

Plus de cancers chez les jeunes ?



quel changement pour notre système de soins ?

Prof Pierre-Yves Dietrich



Cancer cases in under-50s worldwide up nearly 80% in three decades, study finds

More than a million under-50s a year dying of cancer and figure projected to rise by another 21% by 2030



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'These are people in the prime of life': The worrying puzzle behind the rise in early-onset cancer

5 October 2024

David Cox

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SCIENCE&VIE

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CANCER CHEZ LES 20-40 ANS : POURQUOI ÇA EXPLOSE ?

PUBLIÉ LE 14 FÉV 2025 À 08H00 / MODIFIÉ LE 14 FÉV 2025

- Une étude de 2023 révèle une augmentation de 79,1% des cancers chez les moins de 50 ans entre 1990 et 2019, avec des facteurs environnementaux en cause.

FUTURE PERFECT

Kate Middleton says she is cancer-free. But why are she and so many young people getting sick?

It's not just the Princess of Wales. More and more young people are getting cancer.

by Dylan Scott

Updated Sept 19, 2021, 12:29 PM CDT



Health

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A global epidemic of cancer among people younger than 50 could be emerging

By Brenda Goodman, CNN

6 min read · Updated 1:05 PM EDT, Mon October 17, 2022

The Washington Post

What researchers suspect may be fueling cancer among millennials

Studies suggest modern life may be fueling the rise of cancer in younger adults, with factors like ultra-processed foods and chemicals under...

5 days ago

TIME

The Race to Explain Why More Young Adults Are Getting Cancer

By Jamie Ducharme



The New York Times

Why Are More Young People Getting Cancer?

In the last decade, more than a dozen types of cancer have risen among people under 50. Scientists don't have all of the answers, but research is starting to offer clues.

Listen to this article · 10:20 min [Learn more](#)

Share full article



465



AACR SPECIAL CONFERENCE IN CANCER RESEARCH: THE RISE IN EARLY-ONSET CANCERS— KNOWLEDGE GAPS AND RESEARCH OPPORTUNITIES

December 10 - 13, 2025
DoubleTree by Hilton Montreal
Montreal, QC, Canada



Abaissier âge des dépistages organisés ?

Health

Finalized guidance drops breast cancer screening age to 40 for women with average risk

Prior USPSTF recommendations said women should start screening no later than 50.

By [Dr. Jennifer Miao](#) [GMA](#)

April 30, 2024, 10:58 AM



40 ans



Colorectal

[HEALTH](#)

Colorectal cancer awareness

[Add Topic +](#)

'Get the word out': New USPSTF guidelines lower age to begin colorectal cancer screening from 50 to 45

[Adrianna Rodriguez](#) and [Karen Weintraub](#) [USA TODAY](#)

Updated May 18, 2021, 1:56 p.m. ET



45 ans



Définition de la jeunesse ?

39 / 40 / 45 / 49 / 50

AGE



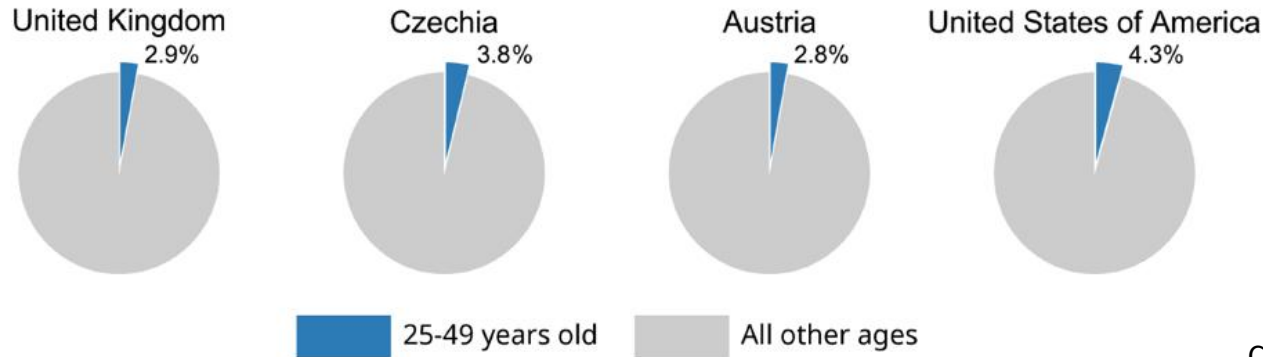
Continuum

AGE



20-50 ans

Est-ce important ?



Petite proportion MAIS

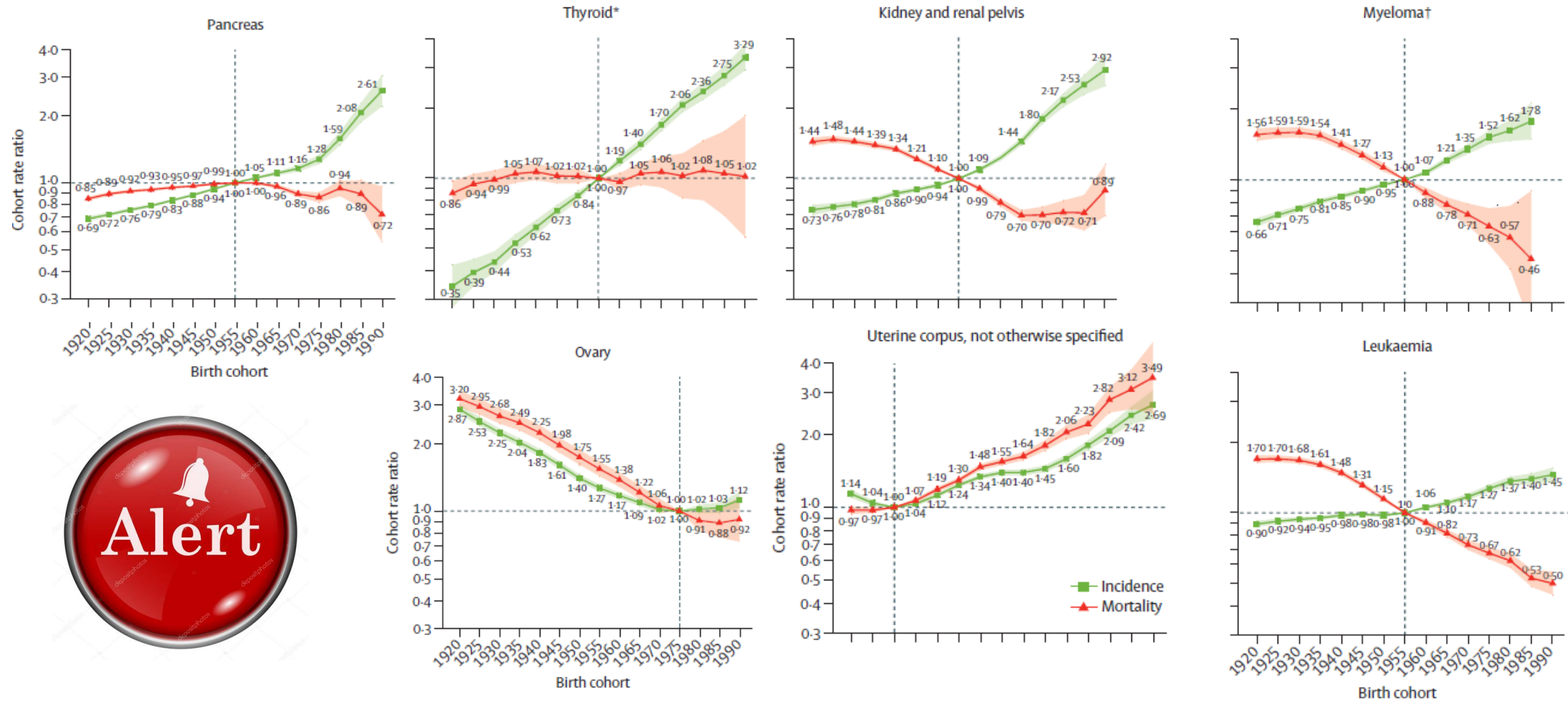
Chambers et al , BMH 2025

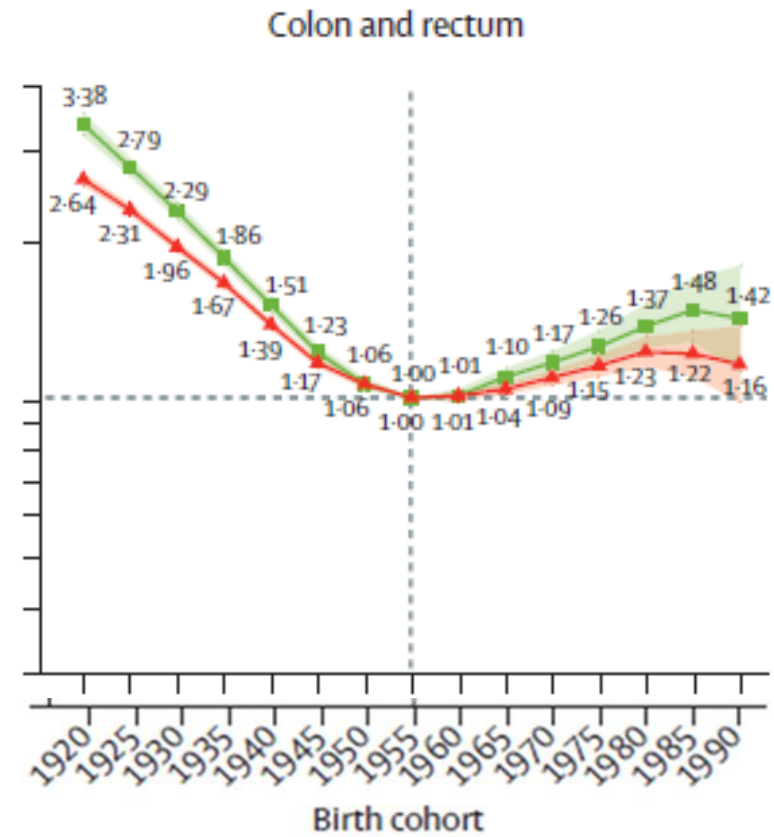
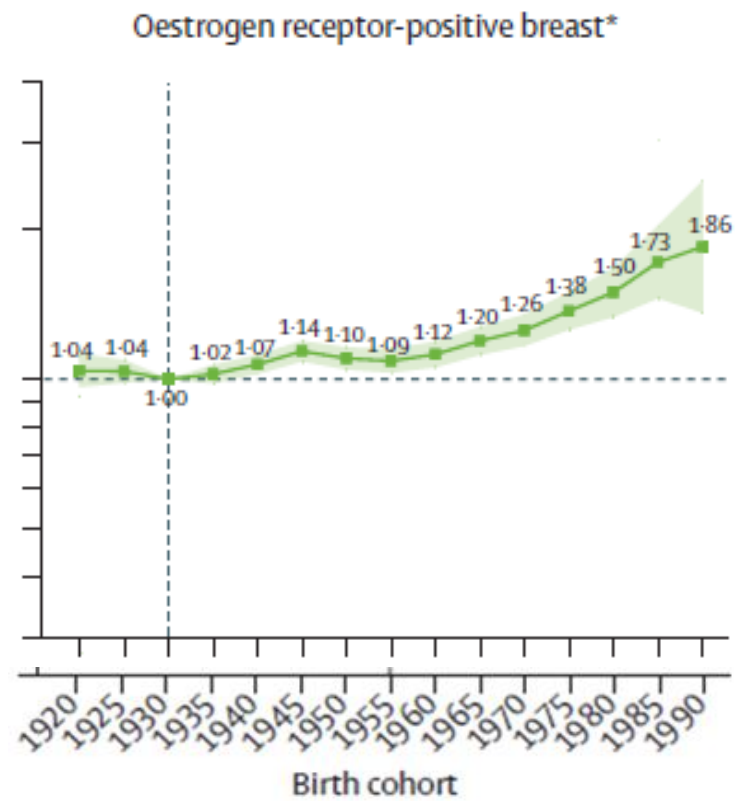
- Plus d'années de vie perdues
- Stade plus avancé car pas de dépistage et symptômes banalisés ?
- En plein développement personnel , familial et professionnel
- Enjeux plus complexes :
 - autonomie, fertilité, grossesse, toxicité à LONG terme
 - Santé mentale
 - Santé sexuelle
- Toxicité financière très fréquente, précarité familiale
- Dimension sous estimée par la société

Cancer chez un jeune = DRAME multifacettes et à long terme

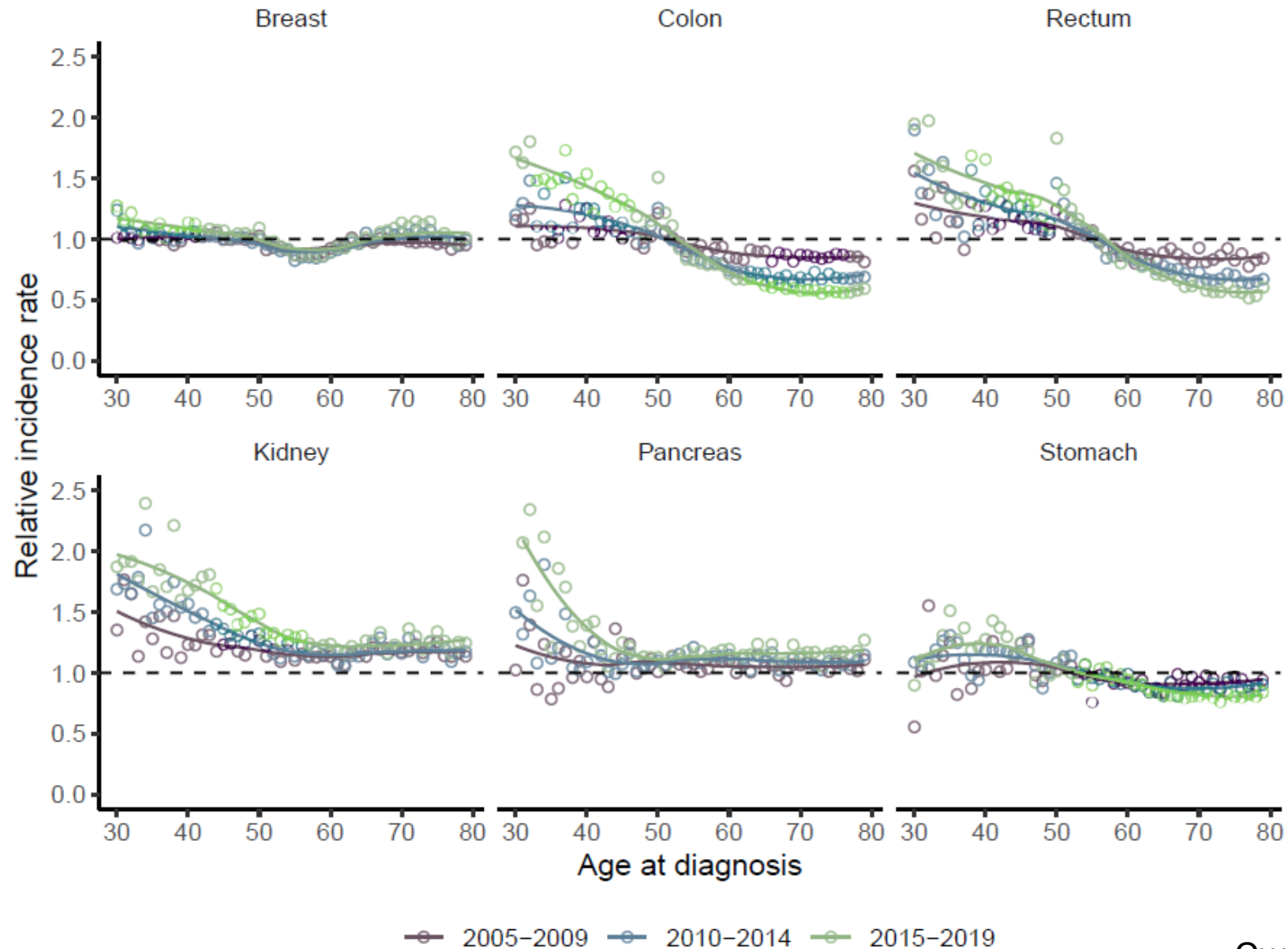
Risque générationnel «birth-cohort effects» : 1990 versus 1955

23 654 000 patients avec 34 types de cancer and 7 348 137 décès
de 2000- 2019



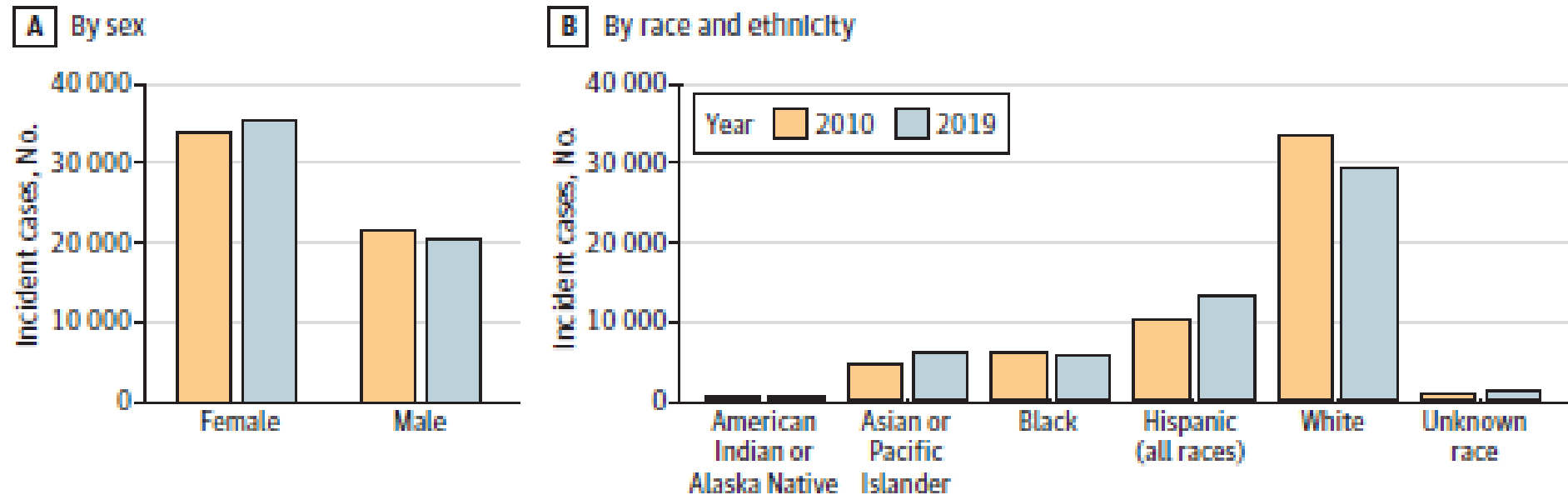


Augmentation incidence des cancers chez les jeunes de 2005 à 2019 aux USA



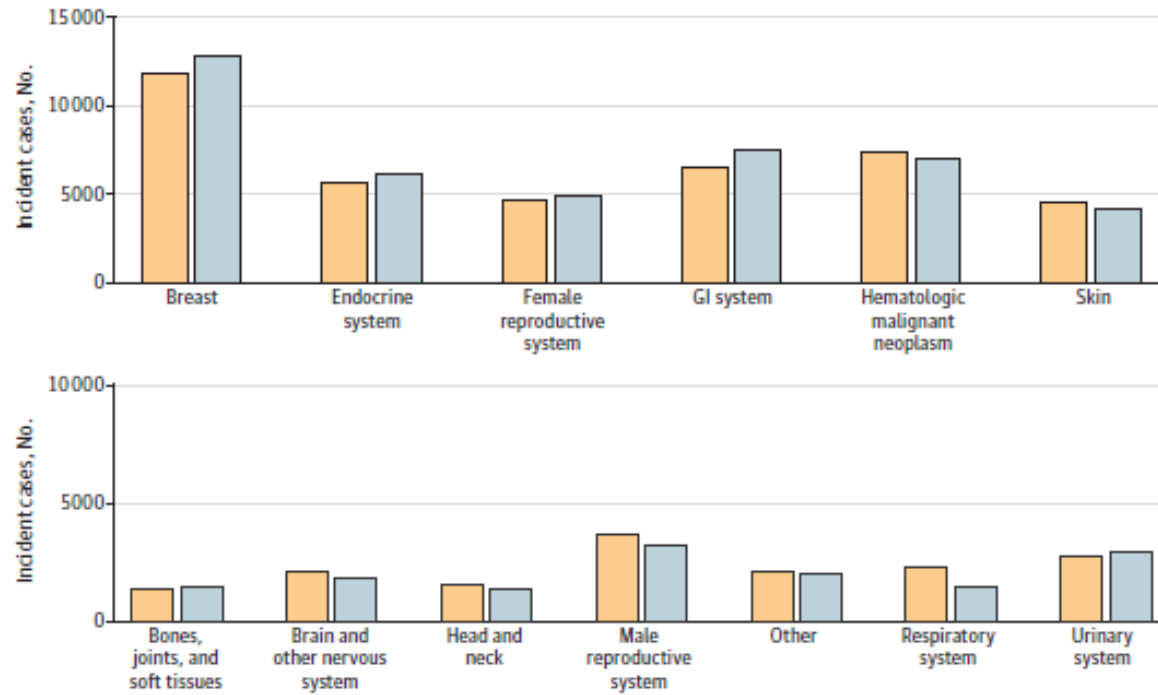
Evolution de l'incidence aux USA de 2010 à 2019

562 145 patients < 50 ans entre 2010 et 2019



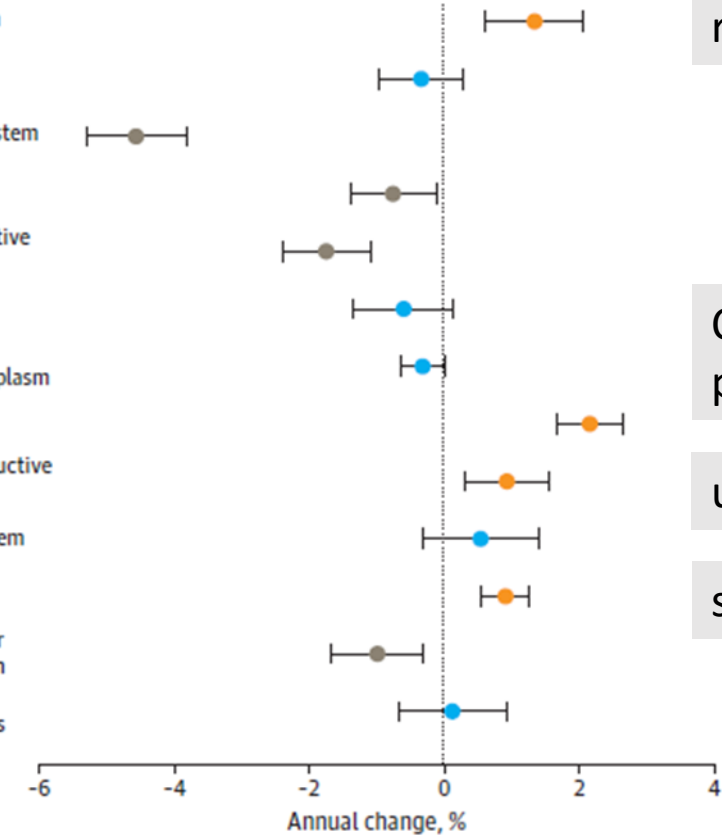
Quels cancers ?

C By organ system



C By organ system

System
Urinary system
Skin
Respiratory system
Other
Male reproductive system
Head and neck
Hematological malignant neoplasm
GI system
Female reproductive system
Endocrine system
Breast
Brain and other nervous system
Bones, joints, and soft tissues



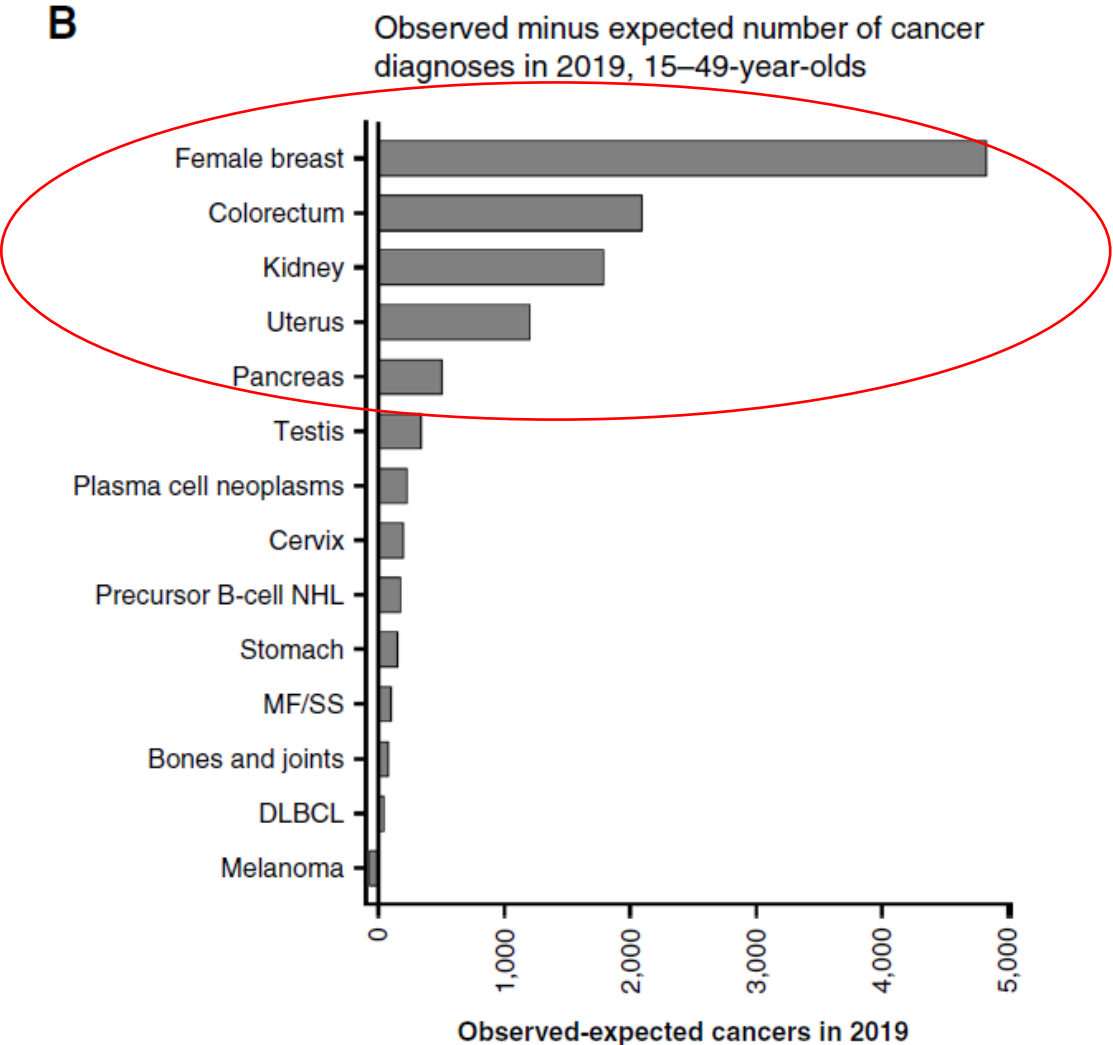
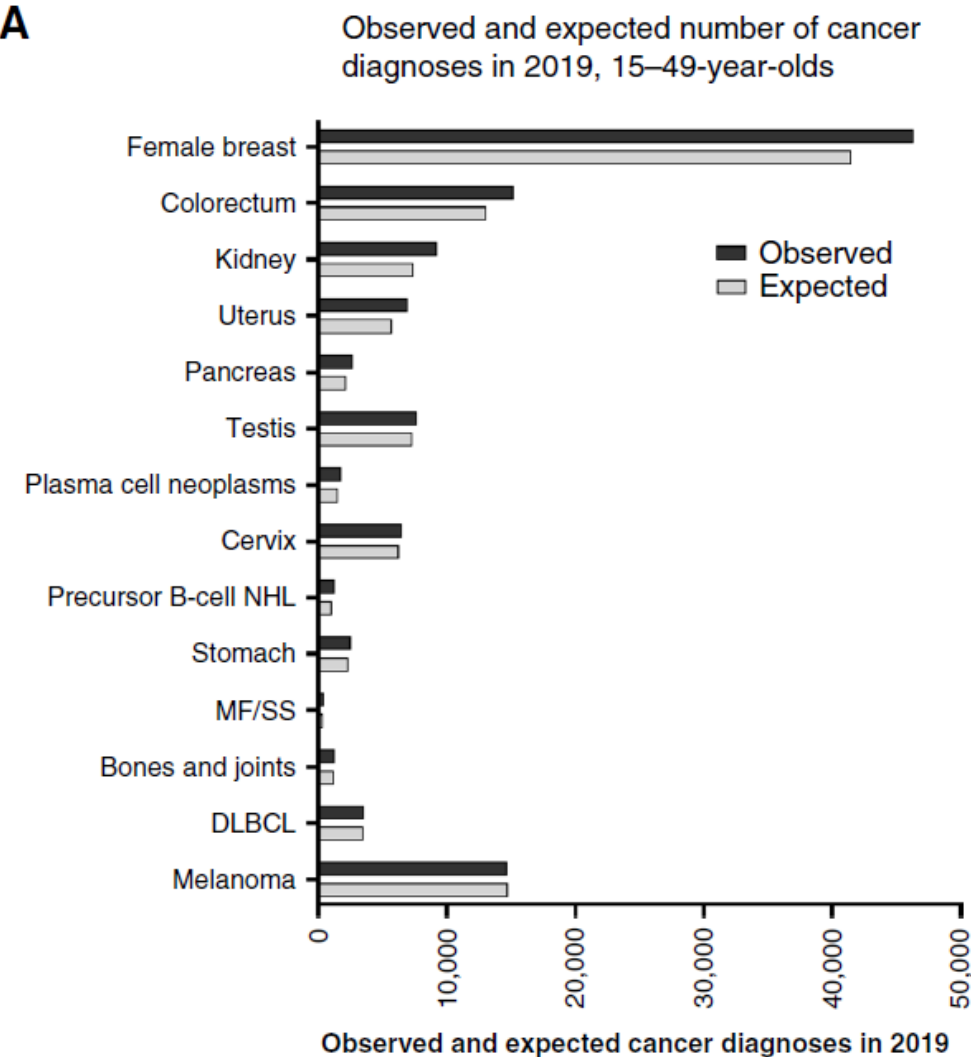
rein

Colorectal
pancreas

uterus

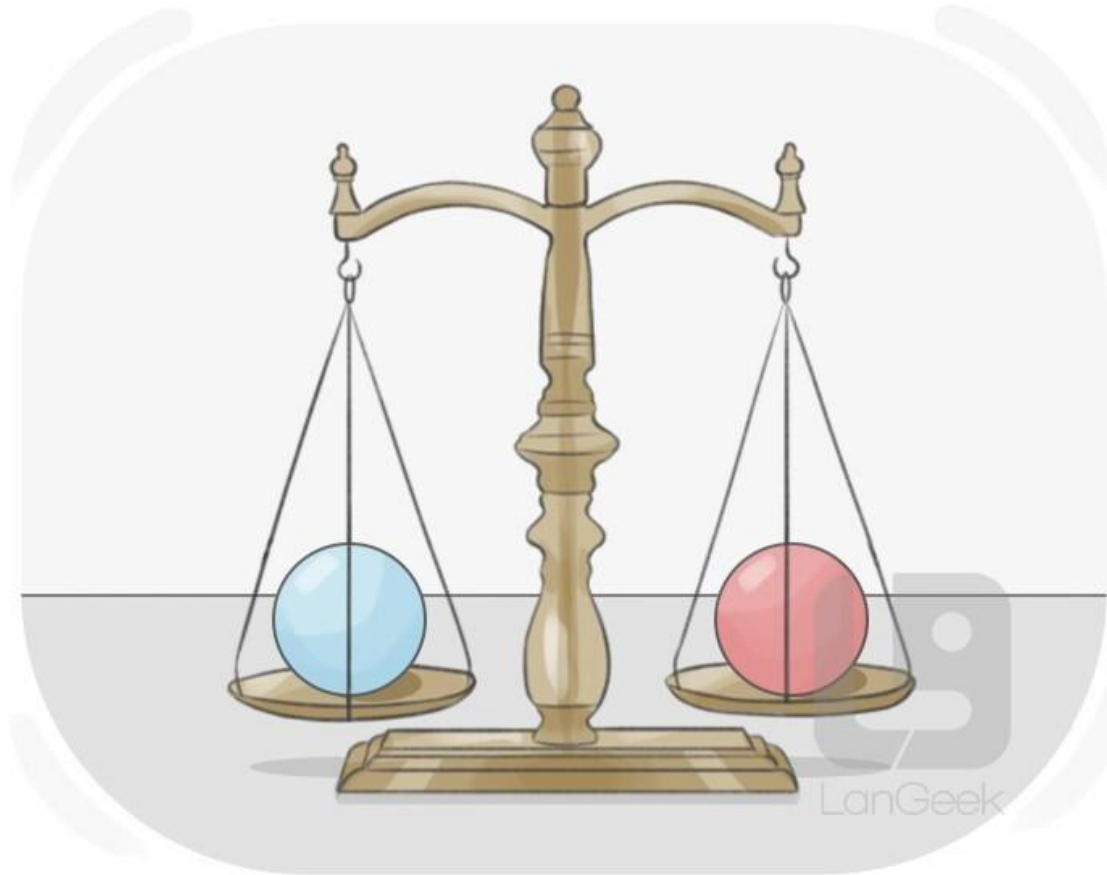
sein

N = 2 020 829 cancers tout âge
Période 2010-2019



Effet détection

- Imagerie plus sensible
- Meilleur dépistage
- Meilleur enregistrement
- Public sensibilisé



Effet risque

- Risque augmenté
ex obésité
- Nouveaux risques
ex sédentarité ,
Facteurs Agro-alimentaire

Exemple effet détection : l'épidémie de cancers de la prostate

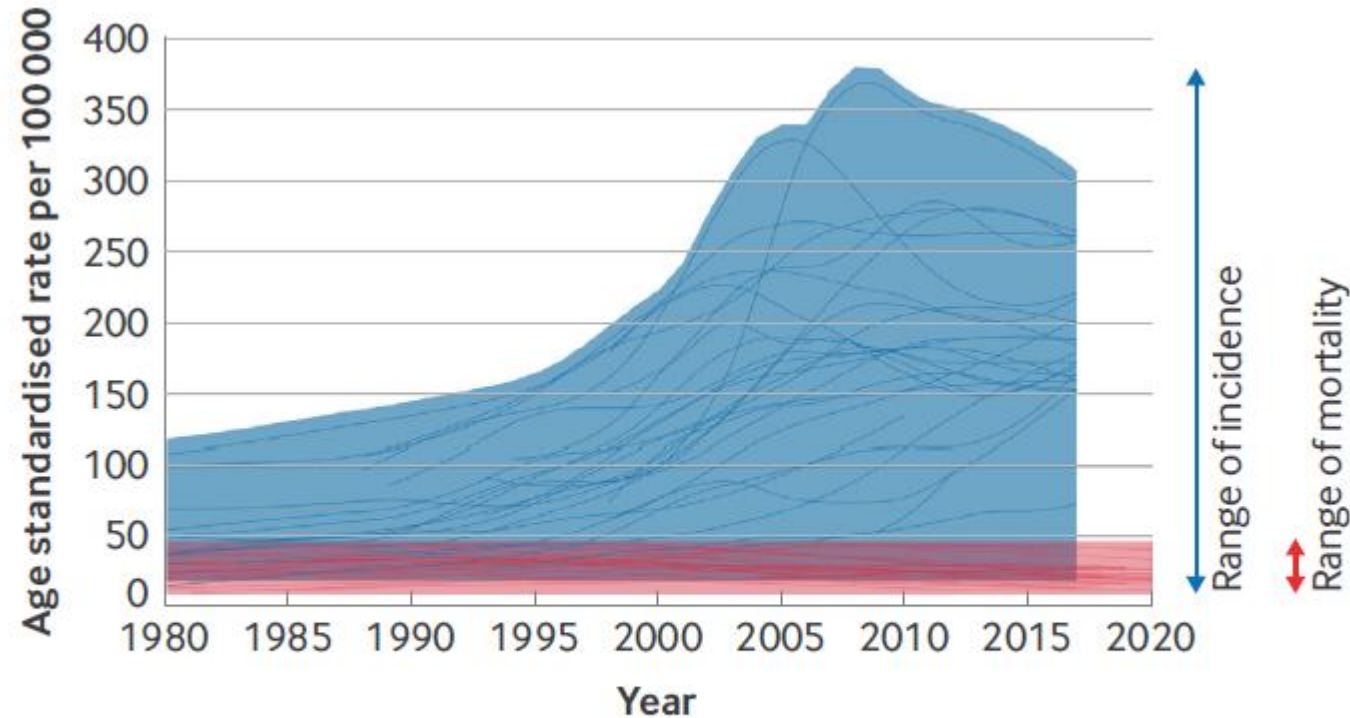


Fig 4 | Range of age standardised incidence and mortality rates of prostate cancer per 100 000 men aged 35-84 years over time among the included European countries. Lines are smoothed by the Loess regression algorithm (bandwidth: 0.4)

Quid de la mortalité ?

JAMA Internal Medicine | Special Communication | LESS IS MORE

The Rise in Early-Onset Cancer in the US Population—More Apparent Than Real

Vishal R. Patel, MD, MPH; Adewole S. Adamson, MD, MPP; H. Gilbert Welch, MD, MPH

JAMA Int Med 2025; 185(11) 1370-4

Supplementary Figure 1. Average Annual Percent Change in Cancer Incidence Among Adults Under 50 Years of Age by Site.

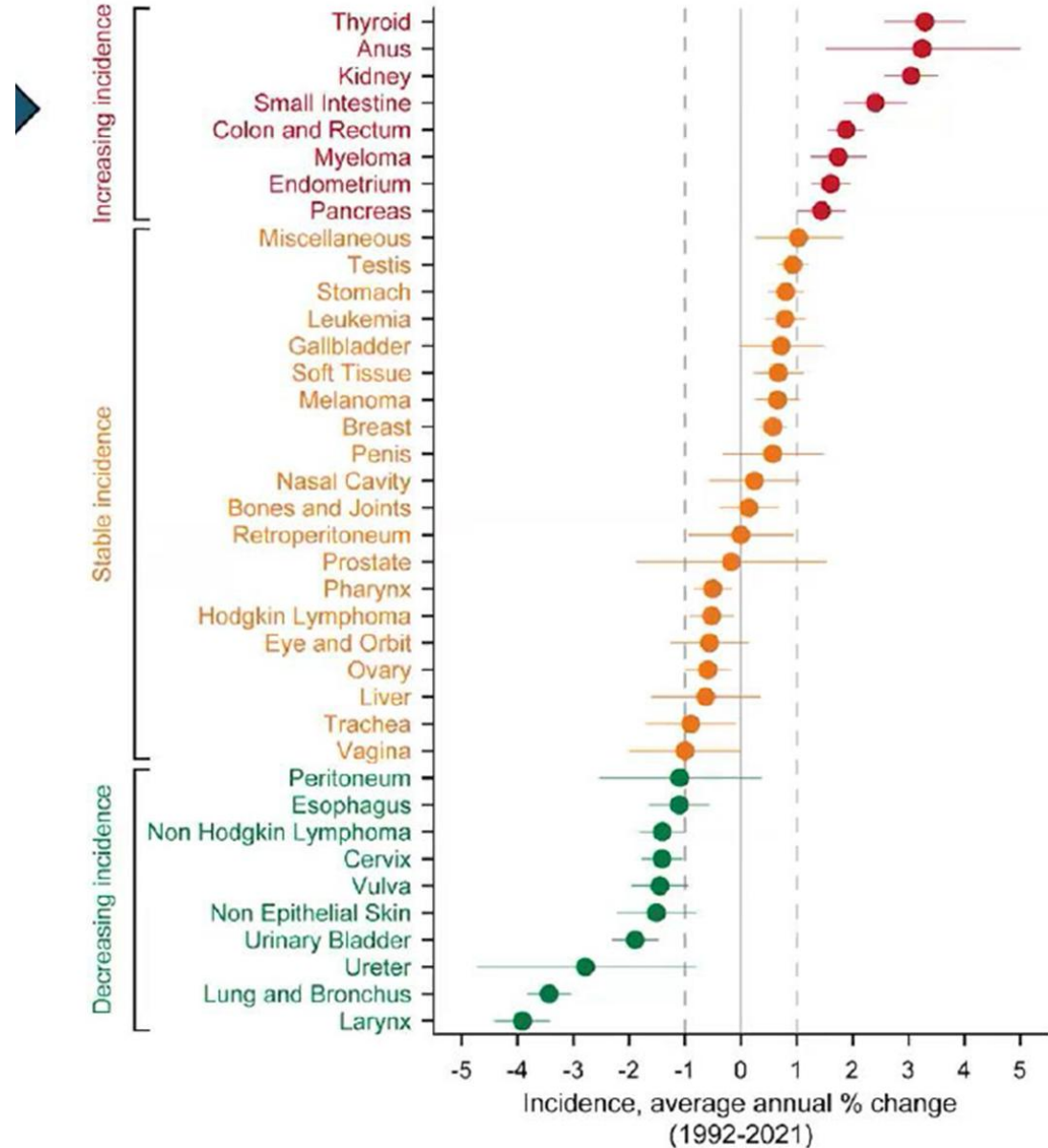


Figure 1. Combined Cancer Incidence and Mortality for the Fastest-Rising Cancers in US Adults Younger Than 50 Years

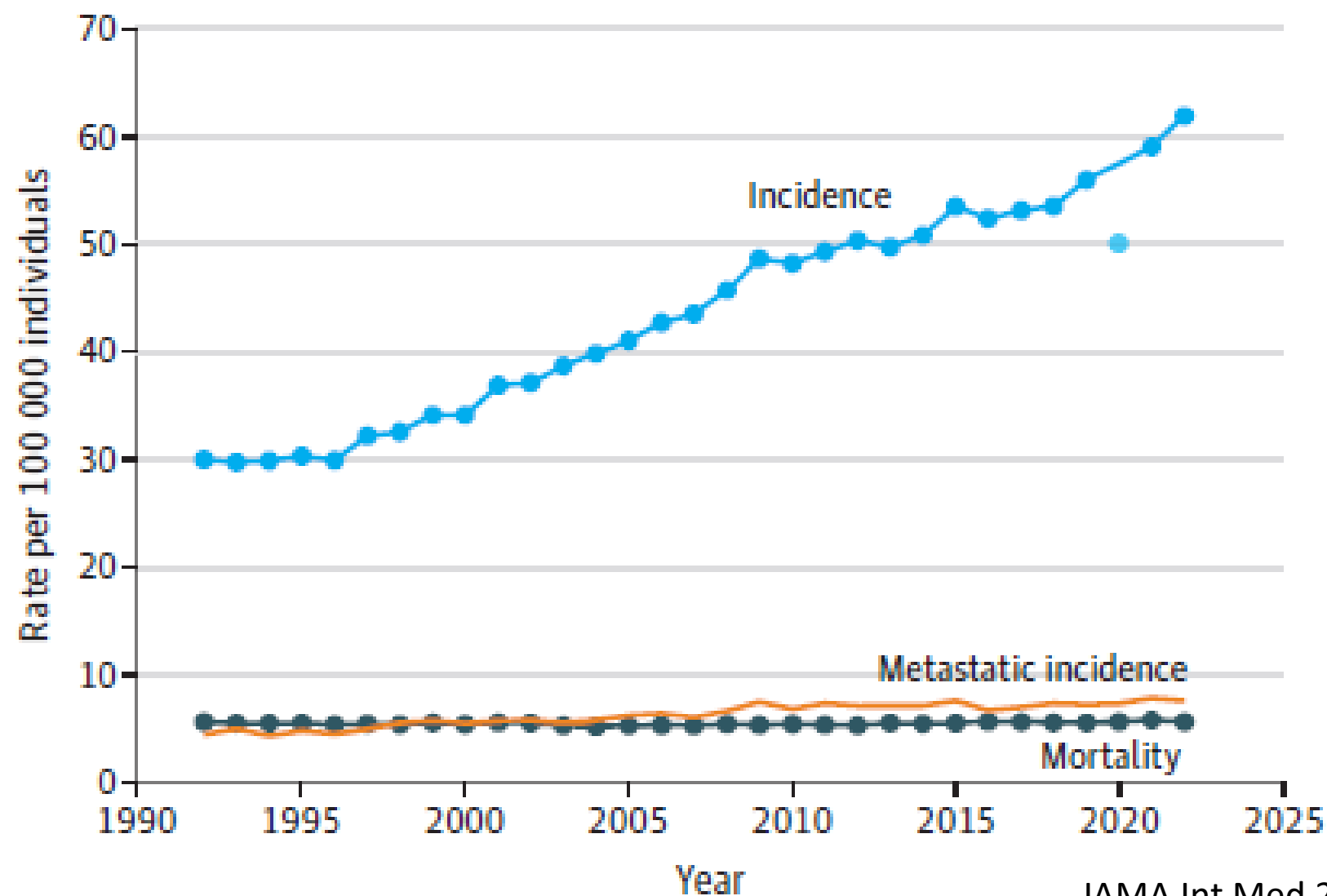
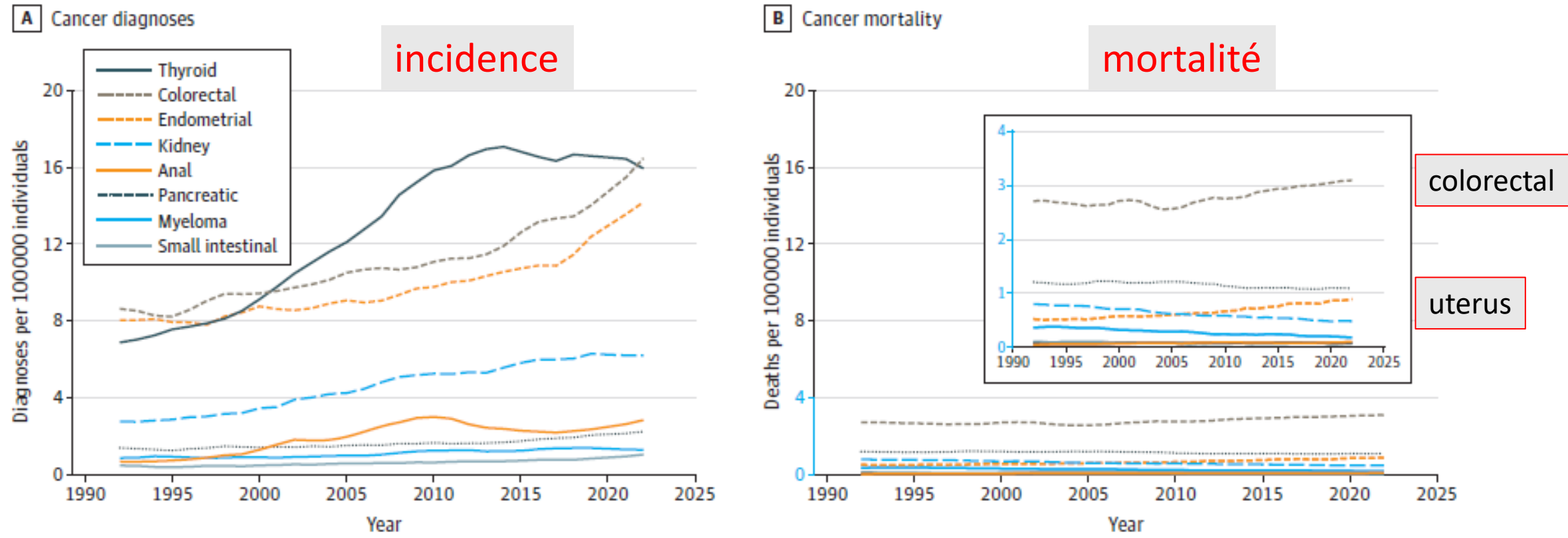


Figure 2. Site-Specific Incidence and Mortality for the Fastest-Rising Cancers in US Adults Younger Than Age 50 Years

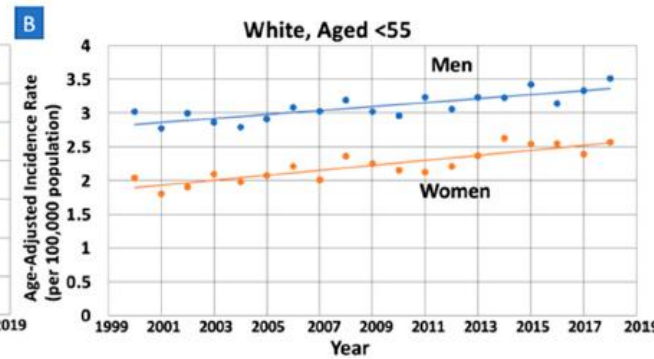
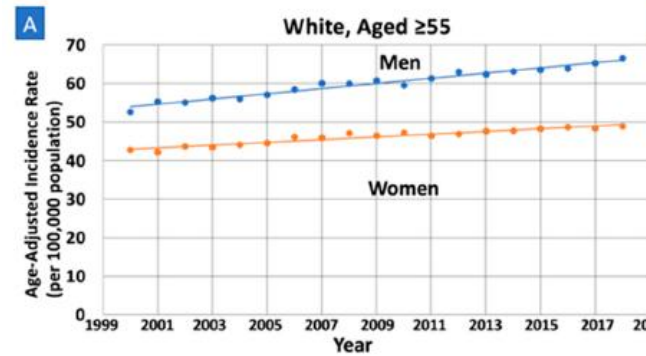


Diversité des situations à travers 3 exemples

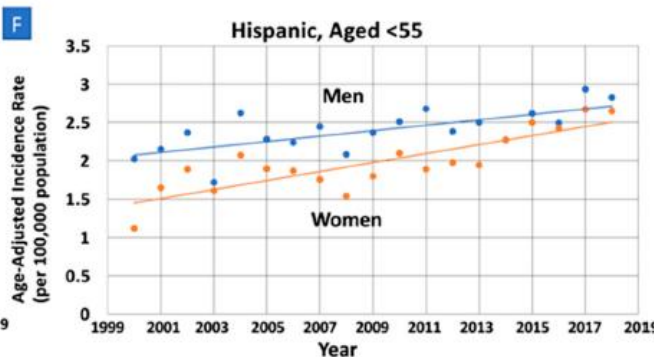
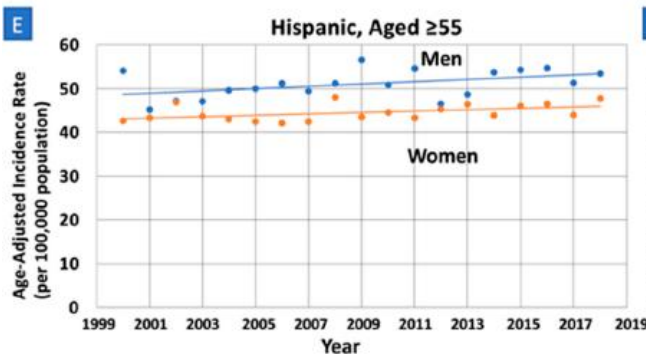
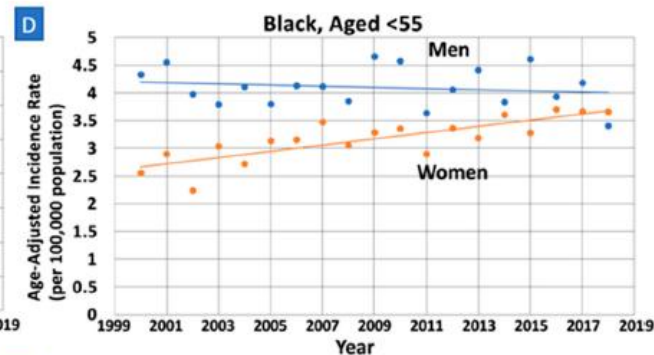
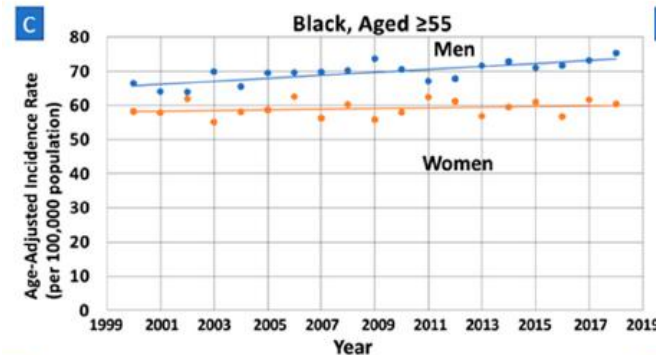
	Incidence relative	mortalité
pancréas	++	NC
colon	++	+
sein	+	- (?)

Cancer du pancréas : augmentation de l'incidence , USA

> 55 ans



< 55 ans



Attention au nombre absolu

Cancers **2023**, 15, 870.

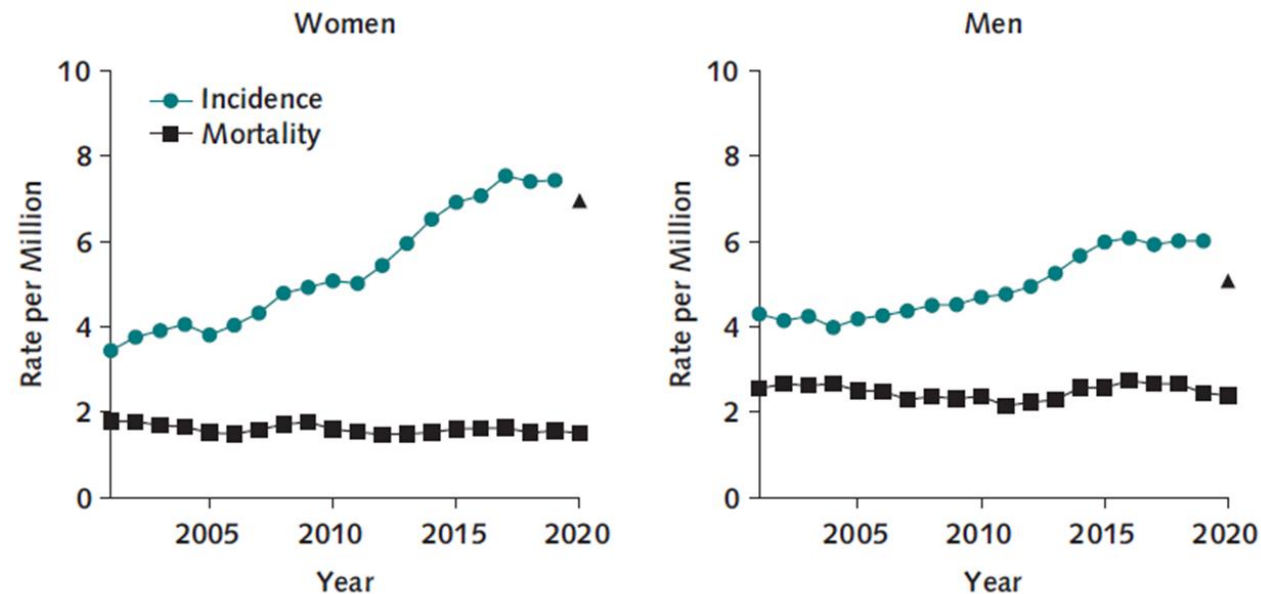
Increasing Incidence and Stable Mortality of Pancreatic Cancer in Young Americans

Authors: Vishal R. Patel, MD, MPH , Adewole S. Adamson, MD, MPP , Jason B. Liu, MD, MS , and H. Gilbert Welch, MD, MPH 

[AUTHOR, ARTICLE, & DISCLOSURE INFORMATION](#)

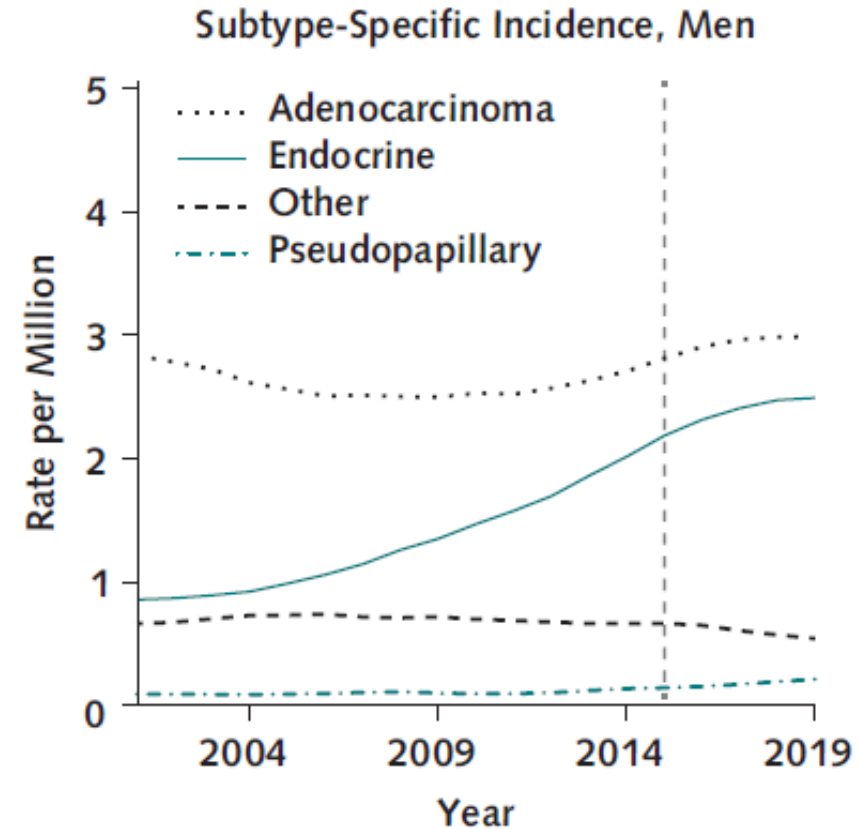
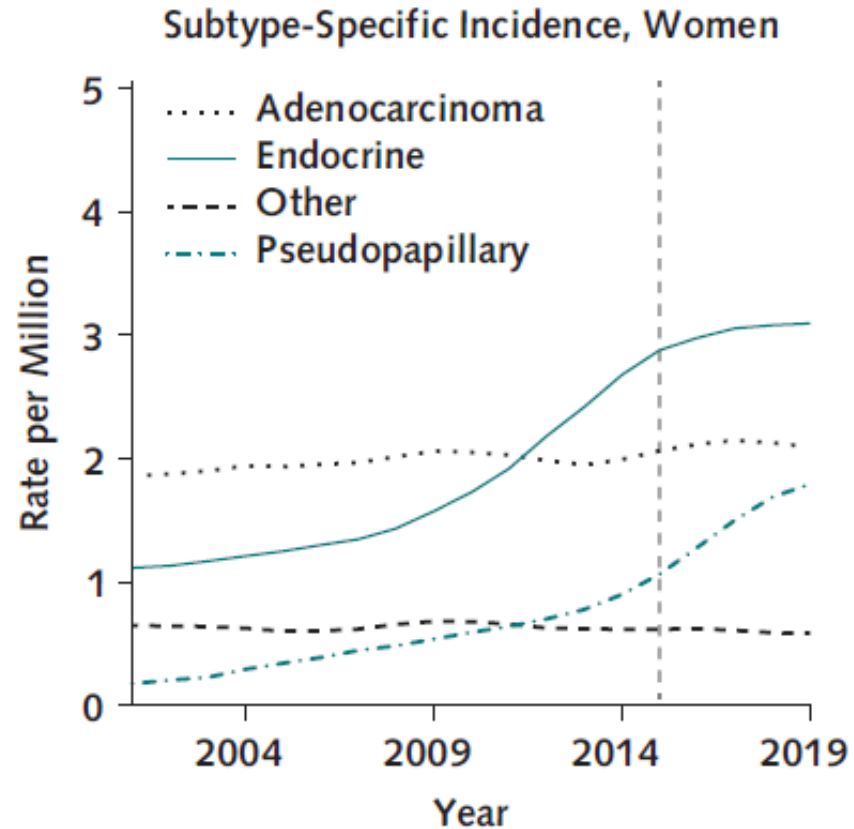
Publication: Annals of Internal Medicine • Volume 178, Number 1 • <https://doi.org/10.7326/ANNALS-24-00635>

Figure 1. Pancreatic cancer incidence and mortality in women and men aged 15 to 39 years, 2001 to 2020.

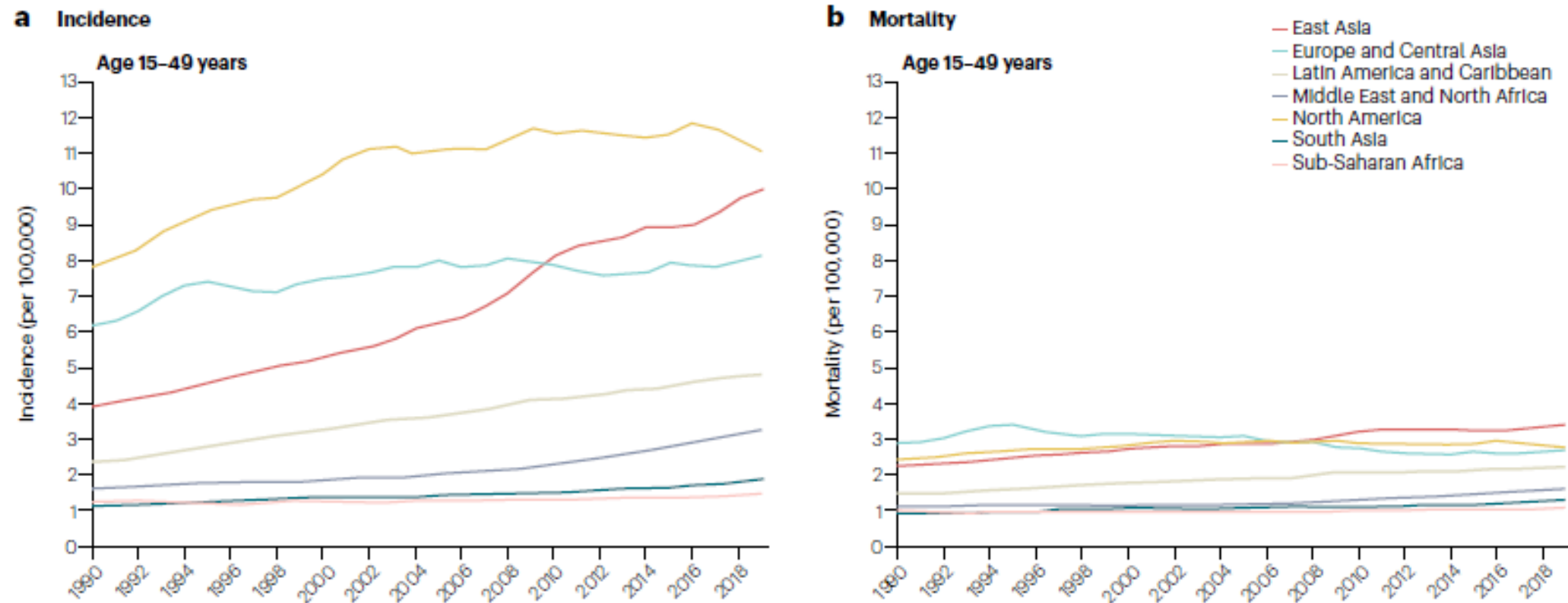


Signature de sur-diagnostic

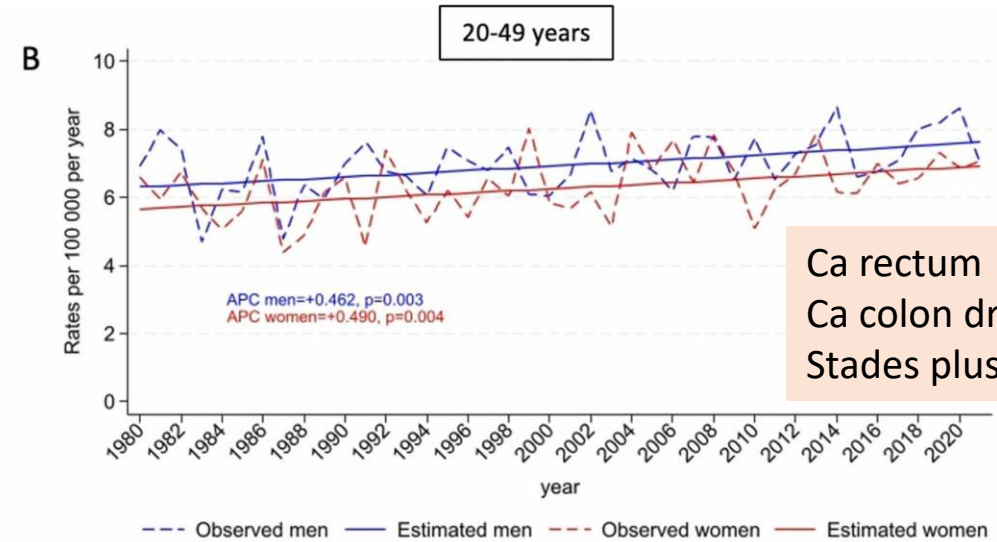
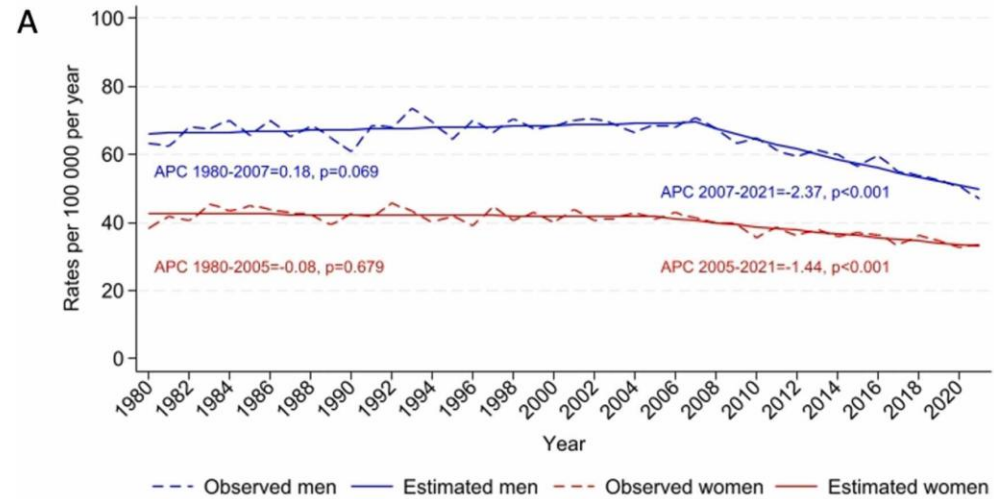
Pas d'augmentation des adénocarcinomes



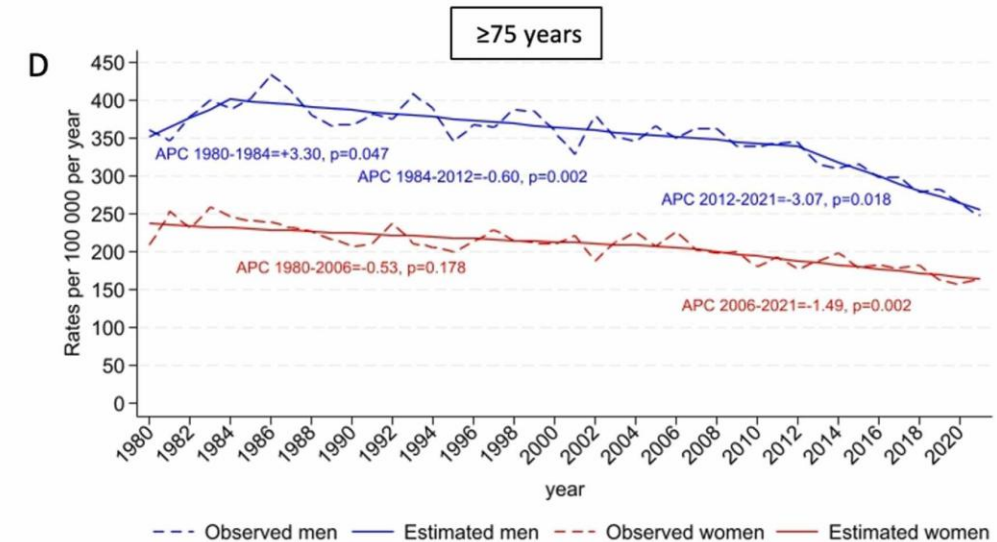
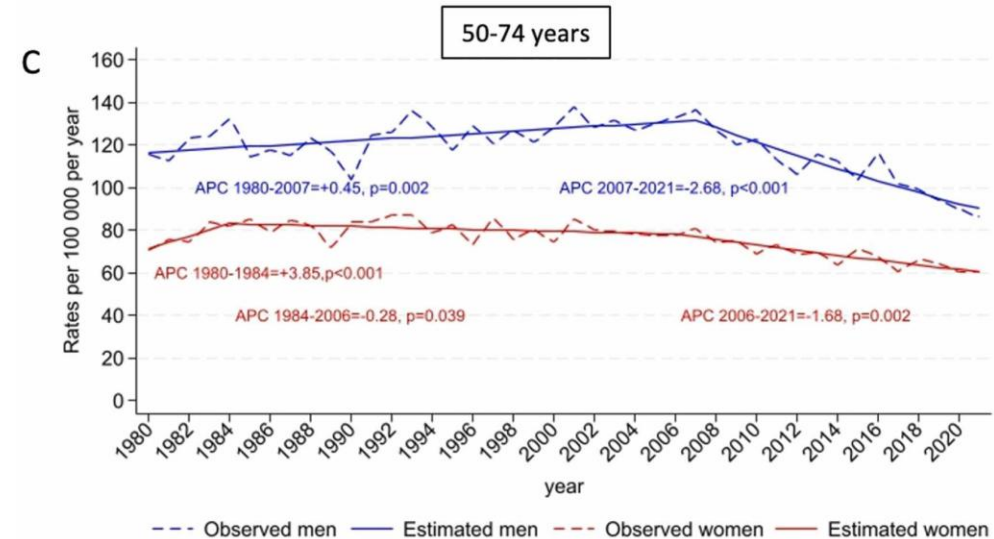
Cancer colorectal < 50 ans: Incidence et Mortalité 1990-2019



→ ET EN SUISSE ?



Ca rectum
 Ca colon dr chez la femme
 Stades plus avancés

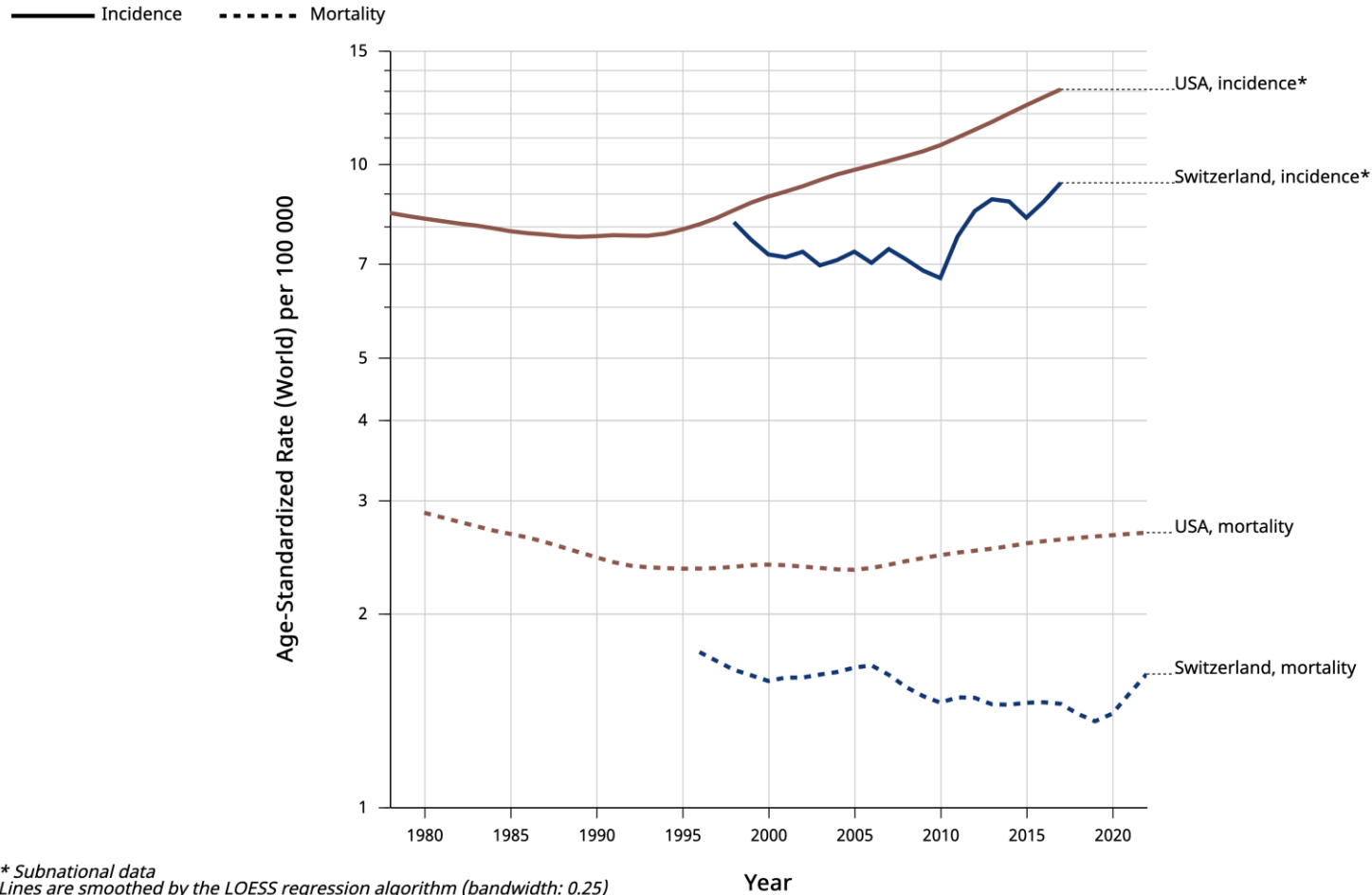


→ ET EN SUISSE ?

Age-standardized rate (World) per 100 000, incidence and mortality, both sexes, age [20-49]

Colon + Rectum and anus

Switzerland* - USA*



* Subnational data

Lines are smoothed by the LOESS regression algorithm (bandwidth: 0.25)

Rates are shown on a semi-log scale

Cancer Over time | IARC - <https://gco.iarc.who.int/overtime>

Data version : Version 2.1

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International Agency
for Research on Cancer





l'Exposome,

EMPREINTE DES EXPOSITIONS AU COURS D'UNE VIE



INRAE

© INRAE / Conception infographie : Michail Le Bourlaud / Novembre 2011

Evolutions clés depuis le milieu du 20^e siècle

• Obésité / Excès pondéral

- En forte augmentation à l'échelle mondiale.
- Résultat d'un déséquilibre énergétique (alimentation + sédentarité).

• Régime alimentaire

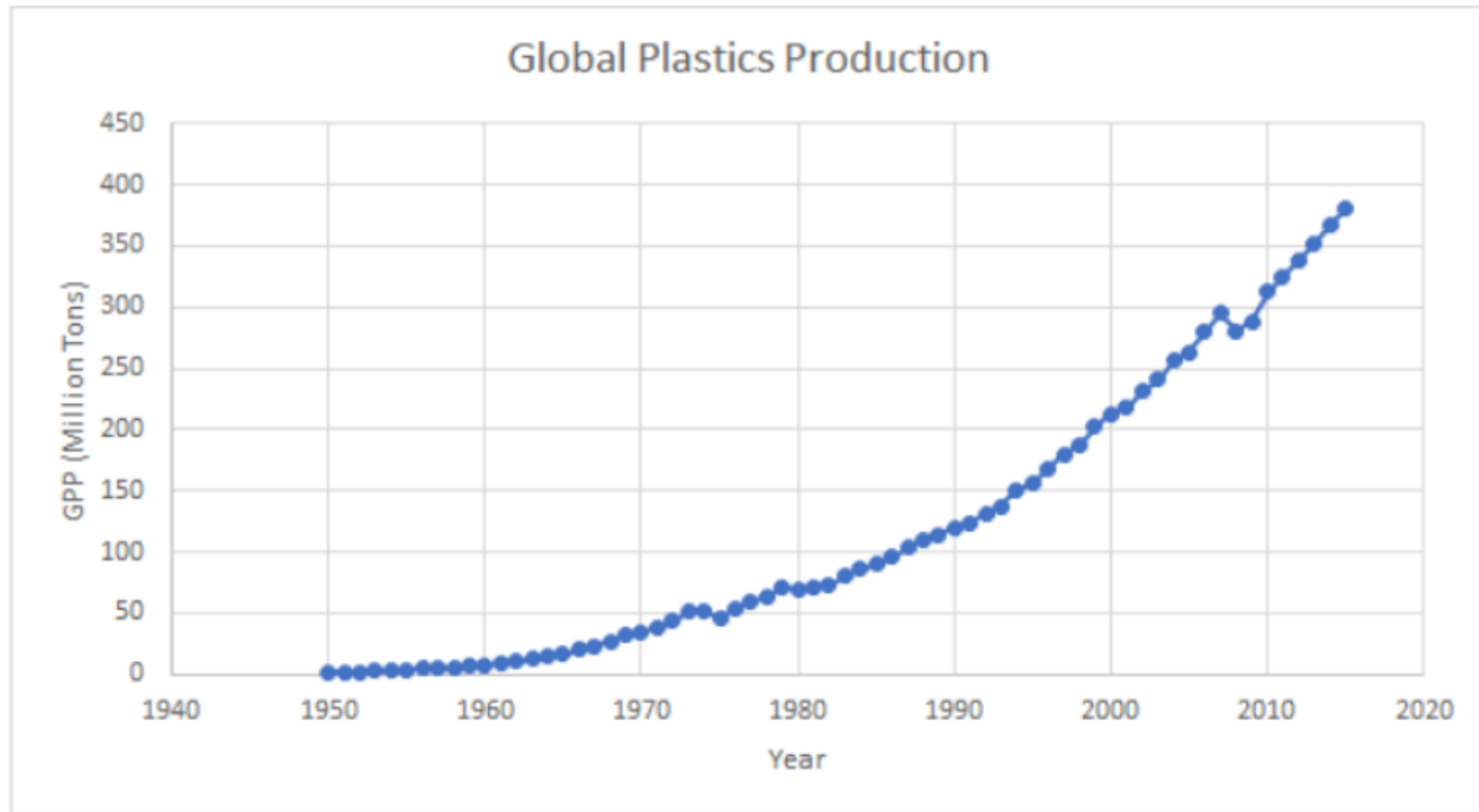
- Viandes rouges et transformées, aliments ultra-transformés, boissons sucrées.
- Moins de fruits, légumes, fibres

• Antibiotiques & microbiome

- Usage accru d'antibiotiques.
- Perturbation du microbiote intestinal (dysbiose).
- Production de toxines bactériennes (ex. colibactine)

• Expositions chimiques & environnementales

- Expositions précoces (prénatales, enfance).
- Micro- et nano-plastiques omniprésents.
- Polluants persistants comme les PFAS et autres produits chimiques industriels.



OurWorld in Data. 2018. Available online: <https://ourworldindata.org/plastic-pollution?>

Table 2 | History and use of environmental chemicals that have been implicated in colorectal cancer

Chemical	Global history	Commercial and industrial use	Examples
Pesticides	Synthetic pesticides first developed in 1940s; used extensively in World War II to limit spread of insect-borne diseases; worldwide ban in effect since 2004	Insect control in crop and livestock production, homes and gardens; combat of insect-borne diseases in the military	DDT, chlordane, heptachlor
Polychlorinated biphenyls	First synthesized in late 1800s; manufactured in USA from 1929 until ban in 1979; worldwide ban in effect since 2004	Electrical and hydraulic equipment; plasticizers in paints and plastics; adhesives; carbonless copy paper	Aroclor, Kanechlor, clophen
Dioxins (including dibenzo-p-dioxin and dibenzofuran)	Environmental toxicity first recognized in 1930s; EU set maximum levels in 2001; emission standards in 2004	By-product of industrial processes, for example, waste incineration, chlorine bleaching of paper and pulp, manufacture of some pesticides and herbicides	TCDD in Agent Orange
Perfluorinated substances	First synthesized in 1920s; used in military and industrial applications; some restrictions in 2000s	Waterproof fabrics, non-stick coatings, fire-retardant foams	Perfluorooctanoic acid, perfluorooctane sulfonate
Polybrominated diphenyl ethers	First synthesized in 1920s; used in military and industrial applications; some restrictions in early 2000s; after voluntary phase-out in many countries	Flame retardants in plastics, textiles, electronics	Decabromodiphenyl ether
Bisphenol A	First synthesized in 1890s; widespread use began in 1950s; some restrictions on use or voluntary phase-out in baby bottles in USA and EU in 2010s	Plasticizers in polycarbonate plastics, epoxy resins (for example, in the lining of food cans)	BPA
Phthalates	First introduced in 1920s and increased after polyvinylchloride became commercially available in 1931; some current restrictions on sale in USA, EU, Canada and Australia; some voluntary phase-out	Plasticizers in many products (for example, vinyl flooring, personal care products)	Benzoic acid, phthalic acid
Disinfection by-products	First discovered in 1974 in chlorinated drinking water; maximum allowable concentrations regulated in the USA in 1979 and in the EU in the 1990s	By-product of water treatment processes, formed when chlorine reacts with naturally occurring matter in water	Trihalomethanes, haloacetic acids, bromate, chlorite

DDT, dichlorodiphenyltrichloroethane; NA, not applicable; TCDD, 2,3,7,8-tetrachlorodibenzo-p-dioxin.

> 60.000

TRES difficile de savoir qui est exposé à quoi et quand

Multifactoriel

Obésité de Cancers

Table 2. Strength of the Evidence for a Cancer-Preventive Effect of the Absence of Excess Body Fatness, According to Cancer Site or Type.*

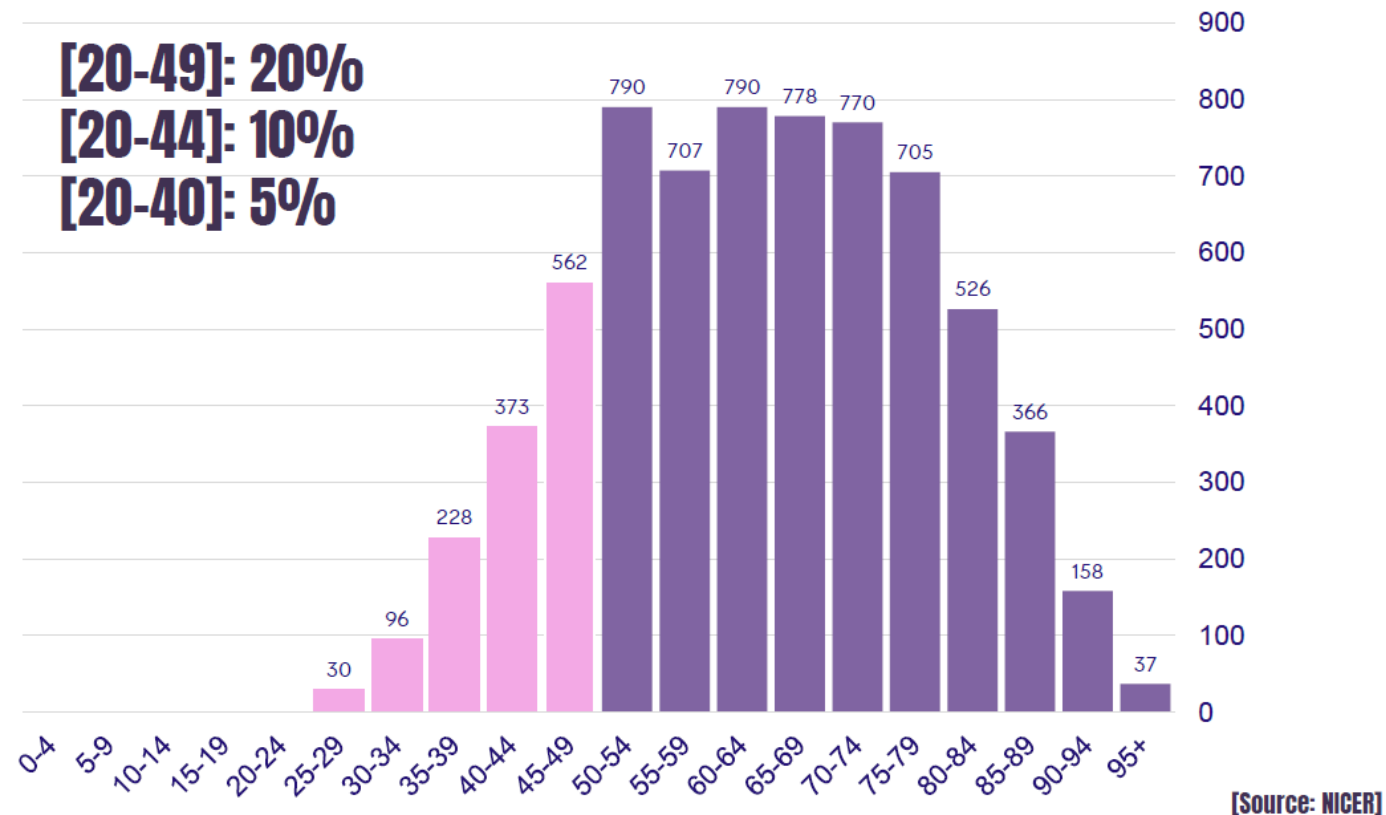
Cancer Site or Type	Strength of the Evidence in Humans†	Relative Risk of the Highest BMI Category Evaluated versus Normal BMI (95% CI)‡
Esophagus: adenocarcinoma	Sufficient	4.8 (3.0–7.7)
Gastric cardia	Sufficient	1.8 (1.3–2.5)
Colon and rectum	Sufficient	1.3 (1.3–1.4)
Liver	Sufficient	1.8 (1.6–2.1)
Gallbladder	Sufficient	1.3 (1.2–1.4)
Pancreas	Sufficient	1.5 (1.2–1.8)
Breast: postmenopausal	Sufficient	1.1 (1.1–1.2)§
Corpus uteri	Sufficient	7.1 (6.3–8.1)
Ovary	Sufficient	1.1 (1.1–1.2)
Kidney: renal-cell	Sufficient	1.8 (1.7–1.9)
Meningioma	Sufficient	1.5 (1.3–1.8)
Thyroid	Sufficient	1.1 (1.0–1.1)§
Multiple myeloma	Sufficient	1.5 (1.2–2.0)
Male breast cancer	Limited	NA
Fatal prostate cancer	Limited	NA
Diffuse large B-cell lymphoma	Limited	NA

Cancer colorectal en CH < 50 ans

- En pratique
 - Tests génétiques renforcés
 - Information sur les symptômes “Redflag”
 - Prévention
 - Dépistage (?)

Et le(s) cancer(s) du sein ?

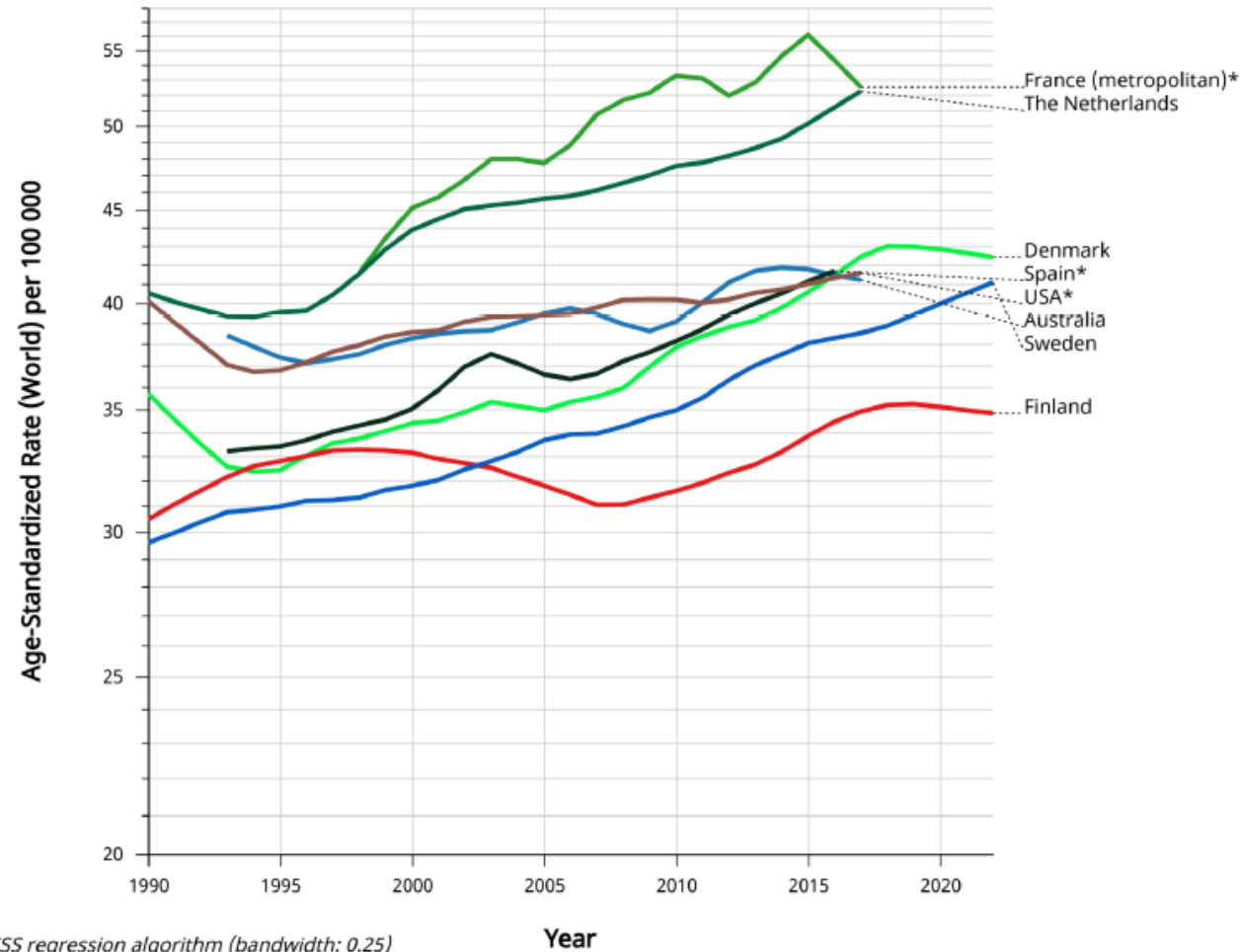
DISTRIBUTION PAR AGE, SUISSE



Age-standardized rate (World) per 100 000, incidence, females, age [20-44]

Breast

Australia - Denmark - Finland - France (metropolitan)* - The Netherlands - Spain* - Sweden - USA*



* Subnational data

Lines are smoothed by the LOESS regression algorithm (bandwidth: 0.25)

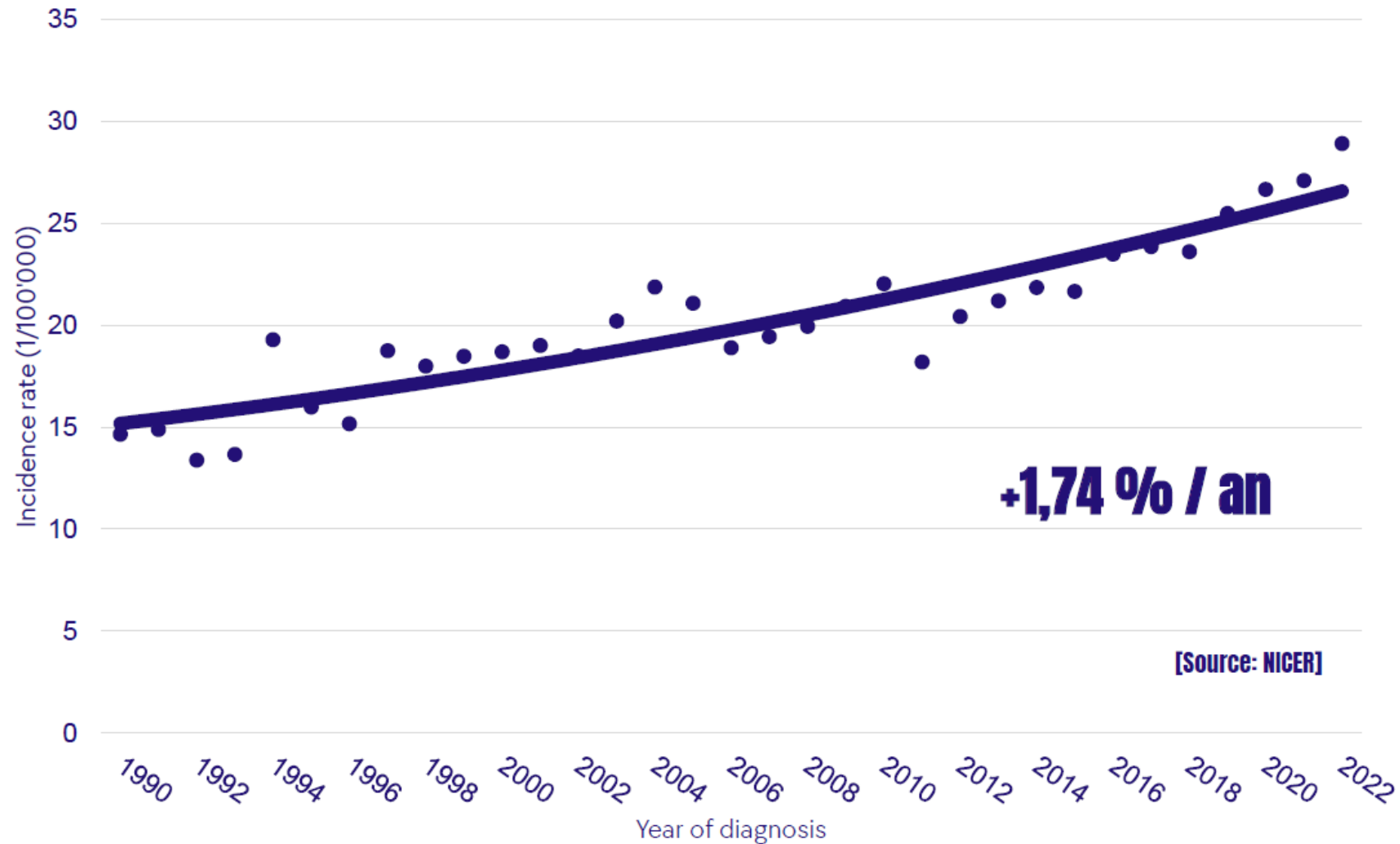
Rates are shown on a semi-log scale

Cancer Over time | IARC - <https://gco.iarc.who.int/overtime>

Data version : Version 2.1

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Incidence – Suisse - 15-39 ans



[Source: NIGER]

Courtesy Robin Schaffar RGT, UNIGE

Augmentation des Ca ER/PR +



Effet protecteur

Grossesse
20 ans versus 35



L'interdépendance des facteurs



Domaine très complexe, entre biais, émotions, croyance et manipulation

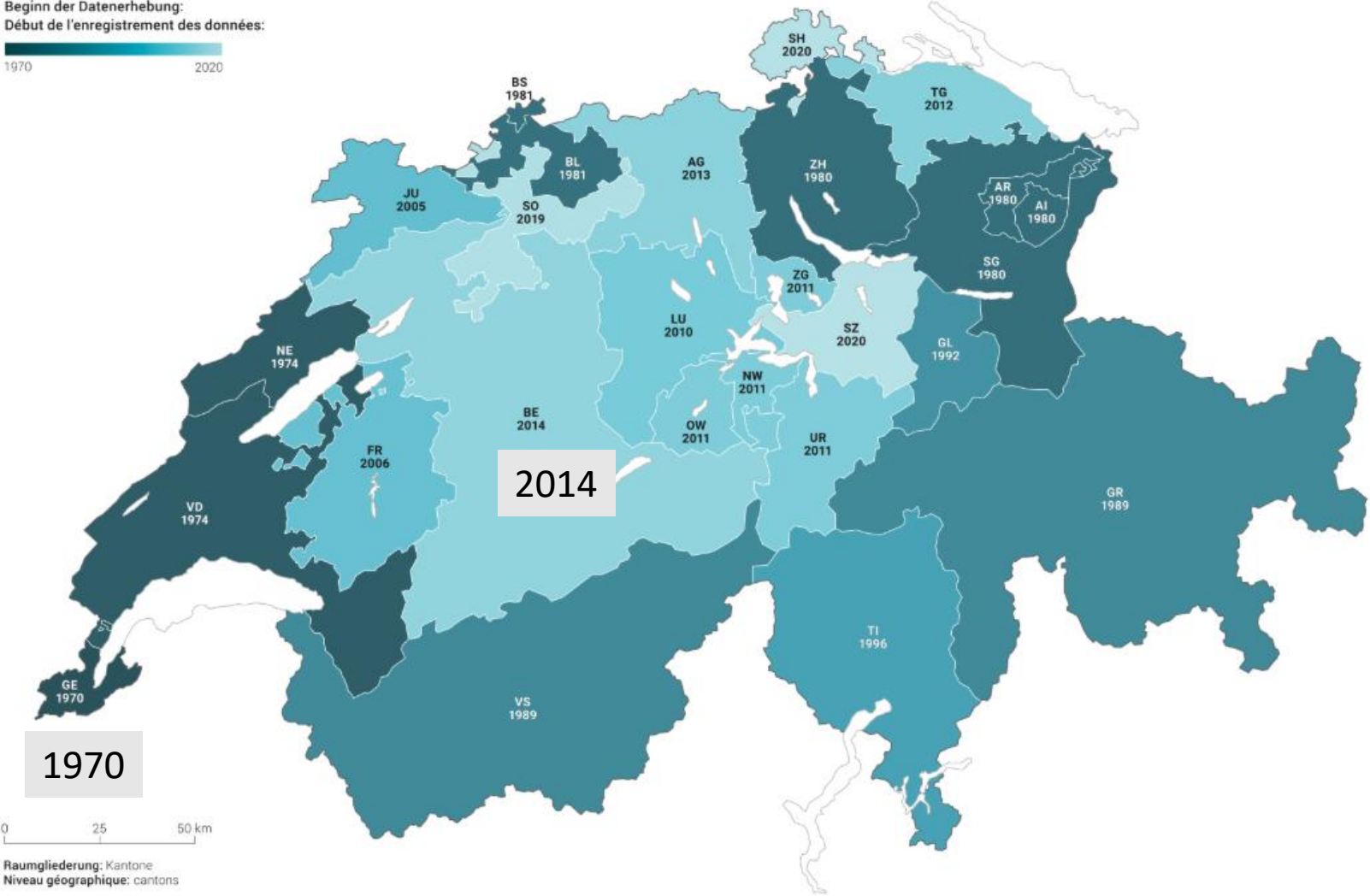
- Grande diversité des cancers
 - Même facteurs de risque
 - pour ca sein ER+ ER- , pré ou post ? NON
 - Pour colon droit et colon gauche ? Non etc etc
 - Est-ce que les cancers 20-30 sont les mêmes 40-50 ? Probablement non
- Différences géographiques, environnementales, génétiques, alimentaires etc
- Qualité de l'enregistrement

Continent		Population coverage (%)	Years available
	Countries / Territories		
Africa			
	Uganda	Subnational (6.9%)	1993-2017
Asia			
	Republic of Korea	National	1999-2017
	Japan	Subnational (9.8%)	1978-2015
	Israel	National	1963-2017
	Qatar	Subnational (11.1%)	2003-2017
	China	Subnational (1%)	2002-2017
	Kuwait	Subnational (37.9%)	1998-2017
	Türkiye	Subnational (8.2%)	1998-2017
	Philippines	Subnational (6.3%)	1983-2017
	Bahrain	Subnational (46.5%)	1998-2017
	Thailand	Subnational (8.4%)	1993-2017
	India	Subnational (0.4%)	2003-2017
Central & South America			
	USA, Puerto Rico	National	2003-2017
	France, Martinique	National	1993-2017
	Argentina	Subnational (4.2%)	2003-2017
	Chile	Subnational (2.2%)	1998-2017
	Colombia	Subnational (5%)	2003-2017
	Ecuador	Subnational (10.8%)	1985-2017
	Costa Rica	National	1982-2016
North America			
	USA	Subnational (12.6%)	1978-2017
	Canada	Subnational (76.3%)	1978-2017
Oceania			
	Australia	National	1993-2017
	New Zealand	National	1983-2017

Continent		Population coverage (%)	Years available
	Countries / Territories		
Europe			
	Norway	National	1953-2017
	The Netherlands	National	1989-2017
	Iceland	National	1955-2017
	Croatia	National	1988-2017
	Germany	Subnational (3.5%)	2003-2017
	Ireland	National	1994-2017
	UK, Northern Ireland	National	1993-2017
	UK, England	National	1971-2017
	UK, Wales	National	2003-2017
	UK, Scotland	National	1978-2017
	France	Subnational (9.4%)	1998-2017
	Switzerland	Subnational (32.3%)	1998-2017
	Denmark	National	1943-2017
	Czechia	National	1983-2017
	Spain	Subnational (19.4%)	1993-2016
	Slovenia	National	1983-2017
	Malta	National	1993-2017
	Sweden	National	1960-2017
	Austria	National	1998-2017
	Finland	National	1953-2017
	Estonia	National	1983-2017
	Belarus	National	1983-2017
	Italy	Subnational (4.5%)	2003-2017
	Cyprus	Subnational (71.5%)	1998-2017
	Poland	Subnational (3.4%)	1999-2017
	Lithuania	National	1988-2017
	Latvia	National	1983-2017

Kantonale Krebsregister: Beginn der Datenerhebung
Registres cantonaux des tumeurs: début de l'enregistrement des données

Beginn der Datenerhebung:
Début de l'enregistrement des données:



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Eidgenössisches Departement des Innern EDI
Département fédéral de l'intérieur DFI
Bundesamt für Statistik BFS
Office fédéral de la statistique OFS

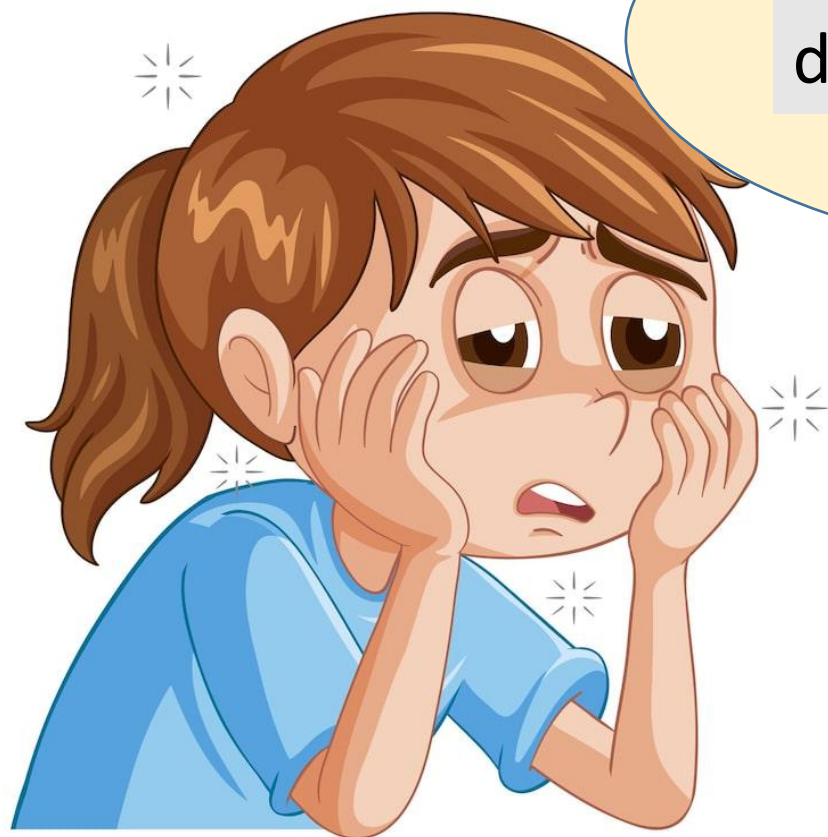
Quelle: NRS - KKR

Source: NRS - KKR

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© OFS, Themakart, Neuchâtel 2023 / KM05-01850-14-c-kant-2023-ef

Domaine très complexe, entre biais, émotions, croyance et manipulation

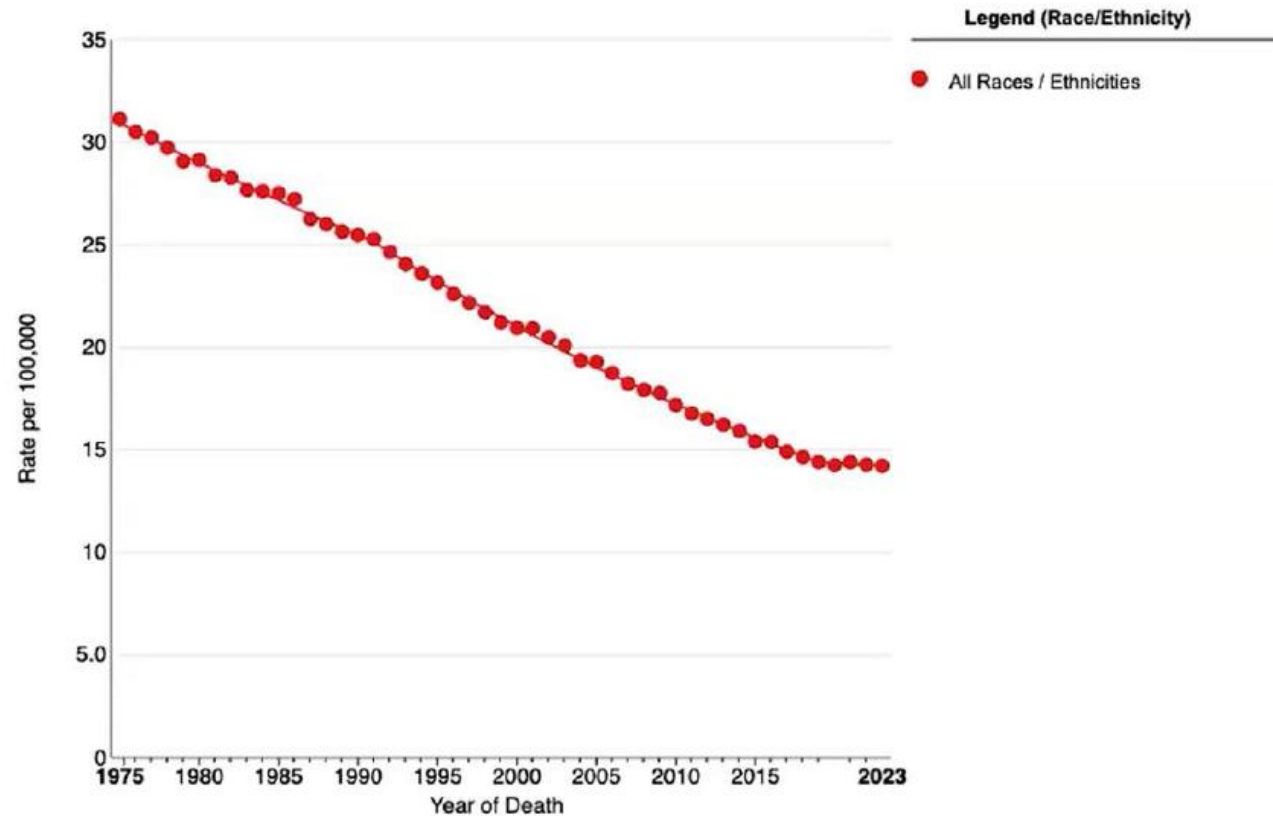
- Complexité et interdépendance de milliers de facteurs
 - Ex ca sein obésité facteur de risque post ménopause seulement
- Carcinogénèse = long multistep process !!!!! Comment analyser l'exposition aux plastiques, aux pesticides et aux antibiotiques de la vie in utero à 50 ans !!!!
- Association n'est pas causalité !!!!!
- Emotion !
- Conviction ! Croyance.... Complotisme.... Fake news et le pire ...ceux qui savent



Y a-t-il une épidémie
de cancers chez les jeunes ?

NON

All Cancer Sites Combined Long-Term Trends in U.S. Age-Adjusted Mortality Rates, 1975-2023 By Race/Ethnicity, Both Sexes, Ages < 50



Data Source:

- U.S. Mortality Data (1969-2023), National Center for Health Statistics, CDC.

Methodology:

- Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (20 age groups - Census P25-1130).
- The Annual Percent Change (APC) and Average Annual Percent Change (AAPC) estimates were calculated from the underlying rates using the Joinpoint Trend Analysis Software (<https://surveillance.cancer.gov/joinpoint>), Version 5.4, April 2025, National Cancer Institute using the default settings.
- The APC's/AAPC's direction is "Rising" (↑) when the entire 95% confidence interval (C.I.) is above 0, "Falling" (↓) when the entire 95% C.I. is lower than 0, otherwise, the trend is considered "Not Significant".

Race/Ethnicity Coding:

- For years prior to 1990, the Census Bureau has only provided county-level population estimates for White, Black, and Other races.

Cancer Site Coding:

- Cancer site cause of death is defined using the SEER Cause of Death Recode 1969+ (03/01/2018) (https://seer.cancer.gov/codrecode/1969_d03012018/index.html)

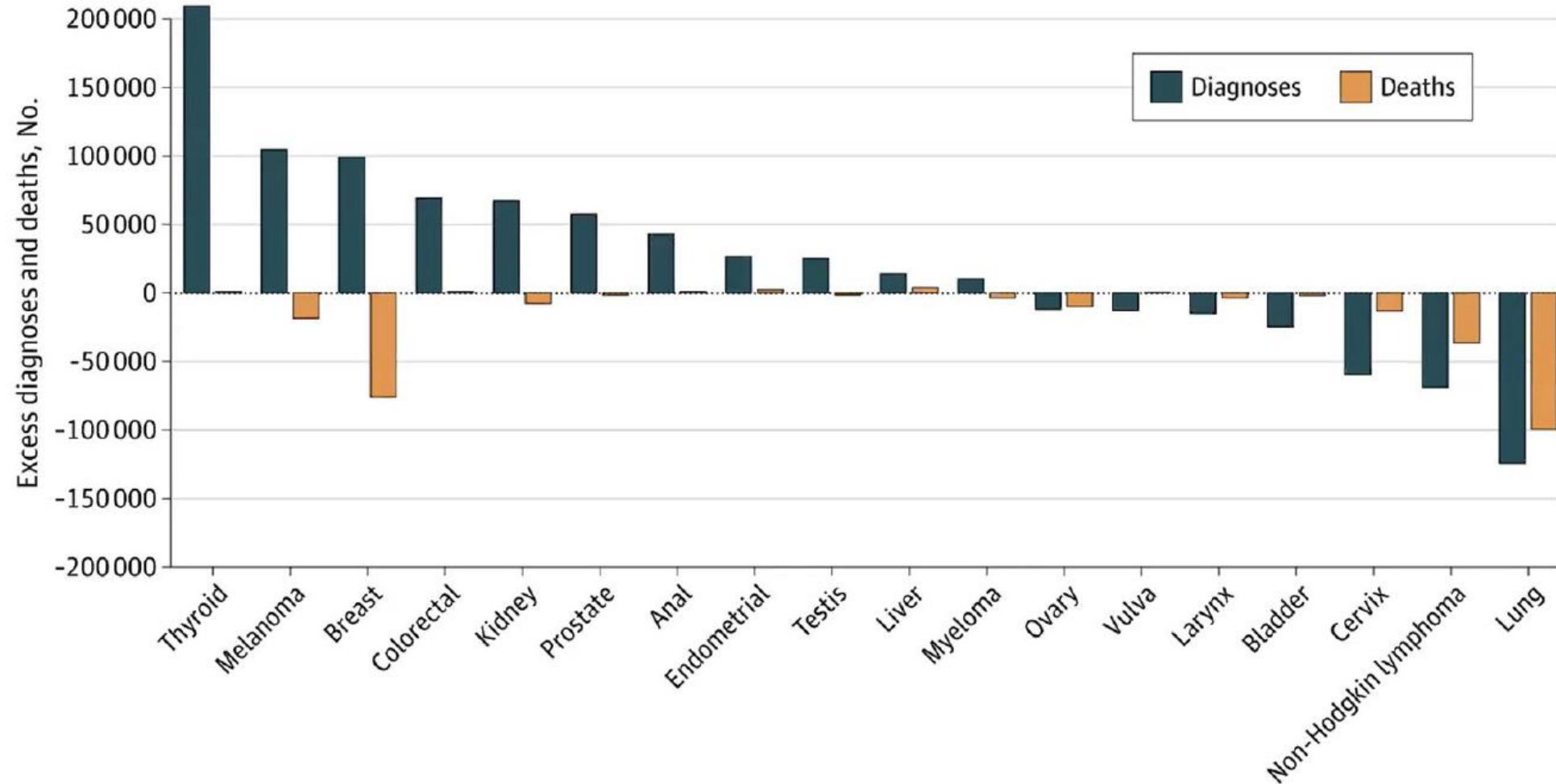
Created by <https://seer.cancer.gov/statistics-network/explorer/> on Sun Nov 02 2025.

Conséquences sur les système de santé ?

- pas de message anxiogène
- Importance de la réadaptation pour les jeunes
- Prévention

Il y a néanmoins de signaux d'alerte ET des signaux encourageants

Figure 3. Excess Cancer Diagnoses and Deaths Since 1992 for US Adults Younger Than 50 Years by Site



Que faire ? Pas de message anxiogène

- Source d'hyperconsommation médicale
- Source d'exploitation commerciale et malfaisante

We Tried It: The Full-Body Scan Celebrities Love

Prenuvo offers an in-depth look into your health — there's a hefty price tag, but is it worth it?

By [Sheila Cosgrove Baylis](#) | Updated on June 8, 2023 03:51PM EDT



Maria Menounos at Prenuvo.

Credit : prenuvo



kimkardachian

machine. The preuvo full body scan has the ability to detect cancer and diseases such as aneurysms in its earliest stages, before symptoms arise. It was like getting a MRI for an hour with no radiation. It has really saved some of my friends lives and I just wanted to share [#NotAnAd](#).



nlh_qelle 5d

Ohh tyyy Kim ❤️

Reply



lovelymacierose 3w

I am literally calling them tomorrow! My father suffered an aneurysm rupture and I have to make sure I'm not at risk

Reply



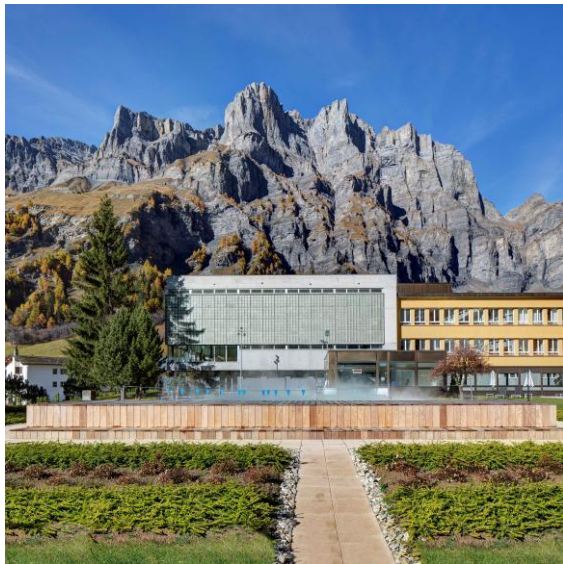
3,352,372 likes

Importance de la réadaptation «globale» chez les jeunes

- En plein développement personnel , familial et professionnel
- Enjeux plus complexes :
 - autonomie, fertilité, grossesse, toxicité à LONG terme
 - Santé mentale
 - Santé sexuelle
 - Retour au travail
- Toxicité financière très fréquente, précarité familiale,

Importance de la réadaptation «globale» chez les jeunes

- Réadaptation
 - Réadaptation physique , psychique
 - Changement mode de vie
 - promotion activité physique , nutrition plus saine
 - **Prévention** 2ème cancer et maladies cardiovasculaires



prévention

réadaptation