



# **The research and evidence to guide our tobacco control actions**

**International Agency for Research on Cancer  
Lyon, France**

**Carolina Espina, PhD/MPH  
espina@iarc.fr**

**IARC and Cancer Prevention Europe (CPE)**



**International Agency for Research on Cancer**



**European Cancer Organisation / Primary Prevention Meeting (Virtual), 28 May 2021**

# Tobacco: Avoidable Illness and Death

- Tobacco smoking kills up to half of long-term users
- It remains the leading preventable cause of death and cancer globally

**8 MILLIONS** people died from diseases attributable to tobacco in 2017

International Agency for Research on Cancer  
World Health Organization

142 000 cases of cancer could have been avoided in France

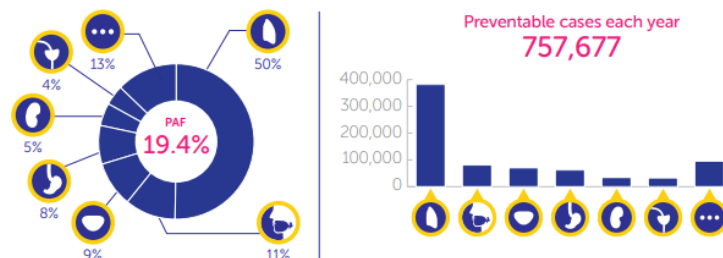


Proportions of cancers attributable to the main risk factors in Metropolitan France



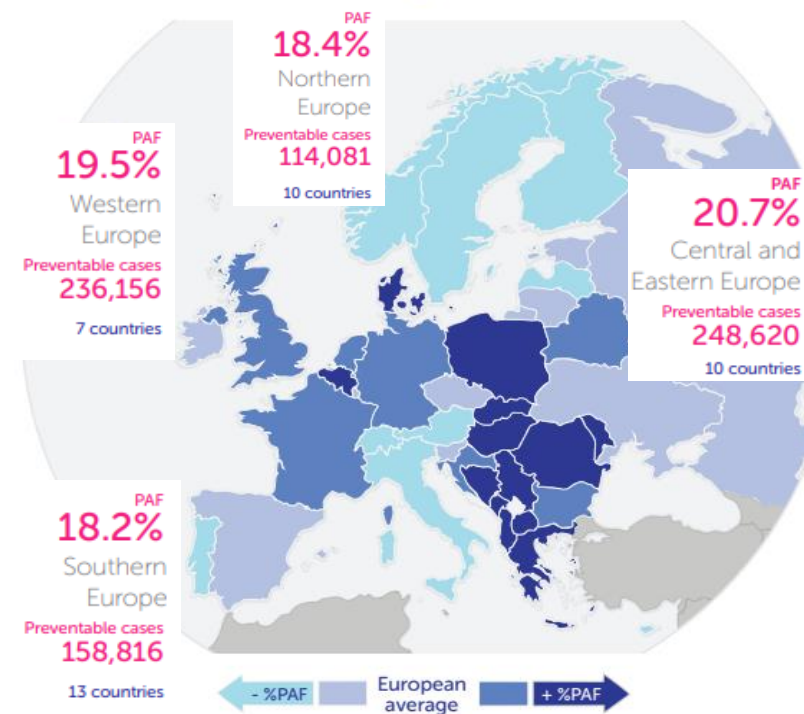
*Soerjomataram et al. 2018*

Europe summary



*Kulhánová et al. 2020*

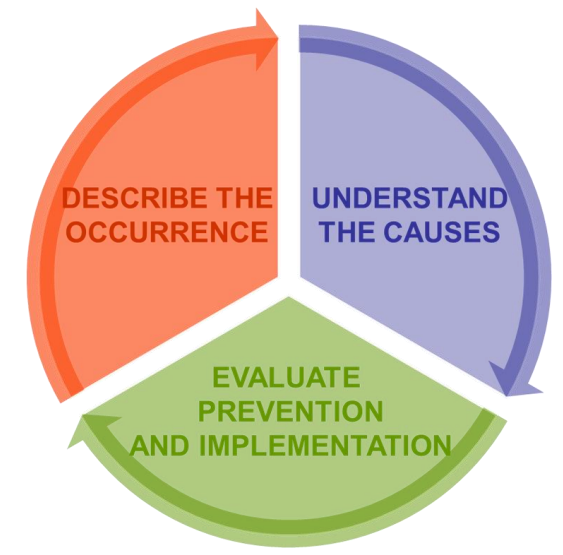
Preventable smoking related cancer cases



- There is much lower awareness of the risks associated with smokeless tobacco
- Other tobacco products (waterpipe, shisha, hookah) need greater attention and are poorly understood
- Second-hand smoke (SHS) is a cause of lung cancer in non-smokers
- Non-smokers exposed to SHS breath and metabolize similar carcinogens as active smoker do



# International answers to national questions

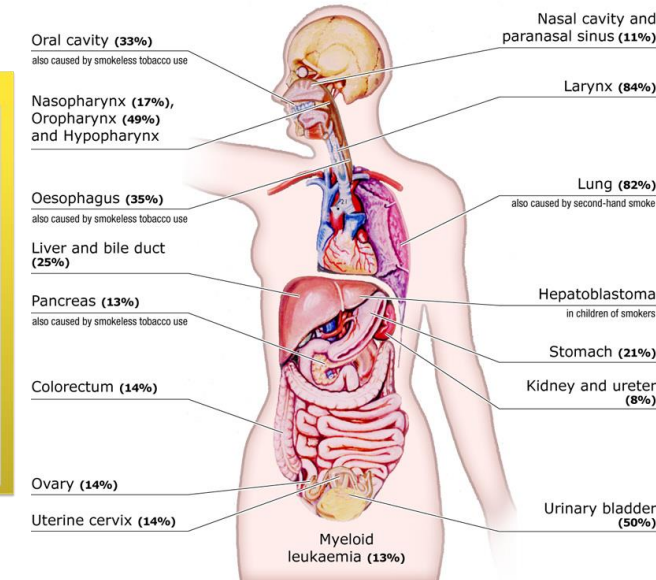
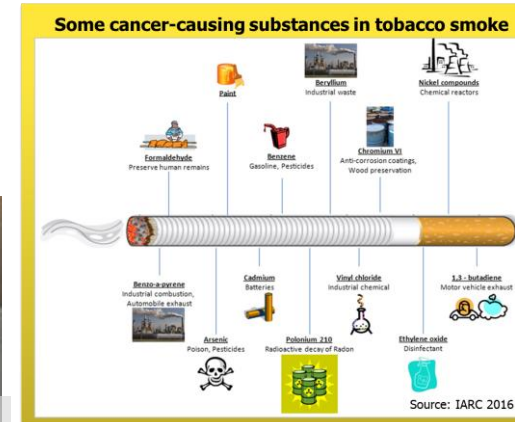


## IARC Monographs on the Identification of Carcinogenic Hazards to Humans

- Volume 38 (1986) Tobacco Smoking
- Volume 83 (2004) Tobacco Smoke and Involuntary Smoking
- Volume 89 (2007) Smokeless Tobacco and Some Tobacco-specific *N*-Nitrosamines
- Volume 100E (2012) Personal Habits and Indoor Combustions

## IARC Handbooks of Cancer Prevention

- Volume 11 (2007) Tobacco Control: Reversal of Risk after Quitting Smoking
- Volume 12 (2008) Methods for Evaluating Tobacco Control Policies
- Volume 13 (2009) Evaluating the Effectiveness of Smoke-free Policies
- Volume 14 (2011) Effectiveness of Tax and Price Policies for Tobacco Control





# European Code Against Cancer

## 12 WAYS TO REDUCE YOUR CANCER RISK

1. Do not smoke. Do not use any form of tobacco.



2. Make your home smoke free. Support smoke-free policies in your workplace.



SECOND-HAND SMOKE

POLLUTANTS

HEALTHY BODYWEIGHT

RADIATION

PHYSICAL ACTIVITY

BREASTFEEDING  
HORMONAL THERAPY

DIET

VACCINATION AND INFECTIONS

ALCOHOL

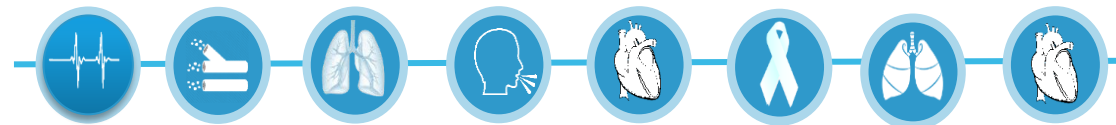
SCREENING



- Sufficient evidence tobacco smoking is carcinogenic
- 27% of adults in Europe smoke (31% men, 24% women)
- Sufficient evidence smokeless tobacco is carcinogenic
- Smokeless tobacco is consumed in Europe
  - Overall, 2% of population
  - Sweden 21%, Poland 4%, Finland 3% - in men
  - GYTS & other surveys show adolescents have tried smokeless products
  - Swedish snus sold via Internet despite prohibition



- Sufficient evidence SHS is carcinogenic to lung
- Limited evidence SHS may cause larynx/pharynx cancers
- Smoking at home represents a common source of SHS
- Voluntary smoke-free home policies significantly reduce exposure to SHS and are an intervention people can do
- Smoking in enclosed work places occurs in Europe
- Smoke-free workplaces substantially reduce exposure to SHS

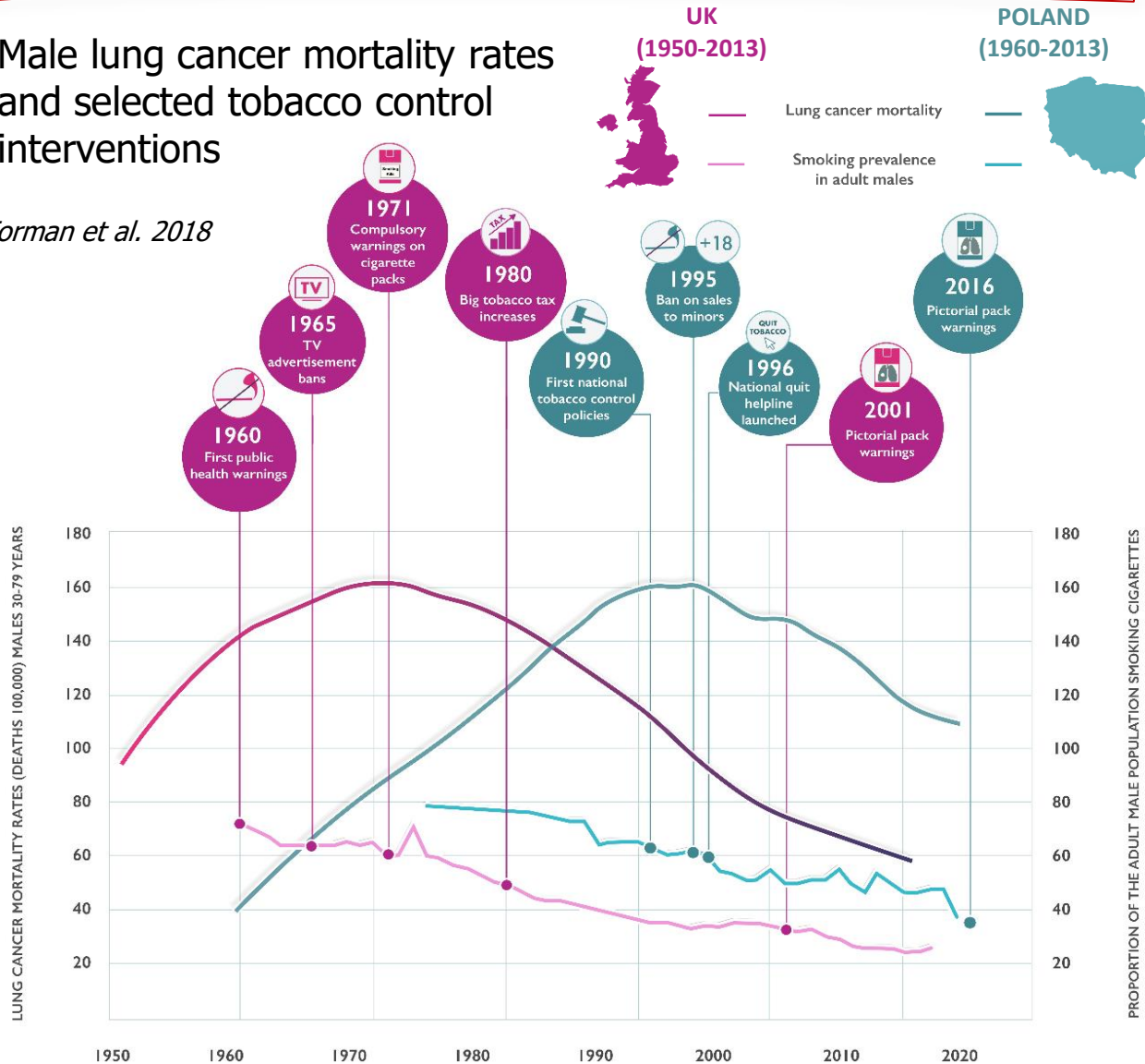




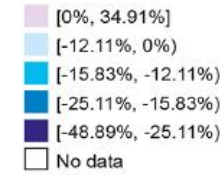
# Primary prevention works... but needs time and vision!

Male lung cancer mortality rates  
and selected tobacco control  
interventions

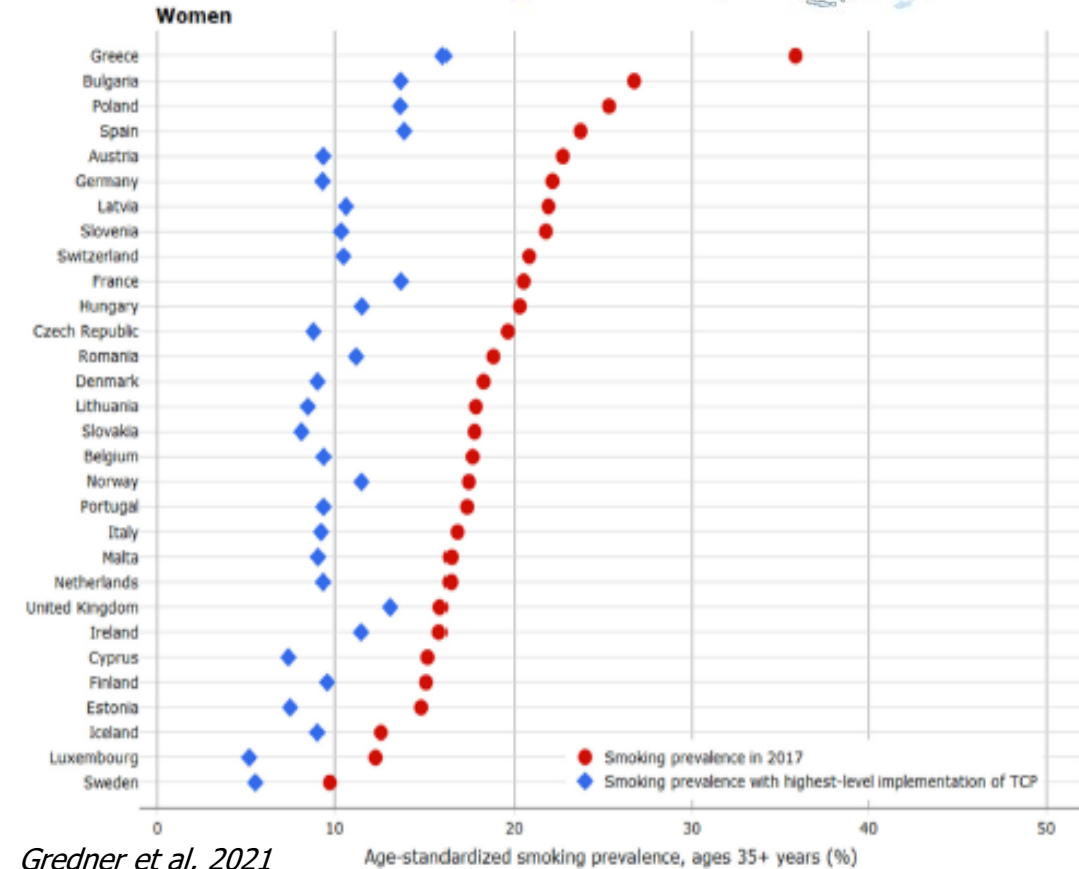
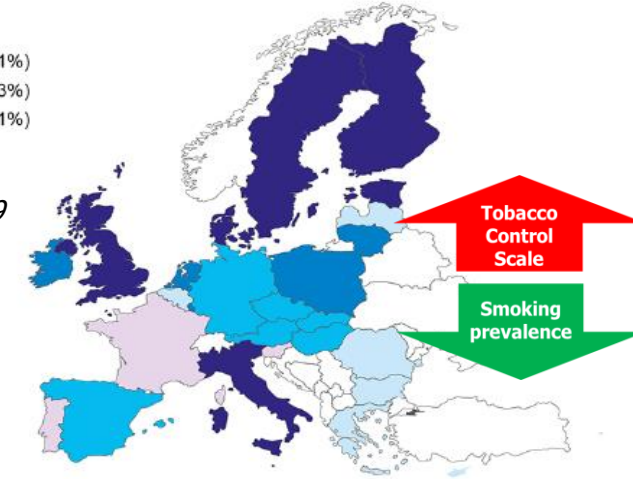
Forman et al. 2018



Relative Change in Smoking Prevalence 2006-2014



Feliu et al. 2019



Gredner et al. 2021

# Take-home messages

1/5

- Tobacco use is the main cause of cancer (over 10 types)
- Smoking accounts for 1/5 cancers diagnosed in the EU
- 82% of all lung cancers diagnosed are due to smoking
- Smoking also causes lung cancer in never smokers chronically exposed to SHS
- Smokeless tobacco is also carcinogenic to humans and causes cancer of the oral cavity, oesophagus and pancreas
- Smoking cessation at any age reduces the risk of cancer and death



**FCTC**

WHO FRAMEWORK CONVENTION  
ON TOBACCO CONTROL



- Substantial cancer prevention is achievable with tobacco control
- Evidence-based effective interventions to control tobacco use already exist at the individual and at the population-level

International Agency for Research on Cancer