were available in, and extracted directly from, GLOBOCAN 2018 via the Cancer Today website.

Table 1: **Estimated numbers of infection-attributable cancer cases in 2018, by infectious pathogen, cancer subsite, and sex**

de Martel C, Georges D, Bray F, Ferlay J, Clifford GM. Global burden of cancer attributable to infections in 2018: a worldwide incidence analysis. *Lancet Glob Health*. 2020;8(2):e180-e190.


BEST-SELLER DO NEW YORK TIMES
DESTAQUE DO ANO – VEJA
A VIDA IMORTAL DE HENRIETTA LACKS
Em 1951, uma mulher negra e humilde morre de câncer; suas células – retirados sem seu consentimento – são mantidas vivas, dão origem a uma revolução na medicina e a uma indústria multimilionária. Mais de vinte anos depois, seus filhos descobrem a história e têm suas vidas completamente modificadas.
REBECCA SKLOOT
COMPANHIA DAS LETRAS


DISCOVER WHAT YOU ARE MADE OF
THE IMMORTAL LIFE OF HENRIETTA LACKS
OPRAH WINFREY ROSE BYRNE
AN HBO FILM
4/22 AT 8
HBO

História Natural da Doença e Níveis de Prevenção: Fatores de Risco

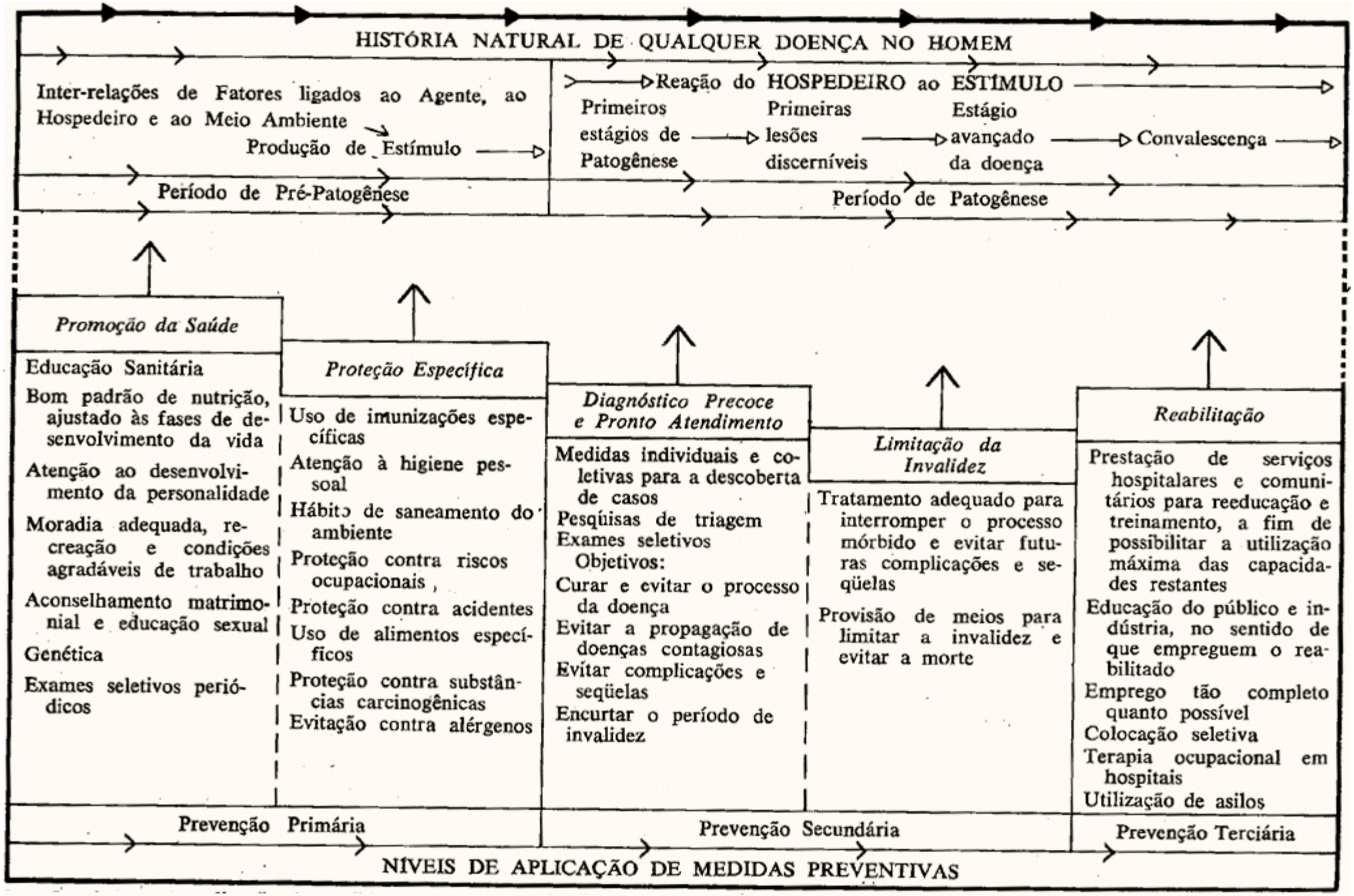
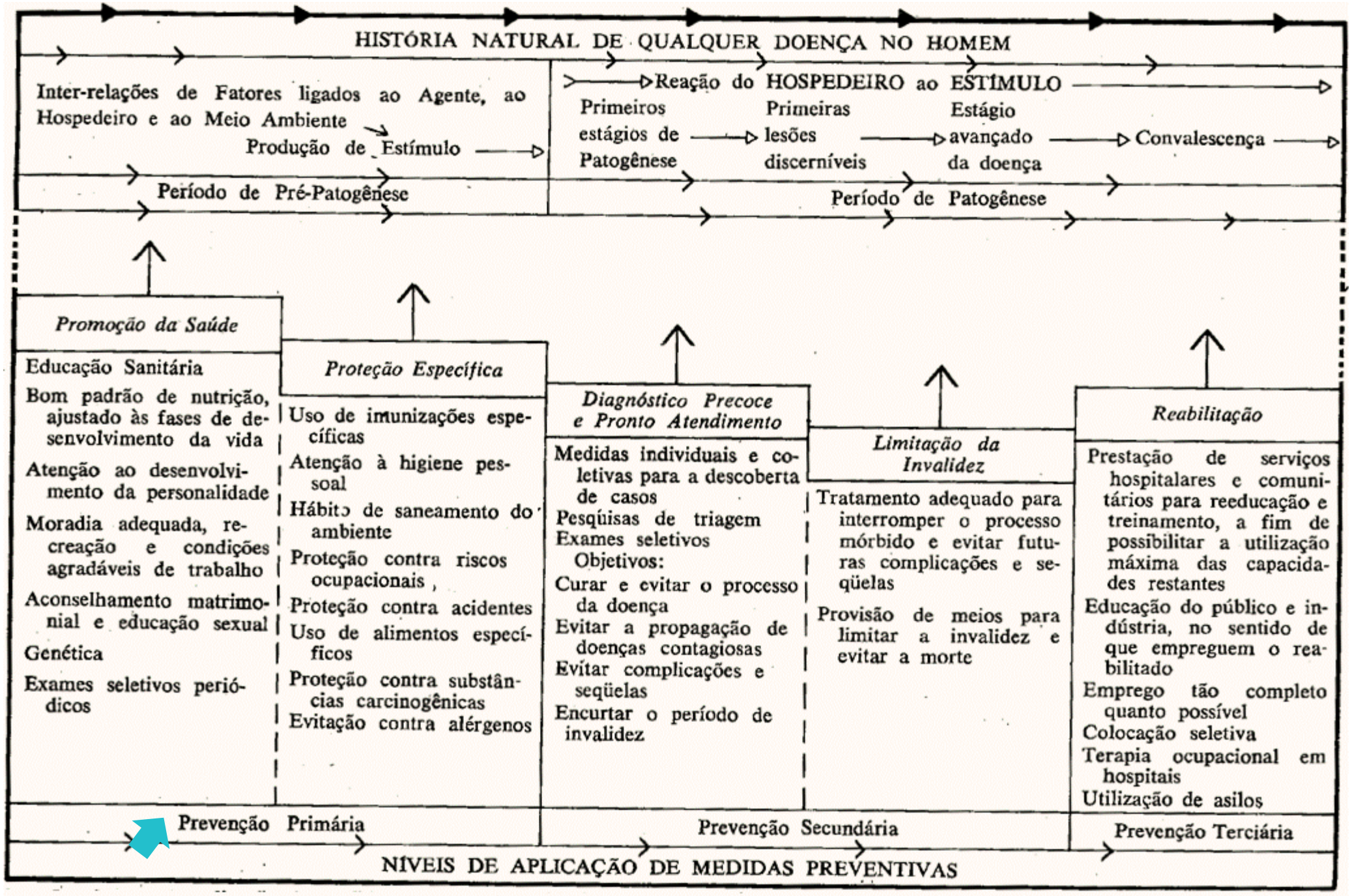


Figura 2-3. Níveis de aplicação de medidas preventivas na história natural da doença

Leavell, H; Clark, EG. Preventive medicine for the doctor in his community New York: Macgraw Hill, 1965.



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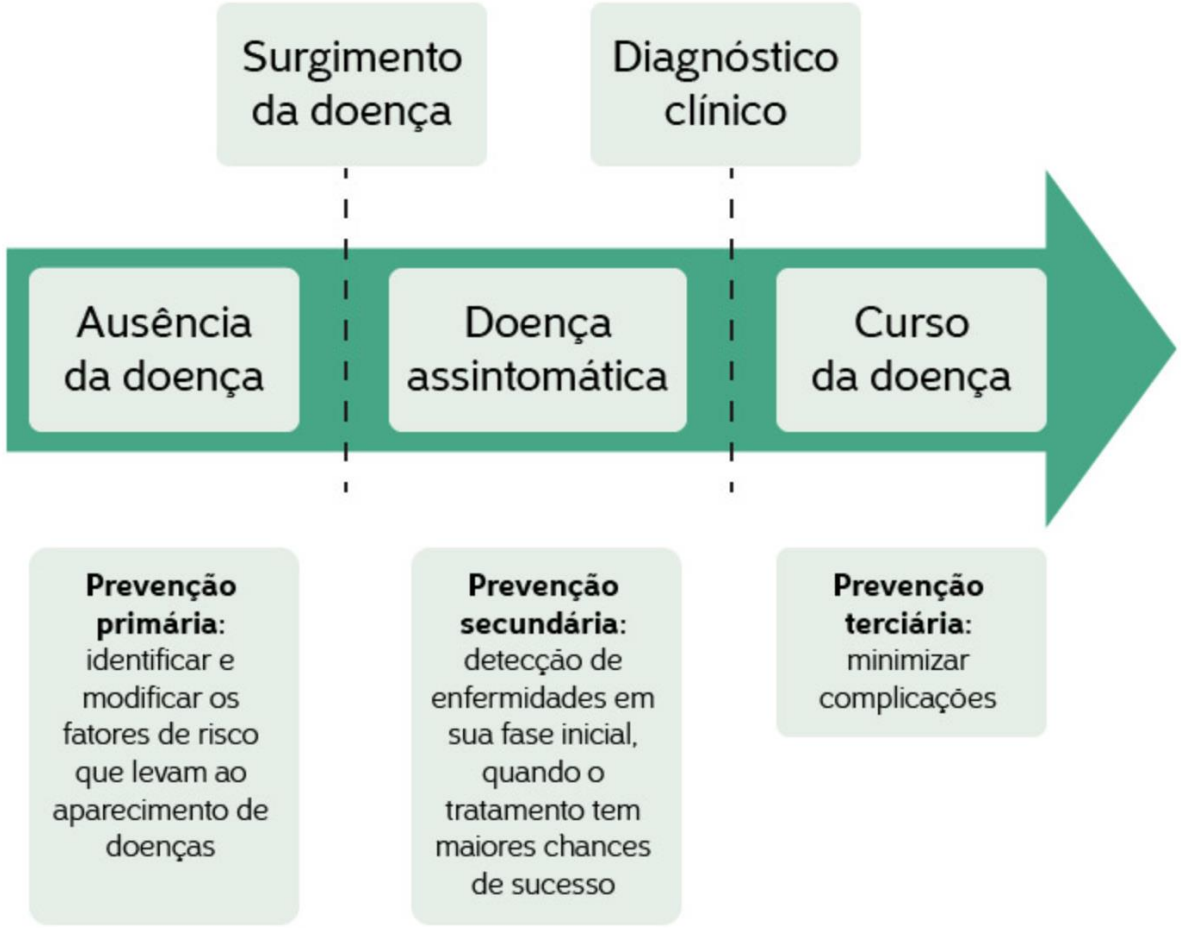
História Natural da Doença e Níveis de Prevenção



https://accamargo.org.br/

Aspectos Socioeconômicos na Distribuição do Câncer

Aspectos Socioeconômicos na Distribuição do Câncer

JAMA Oncology | Original Investigation

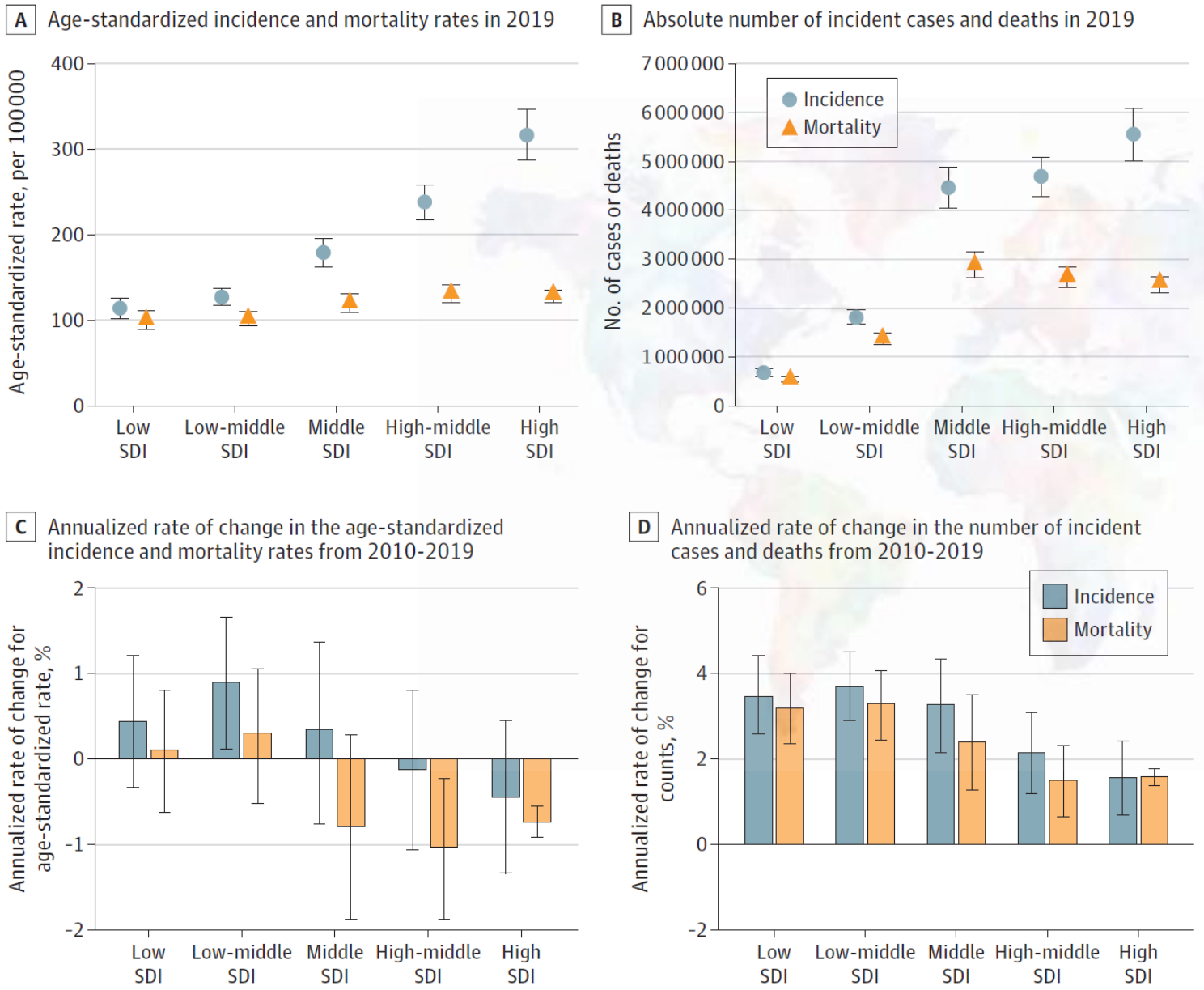
Cancer Incidence, Mortality, Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life Years for 29 Cancer Groups From 2010 to 2019

A Systematic Analysis for the Global Burden of Disease Study 2019

Global Burden of Disease 2019 Cancer Collaboration

JAMA Oncology March 2022 Volume 8, Number 3

Figure 5. Total Cancer Incidence and Mortality Age-Standardized Rates and Absolute Counts in 2019 and Annualized Rate of Change for Incidence and Mortality in Age-Standardized Rates and Absolute Counts From 2010 to 2019 by Sociodemographic Index (SDI) Quintile



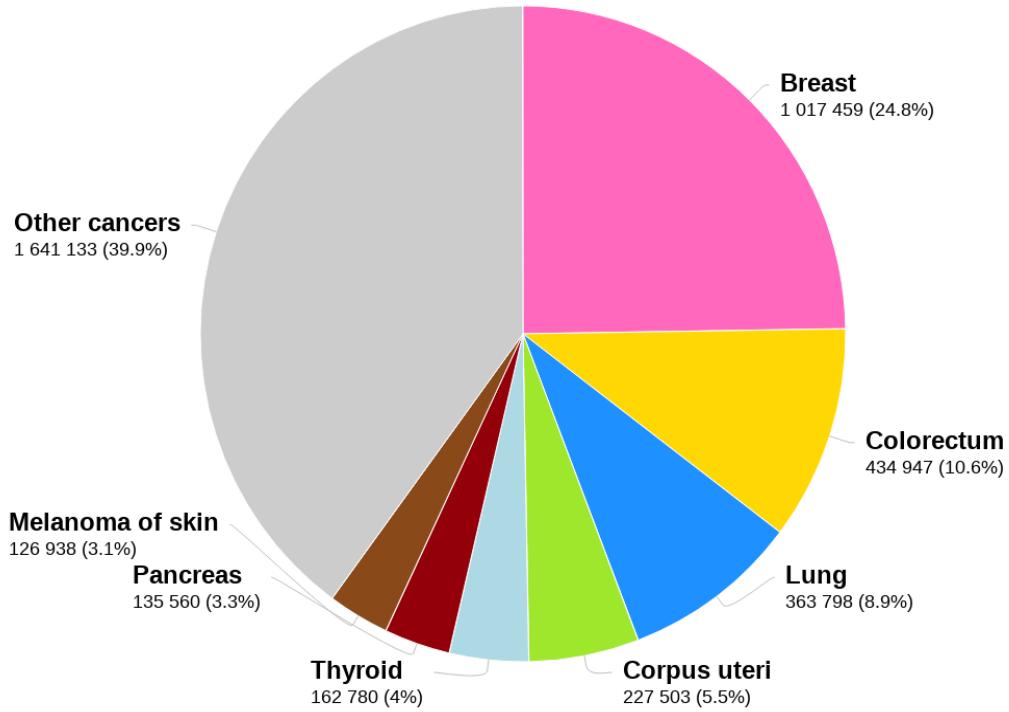
Global Burden of Disease 2019 Cancer Collaboration, Kocarnik JM, Compton K, et al. Cancer Incidence, Mortality, Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life Years for 29 Cancer Groups From 2010 to 2019: A Systematic Analysis for the Global Burden of Disease Study 2019.

Table 2 Trends (annual percent change) of cancer mortality. Mean APC by type of cancer, sex, and quartiles of government health expenditure, hospital beds, and human development index. Brazil, 1996–2016

		Per Capita Gov Health Expenditure					Hospital beds, per 1000					Human Development Index				
	Sex	1st qtl	2nd qtl	3rd qtl	4th qtl	R(1)	1st qtl	2nd qtl	3rd qtl	4th qtl	R(1)	1st qtl	2nd qtl	3rd qtl	4th qtl	R(1)
All cancers	F	4.47	1.75	0.09	−0.50	−0.49(2)	2.93	1.24	1.00	0.69	−0.37(2)	3.45	1.83	0.93	−0.27	−0.84(2)
	M	4.88	2.63	0.22	−0.62	−0.38(2)	3.60	1.51	1.25	0.80	−0.42(2)	3.99	2.31	1.22	−0.25	−0.87(2)
Head & Neck	F	12.25	3.43	0.51	−0.58	−0.38(2)	8.21	2.54	3.23	1.75	−0.37(3)	8.97	4.21	2.67	0.13	−0.66(2)
	M	11.11	4.73	1.14	−0.88	−0.39(2)	8.49	2.61	2.52	2.56	−0.32(4)	9.92	3.42	3.29	−0.19	−0.63(2)
Colon, Rectum & Anus	F	9.19	3.41	1.85	0.46	−0.42(2)	6.52	3.35	2.92	2.19	−0.38(2)	6.97	4.14	3.08	0.96	−0.74(2)
	M	7.88	4.69	2.83	1.61	−0.47(2)	6.35	3.92	3.55	3.22	−0.33(2)	6.71	4.43	3.99	2.04	−0.68(2)
Stomach	F	7.73	0.64	−1.99	−2.90	−0.43(2)	4.44	0.27	−0.32	−1.11	−0.37(2)	5.57	1.54	−1.12	−2.55	−0.71(2)
	M	5.62	1.54	−2.24	−3.17	−0.47(2)	4.30	−0.53	−0.96	−1.13	−0.36(2)	4.81	0.99	−1.23	−2.83	−0.71(2)
Pancreas	F	11.95	3.87	2.69	0.79	−0.42(2)	9.08	3.77	4.42	2.11	−0.41(2)	9.25	5.38	3.82	1.16	−0.65(2)
	M	10.89	5.34	1.57	0.95	−0.47(2)	8.82	3.98	3.25	2.76	−0.40(2)	9.61	4.98	3.26	1.20	−0.72(2)
Lung	F	7.67	3.14	1.09	1.22	−0.43(2)	5.28	3.24	2.41	2.25	−0.32(3)	6.28	3.63	2.31	1.09	−0.63(2)
	M	5.93	2.44	−0.21	−1.11	−0.43(2)	4.42	1.18	0.94	0.56	−0.38(2)	4.65	2.31	1.01	−0.71	−0.75(2)
Breast	F	11.82	3.19	1.99	−0.06	−0.39(2)	8.75	2.40	3.47	2.42	−0.31(3)	10.21	4.13	2.23	0.72	−0.56(2)
Prostate	M	8.89	4.55	0.79	−0.75	−0.48(2)	7.29	2.05	2.67	1.51	−0.38(2)	8.52	3.55	1.85	−0.16	−0.71(2)
Cervical	F	5.98	1.96	−1.71	−3.01	−0.41(2)	4.96	−0.41	−0.67	− 0.62	−0.30(3)	6.13	0.75	−0.87	−2.53	−0.58(2)

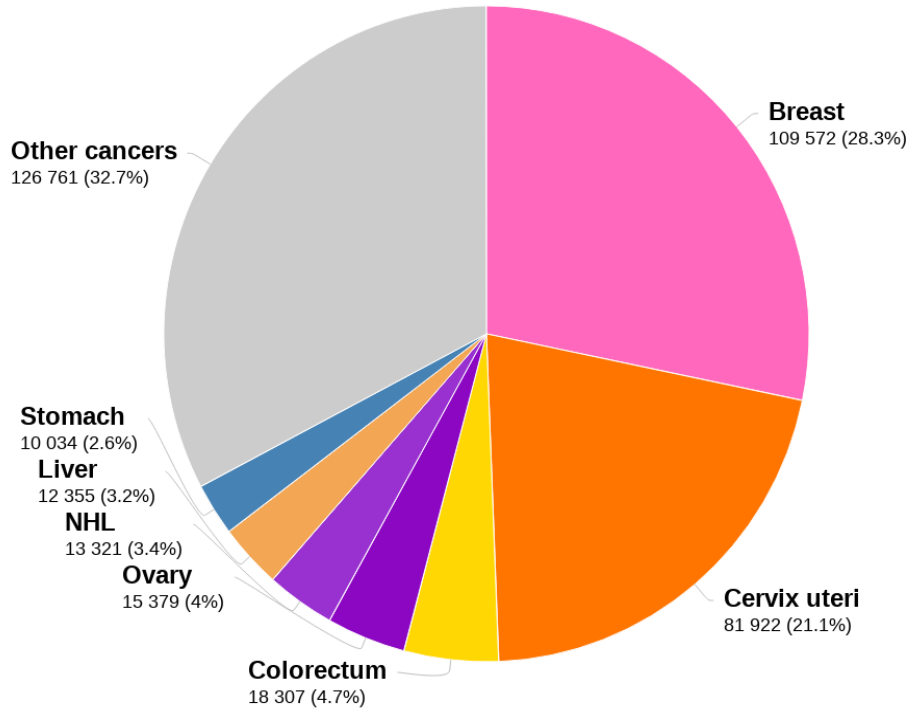
Bigoni A, Ferreira Antunes JL, Weiderpass E, Kjærheim K. Describing mortality trends for major cancer sites in 133 intermediate regions of Brazil and an ecological study of its causes. *BMC Cancer*. 2019;19(1):940.

Estimated number of new cases in 2020, Very high HDI, females, all ages



Total : 4 110 118

Estimated number of new cases in 2020, Low HDI, females, all ages



Total : 387 651

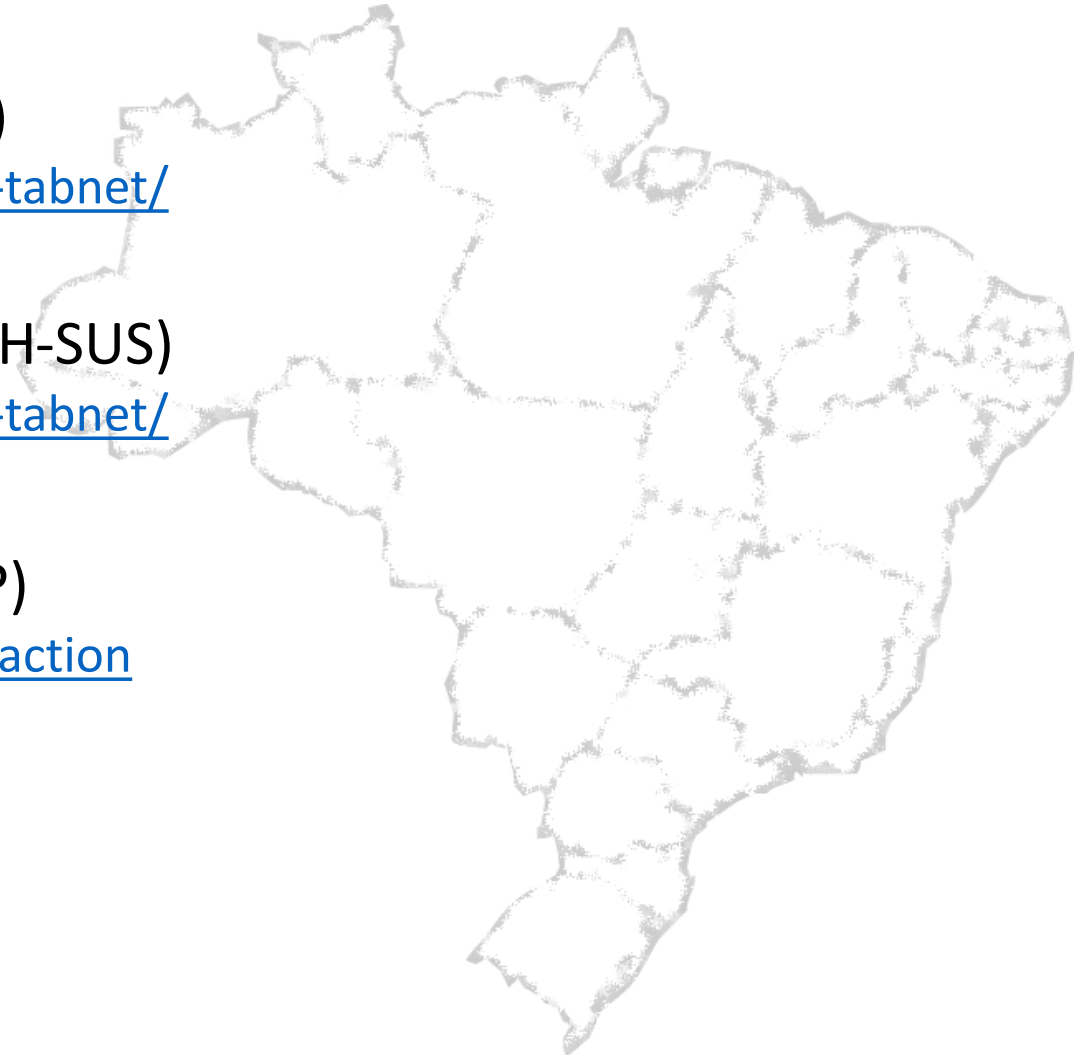
Data source: Globocan 2020
Graph production: Global Cancer Observatory (http://gco.iarc.fr)

International Agency for Research on Cancer
World Health Organization

Bases de Dados

Principais Bases de Dados Nacionais

- Sistema de Informação sobre Mortalidade (SIM)
  - https://datasus.saude.gov.br/informacoes-de-saude-tabnet/
- Sistema de Informações Hospitalares do SUS (SIH-SUS)
  - https://datasus.saude.gov.br/informacoes-de-saude-tabnet/
- Registros de Câncer de Base Populacional (RCBP)
  - https://www.inca.gov.br/BasePopIncidencias/Home.action
- Registros Hospitalares do Câncer (RHC)
  - https://irhc.inca.gov.br/RHCNet/



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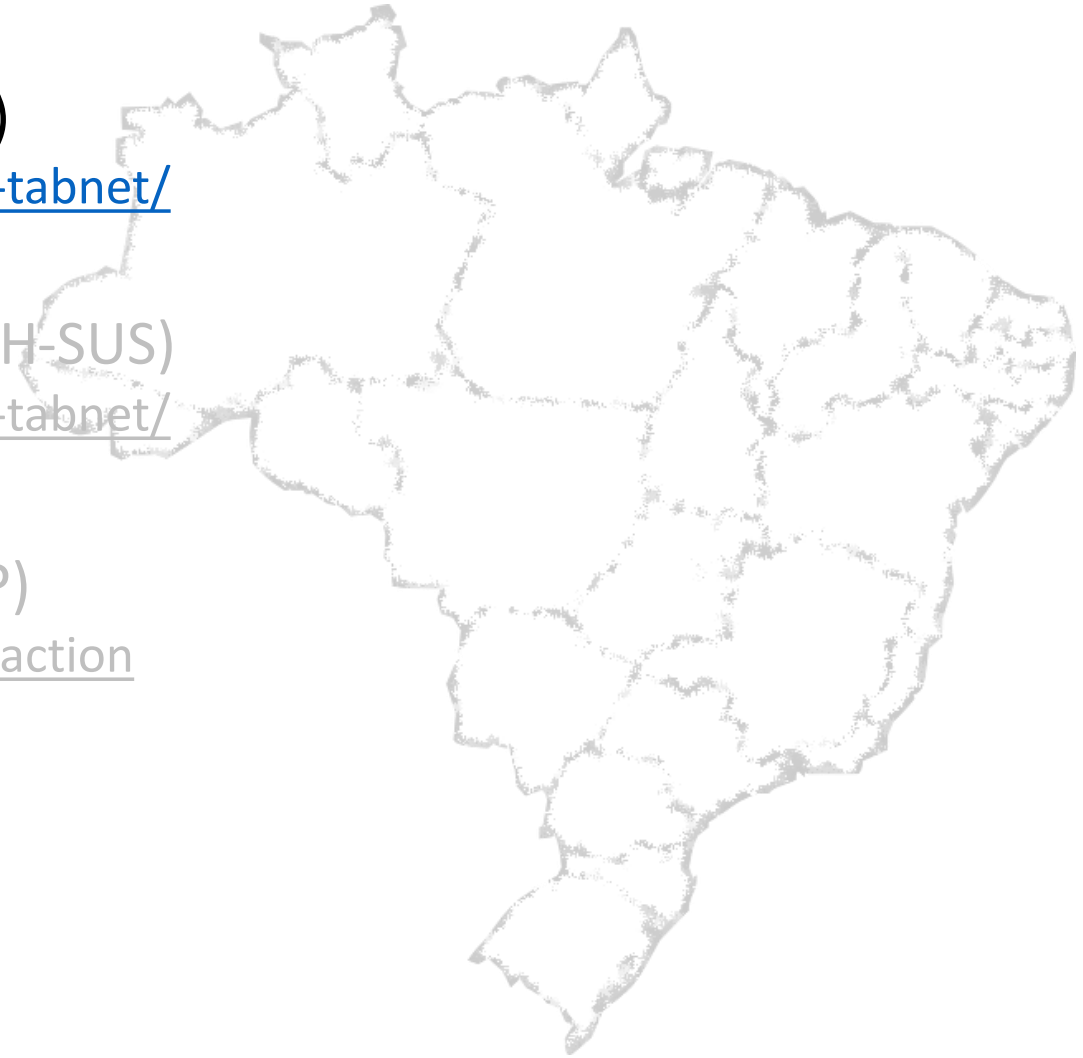
- Registros de Câncer de Base Populacional (RCBP)
  - https://www.inca.gov.br/BasePopIncidencias/Home.action
- Registros Hospitalares do Câncer (RHC)
  - https://irhc.inca.gov.br/RHCNet/



Principais Bases de Dados Nacionais

- Sistema de Informação sobre Mortalidade (SIM)
  - https://datasus.saude.gov.br/informacoes-de-saude-tabnet/

Confiabilidade da Informação

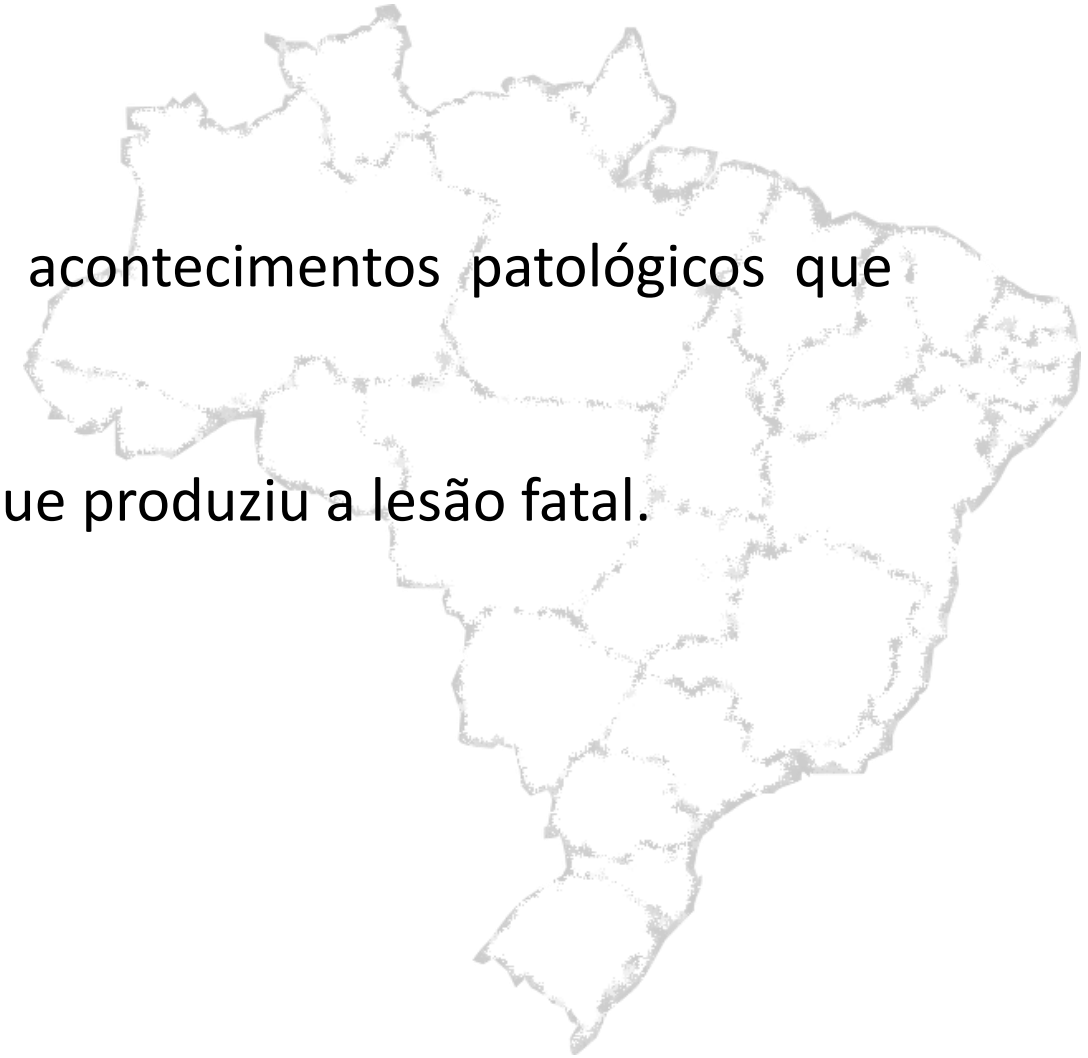
✓ Cobertura
✓ Completitude

Principais Bases de Dados Nacionais

Causa Básica de Morte

- Doença ou lesão que iniciou a cadeia de acontecimentos patológicos que conduziram diretamente à morte.

- As circunstâncias do acidente ou violência que produziu a lesão fatal.



Ministério da Saúde, 2011. *Manual de Instruções para o Preenchimento da Declaração de Óbito*.

Principais Bases de Dados Nacionais

Causa Básica de Morte

- Doença ou lesão que iniciou a cadeia de acontecimentos patológicos que conduziram diretamente à morte.

- As circunstâncias do acidente ou violência que produziu a lesão fatal.

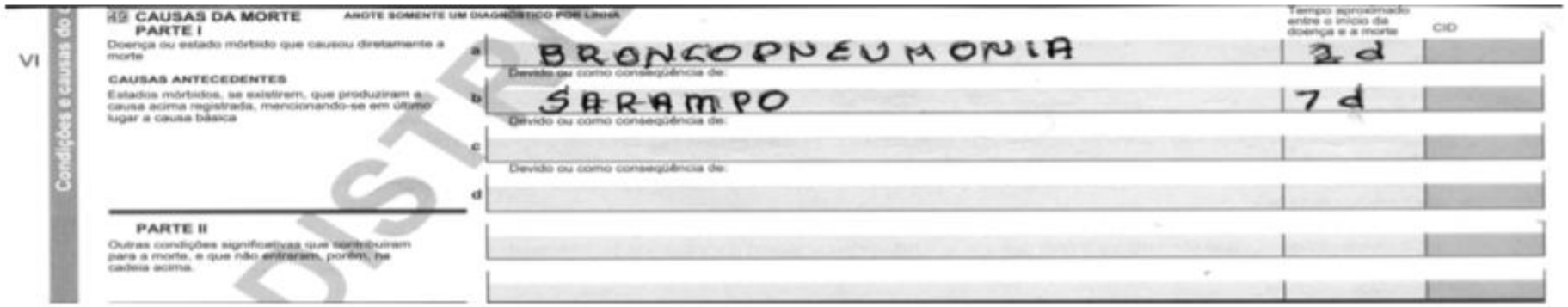
> A DO deve ser preenchida para todos os tipos de óbitos fetais e não fetais ocorridos em estabelecimentos de saúde, domicílios ou outros locais. O médico atestante deve se abster de utilizar diagnósticos vagos como "*parada cardíaca*", "*parada cardio-respiratória*", "*falência de múltiplos órgãos*", *etc*, que são modos e não causas de morte, não devendo ser computados como causa básica do óbito.

Ministério da Saúde, 2011. *Manual de Instruções para o Preenchimento da Declaração de Óbito*.

Principais Bases de Dados Nacionais

Causa Básica de Morte

Exemplo 2: A criança apresentou sarampo e teve como complicação broncopneumonia, falecendo em conseqüência desta. Neste caso, a causa básica **sarampo** deu origem à **broncopneumonia**, que foi a causa terminal. O atestado deverá ser preenchido como abaixo, sendo que a causa básica foi registrada na linha "b", ficando as demais em branco, o que é perfeitamente aceitável.



Ministério da Saúde, 2011. *Manual de Instruções para o Preenchimento da Declaração de Óbito*.

Principais Bases de Dados Nacionais

Causa Básica de Morte

Ministério da Saúde, 2011. *Manual de Instruções para o Preenchimento da Declaração de Óbito*.

Principais Bases de Dados Nacionais

Situação do SIM

- Registrou 95% dos óbitos estimados no de 2000 a 2010.
- Registra cerca de 400 mil óbitos/ano com *garbage codes*.

França, 2019. Códigos garbage declarados como causas de morte nas estatísticas de saúde. *Rev Bras Epidemiol*.; 22(3)

Table 1. Proportions of deaths due to garbage codes, R-codes and Non-R codes, and total deaths by regions, sexes, age groups and size of municipalities. Brazil, 2000 and 2015.

Variables		2000			2015		
		Proportion		Total deaths	Proportion		Total deaths
		R[1]	Non-R[2]		R[1]	Non-R[2]	
Regions	Central West	8.5	25.6	54,292	2.9	24.2	83,381
	Northeast	28.2	24.3	230,848	7.2	28.6	338,940
	North	23.9	23.2	47,561	7.9	25.0	77,944
	Southeast	9.7	29.1	461,512	5.6	28.7	572,738
	South	6.3	26.3	152,477	3.4	25.2	191,173
Sex	Men	13.7	25.6	552,130	5.7	25.3	709,118
	Women	15.1	28.8	393,607	5.6	30.5	554,383
Age group	Under 5	12.5	18.2	79,470	2.3	14.3	43,096
	5 to 14	9.8	28.0	11,659	4.9	24.6	8,159
	15 to 49	10.1	23.9	218,812	5.1	18.0	230,876
	50 to 69	13.2	24.7	264,109	5.3	23.6	361,951
	70 plus	18.1	32.2	368,271	6.2	34.5	616,814
Size municipalities (1,000)	0--20	25.0	25.9	146,300	7.6	28.4	205,928
	20|--100	21.1	26.6	247,995	7.5	28.7	352,918
	100|--500	11.2	27.5	238,457	5.1	27.5	324,660
	500+	6.2	27.1	307,313	3.2	26.2	377,269
Brazil		14.3	27.0	946,690	5.7	27.6	1,264,176

Teixeira et al., 2019. Quality of cause-of-death data in Brazil: Garbage codes among registered deaths in 2000 and 2015. *Rev Bras Epidemiol*.; 22(3)

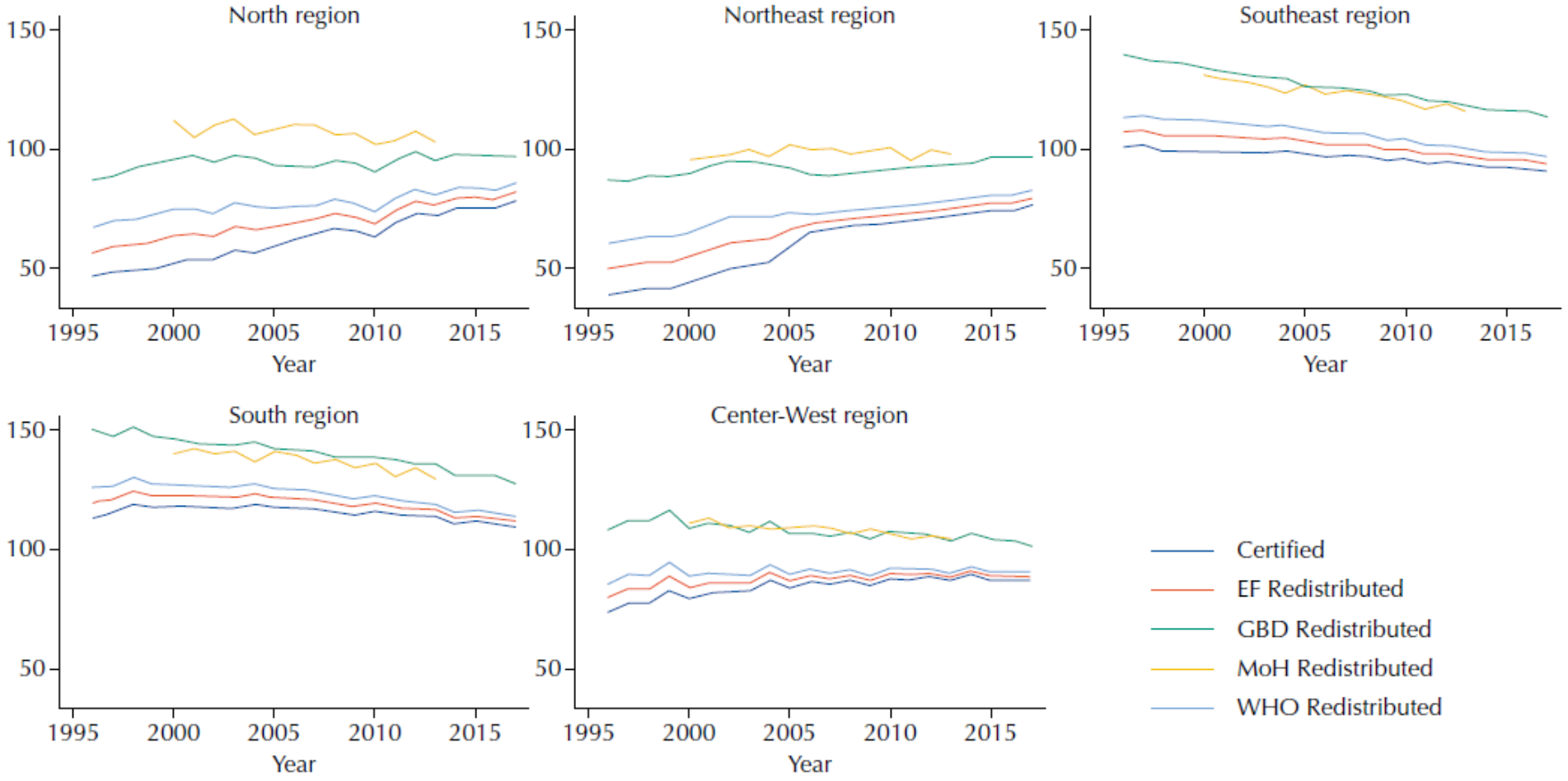


Figure. Time series of cancer mortality in Brazil, 1996–2017, by macroregions. Certified, EF redistributed, and GBD redistributed death rates as adjusted for age and gender.

Bigoni A, Cunha ARD, Antunes JLF. Redistributing deaths by ill-defined and unspecified causes on cancer mortality in Brazil [published correction appears in Rev Saude Publica. 2022 Jan 17;55:121err]. *Rev Saude Publica*. 2021;55:106.

Principais Bases de Dados Nacionais

- Sistema de Informação sobre Mortalidade (SIM)
  - https://datasus.saude.gov.br/informacoes-de-saude-tabnet/
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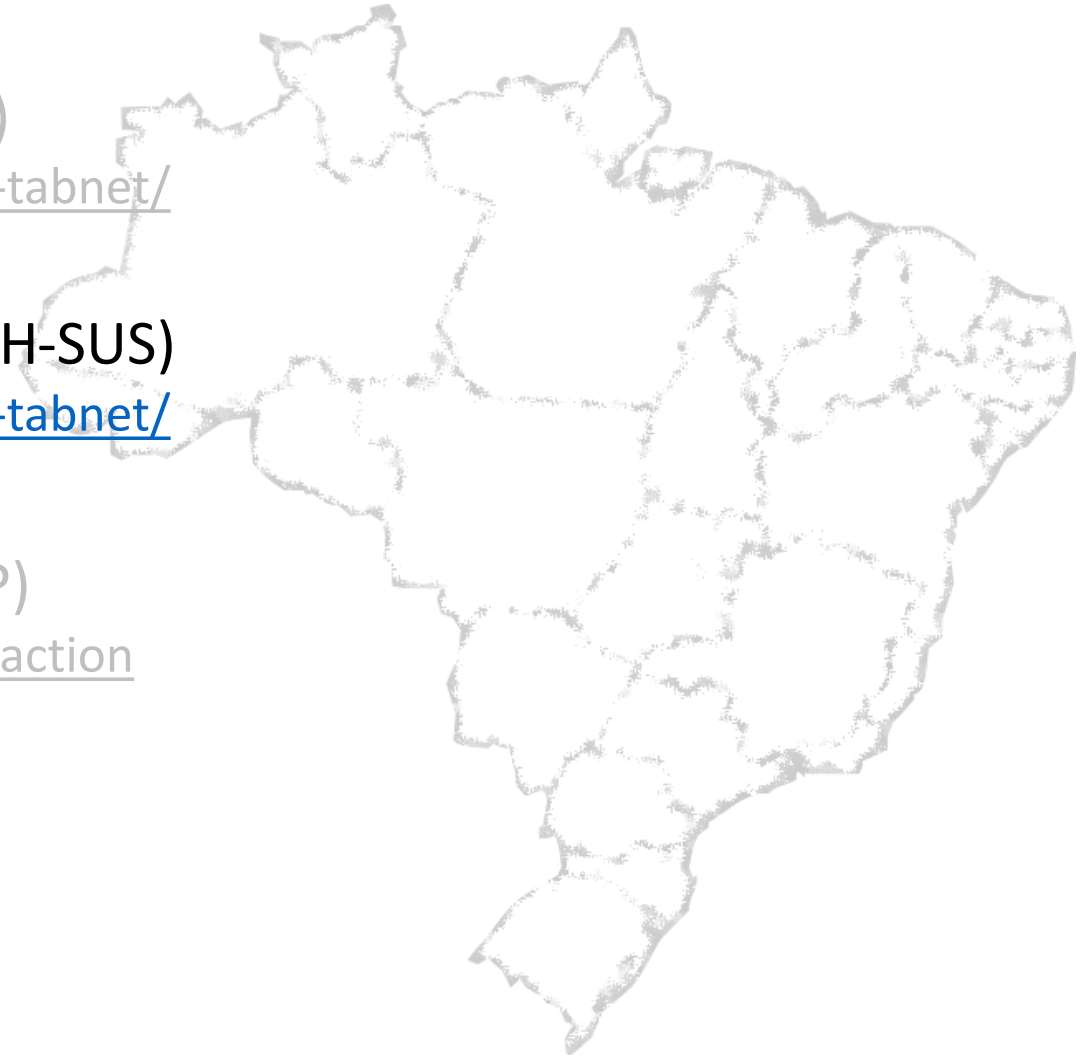
  - https://www.inca.gov.br/BasePopIncidencias/Home.action
- Registros Hospitalares do Câncer (RHC)
  - https://irhc.inca.gov.br/RHCNet/



MORBIDADE HOSPITALAR DO SUS - POR LOCAL DE RESIDÊNCIA - BRASIL

Linha	Coluna	Conteúdo
Região	Não ativa	Internações
Região/Unidade da Federação	Região	AIH aprovadas
Unidade da Federação	Unidade da Federação	Valor total
Ano/mês processamento	Ano/mês processamento	Valor serviços hospitalares

PERÍODOS DISPONÍVEIS

- Jan/2023
- Dez/2022
- Nov/2022
- Out/2022
- Set/2022
- Ago/2022

SELEÇÕES DISPONÍVEIS

- Região
- Unidade da Federação
- Caráter atendimento
- Regime
- Capítulo CID-10

Digite o texto e ache fácil

- Todas as categorias
- I. Algumas doenças infecciosas e parasitárias
- II. Neoplasias (tumores)
- III. Doenças sangue órgãos hemat e transt imunitár
- IV. Doenças endócrinas nutricionais e metabólicas
- V. Transtornos mentais e comportamentais
- VI. Doenças do sistema nervoso
- VII. Doenças do olho e anexos
- VIII.Doenças do ouvido e da apófise mastóide
- IX. Doenças do aparelho circulatório

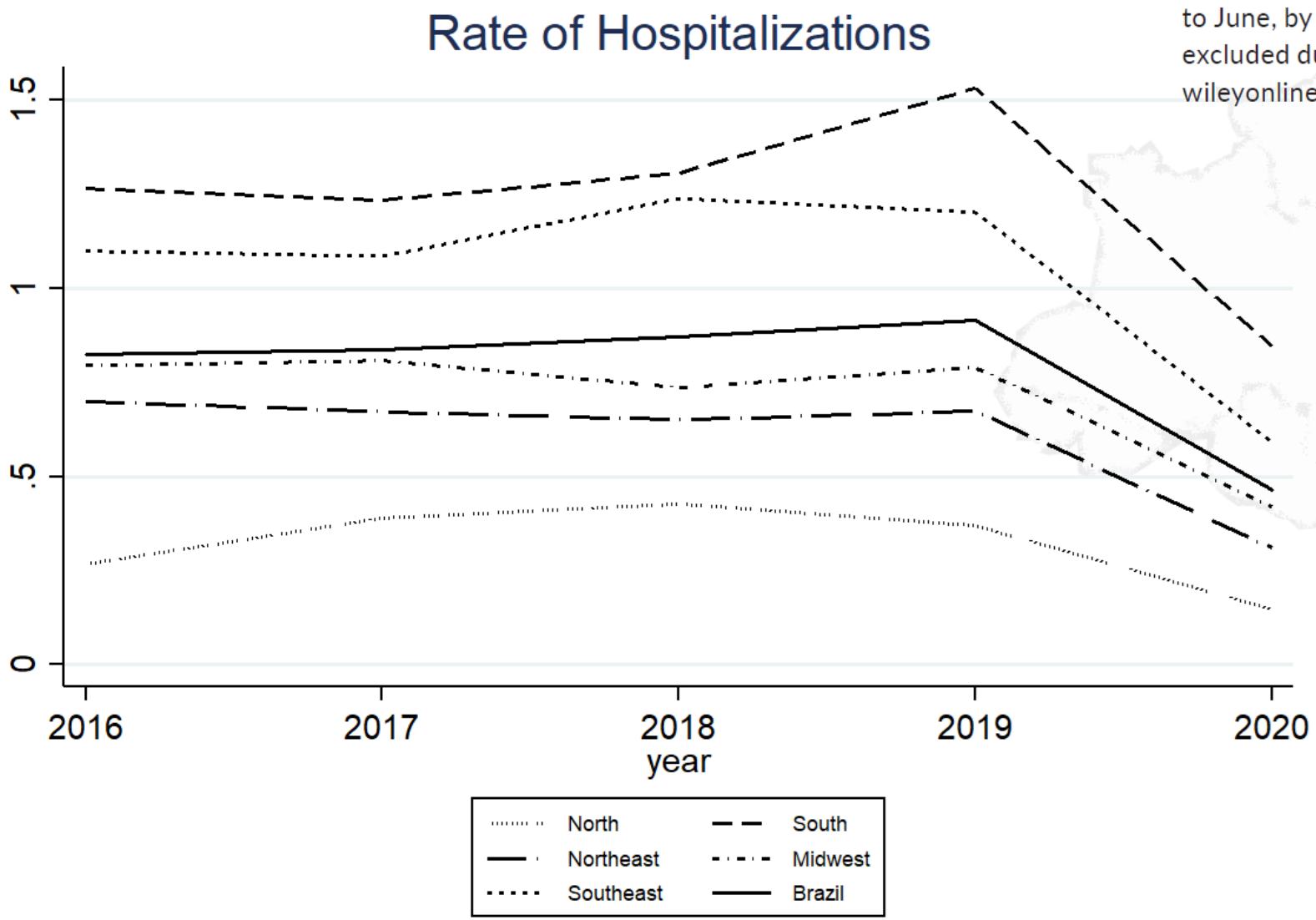


FIGURE 1 Average monthly oral and oropharyngeal cancer (C00-C10) hospitalization rate (per 100 000 inhabitants) of April to June, by Brazilian regions. *The States Acre and Amapá were excluded due to lack of data [Colour figure can be viewed at wileyonlinelibrary.com]

Cunha AR et al. The impact of the COVID-19 pandemic on hospitalizations for oral and oropharyngeal cancer in Brazil. *Community Dent Oral Epidemiol*. 2021;49(3):211-215.

Region (n. FU)	April–June 2016-2019		April–June 2019		April–June 2020			
	n. Hosp.[b]	Hosp. Rate[c]	n. Hosp.	Hosp. Rate	n. Hosp.	Hosp. Rate	Change (%)[d]	Change (%)[e]
North (n. 5[a])	130.5	0.36	131	0.37	47	0.15	−58.3	−60.0
Northeast (n. 9)	1194.25	0.67	1121	0.67	555	0.31	−53.7	−54.0
Southeast (n. 4)	2613.75	1.16	2600	1.20	1566	0.59	−49.1	−50.8
South (n. 3)	1164.5	1.33	1315	1.53	715	0.85	−36.1	−44.7
Midwest (n. 4)	376	0.78	383	0.79	244	0.42	−46.2	−46.7
Brazil (n. 25)	5479	0.86	5550	0.91	3127	0.46	−46.5	−49.3

Cunha AR et al. The impact of the COVID-19 pandemic on hospitalizations for oral and oropharyngeal cancer in Brazil. *Community Dent Oral Epidemiol*. 2021;49(3):211-215.

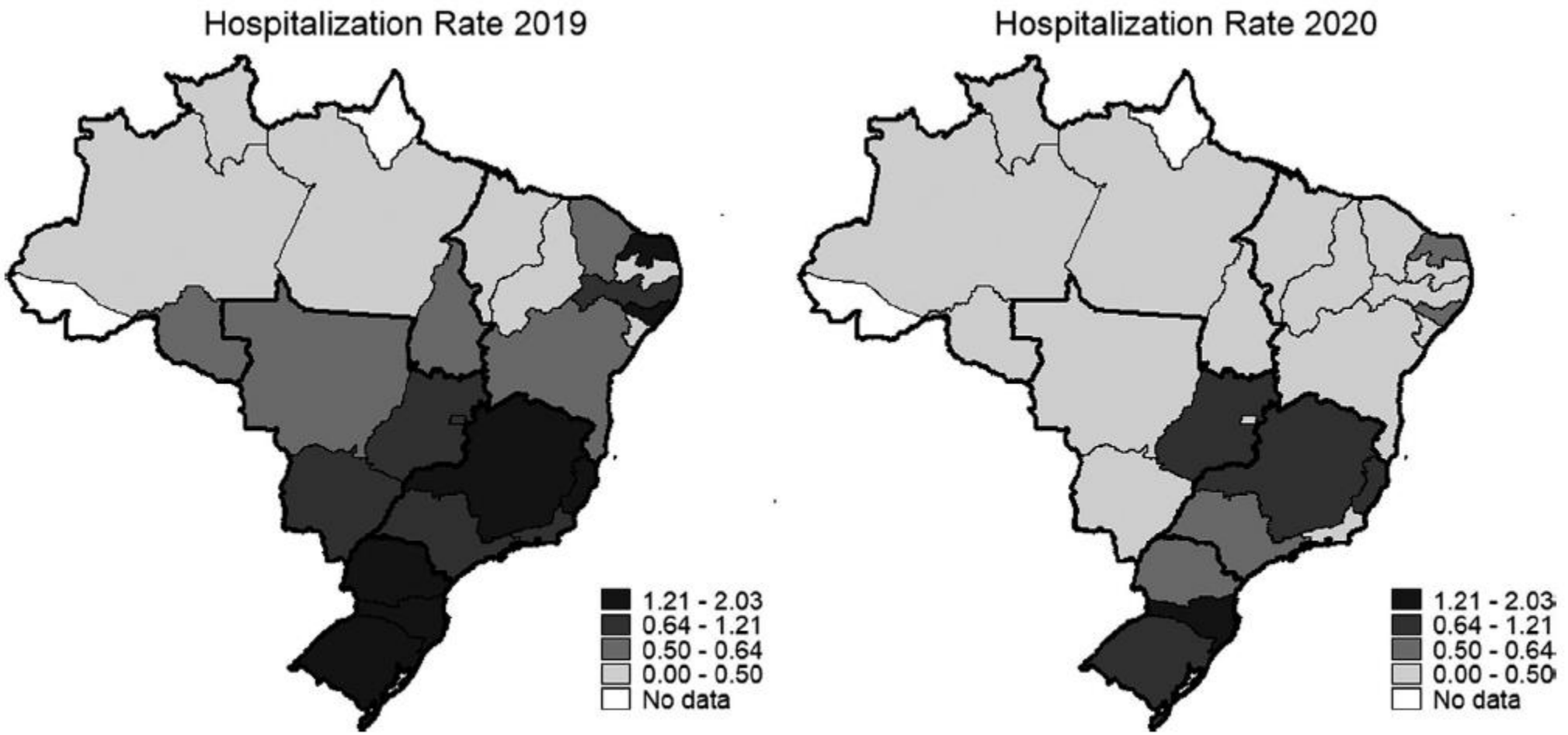


FIGURE 2 Average oral and oropharyngeal cancer (C00-C10) hospitalization rate for April, May and June (per 100 000 inhabitants), by Brazilian states. The thin lines delimit the States of Brazil; the thick lines delimit the regions of Brazil. *The states Acre and Amapá were excluded due to lack of data

Cunha AR et al. The impact of the COVID-19 pandemic on hospitalizations for oral and oropharyngeal cancer in Brazil. *Community Dent Oral Epidemiol*. 2021;49(3):211-215.

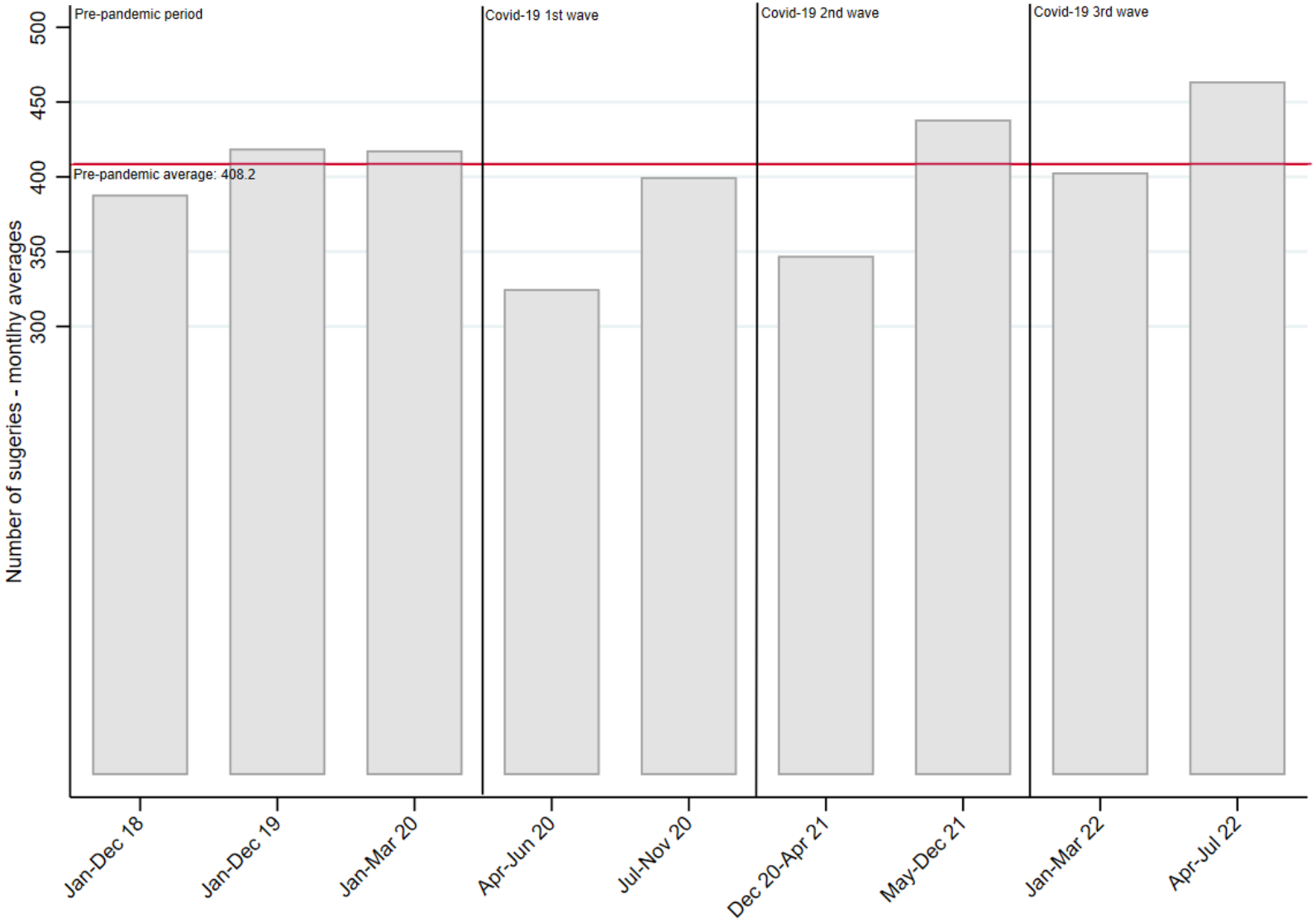


Figure 1. Surgeries in patients with lung cancer (C33-34 ICD10 codes) across covid-19 pandemic periods in Brazil. Brazil National Health System, monthly averages, 2018-22. Footnote: Red line indicates the average of pre-pandemic periods (Jan-Dec 2018, Jan-Dec 2019, Jan-Mar 2020)

Principais Bases de Dados Nacionais

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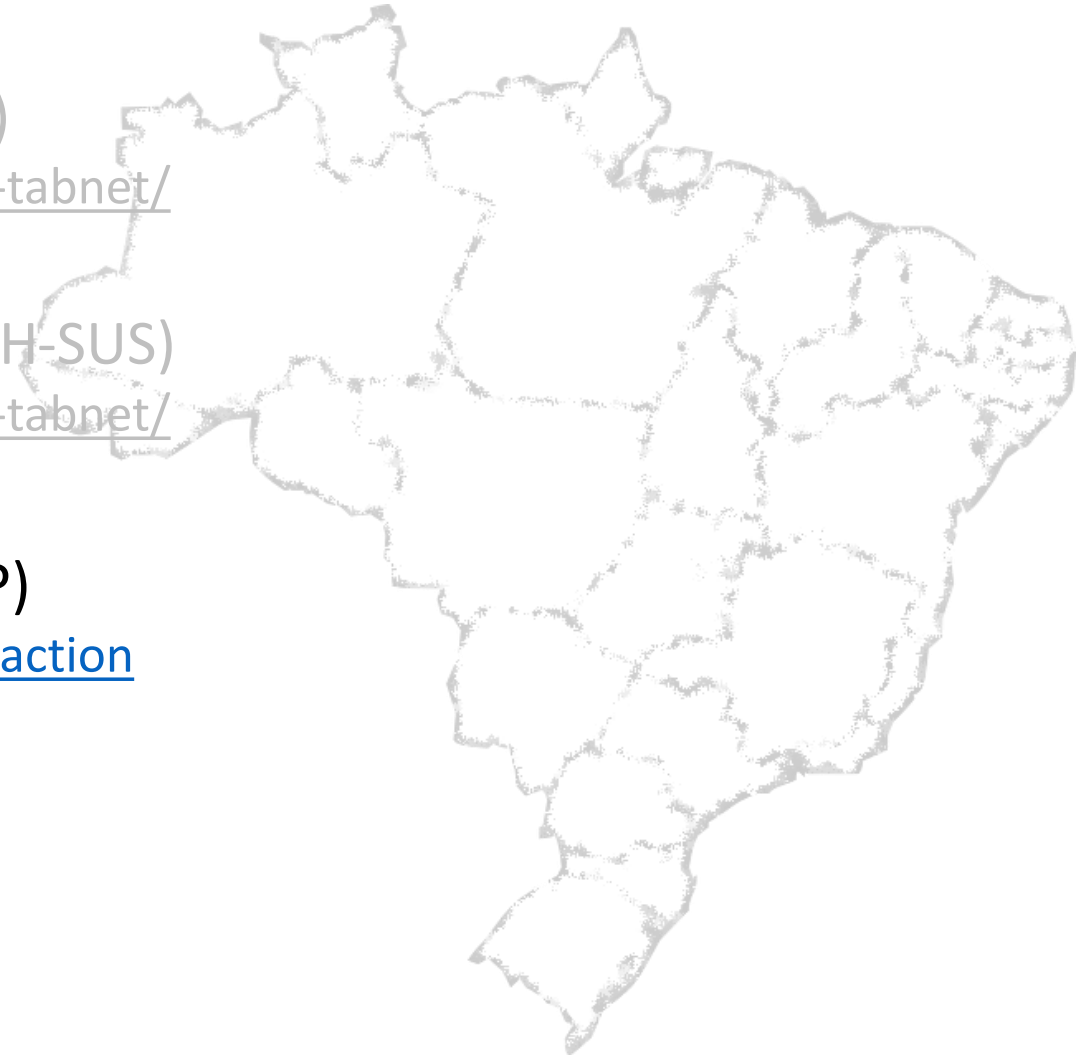
  - https://irhc.inca.gov.br/RHCNet/



TABNET
Tecnologia DATASUS

CIDADE DE SÃO PAULO SAÚDE

Instruções de Uso | Notas Técnicas

REGISTRO DE CÂNCER DE BASE POPULACIONAL - SÃO PAULO

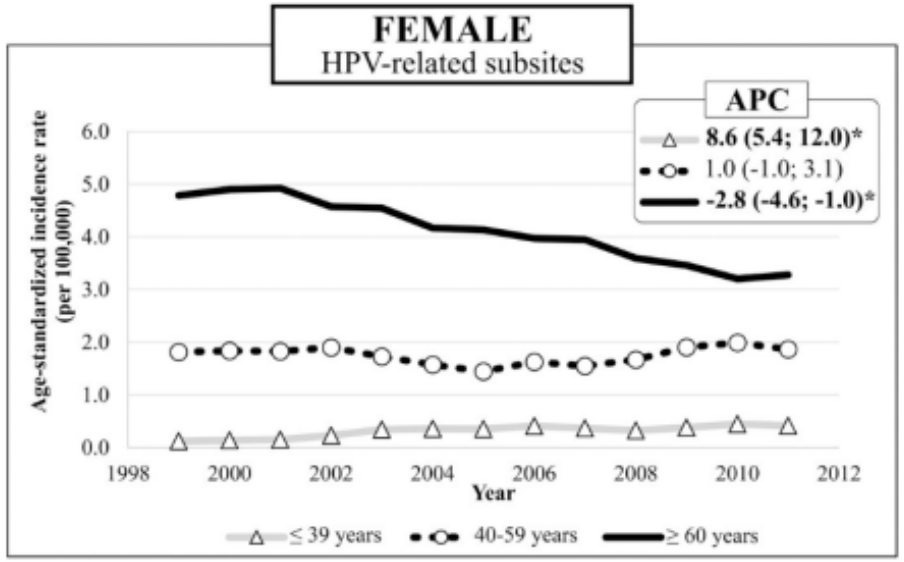
Linha	Coluna	Conteúdo
Ano	Não ativa	Casos Notificados
Sexo	Ano	
Topografia 3 Dig	Sexo	
Topografia 4 Dig	Topografia 3 Dig	

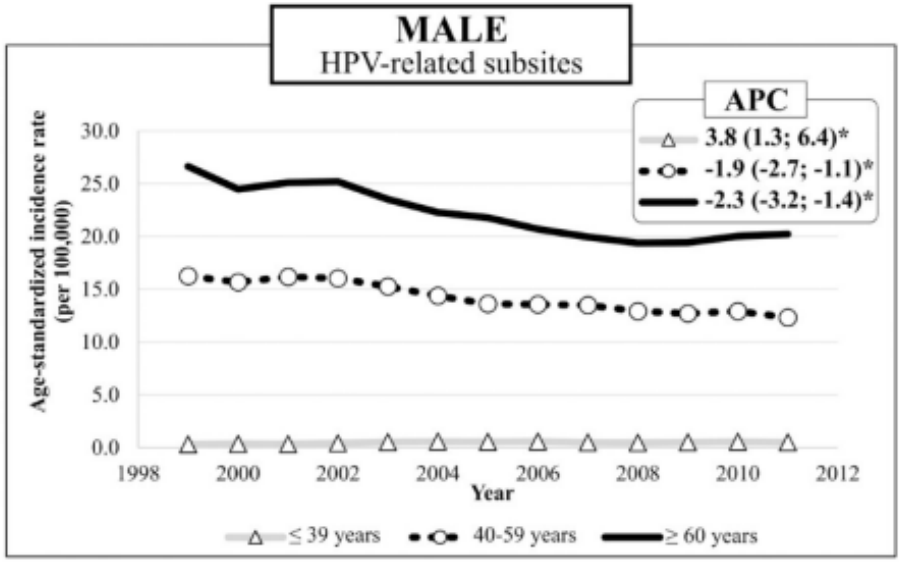
PERÍODOS DISPONÍVEIS

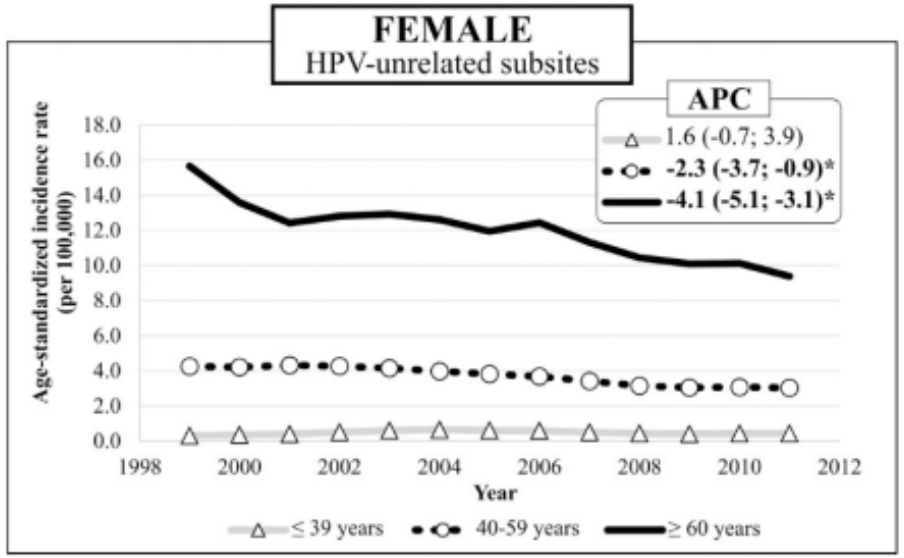
2017
2016
2015
2014
2013
2012

SELEÇÕES DISPONÍVEIS

- Sexo
- Topografia 3 Dig
- Topografia 4 Dig
- Morfologia
- Faixa Etaria (9)
- Faixa Etaria (12)
- Faixa Etária (16)







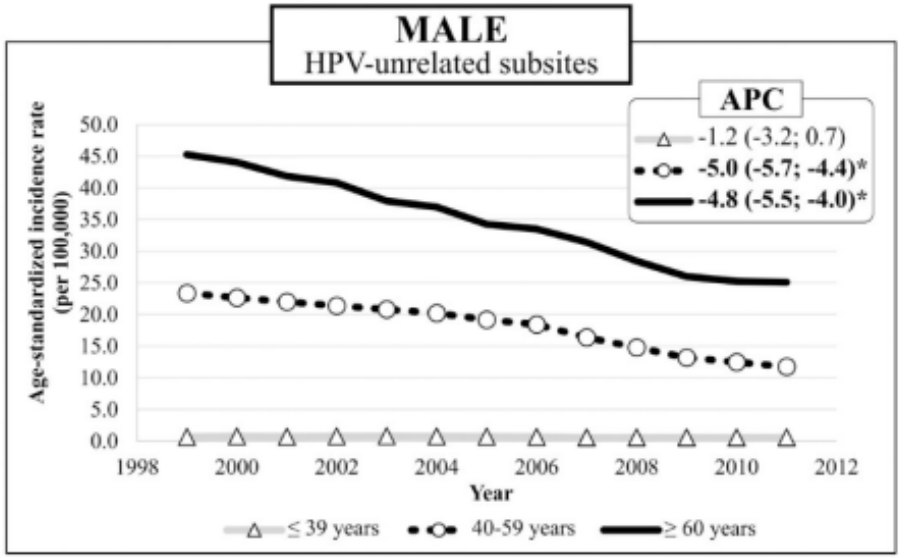


Fig 1. Incidence trends for HPV-related and HPV-unrelated subsites by sex and age group. [a] APC: annual percent change; *: statistically significant APC. [a] For better graph visualization, we applied a simple moving average of 5 years.

Menezes FDS, Latorre MDRDO, Conceição GMS, Curado MP, Antunes JLF, Toporcov TN. The emerging risk of oropharyngeal and oral cavity cancer in HPV-related subsites in young people in Brazil. PLoS One. 2020 May 14;15(5):e0232871. doi: 10.1371/journal.pone.0232871

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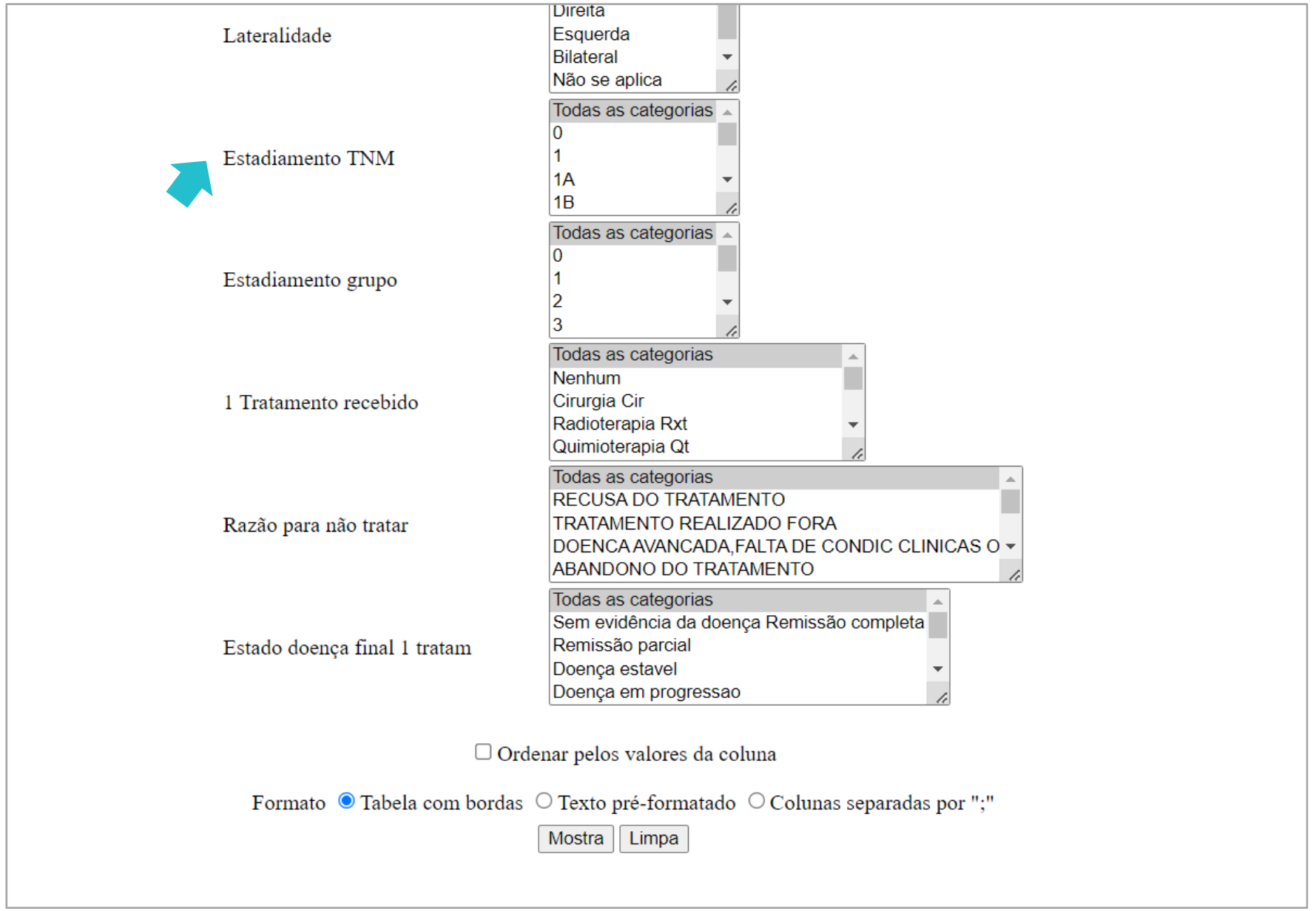
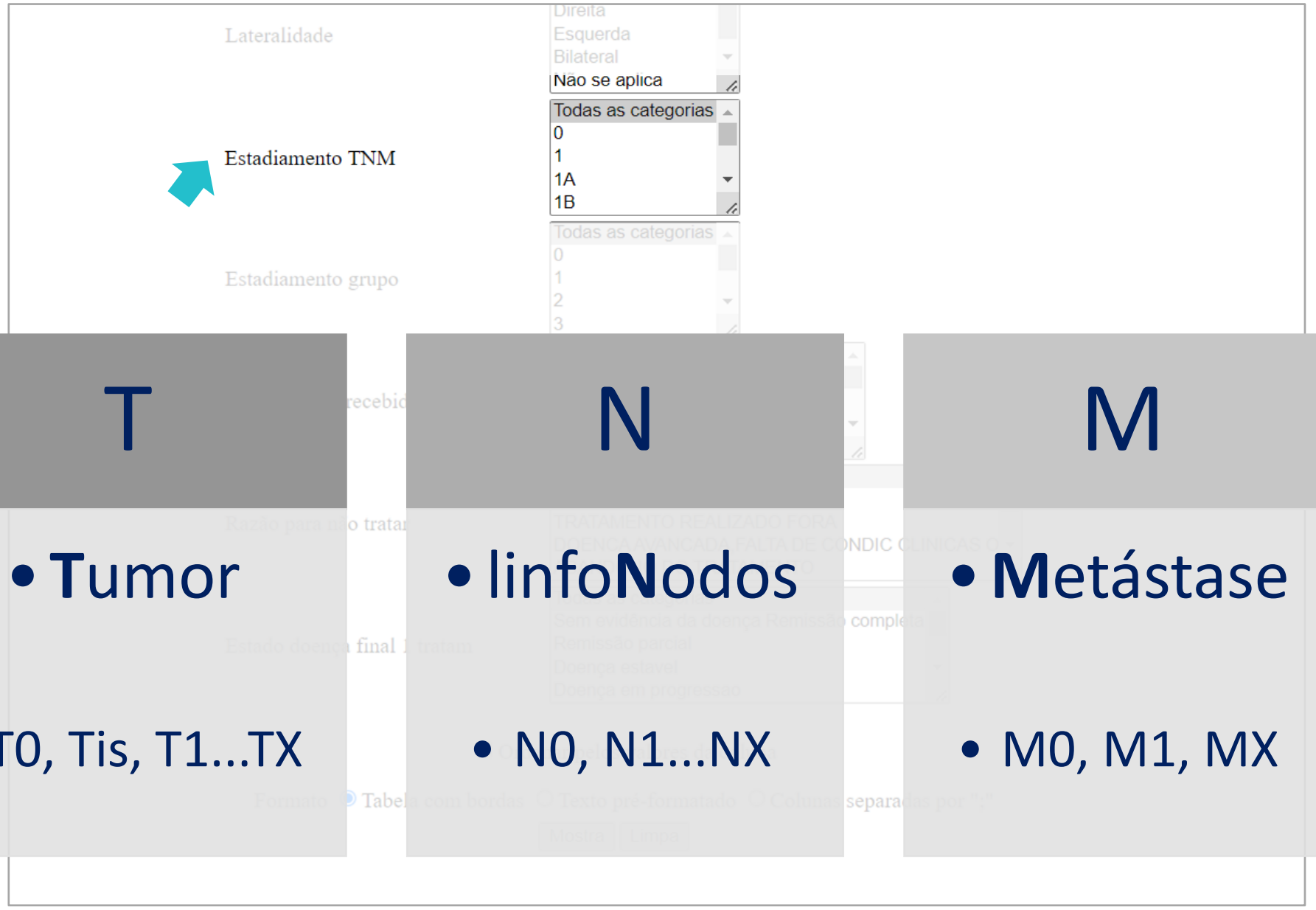


https://irhc.inca.gov.br/RHCNet/



T	N	M
• **T**umor	• linfo**N**odos	• **M**etástase
• T0, Tis, T1...TX	• N0, N1...NX	• M0, M1, MX

Integrador RHC
Registro Hospitalar de Câncer

INCA
INSTITUTO NACIONAL DE CÂNCER

Lateralidade
Direita
Esquerda
Bilateral
Não se aplica

Estadiamento TNM
Todas as categorias
0
1
1A

Estadiamento grupo

1 Tratamento recebido

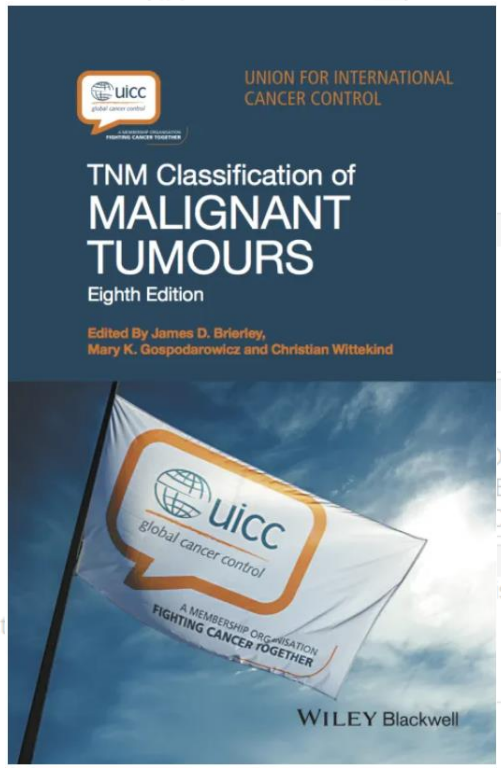
Razão para não tratar

Estado doença final 1 trat

Ordenar pelos valores da coluna

Formato Tabela com bordas Texto pré-formatado Colunas separadas por ";"

Mostra Limpa



UNIVERSIDADE DE SÃO PAULO
FACULDADE DE SAÚDE PÚBLICA

Principais Bases de Dados Mundiais

- Global Cancer Observatory – IARC
  - https://gco.iarc.fr/
- The Global Burden of Disease – IHME
  - https://vizhub.healthdata.org/gbd-compare/
- Cancer Incidence in Five Continents (CI5) – IARC/IACR
  - https://ci5.iarc.fr/Default.aspx
  - https://publications.iarc.fr/Book-And-Report-Series/Iarc-Scientific-Publications/Cancer-Incidence-In-Five-Continents%C2%A0Volume-XI-2021

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  - https://publications.iarc.fr/Book-And-Report-Series/Iarc-Scientific-Publications/Cancer-Incidence-In-Five-Continents%C2%A0Volume-XI-2021

CANCER TODAY

Data visualization tools for exploring the global cancer burden in 2020

Multi bars

Pie chart

Dual bars

Maps

Tree map

Scatter plot

Table

Sunburst

Cancer fact sheets

Population fact sheets

Principais Bases de Dados Mundiais

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  - https://publications.iarc.fr/Book-And-Report-Series/Iarc-Scientific-Publications/Cancer-Incidence-In-Five-Continents%C2%A0Volume-XI-2021

Single | Explore | Compare

Settings Use advanced settings

Display: Cause | Risk

Measure: Deaths | YLDs | DALYs

Location: Global

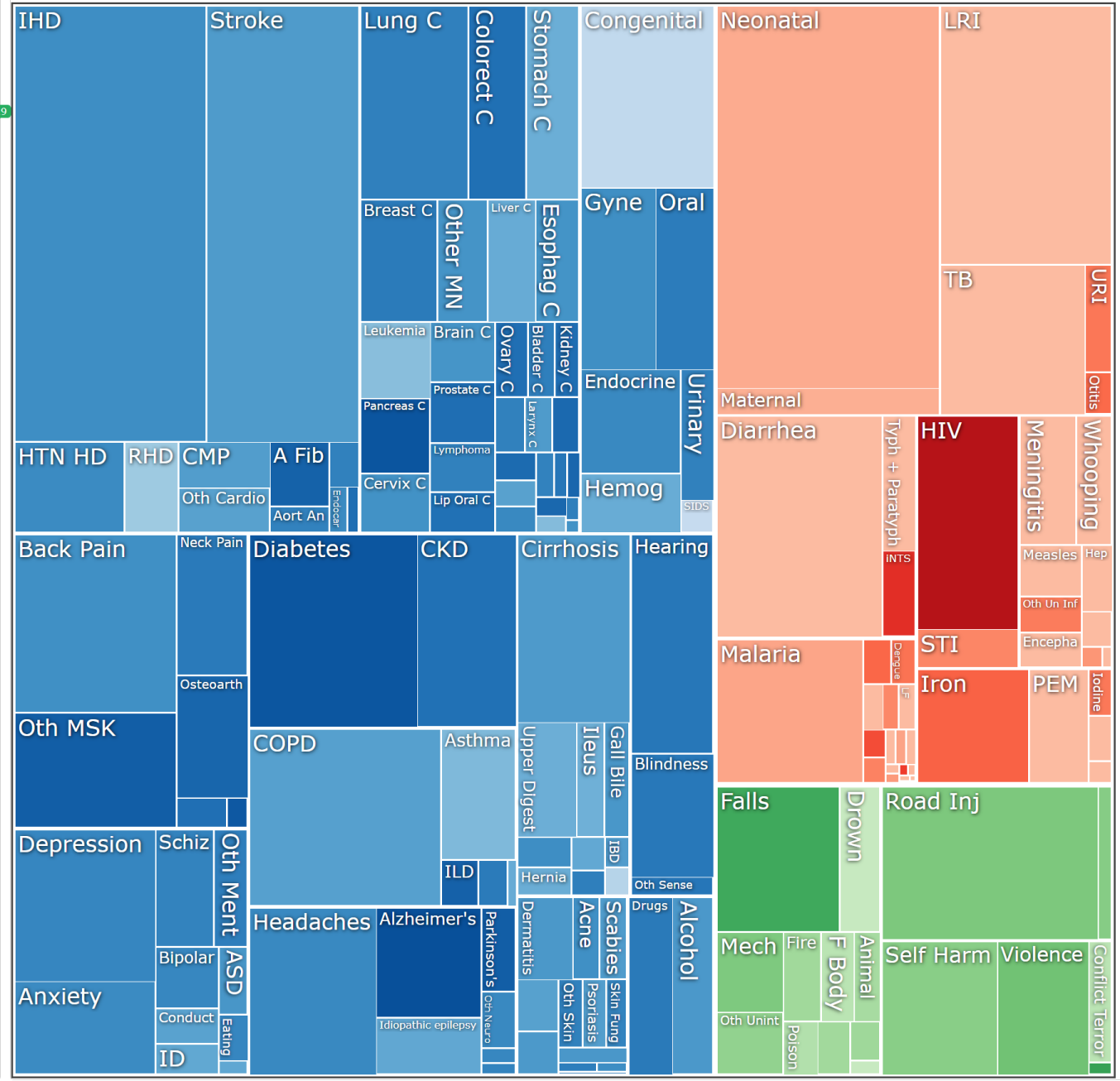
Year: 2019

Age: All | <5 | 5-14 | 15-49 | 50-69 | 70+

Sex: Male | Female | Both

Take tour

Global
Both sexes, All ages, 2019, DALYs



Annual % change
1990 to 2019
DALYs/100,000

-3%
-2%
-1%
0%
1%
2%
3%

IHME

Principais Bases de Dados Mundiais

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- The Global Burden of Disease – IHME
  - https://vizhub.healthdata.org/gbd-compare/
- Cancer Incidence in Five Continents (CI5) – IARC/IACR
  - https://ci5.iarc.fr/Default.aspx
  - https://publications.iarc.fr/Book-And-Report-Series/Iarc-Scientific-Publications/Cancer-Incidence-In-Five-Continents%C2%A0Volume-XI-2021

International Agency for Research on Cancer

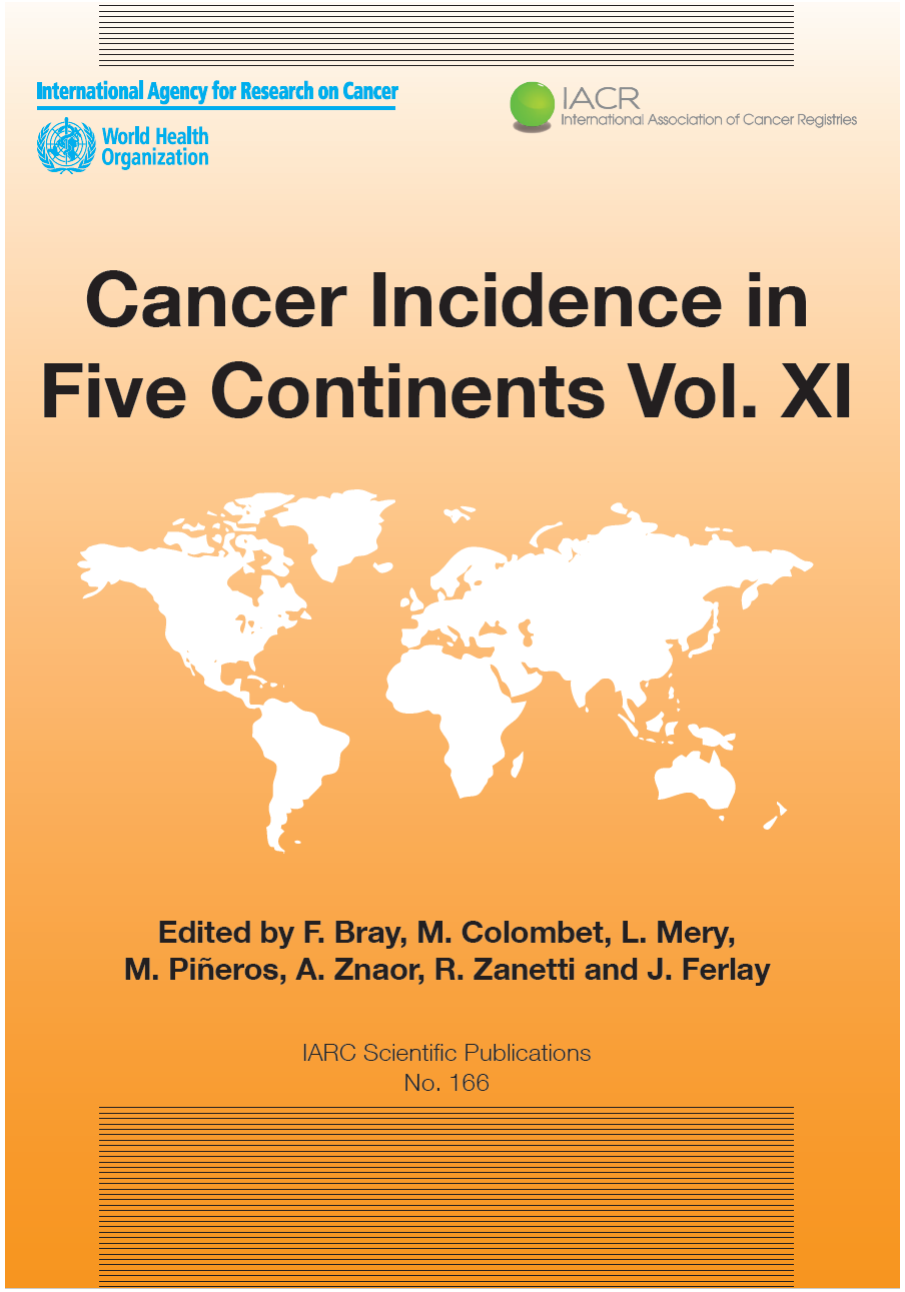
World Health Organization

IACR International Association of Cancer Registries

Cancer Incidence in Five Continents Vol. XI

Edited by F. Bray, M. Colombet, L. Mery, M. Piñeros, A. Znaor, R. Zanetti and J. Ferlay

IARC Scientific Publications
No. 166


International Agency for Research on Cancer
World Health Organization
IACR
International Association of Cancer Registries
Cancer Incidence in Five Continents Vol. XI
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IARC Scientific Publications
No. 166

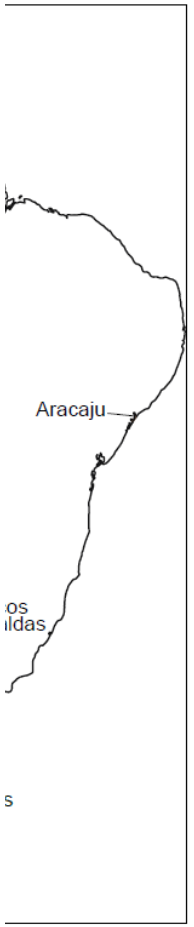

Venezuela
Colombia
Suriname
French Guiana
Guyana
Ecuador
Peru
Brazil
Lima
Aracaju
Bolivia
Goiânia
Pocos de Caldas
Jau
Chile
Paraguay
Curitiba
Argentina
Florianopolis
Uruguay

International Agency for Research on Cancer

World Health Organiz

IACR International Association of Cancer Registries

Ca
Five



HEP0151 - Epidemiologia das Doenças Crônicas Não-Transmissíveis

Epidemiologia do Câncer

Prof.ª Tatiana Toporcov

Amanda Cunha

Março/2023

Epidemiologia do Câncer

amandaracunha@usp.br

Atividade

Atividade

- Você usaria o número de casos de câncer como a medida descritiva principal para acompanhar a sua situação epidemiológica em um município nos últimos 20 anos? Por quê?

- Analisando os dados epidemiológicos de um grande município, o gestor local identificou que a incidência de câncer de mama esteve estável nos últimos 30 anos; contudo, a mortalidade parece ter aumentado nesse período. O que pode estar acontecendo nessa cidade que explicaria essa situação?