

# SWPHO Briefing 4

SWPHO briefings are short summaries of current knowledge on a specific topic. They are designed to enable quick dissemination in response to changing public health priorities and developments.



## Prostate cancer survival by stage

### Introduction

This briefing was produced at the request of Cancer Research UK, to quantify the relative survival in prostate cancer by stage at diagnosis in England. The South West Public Health Observatory is the national lead cancer registry for urological tumours.

### Definitions

**Relative survival** is the ratio of the observed survival rate in a patient group to the expected survival rate in a group of people from the general population who are similar to the patient group with respect to age, sex and calendar period of observation.

**Organ confined** tumours, are entirely contained within the capsule of the prostate.

**Metastatic tumours** have spread to non-regional lymph nodes, the bones, or other sites in the body.

### Relative survival

Overall, the five-year relative survival for all prostate cancers is 81% (Table 1 and Figure 1).

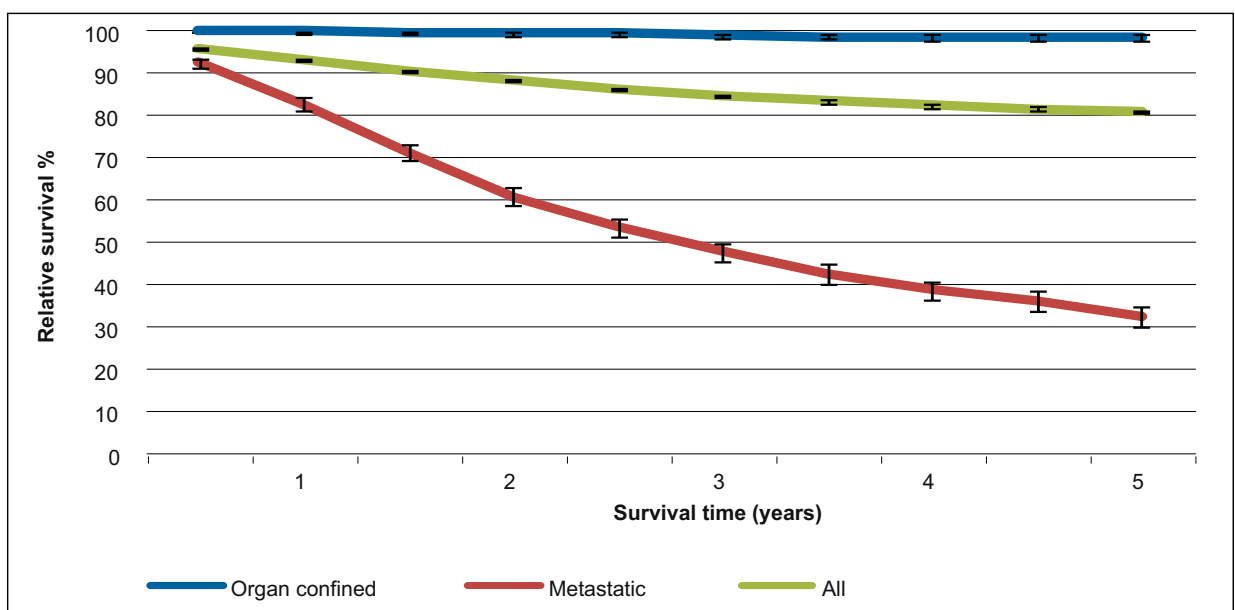
**Table 1: Five-year relative survival**

Stage at diagnosis	5-year relative survival	Confidence interval (95%)
Organ confined	98.6	97.8–99.2
Metastatic	32.6	30.4–34.9
All prostate cancers	81.0	80.6–81.4

Source: Urological Cancer Observatory\*

However, there is a large variation in the experience of men diagnosed with prostate cancer. Those with organ confined cancer have a near-certain chance of surviving five years while those whose with metastatic cancer at diagnosis have a relative survival of approximately a third. These figures are comparable to those calculated by the American Surveillance Epidemiology and End Results (SEER) program.<sup>1</sup>

**Figure 1: Five-year relative survival from prostate cancer by stage**



Source: Urological Cancer Observatory\*

## Variation by age

Five-year relative survival for all prostate cancers shows a significant dependence on age (Figure 2), with the highest survival for men in their sixties.

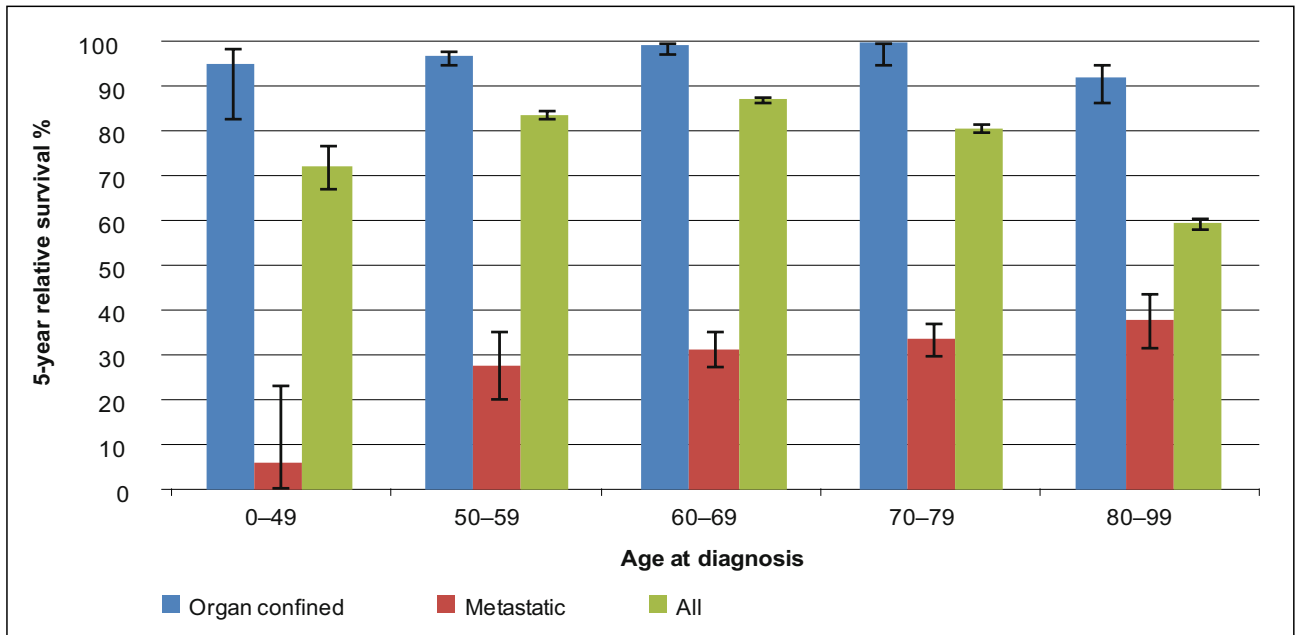
Organ confined prostate cancer has a relative survival of over 90% for all age bands.

Metastatic prostate cancer has a relative survival of between 28% and 38% for men over 49.

## Methodology

Relative survival was calculated for a cohort of 83,700 men resident in England from 1999–2002, followed up to the end of 2006. Either clinical or pathological staging information was available for 13,400 organ confined and 2,700 metastatic tumours. Background mortality was calculated by Government Office Region using life tables provided by the Cancer Survival Group at the London School of Hygiene and Tropical medicine.<sup>2</sup>

**Figure 2: Relative survival by age at diagnosis**



Source: Urological Cancer Observatory\*

\* Original data sources: UK Association of Cancer Registries and British Association of Urological Surgeons.

## References

1. SEER Cancer Statistics Review, 1975-2005, [http://seer.cancer.gov/csr/1975\\_2005/results\\_merged/sect\\_23\\_prostate.pdf](http://seer.cancer.gov/csr/1975_2005/results_merged/sect_23_prostate.pdf)
2. Cancer Survival Group, London School of Hygiene and Tropical Medicine, <http://www.lshtm.ac.uk/ncdeu/cancersurvival/>

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