Cosa fa e cosa può fare un Registro Tumori

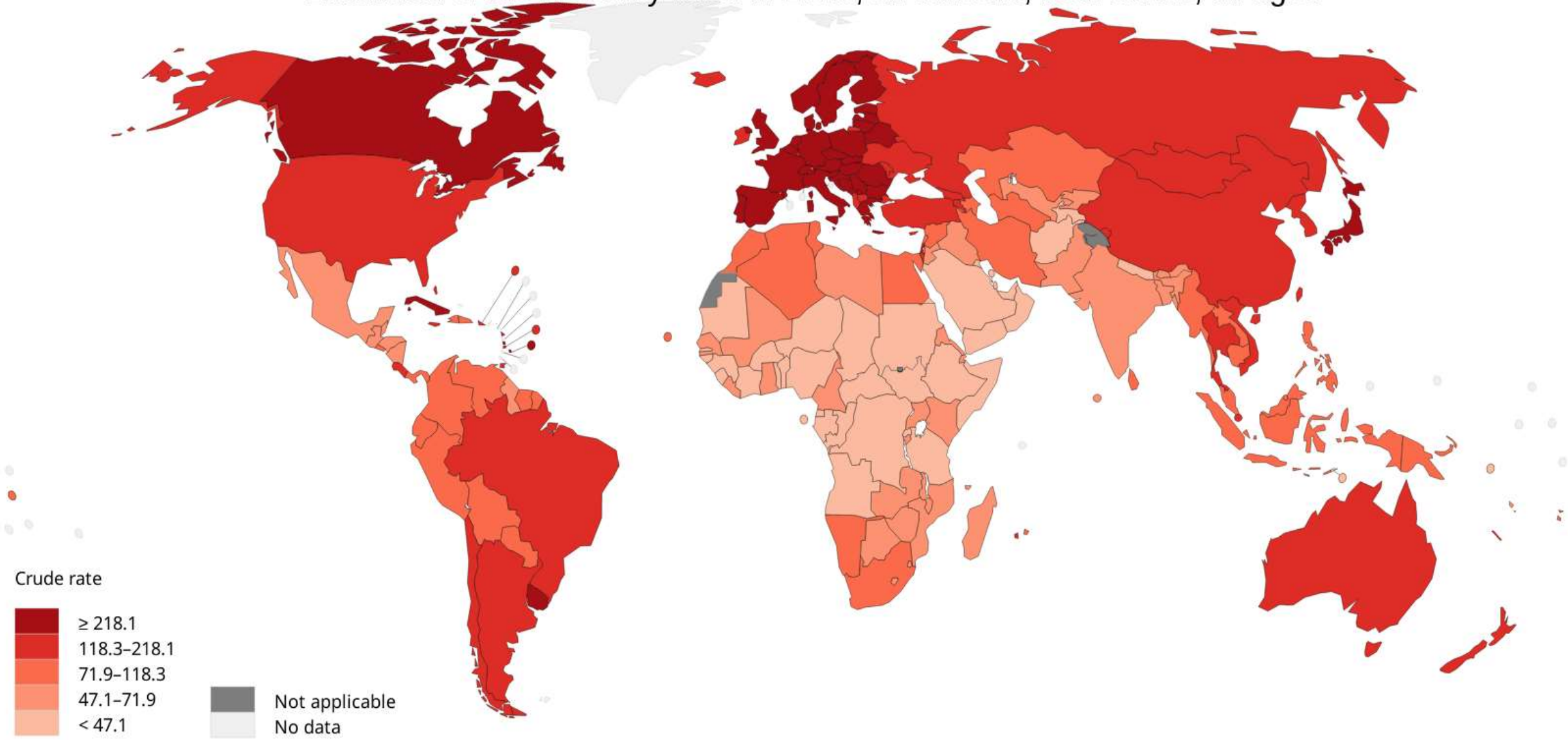
Prof. Fabrizio Stracci

Presidente AIRTum

ROPI incontra AIRTum: Roma, 1 luglio 2022

La rete mondiale dei registri

Estimated crude mortality rates in 2020, all cancers, both sexes, all ages



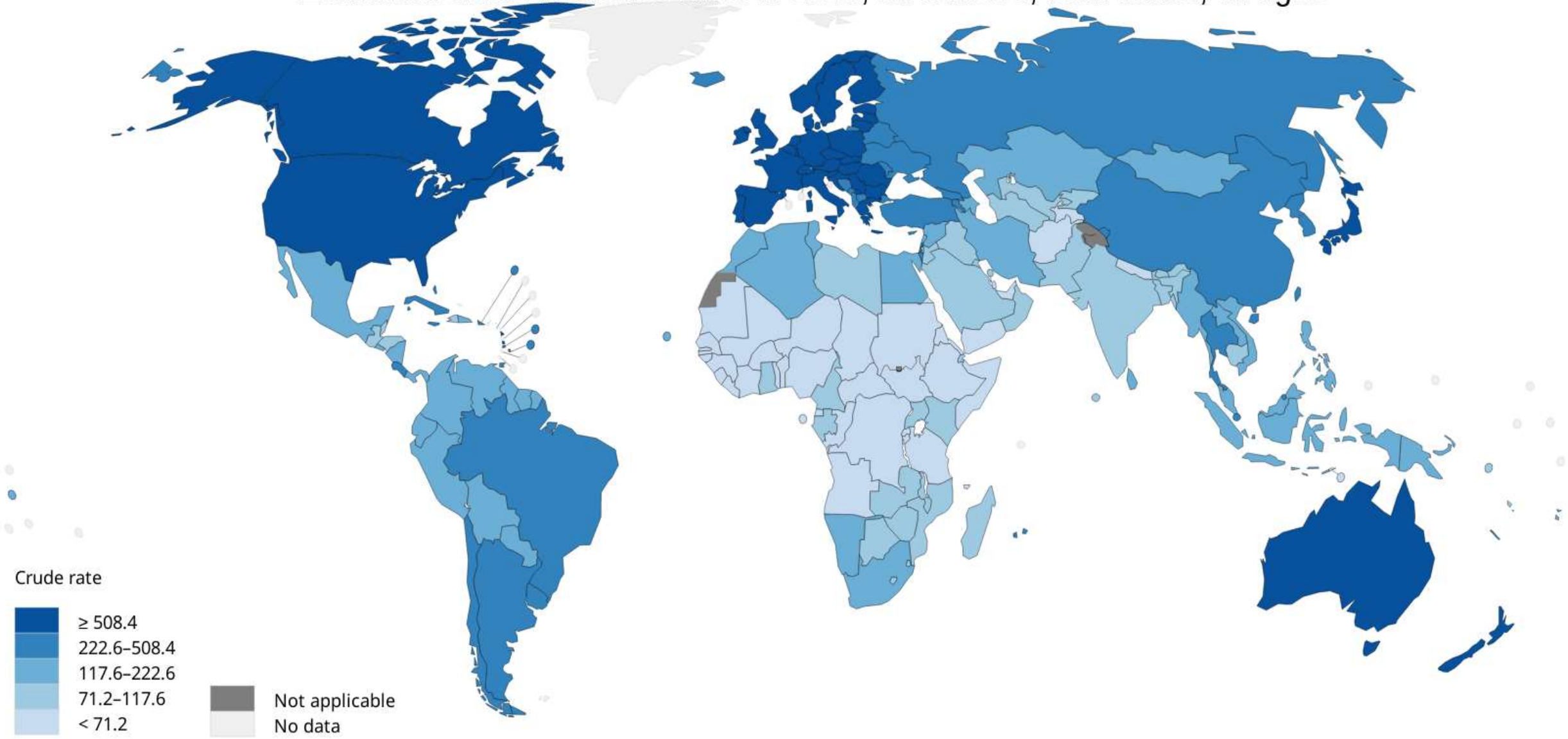
All rights reserved. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization / International Agency for Research on Cancer concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate borderlines for which there may not yet be full agreement.

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

World Health Organization

© International Agency for Research on Cancer 2022

Estimated crude incidence rates in 2020, all cancers, both sexes, all ages



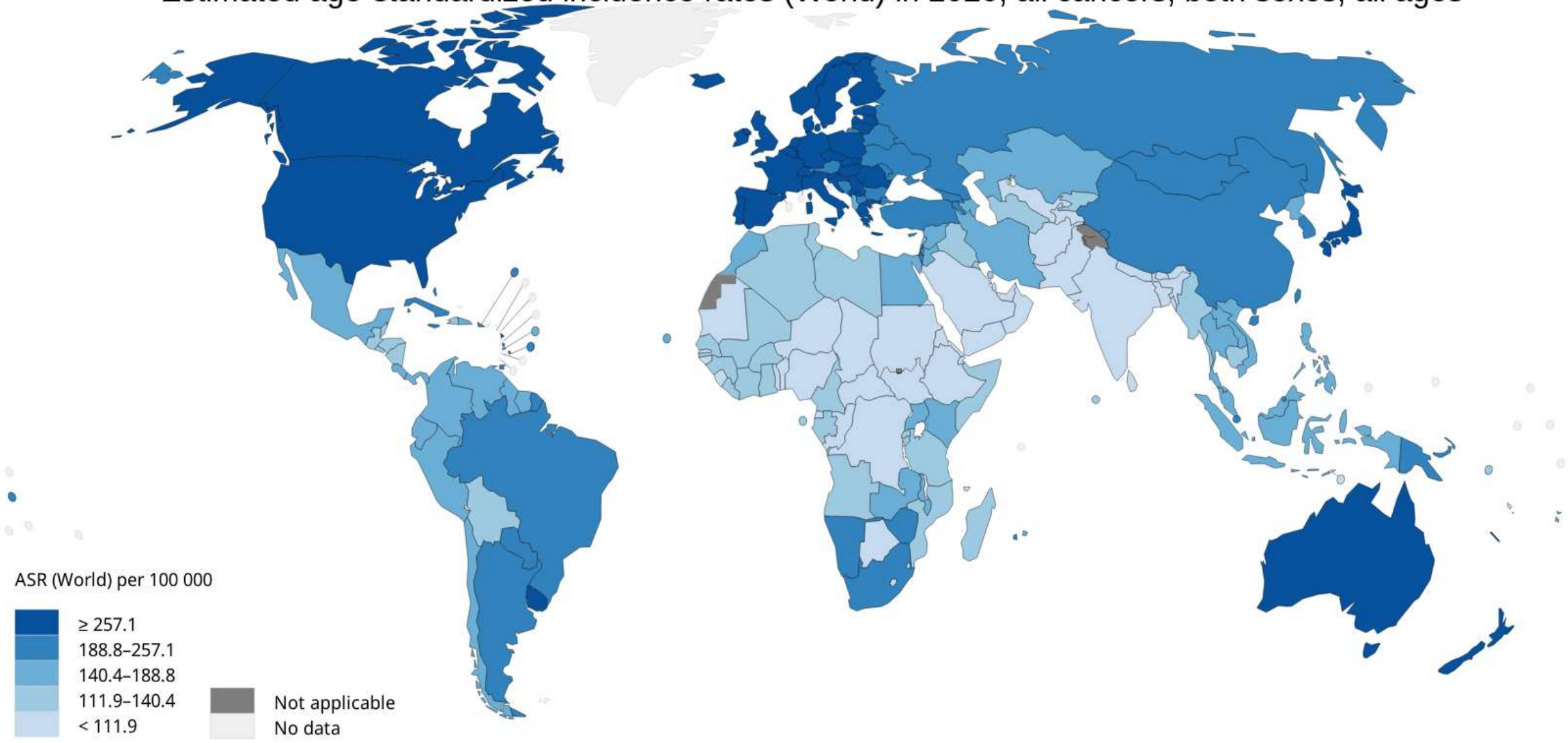
All rights reserved. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization / International Agency for Research on Cancer concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate borderlines for which there may not yet be full agreement.

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

World Health Organization

© International Agency for Research on Cancer 2022

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



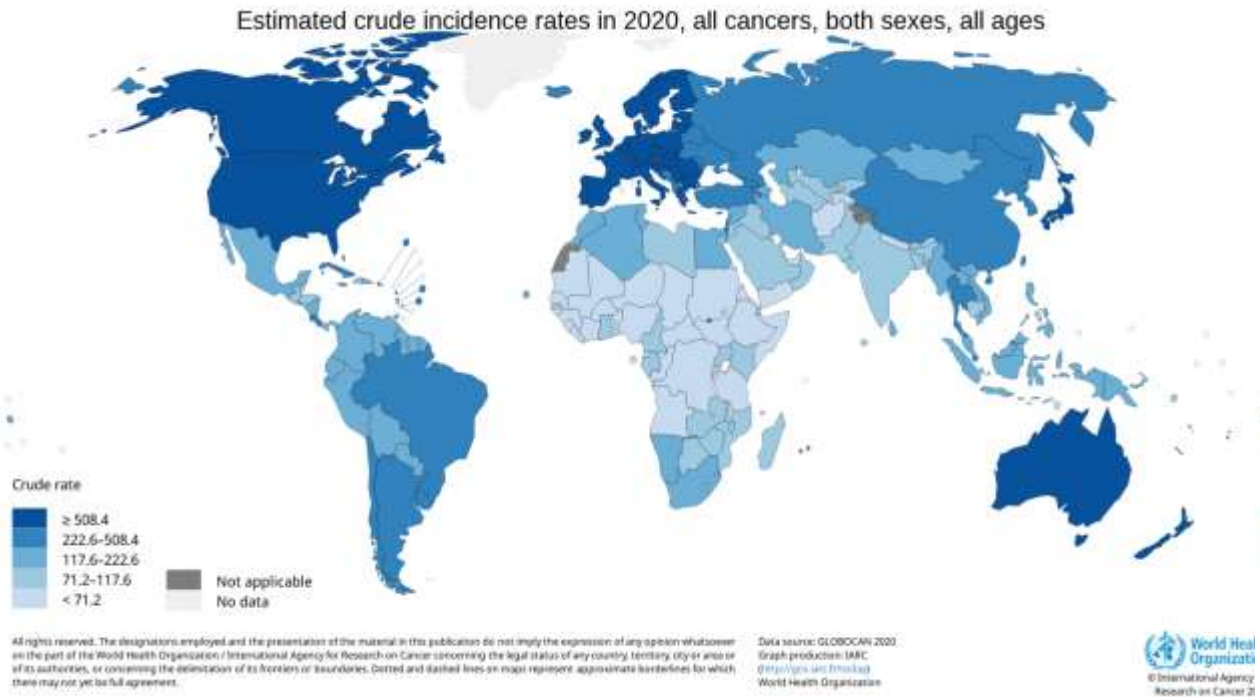
All rights reserved. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization / International Agency for Research on Cancer concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate borderlines for which there may not yet be full agreement.

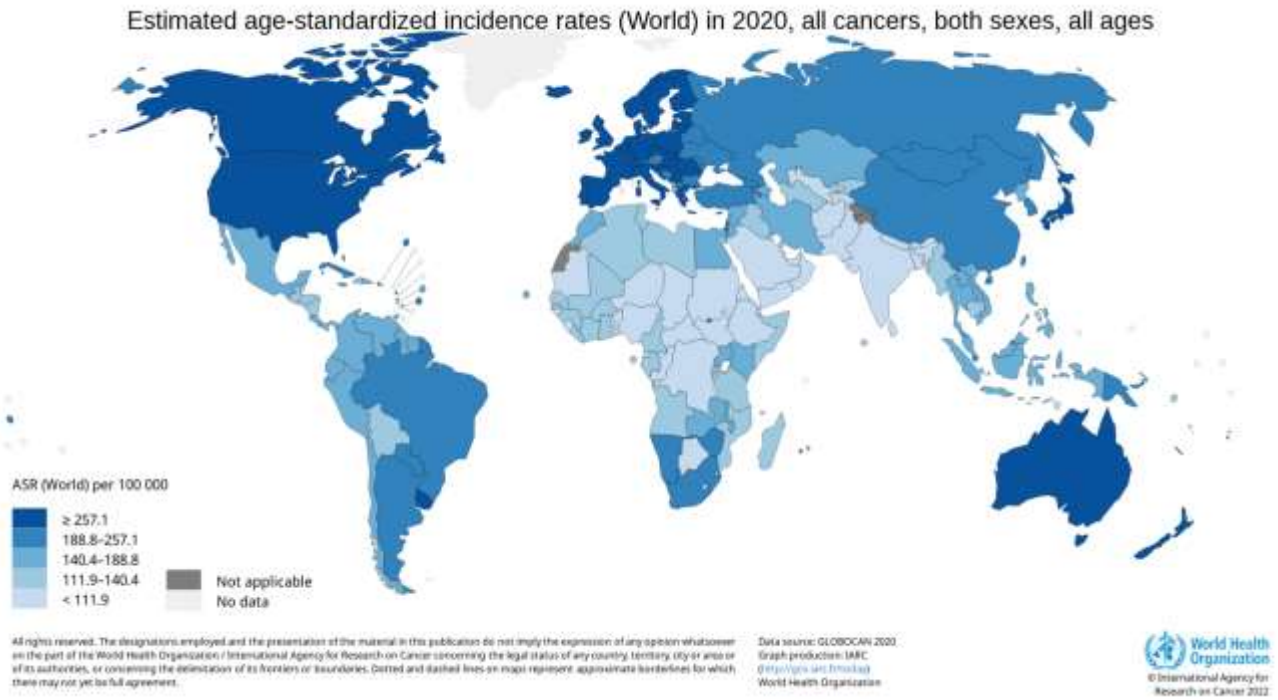
Data source: GLOBOCAN 2020
Graph production: IARC
(http://gco.iarc.fr/today)
World Health Organization

World Health Organization

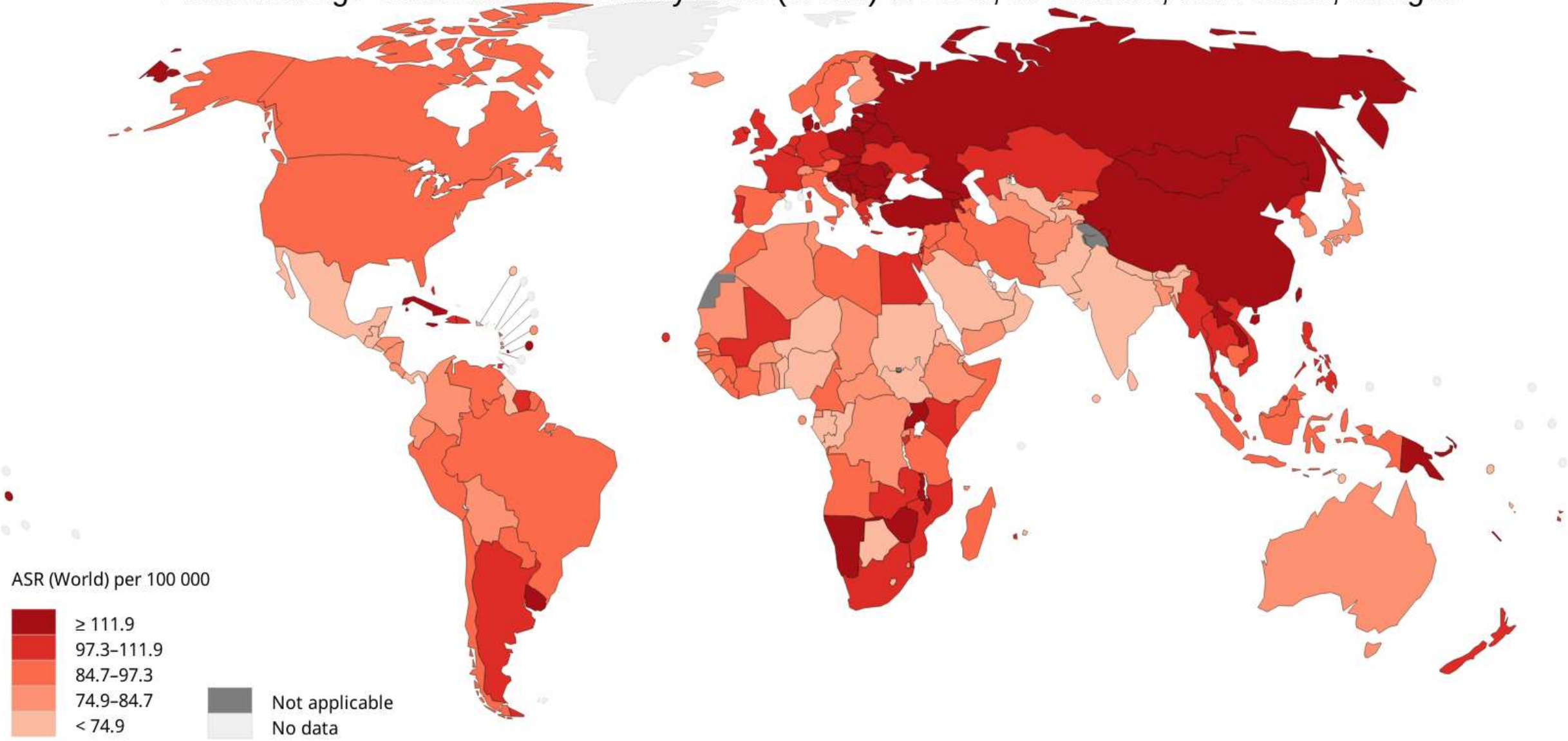
© International Agency for Research on Cancer 2022

Frequenza dei tumori: l'età non fa la differenza





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



All rights reserved. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization / International Agency for Research on Cancer concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate borderlines for which there may not yet be full agreement.

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

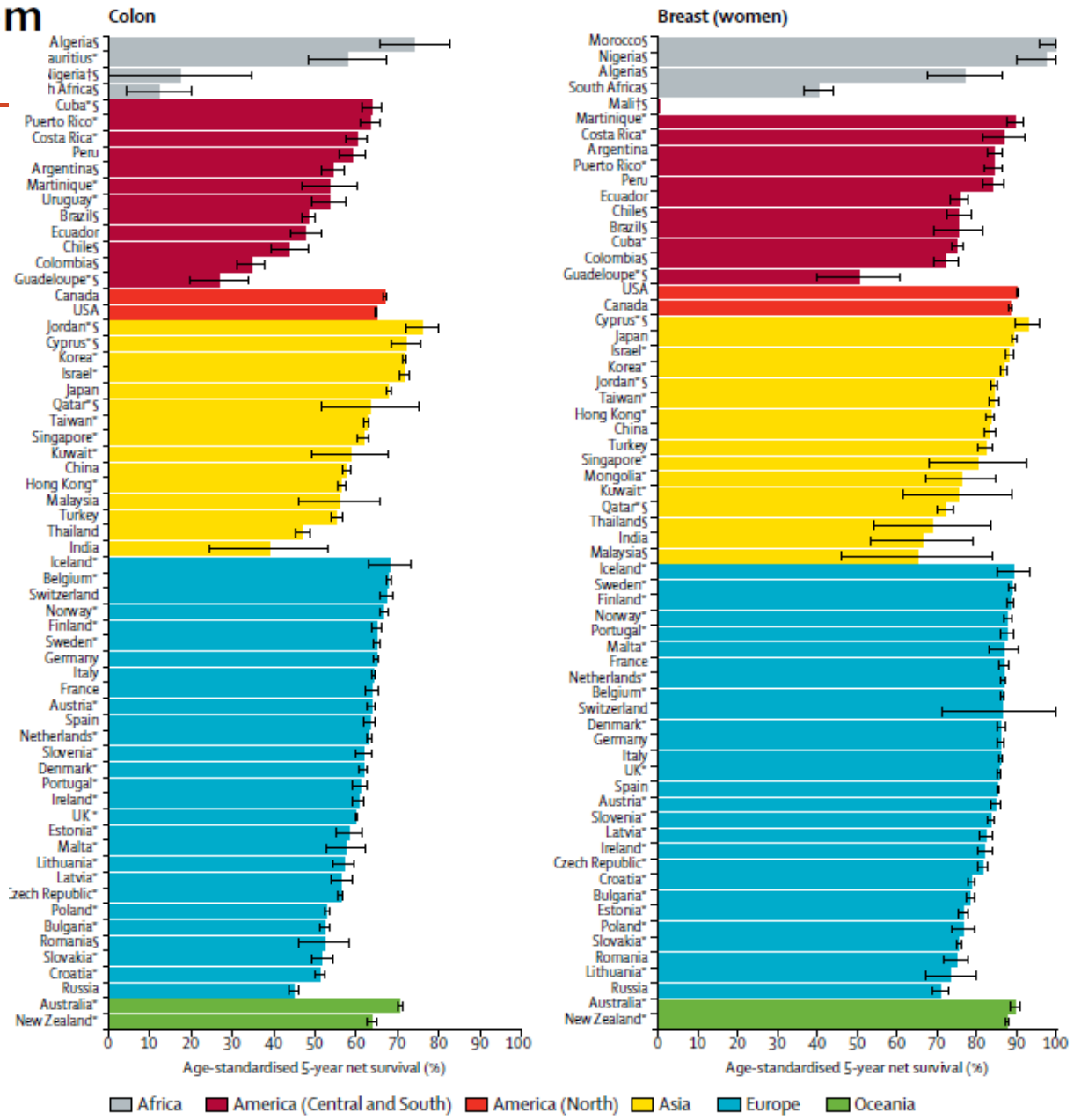
World Health Organization

© International Agency for Research on Cancer 2022

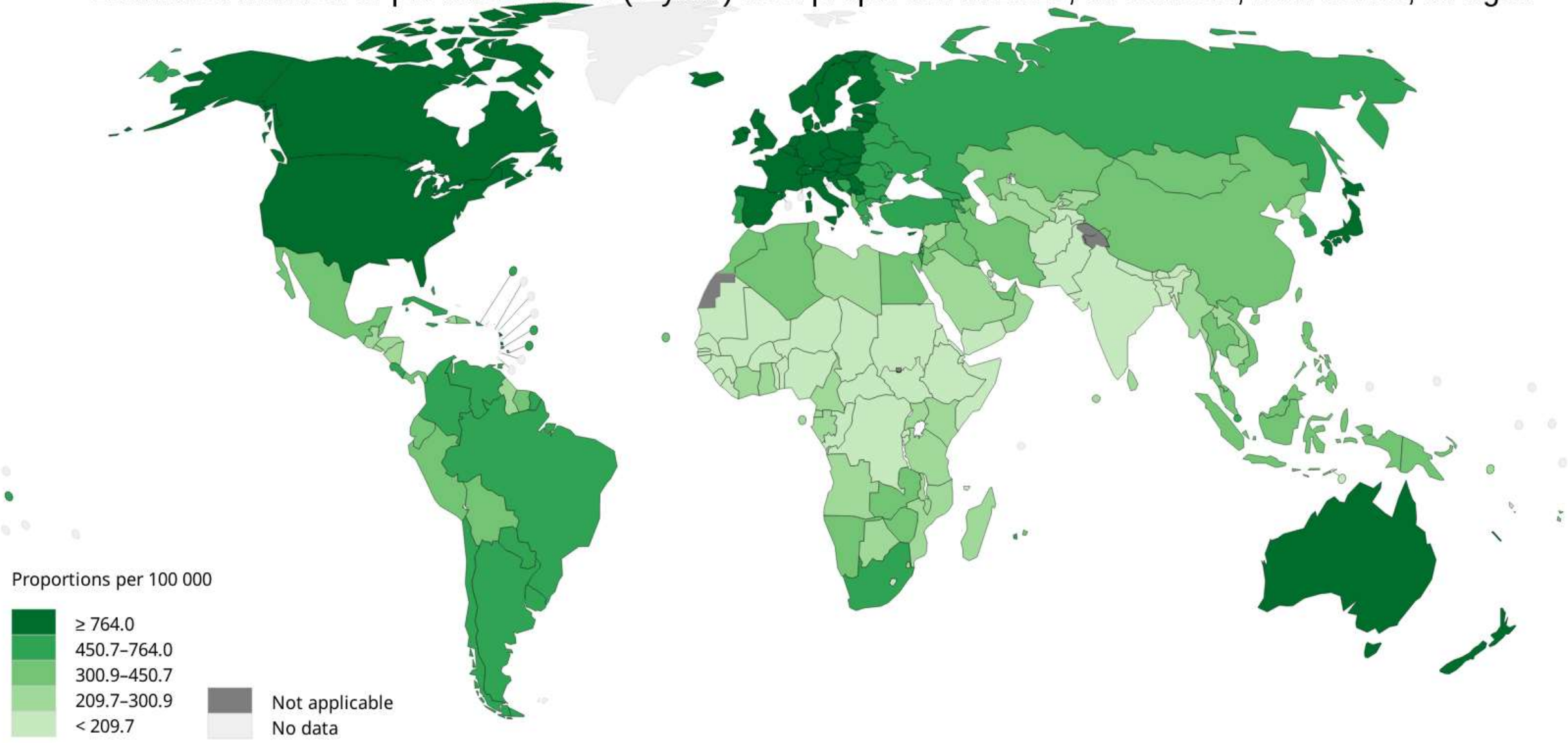
Global surveillance of trends in cancer survival 2000–14 (CONCORD-3): analysis of individual records for 37 513 025 patients diagnosed with one of 18 cancers from 322 population-based registries in 71 countries

Allemani et al. Lancet 2018

Global distribution by continent and country of age-Standardised 5-year net survival for adults (15–99 years) diagnosed during 2010–14 with colon cancer or breast cancer



Estimated number of prevalent cases (5-year) as a proportion in 2020, all cancers, both sexes, all ages



All rights reserved. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization / International Agency for Research on Cancer concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate borderlines for which there may not yet be full agreement.

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

World Health Organization

© International Agency for Research on Cancer 2022

Il registro tumori

Per realizzare una serie di attività ordinarie un registro tumori:

Utilizza **metodi standard** per garantire la possibilità di fare confronti

Utilizza e sviluppa classificazioni internazionali dei tumori

Costruisce **informazioni complete e di elevata qualità per tutta la popolazione coperta** a partire da fonti di dati che includono le diagnosi anatomo-patologiche, le schede di dimissione ospedaliera e altri archivi clinici, e le certificazioni di causa di morte

E' strutturalmente **multi-disciplinare** e nato dalla collaborazione tra epidemiologi e medici di sanità pubblica, anatomo - patologi, clinici oncologi, bio-statistici, ingegneri dei sistemi e informatici, data manager e tecnici sanitari così come altre figure

Alla capacità di fornire importanti informazioni per il **monitoraggio** del fenomeno oncologico unisce un indirizzo di **ricerca** che lo rende uno strumento evolutivo

Un modello in evoluzione

La prevenzione che funziona: lo screening del cancro del grosso intestino riduce la mortalità

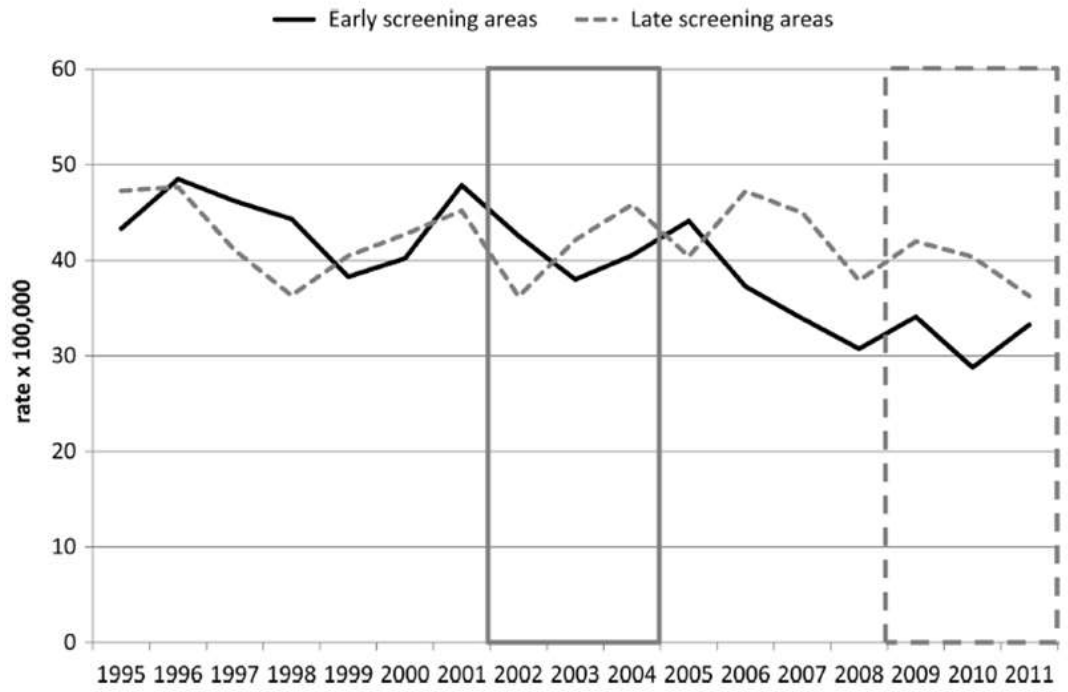
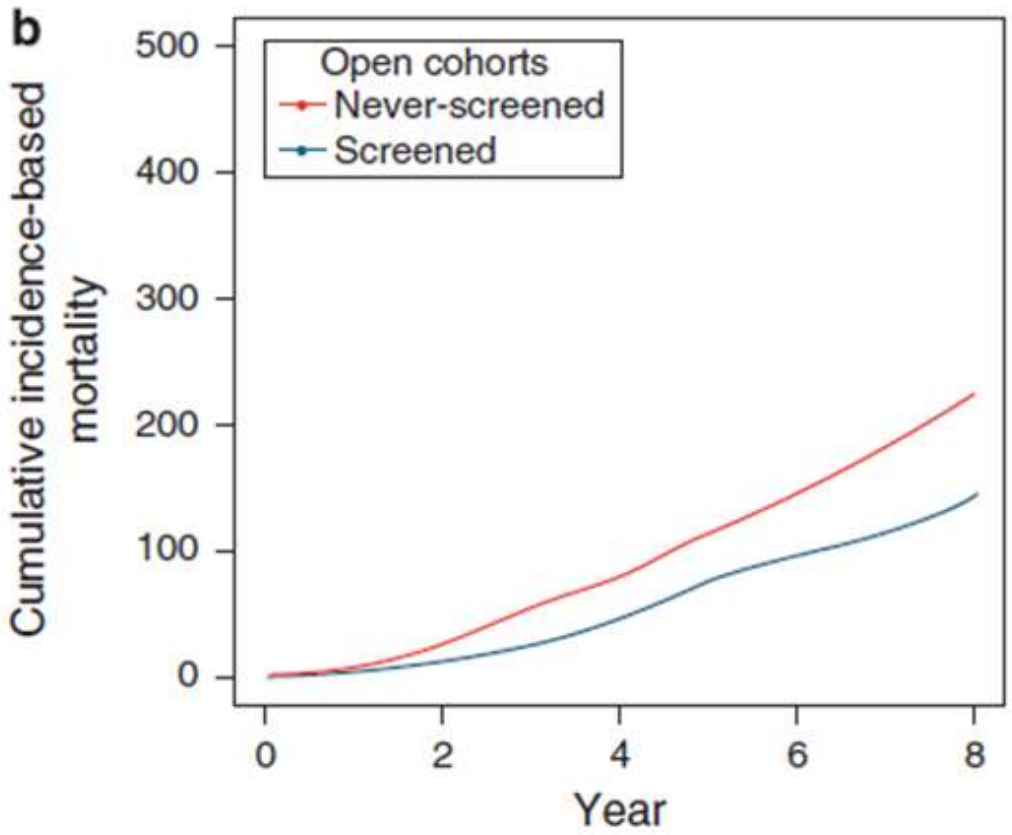


Figure 3 Age-standardised (European standard population) colorectal cancer mortality rates, by year and period of activation of the screening programme; 50–74-year-old subjects, 1995–2011. Grey and dotted boxes: period of activation of colorectal screening programme in early and late screening areas, respectively.

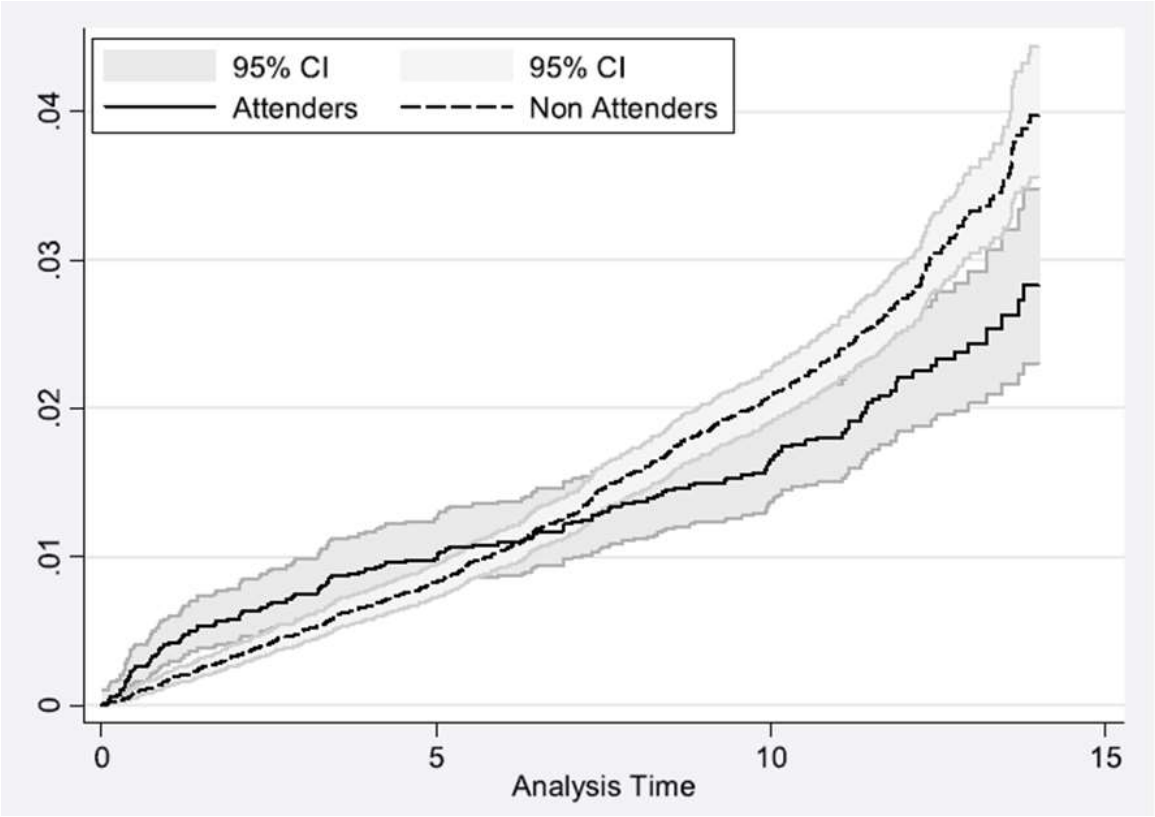
Zorzi M, et al. Gut 2014



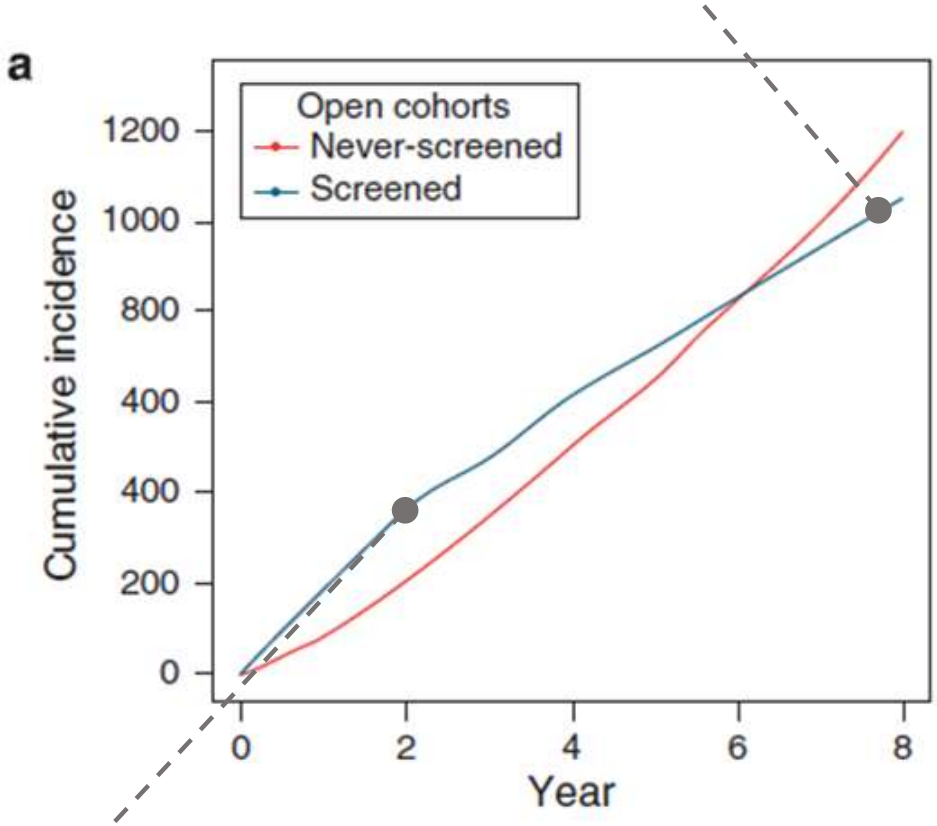
Giorgi Rossi P et al. Am J Gastroenterol 2015

Lo screening del cancro del grosso intestino con il test del sangue occulto riduce l'incidenza

Meno casi nel gruppo screening per la rimozione degli adenomi a rischio



Ventura L, et al. The impact of immunochemical faecal occult blood testing on colorectal cancer incidence. Dig Liver Dis. 2014



Giorgi Rossi P et al. Am J Gastroenterol 2015

Più casi nel gruppo screening per le diagnosi di tumori in fase iniziale

Contributo allo sviluppo delle Reti oncologiche e definizione dei PDTA

EPIDEMIOLOGY

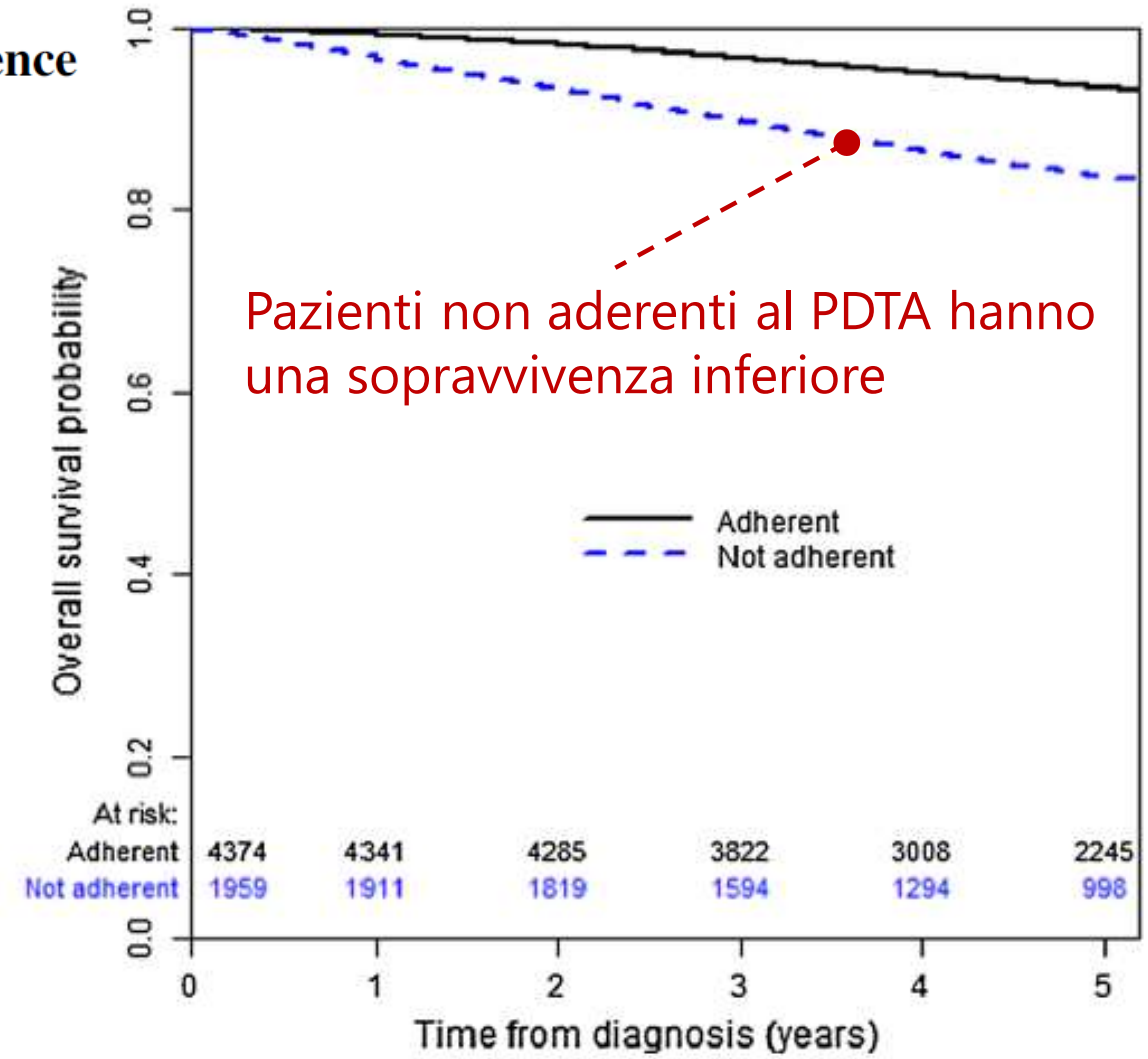
Adherence to guidelines and breast cancer patients survival: a population-based cohort study analyzed with a causal inference approach

Andreano A. et al. Breast Cancer Res Treat 2017

The estimated **risk of death was 30% lower for** patients with **adherent** than nonadherent care (hazard ratio [HR], 0.66; 95% CI, 0.55–0.77).

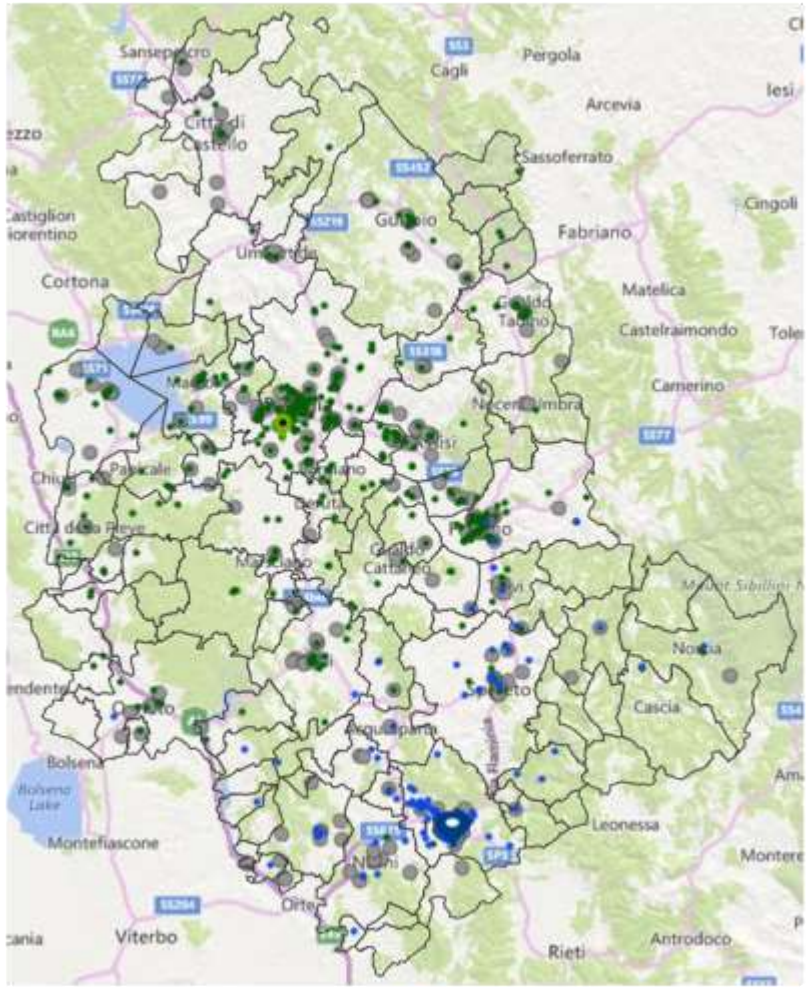
Conclusions Our study confirms, in real-world c**are, the impact on survival of receiving a care pathway adherent** to guidelines in non-metastatic breast cancer patients

cancer registries offer a possibility to perform **real-world studies, analyzing pathways of care without the need for large economical investments**

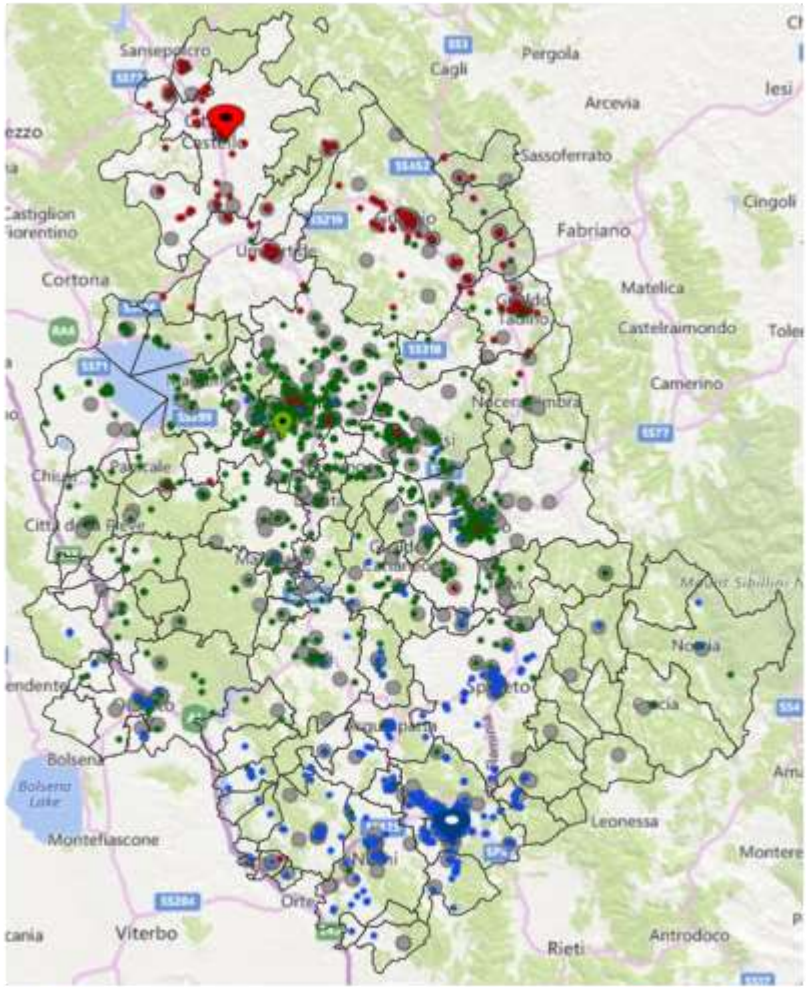


Barriere geografiche e presa in carico; radioterapia appropriata in pazienti affette da cancro della mammella

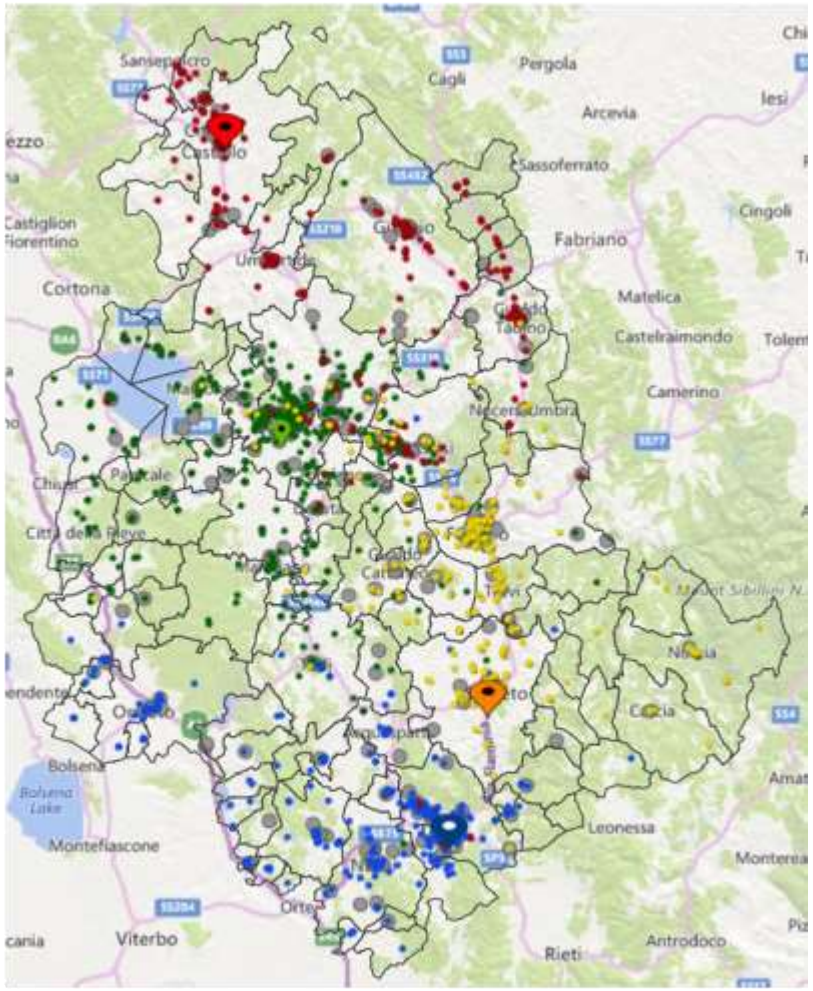
2001-2002 – mean 20 min.



2003-2007 – mean 16 min.

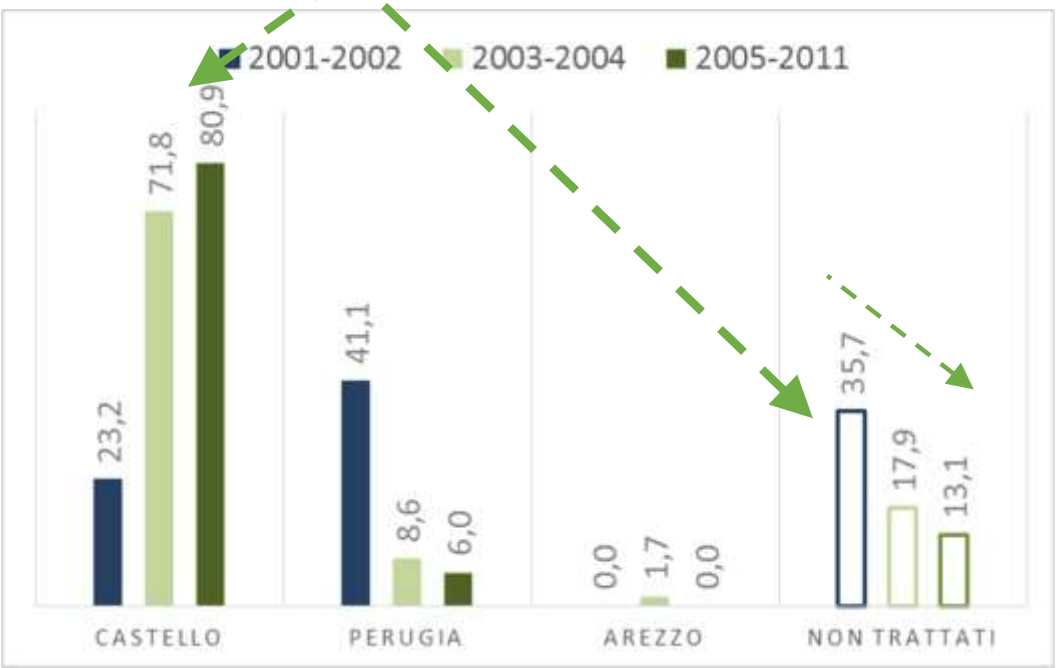


2008-2011 – mean 13 min.



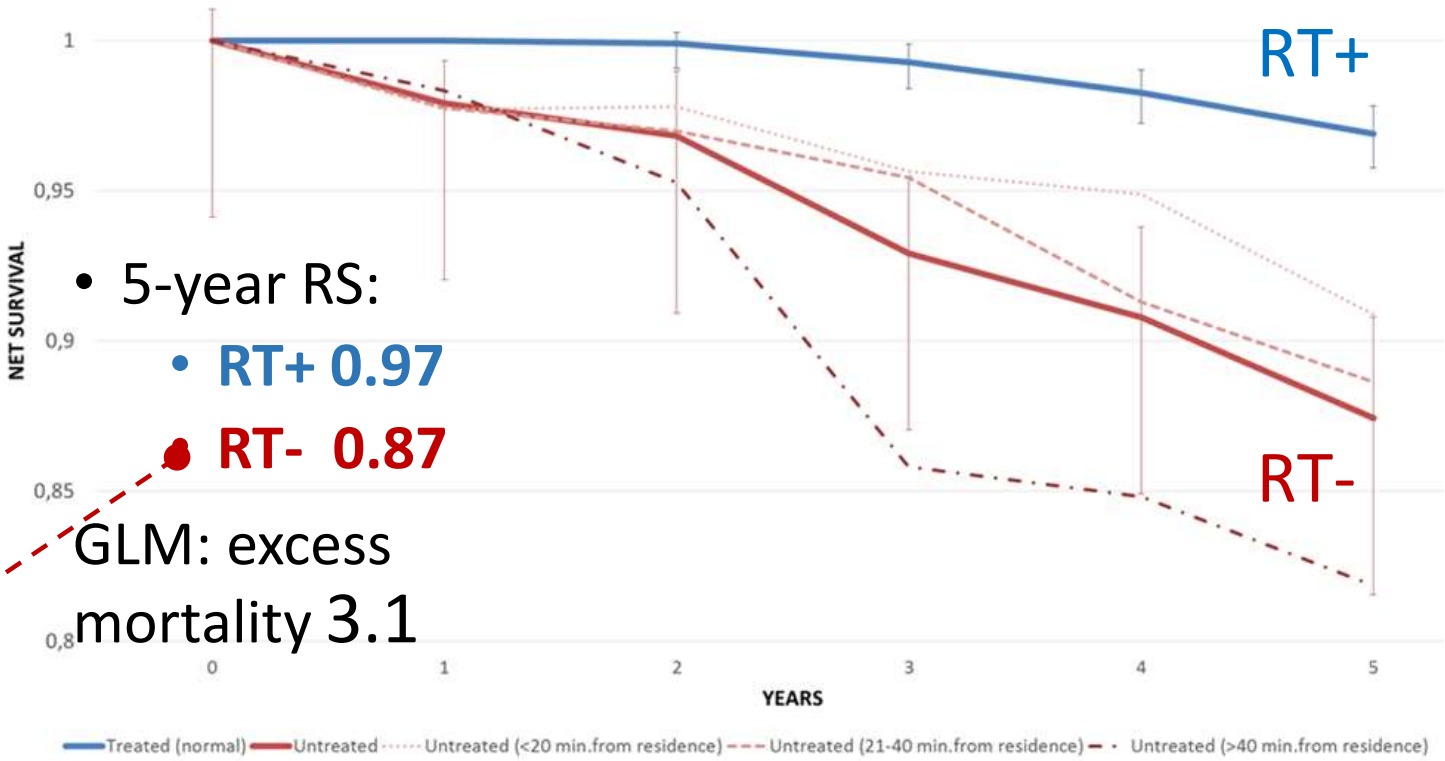
Treated @ Perugia · Treated @ Terni · Treated @ C. Castello · Treated @ Spoleto · UNTREATED

Le pazienti che abitano nell'area afferiscono al nuovo centro e il rischio di mancato trattamento si riduce



Un nuovo centro di radioterapia riduce il rischio di non trattamento nei residenti in aree vicine

Survival of PS-matched breast cancer patients by RT treatment



- 5-year RS:
  - **RT+ 0.97**
  - **RT- 0.87**

GLM: excess mortality 3.1

Stracci F et al. Cancer Med 2018

Sebbene l'Umbria sia una piccola regione, una quota di pazienti residenti lontano (>40 min) dai centri principali (hub) riceveva un trattamento subottimale associato ad una sopravvivenza ridotta

EUROCARE Altissima risoluzione

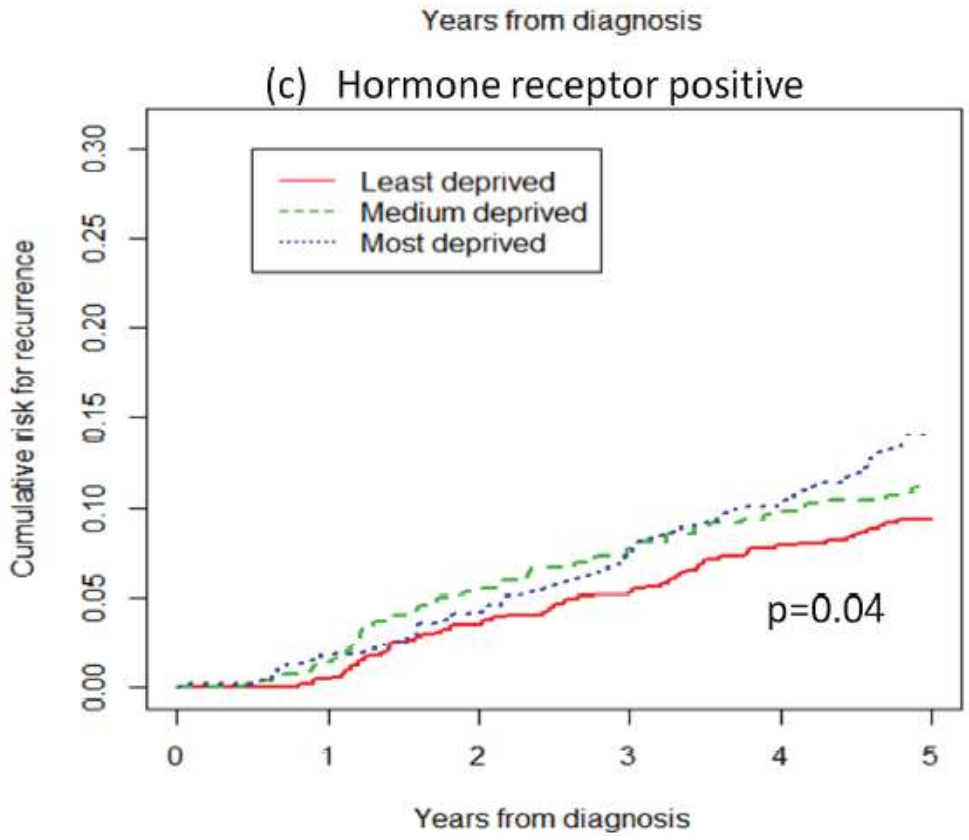
Socioeconomic deprivation worsens the outcomes of Italian women with hormone receptor-positive breast cancer and decreases the possibility of receiving standard care

Di Salvo F et al. Oncotarget 2017

Among the 2,024 women with hormone receptor-positive cancer, the 5-year risk was significantly higher in the most deprived group than in the least deprived one (13.0% vs. 8.9%, p=0.04)

The most deprived women were less likely than the least deprived women to receive sentinel lymph node biopsy … and to undergo breast-conserving surgery plus radiotherapy

Conclusions: Socioeconomic inequalities affect the risk of recurrence, among patients with hormone receptor-positive cancer, and the opportunity to receive standard care.



Impatto ambientale: il progetto SENTIERI E&P 2019

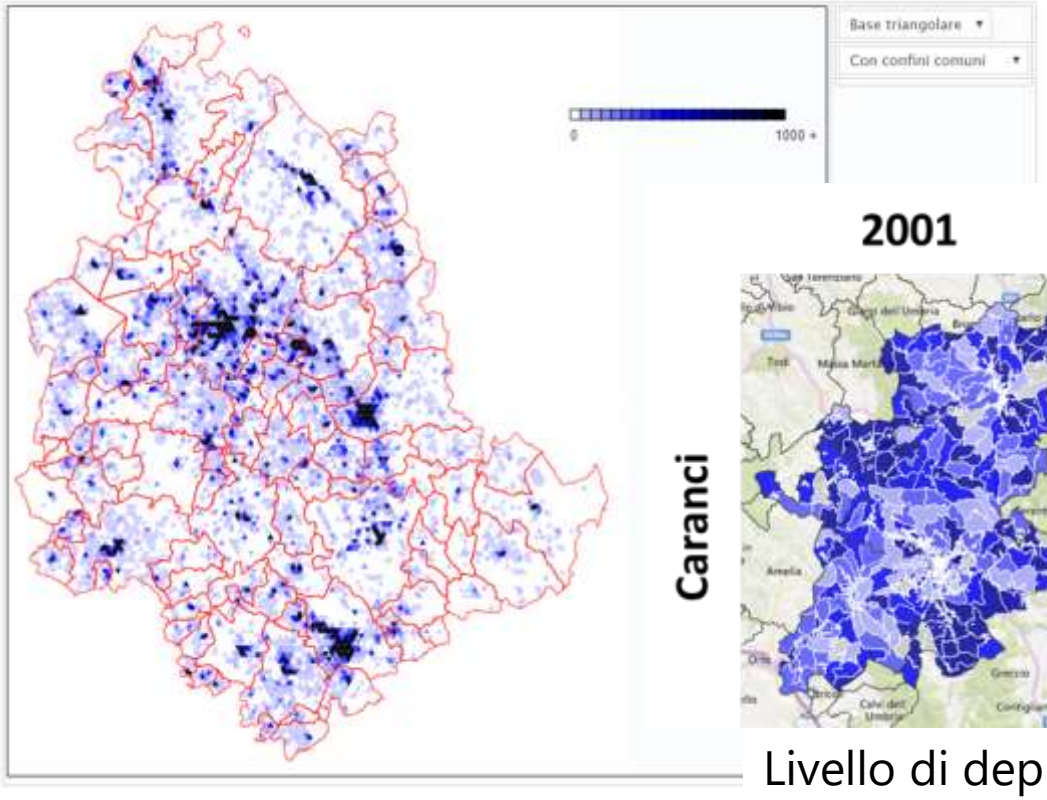
i risultati evidenziati indicano la necessità di una sorveglianza epidemiologica della popolazione residente, garantendo contestualmente l'attuazione di tutte le misure preventive atte a tutelare la salute della popolazione residente

CAUSE ONCOLOGICHE	UOMINI		DONNE	
	OSS	SIR (IC90%)	OSS	SIR (IC90%)
Tutti i tumori maligni, escluso cute	4.634	116 (113-119)	4.028	117 (114-120)

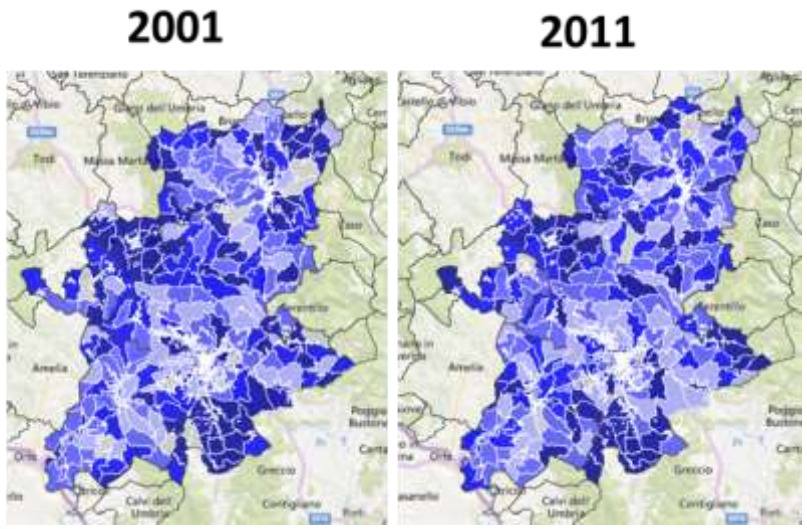
CAUSE DI RICOVERO	Uomini		Donne	
	OSS	SHR (IC90%)	OSS	SHR (IC90%)
Tutte le cause naturali (escluse complicazioni della gravidanza, del parto e del puerperio)	55.364	104 (103-105)	59.312	103 (102-104)
Tutti i tumori maligni	6.427	110 (108-113)	5.593	109 (107-112)

CAUSE DI MORTE	Uomini		Donne	
	OSS	SMR (IC90%)	OSS	SMR (IC90%)
MORTALITÀ GENERALE	7.989	109 (107-111)	8.136	105 (103-107)
Tutti i tumori	2.747	111 (108-115)	2.002	108 (104-112)

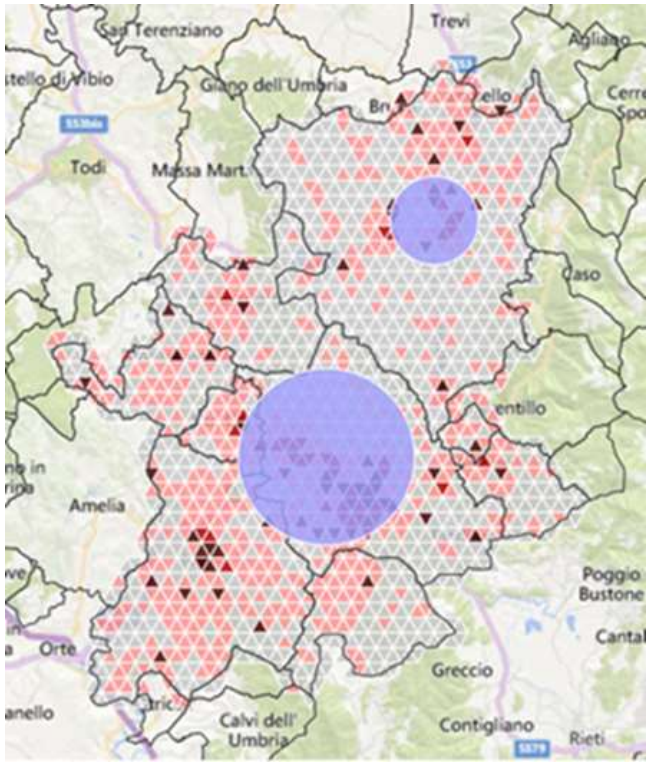
Geocodifica di popolazione e analisi dei rischi locali per piccole aree



Distribuzione regionale degli abitanti



Livello di deprivazione per sezione di censimento a Terni in base all'indice nazionale di Caranci et al. E&P 2010



Rischio locale di cancro del polmone a Terni corretto per livello di deprivazione

Per fare di più: tempestività, integrazione, ricerca

La costituzione del Registro Nazionale

- Copertura nazionale
- Centro di coordinamento unico
- Possibilità teorica di accedere ai flussi di dati rilevanti con miglioramento della tempestività
- Maggiore omogeneità nella formazione del dato da parte di tutti i registri
- Possibilità di fissare obiettivi di ricerca nazionali
- Possibilità di integrazione con reti oncologiche, servizi di screening, e altri enti per conseguire finalità condivise

- Diverse sensibilità e investimenti regionali (in contrasto con l'obiettivo di istituzione di un registro nazionale)
- Difficoltà di accesso ai dati
- Processo molto lungo di formazione del registro nazionale
- Appiattimento su finalità minime : conteggio del numero dei casi
- Mancanza di indipendenza legata alla collocazione regionale per il calcolo di indicatori sensibili e per ricerche (ad esempio indagini ambientali)
- Rischio di perdita del patrimonio di capacità ed esperienza dei registri storici
- Mancanza di una chiara strategia nella definizione degli obiettivi del registro nazionale
- Mancanza di un sistema di *governance* definita (si prevede un CTS nazionale)

Fine