

**Announcement of a New Publication from the
WWAMI Rural Health Research Center****Receipt of Recommended Radiation Therapy
Among Rural and Urban Cancer Patients**

Laura-Mae Baldwin MD MPH¹, Shilpen Patel MD², C. Holly A. Andrilla MS¹,
Roger A. Rosenblatt MD MPH¹, Mark P. Doescher MD MSPH¹

Published in *Cancer* Oct 2012;118(20):5100-5109
<http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291097-0142>

From the abstract —**Background**

■ The current study examines whether rural patients with cancer are less likely than urban patients with cancer to receive recommended radiation therapy, and identifies factors influencing rural versus urban differences in radiation therapy receipt.

Methods

- Using 2000 to 2004 Surveillance, Epidemiology, and End Results (SEER) Limited-Use Data from 8 state-based (California, Connecticut, Hawaii, Iowa, Kentucky, Louisiana, New Mexico, and Utah) and 3 county-based (Atlanta, rural Georgia, and Seattle/Puget Sound) cancer registries, the study identified 14,692 rural and 107,834 urban patients with 5 cancer types and stages for which radiation therapy was recommended.
- Adjusted radiation therapy receipt rates were calculated by rural versus urban residence overall, for different sociodemographic and cancer characteristics, and for different states based on logistic regression analyses using general estimating equation methods to account for patient clustering by county.

Results

- Adjusted rates of radiation therapy receipt were lower for rural (62.1%) than urban (69.1%) patients with breast cancer ($P \leq .001$).
- Among patients with breast cancer, radiation therapy receipt differed more by sociodemographic characteristics (e.g., rural patients aged < 50 years had a 67.1% receipt rate, whereas those aged ≥ 80 years had a radiation therapy receipt rate of 29.1%) than rural versus urban residence.
- Adjusted rates of radiation therapy receipt were similar for rural and urban patients with other cancer types overall (66.1% vs. 68.2%; difference not significant), although there were differences between urban and rural patients with regard to radiation therapy receipt for patients with stage IIIA nonsmall cell lung cancer (66.2% vs. 60.7%; $P \leq .01$).

Conclusions

Sociodemographics, cancer types and stages, and state of residence appear to have a greater influence over receipt of radiation therapy than rural versus urban residence location, suggesting that factors such as social support, receipt of other cancer treatments, and regional practice patterns are important determinants of radiation therapy receipt.

¹WWAMI Rural Health Research Center, Department of Family Medicine, University of Washington, Seattle, Washington; ²Department of Radiation Oncology, University of Washington, Seattle, Washington.