

# PUBLIC HEALTH STATISTICS FOR LANCASTER

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## INTRODUCTION

Many and varied statistics are available to describe the health of a population. None can fully do justice to the health problems faced by the whole of the local community.

We have presented the data for this article in two sections: general vital statistics and statistics in support of the Health of the Nation initiative. The vital statistics are for the calendar year 1991. Due to the small numbers of cases in some of the disease categories, the Health of the Nation statistics are averaged annual statistics for the period 1989 to 1991.

## VITAL STATISTICS

Summary vital statistics are presented in Table 1. The data on infant and perinatal mortality should be interpreted with caution given the small numbers of cases from which it is derived.

Graph 1 shows the secular trend in the standardised mortality ratio of Lancaster residents for the period 1984 to 1991 based against an arbitrary target value of 100 for the population of England and Wales in 1991. It can be seen that, for Lancaster, there has been a steady fall in mortality that has closed mirrored that for England and Wales throughout this period. This mortality experience is significantly better than that seen in the rest of the North West.

Detailed population statistics taken from the first estimations made based on the 1991 census are presented in Table 2, where it can be seen that the resident population of Lancaster has risen by 4.3% in the period between the last censuses (1981 to 1991) to 130,400.

## HEALTH OF THE NATION STATISTICS

The statistics presented in Table 3 represent the major areas of mortality and morbidity associated with the Health of the Nation initiative. The rates have been derived from three year averages standardised against the World Health Organisations European standard population mode. Confidence intervals (+/-95%) derived using normal approximation methods are included.

Coronary heart disease (ICD 410-414) and lung cancer (ICD 162) rates give rise to the highest degree of local concern. Coronary heart disease in Lancaster is now responsible for an average of 2,400 years of life lost prematurely (premature for this purpose being defined as death occurring before age 75), that is 21% of the total premature mortality experience. Lung cancer rates in men have remained relatively stable for several years, but there is a notable and very worrying rise in the mortality rates from lung cancer in women, both locally and nationally. In the North West of England 34% of all men and women now smoke, compared to a national average of 31% of men and 28% of women.

### Vital Statistics 1991

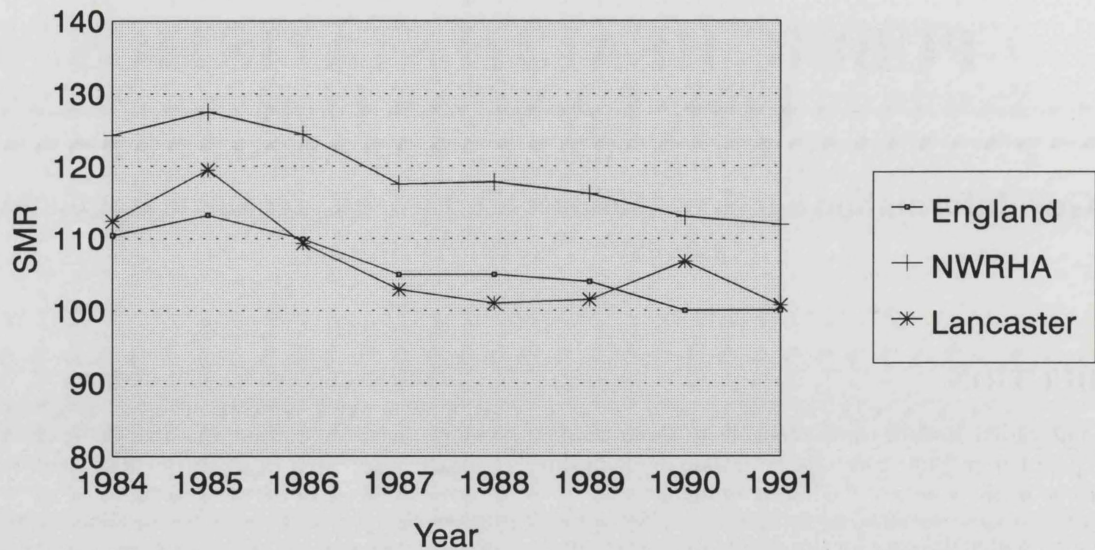
|  | ENGLAND | NWRHA | LANCASTER |
|--|---------|-------|-----------|
| <b>General fertility rate:</b><br>(Live births/1000 women age 15-44) | 63.8    | 67.5  | 60.5      |
| <b>Still birth rate:</b><br>(per 1000 total births)                  | 4.6     | 4.8   | 4.3       |
| <b>Perinatal mortality rate:</b><br>(per 1000 total births)          | 8       | 8.2   | 8.6       |
| <b>Infant mortality rate:</b>  |         |       |           |
| Under 1yr  | 7.3     | 8     | 8         |
| Under 28 days  | 4.3     | 4.1   | 4.9       |
| Under 7 days   | 3.4     | 3.4   | 4.3       |
| Under 24 hours   | 2       | 2     | 3.1       |
| (per 1000 live births)   |         |       |           |
| <b>Crude death rate:</b><br>(per 100,000 population)                 | 1112.2  | 1204  | 1356.3    |
| <b>All causes SMR</b>  | 100     | 112   | 100       |

Source: Public Health Common Data Set 1992  
Derived OPCS

Table 1. Vital Statistics



### Secular Trend in SMR Lancaster, England & Wales, NWRHA



1984 to 1991

Graph 1. Secular Trend in SMR

### Census Statistics Lancaster Resident Population

| Ages                          | 1981  |            | 1991  |            | % Change | 1981              |  | 1991              |  |
|-------------------------------|-------|------------|-------|------------|----------|-------------------|--|-------------------|--|
|                               | No.   | % of Total | No.   | % of Total |          | Excess % of Males |  | Excess % of Males |  |
| <1                            | 1.4   | 1.1%       | 1.6   | 1.2%       | 14.3%    | 0.0%              |  | 0.0%              |  |
| 1-4                           | 4.9   | 3.9%       | 6.3   | 4.8%       | 28.6%    | 2.0%              |  | 3.1%              |  |
| 5-14                          | 15.6  | 12.5%      | 15.0  | 11.5%      | -3.8%    | 3.8%              |  | 0.7%              |  |
| 15-19                         | 10.3  | 8.2%       | 8.6   | 6.6%       | -16.5%   | 2.9%              |  | 2.3%              |  |
| 20-29                         | 17.3  | 13.8%      | 20.7  | 15.9%      | 19.7%    | 5.2%              |  | 0.0%              |  |
| 30-39                         | 14.9  | 11.9%      | 16.4  | 12.6%      | 10.1%    | 0.7%              |  | 0.6%              |  |
| 40-49                         | 13.1  | 10.5%      | 16.4  | 12.6%      | 25.2%    | -0.8%             |  | 0.0%              |  |
| 50-59                         | 14.4  | 11.5%      | 13.5  | 10.4%      | -6.2%    | -2.8%             |  | -2.2%             |  |
| 60-64                         | 7.1   | 5.7%       | 7.0   | 5.4%       | -1.4%    | -9.9%             |  | -5.7%             |  |
| 65-69                         | 7.6   | 6.1%       | 7.1   | 5.4%       | -6.6%    | -13.2%            |  | -8.3%             |  |
| 70-79                         | 13.0  | 10.4%      | 11.1  | 8.5%       | -14.6%   | -24.6%            |  | -18.9%            |  |
| 80-84                         | 3.4   | 2.7%       | 3.8   | 2.9%       | 11.8%    | -41.2%            |  | -36.8%            |  |
| 85+                           | 2.0   | 1.6%       | 2.9   | 2.2%       | 45.0%    | -50.0%            |  | -51.7%            |  |
| All Ages                      | 125.0 | 100.0%     | 130.4 | 100.0%     | 4.3%     | -4.6%             |  | -4.4%             |  |
| <15                           | 21.9  | 17.5%      | 22.9  | 17.6%      | 4.6%     |                   |  |                   |  |
| >65                           | 26.0  | 20.8%      | 24.9  | 19.1%      | -4.2%    |                   |  |                   |  |
| >75                           | 11.5  | 9.2%       | 11.9  | 9.1%       | 3.6%     |                   |  |                   |  |
| Age specific Dependency Ratio |       | 1981:      | 62%   |            |          |                   |  |                   |  |
|                               |       | 1991:      | 58%   |            |          |                   |  |                   |  |

Table 2. Census Statistics Lancaster Resident Population

Incidence rates for skin cancers are presented for all skin cancers (ICD 172, 173) and malignant melanoma (ICD 172). In both of these groups the incidence rate for skin cancers is higher locally than in both the North West and the country as a whole. The relatively small numbers of cases involved make it difficult to predict future trends in this area, but give rise to concern.

In all the other disease groups the mortality rates are seen to be falling and trend analysis suggests that the national targets for stroke (ICD 430-438), accidents (ICD E800-E949) and suicide (ICD E950-959, E980-989) should be met by the year 2000.

### CONCLUSIONS

The health experience of Lancaster residents is in general good. It approximates very closely to that experienced throughout the whole country, and is significantly better than the average health experience of the North West of England.

Coronary heart disease and lung cancer give very real cause for concern. Tobacco related diseases continue to give rise to an unnecessary and useless slaughter of the local population.



## The Health of the Nation: Baseline Data

Mortality rates from coronary heart disease (ICD 410-414)

Age-standardised mortality rate per 100,000: average for the years 1989-91

Persons aged under 65

Persons aged 65-74

|                   | Rate  | Observed | 95% CI |        |  | Rate    | Observed | 95% CI  |         |
|-------------------|-------|----------|--------|--------|--|---------|----------|---------|---------|
|                   |       |          | RateLL | RateUL |  |         |          | RateLL  | RateUL  |
| ENGLAND AND WALES | 58.71 | 72627    | 58.28  | 59.14  |  | 890.30  | 121591   | 885.29  | 895.31  |
| ENGLAND           | 58.37 | 67938    | 57.92  | 58.81  |  | 884.36  | 113169   | 879.20  | 889.51  |
| NORTH WESTERN RHA | 74.66 | 7157     | 72.92  | 76.40  |  | 1076.82 | 11503    | 1057.13 | 1096.51 |
| Lancaster         | 69.28 | 228      | 60.20  | 78.36  |  | 971.03  | 384      | 873.82  | 1068.25 |

Mortality rates from stroke (ICD 430-438)

Age-standardised mortality rate per 100,000: average for the years 1989-91

Persons aged under 65

Persons aged 65-74

|                   | Rate  | Observed | 95% CI |        |  | Rate   | Observed | 95% CI |        |
|-------------------|-------|----------|--------|--------|--|--------|----------|--------|--------|
|                   |       |          | RateLL | RateUL |  |        |          | RateLL | RateUL |
| ENGLAND AND WALES | 12.60 | 15738    | 12.40  | 12.80  |  | 260.76 | 35821    | 258.05 | 263.46 |
| ENGLAND           | 12.52 | 14718    | 12.32  | 12.72  |  | 258.88 | 33326    | 256.10 | 261.66 |
| NORTH WESTERN RHA | 15.99 | 1548     | 15.19  | 16.79  |  | 304.29 | 3263     | 293.84 | 314.74 |
| Lancaster         | 13.80 | 45       | 9.73   | 17.88  |  | 371.54 | 149      | 311.83 | 431.25 |

Mortality rates from breast cancer in women aged 50-69

(ICD 174) Age-standardised mortality rate per 100,000:

average for the years 1989-91

Females

(B2) Incidence of invasive cervical cancer (ICD 180)

Age-standardised registration rate per 100,000:

average for the years 1985-87

Females

|                   | Rate  | Observed | 95% CI |        |  | Rate  | Observed | 95% CI |        |
|-------------------|-------|----------|--------|--------|--|-------|----------|--------|--------|
|                   |       |          | RateLL | RateUL |  |       |          | RateLL | RateUL |
| ENGLAND AND WALES | 96.00 | 15993    | 94.48  | 97.52  |  | 15.18 | 12249    | 14.90  | 15.45  |
| ENGLAND           | 96.25 | 15064    | 94.68  | 97.82  |  | 14.80 | 11258    | 14.51  | 15.08  |
| NORTH WESTERN RHA | 96.29 | 1244     | 90.82  | 101.76 |  | 18.06 | 1164     | 16.98  | 19.14  |
| Lancaster         | 86.49 | 40       | 58.50  | 114.47 |  | 16.87 | 35       | 10.97  | 22.76  |

Incidence of skin cancer (ICD 172, 173)

All skin cancers (ICD 172, 173)

Age-standardised registration rate per 100,000:

average for the years 1985-87

Persons

Malignant melanoma (ICD 172)

Age-standardised registration rate per 100,000:

average for the years 1985-87

Persons

|                   | Rate  | Observed | 95% CI |        |  | Rate | Observed | 95% CI |        |
|-------------------|-------|----------|--------|--------|--|------|----------|--------|--------|
|                   |       |          | RateLL | RateUL |  |      |          | RateLL | RateUL |
| ENGLAND AND WALES | 48.16 | 87683    | 47.83  | 48.49  |  | 5.65 | 8927     | 5.53   | 5.77   |
| ENGLAND           | 48.12 | 82595    | 47.78  | 48.46  |  | 5.63 | 8386     | 5.50   | 5.75   |
| NORTH WESTERN RHA | 50.85 | 7407     | 49.65  | 52.05  |  | 4.32 | 538      | 3.94   | 4.69   |
| Lancaster         | 54.46 | 306      | 47.85  | 61.08  |  | 6.22 | 25       | 3.69   | 8.74   |

Mortality rates from lung cancer in men and women under 75 (ICD 162)

Age-standardised mortality rate per 100,000: average for the years 1989-91

Males

Females

|                   | Rate  | Observed | 95% CI |        |  | Rate  | Observed | 95% CI |        |
|-------------------|-------|----------|--------|--------|--|-------|----------|--------|--------|
|                   |       |          | RateLL | RateUL |  |       |          | RateLL | RateUL |
| ENGLAND AND WALES | 59.54 | 45002    | 58.98  | 60.09  |  | 24.01 | 20447    | 23.67  | 24.35  |
| ENGLAND           | 59.59 | 42279    | 59.02  | 60.16  |  | 24.06 | 19226    | 23.71  | 24.41  |
| NORTH WESTERN RHA | 70.88 | 4107     | 68.69  | 73.06  |  | 30.56 | 2036     | 29.19  | 31.92  |
| Lancaster         | 61.15 | 128      | 50.36  | 71.94  |  | 28.57 | 66       | 21.31  | 35.83  |

Suicide rates

Suicide and undetermined deaths (ICD E950-E959, E980-E989)

Age-standardised mortality rate per 100,000: average for the years 1989-91

Persons

|                   | Rate  | Observed | 95% CI |        |
|-------------------|-------|----------|--------|--------|
|                   |       |          | RateLL | RateUL |
| ENGLAND AND WALES | 11.00 | 17488    | 10.83  | 11.16  |
| ENGLAND           | 11.02 | 16544    | 10.85  | 11.19  |
| NORTH WESTERN RHA | 12.32 | 1517     | 11.69  | 12.95  |
| Lancaster         | 13.61 | 55       | 9.88   | 17.34  |

Mortality rates from accidents (ICD E800-E949)

Age-standardised mortality rate per 100,000: average for the years 1989-91

Aged under 15

Aged 15-24

Aged 65+

Persons

Persons

Persons

|                   | Aged under 15 |          |        |        | Aged 15-24 |          |        |        | Aged 65+ |          |        |        |
|-------------------|---------------|----------|--------|--------|------------|----------|--------|--------|----------|----------|--------|--------|
|                   | Rate          | Observed | 95% CI |        | Rate       | Observed | 95% CI |        | Rate     | Observed | 95% CI |        |
|                   |               |          | RateLL | RateUL |            |          | RateLL | RateUL |          |          | RateLL | RateUL |
| ENGLAND AND WALES | 6.64          | 1926     | 6.34   | 6.93   | 24.09      | 5192     | 23.43  | 24.75  | 56.41    | 15187    | 55.50  | 57.32  |
| ENGLAND           | 6.63          | 1814     | 6.32   | 6.94   | 23.98      | 4882     | 23.30  | 24.65  | 55.76    | 14113    | 54.82  | 56.69  |
| NORTH WESTERN RHA | 8.15          | 195      | 7.00   | 9.29   | 20.45      | 351      | 18.30  | 22.60  | 70.30    | 1468     | 66.65  | 73.96  |
| Lancaster         | 0.00          | 0        | 0.00   | 0.00   | 14.69      | 8        | 4.46   | 24.91  | 71.20    | 63       | 52.96  | 89.44  |

Source: Public Health Common Data Set 1992