

RISING INCIDENCE OF THYROID CANCER IN THE UNITED STATES

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Background/Purpose: We have previously reported on a doubling of thyroid cancer incidence – largely due to the detection of small papillary cancers. Because they are commonly found in people who have died of other causes, and because thyroid cancer mortality had been stable, we argued that the increased incidence represented overdiagnosis.

Objective: Determine whether thyroid cancer incidence has stabilized.

Methods: Analysis of secular trends in patients diagnosed with thyroid cancer, 1975-2009, using the Surveillance, Epidemiology, and End Results (SEER) program and thyroid cancer mortality from the National Vital Statistics System.

Main outcome measures: Thyroid cancer incidence, histology, size and mortality.

Results: Since 1975 the incidence of thyroid cancer has now nearly tripled: from 4.9 to 14.3 per 100,000 (absolute increase = 9.4 per 100,000, RR = 2.9, 95% confidence interval [CI]: 2.7 – 3.1). Virtually the entire increase was attributable to papillary thyroid cancer: from 3.4 to 12.5 per 100,000 (absolute increase = 9.1 per 100,000, RR = 3.7, 95% CI: 3.4 – 4.0). The absolute increase in thyroid cancer in women (from 6.5 to 21.4 = 14.9 per 100,000) was almost four times greater than that of men (from 3.1 to 6.9 = 3.8 per 100,000). Mortality from thyroid cancer was stable between 1975 and 2009 (approximately 0.5 deaths per 100,000).

Discussion & Conclusion: There is an ongoing epidemic of thyroid cancer in the United States. The epidemiology of the increased incidence, however, suggests that it is not an epidemic of disease – but an epidemic of diagnosis. The problem is particularly acute for women.