Lifestyle contributes most to distribution of cancer, report says

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More than 17 400 deaths a year in the United Kingdom from cancer could be prevented if all areas of the country matched those with the lowest mortality, says a new cancer atlas published this week.

Lifestyle rather than where people live contributes most to the national variation in incidence of cancer, the atlas produced by the Office for National Statistics shows, but a north-south divide exists for some cancers.

The comprehensive picture of rates of the 21 most common cancers between 1991 and 2000 across the UK as well as Ireland confirms that areas with high levels of socioeconomic deprivation tend to be the places with the highest cancer incidence and mortality.

The atlas shows a strong link between several cancers and smoking or drinking alcohol. It shows "distinct geographical patterns" in numbers of cases of cancer and deaths over the period studied.

Each year during the 1990s an average of 270 000 new cases of cancer were diagnosed (excluding non-melanoma skin cancer), and almost 165 000 people a year died from cancer related causes.

A band across the north of England and across central Scotland had a generally higher than average incidence and mortality for cancers of the lung, larynx, lip, mouth, and pharynx, and rates were lower than average in the south and Midlands of England. But cancers of the breast, ovary, and prostate showed little geographical variation.

Mike Quinn, director of the National Cancer Intelligence Centre at the Office for National Statistics, said: "In theory it should be possible to reduce the rates for cancers everywhere to those in the areas with among the lowest rates, and if that were done we would prevent just over 25 000 cases of cancer and over 17 000 deaths from cancer.

"Can I emphasise that places do not get cancer, people do. The reason that areas have high rates of cancer is that people in them are exposed to the relevant risk factors for those cancers."

Melanomas had the fastest growth in incidence of any cancer since the 1970s, said the report. The incidence has increased threefold to fourfold in that time. The geographical dis-

Incidence of melanoma of the skin among females, by health authority, UK and Ireland, 1991-99

tribution of the disease shows that the highest incidence among women occurs in the south of Scotland, southwest England, southwest Ireland and part of Northern Ireland (see map); the incidence is similar for men.

The incidence of melanomas was higher than average in central Scotland, despite this area having less sunshine than other parts of the UK, which the authors admitted may be surprising at first.

Dr Quinn said, "The reason, partly, is due to public health awareness campaigns, and in particular there is a Scottish melanoma group. Also in Scotland you do have a higher proportion of the population with risk factors for melanoma: very pale skin, freckles, and red hair.

"The main risk factor is exposure to UV [ultraviolet radiation],

and the main problem seems to be people who get sunburned... mostly on holidays abroad."

The report also found "very wide" geographical variation in the incidence of cervical cancer, which was not related to local differences in the uptake or efficiency of the cervical screening programme but was related to patterns in sexual behaviour and infection with human papillomavirus.

Mike Richards, the national cancer director for England, said: "Better recognition and understanding of the geographical patterns in cancer incidence and mortality will assist in ensuring that resources can be appropriately targeted."

Cancer Atlas of the United Kingdom and Ireland 1991-2000 is available at www.statistics.gov.uk

Potential for prevention of cancer cases and deaths each year in UK and Ireland*

Cancer	Cases prevented	Deaths prevented
Lung	10 210	8 600
Bladder; larynx; lip, mouth, and pharynx; oesophagus; pancreas; stomach	8 710	5 720
Colorectal	5 590	2 370
Melanoma of skin	—	310
Cervix	1 070	450
Total	25 580	17 450

* Estimates are made on the basis that rates everywhere could theoretically be reduced to those in the health authorities with the lowest rates

Source: *Cancer Atlas of the United Kingdom and Ireland 1991-2000*, Table 2.6