



SCIENCE AND POLICY: THE HEALTH CASE

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**World Health
Organization**

REGIONAL OFFICE FOR
Europe



**Organisation
mondiale de la Santé**

BUREAU RÉGIONAL DE L'
Europe



Weltgesundheitsorganisation

REGIONALBÚRO FÜR
Europa



**Всемирная организация
здравоохранения**

Европейское региональное бюро

Why evidence informed policy making in health

- Limited resources
- Growing cost of medical technologies
- Legal responsibilities
- Growing population awareness (health literacy)
- Alternative information sources (internet)

Issues addressed

- Cross border health threats
- The NCD global epidemics
- Methodological challenges
 - Addressing complexities
 - Dealing with risk perception in the age of social media

Public Health alerts worldwide

1128 alerts for All Diseases All Locations in the past 1 week



Emerging diseases likely to cause major epidemics

- Crimean Congo hemorrhagic fever
- Ebola virus disease
- Marburg
- Lassa fever
- MERS and SARS coronavirus diseases
- Nipah
- Rift Valley fever



Google

Map data ©2016 Google, INEGI Terms of Use

Lessons learnt from Ebola



The testing of multiple vaccines, leading to at least one that appears to be safe and effective against Ebola;



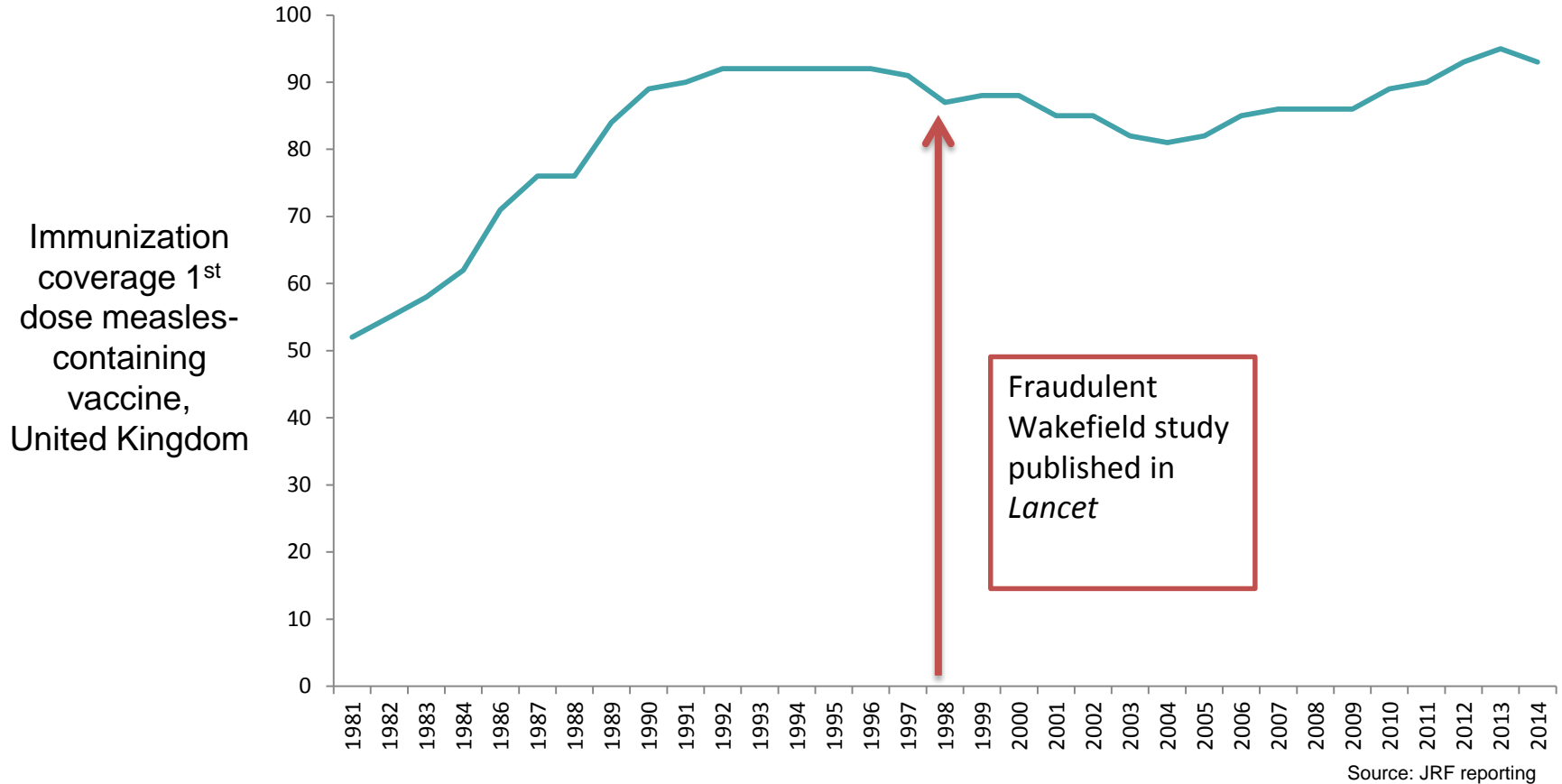
Release of 13 diagnostic tools that can detect Ebola virus in a matter of hours rather than days, and 24 testing laboratories;



Accelerated development of novel therapies and testing of existing drugs.

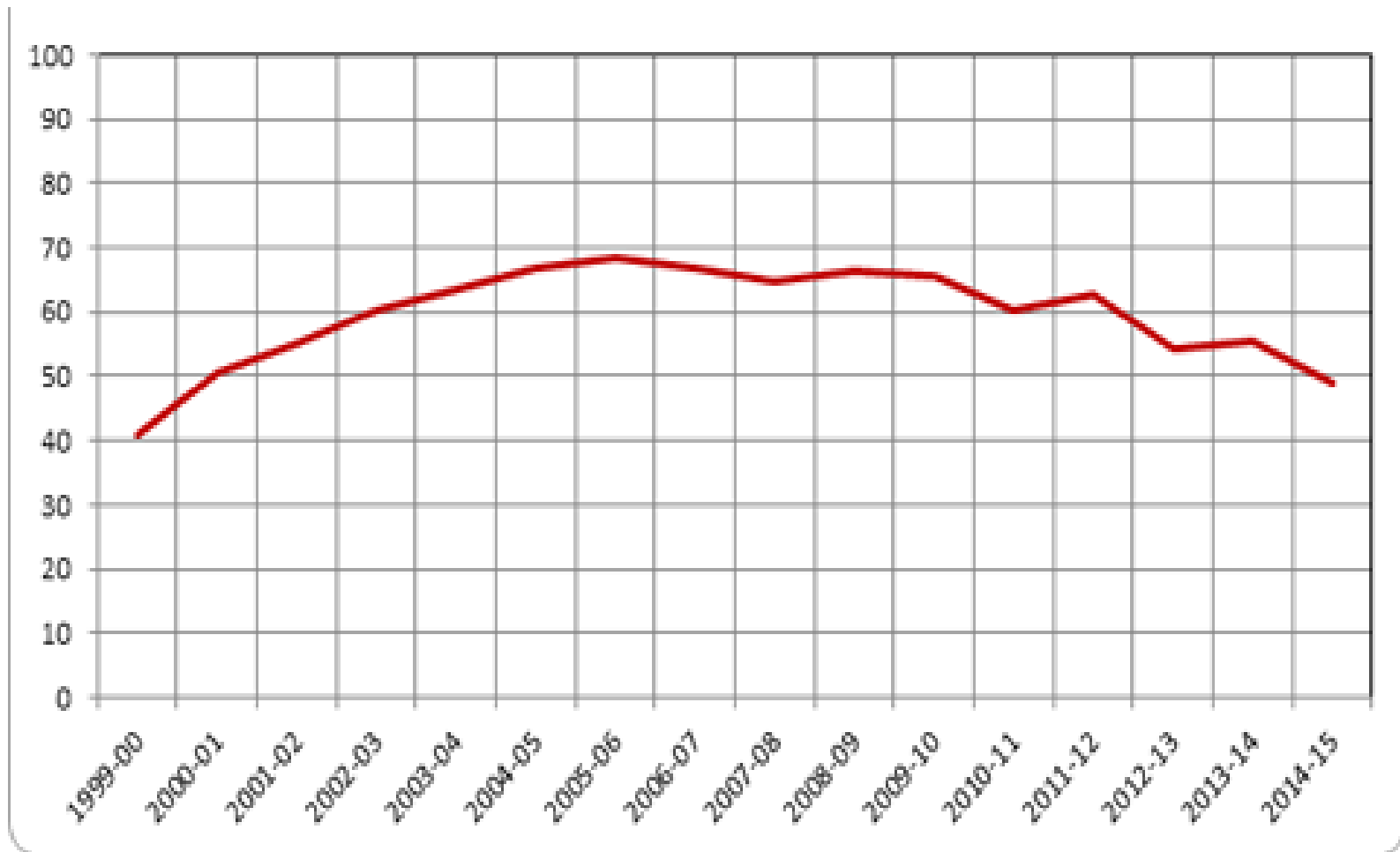
- Possible to compress R&D timeliness from a decade to a single year;
- Platforms expediting vaccine clinical trials, drug testing and data sharing are needed;
- Social mobilization plans should be in place ahead of an epidemic;
- Funding sources readily available.

Why is WHO calling for increased commitment to immunization?



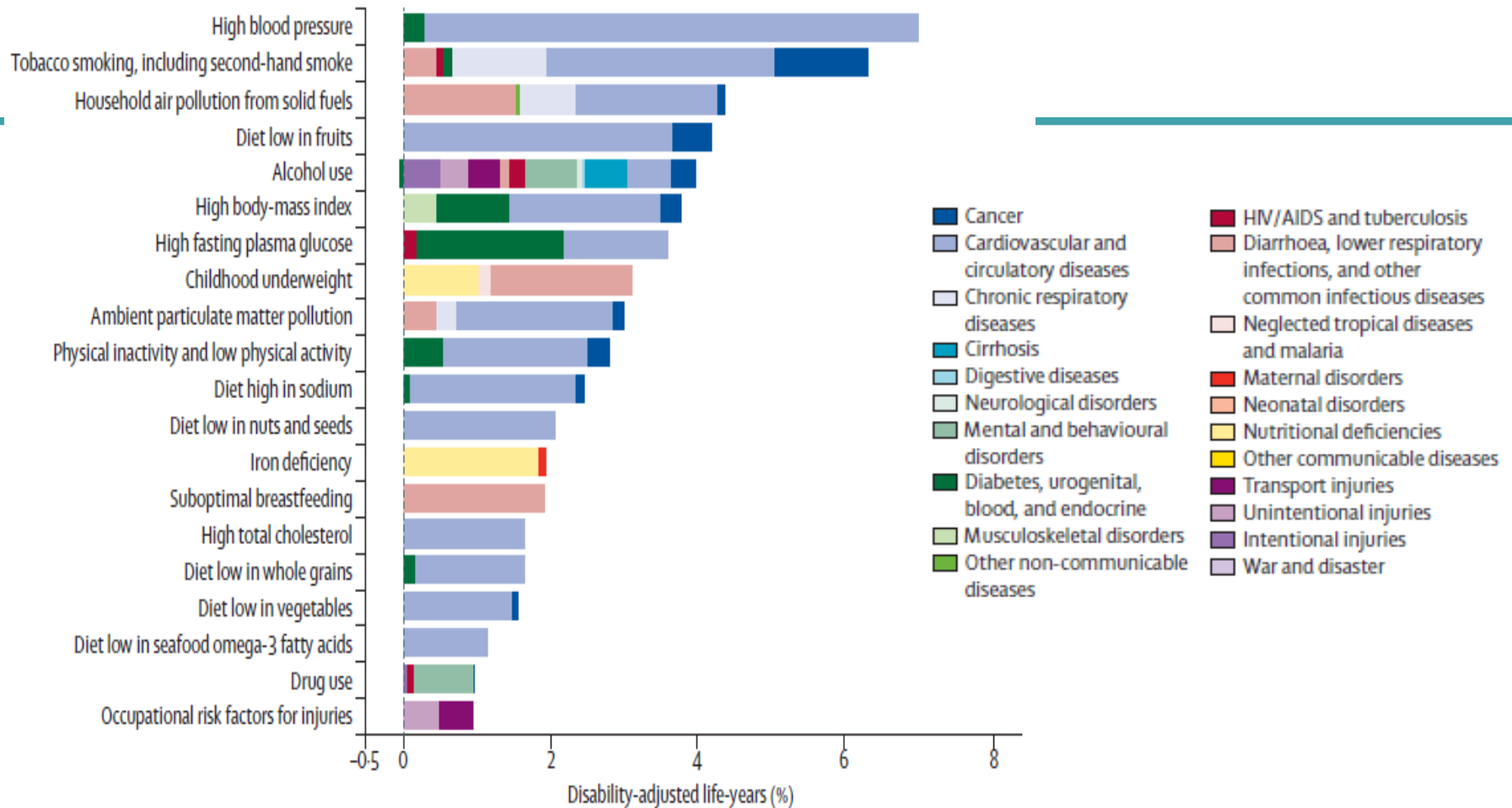
Vaccine hesitancy is a threat to public health that must be monitored and addressed

Anti-Influenza vaccination in population => 65 years of age Italy 1999 - 2015



Source: Italian Ministry of Health

GBD – attributable to 20 risk factors 2010 as % DALY



15 out of 20 RF linked with nutrition and PA

Lim & al. 2012

Obesity: the web of causation

Map 5

Full Generic Model
Thematic Clusters

Social Influences

Individual Psychology

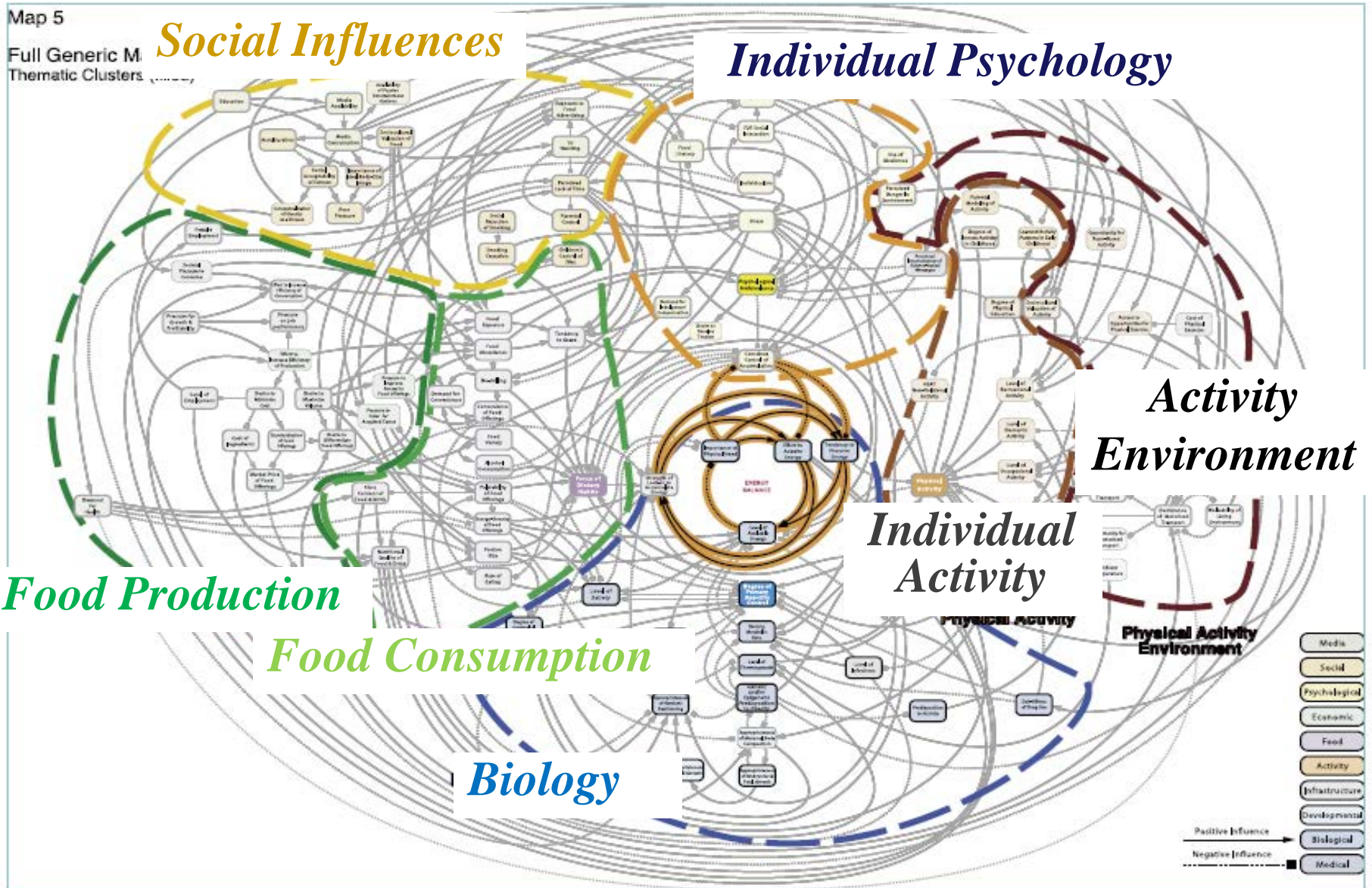
Activity Environment

Food Production

Food Consumption

Individual Activity

Biology



Diet as a major risk factor in Europe



SALT

WHO recommends less than
5 grams per day

53 countries exceed this recommendation

SATURATED FAT

WHO recommends maximum
10% of total calories consumed per day

48 countries exceed this recommendation



SUGAR

WHO recommends less than 5% of total
calories consumed per day

in 24 countries, 25% of 15 year old boys
consume sugary drinks on a daily basis

Eliminate *trans* fats from food
supply

Strengthen policies for healthy
school food

Overwhelming evidence of the adverse effects of consuming *trans* fats

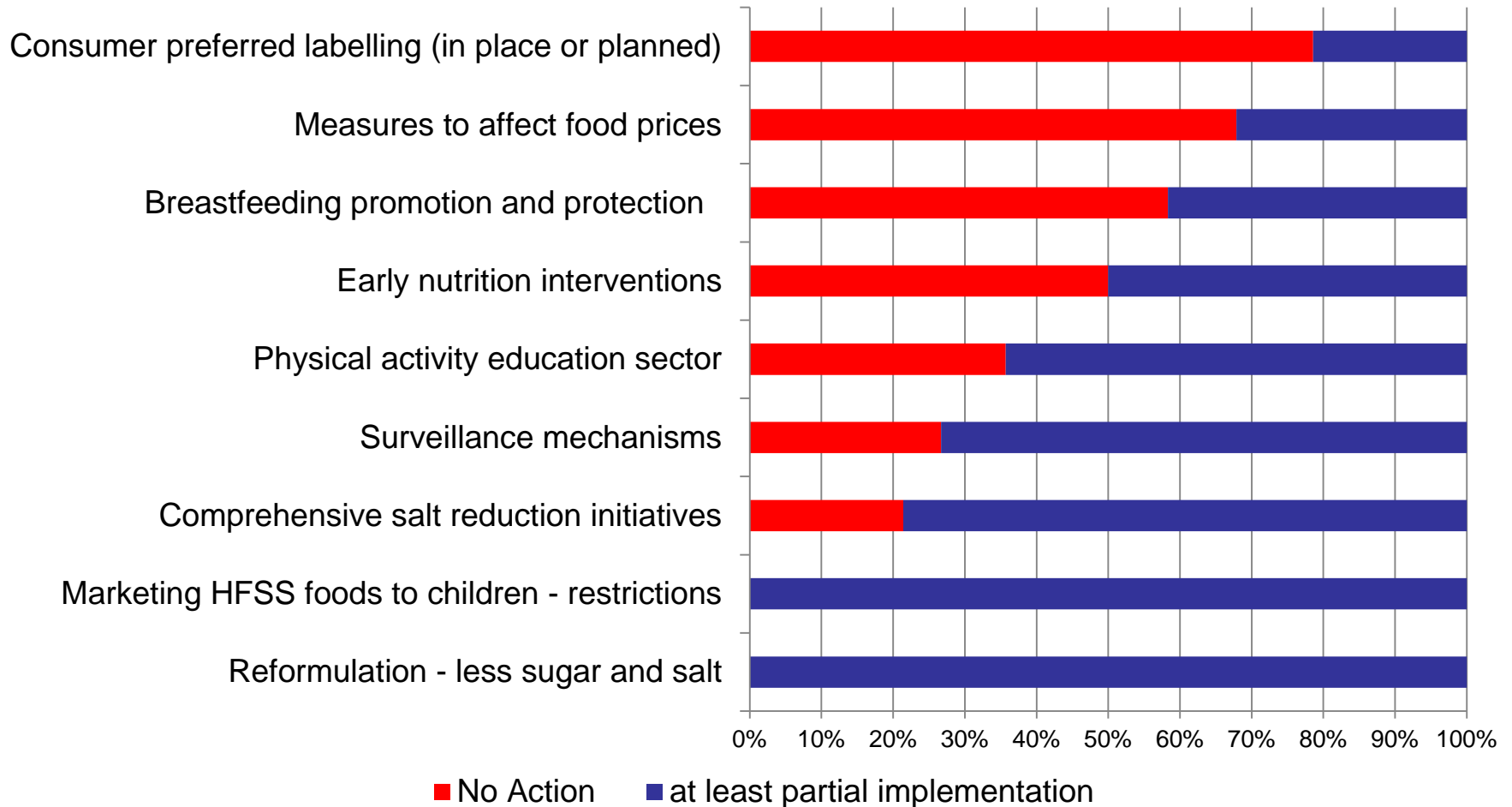
- Evidence on the effects of industrially produced *trans* fats has been increasing over the past three decades.
- The most recent WHO recommendations state that intake of *trans* fats should be as low as possible
- The recommendation to minimize *trans*-fat intake is based predominantly on evidence that *trans*-fat consumption significantly increases the risk of coronary heart disease

Evidence to inform policy

- **Collectively, the evidence suggests with reasonable confidence that price policies applied to food can influence what consumers buy and could contribute to improving health by shifting consumption and supporting healthier diets**
- **Growing body of evidence is diverse in terms of research methods, outcome of interest, type and level of taxation or subsidy, and target food or nutrients**



Policy implementation – EURO EU MS

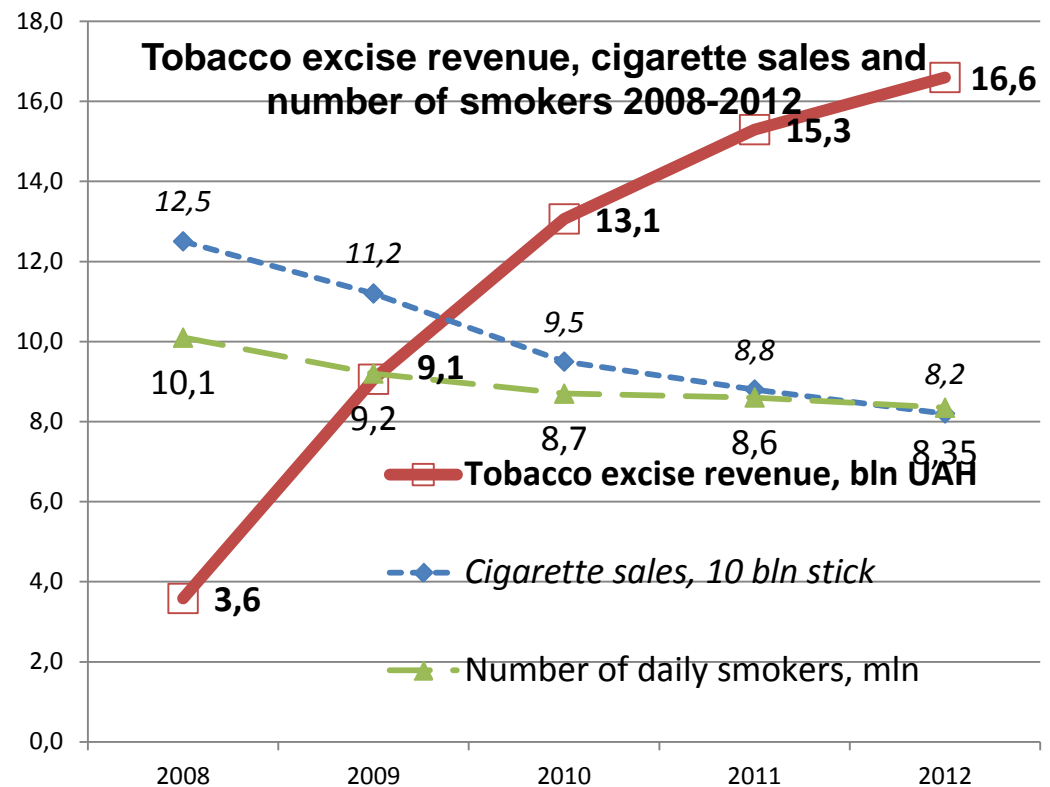


WHO FCTC : influence of price of cigarettes on smoking habits (Article 6)

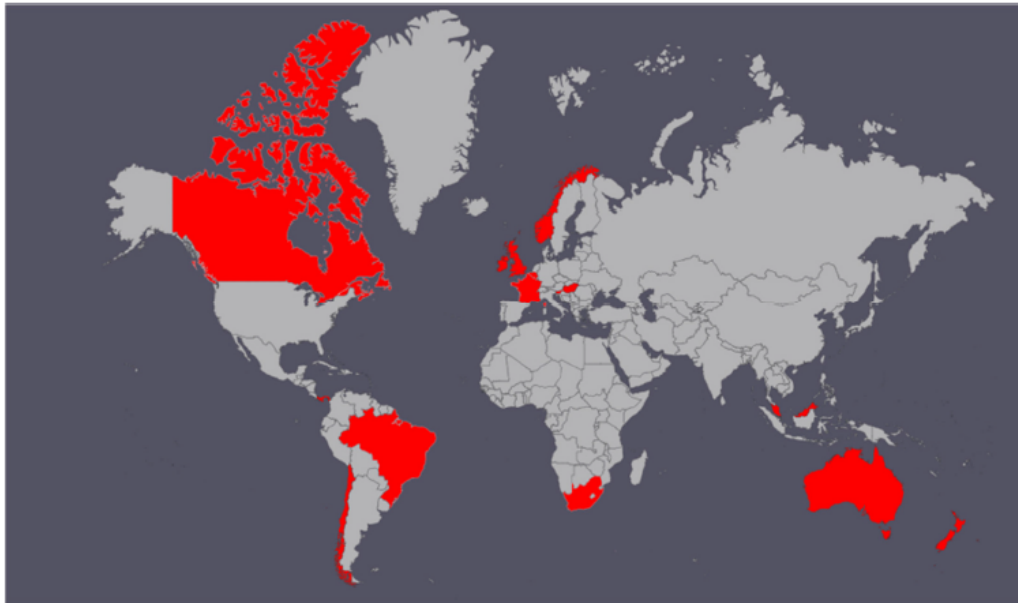
Key highlights

- ☒ Encourages tobacco users to quit
- ☒ Prevents children and non-smoker adults from starting to smoke
- ☒ Allocating tax revenues for tobacco control and other important health and social programmes further increases their popularity.

Impact of increase of taxes in Ukraine 8 times and prices 4 times between 2008 and 2012



Current situation of plain packaging



IMPLEMENTED:
AUSTRALIA
FRANCE
UNITED KINGDOM

APPROVED LEGISLATION:
IRELAND

STEPS TAKEN:
BRAZIL
CHILE
HUNGARY
MALAYSIA
NEW ZEALAND
NORWAY
PANAMA
SINGAPORE
SLOVENIA

ANNOUNCED:
CANADA
BELGIUM
SOUTH AFRICA

In the news since October 2015

Processed and red meats are linked to cancer - so how dangerous is a bacon sandwich?



SPIEGEL

So gefährlich ist Wurst wirklich

Le Monde

Le débat : peut-on encore manger de la viande ?

HOW MUCH IS TOO MUCH?

Daily approximate amounts of foods that will raise your health risks by 18%:



SOURCES: International Agency for Cancer Research; USA TODAY research by George Petras and Jim Sargent, USA TODAY



Want Bowel Cancer?

'Processed meat, bacon, sausage, ham... is so strongly linked with bowel cancer - the 2nd largest cause of cancer death ... that no one should ever eat it, according to a recent report'

MEAT AND CANCER HOW STRONG IS THE EVIDENCE?

IARC CARCINOGENIC CLASSIFICATION GROUPS

- GROUP 1** Causes cancer: Processed meats have been given Group 1 classification. Includes Salami, Hot dogs and sausages.
- GROUP 2A** Probably causes cancer: Red meats have been given Group 2A classification. (Does not include chicken or fish).
- GROUP 2B** Possibly causes cancer
- GROUP 3** Not classifiable as a cause of cancer
- GROUP 4** Probably not a cause of cancer

DANGERS OF PROCESSED MEAT

- HIGHER STROKE RISK**: A 2012 American Heart Association study linked stroke risk to processed meat consumption, with risk increasing by 12% for every daily serving.
- INCREASED RISK OF DEATH**: In 2013, the American Journal of Epidemiology reported that processed meat products are linked to increased risk of death.
- DOUBLE THE RISK OF LUNG DISEASE**: A 2007 study found that men who eat processed meat daily have more than double the risk of developing lung disease compared with men who rarely or never eat processed meat.
- DOUBLE THE RISK OF HEART DISEASE, CANCER, & DIABETES**: A 2014 Harvard study found that processed meat raises women's risk of cancer, heart disease, and diabetes. And a 2012 British Medical Journal Open study linked processed meat consumption to increased risk of heart disease.
- INCREASED RISK OF COLORECTAL CANCER & EARLY DEATH**: In 2013, the American Cancer Society found that colorectal cancer survivors who consume the most red or processed meat are more likely to die over a 22-year follow-up.
- INCREASED RISK OF BLADDER CANCER**: A 2010 NIH study found that consumption of processed meat increases risk for bladder cancer.
- INCREASED RISK OF PROSTATE CANCER**: A 2009 NIH study found that processed meat increases prostate cancer risk. Every 10 grams of processed meat consumed raises prostate cancer risk by 10%. A 2013 Harvard study found that men who consume the most processed meat have more abnormalities in sperm count, size, and shape.

BACON, SAUSAGES AS RISKY AS CIGARETTES, ALCOHOL?

WHO set to place processed meats such as ham, bacon, sausages, salami, bologna etc in the same cancer risk category as cigarettes, alcohol & asbestos, says UK paper

Announcement may lead to warning labels on processed meat packs

Red meat to be placed one rank lower as probably carcinogenic to humans

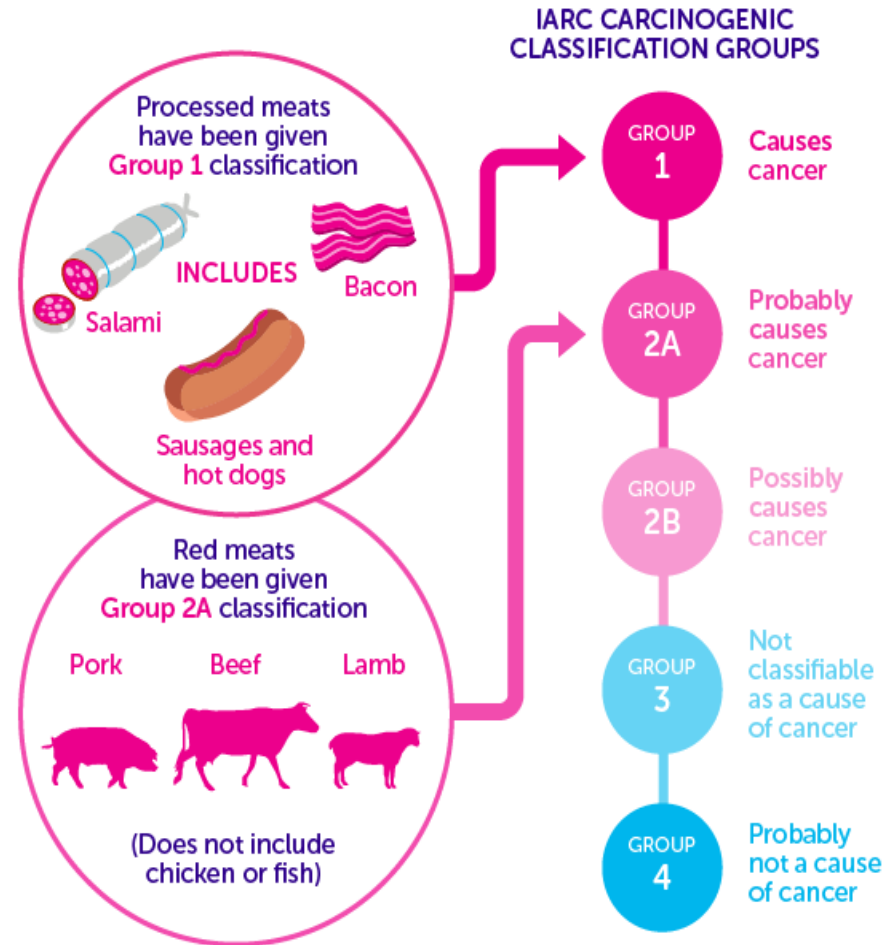
Concern in meat industry over labels of the impending legislation

for more information, please visit PCMR.org/DropTheDog

These categories represent how likely something is to cause cancer in humans, not how many cancers it causes

IARC groups represent the strength of the evidence of carcinogenicity

- *Sufficient evidence of carcinogenicity in humans:* consumption of processed meat causes colorectal cancer
 - Evaluation based on cohort and case-control studies in Europe, North America and Asia
- Moderate mechanistic support
- Overall evaluation: Group 1, **Carcinogenic to Humans**



Source: Oyster healthcare communications

Classifications under hazard systems

Under an hazard identification system, banana skins and cars would come under the same category



VS



However, they do not have the same consequences!!!

Impatto sulla salute e percezione del rischio per alcune esposizioni ambientali in Italia

Esposizione	Patologia	Numero atteso di casi/anno	Rilevanza per la sanità pubblica	Percezione del rischio
RADON	Tumore polmone*	1.600-6.400 ⁽¹⁾	+++	+
BENZENE	Leucemia**	16 - 275 ⁽²⁾	++	++
ELF	Leucemia**	3 ⁽³⁾	+	+++

* Numero totale stimato di casi annui di tumore del polmone \cong 32.000

** Numero totale stimato di casi annui di leucemia \cong 5.500

(1) Stime basate sulla letteratura

(2) Stime della Commissione Tossicologica Nazionale (1995)

(3) OMS, 1997

Risk perception in an era of post truth politics



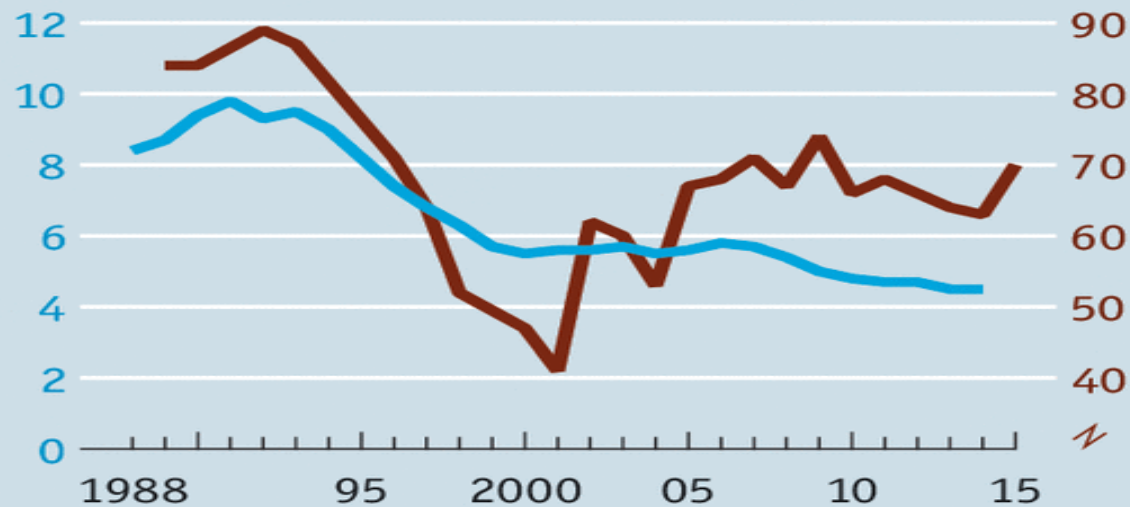
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Bodies of evidence

United States

Homicides
Per 100,000 population

Respondents who believe
that crime is increasing, %



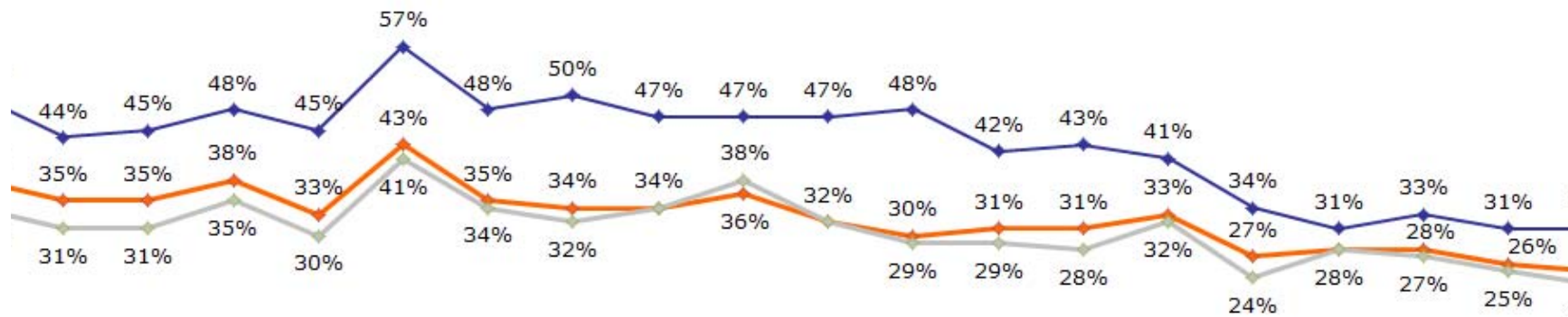
Sources: Gallup; FBI

Economist.com

Credibility and trust

QA10. I would like to ask you a question about how much trust you have in certain institutions. For each of the following institutions, please tell me if you tend to trust it or tend not to trust it.
- Tend to trust - %EU

◆ The European Union ◆ The (NATIONALITY) Parliament ◆ The (NATIONALITY) Government

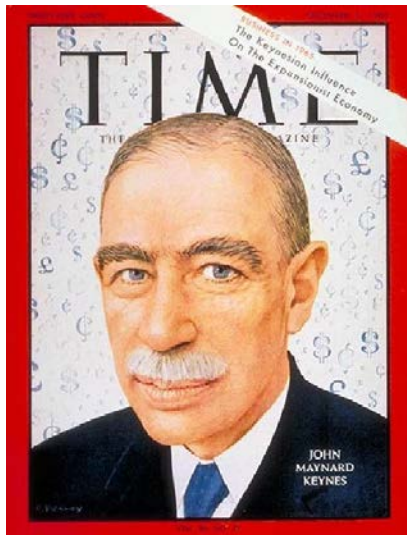


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Sp.2013

Challenges for knowledge brokering

- Evidence is not communicated effectively (wrong targeting)
- Evidence is not available when policy-makers need it and in a form that they can use it (i.e., wrong time and wrong packaging)
- Policy-makers lack the capacity to find and use evidence efficiently and lack mechanisms to prompt to use it
- Policymakers lack opportunities to discuss system challenges with researchers
- Pressure from vested interests
- Public perception and the role of social media

“There is nothing a politician likes so little as to be well informed, it makes decision making so complex and difficult.”



John Maynard Keynes

Science and policy: a possible solution

