

# The changing casemix of prostate cancer patients and prostatectomies in the South West



Sean McPhail<sup>1\*</sup>, K. Ruth<sup>1</sup>, D. Gillatt<sup>2</sup>, B. Cottier<sup>3</sup>, and Julia Verne<sup>1</sup>

1: South West Public Health Observatory, 2: Southmead Hospital, Bristol, 3: National Cancer Services Analysis Team, Clatterbridge Centre for Oncology, Wirral  
\*sean.mcphail@swpho.nhs.uk

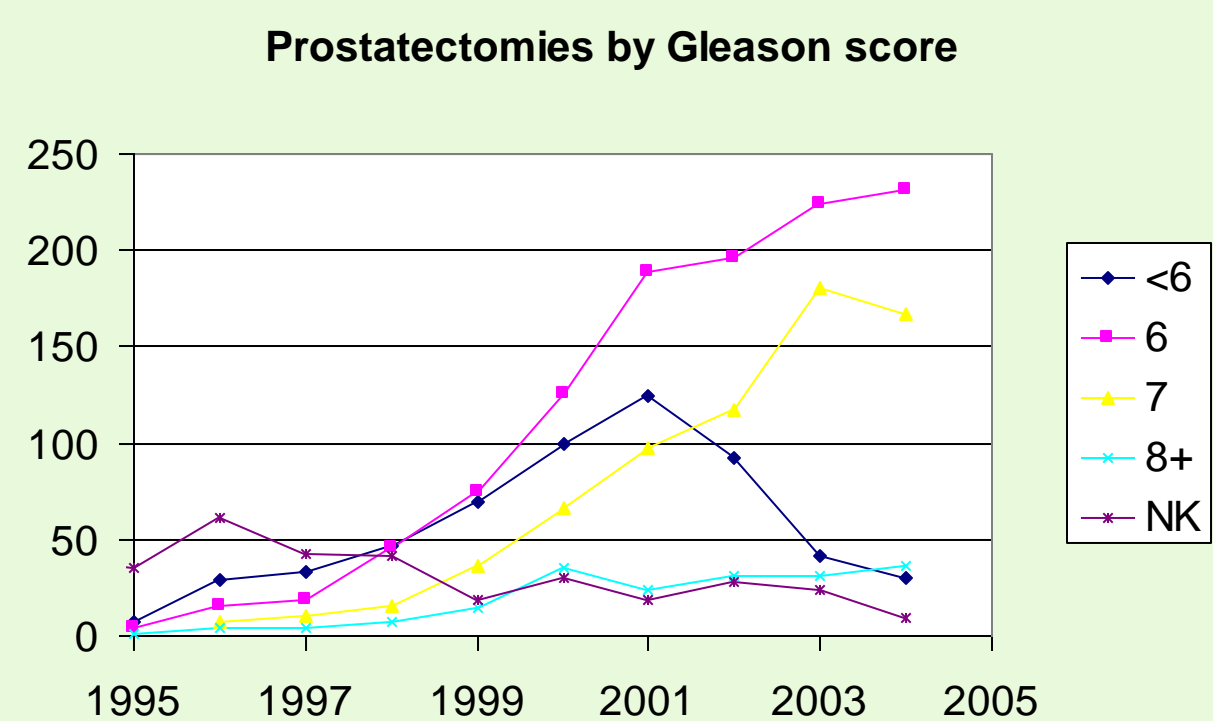
## Background

In England, prostate cancer is the most commonly diagnosed cancer in men and the second most common cause of cancer death. The incidence of prostate cancer abruptly increased by approximately 30% after the year 2000. This increase has been attributed to the spread of PSA testing and consequent diagnosis of many asymptomatic men.

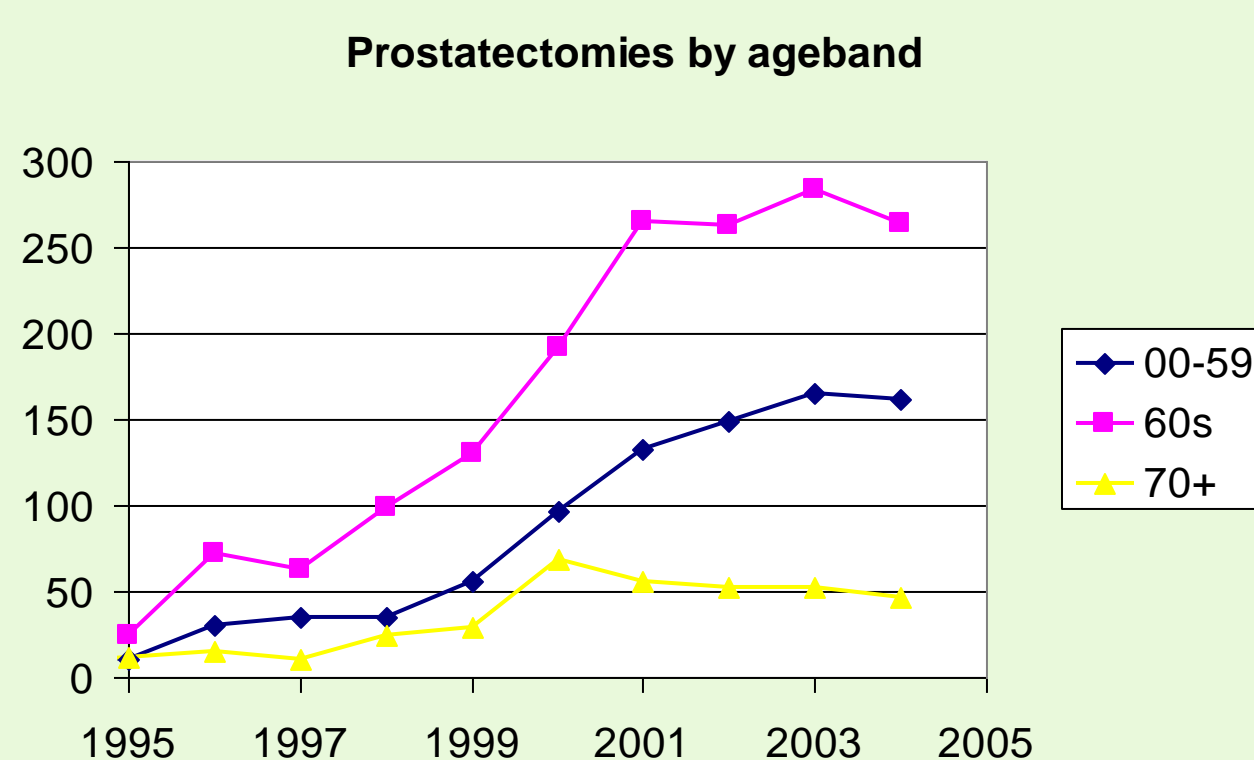
The side effects of radical treatment of prostate cancer are well known<sup>1</sup>. Long term studies<sup>2</sup> of the risks of conservative management of prostate cancer are only available for patients diagnosed in the pre-PSA era. In the hypothetical situation of complete screening<sup>3</sup> for prostate cancer a recent modelling study suggests that the risk of mortality due to conservative management of prostate cancer are lower.

## Prostatectomy cohort

The percentage of all prostatectomies carried out in patients with Gleason scores of 6 or 7 has increased from approximately 55% of all prostatectomies in 2000 to 85% in 2004.



The majority of prostatectomies are performed on men in their sixties.

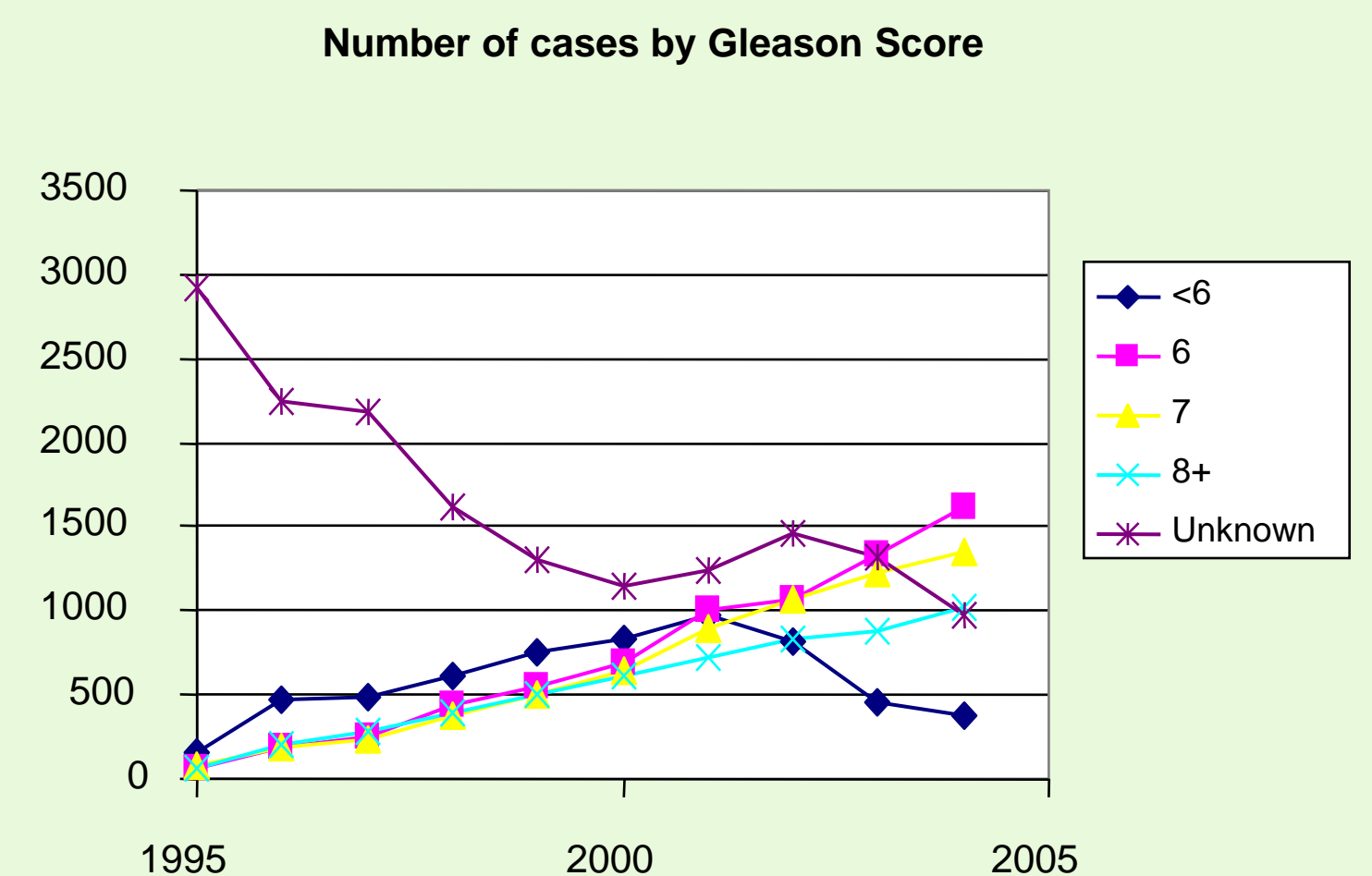


Younger men and men with a lower Gleason score are more likely to undergo a radical procedure. The fraction of men undergoing a radical procedure was similar in 2004 to what it was in 2000:

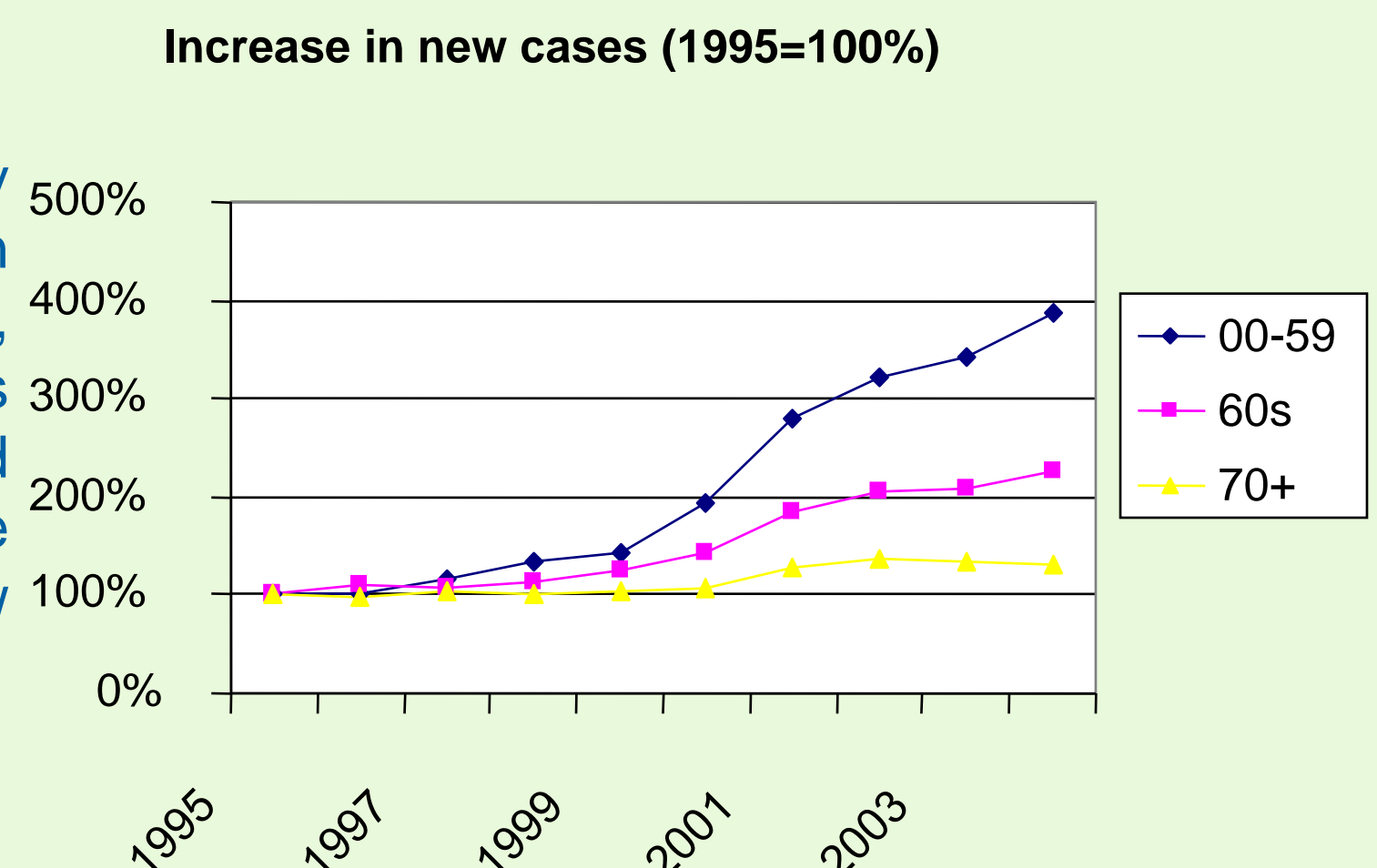
GS	2000				2004			
	Ageband	00-59	60s	70+	Ageband	00-59	60s	70+
6 and below		43%	23%	3%		35%	17%	2%
7		35%	20%	2%		33%	21%	2%
8 and above		12%	11%	3%		11%	9%	0%

## The changing patient cohort

Despite the rise in the overall number of cases there has been a drop in number of cases with a Gleason score below 6.



While the majority of new cases are in men over 69, younger age bands show a more rapid increase in the number of new cases.



## Method

Registry data from the South West Cancer Intelligence Service<sup>4</sup> was combined with that from the Hospital Episode Statistics<sup>5</sup> (HES) system and that from the database of the British Association of Urological Surgeons<sup>6</sup> (BAUS). Records were combined on a patient-by-patient basis by linking the NHS-number, postcode, and Date-of-birth fields.

## Conclusions

The number of men with asymptomatic prostate cancer detected via PSA testing has increased between 2000 and 2004. However the number of men diagnosed with Gleason scores below six dropped sharply. This indicates that men who would have been diagnosed with a Gleason score below six in 2000 were by 2004 being diagnosed with a score of six.

However rates of radical surgery adjusted for age and Gleason score have not changed greatly between 2000 and 2004.

There is therefore a danger that due to this stage migration men are having treatments appropriate to a higher Gleason score than they actually have.

## References

- (1) Miller DC et al. Long-term outcomes Among Localized Prostate Cancer Survivors. *Journal of Clinical Oncology* 2003, 23:2772-2780
- (2) Albertsen P et al. 20 year outcomes following conservative management of clinically localized prostate cancer, *JAMA* 2005 293:2095-2101
- (3) Parker C et al. A model of the natural history of screen-detected prostate cancer, and the effect of radical treatment on overall survival. *British Journal of Cancer* 2006, 94: 1361-1368

- (4) South West Public Health Observatory. <http://www.swpho.nhs.uk>
- (5) Hospital Episode Statistics, <http://www.hesonline.org.uk>
- (6) British Association of Urological Surgeons. <http://www.baus.org.uk>