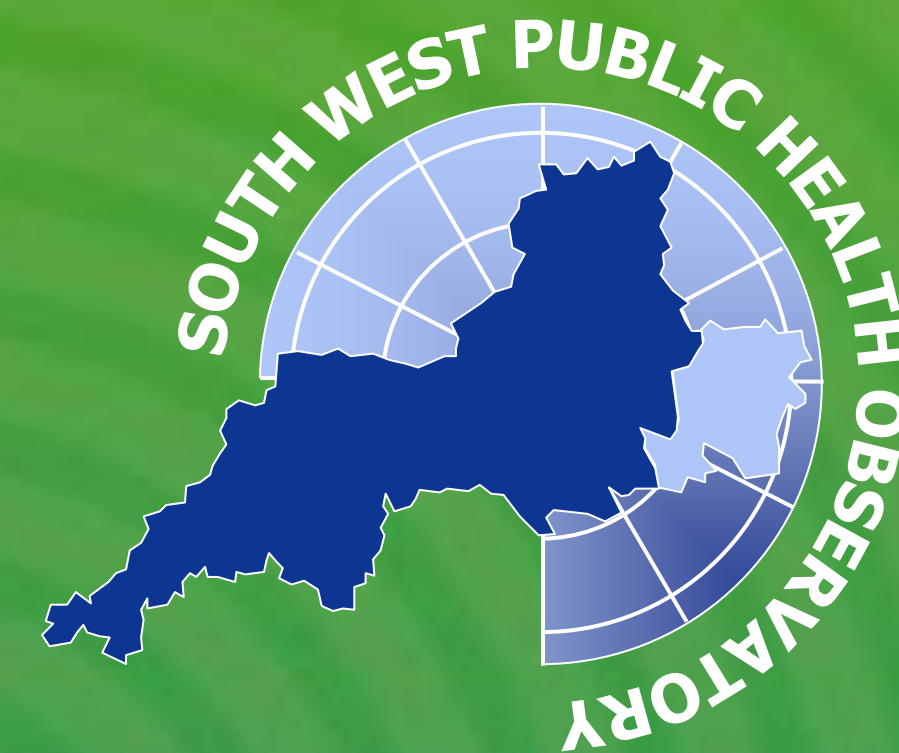


Rurality and distance to coast as risk factors for malignant Melanoma

Julia Verne and Sean McPhail*

South West Public Health Observatory, *sean.mcphail@swpho.nhs.uk



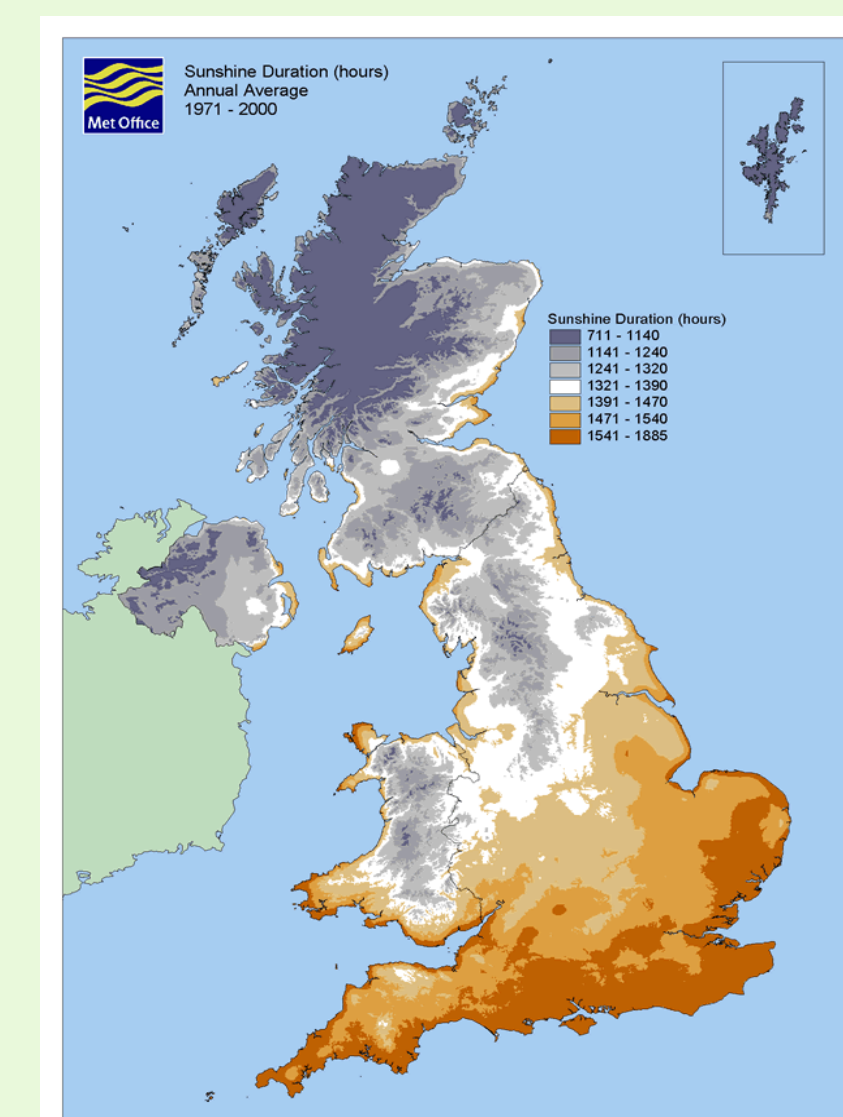
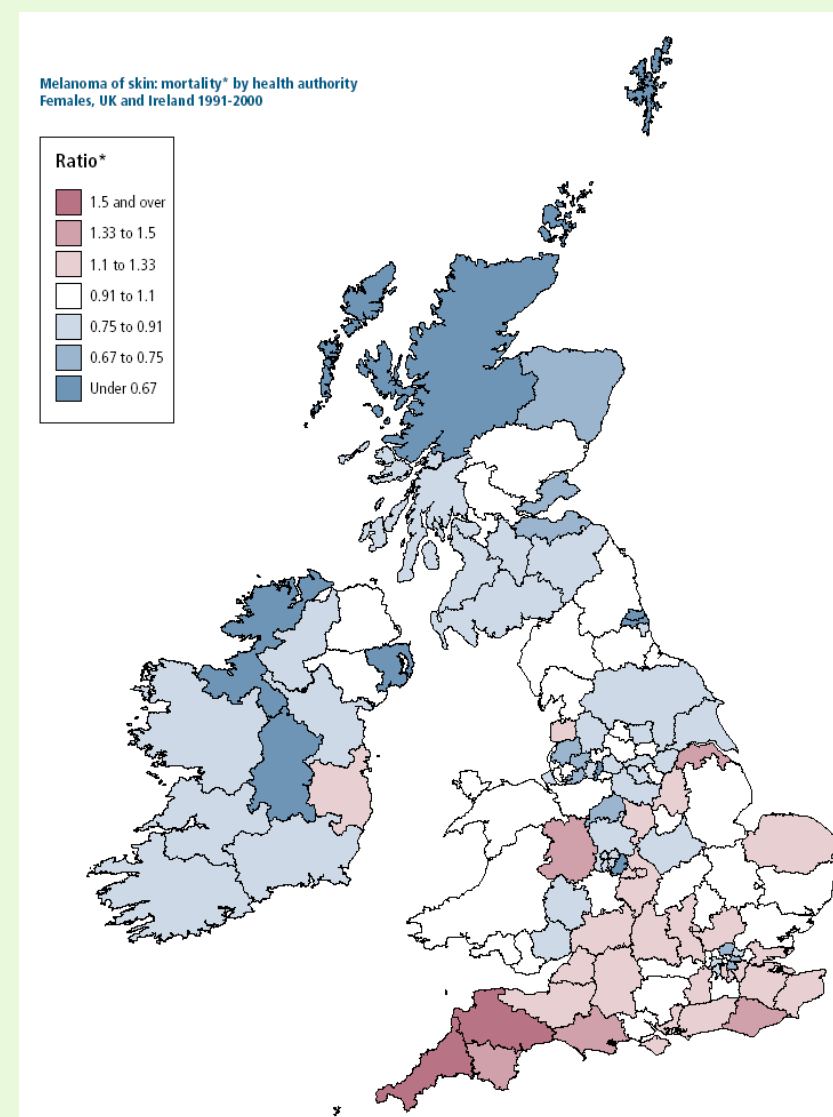
Background

The South West of Britain has the highest rate of skin cancer in the UK with approximately 250 deaths per year¹.

Approximately 80% of deaths from skin cancer are due to Malignant Melanoma. These deaths are almost entirely preventable, and affect a younger age group than most cancers.

The incidence of malignant melanoma is driven both by physical factors (environmental levels of UV, age, and genetic makeup) and behavioural factors (principally sun-seeking behaviour and lack of precautions).

Melanoma mortality and hours of sunshine in the UK

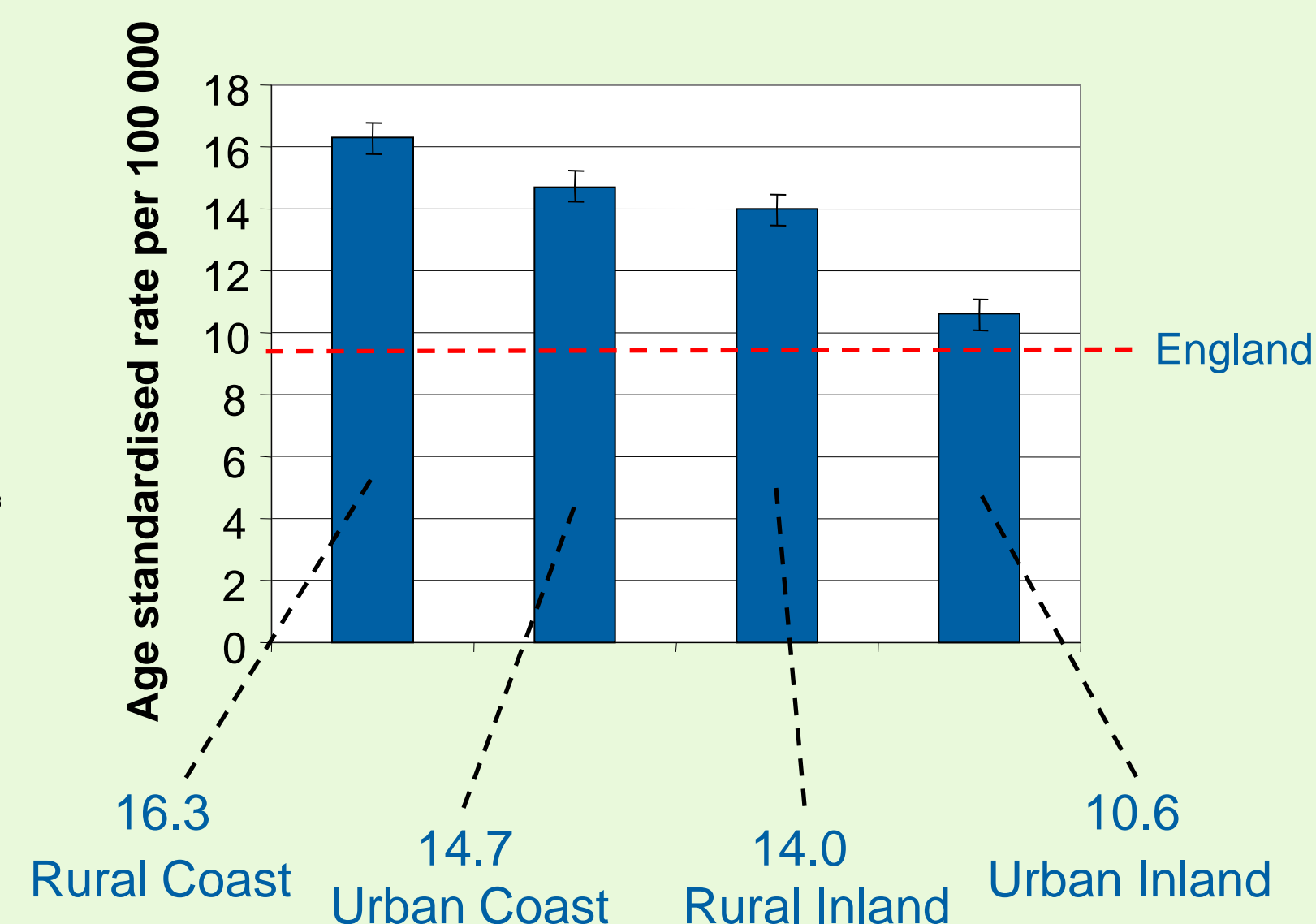
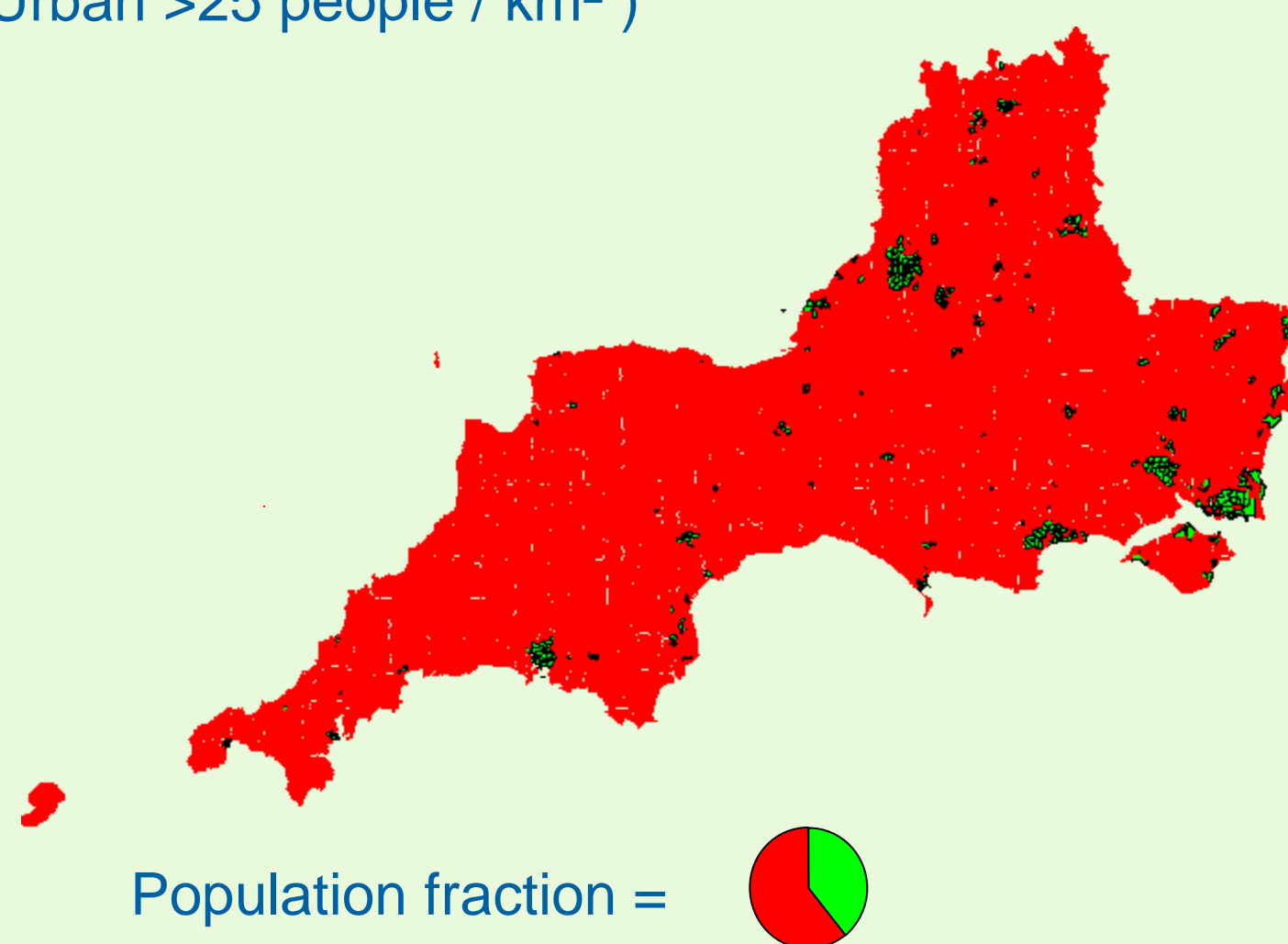
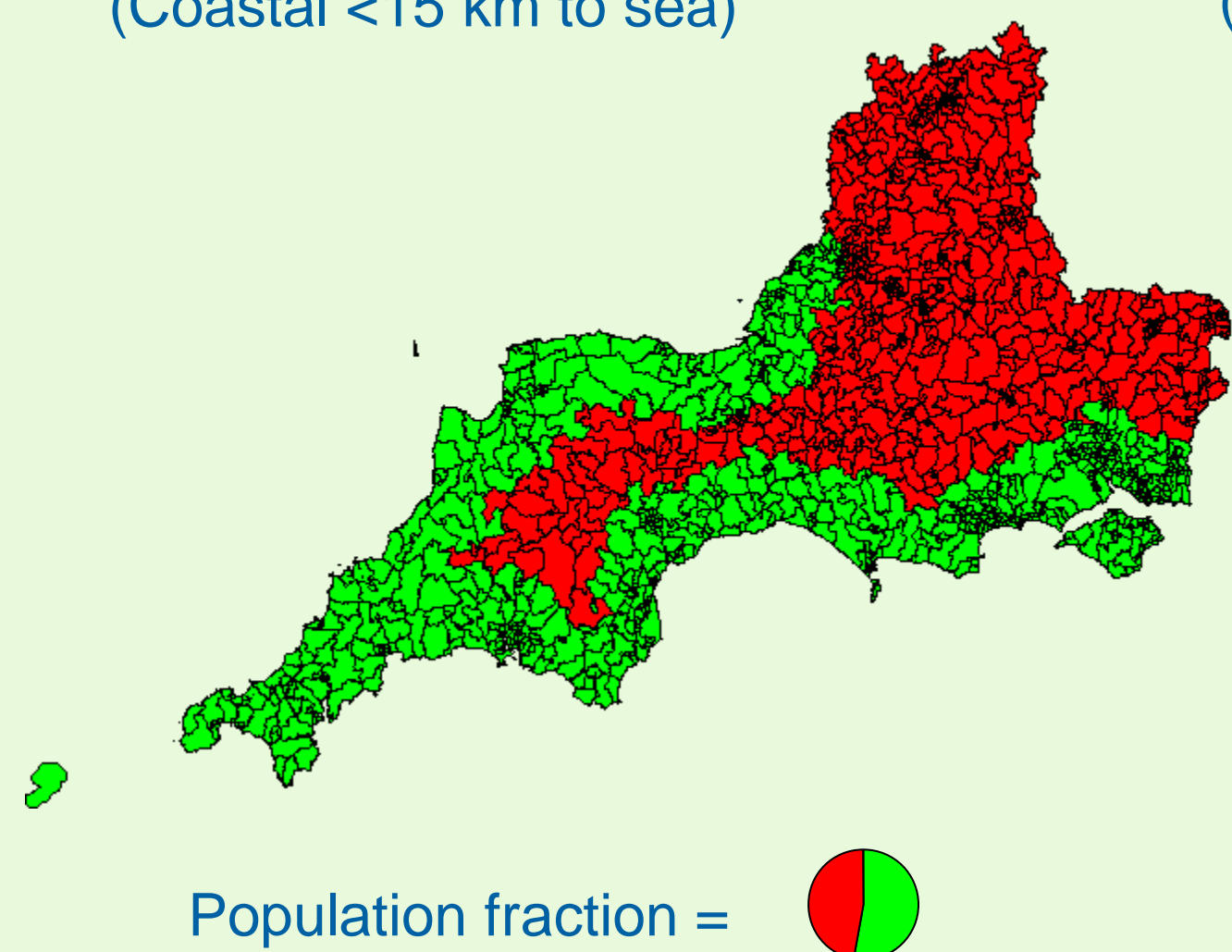


The South West is one of the sunniest parts of the UK², and has a significant proportion of its population beyond retirement age (>23%). The coast receives approximately 20% more sunshine than the interior so that people who like the sun may preferentially retire to the SW coast. This implies that there is a concentration of elderly people with a long history of UV exposure.

Melanoma distribution in rural/urban and coastal/inland wards

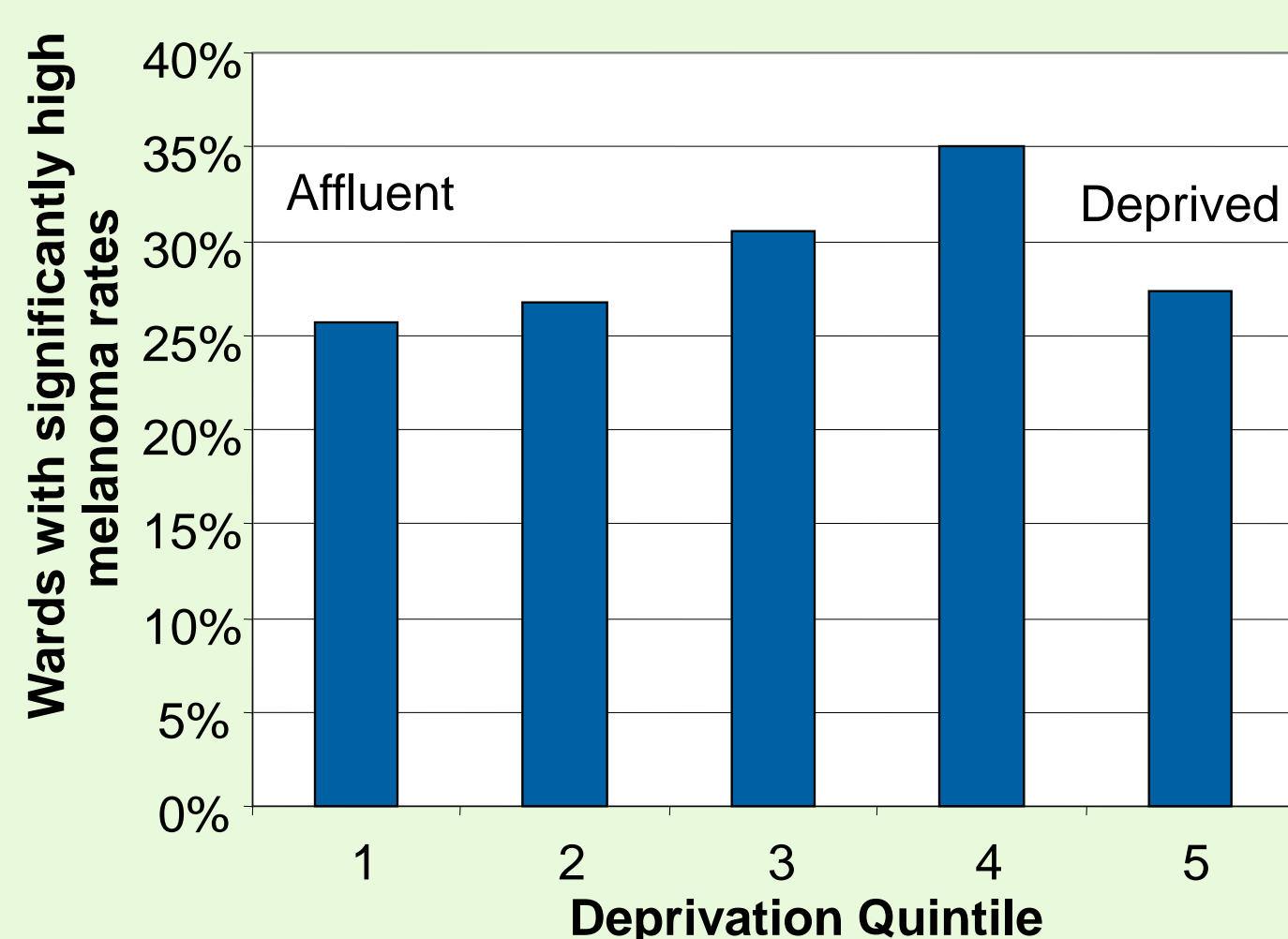
Coastal / Inland Wards
(Coastal <15 km to sea)

Urban/Rural Wards
(Urban >25 people / km²)



The incidence of melanoma is significantly higher in coastal and rural regions of the South West.

Melanoma incidence by deprivation



There is some evidence of a relationship between deprivation and incidence of melanoma. The low melanoma incidence in the 5th quintile is due to the association of high deprivation with urban areas.

Conclusions

- The South West region has the highest (and rising) incidence and mortality of any area of UK, although better than average survival.
- This high incidence is due to combination of physical and human factors.
- The incidence shows a strong geographic variation due to coastal / inland and urban / rural splits.
- Public health measures and education can further improve survival, and can be effectively targeted to high risk areas and populations.

References

- (1) Office of National Statistics, "Cancer Atlas of the United Kingdom and Ireland 1991-2000". Palgrave Macmillan; 2005
- (2) UK Met office, www.metoffice.gov.uk/