

## Second primary cancer risk after breast, colorectal and prostate cancers: Results from long-term follow-up of cancer registry patients in Scotland.

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*In collaboration with the West of Scotland Cancer Surveillance Unit*

## Background

- Increasing survival from cancer diagnosis
  
- Possible reasons for increased risk of subsequent cancers
  1. Genetic predisposition
  2. Modifiable risk factors
  3. Effects of primary cancer treatment
  4. Artefact
  
- Patients are concerned about their future risks and medical professionals feel they have a duty to provide such care.

University of Glasgow **Overview**

### 1. Aim

*This study will estimate the incidence and identify risk factors for second primary cancers in a large West of Scotland cohort.*

### 2. Objective

*Conduct a retrospective cohort study using linked West of Scotland cancer registry data*

### 3. Method

### 4. Results

### 5. Conclusion

### 6. Clinical implications



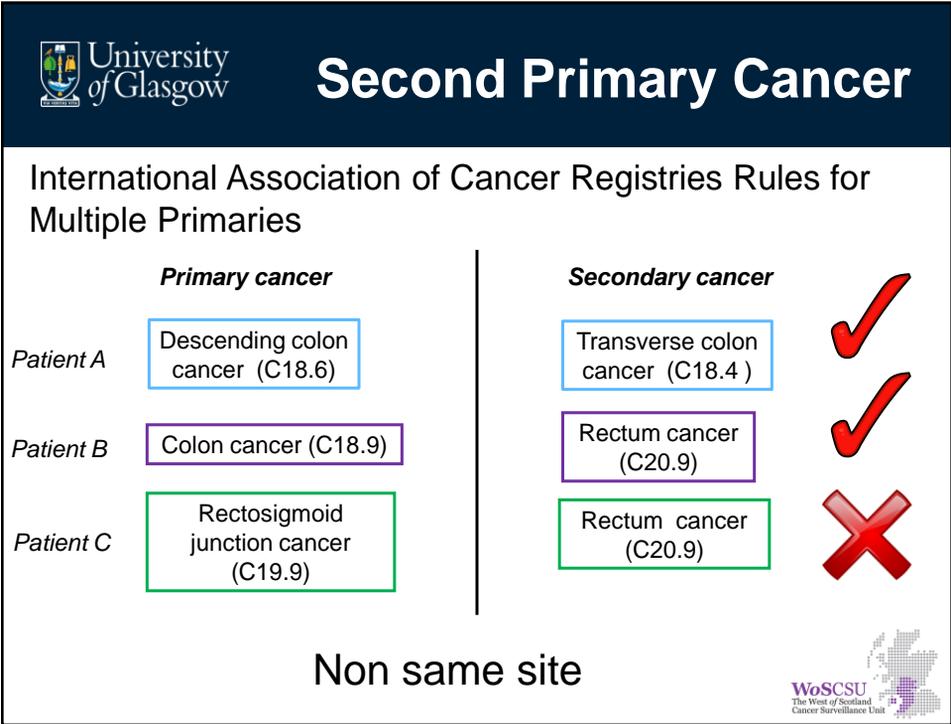
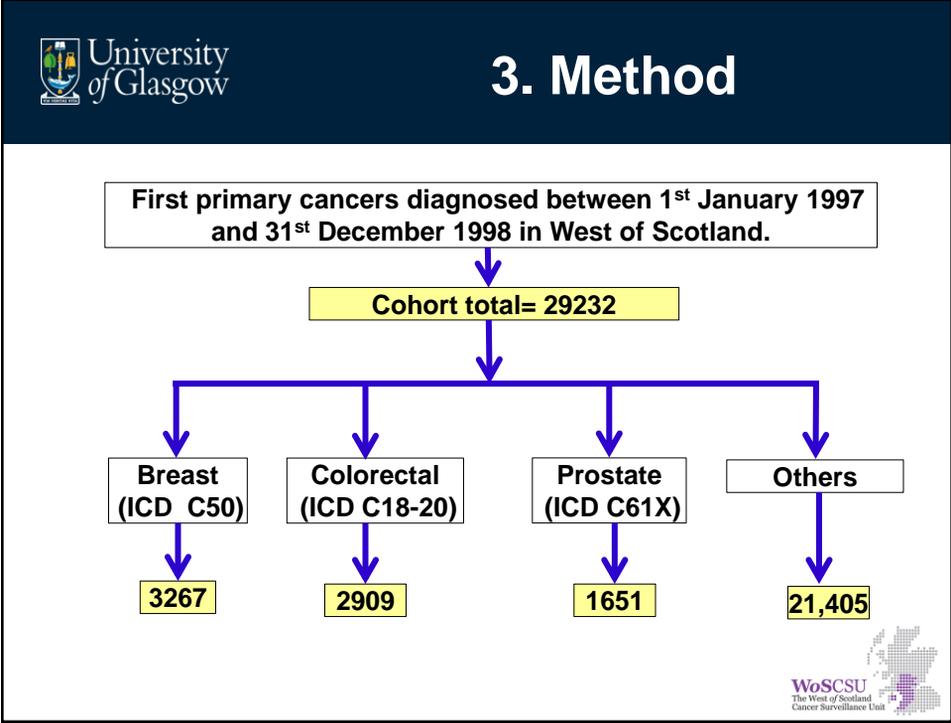
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West of Scotland Health Board Areas



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## 4. Results

SPC occurrence in cohort of 7827 with index breast, colorectal and prostate cancer.

	<i>First primary subtype</i>		
	Breast cancer	Colorectal cancer	Prostate cancer
	Percentage Frequency (n)	Percentage Frequency (n)	Percentage Frequency (n)
<b>First primary cancer</b>	3267	2909	1651
<b>Second primary cancer</b>	<b>9.0%</b> 293	<b>10.2%</b> 298	<b>15.8%</b> 261

\*Maximum follow up December 2008.

# Results

**Median time from index cancer diagnosis to SPC diagnosis, by index cancer subtype**

Breast **5.5 years**  
 Colorectal **4.0 years**  
 Prostate **3.8 years**

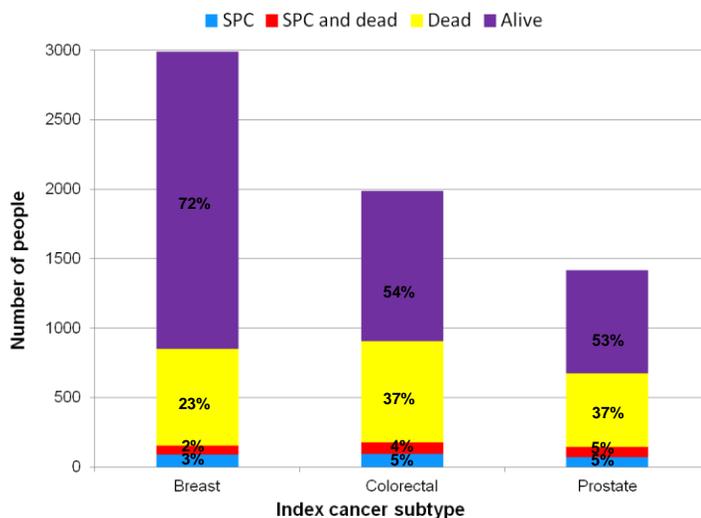
**Demographic features of SPC patients at index cancer diagnosis**

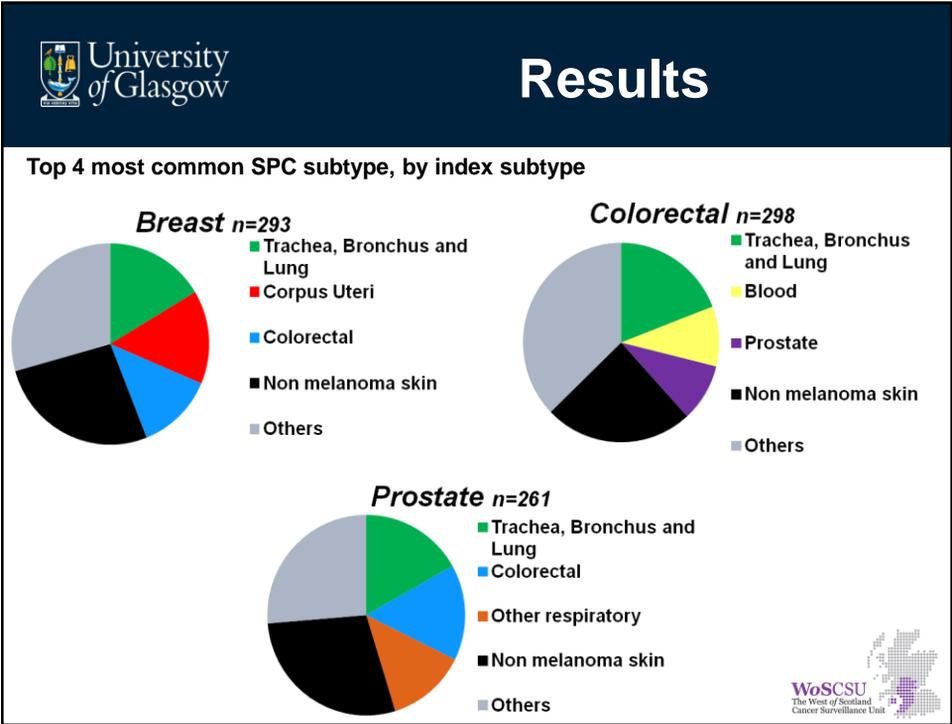
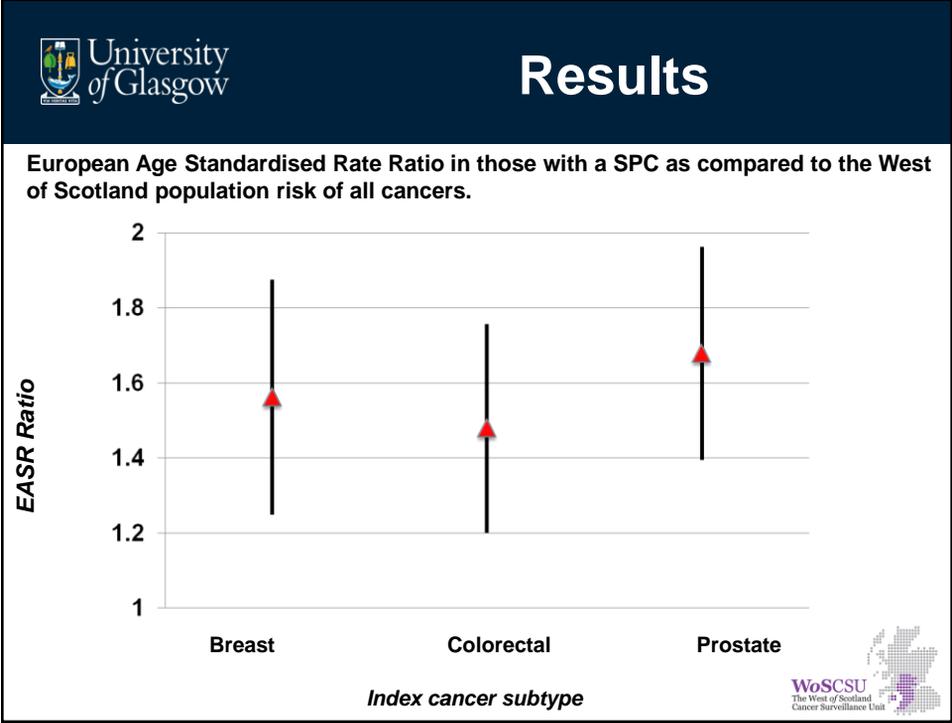
	<i>Primary cancer subtype</i>		
	Breast	Colorectal	Prostate
<b>Mean age (years)</b>	65.6	70.9	72.4
<b>Sex (%)</b>			
<i>Male</i>		61%	100%
<i>Female</i>	100%	39%	
<b>Median survival* (years)</b>	9.6	8.6	7.0

\* Time since index cancer diagnosis to death or censor

# Results

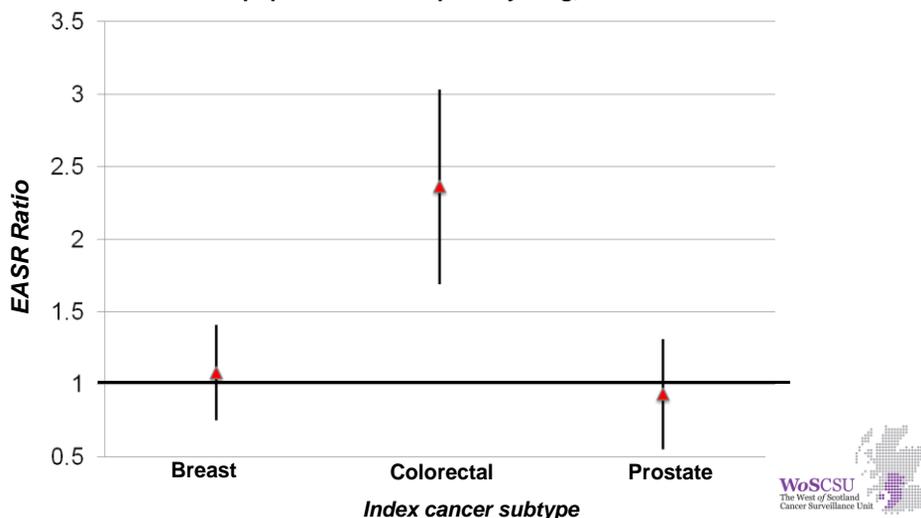
**Cohort 5 year survival status, dependent on 1 year survival since index cancer**





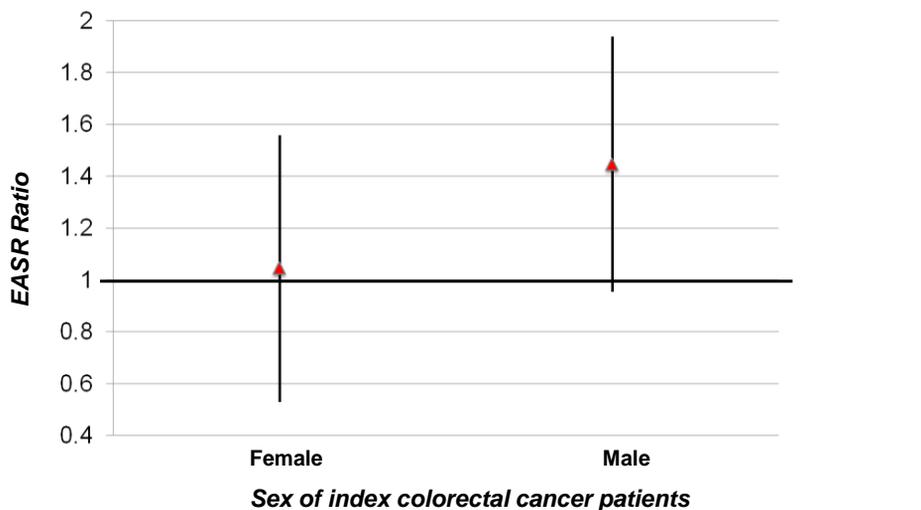
## Results

European Age Standardised Rates of lung, trachea or bronchus SPC as compared to the West of Scotland population risk of primary lung, trachea and bronchus cancers.



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## 5. Conclusions

- The rates of second primary neoplasms were greater in our cohort as compared to rates of cancer in the West of Scotland general population.
- Non melanoma skin neoplasms and smoking related neoplasms were the most common cancers.

## 6. Clinical Implications

Modifiable risk factor support:  
*Sun protection and education*  
*Smoking cessation support*

Improved clarity on second primary cancer definition



# Acknowledgements

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