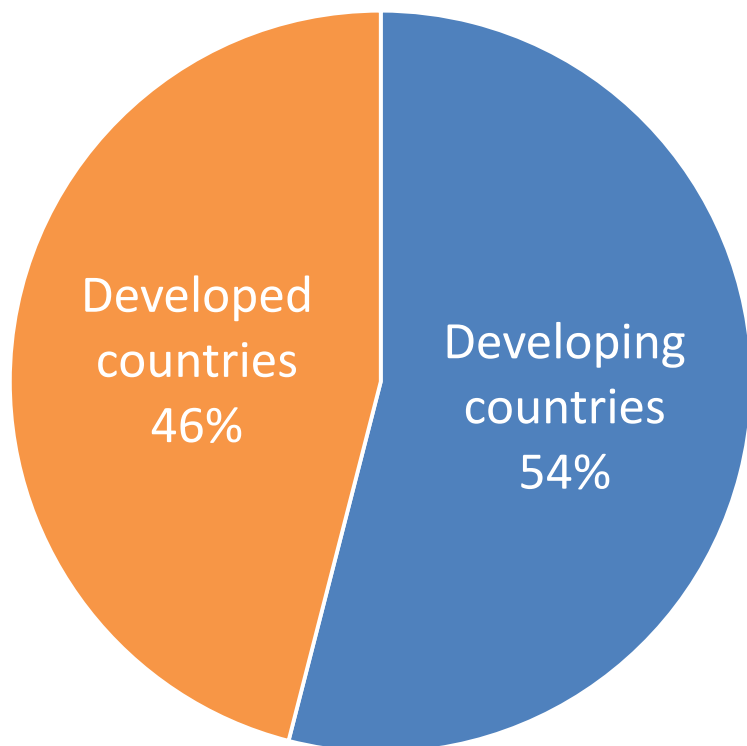


# Cancer-related productivity losses in emerging economies

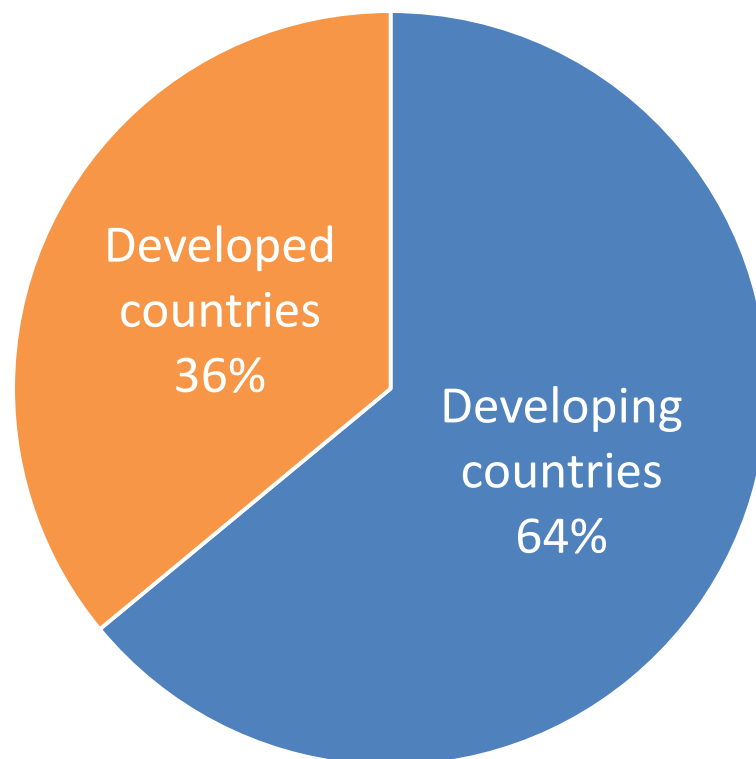
A Pearce, P Hanly, L Sharp, P  
Gupta, F Bray, YL Qiao, SM  
Wang, A Barchuk, I  
Soerjomataram

# Cancer in emerging economies

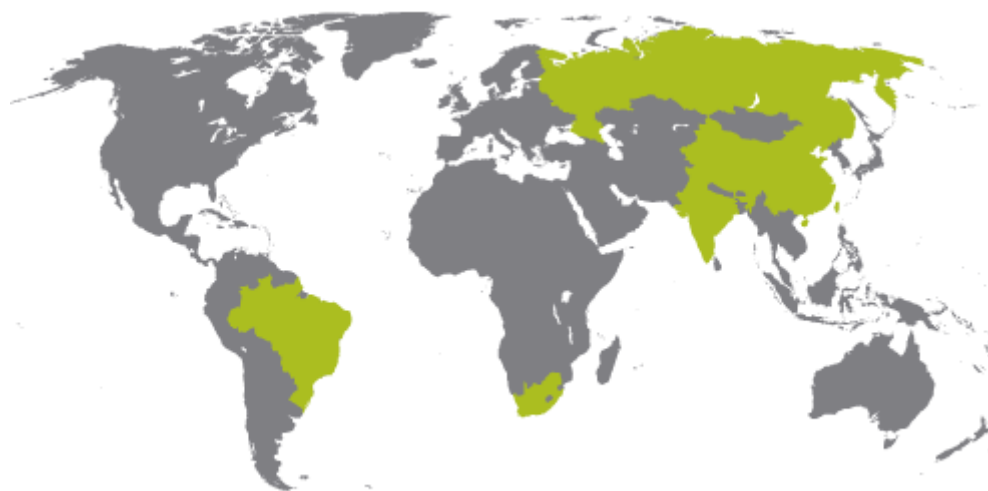
## Cancer diagnoses



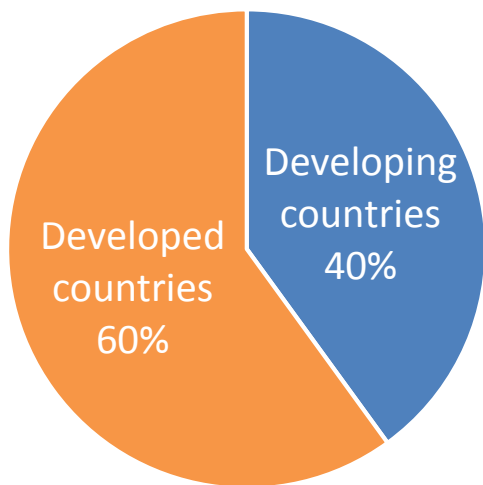
## Cancer deaths



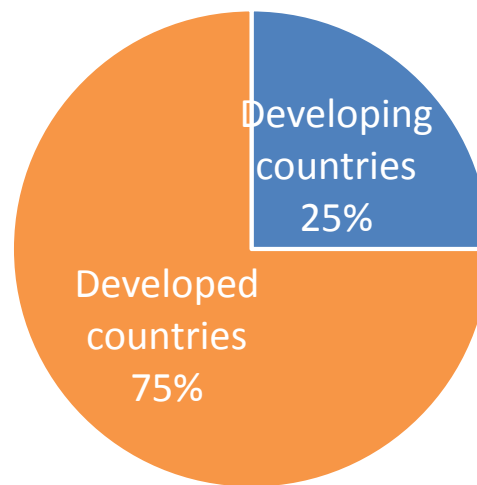
# BRICS countries



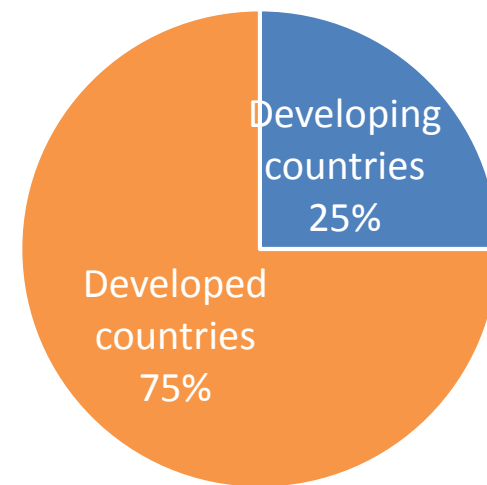
World's population



World's land area



World's GDP



# Burden of cancer

Everyone's work contributes to the economy, and not working represents a loss to society



# Aim

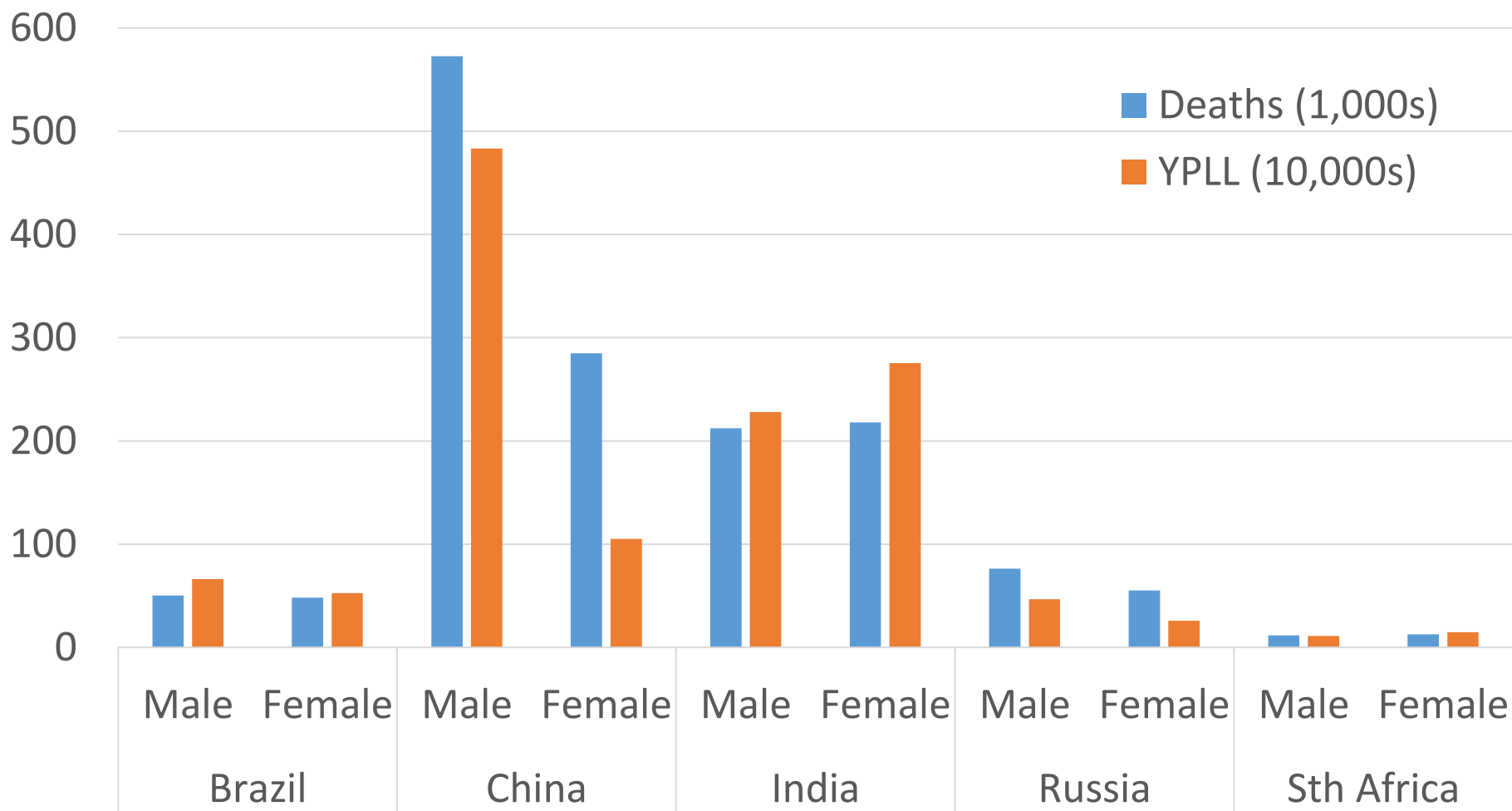
To estimate the value of lost productivity due to cancer-related premature mortality in Brazil, Russia, India, China and South Africa (BRICS)

# Methods & Data

- Incidence-based, human capital approach
- GLOBOCAN data
  - Cancer mortality rates
- OECD & ILO data
  - Workforce participation & unemployment
  - Wages & future wage growth
  - Retirement ages

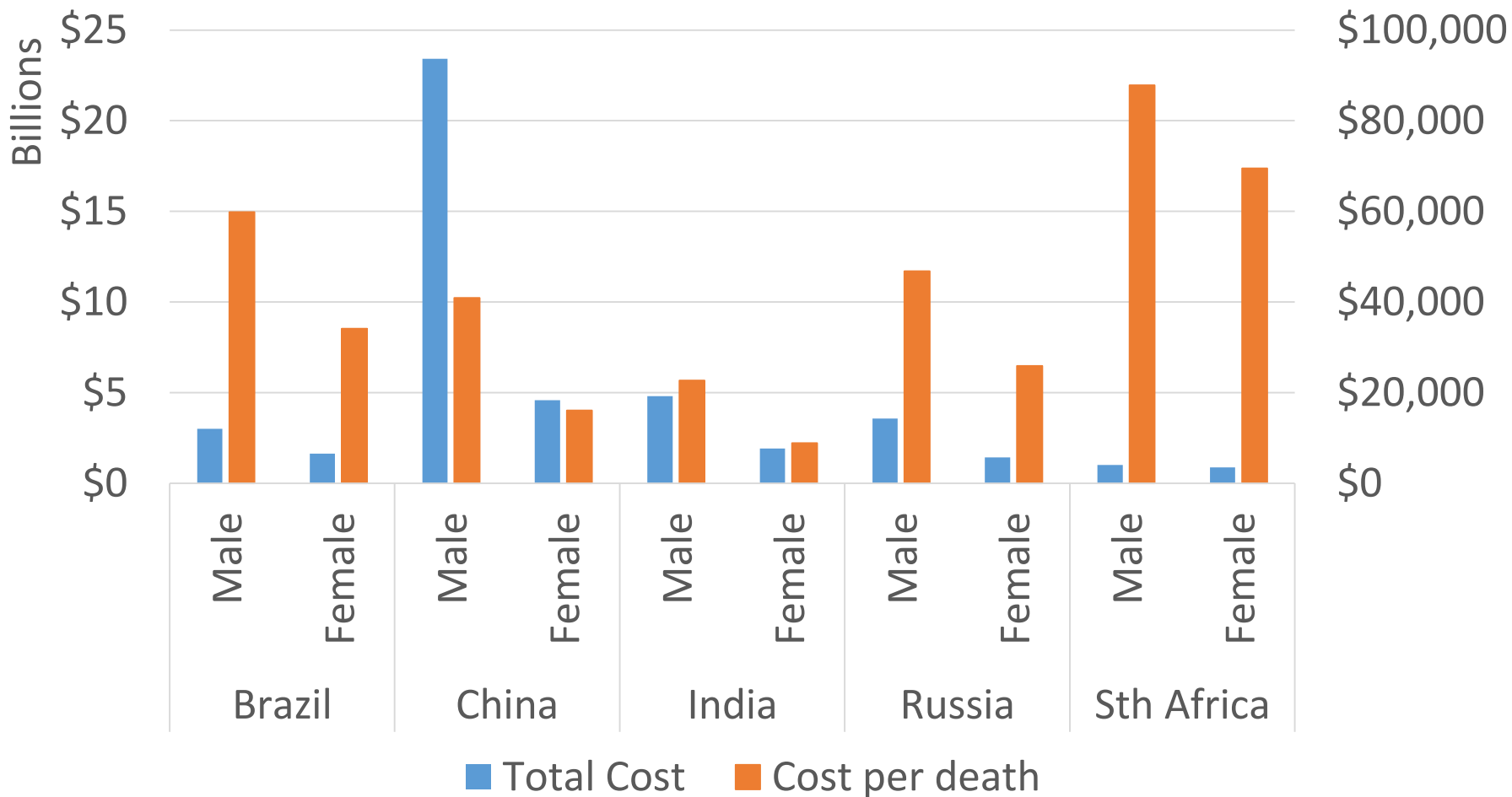
# Deaths & YPLL

## Deaths & Years of Productive Life Lost



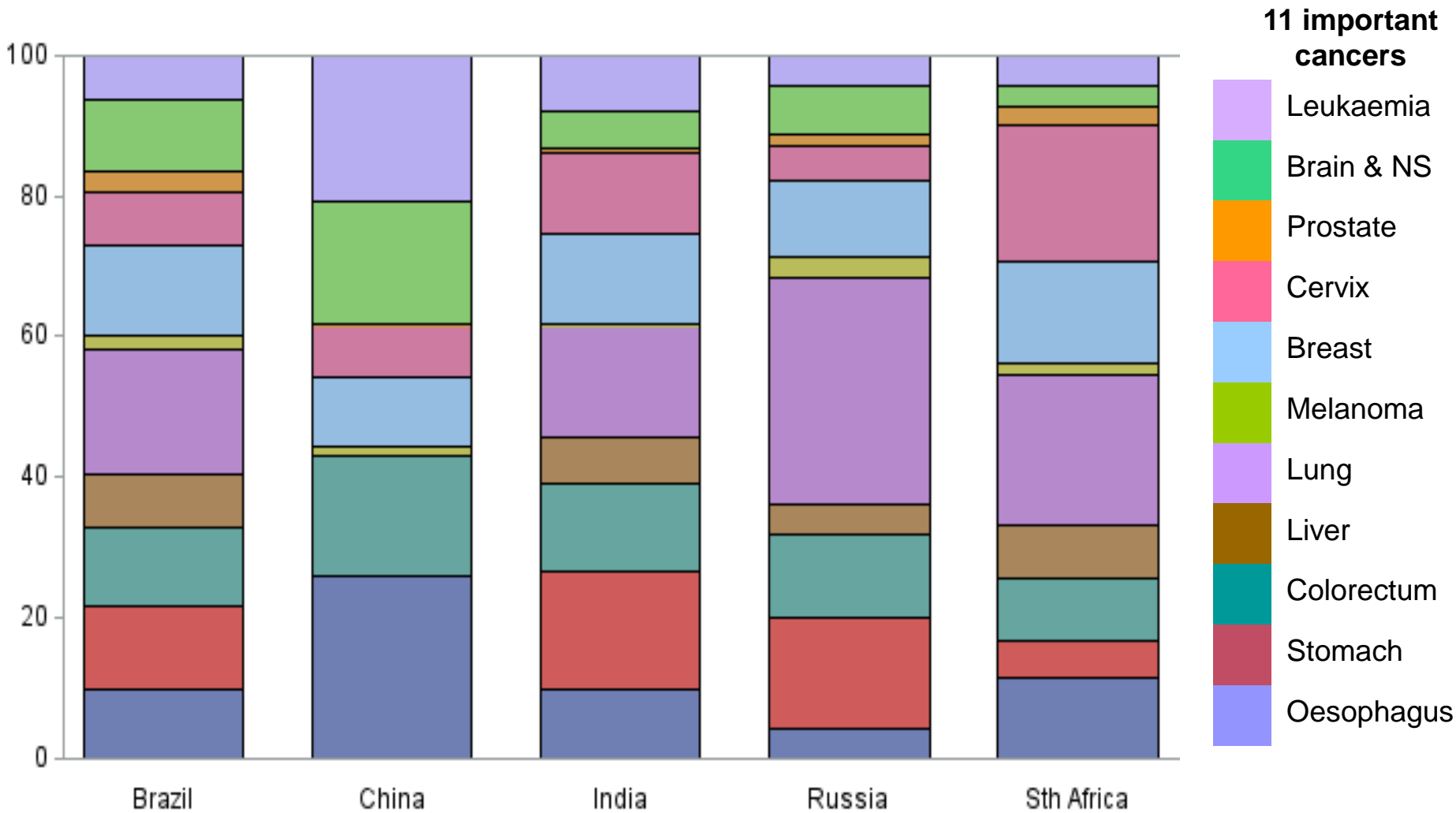
# Total cost & cost per death

Total cost and cost per death

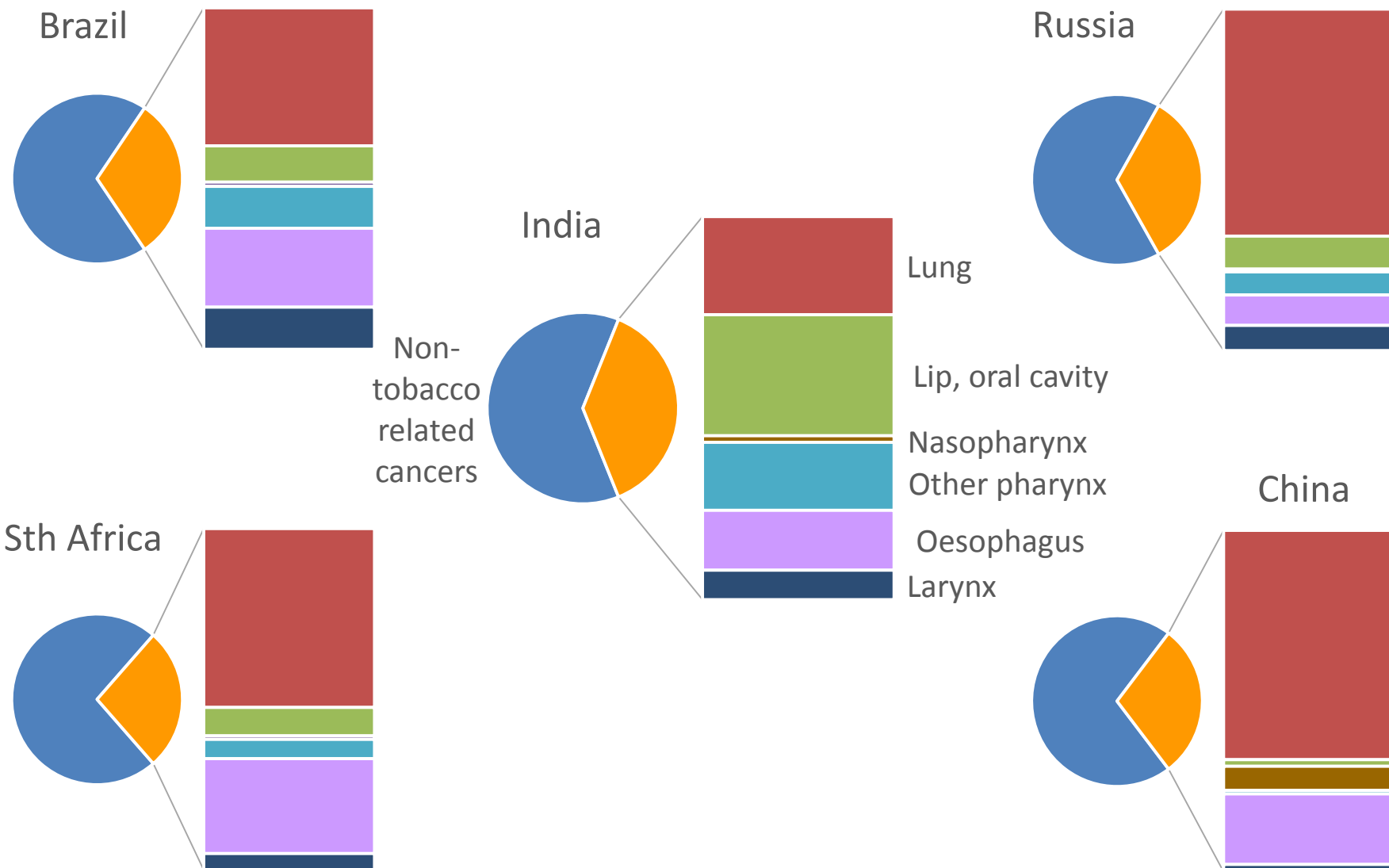




# Results by cancer



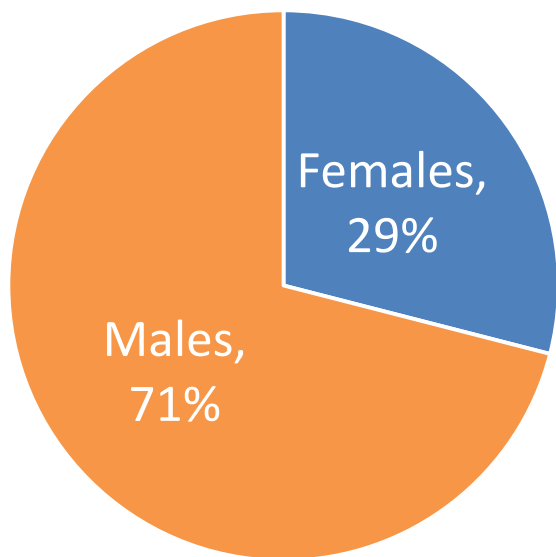
# Tobacco related cancers



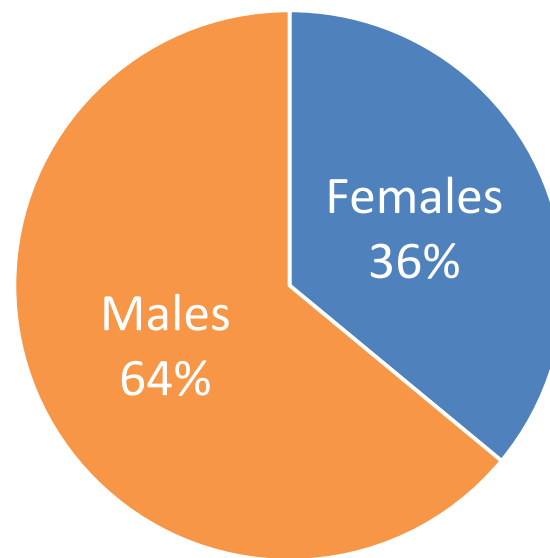
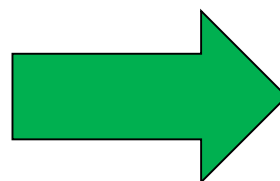
# Sensitivity Analyses

- Divide Chinese data by urban and rural
- Increase retirement ages in China & Russia
- Changing growth rates & discounting
- Increase workforce participation in India

**Base case**



**Increased female participation**



# Implications

- Prevention activities are important, and need to extend beyond tobacco control
- Earlier detection and improved treatment availability to reduce mortality may be economically efficient
- Potential increase in cancer burden through ageing, urbanisation and westernisation

# Conclusions

- Limitations: lack of data, assumptions around employment (informal economies and household production)
- Valuing cancer related lost productivity can provide policy makers with an additional perspective when identifying priorities for cancer prevention and control

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