

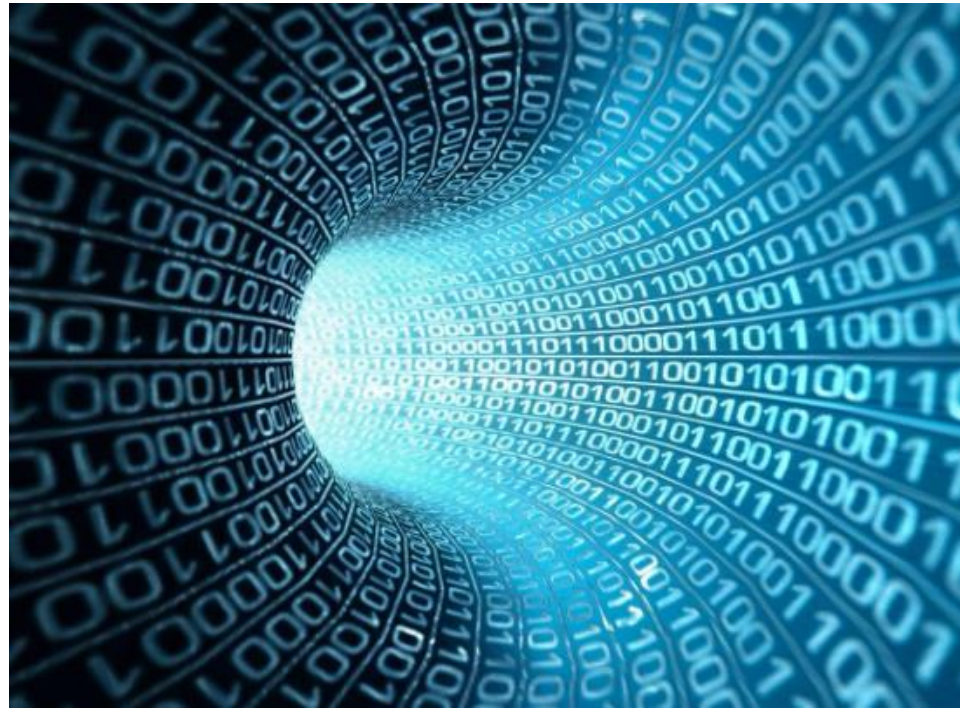
# The Incidence and Outcome in England of Patients with Brain Tumours: TYA to the Elderly

Andrew Brodbelt, David Greenberg, Sarah Miller,  
Tina Karabatsou, Matt Williams, Peter Collins  
and on behalf of the NCRAS brain tumour group

NCIN CNS tumours workshop April 12<sup>th</sup> 2016

# The core objective of National Cancer Registration and Analysis Service (NCRAS): link data with patient outcome

- Promoting data collection
- National repository datasets
- Expert analyses
- Improve standards of care and outcomes
- Support audit and research



Public Health  
England

# Published UK national data is rare.

- CRUK, Macmillan
- 1999 – 2013
- National cancer registration service
- Hospital Episode Statistics (HES)
- NHS Personal Demographic Service
- Radiotherapy data some limitations
- England only

# Questions page 1

1. How many adults get a primary brain tumour each year in England?

- A. 2500
- B. 5000
- C. 8500
- D. 12000

2. What percentage of  $\geq 70$ yr meningioma patients die within 1 year of diagnosis?

- A. 5%
- B. 10%
- C. 20%
- D. 30%

# Questions page 2

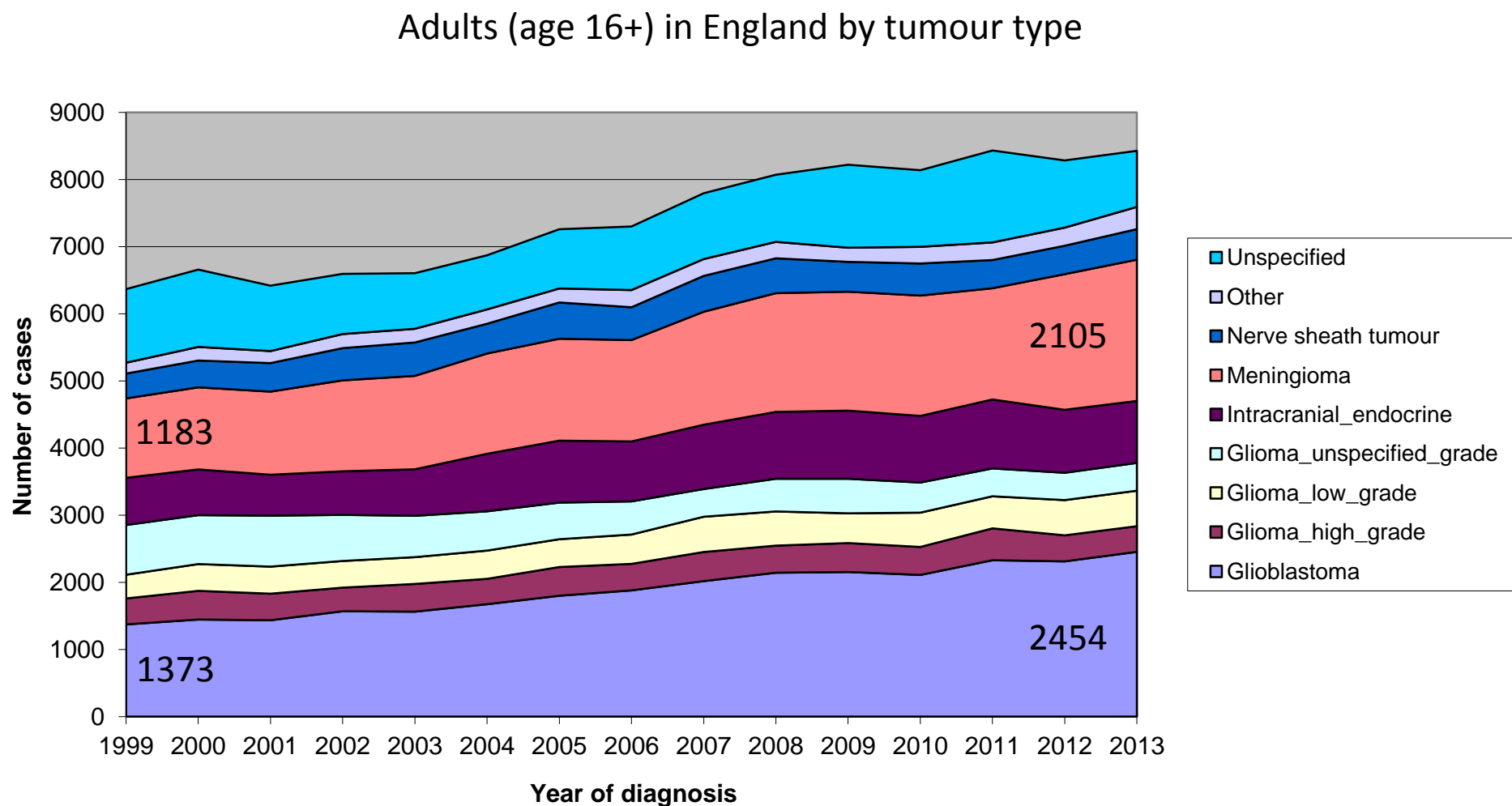
3. Which statements are correct?

- A. The cancer two week wait pathway is a common referral route for brain tumour patients.
- B. >90% of the elderly present through A+E
- C. There are significant delays to surgery
- D. >80% of GBM patients get radiotherapy

4. Which statements are correct?

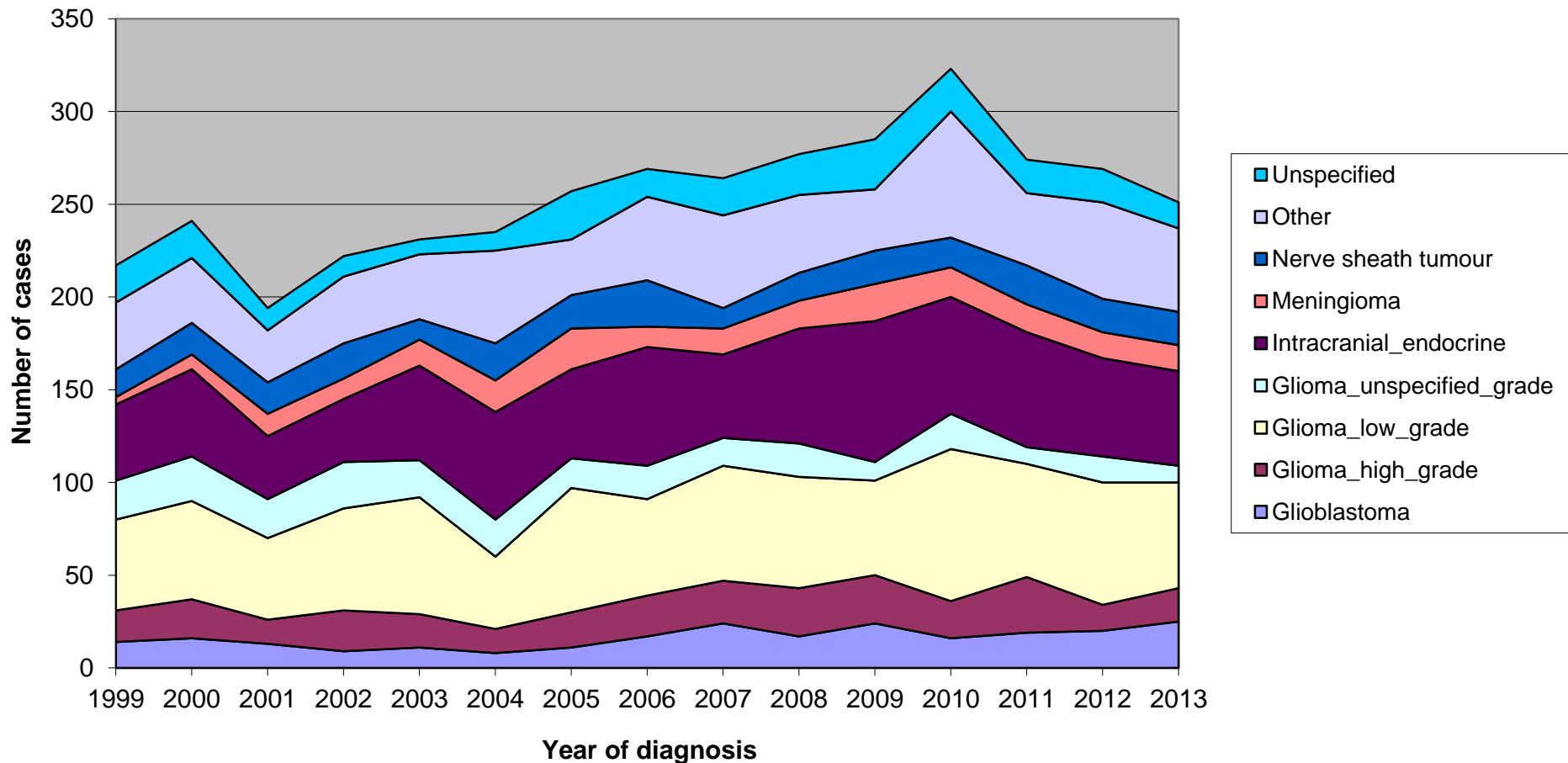
- A. 25% of TYA GBM patients survive 5 years
- B. LGG patient survivals are better now than 10 years ago
- C. <45% of LGG pts  $\geq$  70 yrs will be alive at 1 year.
- D. Intracranial endocrine tumours make up 11.5% of the total tumour group

# Primary brain tumours are increasing



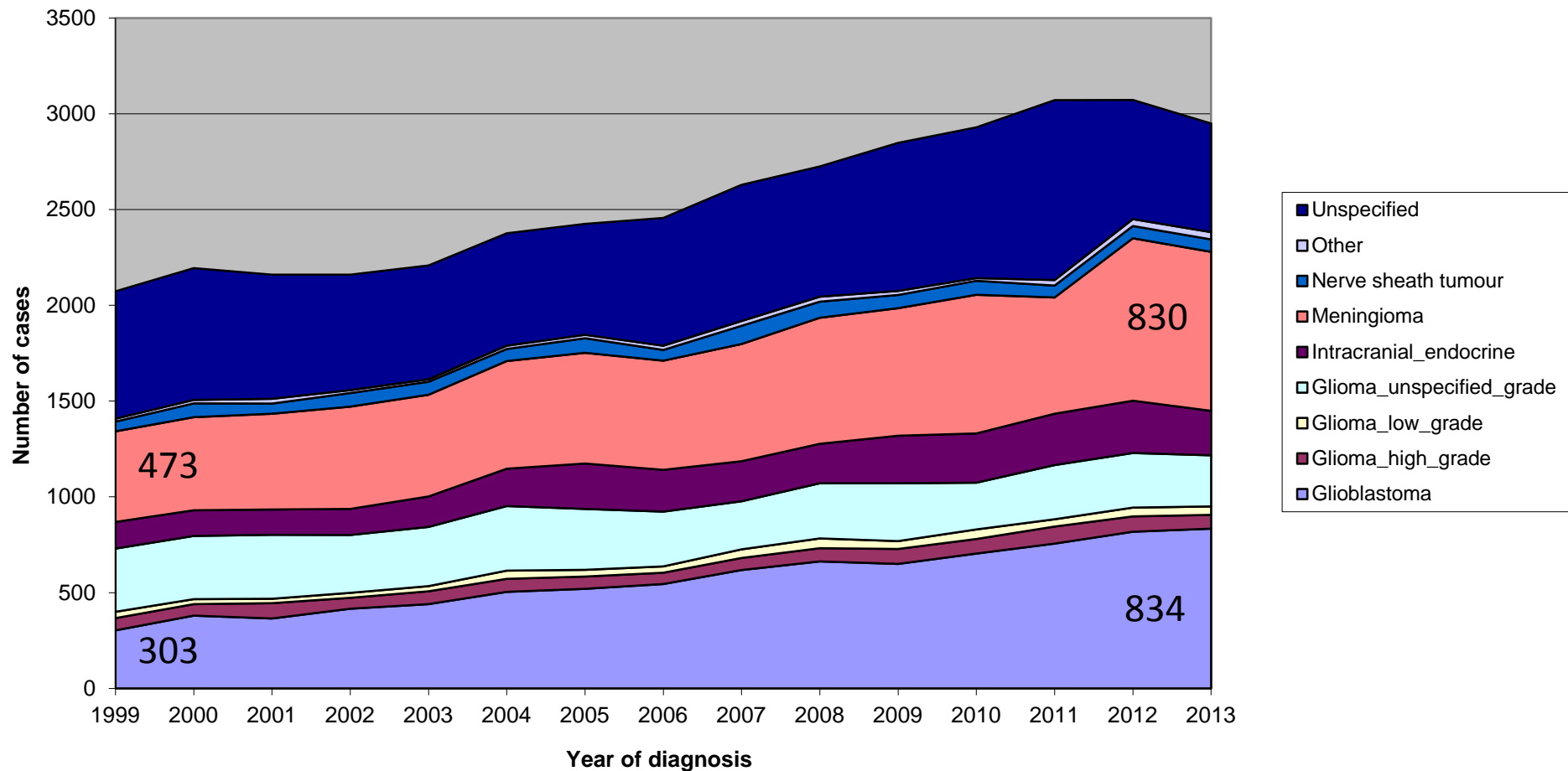
# There is no significant increase in the TYA group

Teenage and Young Adult (16-24) in England by tumour type



# There is a significant increase in the elderly

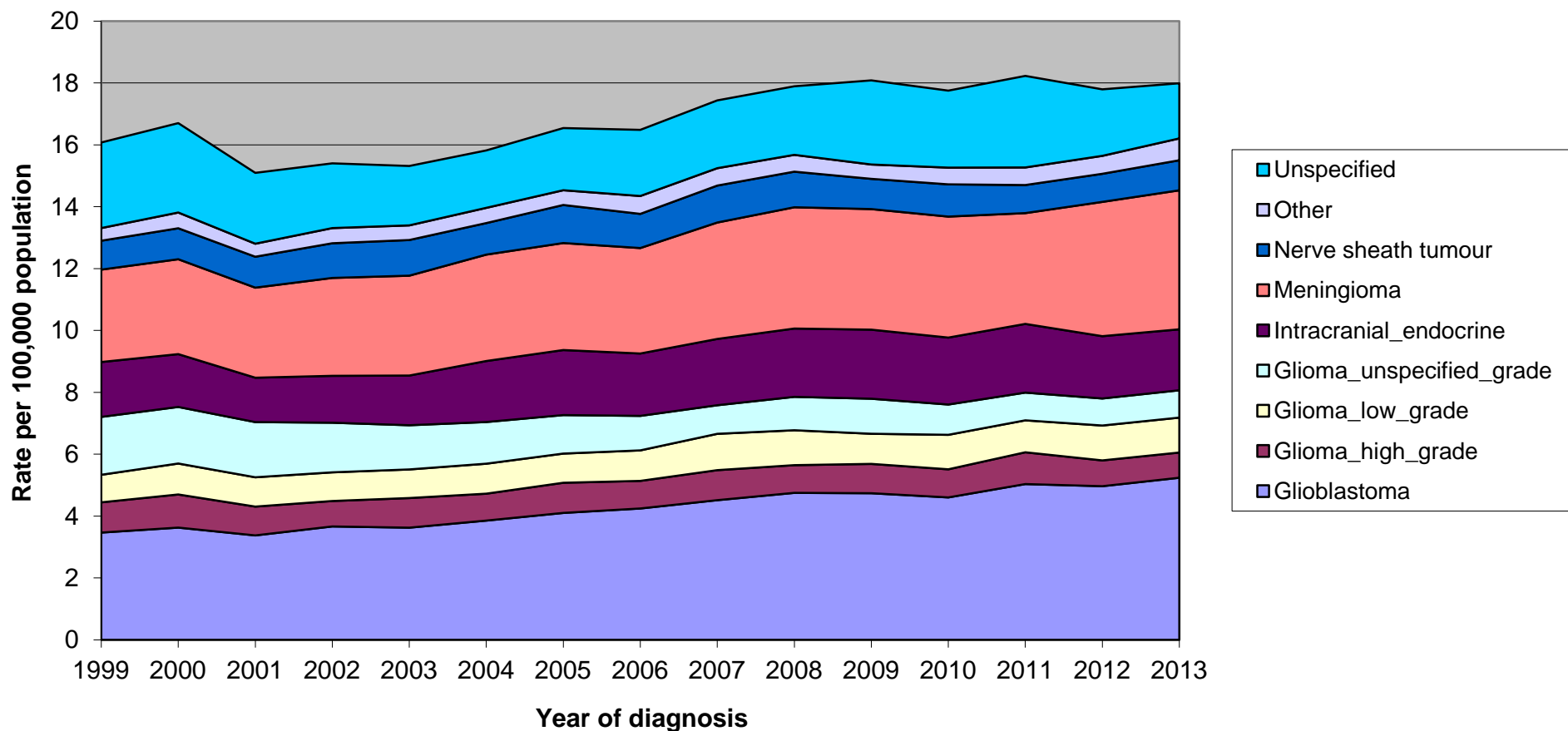
The elderly (70+) in England by tumour type





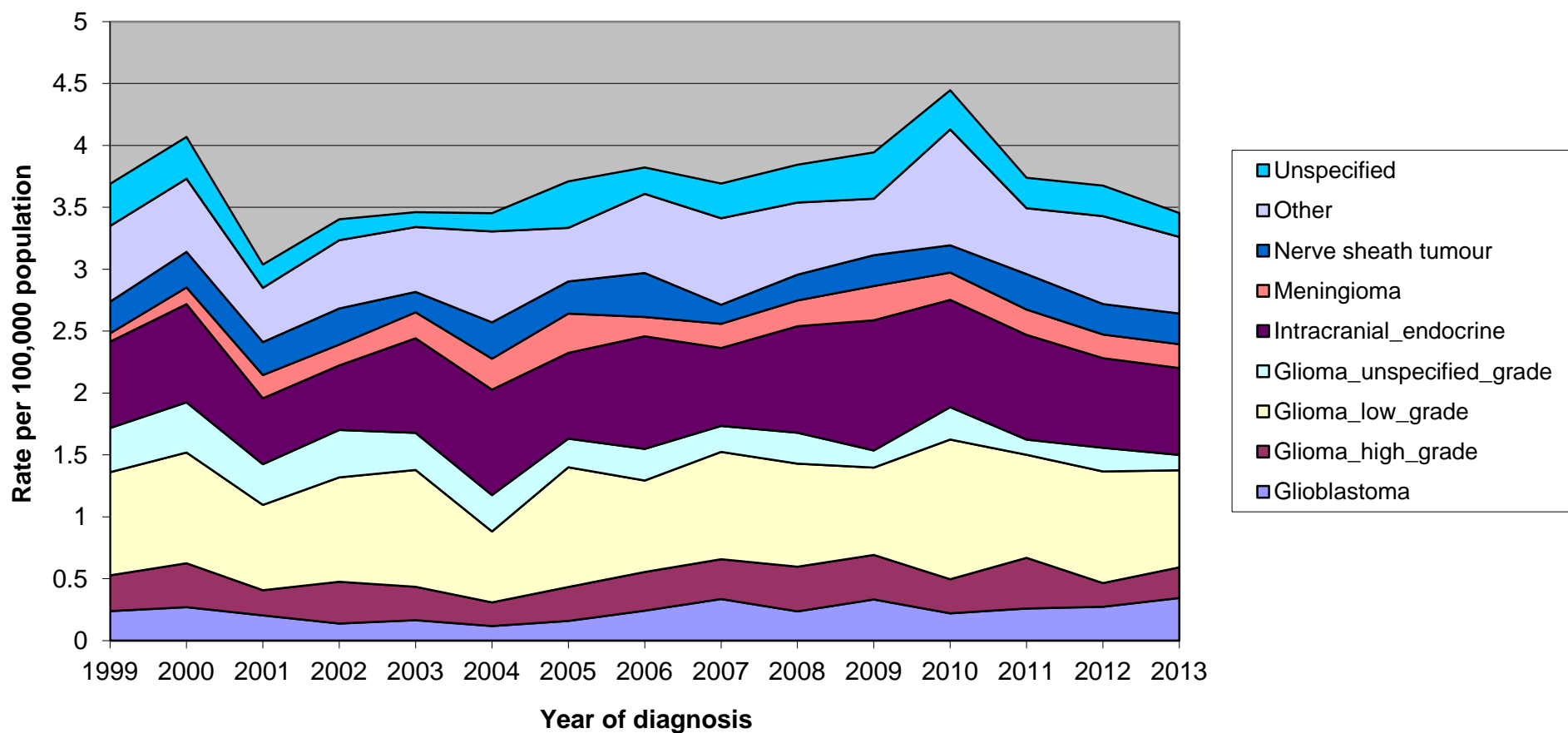
# The incidence in adults has increased

Adults (age 16+) in England by tumour type



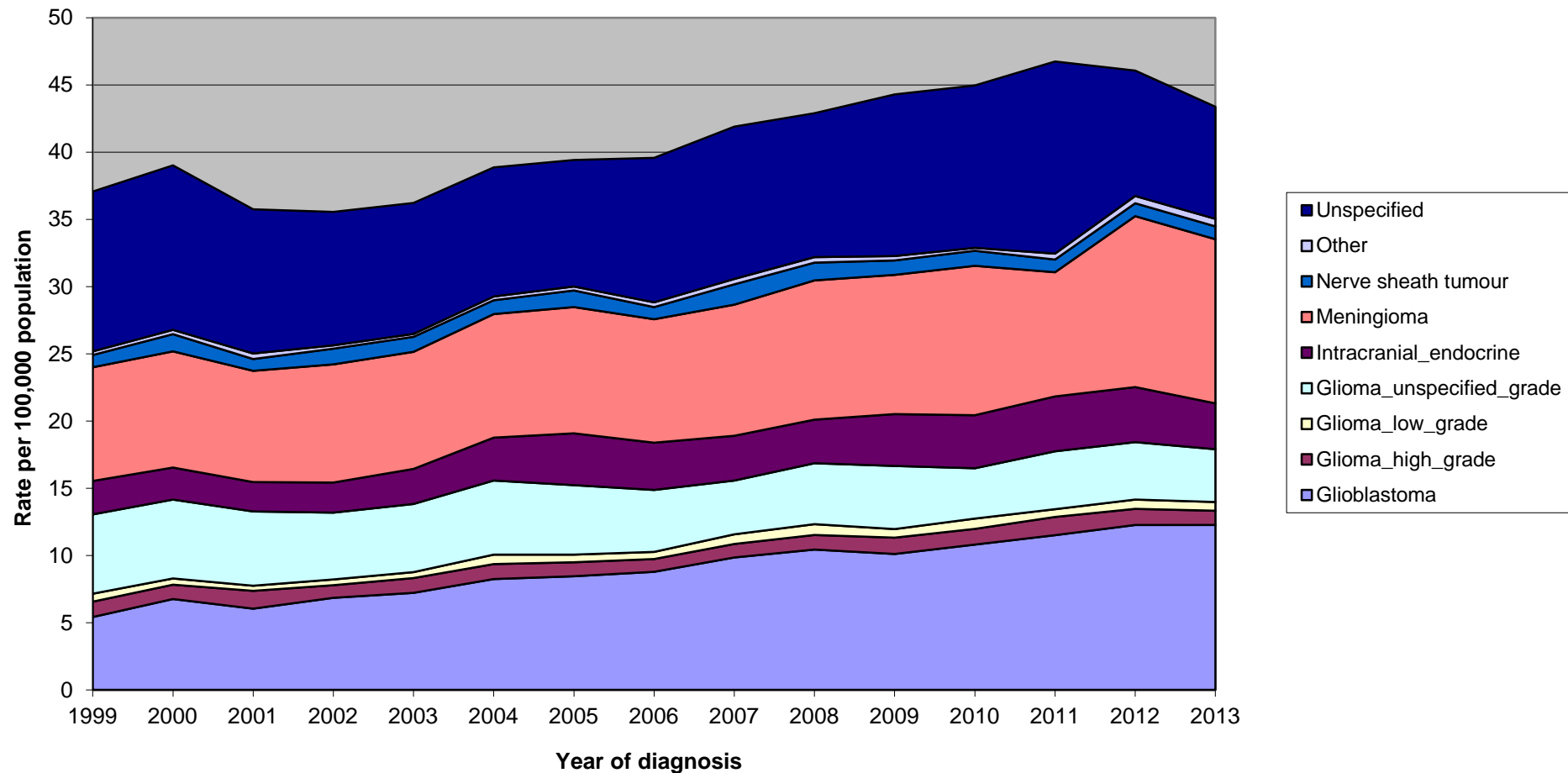
# There is little change in the TYA group

Teenage and Young Adult (16-24) in England by tumour type

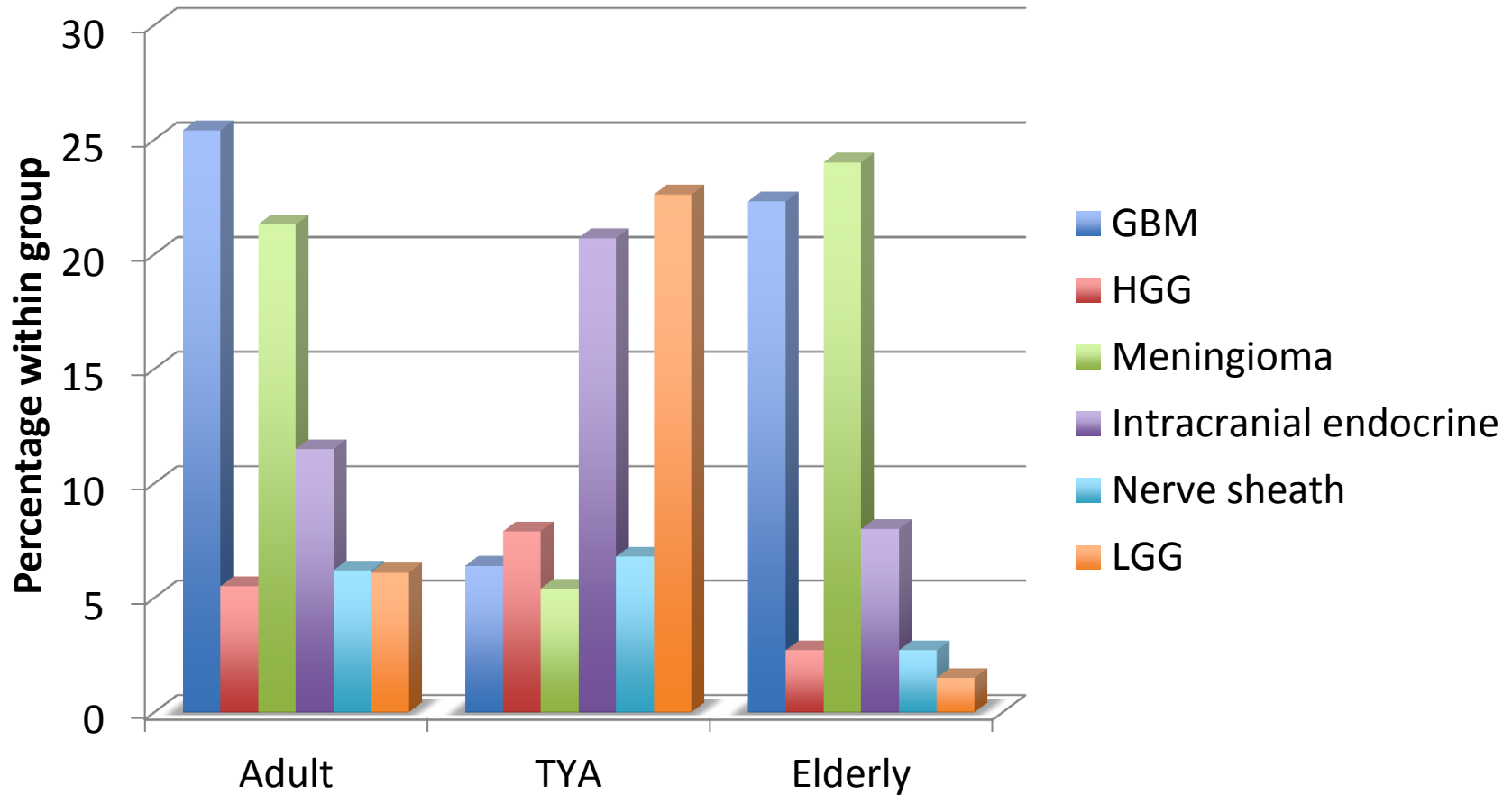


# Incidence is high, and increasing in the elderly

The elderly (70+) in England by tumour type



# Tumour types by age group



# Tumour incidence by sex



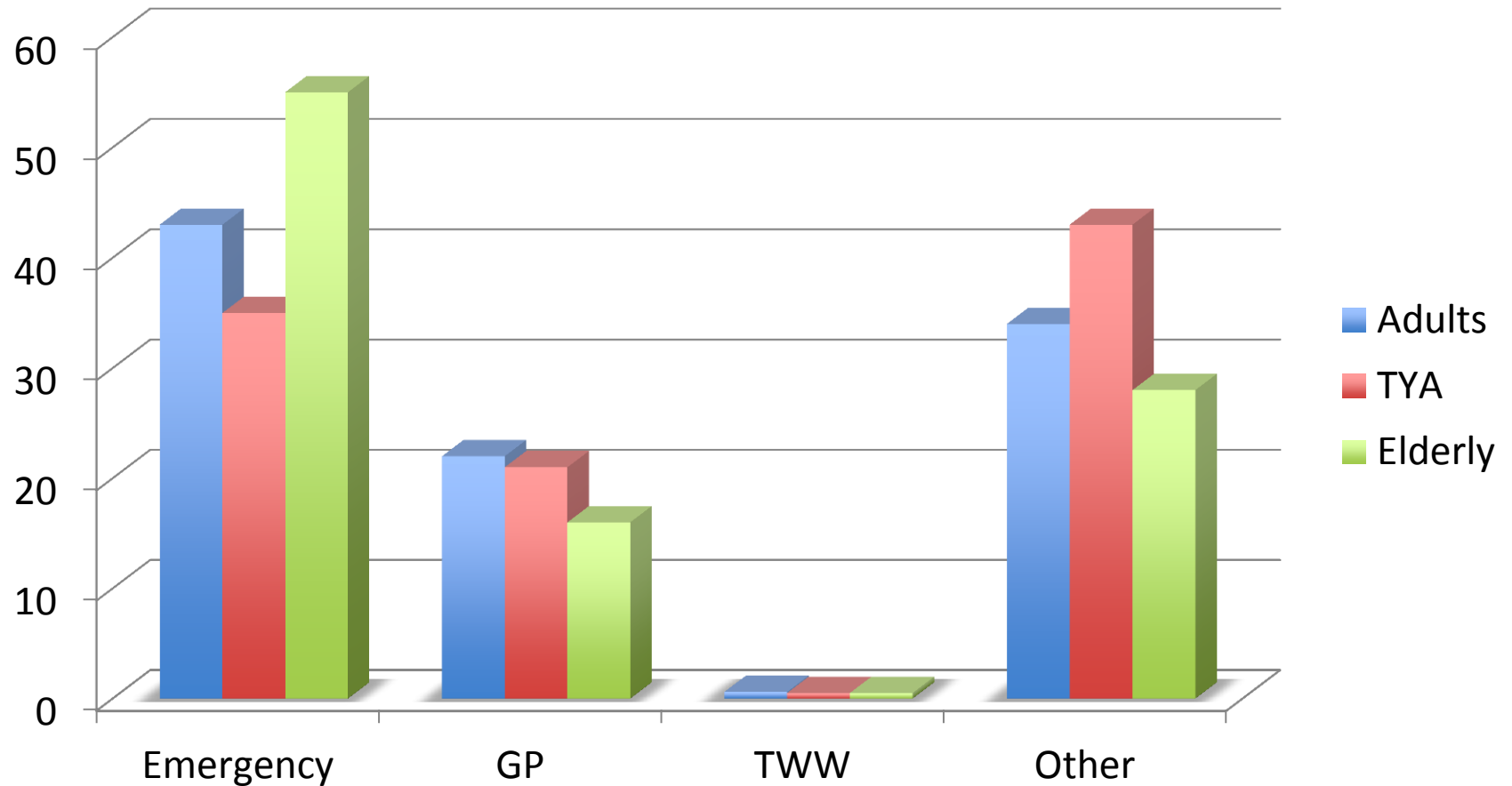
Nerve sheath  
tumour

- Glioma
- Intracranial endocrine



- Meningioma

# Routes to diagnosis

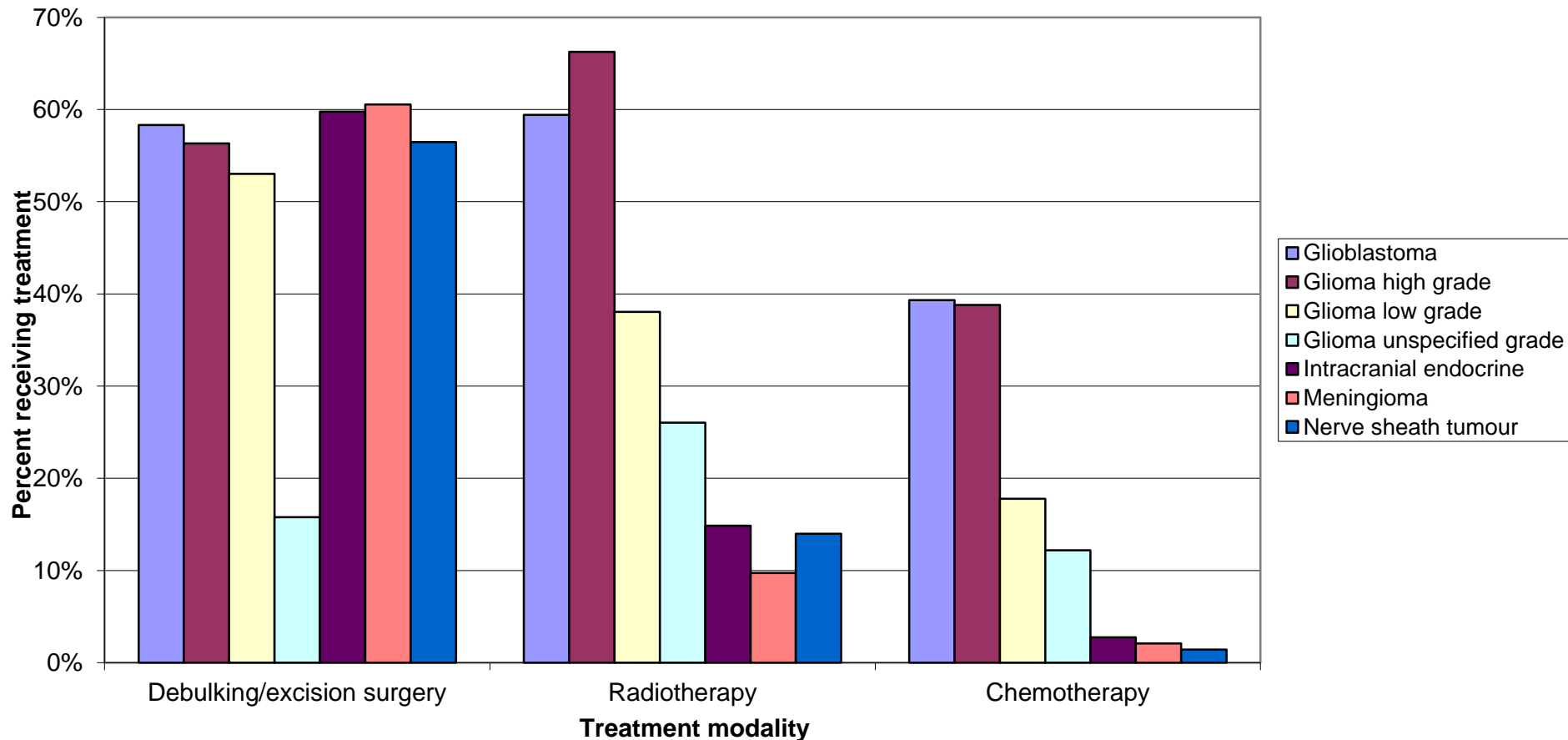


There must be a better way.



# 50-60% of adults get surgery

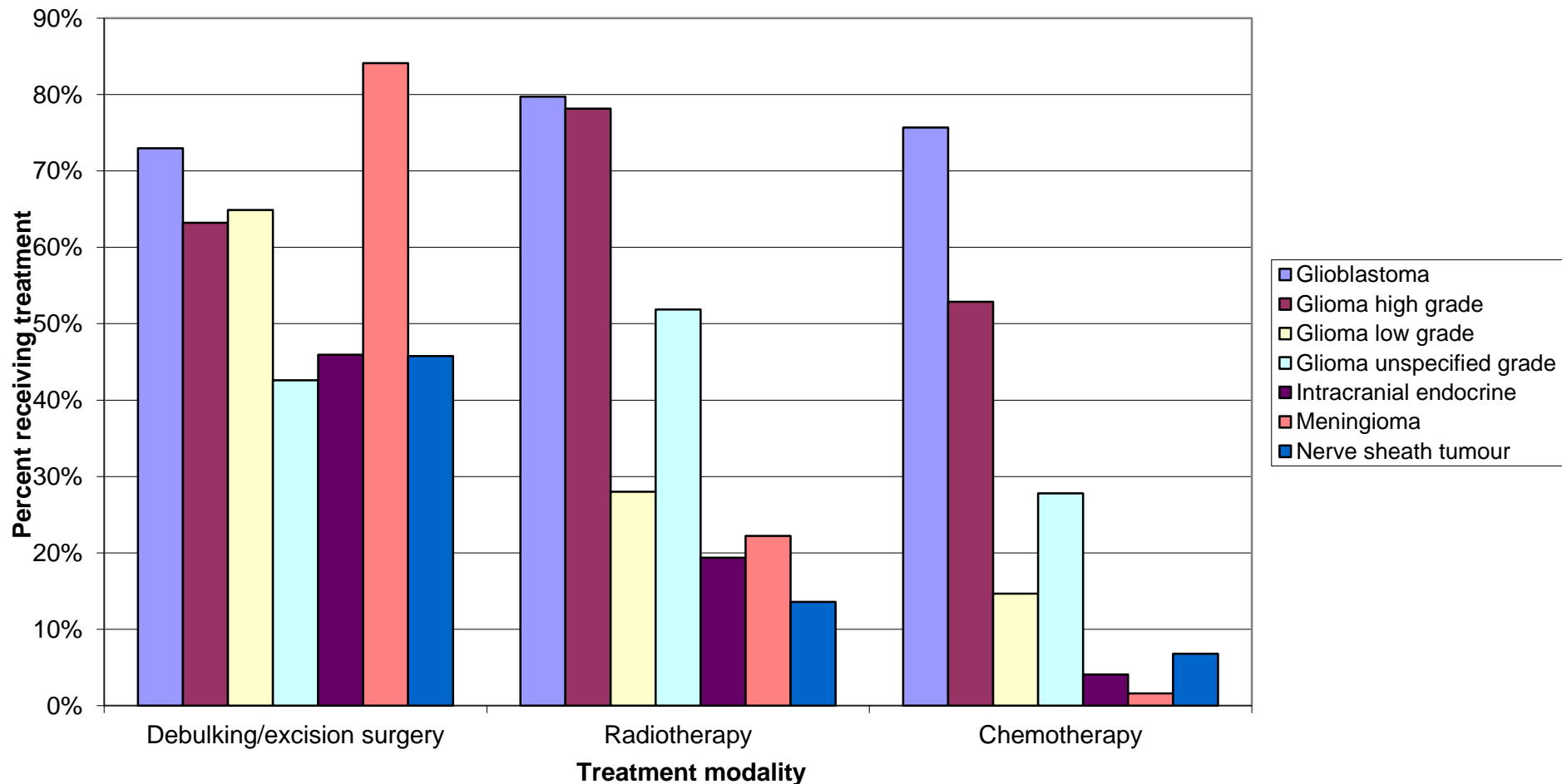
Treatment modalities for CNS and intracranial tumours diagnosed 2007-2010 in residents of England aged 16 and over  
*NB: Radiotherapy data may be incomplete*





# More TYA are treated

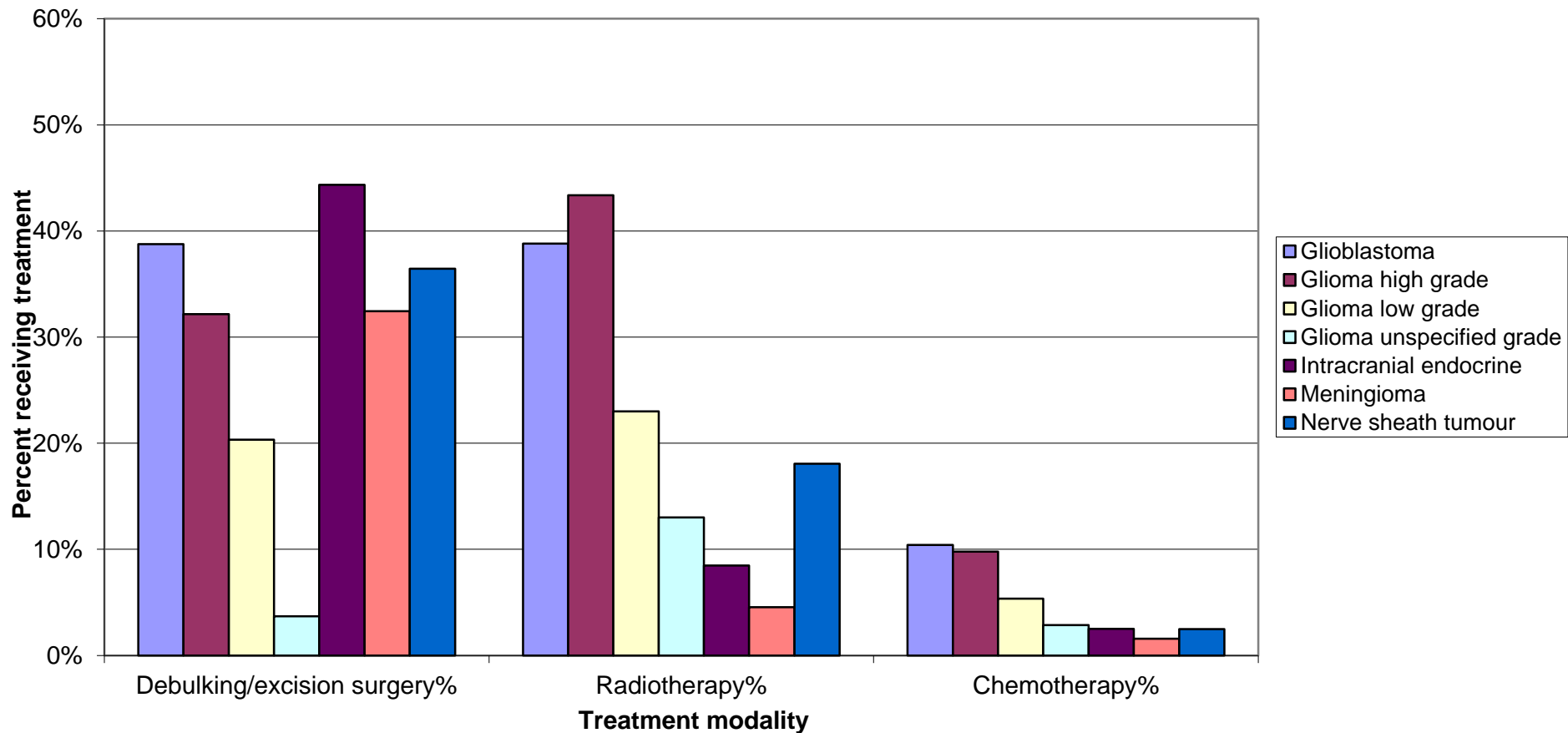
**Treatment modalities for CNS and intracranial tumours diagnosed 2007-2010  
in Teenage and Young Adult (age 16-24) residents of England**  
*NB: Radiotherapy data may be incomplete*



# The elderly are treated less often

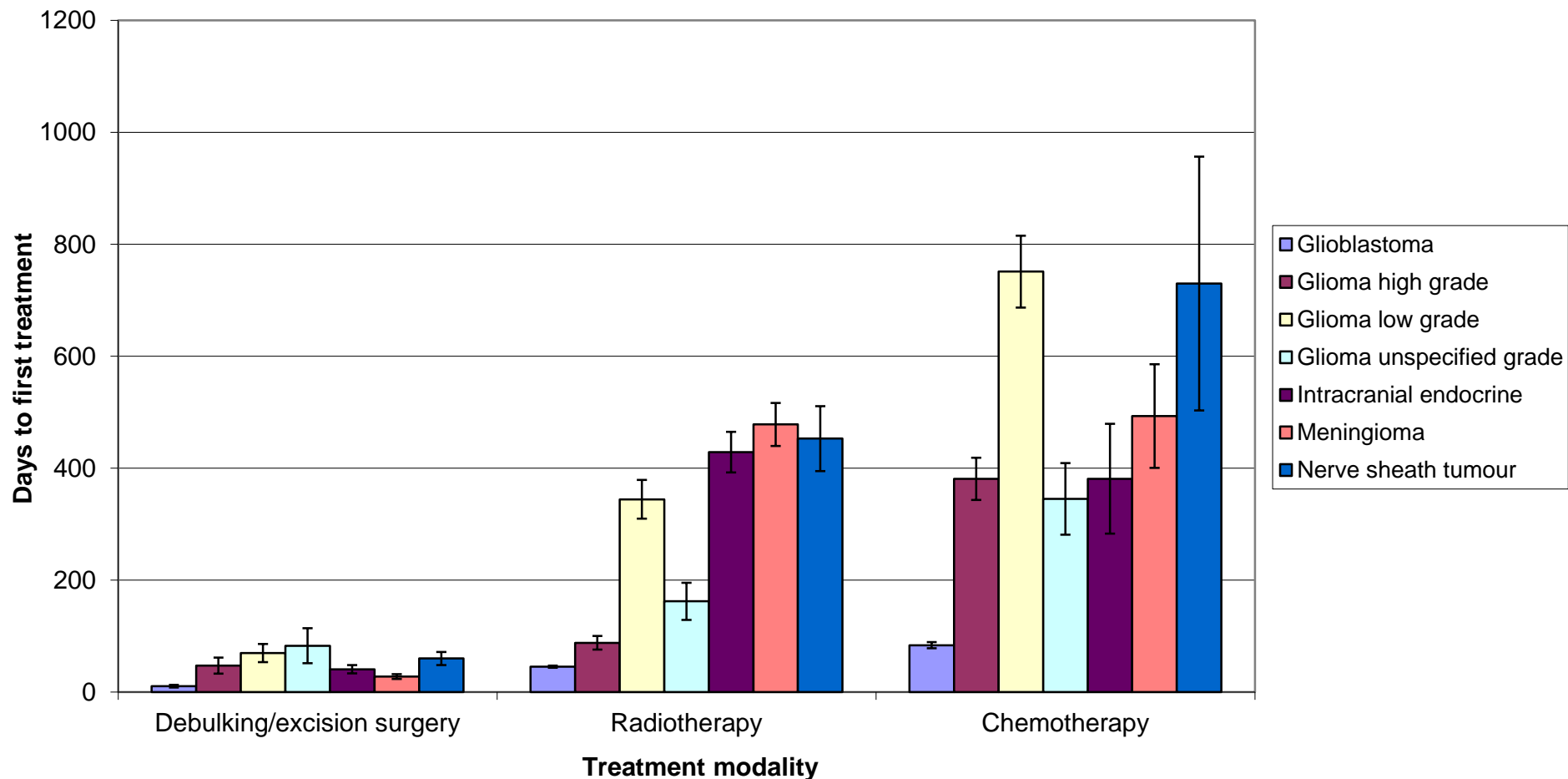
Treatment modalities for CNS and intracranial tumours diagnosed 2007-2010 in Elderly (age 70+)  
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# There appears little delay for treatment

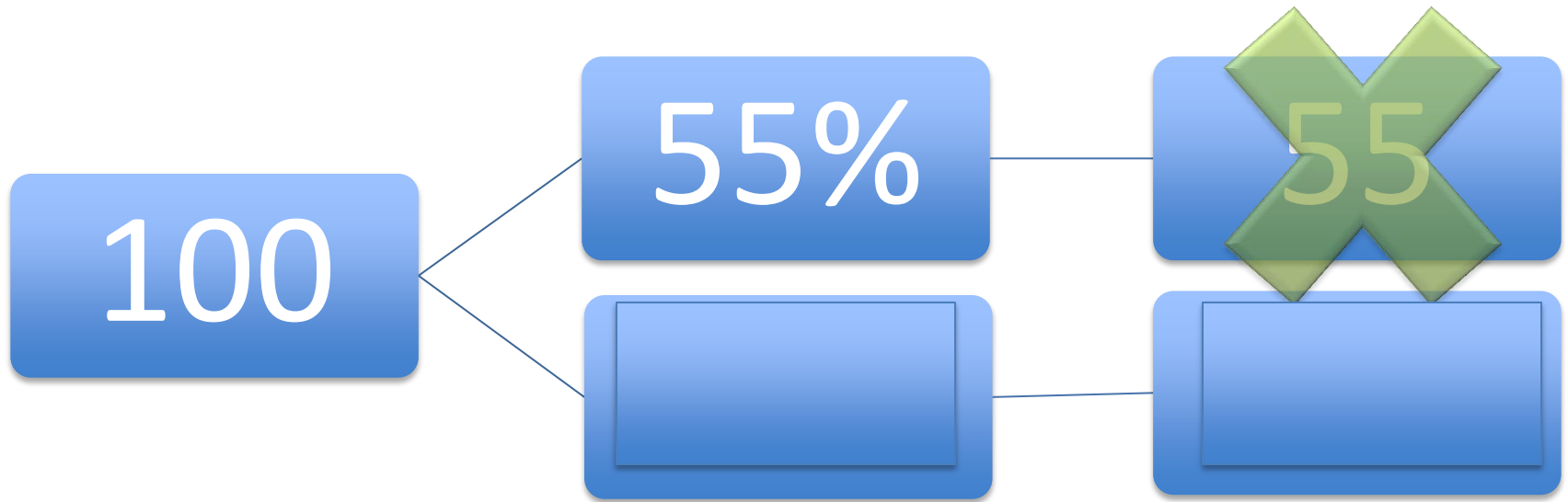
Time from diagnosis to treatment for CNS and intracranial tumours diagnosed 2007-2010 in residents of England aged 16 years and over



# Relative survival

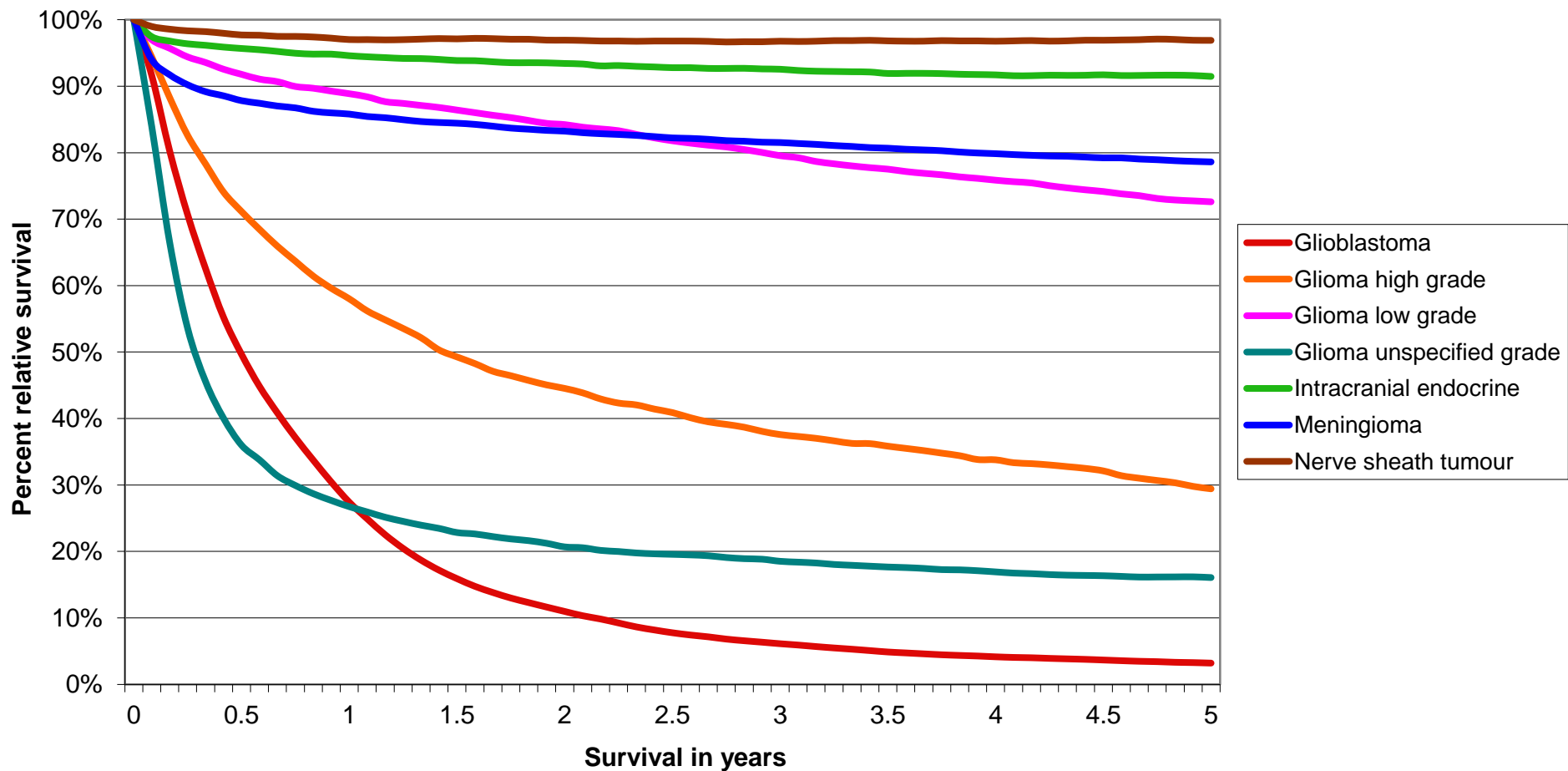
- **Relative survival** is defined as the ratio of the proportion of observed survivors in a cohort of cancer patients to the proportion of expected survivors in a comparable set of cancer free individuals.
- Relative survival provides a measure of the mortality associated with the disease process described.
- Relative Survival is used where survivals are long or in the elderly

Of 100 70-80 year old patients with a meningioma, how many will be alive after 5 years?



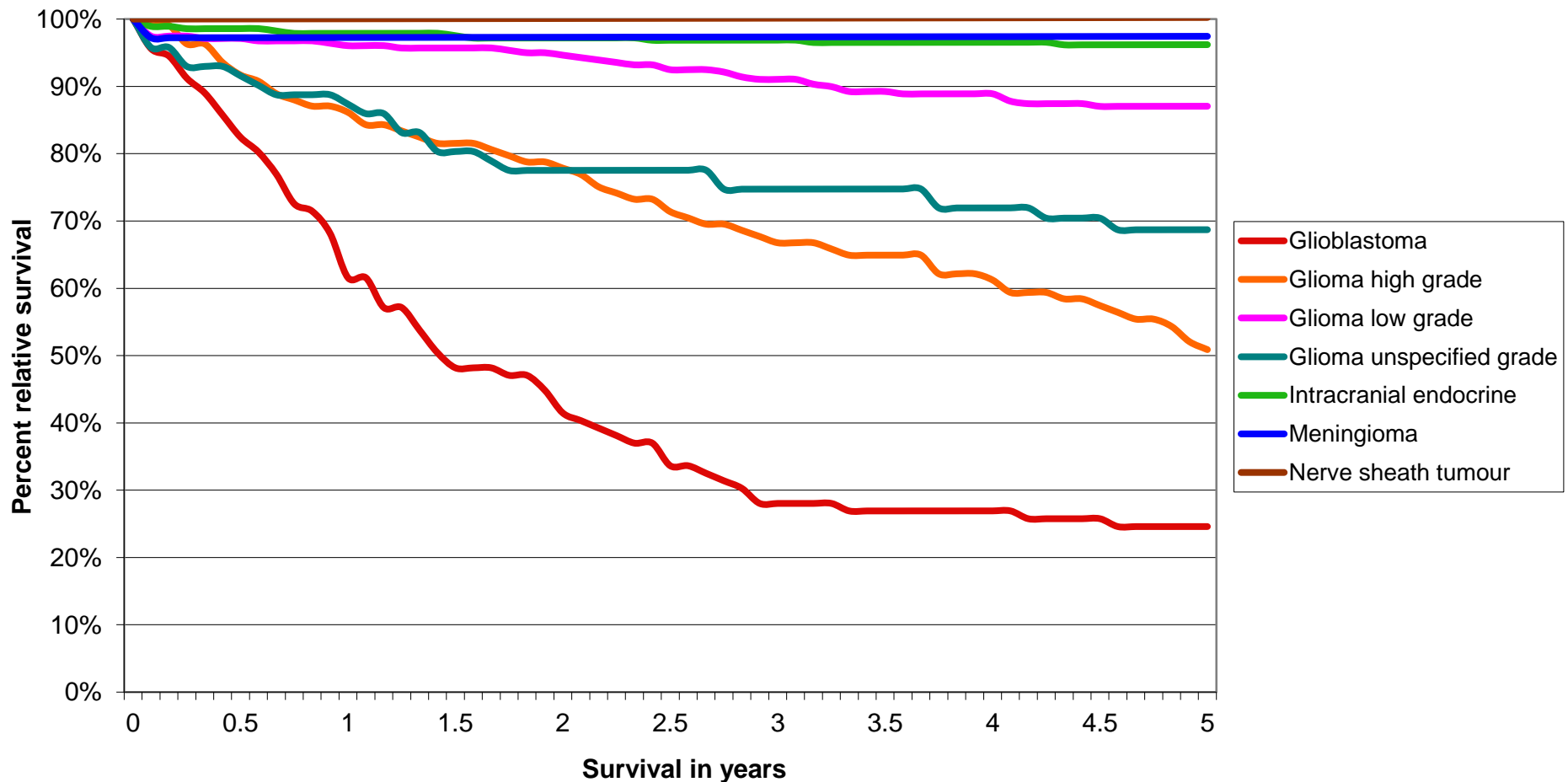
# Adult relative survival

Relative survival for CNS and intracranial tumours diagnosed in residents of England aged 16 and over



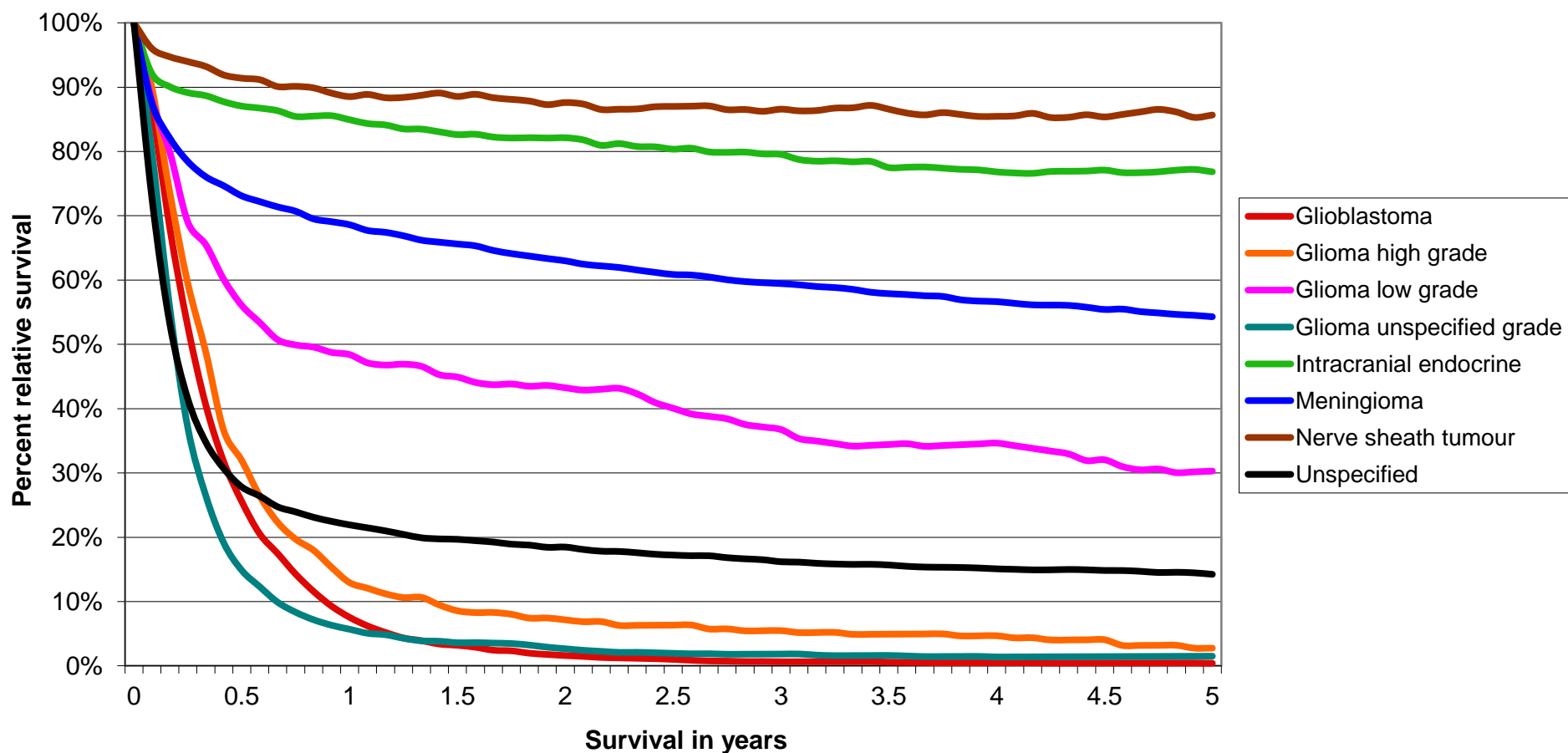
# TYA do a bit better

Relative survival for CNS and intracranial tumours diagnosed in Teenage and Young Adult (age 16-24) residents of England



# The elderly do badly

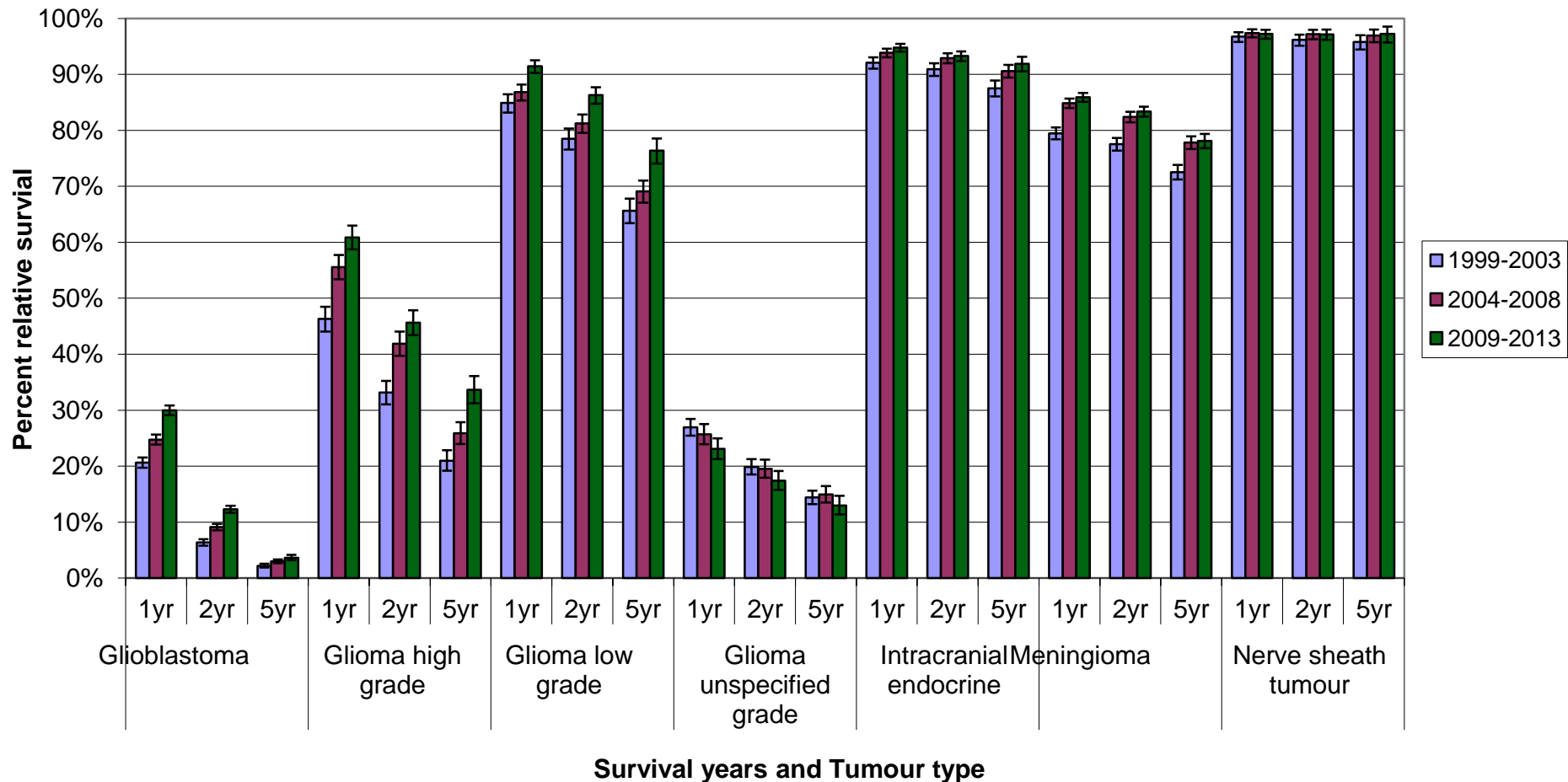
Relative survival for CNS and intracranial tumours diagnosed in 2006-2010 in elderly (age 70+) residents of England





# Outcomes are improving

Relative survival for CNS and intracranial tumours by period of diagnosis in residents of England aged 16 and over



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# Questions page 2

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