

Supplementary tables and figures of Trends in the use of thyroid diagnostics and treatment between 2008 and 2019 in Germany

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Table 1: Billing codes of thyroid diagnostics and treatments

| | Corresponding billing code | | |
|---|----------------------------|--|--|
| | EBM | OPS | ATC |
| Thyroid diagnostic procedure | | | |
| Thyroid-stimulating hormone measurement | 32101 | | |
| Ultrasound | 33012 | 3-003.1 | |
| Scintigraphy | 17320 | 3-701 | |
| Biopsy – thyroid tissue | | 1-406.2, 1-407.2, 1-582.0, 1-859.0 | |
| Thyroid treatment | | | |
| Radioiodine therapy | 17370 | 8-530.0, 8-531 | |
| Thyroidectomy | | 5-063, 5-061, 5-062, 5-064, 5-069.00, 5-069.10 | |
| Levothyroxine (including combinations) | | | H03AA01, H03AA03, H03AA51, H03AA53, |
| Iodine | | | H03CA |
| Thionamide derivatives | | | H03BB |

EBM: *Einheitlicher Bewertungsmaßstab* (German uniform assessment standard);

OPS: *Operationen- und Prozedurenschlüssel* (Operations and procedures coding);

ATC: Anatomical Therapeutic Chemical classification;

Figure 1.1: Annual age-standardized and age-specific prevalence of persons with 1 thyroid stimulating hormone measurement per 1,000 persons from 2008 to 2019, stratified by sex

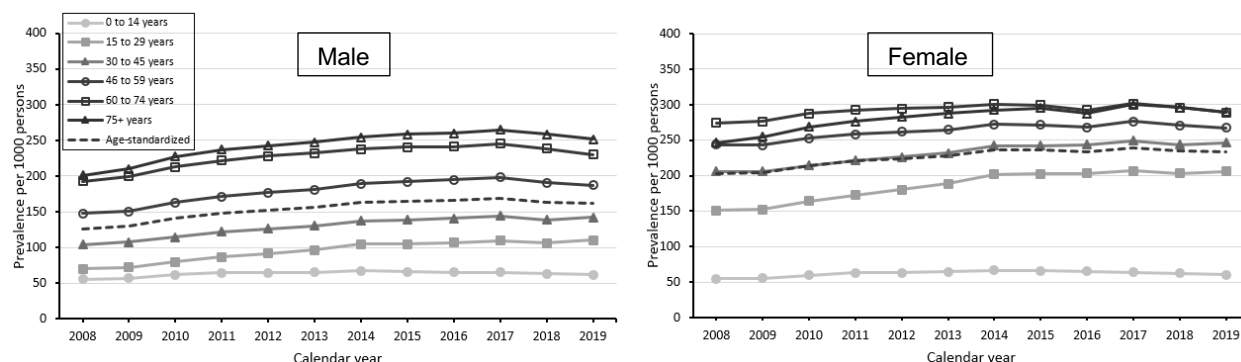


Figure 1.2: Annual age-standardized and age-specific prevalence of persons with 2 thyroid-stimulating hormone measurements per 1,000 persons from 2008 to 2019, stratified by sex

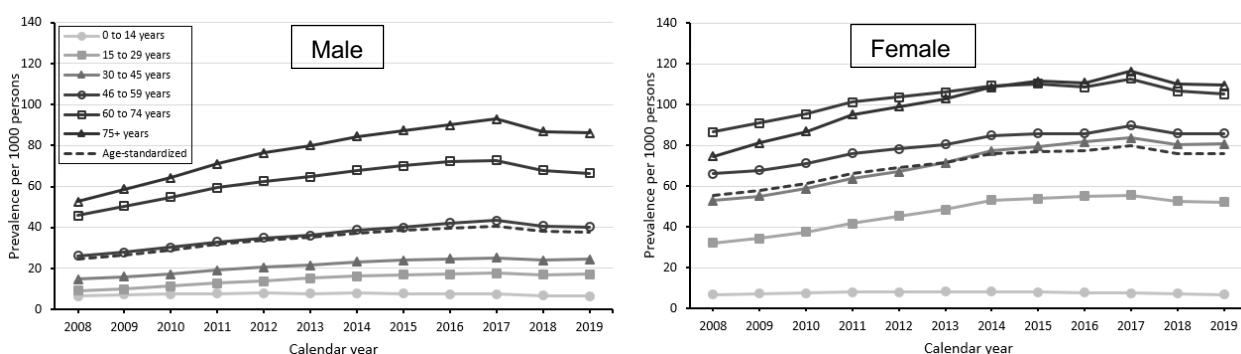


Figure 1.3: Annual age-standardized and age-specific prevalence of persons with 3 thyroid-stimulating hormone measurements per 1,000 persons from 2008 to 2019, stratified by sex

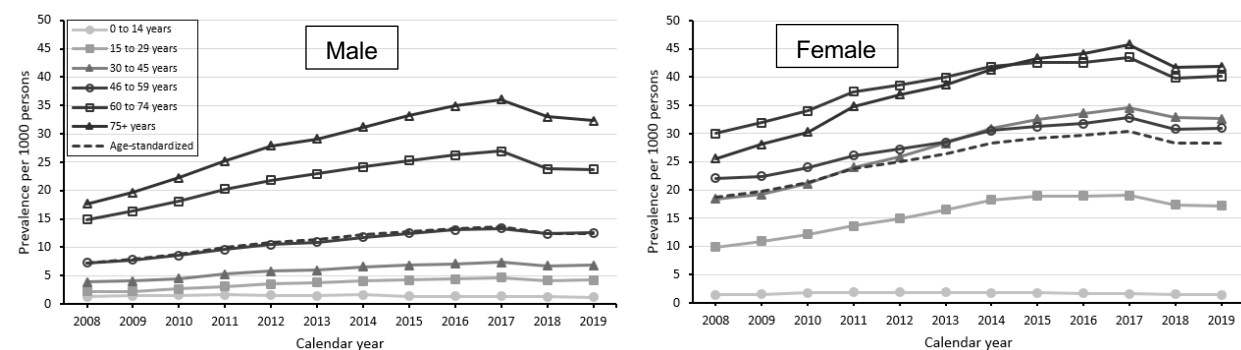


Figure 1.4: Annual age-standardized and age-specific prevalence of persons with 4 thyroid-stimulating hormone measurements per 1,000 persons from 2008 to 2019, stratified by sex

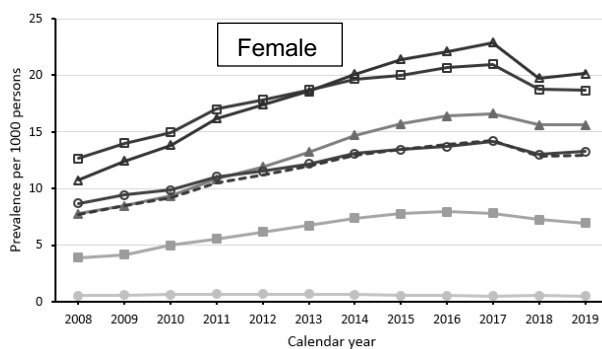
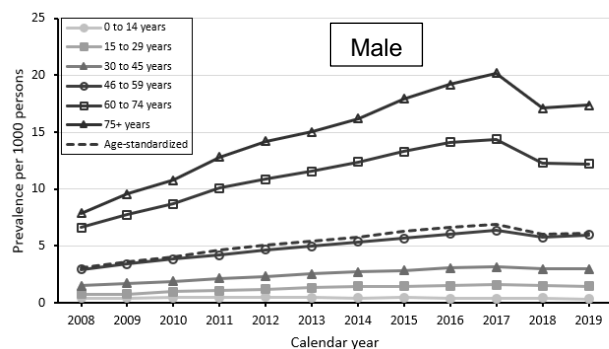
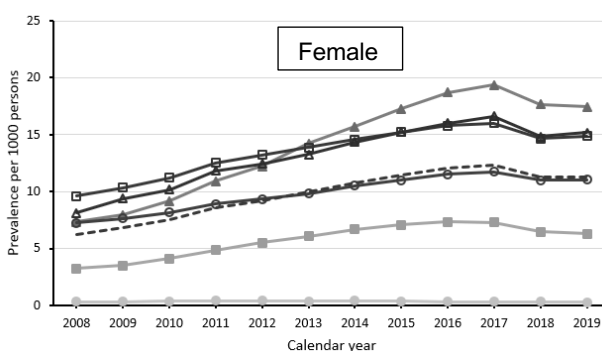
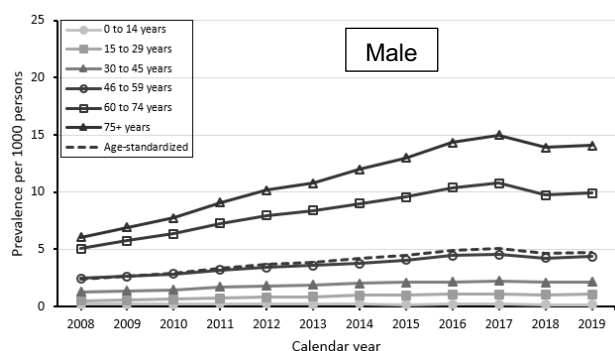


Figure 1.5: Annual age-standardized and age-specific prevalence of persons with ≥ 5 thyroid-stimulating hormone measurements per 1,000 persons from 2008 to 2019, stratified by sex



Male

| Healthcare utilization | 0-14 years | 15-29 years | 30-44 years | 45-59 years | 60-74 years | 75+ years | Age-standardized |
|------------------------|------------|-------------|-------------|-------------|-------------|-----------|------------------|
| Bottom quintile | ~10 | ~10 | ~10 | ~10 | ~10 | ~10 | ~10 |
| 2nd quintile | ~30 | ~100 | ~100 | ~100 | ~100 | ~100 | ~100 |
| 3rd quintile | ~70 | ~250 | ~250 | ~250 | ~250 | ~250 | ~250 |
| 4th quintile | ~150 | ~350 | ~350 | ~350 | ~350 | ~350 | ~350 |
| Top quintile | ~330 | ~530 | ~530 | ~530 | ~530 | ~530 | ~530 |

Female

| Healthcare utilization | 0-14 years | 15-29 years | 30-44 years | 45-59 years | 60-74 years | 75+ years | Age-standardized |
|------------------------|------------|-------------|-------------|-------------|-------------|-----------|------------------|
| Bottom quintile | ~10 | ~70 | ~70 | ~70 | ~70 | ~70 | ~70 |
| 2nd quintile | ~70 | ~190 | ~250 | ~250 | ~250 | ~250 | ~250 |
| 3rd quintile | ~170 | ~320 | ~420 | ~420 | ~420 | ~420 | ~420 |
| 4th quintile | ~300 | ~480 | ~550 | ~550 | ~550 | ~550 | ~550 |
| Top quintile | ~490 | ~700 | ~700 | ~700 | ~700 | ~700 | ~700 |

The figure consists of two line graphs, one for males and one for females, showing the prevalence of low back pain per 1000 persons across five healthcare utilization quintiles (Bottom, 2nd, 3rd, 4th, Top). The y-axis represents 'Prevalence per 1000 persons' ranging from 0 to 45. The x-axis represents 'Healthcare utilization' quintiles. Each graph includes six data series: 0-14 years (light gray line with circles), 15-29 years (light gray line with squares), 30-44 years (light gray line with triangles), 45-59 years (dark gray line with circles), 60-74 years (dark gray line with squares), and 75+ years (dark gray line with triangles). A dashed black line represents the age-standardized prevalence. In both graphs, prevalence generally increases with healthcare utilization, with the 75+ age group showing the highest prevalence in the top quintile for males and the highest for females.

Male

| Healthcare utilization | 0-14 years | 15-29 years | 30-44 years | 45-59 years | 60-74 years | 75+ years | Age-standardized |
|------------------------|------------|-------------|-------------|-------------|-------------|-----------|------------------|
| Bottom quintile | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2nd quintile | 0.5 | 0.5 | 0.5 | 1.0 | 1.0 | 1.0 | 1.0 |
| 3rd quintile | 1.0 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 2.5 |
| 4th quintile | 1.0 | 1.0 | 1.0 | 5.0 | 5.0 | 5.0 | 4.5 |
| Top quintile | 1.0 | 1.0 | 1.0 | 10.0 | 10.0 | 10.0 | 9.0 |

Female

| Healthcare utilization | 0-14 years | 15-29 years | 30-44 years | 45-59 years | 60-74 years | 75+ years | Age-standardized |
|------------------------|------------|-------------|-------------|-------------|-------------|-----------|------------------|
| Bottom quintile | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| 2nd quintile | 0.5 | 0.5 | 0.5 | 2.0 | 2.0 | 2.0 | 1.5 |
| 3rd quintile | 0.5 | 0.5 | 0.5 | 5.0 | 5.0 | 5.0 | 4.0 |
| 4th quintile | 0.5 | 0.5 | 0.5 | 10.0 | 10.0 | 10.0 | 8.0 |
| Top quintile | 0.5 | 0.5 | 0.5 | 25.0 | 25.0 | 25.0 | 20.0 |

Figure 2.4: Age-standardized and age-specific prevalence of thyroid biopsy per 1,000 persons in 2019, stratified by healthcare utilization and sex

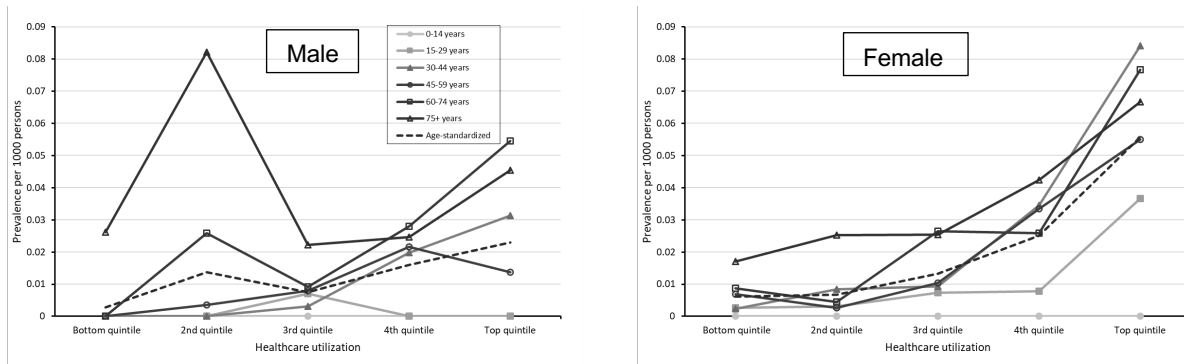


Figure 2.5: Age-standardized and age-specific prevalence of levothyroxine per 1,000 persons in 2019, stratified by healthcare utilization and sex

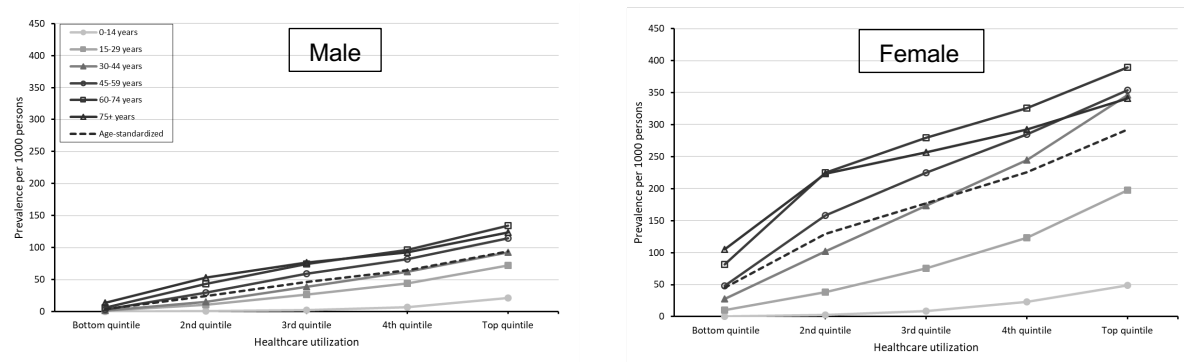


Figure 2.6: Age-standardized and age-specific prevalence of iodine per 1,000 persons in 2019, stratified by healthcare utilization and sex

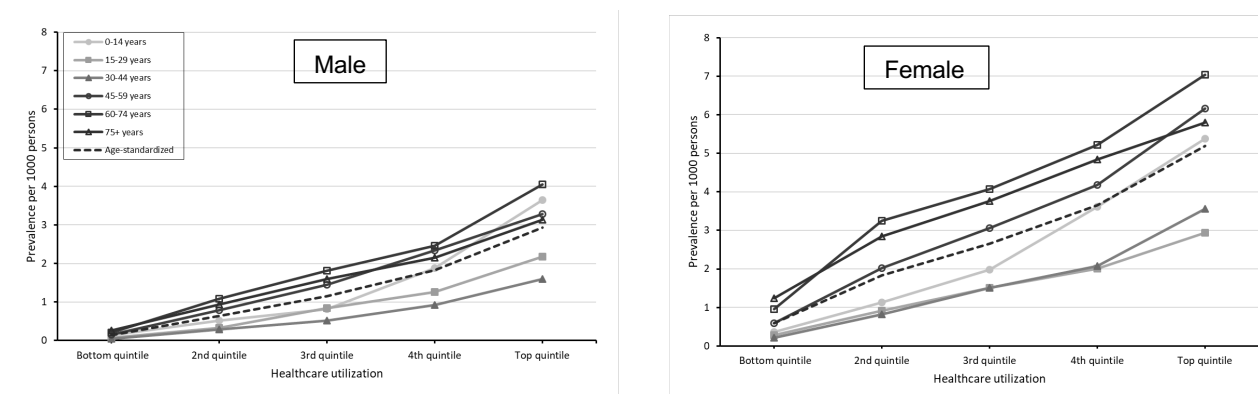


Figure 2.7: Age-standardized and age-specific prevalence of thyroidectomy per 1,000 persons in 2019, stratified by healthcare utilization and sex

Figure 3: Annual age-standardized and age-specific prevalence of thyroid-stimulating hormone measurement per 1,000 persons from 2008 to 2019 (male and female combined)

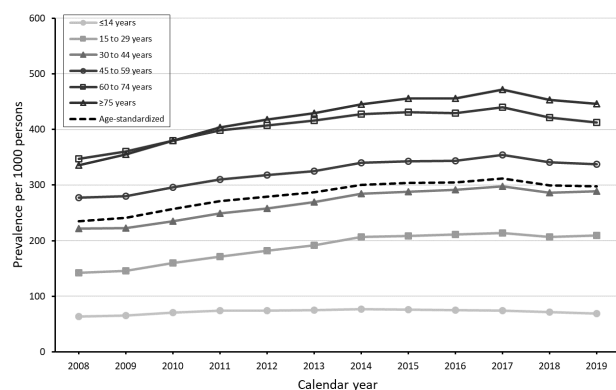


Figure 4: Annual age-standardized and age-specific prevalence of thyroid ultrasound per 1,000 persons from 2008 to 2019 (male and female combined)

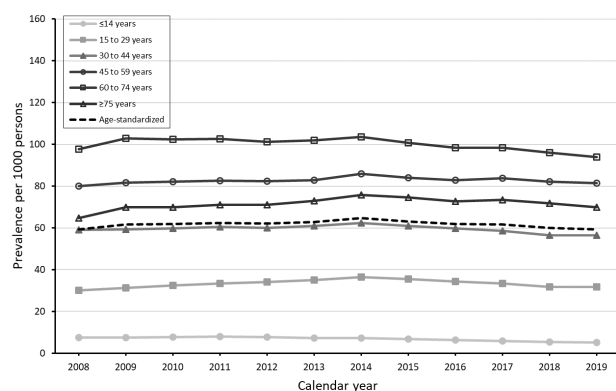


Figure 5: Annual age-standardized and age-specific prevalence of thyroid scintiscan per 1,000 persons from 2008 to 2019 (male and female combined)

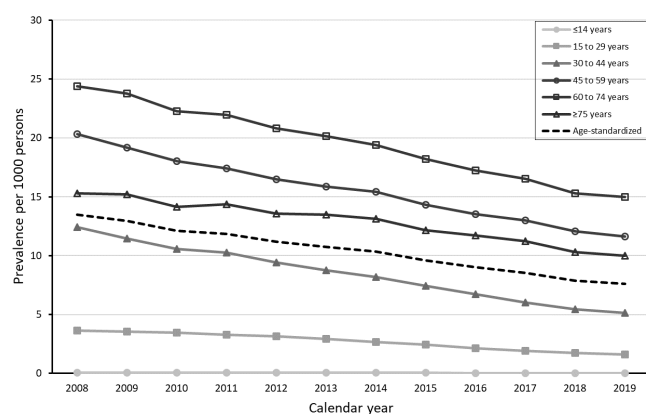


Figure 6: Annual age-standardized and age-specific prevalence of thyroid biopsy per 1,000 persons from 2008 to 2019 (male and female combined)

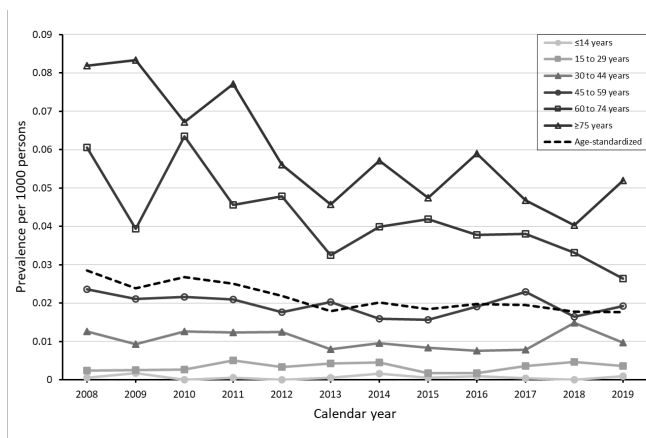


Figure 7: Annual age-standardized and age-specific prevalence of levothyroxine use per 1,000 persons from 2008 to 2019 (male and female combined)

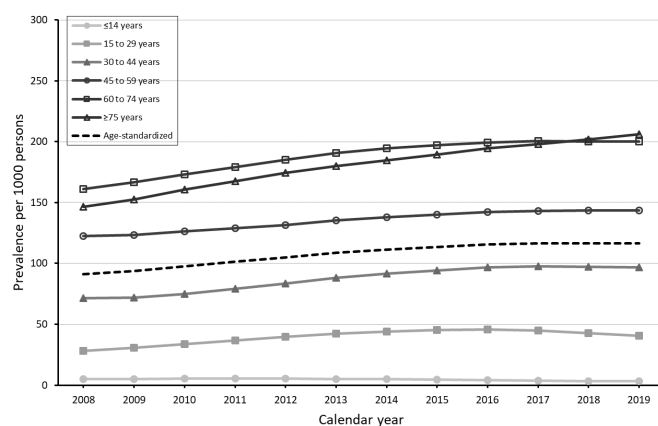


Figure 8: Annual age-standardized and age-specific prevalence of thionamide use per 1,000 persons from 2008 to 2019 (male and female combined)

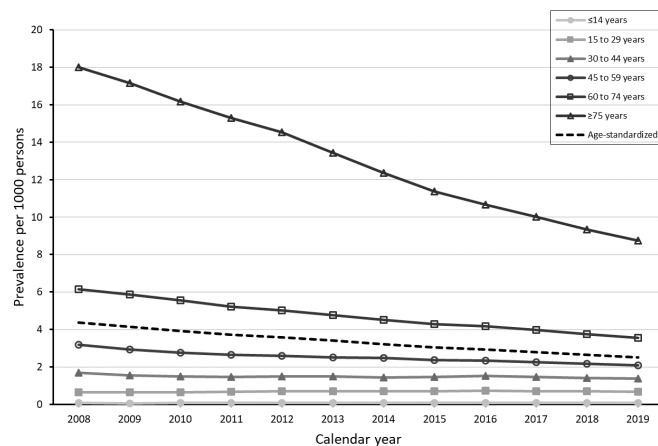


Figure 9: Annual age-standardized and age-specific prevalence of iodine use per 1,000 persons from 2008 to 2019 (male and female combined)

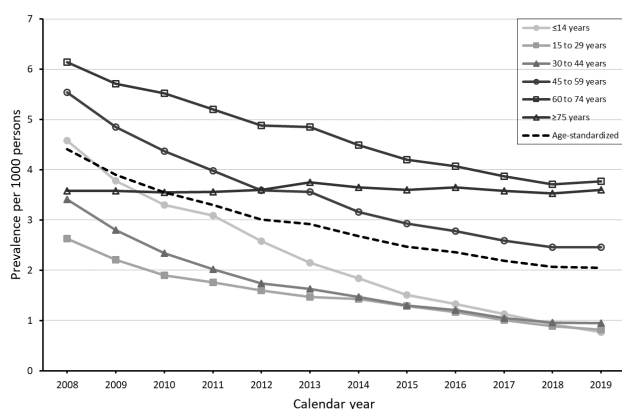


Figure 10: Annual age-standardized and age-specific prevalence of thyroid surgery per 1,000 persons from 2008 to 2019 (male and female combined)

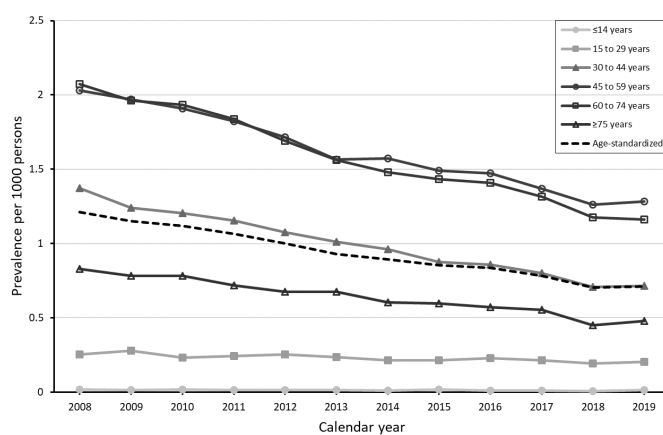


Figure 11: Annual age-standardized and age-specific prevalence of radioiodine therapy per 1,000 persons from 2008 to 2019 (male and female combined)

