



Does place of death from lung, colorectal, breast, and prostate cancer vary between ethnic groups?

Victoria H Coupland, Peter Madden, Ruth H Jack, Henrik Møller, Elizabeth A Davies

THAMES CANCER REGISTRY

Purpose

The NHS End of Life Care Strategy seeks to ensure that all groups in society have equal access to palliative care services. This study investigated whether place of death from lung, colorectal, breast, and prostate cancer differed between ethnic groups in South East England.

Methods

Data on 101,516 patients who died from their cancer between 1998 and 2006 were extracted from the Registry database. Ethnicity was classified primarily using self-assigned information from linked Hospital Episode Statistics data. Three logistic regression models were fitted for death in hospice versus death elsewhere, death at home versus death elsewhere and death in hospital versus death elsewhere. The White group was used

Table 1: Characteristics of patients that died of lung, colorectal, breast, and prostate cancer between 1998 and 2006 in South East England.

	Number of deaths	Percentage (%)
Cancer		
Lung (ICD10 C33-C34)	43,905	43.2
Colorectal (ICD10 C18-C21)	23,258	22.9
Breast (ICD10 C50)	20,065	19.8
Prostate (ICD10 C61)	14,288	14.1
Ethnic group		
White	63,180	62.2
Pakistani	183	0.2
Indian	733	0.7
Bangladeshi	173	0.2
Black African	429	0.4
Black Caribbean	1,372	1.4
Chinese	150	0.2
Other	2,584	2.6
Not known	32,712	32.2
Place of death		
Hospice	21,733	21.4
Home	22,916	22.6
Hospital	44,957	44.3
Long stay / nursing homes	5,823	5.7
Private	1,804	1.8
Other / Extraregional / Not known	4,283	4.2

as the baseline in each model. Adjustment was made for age at death, deprivation, cancer network of residence, and time between diagnosis and death.

Results

The majority of deaths were from lung cancer (43.2%) (Table 1). Ethnicity information was available for 68,804 patients (67.8%). Most deaths occurred in hospitals (44.3%), with 22.6% at home and 21.4% in hospices.

Following adjustment, hospice deaths were significantly less likely for Pakistani patients (OR=0.47 95%CI [0.30-0.74]), Indian patients (0.68 [0.55-0.84]), and Bangladeshi patients (0.33 [0.19-0.56]) compared to White patients (Figure 1a). Hospice deaths were significantly more likely (1.07 [1.03-1.10]) for those with an unknown ethnicity.

Deaths at home were significantly less likely for Black African patients (0.48 [0.36-0.65]), Black Caribbean patients (0.78 [0.67-0.90]), and Chinese patients (0.46 [0.28-0.76]) compared to White patients (Figure 1b). For those with no recorded ethnicity home death was significantly more likely (1.39 [1.35-1.44]).

Hospital deaths were significantly more likely in the Pakistani (1.70 [1.25-2.32]), Indian (1.38 [1.19-1.61]), Bangladeshi (1.72 [1.24-2.37]), Black African (1.87 [1.53-2.29]), Black Caribbean (1.33 [1.19-1.49]), and Chinese patients (1.61 [1.15-2.25]) compared to White patients (Figure 1c). Hospital deaths were significantly less likely (0.62 [0.60-0.63]) for those with an unknown ethnicity.

Conclusions

These findings show that ethnicity may influence where individuals die. Further studies are needed to determine whether these results reflect differences in preferences for place of death or barriers to access to specialist care in different settings.

A limitation of this study was that around a third (32%) of our dataset had no recorded ethnicity. It is assumed these patients would be proportionally distributed between the ethnic groups. However, if this were not the case it could potentially bias the findings.

Figure 1: Unadjusted and adjusted odds ratios for a) death in hospice, b) at home, and c) in hospital versus death elsewhere for lung, colorectal, breast, and prostate cancer patients.

