

Rural health

Cancer health inequality persists in regional and remote Australia

High-quality oncology care in rural Australia requires ongoing government commitment

One in two men and one in three women in Australia will be diagnosed with cancer during their lifetime, with malignant disease accounting for 30% of all deaths.¹ Over the past 30 years, cancer incidence has increased by 27%, during which time 5-year survival has improved from 47% to 66%.²

The cost of cancer care has increased rapidly with advances in early diagnosis, surgical techniques, systemic therapy and radiotherapy. However, despite malignancy contributing to over 30% of mortality, direct cancer health costs comprise only 7% of the health budget for chronic diseases.³

The scale of the rural cancer inequality

About a third of Australia's population resides in regional and remote areas.⁴ For almost 20 years, the poorer cancer survival with increasing rurality has been well documented.⁵ Proponents of equitable cancer services for rural populations have included the Clinical Oncology Society of Australia and Cancer Council Australia, accompanied by prescient editorials in the *MJA*.^{6,7} Over the decade to 2010, the disparity in cancer outcomes between rural and urban patients remained unchanged with 7% higher mortality, equating to almost 9000 additional rural deaths during this period.⁸ The disparity was greatest with oesophageal cancer and melanoma (where tertiary care is essential to maximise cure), with no evident gap in breast cancer mortality rates.

Despite an improvement in national prostate cancer survival since the 1990s, those living in non-metropolitan areas continue to have 18%–32% poorer survival.⁹ In Queensland, rectal cancer mortality increases by 6% for every 100 km that patients reside from the closest radiotherapy centre. Early breast cancer patients in rural New South Wales are more likely to receive suboptimal curative therapies, with an 84% higher breast cancer mortality.¹⁰

Diagnostic delays are common with increasing rurality, due to an undersupply of medical practitioners in these areas. Early detection is also limited by fewer diagnostic facilities such as computed tomography scanning and tissue biopsy services, resulting in an increase in late presentations with de-novo metastatic disease.

Cancer outcomes are particularly poor for Indigenous patients living in regional and remote

communities. Cancer is underreported in this group, and death rates are 45% higher than in the non-Indigenous population.¹¹

In 2008, only 27 medical oncologists were located in rural locations, comprising 6% of the national medical oncologist workforce. A further six medical oncologists attended rural outreach clinics on a part-time basis.¹²

Recent progress

Significant progress has been achieved in recent years, particularly with the establishment of the regional cancer centre (RCC) initiative announced by the federal government in 2010. Twenty-six RCC projects received total funding of \$694 million in capital works.¹³

Despite this funding, significant inequalities remain in access to specialist oncology services, especially in areas that are not recipients of RCC funding.

Novel approaches are being increasingly adopted in rural areas to improve both the efficiency and quality of cancer services including telehealth, shared care and surgical oncology networks.

The increasing adoption of telehealth has resulted in improved service provision and substantial cost saving, particularly for remote communities such as Mount Isa.¹⁴ Telehealth facilities also allow regional sites to link to tertiary metropolitan centres for multidisciplinary team discussion.¹¹

Shared care is a common strategy in Canada, and is increasingly being adopted by Australian general practitioners with an interest in cancer therapy, who are integrated with prevention, screening, detection and treatment of cancer.¹¹ This is particularly pertinent to remote communities, where the patients are geographically distant to the treating oncologist and are best managed by their primary care physician.

Cancer screening rates in rural Australia have improved in recent years. The trend for prostate-specific antigen screening between 1995 and 2009 has seen a significant improvement in the rural–urban rate ratio from 0.76 to 0.93.¹⁵ Further, the National Bowel Cancer Screening Program in South Australia has seen higher uptake in regional than metropolitan areas.¹⁶ However, screening rates remain poor among remote and Indigenous communities, especially for Pap testing, which accounts for substantially higher cervical cancer incidence and mortality in these groups.¹⁷

Cooperation between state or territory and federal governments is essential to ensure appropriate recurrent funding, which guarantees the long-term sustainability of RCCs.

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The way forward

High-quality oncology care in rural Australia is a challenge that requires ongoing commitment from state, territory and federal governments. There is no clearly defined staffing profile for a rural oncology unit, and establishing this should be a significant priority. The Clinical Oncology Society of Australia has recommended a staffing and service mix for RCCs, including medical specialists, allied health staff, oncology pharmacists, care coordinators, data managers and clinical trials coordinators (https://www.cosa.org.au/media/1151/cosa_rr-workshop-2012_report_final.pdf). Implementing a national standard staffing profile is essential to deliver uniform care throughout rural areas.

Expanding telehealth hardware infrastructure and maintaining Medicare telehealth incentives will ensure the strength of this modality.

In order to assess the effectiveness of initiatives such as shared care, telehealth and care coordinators, data collection is essential. Data collection and management can be improved in rural areas through the adoption of electronic medical records and dedicated data managers to evaluate the success of programs. This will also allow cancer centres to measure the impact of novel pilot programs.

With the expansion of radiation oncology and chemotherapy services under the RCC initiative, many rural patients are no longer required to travel to metropolitan areas for cancer therapy. However, exceptions remain; for example, positron emission tomography scanning and specialised surgery such as cardiothoracic, pancreatic or oesophageal surgery. Further, many patients continue to travel substantial distances to RCCs and are eligible for state and territory government subsidies. State-based road travel subsidies for rural patients are as low as 16 cents per kilometre,¹⁸ which is significantly below the Australian Tax Office tax-deductible rate of 65 cents per business kilometre. The cost of attending regional or tertiary centres for cancer therapy continues to remain a barrier to improved cancer survival rates.

In conclusion, cancer survival outcomes remain poor in rural areas, especially for cancers requiring complex multidisciplinary care, such as oesophageal cancer. Significant progress has been achieved in recent years with the expansion of RCCs, but ongoing commitment is required at state, territory and federal levels to ensure equitable cancer care for all Australians, regardless of where they reside.

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