Effects of the Affordable Care Act on Access to Care and Cancer Prevention and Outcomes in the United States

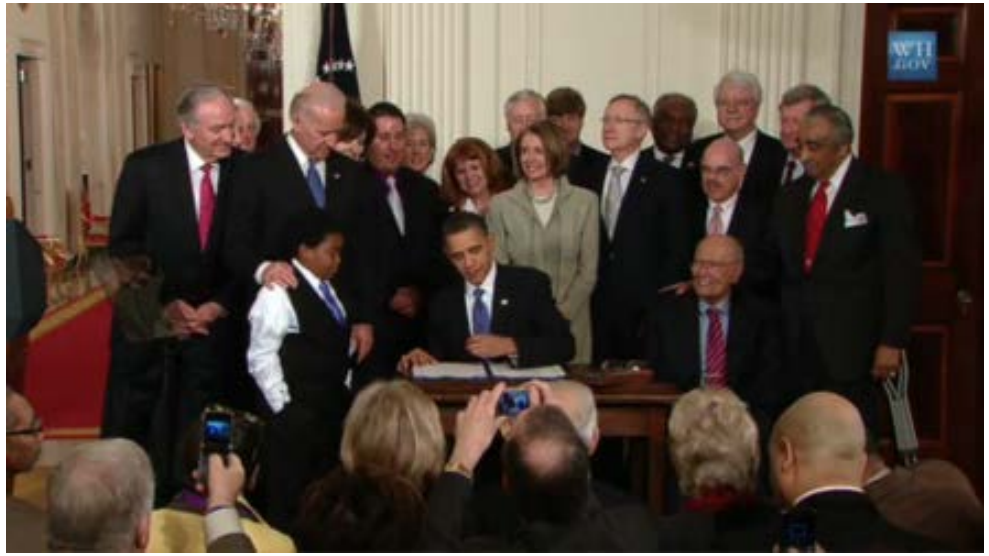
Ahmedin Jemal, DVM, PhD

World Cancer Congress
Kuala Lumpur, Malaysia
October 2, 2018

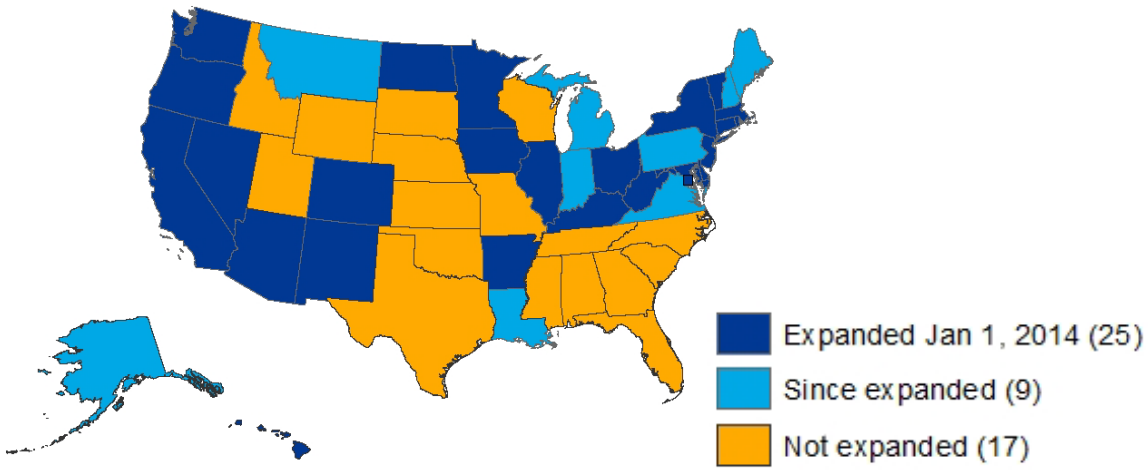
Sources of health care coverage in the United States

- Private (largely employer-based)
- Public
  - Medicare (≥65 years old)
  - Medicaid (poor individuals ≤65 years)
- Uninsured (50 million individuals in 2010)

Affordable Care Act (ACA)



State Medicaid Expansion Status



March 2010
Signed into law

- **Dependent coverage expansion**
- **Elimination of cost-sharing for preventive services**

January 1, 2014

JAMA The Journal of the American Medical Association

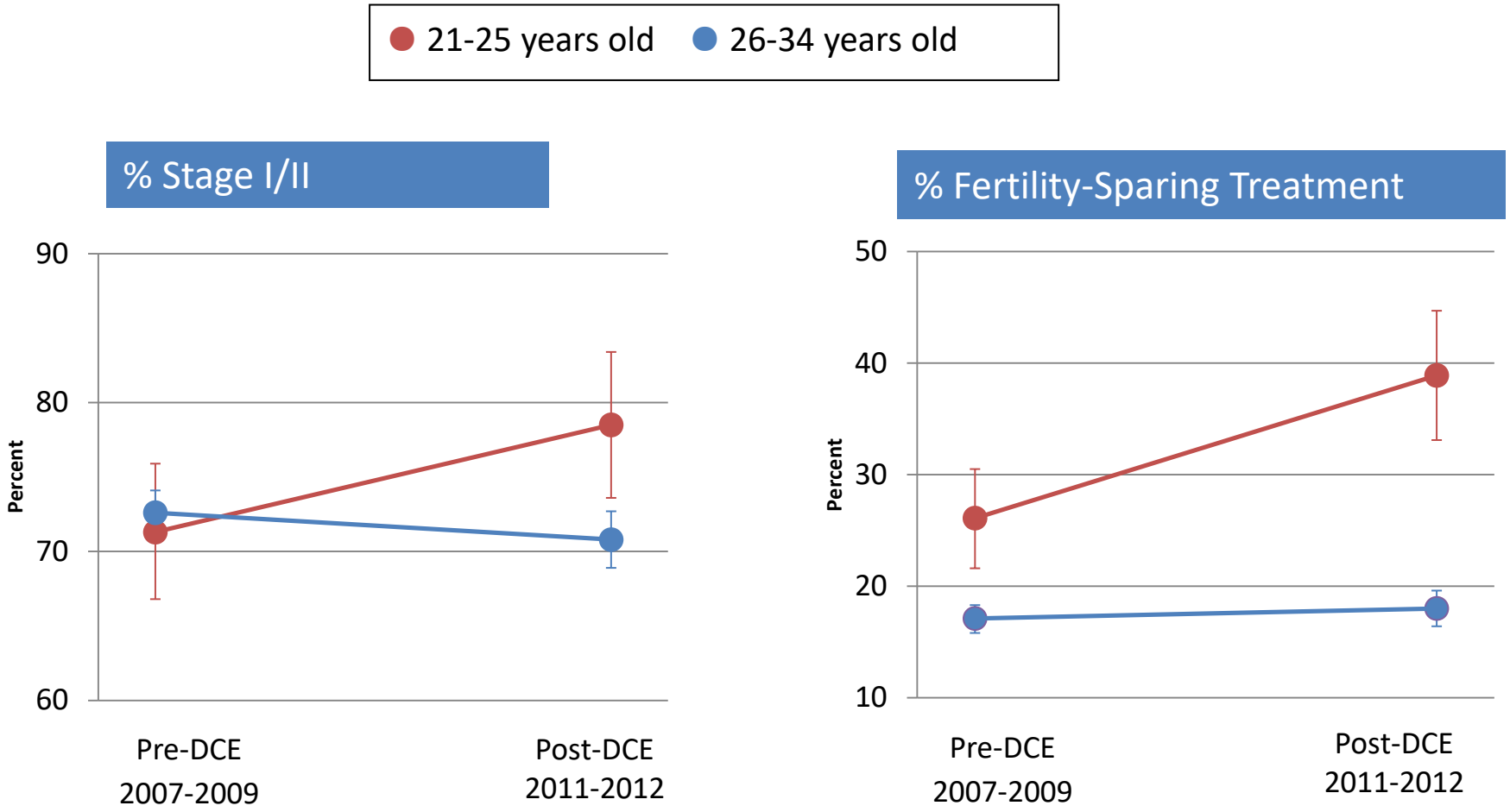
Research Letter | November 24, 2015

Association Between the Affordable Care Act Dependent Coverage Expansion and Cervical Cancer Stage and Treatment in Young Women

Anthony S. Robbins, MD, PhD[1]; Xuesong Han, PhD[1]; Elizabeth M. Ward, PhD[1]; Edgar P. Simard, PhD, MPH[2]; Zhiyuan Zheng, PhD[1]; Ahmedin Jemal, DVM, PhD[1]

- Study population
  - Women with first primary invasive cervical caner
  - Diagnosed in 2007-2009 (pre-DCE) and 2011-2012 (post-DCE) periods
  - Age 21-25 (DCE-eligible) and age 26-34 (DCE-ineligible)
  - National Cancer Database, covers 70% of all US cases
- Outcomes
  - Early stage (I/II)
  - Receipt of fertility-sparing treatment (conization and cervictomy)

Changes in early-stage diagnosis and fertility-sparing treatment for cervical cancer in women age 21-25 years versus 26-34 years



Source: Robbins et al. 2015

The JAMA Network

The New York Times

Rise in Early Cervical Cancer Detection Is Linked to Affordable Care Act

By SABRINA TAVERNISE NOV. 24, 2015

Shocking: Obamacare Linked to Early Cervical Cancer Detection in Young Women

Stassa Edwards
Filed to: WOMEN'S HEALTH 11/25/15 3:40pm

26,529 47

More early cervical cancer cases being detected under Affordable Care Act

New study finds higher rates of young women covered by parents' private insurance being diagnosed, treated earlier

Nov. 24, 2015 | By Diane Mapes / Fred Hutch News Service

Original Article

Elimination of Cost-Sharing and Receipt of Screening for Colorectal and Breast Cancer

Stacey A. Fedewa, MPH[1,2]; Michael Goodman, MD, MPH[2]; W. Dana Flanders, MD, DSc[1,2]; Xuesong Han, PhD[1]; Robert A. Smith, PhD[3]; Elizabeth M. Ward, PhD[1]; Chyke A. Doubeni, MD, MPH[4]; Ann Goding Sauer, MSPH[1]; and Ahmedin Jemal, DVM, PhD[1,2]

- Objective
  - Changes in up-to-date CRC and female breast cancer screening between 2008 (pre-ACA) and 2013 (post-ACA) in privately and Medicare insured adults by **income** using the National Health interview Survey
- Study participants
  - CRC screening: 15,786 men and women age 50-75
  - BC screening: 14,530 women age $\geq$40 years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Cancer
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JOURNAL OF CLINICAL ONCOLOGY

ORIGINAL REPORT

Changes in Insurance Coverage and Stage at Diagnosis Among Nonelderly Patients With Cancer After the Affordable Care Act

Ahmedin Jemal, Chun Chieh Lin, Amy J. Davidoff, and Xuesong Han

Author affiliations and support information (if applicable) appear at the end of this article.

Published at jco.org on XXXX, 2017.

A.J.D. and X.H. contributed equally to this work.

Corresponding author: Ahmedin Jemal, DVM, PhD, Surveillance and Health Services Research, American Cancer Society, 250 Williams St NW, Atlanta, GA 30303; e-mail: ahmedin.jemal@cancer.org.

ABSTRACT

Purpose

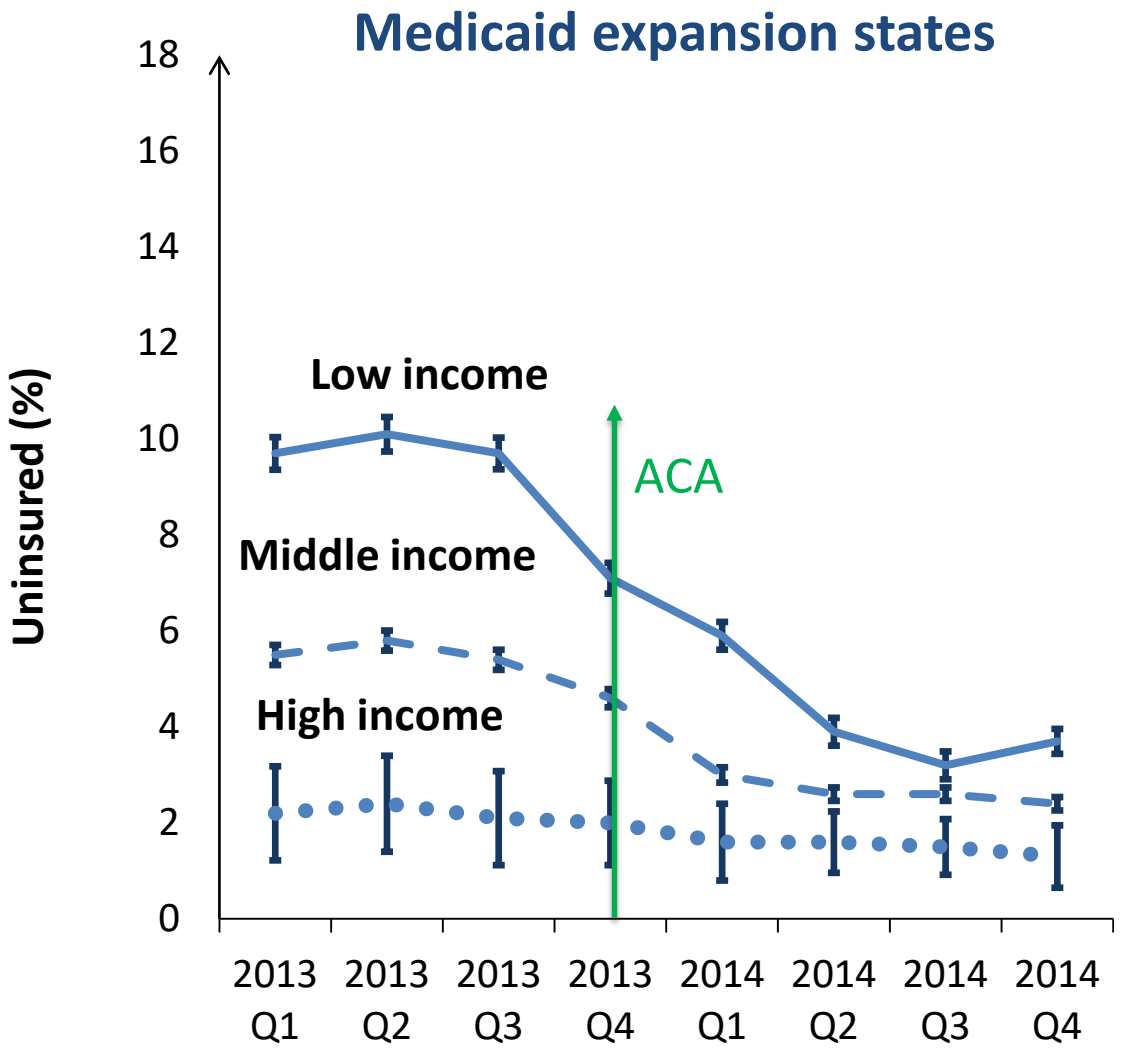
To examine change in the percent uninsured and early-stage diagnosis among nonelderly patients with newly diagnosed cancer after the Affordable Care Act (ACA).

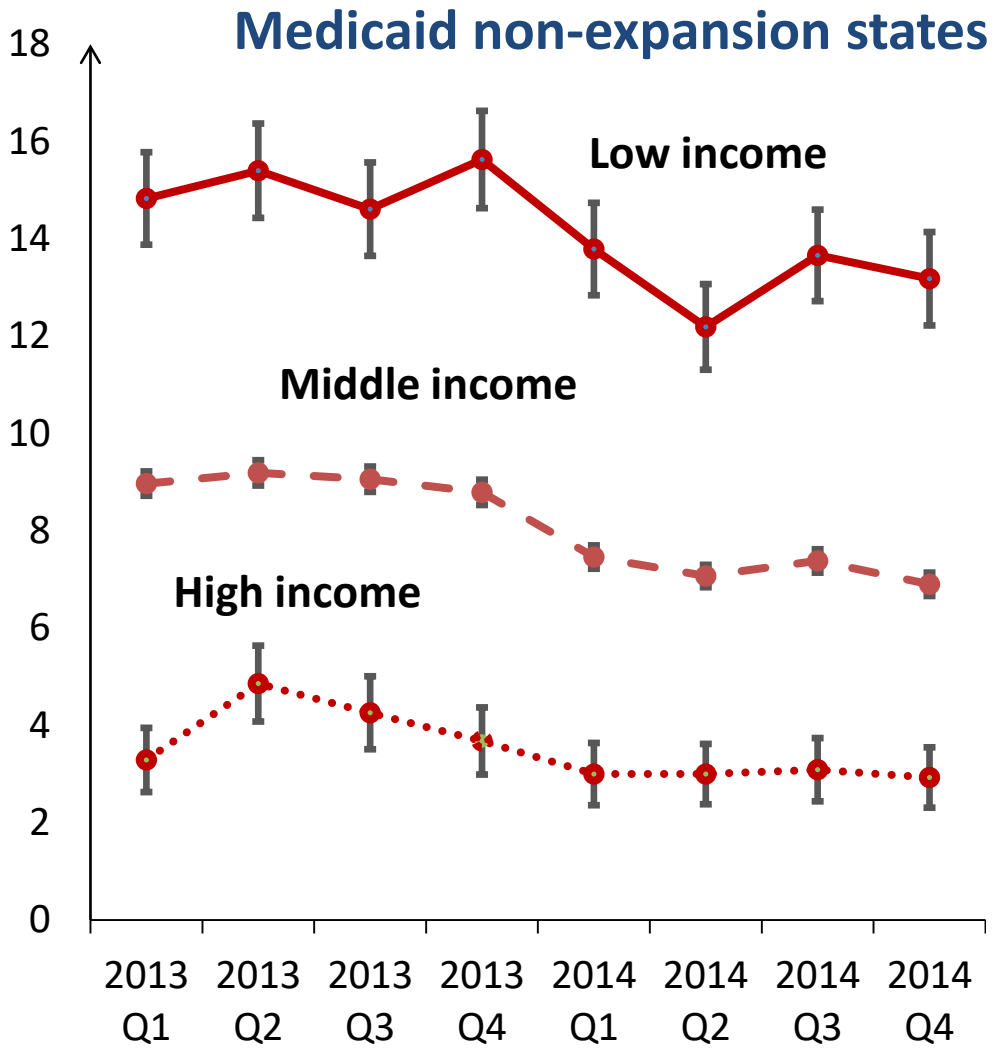
Patients and Methods

By using the National Cancer Data Base, we estimated absolute change (APC) and relative change in percent uninsured among patients with newly diagnosed cancer age 18 to 64 years between 2011 to the third quarter of 2013 (pre-ACA implementation) and the second to fourth quarter of 2014 (post-ACA) in Medicaid expansion and nonexpansion states by family income level. We also examined demographics-adjusted difference in differences in APC between Medicaid expansion and non-

*Expansion states were defined as those that expanded by January 1, 2014

Trends in quarterly percent uninsured among nonelderly cancer patients by income and Medicaid expansion status, 2013-2014





Source: Jemal et al. JCO, 2017

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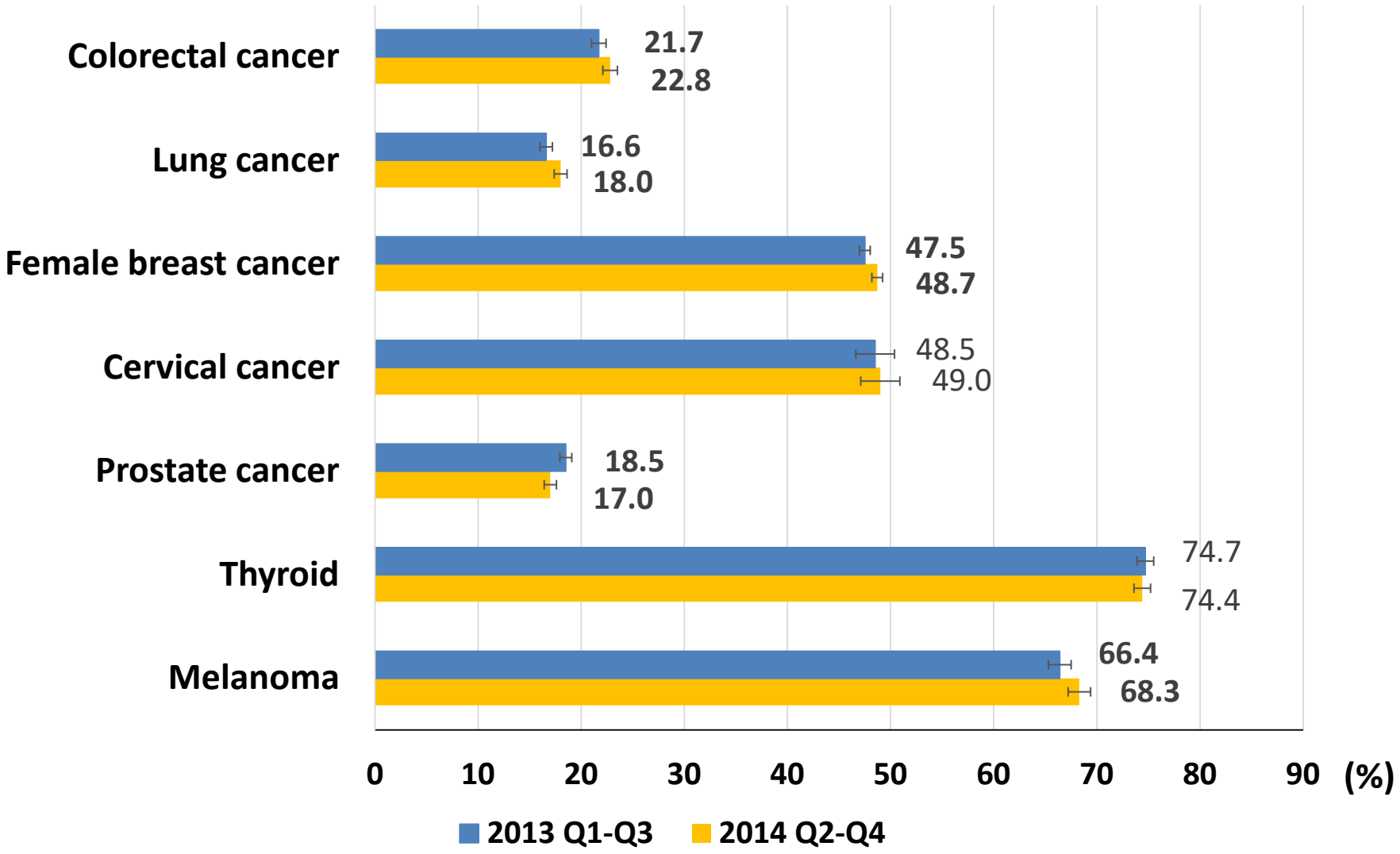
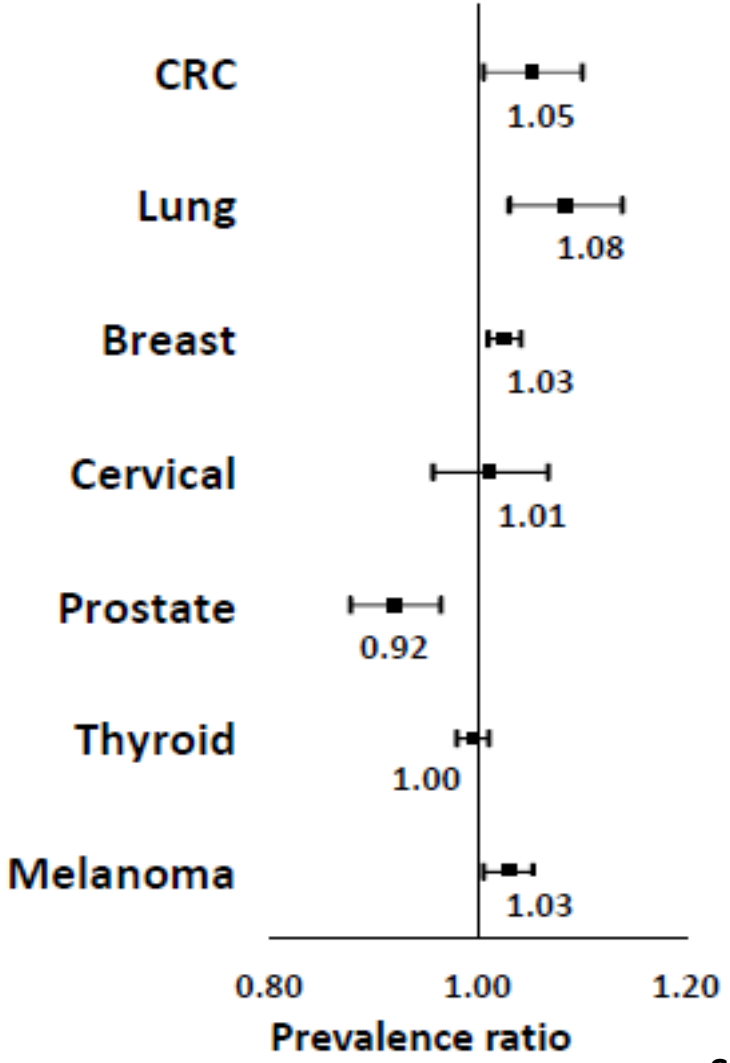
Proportion of stage I disease for select cancers in 2013 and 2014 in Medicaid-expansion states



Changes in proportion of stage I disease (2014 vs 2013) in expansion states



Source: Jemal et al. JCO, 2017

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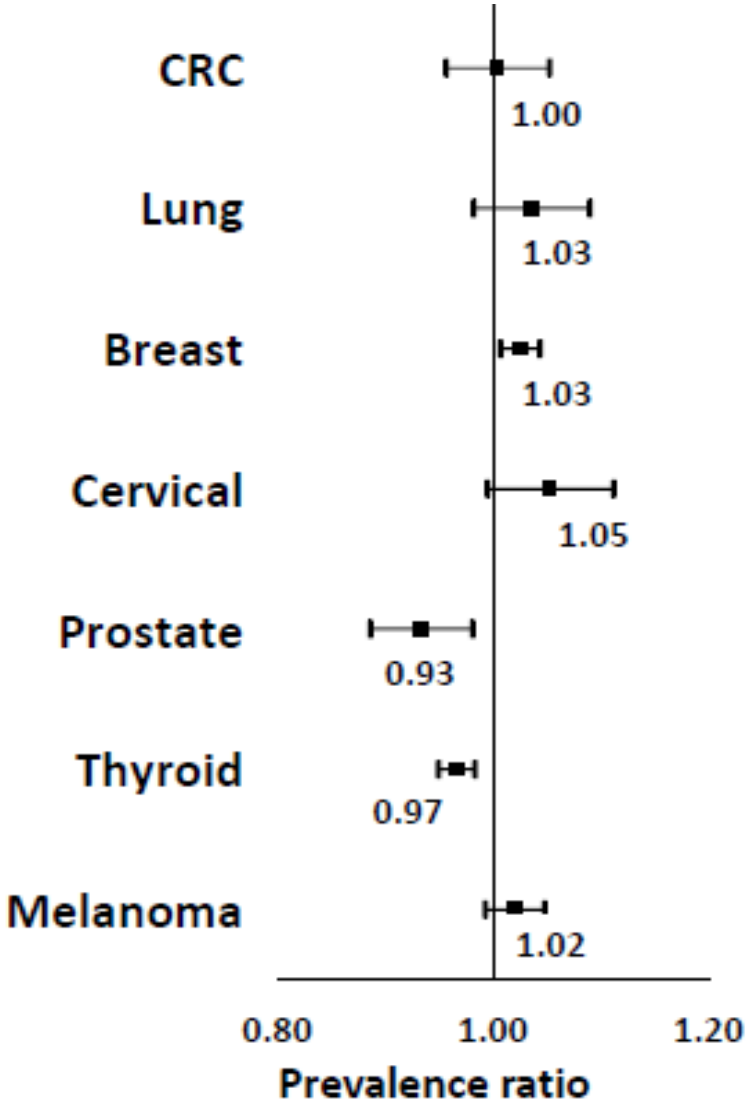
Changes in proportion of stage I disease (2014 vs 2013) in non-expansion states



Source: Jemal et al. JCO, 2017

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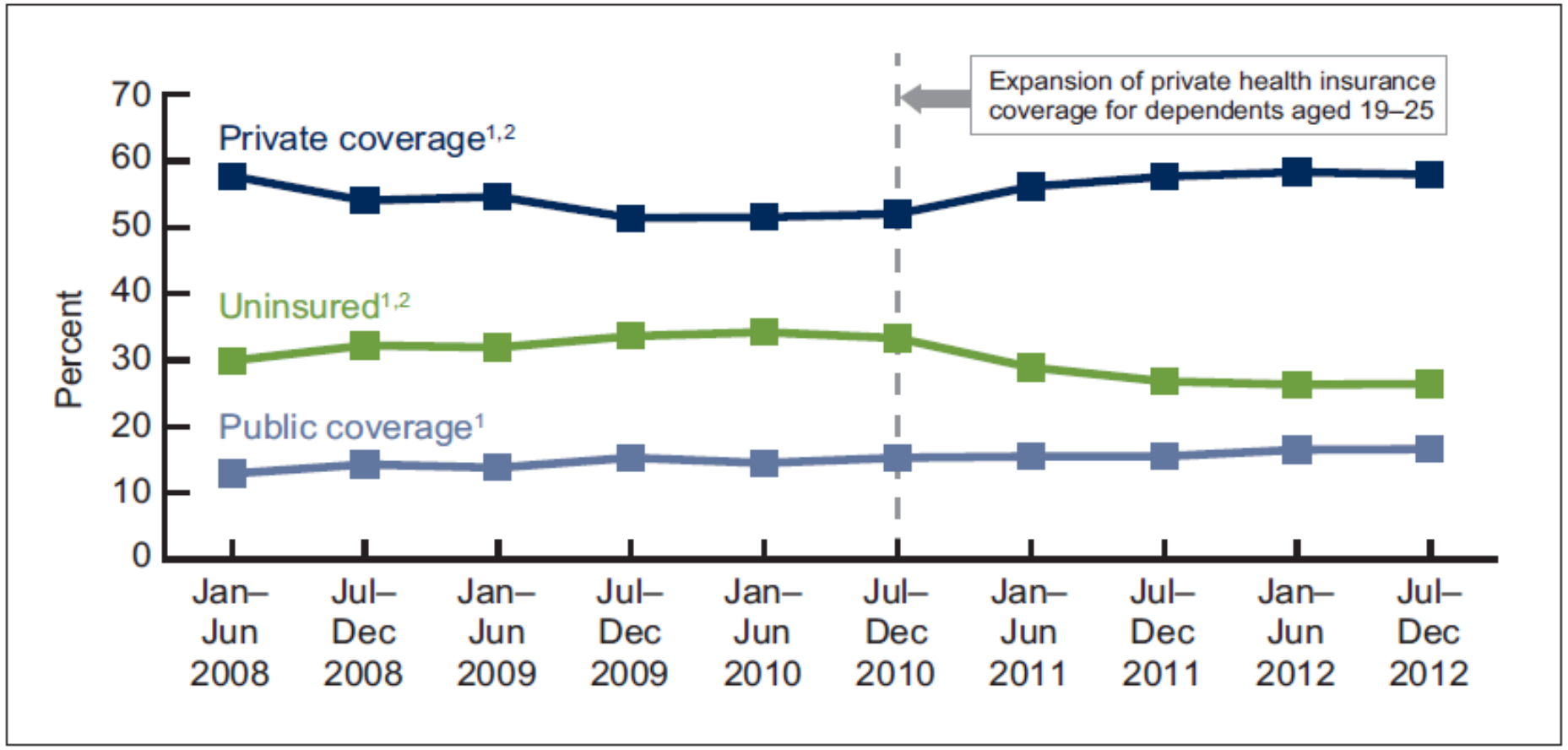
Conclusions

- The Affordable Care Act has improved access to care and cancer prevention and outcomes
- Reinforce the need for expansion of Medicaid for low-income people regardless of their residence
- Future studies should monitor the effects of the ACA on diminishing socioeconomic disparity in cancer mortality

Q&A

ajemal@cancer.org

Changes in insurance coverage in ages 19-25 years following expansion of dependent coverage, 2008-2012



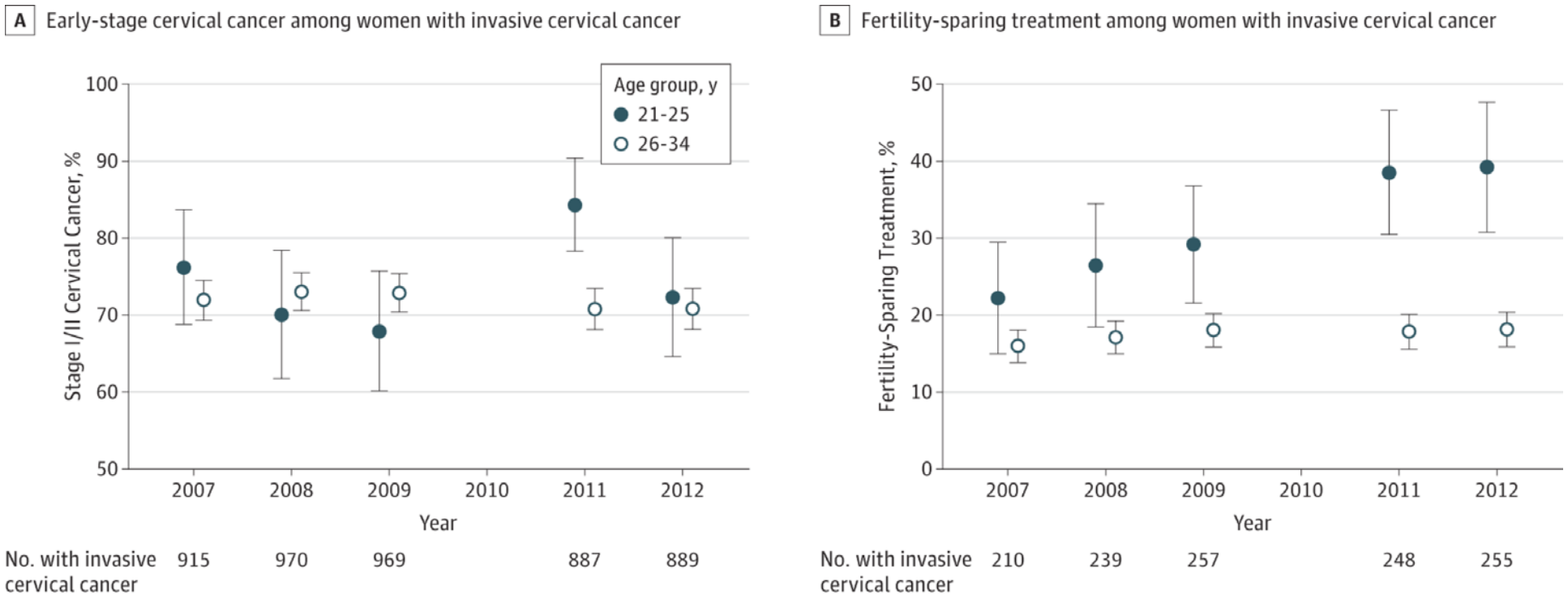
[1]Significant linear trend from January–June 2008 through July–December 2010 ($p < 0.05$).
[2]Significant linear trend from July–December 2010 through July–December 2012 ($p < 0.05$).
NOTE: Data are based on household interviews of a sample of the civilian noninstitutionalized population.
SOURCE: CDC/NCHS, National Health Interview Survey, 2008–2012.

Kirzinger et al. 2013 NCHS Data Brief

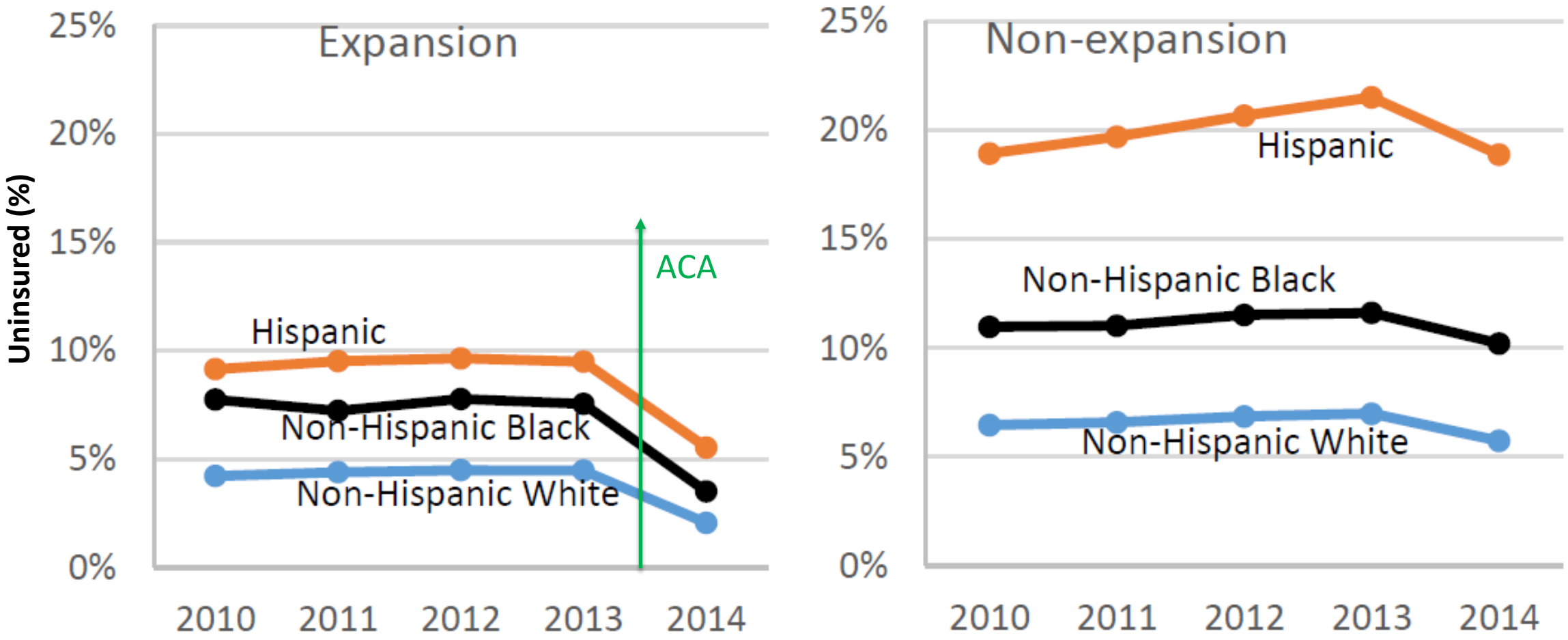
The JAMA Network

From: **Association Between the Affordable Care Act Dependent Coverage Expansion and Cervical Cancer Stage and Treatment in Young Women**

JAMA. 2015;314(20):2189-2191. doi:10.1001/jama.2015.10546

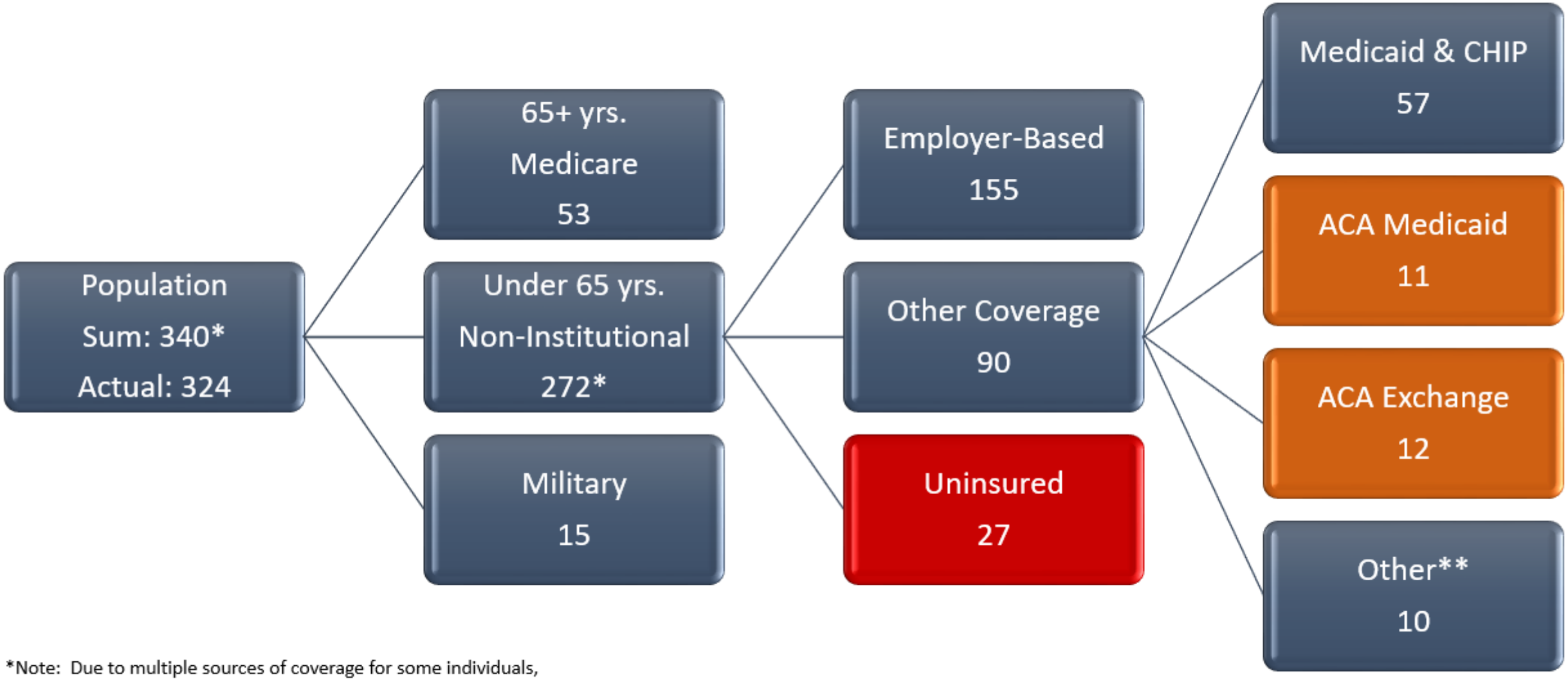


Changes in percent uninsured by race/ethnicity among newly diagnosed cancer patients following the ACA



Han et al. JAMA Oncol 2018

Sources of Health Insurance Coverage in 2016 (Millions of Persons)



*Note: Due to multiple sources of coverage for some individuals, there is some double-counting in the components. The actual U.S. population in December 2016 was approximately 324m.
**Other: The 10m was reduced to tie to the total for "Other Coverage" of 90m. "Other" includes 23m persons (9m non-ACA marketplaces, 9m disabled in Medicare, 5m other).

Source data:
CBO "Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2016 to 2026" (March 2016)
Census Bureau "Health Insurance Coverage in the United States: 2015 (September 2016)

National Cancer Center Japan

Inspiring the National Cancer Prevention Strategies in Japan

Strengthening, inspiring and delivering cancer prevention:
Translating research into policy

Manami Inoue, MD, PhD.
Chief, Division of Prevention,
Center for Public Health Sciences, National Cancer Center, Tokyo, Japan

World Cancer Congress 2018
Kuala Lumpur, Malaysia
October 1-4, 2018

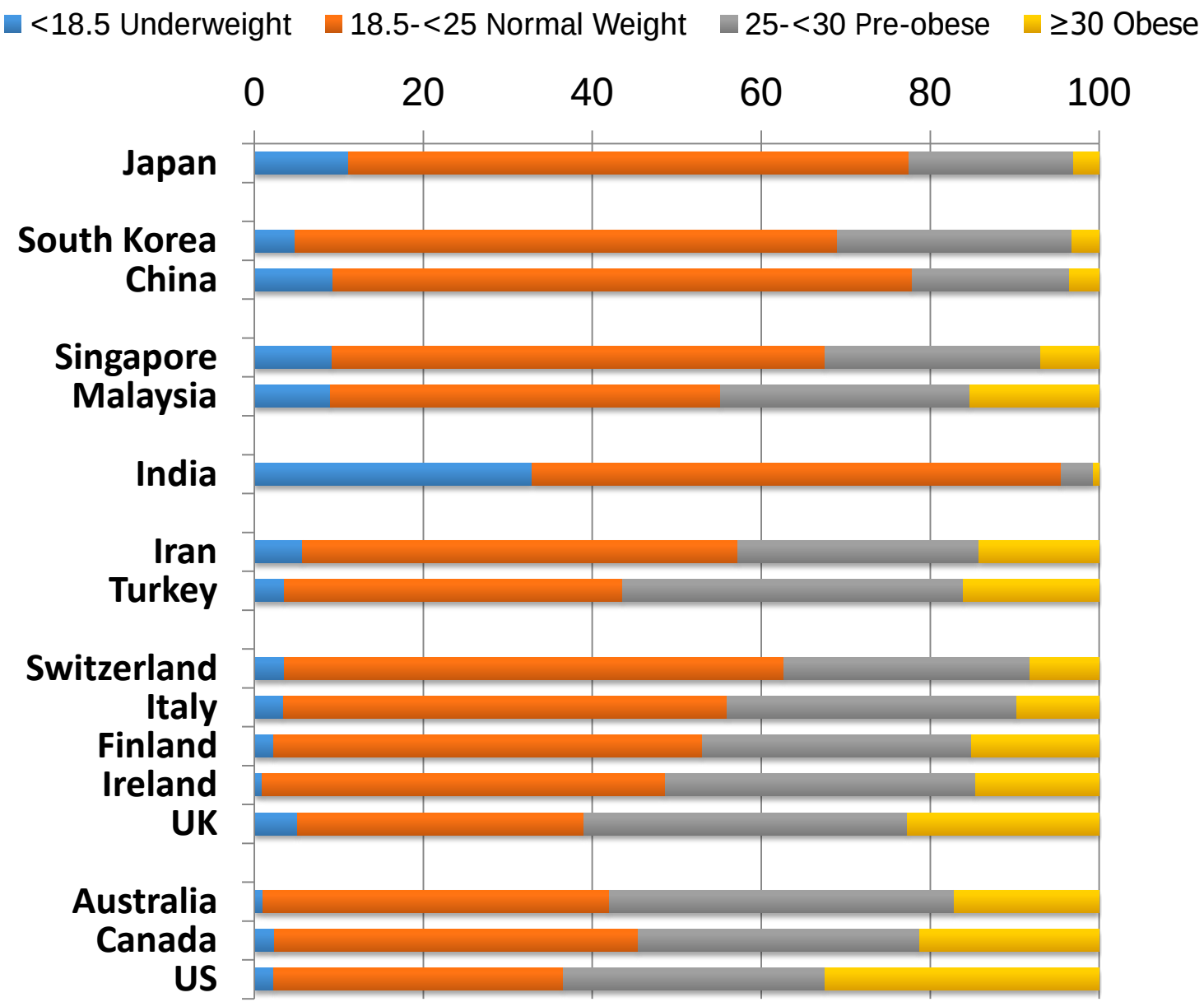
Disclosure of Interest: None Declared

Background

- Substantial differences in the pattern of cancer by geographical region.
  - Western countries and Asia

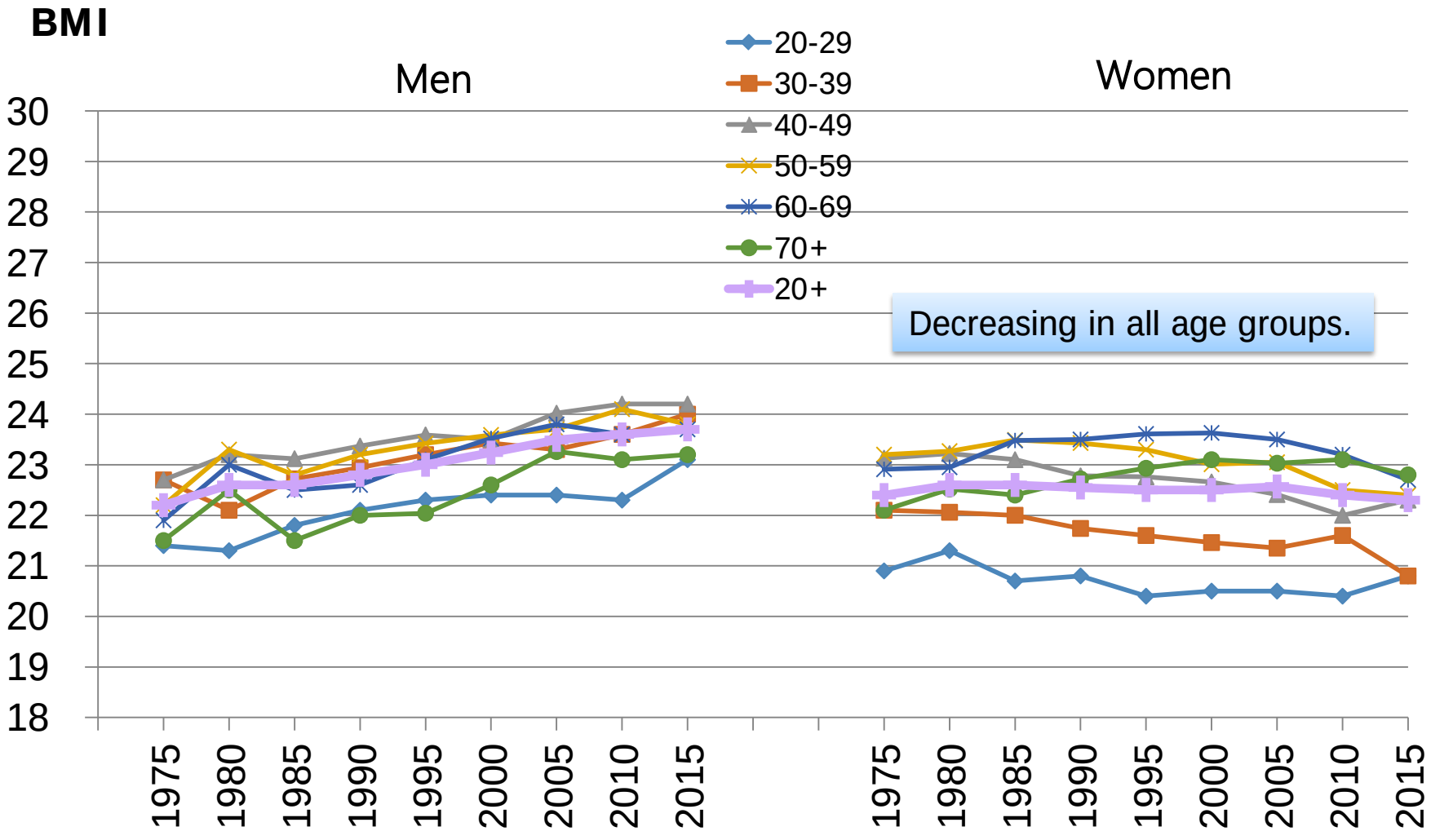
- Results from studies in Western populations tended to be applied to cancer control policies in Japan.

Distribution of BMI (Most recent)



(World Health Organization: Global database on Body mass index)

Trends in Body mass index in Japan by age



The National Health and Nutrition Survey, Japan

Cancer control policy nowadays

Cancer control policies must be tailored to reflect the local lifestyle, burden of cancer and characteristics of the local healthcare system!

The Most Comprehensive recommendations on lifestyle factors and cancer:

IARC, WHO/FAO, WCRF/AICR, CUP...

Research considered in these recommendations was mostly derived from Western Countries.

Supported by National Cancer Center Research and Development Fund

The Research group for the Development and Evaluation of Cancer Prevention Strategies in Japan

- Established in 2003, on-going
  - PI: Manami Inoue (2018-), Taichi Shimazu (2017), Shizuka Sasazuki (2012-16), Shoichiro Tsugane (2003-2011)

- The final goal:
  - Suggest lifestyle modification to have a definite effect on decreasing the incidence of cancer in Japanese.
  - Developing specific, easily implemented prevention methods aimed at modifying the behavior of individuals.

http://epi.ncc.go.jp/en/can_prev/index.html

Sasazuki S, Inoue M, Shimazu T, et al. Development and Evaluation of Cancer Prevention Strategies in Japan. Evidence-based cancer prevention recommendations for Japanese. Jpn J Clin Oncol. 2018 Jun 1;48(6):576-586.

Scientific Evidence!

Epidemiological Research

Public Health

Prevention
Health Policy
Practice

Frontline research → Translational Research → Application

Epidemiological study
Descriptive study
Cohort study
Case-control study
Intervention study

Risk assessment
Systematic reviews
Meta-analysis
Pooled analysis
PAF analysis

Dissemination & Implementation Research

Prevention methods and guidelines

Translational Research:
To bridge basic results of the investigation to practical application,
through a collaborative effort of the front line scientists
searching for causes of cancer and prevention methods.

Methods of Assessment

- Evidence from epidemiological studies among the Japanese population was compiled and organized using following processes:
  - Literature search and systematic review: qualitative evaluation
  - Meta-analysis or pooled analysis: quantitative analysis
    - **Japan Cohort Consortium (2006-)**

- Incorporate the results of the risk assessment with risks of non-cancer diseases and total mortality, as well as social concerns where necessary, and prepared a **Cancer Prevention Recommendation for Japanese.**

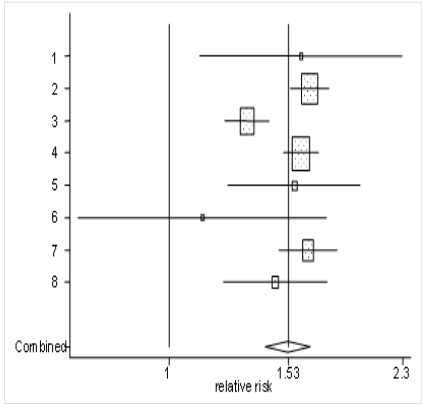
Systematic Reviews and Meta-analyses

Literatures from **Japanese** Populations

Figure 1. Tobacco smoking and total cancer among Japanese: cohort study.

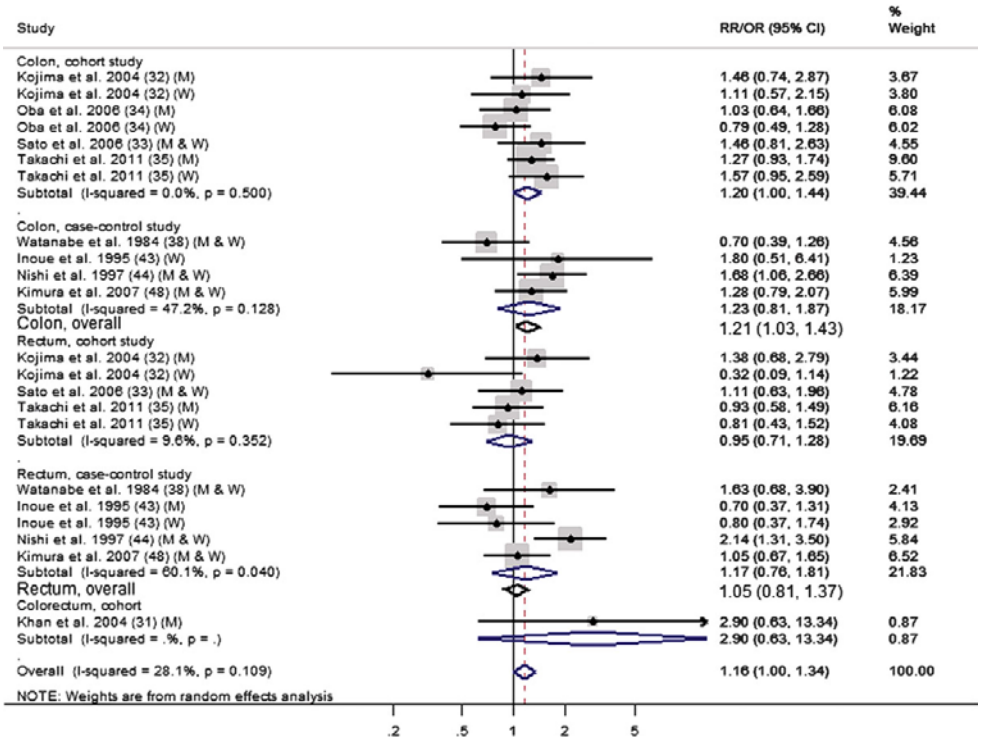
Figure 1. Summary estimates of the association between tobacco smoking and total cancer risk

No.	Study Author	Ref.	(Year)	Sex	Design	Event	Current smokers RR	(95%CI)	
1	Kono S	5	(1985)	M	CH	Death	1.60	(1.12- 2.30)	
2	Hirayama T	7	(1990)	M	CH	Death	1.65	(1.54- 1.77)	*
3	Hirayama T	7	(1990)	F	CH	Death	1.32	(1.22- 1.43)	*
4	Akiba S	8	(1994)	MF	CH	Incidence	1.60	(1.50- 1.70)	
5	Kawaminami K	11	(2003)	M	CH	Death	1.56	(1.23- 1.98)	**
6	Kawaminami K	11	(2003)	F	CH	Death	1.13	(0.72- 1.75)	**
7	Inoue M	12	(2004)	M	CH	Incidence	1.64	(1.48- 1.82)	
8	Inoue M	12	(2004)	F	CH	Incidence	1.46	(1.21- 1.75)	
	Summary estimates (Random effect model):					Total	1.53	(1.41- 1.65)	
	(Test for heterogeneity: Q=23.364 with df=7, p=0.001)								
						Men	1.64	(1.55- 1.73)	
						Women	1.34	(1.24- 1.43)	



Inoue M et al., Jpn J Clin Oncol 2005;35(7):404-11

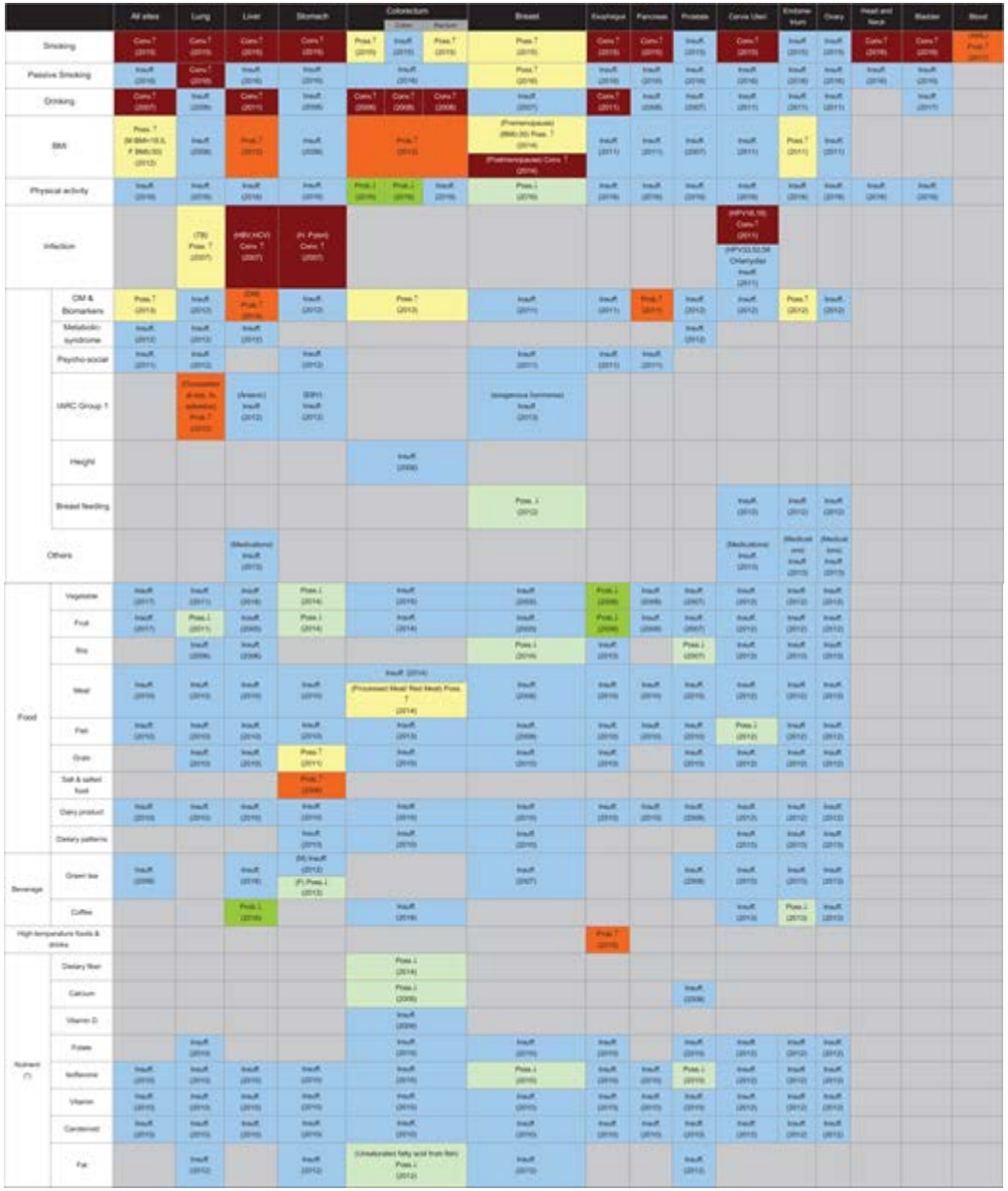
Figure 2. Red meat consumption (highest vs. lowest exposure category) and colorectal cancer among Japanese



Pham et al. Jpn J Clin Oncol. 2014

The Development and Evaluation of Cancer Prevention Strategies in Japan

Matrix



The strength of evidence linking lifestyle factors and infection to the risk of total and site-specific cancer among Japanese population (summary), as of 1 August 2017

Conv, convincing; Poss, possible; Insuff, insufficient; AML, acute myeloid leukemia; BMI, body mass index; M, male; F, female; TB, tuberculosis; HBV, hepatitis B virus; HCV, hepatitis C virus; HPV, human papilloma virus; DM, diabetes mellitus; IARC, International Agency for Research on Cancer; exp, exposure; EBV, Epstein-Barr virus. Figures in brackets indicate the decision year of the strength of evidence.

Jpn J Clin Oncol. 2018;48:576-586

Japan Cohort Consortium (2006-)

- Original data from major ongoing large-scale population-based cohort studies in Japan starting in the 1980s-1990s.
- Evaluate/quantify the association between lifestyle and major forms of cancer in Japanese.
- Ten cohort studies are currently involved, with 520,000 study participants in total.

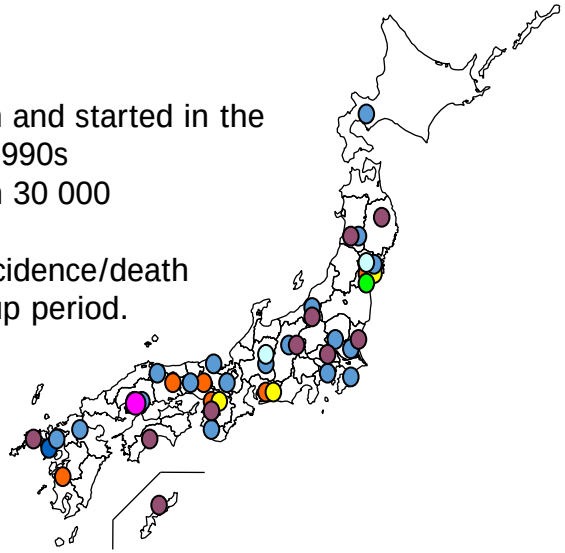
Cohort	Baseline Year	Number of subjects
JPHC-I	1990	61,595
JPHC-II	1993-1994	78,825
JACC	1988-1990	110,585
MIYAGI	1990	47,605
Ohsaki	1994	54,996
3-pref MIYAGI	1984	31,345
3-pref AICHI	1985	33,529
3-pref OHSAKA	1983-85	35,755
TAKAYAMA	1992	31,552
Life Span Study	1978, 1991	33,792
		Total 519,579

Publications

1. Yamagishi K. Fish intake and Aortic disease mortality. Clin Nutr 2018 in press.
2. Kashino I. Coffee and colorectal cancer. Int J Cancer. 2018;143:307-316.
3. Koyanagi YN. BMI and Pancreatic cancer. J Epidemiol. 2018;28:245-252.
4. Ugai T. Smoking and AML: Hematol Oncol. 2018;36:262-268.
5. Saito E. Smoking cessation and cancer risk. Cancer Epidemiol. 2017;51:98-108.
6. Takachi R. Fruit and vegetable and cancer risk. J Epidemiol. 2017;27:152-162.
7. Wakai K. Vegetables and fruit and lung cancer. Cancer Sci. 2015;106:1057-1065.
8. Shimazu T. Vegetable and fruit and gastric cancer. Ann Oncol. 2014;25:1228-1233.
9. Wada K. BMI and breast cancer. Ann Oncol. 2014;25:519-524.
10. Sasazuki S. Diabetes and cancer. Cancer Sci. 2013;104:1499-1507.
11. Shimazu T. Alcohol drinking and primary liver cancer. 2012;130:2645-2653.
12. Inoue M. Alcohol intake and mortality. J Epidemiol Community Health. 2012;66:448-456.
13. Matsuo K. BMI and colorectal cancer. Ann Oncol. 2012;23:479-490.
14. Sasazuki S. BMI and mortality. J Epidemiol. 2011;21:417-430.
15. Inoue M. Green tea and gastric cancer Gut. 2009;58:1323-1332.
16. Mizoue T. Alcohol drinking and colorectal cancer. Am J Epidemiol. 2008;167:1397-1406.

Inclusion criteria:

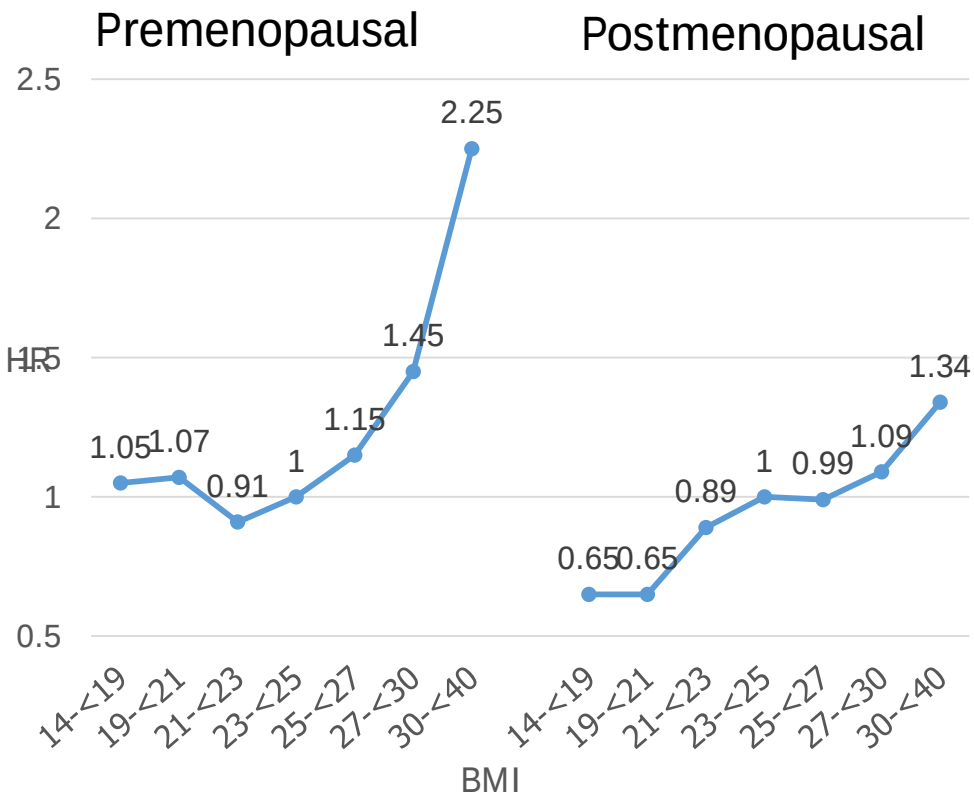
(1) Conducted in Japan and started in the mid-1980s to mid-1990s
(2) Included more than 30 000 participants
(3) Collected cancer incidence/death during the follow-up period.



BMI and Breast cancer risk

- pooled analysis of 8 Cohort studies in Japan- n=183,940

Risk increases both in premenopausal and in postmenopausal women



Wada K et al. Ann Oncol 2014; 25:519-524.

Alcohol intake and Colorectal Cancer

- Pooled analysis of 5 cohort studies in Japan- n=209763, 11 years of follow-up, 2802 Cases

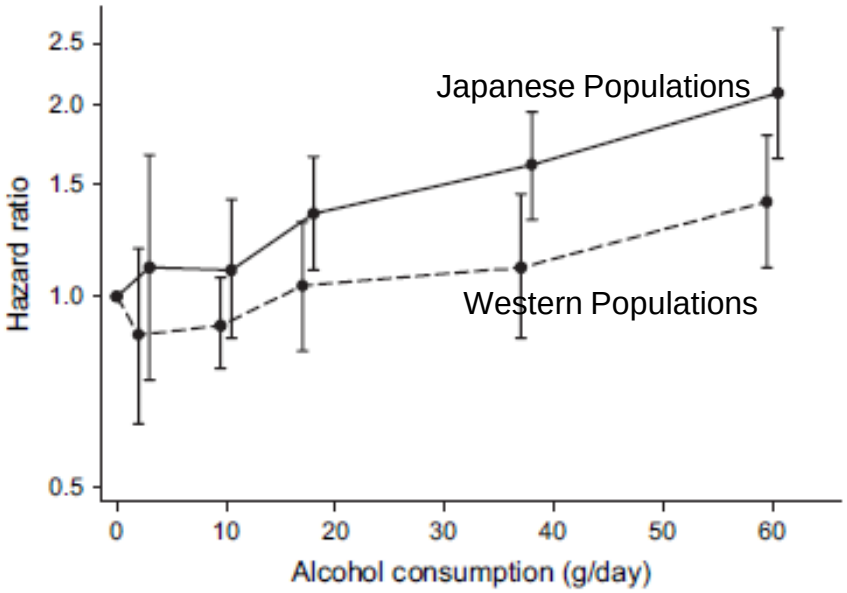


FIGURE 1. Hazard ratios for colorectal cancer by alcohol intake in Ja
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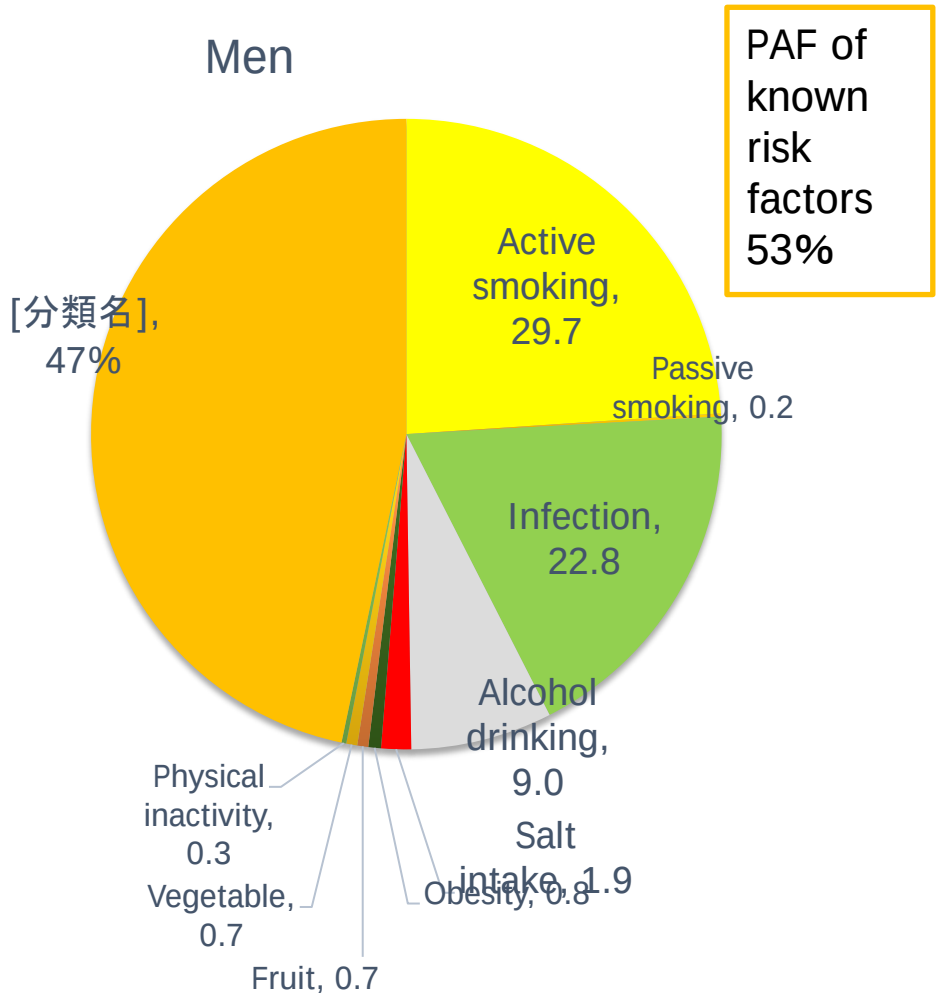
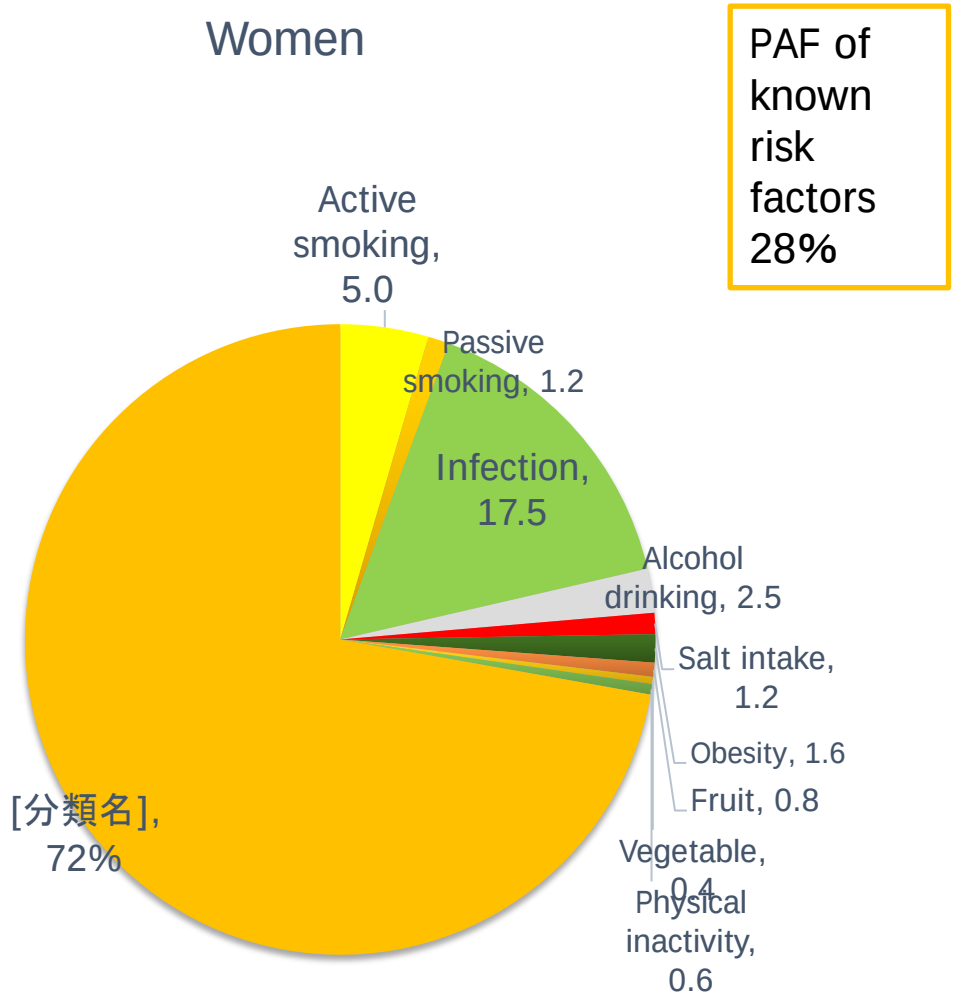
which a value of 60 was assigned. Bars, 95% confidence interval.

The association between alcohol drinking and colorectal cancer or colon cancer appears to be stronger in Japanese populations than in Western populations.

Mizoue T, et al. Am J Epidemiol; 2008;167:1397-1406.

Attributable Causes of Cancer in Japan, 2005 (Population Attributable Fraction %)





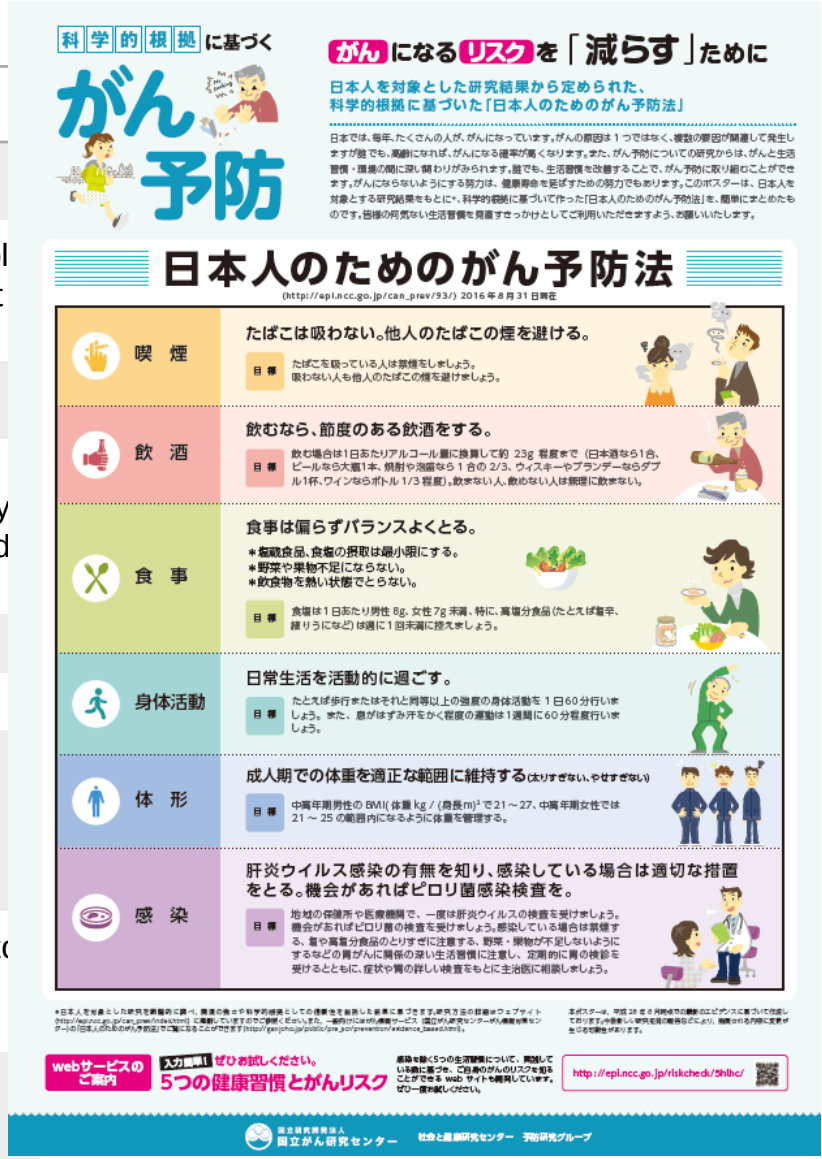
Smoking and Infection are the Two Major Factors

(Inoue M et al. Ann Oncol. 2012 May;23(5):1362-9)

http://epi.ncc.go.jp/en/can_prev/index.html

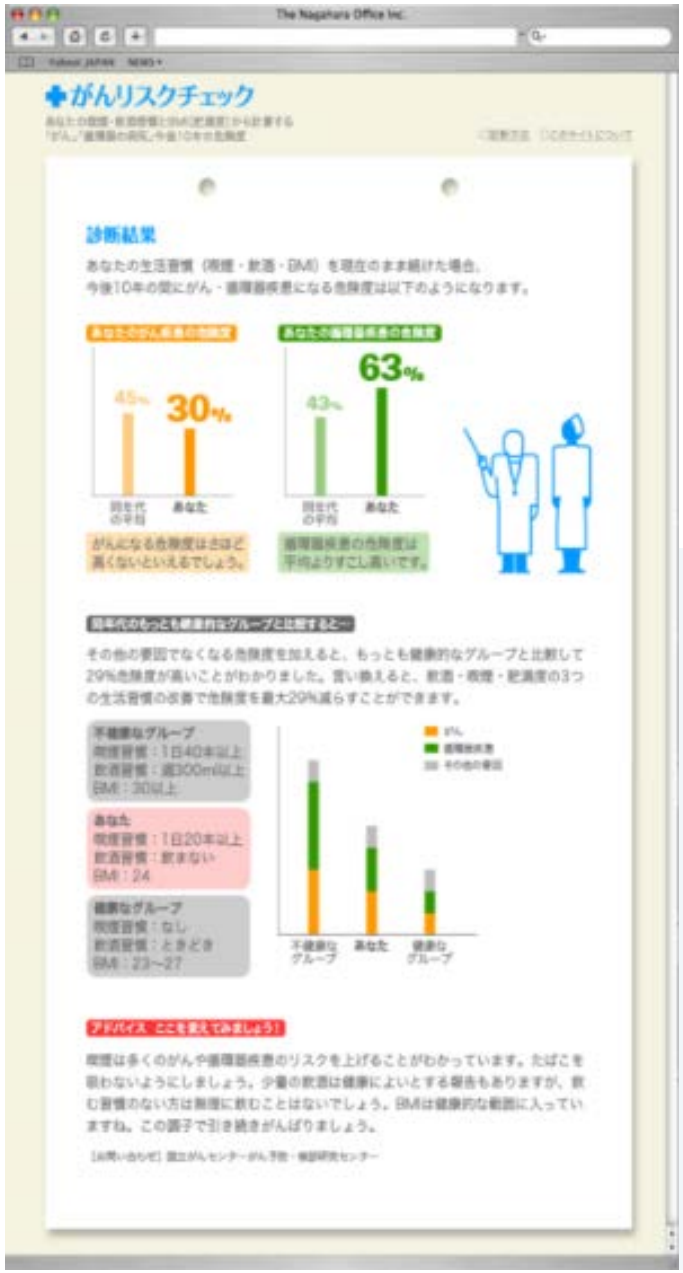
Current Evidence-based Cancer Prevention Recommendations for Japanese

	Cancer Prevention Recommendation for Japanese (As of Aug 1, 2017)
1	Do not smoke cigarettes. Avoid passive smoking.
2	Drink alcohol in moderation. Drinking should be kept to within ~23 g alcohol per day. People that usually do not drink, or have alcohol intolerance, should not force themselves to drink.
3	Make sure you follow a nutritionally balanced diet.
	-Restrict your intake of salt and salt-preserved products. Keep salt consumption to less than 8 g for men and 7 g for women per day for healthy individuals aged 18 years or more. Consumption of foods high in salt should be kept to no more than one time per week.
	-Ensure sufficient intake of fruit and vegetables.
	-Do not consume too much hot (thermally) food and drinks.
4	Be active in daily life. For example, ~60 min of daily physical activity such as walking or more intensive activity as well as vigorous exercise 60 min a week is needed for healthy adults aged between 18 and 64 years old.
5	Maintain an appropriate weight during adulthood. BMI for middle-aged to elderly men should be between 21 and 27, and between 21 and 25 for middle-aged to elderly women.
6	Get tested for hepatitis virus infection and deal with it appropriately. Get tested for Helicobacter pylori infection if there is an opportunity.

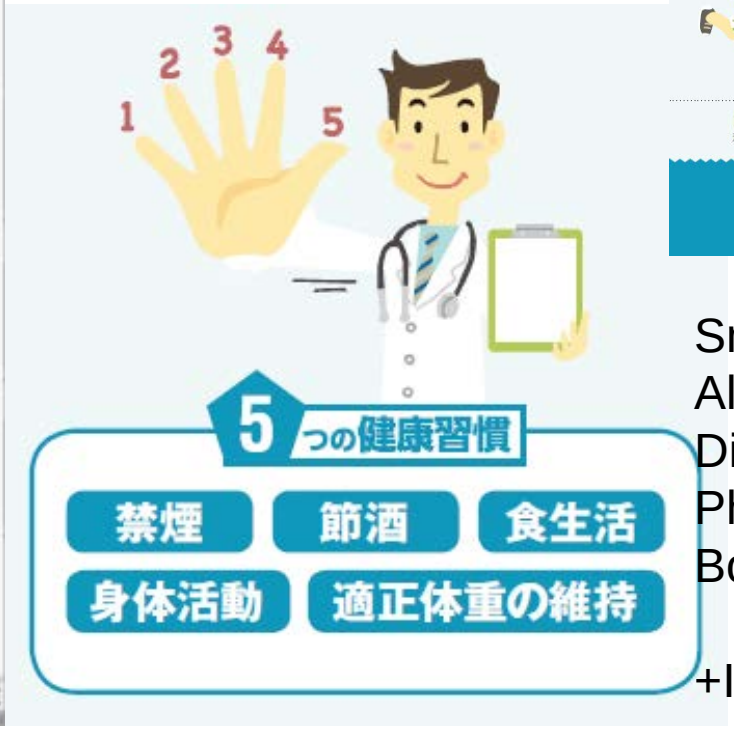


RISK CHECK TOOL (Website)

http://epi.ncc.go.jp/en/can_prev/index.html



Modify 5 lifestyles



Smoking
Alcohol drinking
Diet
Physical activity
Body weight

+Infection

Conclusion and Future Perspective

- We developed evidence-based cancer prevention recommendations for Japanese.
- As the recommendation is based on currently available epidemiological evidence in Japan, the contents may be amended in the future as more evidence is accumulated.
- The next step should focus on the development of effective behavior modification programs and their implementation and dissemination.

Acknowledgement

- The Research group for the Development and Evaluation of Cancer Prevention Strategies in Japan
  - Funding: National Cancer Center Research and Development Fund (PI: Manami Inoue)

- Current PAF Japan Update Project
  - Funding: KAKENHI Kiban B (PI: Manami Inoue)

Thank you.

Delivering cancer prevention: Challenges in taking policy action

Strengthening, inspiring and delivering cancer prevention: Translating research into policy

Bryony Sinclair
Senior Policy & Public Affairs Manager
World Cancer Research Fund International

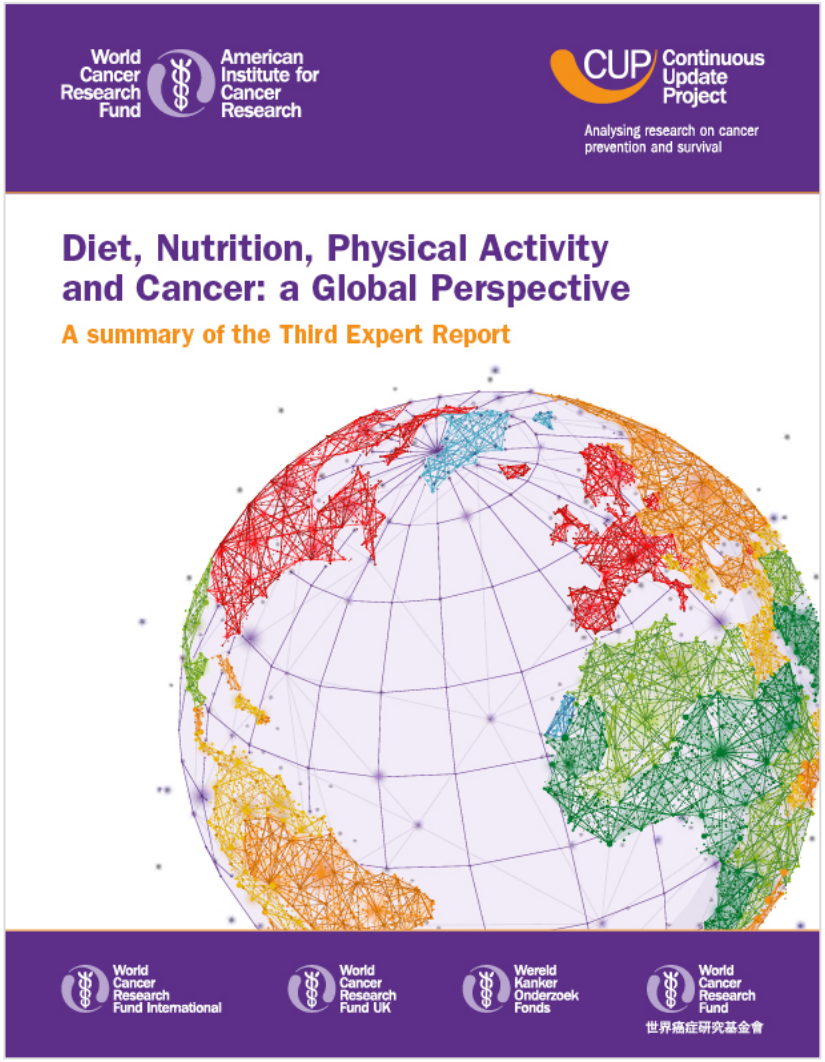
World Cancer Congress
Kuala Lumpur, Malaysia
1—4 Oct 2018
Strengthen
Inspire
Deliver
uicc global cancer control WORLD CANCER CONGRESS

Track 1 Motivating prevention and healthy behaviours

Disclosure of interest: None declared

Our latest cancer prevention report

- Cancer causes **1 in 6** deaths worldwide
- **1 in 5** men and **1 in 6** women worldwide develop cancer during their lifetime
- Global cancer burden is estimated to have risen to **18.1 million** new cases and **9.6 million** deaths in 2018
- Overweight or obese in 2016:
  - >**1.9 billion** adults
  - >**340 million** children and adolescents aged 5-19
  - **41 million** children <5



SUMMARY OF STRONG EVIDENCE ON DIET, NUTRITION, PHYSICAL ACTIVITY AND THE PREVENTION OF CANCER

To reference this matrix please use the following citation:

World Cancer Research Fund International/American Institute for Cancer Research. Continuous Update Project: Diet, Nutrition, Physical Activity and the Prevention of Cancer. Summary of Strong Evidence. Available at: wcrf.org/cupmatrix accessed on DD-MM-YYYY

Abbreviation: SLR, systematic literature review.

	Wholegrains	Foods containing dietary fibre	Aflatoxins	Foods containing beta-carotene	Non-starchy vegetables or fruit (aggregated) [2]	Red meat	Processed meat	Cantonese-style salted fish	Dairy products	Foods preserved by salting	Arsenic in drinking water	Mate	Coffee	Sugar sweetened drinks	Alcoholic drinks	'Mediterranean type' dietary pattern	'Western type' diet	'Fast foods'	Glycaemic load	High-dose beta-carotene supplements	Beta-carotene	Calcium supplements	Physical activity (moderate and vigorous)	Vigorous physical activity	Walking	Screen time (children) [15]	Screen time (adults) [15]	Adult body fatness [16]	Body fatness in young adulthood [19]	Adult weight gain	Adult attained height [21]	Greater birthweight	Lactation [22]	Having been breastfed
MOUTH, PHARYNX, LARYNX 2018															Convincing increases risk													Probable increases risk						
NASOPHARYNX 2017 (SLR)								Probable increases risk																										
OESOPHAGUS (ADENOCARCINOMA) 2016																												Convincing increases risk						
OESOPHAGUS (SQUAMOUS CELL CARCINOMA) 2016												Probable increases risk			Convincing increases risk																			
LUNG 2017											Convincing increases risk									Substantial effect on risk unlikey [10]														
STOMACH 2016										Probable increases risk					Probable increases risk [5]													Probable increases risk [17]						
PANCREAS 2012																												Convincing increases risk			Probable increases risk			
GALLBLADDER 2015																												Probable increases risk						
LIVER 2015			Convincing increases risk										Probable decreases risk		Convincing increases risk [5]													Convincing increases risk						
COLORECTUM 2017	Probable decreases risk	Probable decreases risk				Probable increases risk	Convincing increases risk		Probable decreases risk [4]						Convincing increases risk [6]							Probable decreases risk [12]	Convincing decreases risk [13]					Convincing increases risk			Convincing increases risk			
BREAST PREMENOPAUSE 2017															Probable increases risk [7]									Probable decreases risk				Probable decreases risk	Probable decreases risk		Convincing increases risk	Probable decreases risk	
BREAST POSTMENOPAUSE 2017															Convincing increases risk [7]								Probable decreases risk	Probable decreases risk				Convincing increases risk	Probable decreases risk		Convincing increases risk		Probable decreases risk	
OVARY 2014																												Probable increases risk			Convincing increases risk			
ENDOMETRIUM 2013													Probable decreases risk						Probable increases risk				Probable decreases risk					Convincing increases risk			Probable increases risk			
PROSTATE 2014				Substantial effect on risk unlikey																	Substantial effect on risk unlikey [11]							Probable increases risk [18]			Probable increases risk			
KIDNEY 2015															Probable decreases risk [8]													Convincing increases risk			Probable increases risk			
BLADDER 2015											Probable increases risk																							
SKIN 2017 (SLR)											Probable increases risk									Substantial effect on risk unlikey											Probable increases risk [20]			
AERODIGESTIVE CANCERS (AGGREGATED) 2016-2018 [1]					Probable decreases risk [3]																													
RISK OF WEIGHT GAIN, OVERWEIGHT OR OBESITY 2018 [23,24]		Probable decreases risk												Convincing increases risk		Probable decreases risk	Probable increases risk [9]	Probable increases risk					Probable decreases risk [14]		Convincing decreases risk	Convincing increases risk	Probable increases risk							Probable decreases risk

Convincing decreases risk | Probable decreases risk | Probable increases risk | Convincing increases risk | Substantial effect on risk unlikey

Strong evidence findings (highlights)

Increases risk

Exposure	Outcomes
Greater body fatness	• 12 cancers
'Fast foods' 'Western type' diet	• Weight gain, overweight and obesity
Sugar sweetened drinks	• Weight gain, overweight and obesity
Glycaemic load	• Endometrial cancer
Red meat	• Colorectal cancer
Processed meat	• Colorectal cancer
Alcoholic drinks	• 6 cancers

Decreases risk

Exposure	Outcomes
Physical activity	• 3 cancers • Weight gain, overweight and obesity
Wholegrains	• Colorectal cancer
Foods containing dietary fibre	• Colorectal cancer • Weight gain, overweight and obesity
Breastfeeding: Lactation	• Breast cancer in the mother
Breastfeeding: Having been breastfed	• Weight gain, overweight and obesity (children)

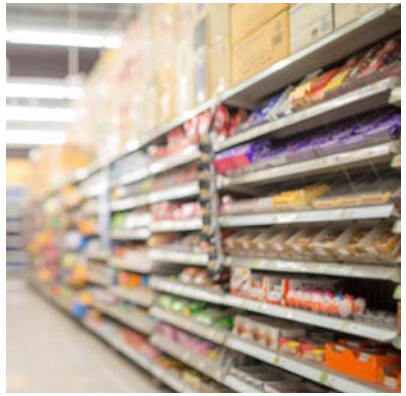

LIMIT CONSUMPTION OF RED AND PROCESSED MEAT
LIMIT CONSUMPTION OF SUGAR SWEETENED DRINKS
LIMIT ALCOHOL CONSUMPTION
DO NOT USE SUPPLEMENTS FOR CANCER PREVENTION
FOR MOTHERS: BREASTFEED YOUR BABY IF YOU CAN
AFTER A CANCER DIAGNOSIS: FOLLOW OUR RECOMMENDATIONS IF YOU CAN
BE A HEALTHY WEIGHT
BE PHYSICALLY ACTIVE
EAT A DIET RICH IN WHOLEGRAINS, VEGETABLES, FRUIT AND BEANS
LIMIT CONSUMPTION OF 'FAST FOODS' AND OTHER PROCESSED FOODS HIGH IN FAT, STARCHES OR SUGARS
World Cancer Research Fund
American Institute for Cancer Research
OUR CANCER PREVENTION RECOMMENDATIONS
Not smoking and avoiding other exposure to tobacco and excess sun are also important in reducing cancer risk. Following these Recommendations is likely to reduce intakes of salt, saturated and trans fats, which together will help prevent other non-communicable diseases.

Principles of the Recommendations

- The **Cancer Prevention Recommendations** are designed to be used as the **basis for action** by people and to inform policy action to reduce the incidence of cancer in general
- Together, they represent an **integrated pattern of behaviours** that can be considered as a single overarching ‘package’
- **Culturally relevant** throughout the world
- Guidelines on the **prevention of other diseases** taken into account

Importance of taking policy action



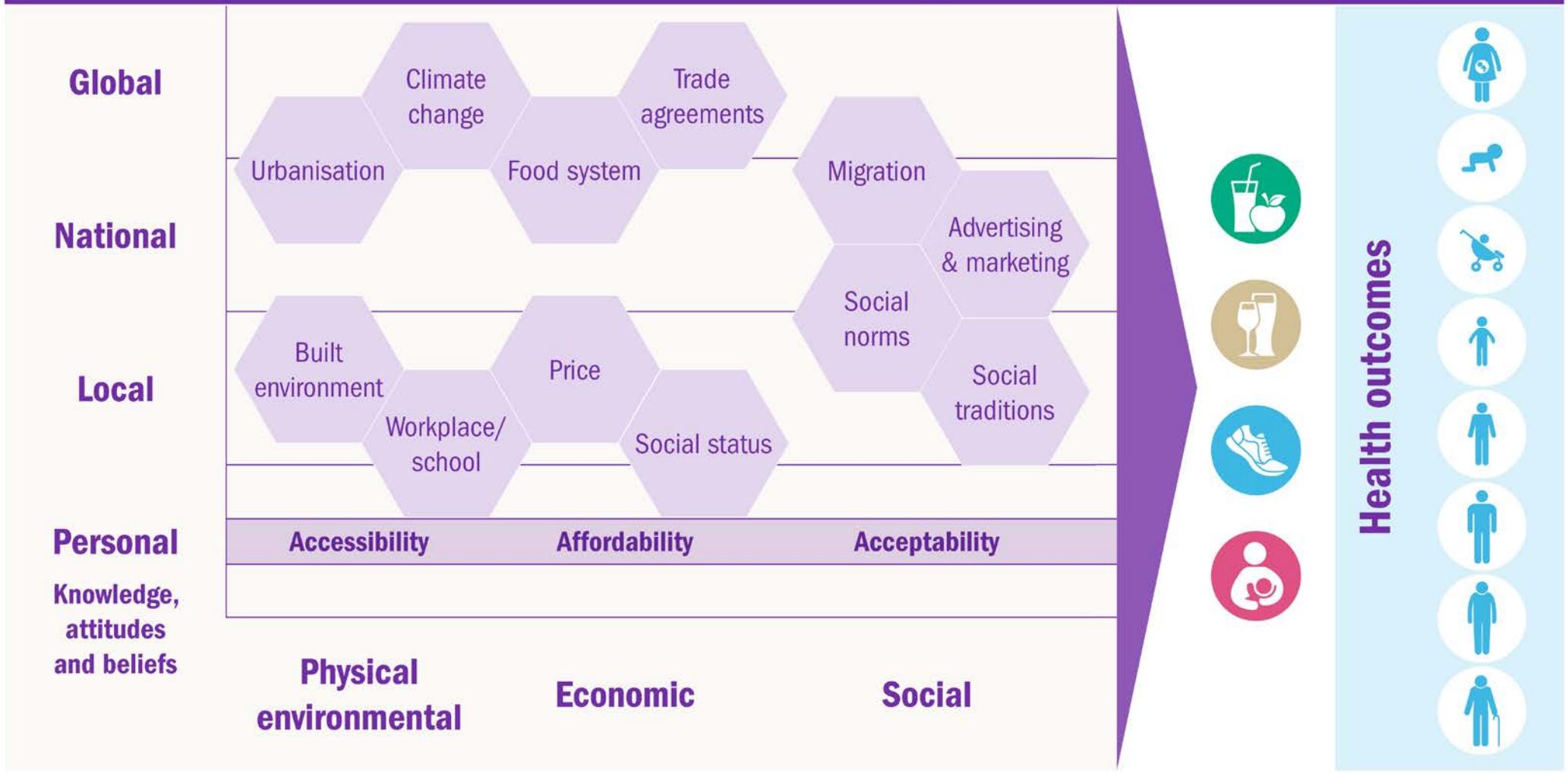








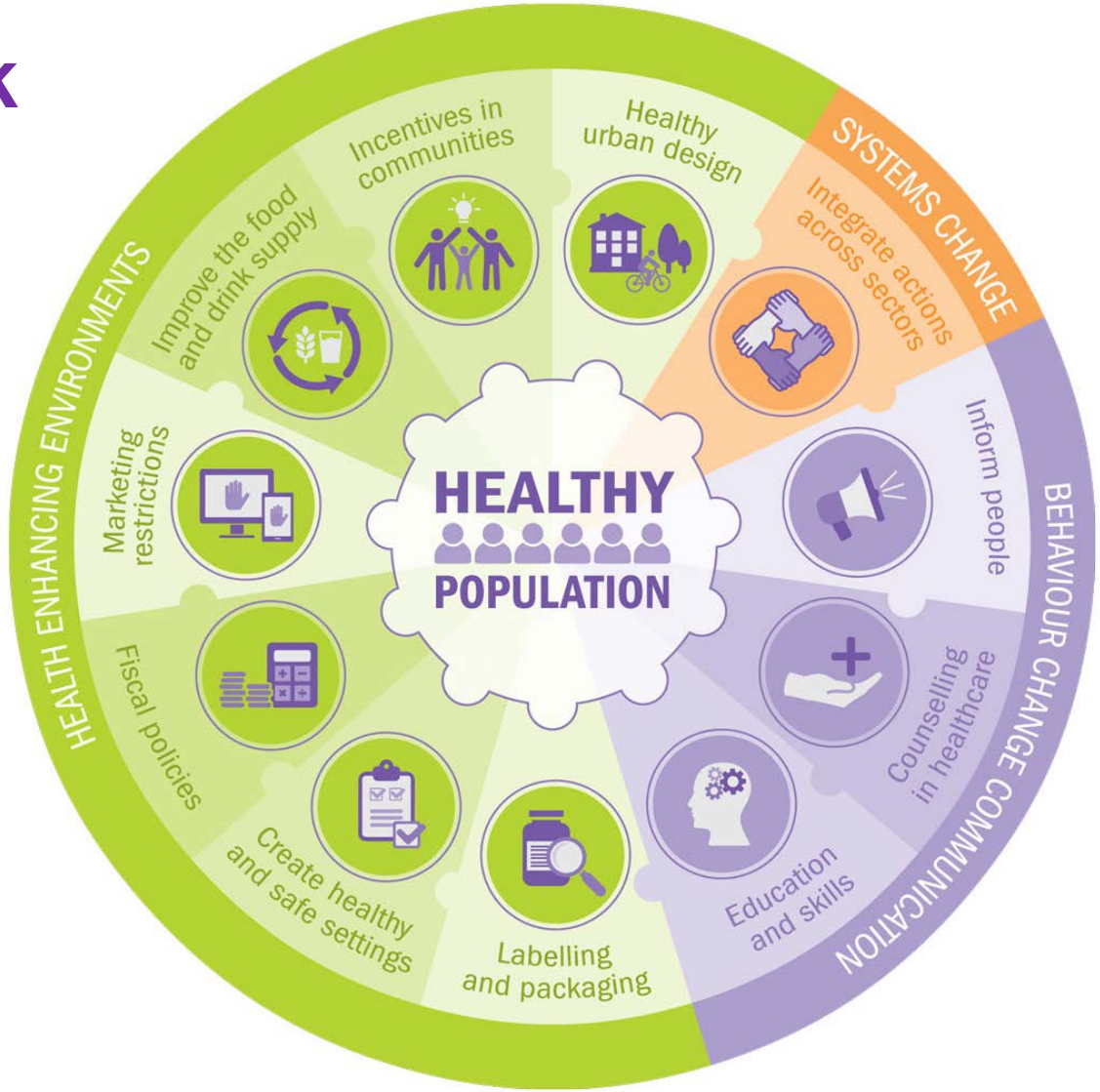
Factors that affect the risk of cancer and other NCDs: a conceptual framework



Key: Food and drink intake · Alcohol intake · Physical activity · Breastfeeding

Our Driving Action framework

- Diet
- Physical activity
- Breastfeeding
- Alcohol consumption



Barriers to policy action

- Lack of political will
- Lack of capacity (e.g. access to technical experts)
- Lack of funding
- Evidence in the right format for policy action
- Industry opposition and interference
- Too little evaluation of implemented policies

Key lessons learned

- Political leadership
- Build your evidence
- Develop a broad base of support
- Establish mechanisms to manage conflicts of interest
- Be prepared for push back

Action needed across all sectors of society

World Cancer Research Fund International

CUP Continuous Update Project

Analysing research on cancer prevention and survival

Thank you

Email: b.sinclair@wcrf.org

Twitter: @brysinclair

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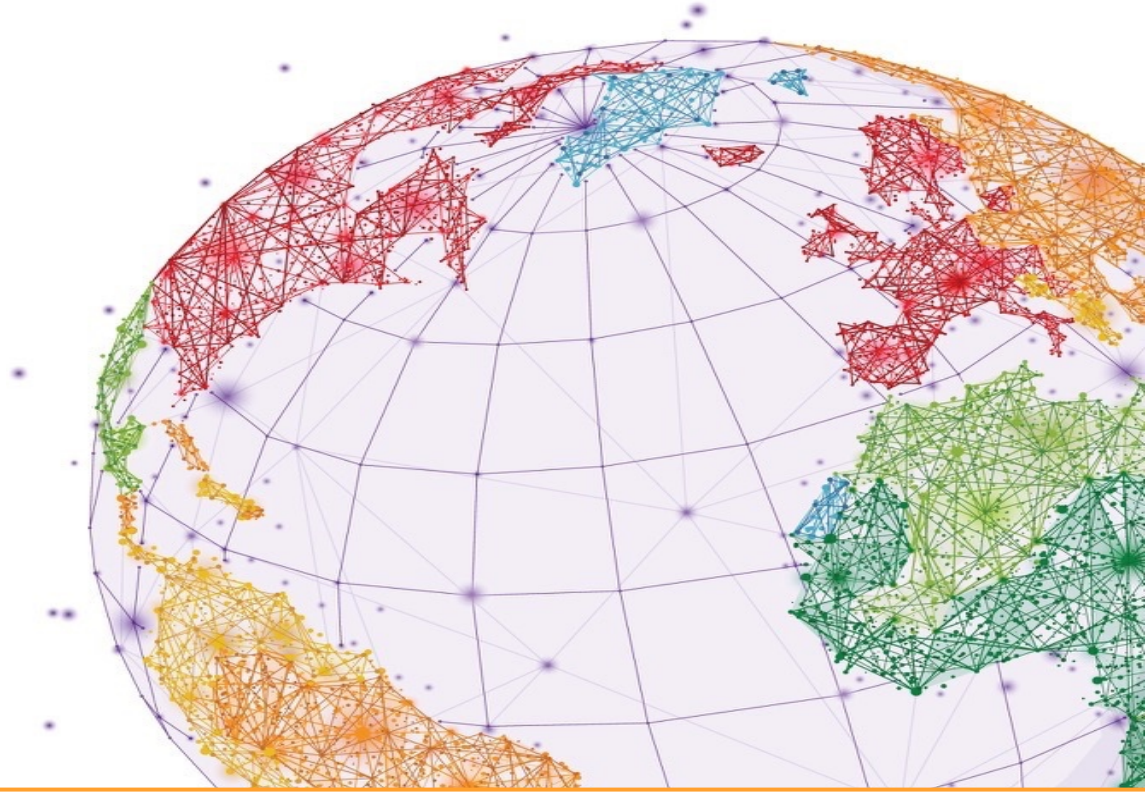
wcrf.org/blog
www.wcrf.org/drivingaction



THIRD EXPERT REPORT

Strengthening, inspriring, and deliviring global cancer prevention

International Agency for Research on Cancer
Lyon, France

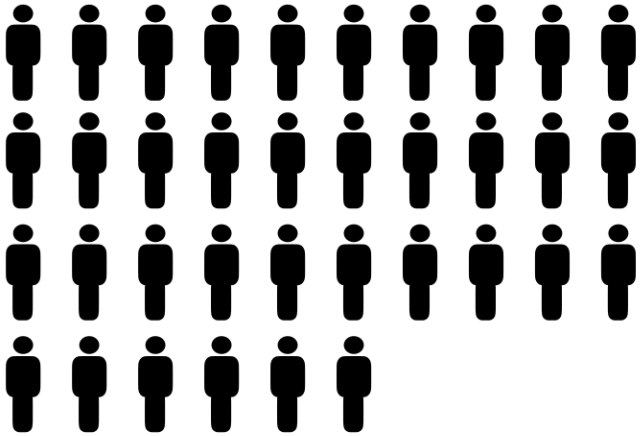
Isabelle Soerjomataram
Section Cancer Surveillance

International Agency for Research on Cancer
World Health Organization

WCC, Kuala Lumpur 2018

Strengthening Global Cancer Prevention

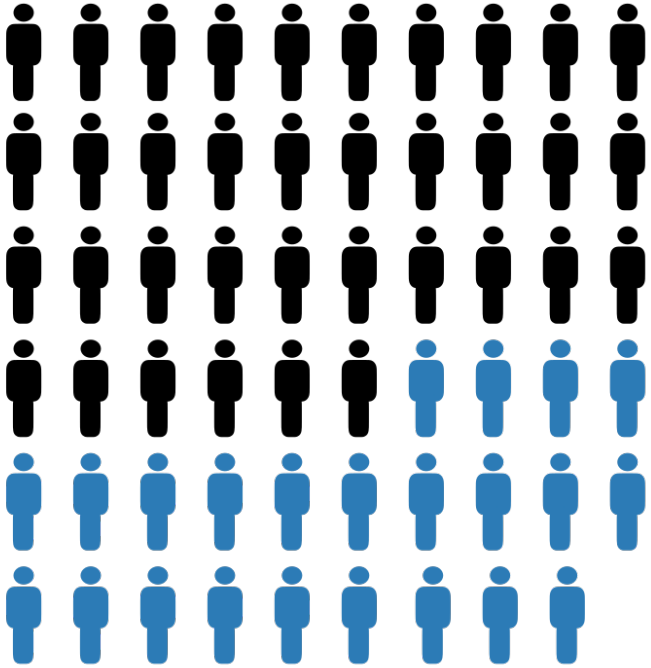
2018



18.1 Million

New cases 2018
= 0.5 million

2040



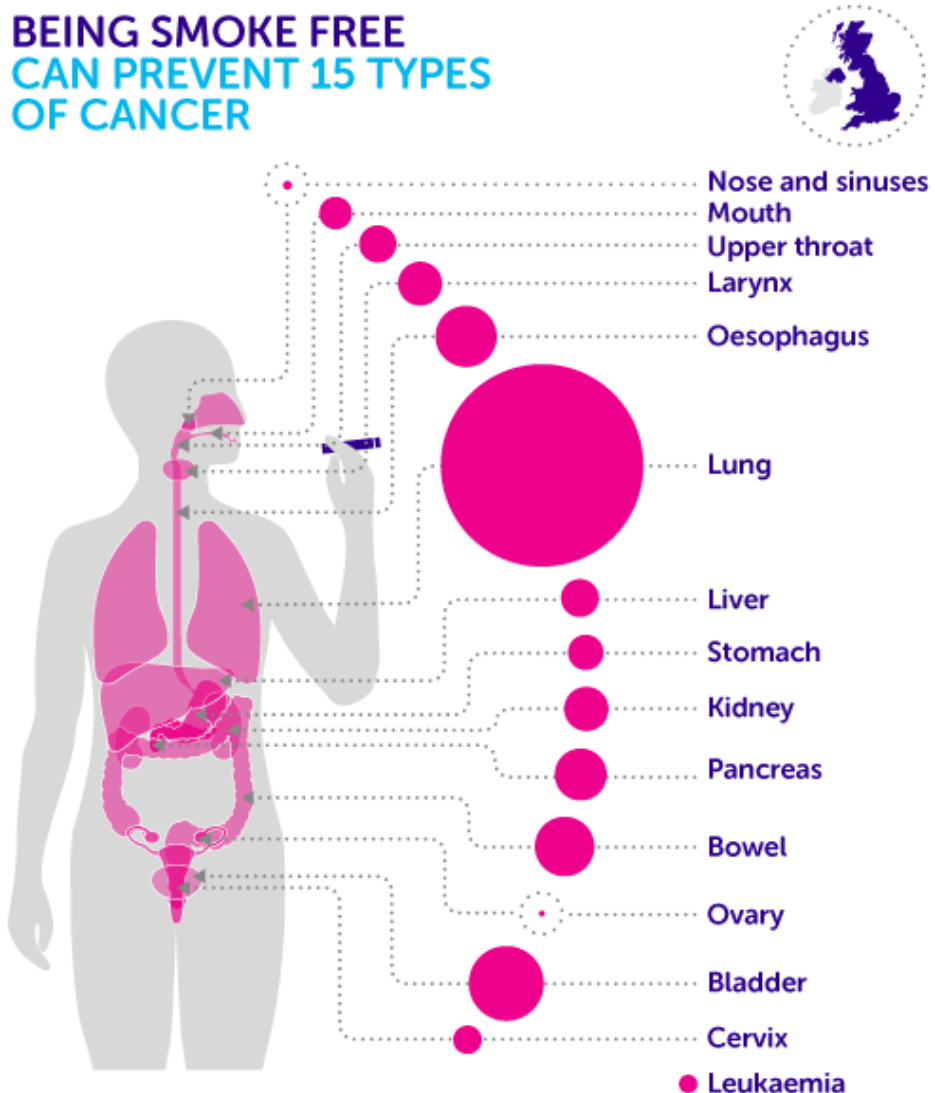
29.4 Million

New cases 2040
(+ demographic changes)

International Agency for Research on Cancer

World Health Organization

Strengthening Global Cancer Prevention: Tackling Tobacco Smoking

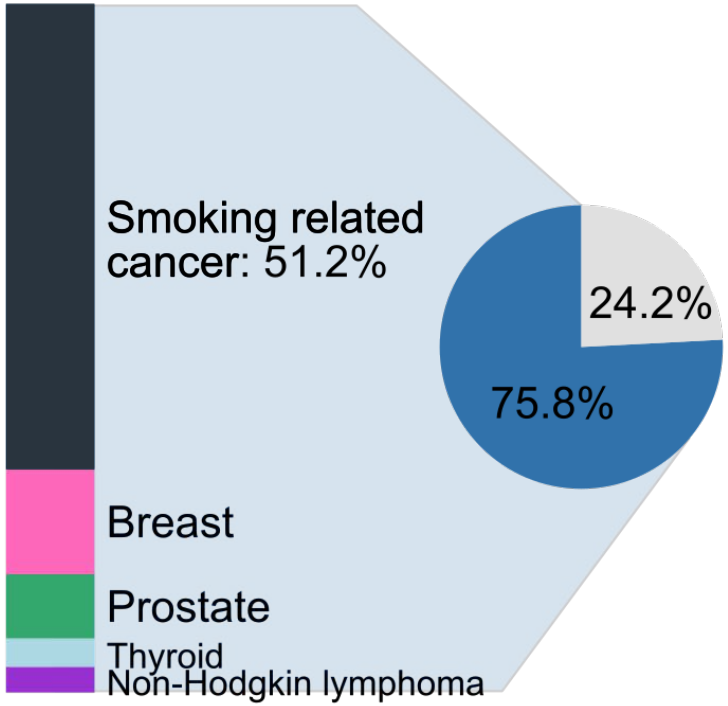


CANCER RESEARCH UK

Smoking-related cancers

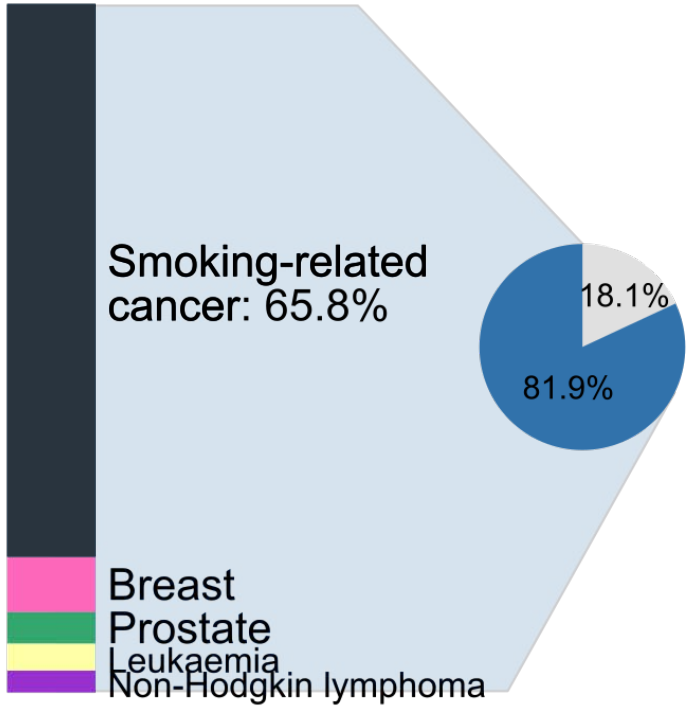
World, both sexes

Incidence



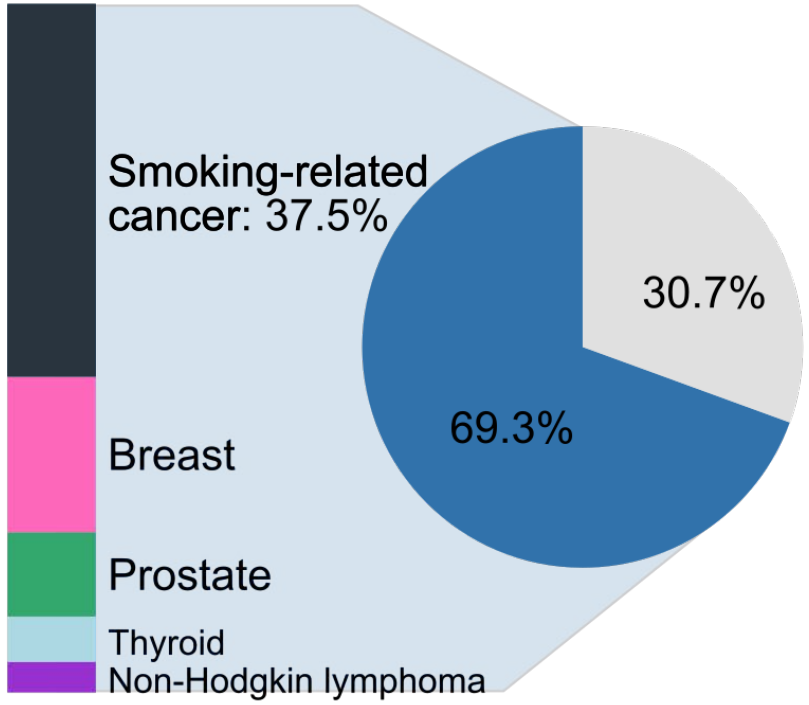
19.3 million new cases

Mortality



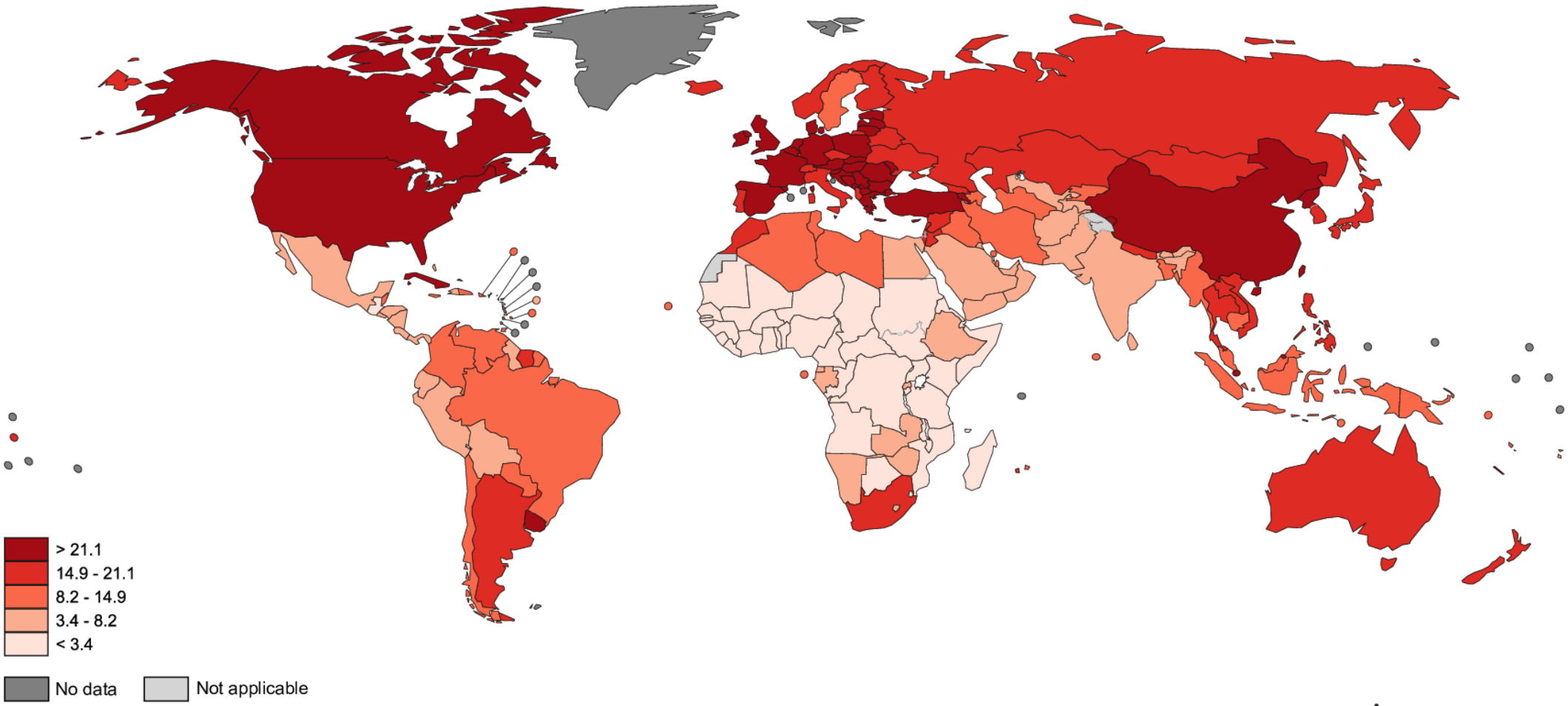
9.6 million deaths

Prevalence (5 years)



46.8 million persons

Lung cancer: 90% related to tobacco smoking

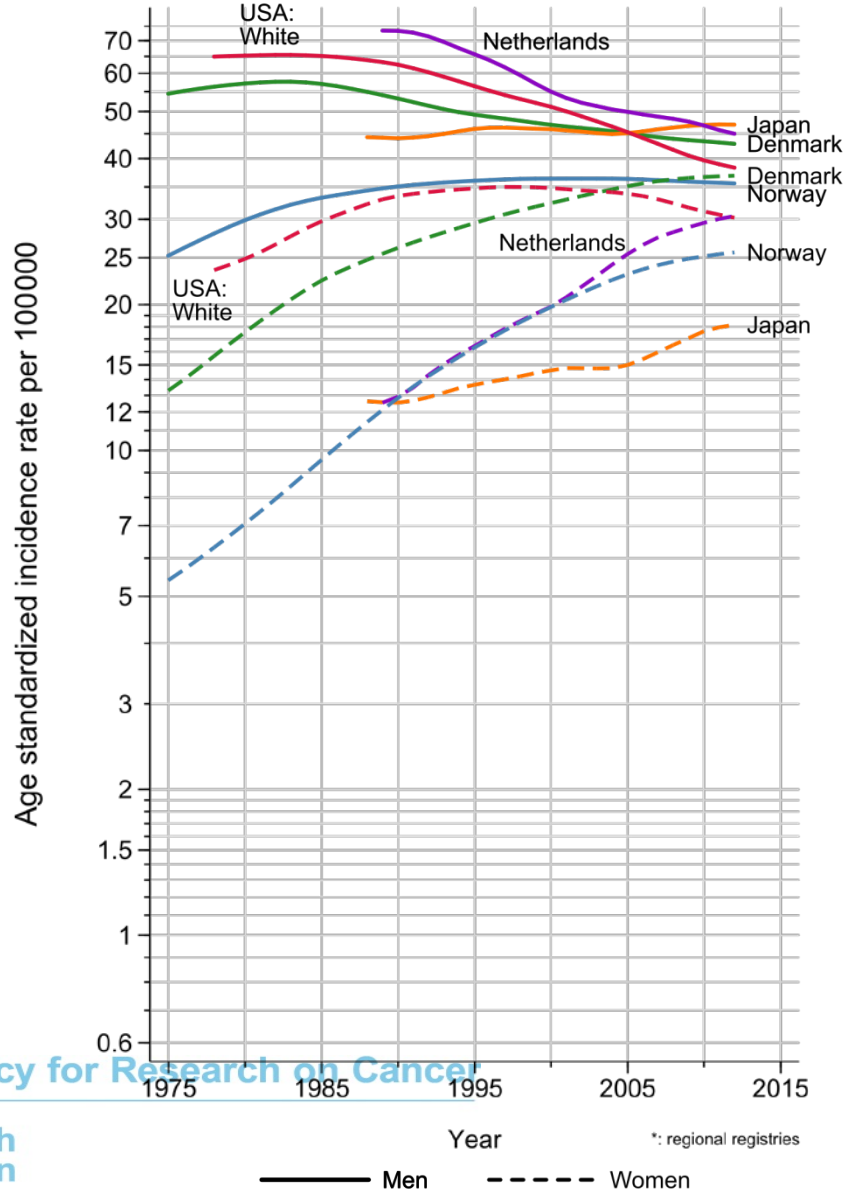


The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

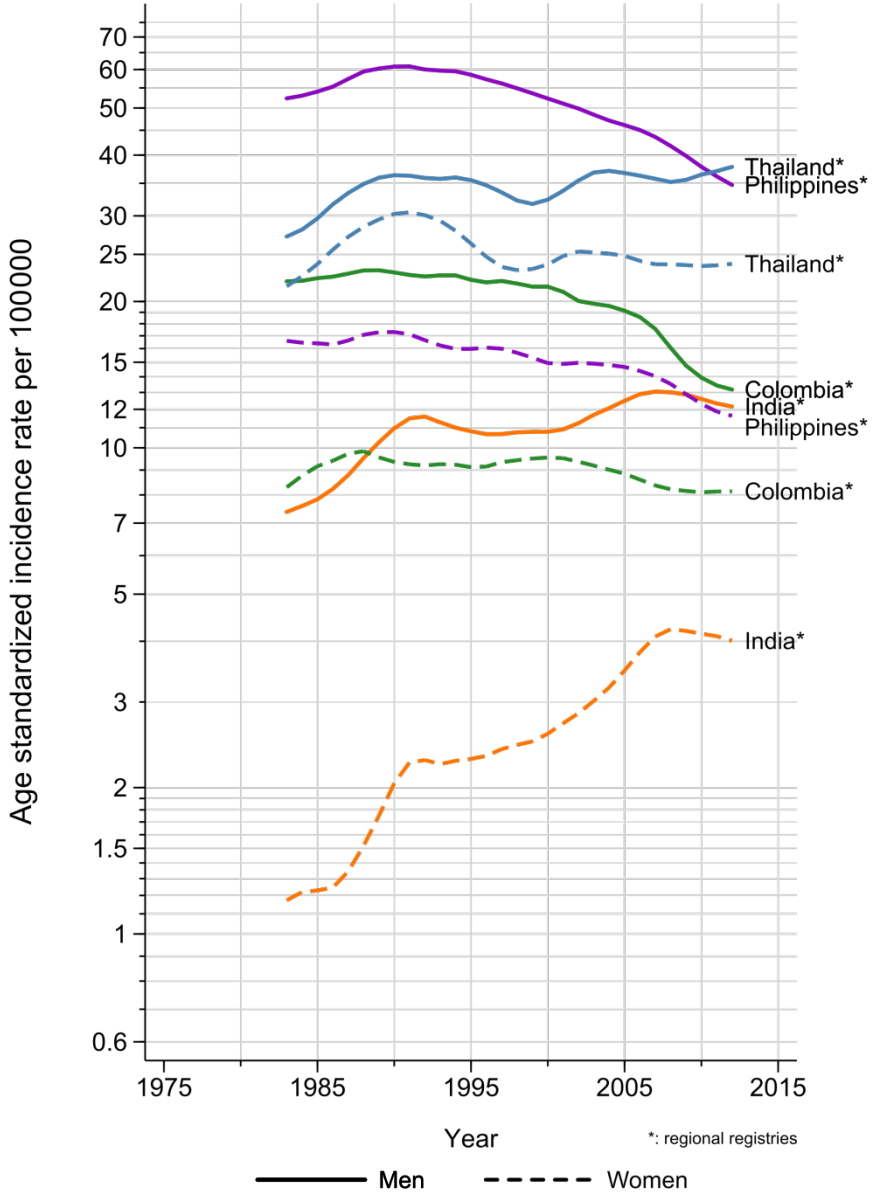
Data source: Globocan 2018
Map production: CSU
World Health Organization

World Health Organization

Lung cancer incidence, Very high HDI



Lung cancer incidence medium and low HDI



International Agency for Research on Cancer

World Health Organization

Estimated Annual Percentage Change 1993-2007

−10 −8 −6 −4 −2 0 2 4 6 8 10

Very High HDI

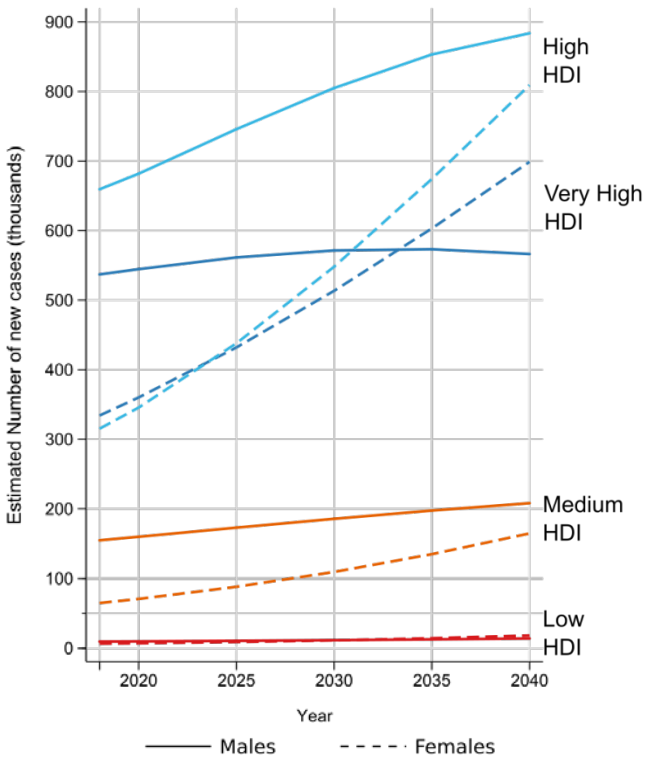
High HDI

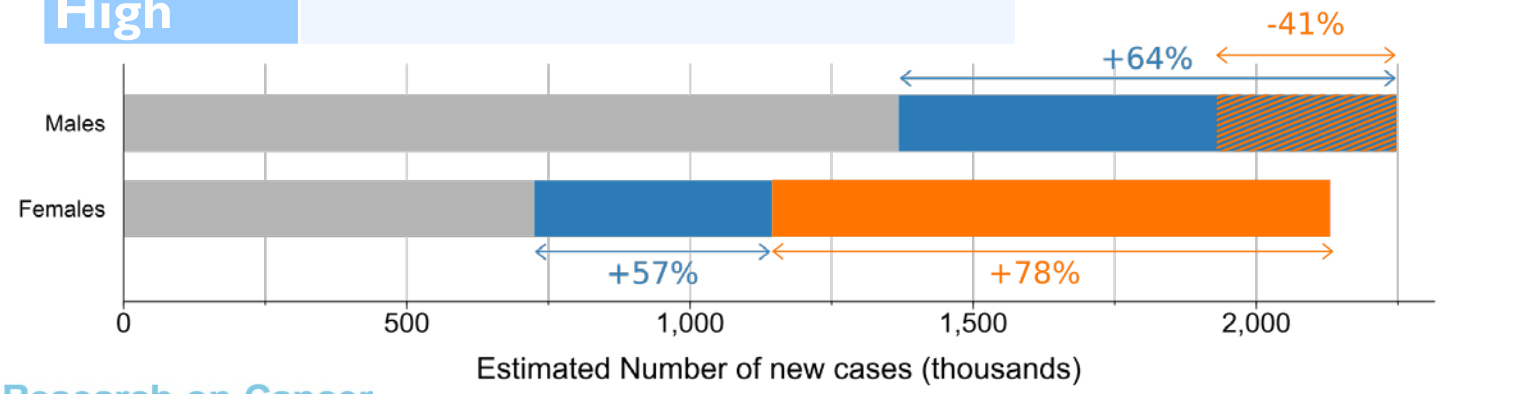
Medium HDI

Low HDI

Future HDI Level	Prediction 2035 based on Average Trend 1993-2007 using:
Low	Registries in Medium HDI
Medium	Registries in Medium/High HDI
High	Registries in High/Very High HDI
Very High	Registries in Very High HDI

Estimated number of cases, 2018-2040



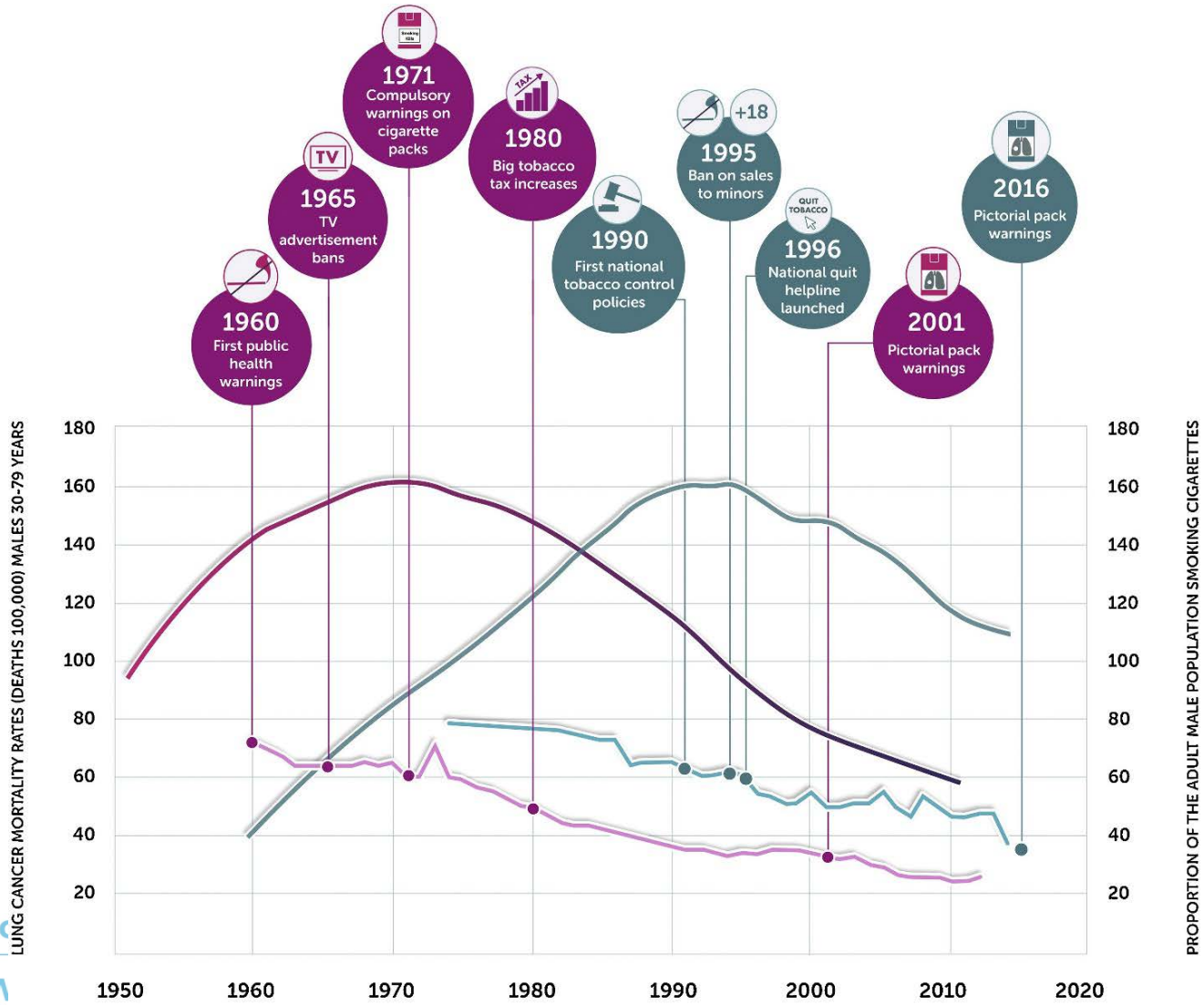


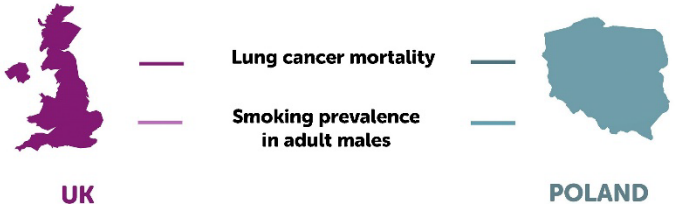
International Agency for Research on Cancer

World Health Organization

2012 | 2040 (+ Demographic changes) | 2040 (+ Demographic + risk changes)

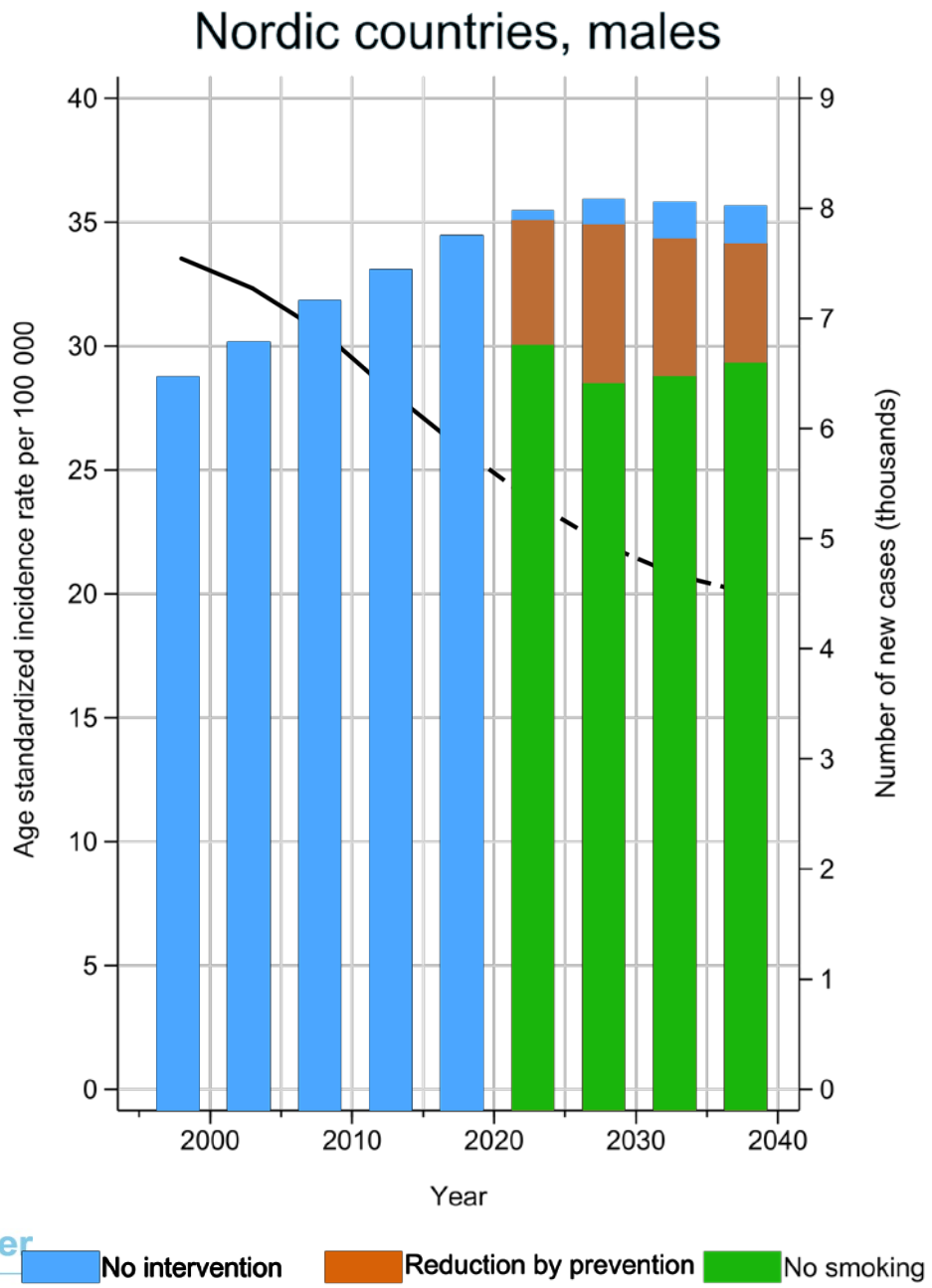
Inspiring Global Prevention





Forman, JCP 2018

Inspiring Global Prevention



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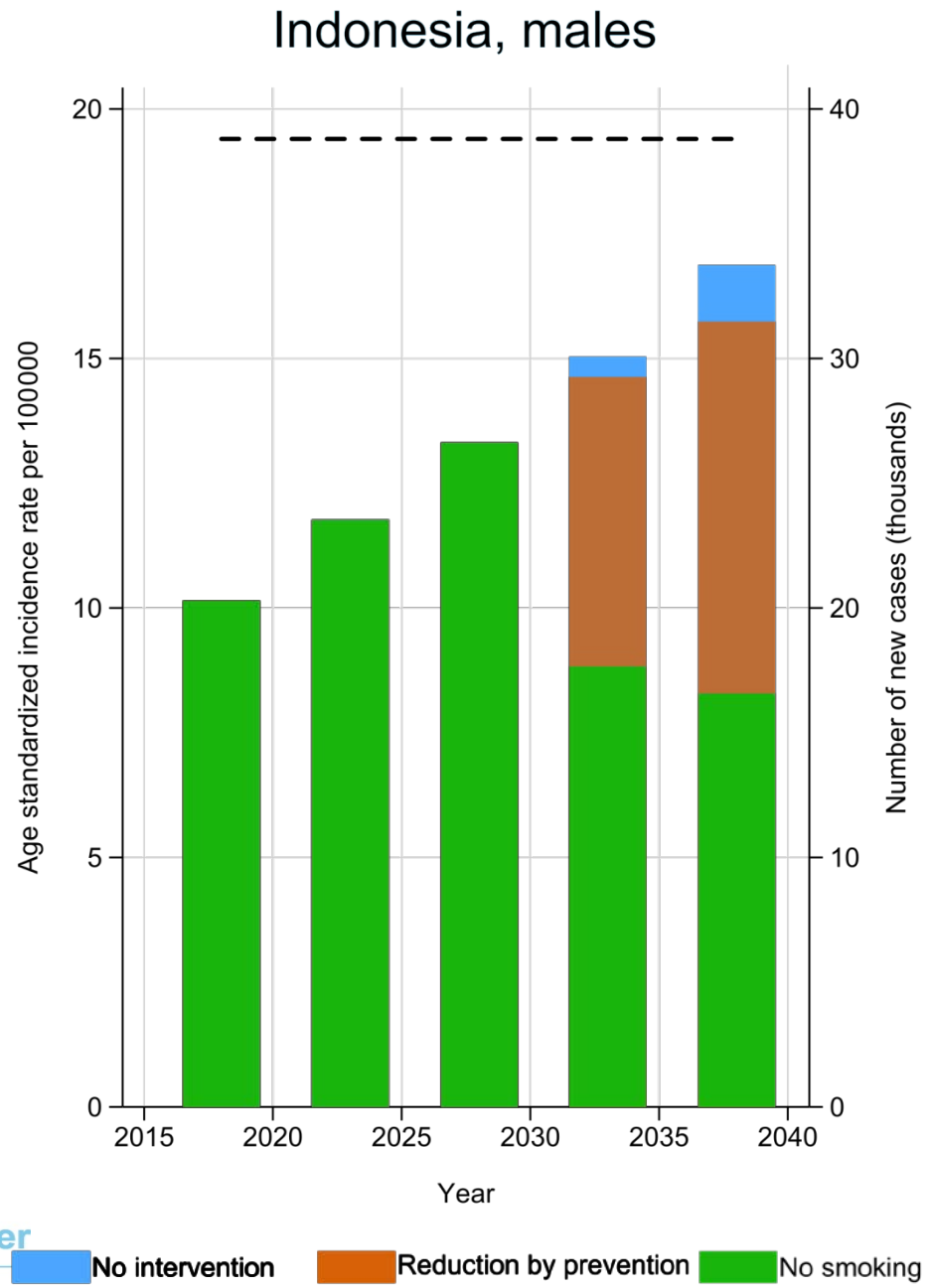
Andersson, EJC 2018

Inspiring Global Prevention



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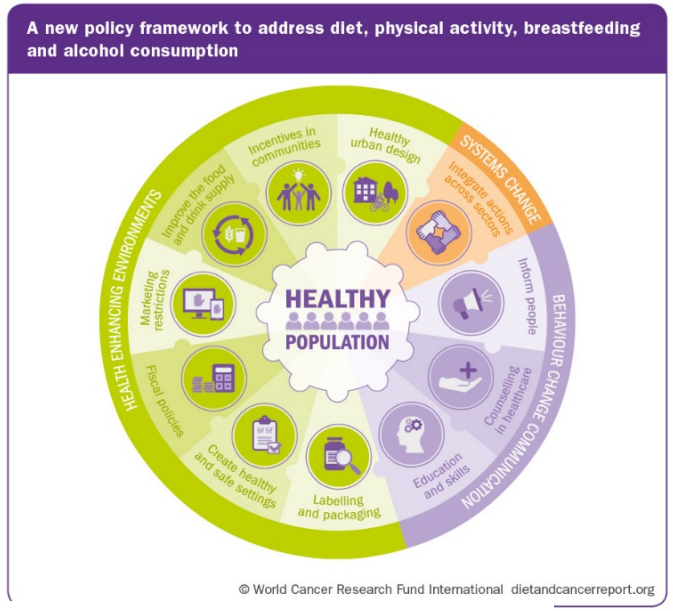
World Health Organization

Delivering Global Cancer Prevention

FCTC

WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL

SECRETARIAT

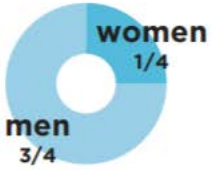


Alcohol and health

World Health Organization

3 million deaths every year

6 deaths every minute from harmful use of alcohol

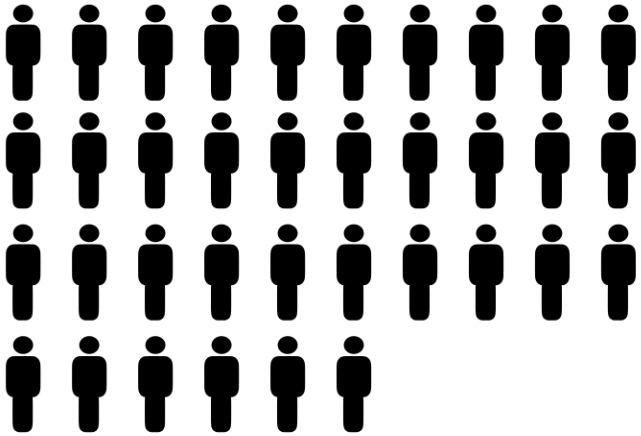


International Agency for Research on Cancer

World Health Organization

Delivering Global Cancer Prevention: 40% less

2018



18.1 Million

New cases 2018
= 0.5 million

2040

17.6 Million

New cases 2040
(+ demographic changes)

International Agency for Research on Cancer

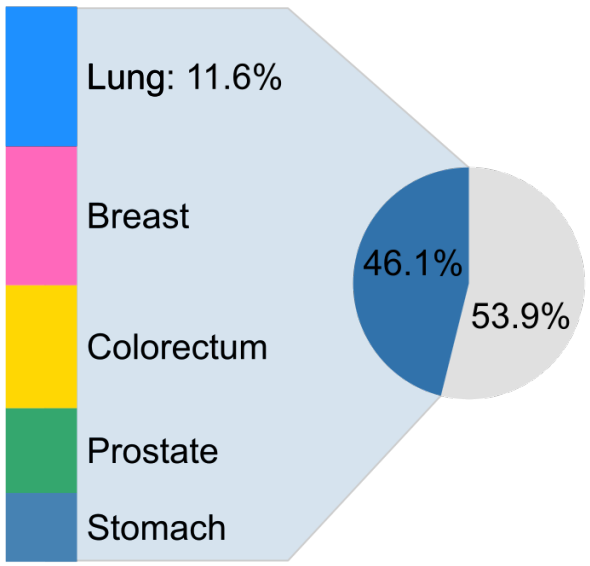
World Health Organization

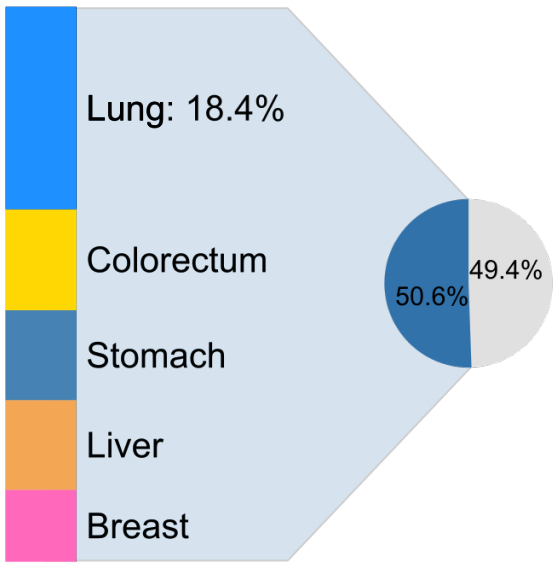
Acknowledgement

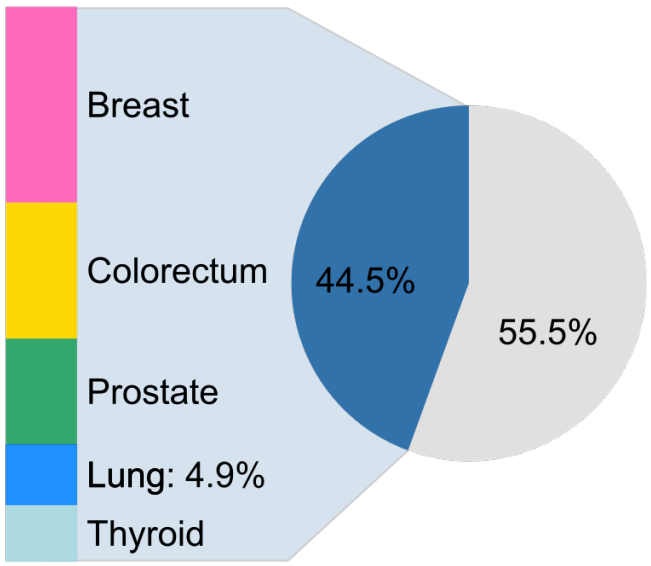
- Mathieu Laverssane
- Therese Andersson
- IARC - GLOBOCAN – Cancer Registries

Supplementary

World, both sexes



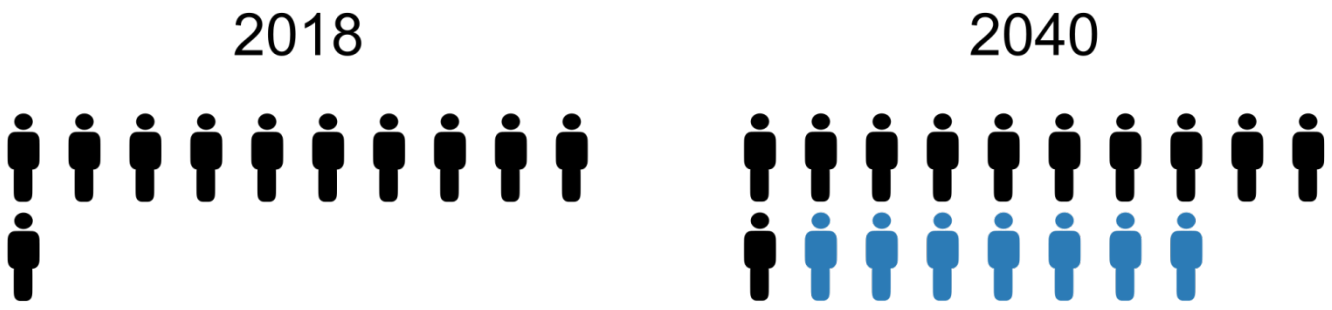




International Agency for Research on Cancer

World Health Organization

Number of lung cancers cases 2018 and 2040 worldwide



2.1 Million

3.6 Million

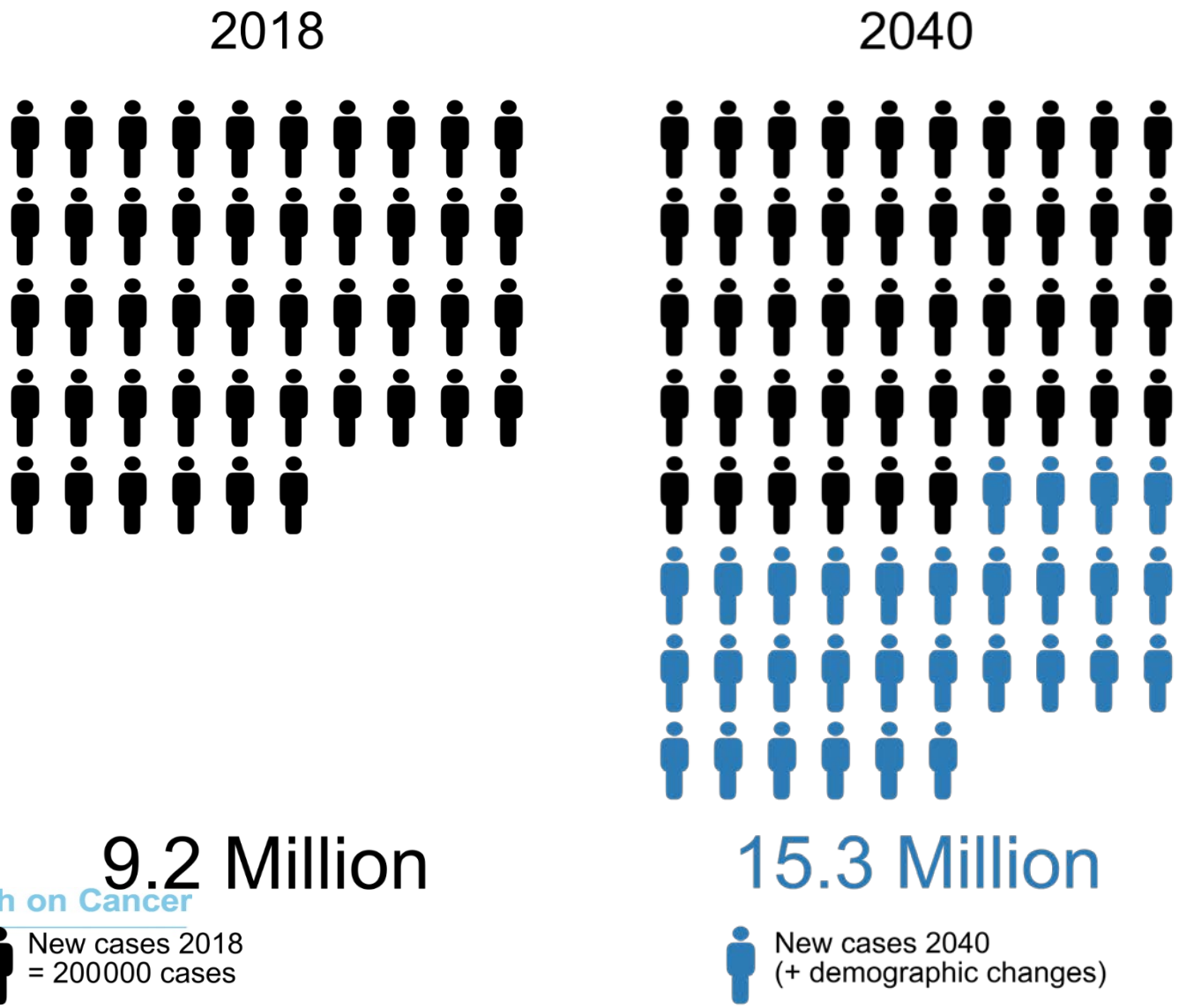
New cases 2018
= 200000 cases

New cases 2040
(+ demographic changes)

International Agency for Research on Cancer

World Health Organization

Number of new smoking related cancers cases 2018 and 2040 worldwide



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World Health Organization