Recent English cancer policy has directed significant extra funding towards improving cancer services and cancer outcomes in England. Few evaluations have related programme budget data on cancer spending to population differences, disease burden, outcome or service activity for cancer. We used existing routine data to explore these associations for 39 Primary Care Trusts (PCTs) in South East England in 2005-2007.

We explored associations between cancer spending and PCT size, deprivation, age-standardised cancer incidence and mortality rates, proportions treated with surgery, radiotherapy and chemotherapy, and per capita bed days.

There was no relation between per capita cancer spending and population measures of disease burden expressed either as age-standardised incidence rates or as age-standardised mortality rates. There was also no relationship between per capita spending and the numbers of new cases diagnosed each year or the number of deaths.

The proportion of newly diagnosed residents undergoing investigative or cancer surgery was not related to reported per capita spending. However, higher reported spending was associated with a higher proportion of patients undergoing radiotherapy in the first six months after diagnosis. The per capita number of bed days coded to cancer diagnoses was related to cancer spending (Figure 3) and this relationship was statistically significant (Table 1).

Contrary to our expectation that PCTs with higher levels of deprivation, and cancer incidence or mortality rates would report higher spending, we found that higher deprivation was associated with lower spending, and that total disease burden was unrelated to spending.

However, cancer spending reported by South East England PCTs was related to some aspects of treatment and service activity.