

# WCRF Continuous Update Project – updates and recent work







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World Cancer Research Fund International

**Scottish Cancer Prevention Network 2012** 

#### **About WCRF Global Network**

#### **Our vision**

The World Cancer Research Fund global network helps people make choices that reduce their chances of developing cancer

#### **Our mission**

- Funding research on the relationship of nutrition, physical activity and weight management to cancer risk
- Interpreting the accumulated scientific literature in the field
- Educating people about choices they can make to reduce their chances of developing cancer





### Continuous Update Project: CUP

- Continuous review of evidence on food, nutrition, physical activity, body fatness and cancer
- Researchers at Imperial College London
  - Update CUP database of research
  - Systematically review the evidence
- Expert Panel
  - Draw conclusions
  - Make Recommendations





#### Plan of work

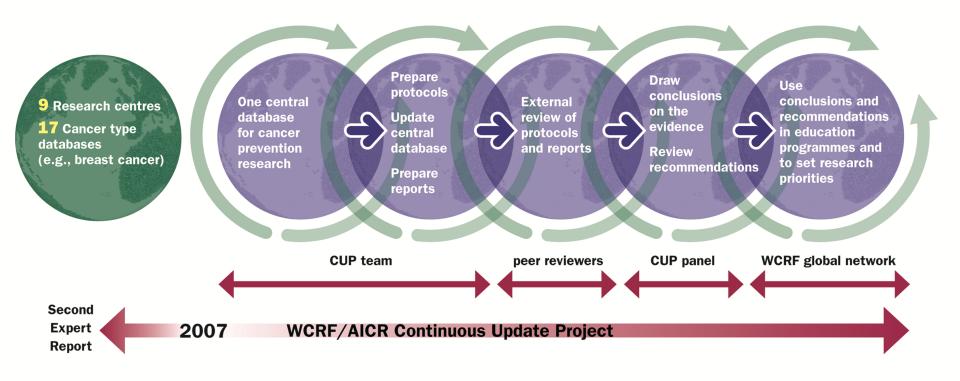
- Until 2015 Rolling programme of updates
- 2015 CUP database updated for all cancers
- 2015-2017 Panel review evidence for all cancers
- 2017 Statement to be published on evidence
- From 2017 continue to update and review evidence





# **CUP** process

#### **The Continuous Update Project - process**





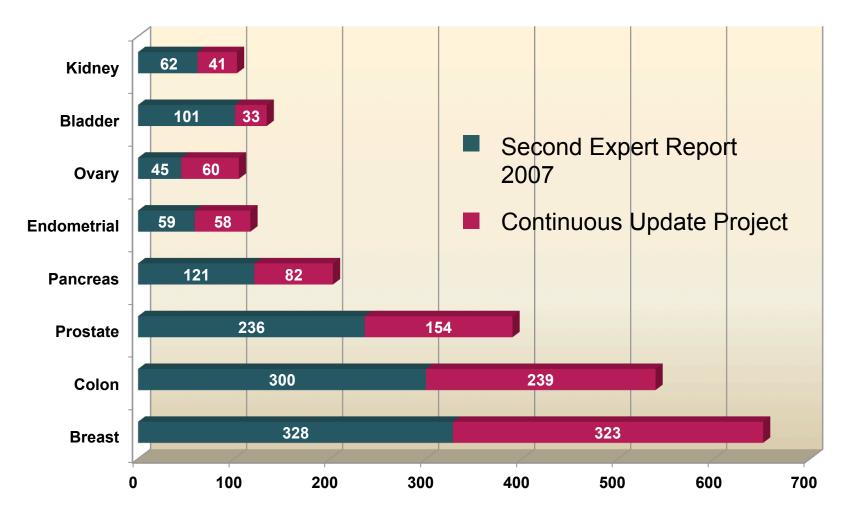








# Number of articles from cohort studies in CUP database for selected cancers







#### **Breast cancer 2010**

Evidence for all factors was consistent with the conclusions from the Second Expert Report

#### FOOD, NUTRITION, PHYSICAL ACTIVITY, AND CANCER OF THE BREAST (POSTMENOPAUSE)

	DECREASES RISK	INCREASES RISK
Convincing	Lactation	Alcoholic drinks Body fatness Adult attained height <sup>1</sup>
Probable	Physical activity <sup>2</sup>	Abdominal fatness Adult weight gain

#### FOOD, NUTRITION, PHYSICAL ACTIVITY, AND CANCER OF THE BREAST (PREMENOPAUSE)

	DECREASES RISK	INCREASES RISK
Convincing	Lactation	Alcoholic drinks
Probable	Body fatness	Adult attained height <sup>1</sup> Greater birth weight





#### **Colorectal cancer 2011**

#### FOOD, NUTRITION, PHYSICAL ACTIVITY, AND CANCERS OF THE COLON AND THE RECTUM

	DECREASES RISK	INCREASES RISK
Convincing	Physical activity <sup>12</sup> Foods containing dietary fibre <sup>3</sup>	Red meat <sup>4</sup> Processed meat <sup>5</sup> Alcoholic drinks (men) <sup>6</sup> Body fatness Abdominal fatness Adult attained height <sup>7</sup>
Probable	Garlic Milk <sup>8</sup> Calcium <sup>9</sup>	Alcoholic drinks (women) <sup>6</sup>

 Foods containing dietary fibre upgraded from probable to convincing





#### Pancreatic cancer 2012

Foods
containing
folate
downgraded
from
probable
decreases
risk

# FOOD, NUTRITION, PHYSICAL ACTIVITY, AND PANCREATIC CANCER 2012

	DECREASES RISK	INCREASES RISK	
Convincing		Body fatness¹	
Probable		Greater childhood growth <sup>2</sup>	
Substantial effect on risk unlikely	Coffee		

- **1** The Panel interpreted BMI, measures of abdominal girth, and adult weight gain as indicating interrelated aspects of body fatness as well as fat distribution
- **2** Childhood growth incorporates both linear growth and acquisition of both lean and fat tissue in childhood and adolescence (marked by adult attained height and BMI at aged ~20 years)





# Estimates of cancer preventability(%) by appropriate food, nutrition, physical activity and body fatness for UK

	Breast	Colorectum	Pancreas
Foods containing fibre		12	
Red meat		5	
Processed meat		10	
Alcoholic drinks	22	7	
Physical activity	12	12	
Body fatness	16	14	15
Total	42	47	15





# Key message

 About a third of the most common cancers can be prevented by choosing a healthy diet, being physically active and maintaining a healthy weight





#### **Novel Aspects of CUP/Future Work**

- Breast cancer survivors
- Mechanisms







#### **Breast Cancer Survivors**

- Limited evidence on survivorship for Second Expert Report
  - No conclusions possible
- CUP Panel identified breast cancer survivors as special priority
- New protocol applicable to other cancer survivors
- Aim, provide evidence based guidance





# Systematic literature review

- Survivors primary breast cancer
- Food, nutrition, physical activity, body fatness
- Randomised controlled trials/Observational studies
  - before diagnosis of primary breast cancer
  - at diagnosis
  - during therapy
  - after therapy

#### Outcomes

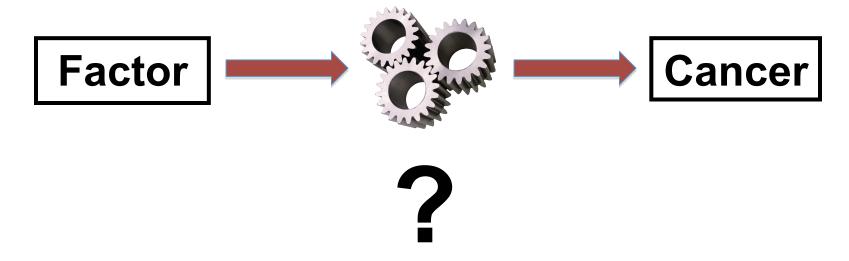
- total mortality
- breast cancer mortality
- breast cancer recurrence





#### Mechanisms

For any exposure/outcome what is the mechanism that causes or protects from cancer?



**Biological/Cellular Pathway** 









- Reviews systematic
- Conducted by exposure
  - Where epi link probable/convincing
- Feasibility test of draft protocol (expertise in informatics, stats, cancer biology, nutrition)
- Panel's judgements to be based on mechanisms as well as epidemiology





#### **CUP: Achievements**

- Creation of more efficient merged database
- Database up to date for 8 cancers and breast cancer survivors
- Updated evidence reports published for breast, colorectum and pancreas
- 14 Journal papers
- In 2013 reports to be published on endometrium, ovary and breast cancer survivors





#### Thank You!

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