

## Survival of resected versus non-resected non-small cell lung cancer

Geographic variation and trends over time from 2001 to 2009

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*There is greater variability in survival among resected compared to non-resected NSCLC patients.*

### Background

While extensive data is available on lung cancer outcomes worldwide, there is little information, at population scale, on the survival of patients with who underwent surgery for lung cancer. In this study we examined the survival of resected and non-resected lung cancer patients in Queensland over time and across geographic areas.

### Methods

Diagnosis and surgical data on all Queensland residents diagnosed with non-small lung cancer (NSCLC) between 2001 and 2009 were derived from the Queensland Oncology Repository, Queensland Cancer Control Analysis Team. Two year overall survival rates of resected and non-resected patients were compared across Hospital and Health Service of residence at diagnosis. Joinpoint regression was used to analyse trends in survival over time.

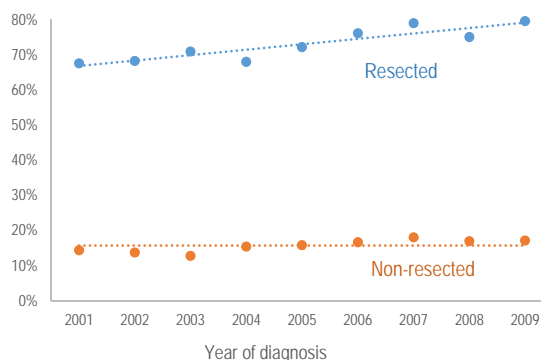
### Results

Of 11,254 Queensland residents diagnosed with NSCLC over the period 2001-2009, 2,276 (20%) underwent lung cancer resection. Two year survival rates were 72% and 18% for resected and non-resected patients, respectively. Among resected patients, 2-year survival increased from 67% in 2001 to 79% in 2009. In contrast, 2-year survival among non-resected patients did not exhibit any trend and averaged 18% over the same period. In eleven health service areas with minimum surgical cohorts of 50 patients over the nine-year period, the 2-year survival of resected patients ranged from 60% to 77% and was higher in metropolitan compared to rural areas. With the exception of one area, survival among non-resected patients did not vary by place of residence.

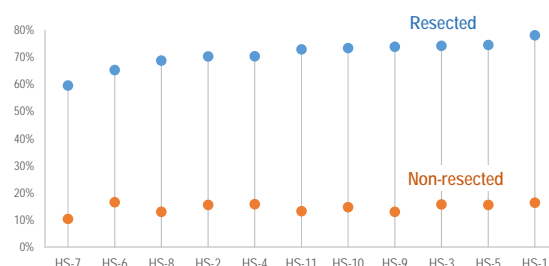
### Conclusion

There are modest improvements in survival among surgically-treated lung cancer patients in Queensland over the past decade, however significant geographic variation in outcome still exists even among patients with operable lung cancer.

2-year crude survival after NSCLC diagnosis by year of diagnosis



2-year crude survival after NSCLC diagnosis by Queensland Hospital & Health Service of residence



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