

AN ESCALATING THYROID CANCER EPIDEMIC IN CANADA 1970–2012

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No Disclosures

INTRODUCTION

- + Thyroid cancer ↑ incidence rate while mortality unchanged
- + Greater increase in females than males^{1,2}
- + In Canada, thyroid cancer is 5th most common in females³
- + Thyroid cancer epidemic caused by changing risk factors OR over-diagnosis

METHODS

National Data Analysis for Canada

- National Cancer Incidence Reporting System (NCIRS)*
- Canadian Causes of Death Tables⁴
- Recently Canadian Cancer Registry⁵

ASIR using 1991 census population structure

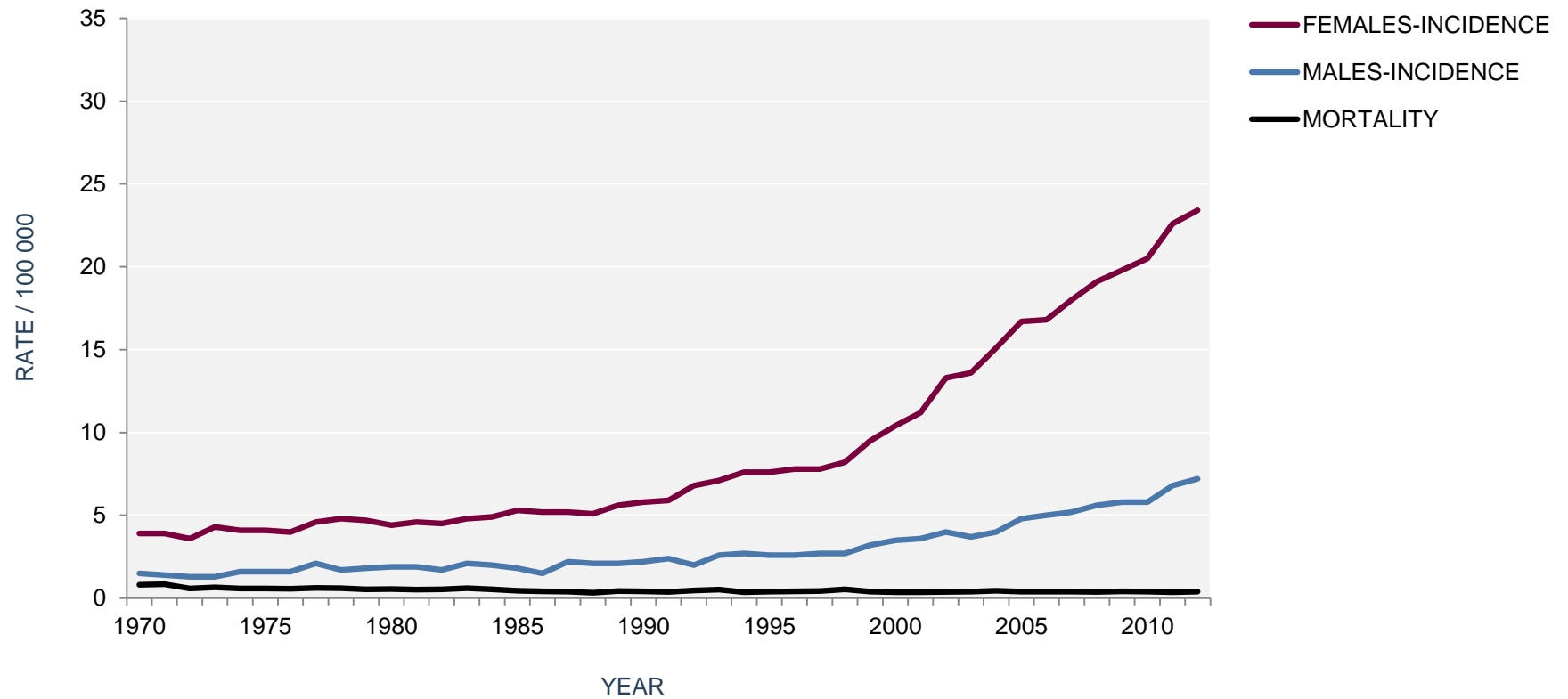
* available from Public Health Agency of Canada

CANADA



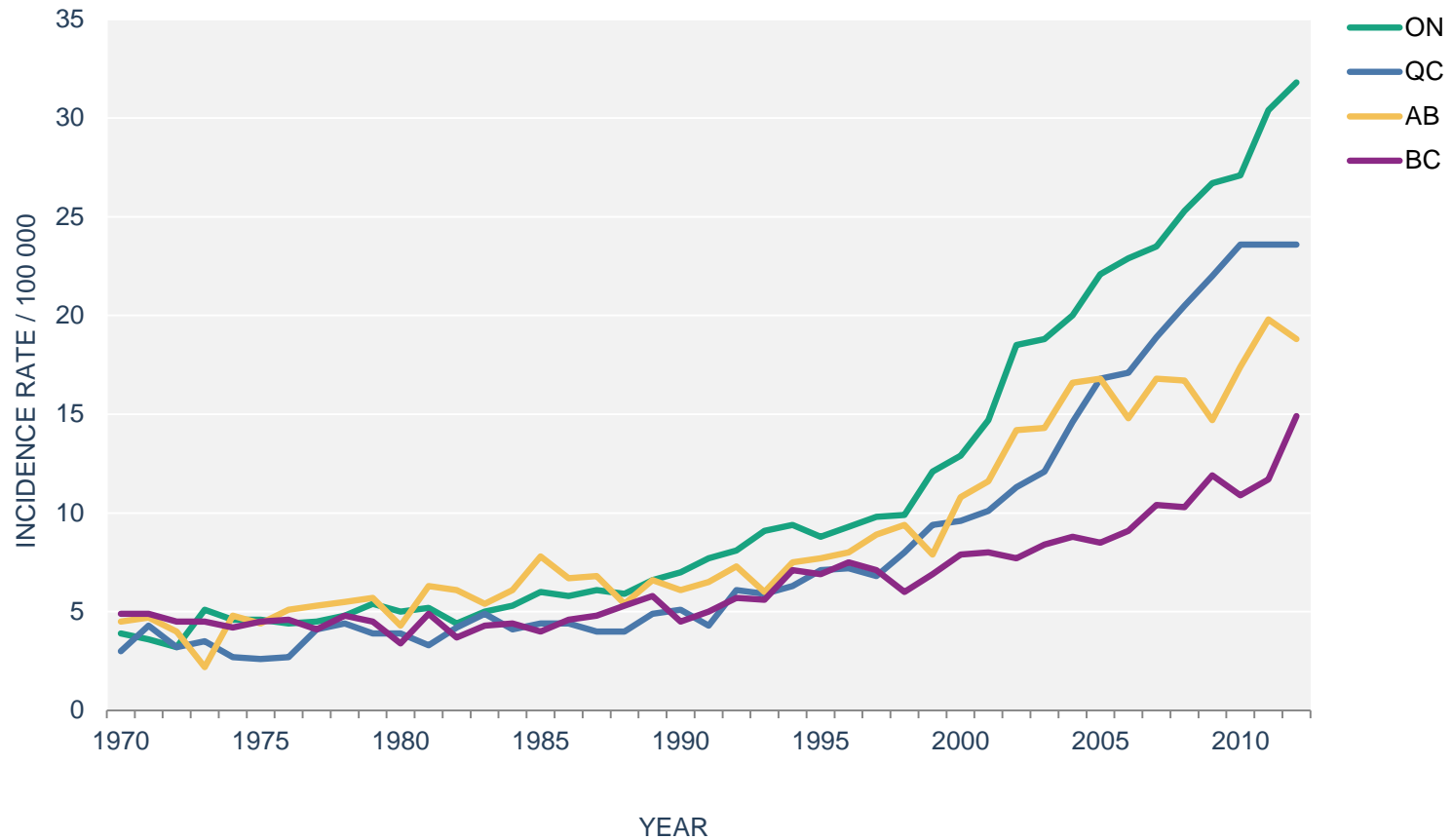


AGE STANDARDIZED INCIDENCE & MORTALITY RATES for THYROID CANCER





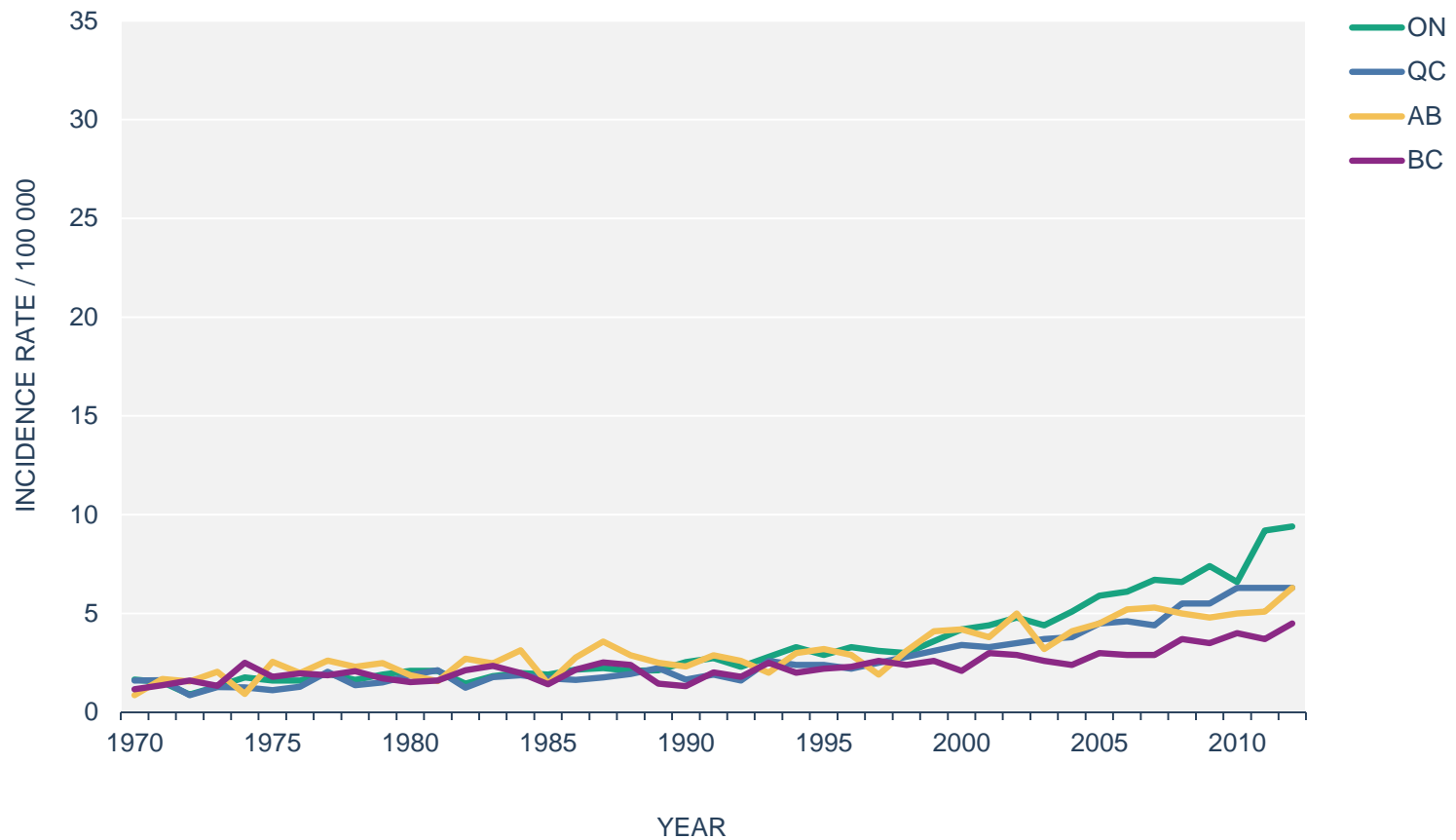
AGE STANDARDIZED INCIDENCE RATES for THYROID CANCER in FEMALES by PROVINCE





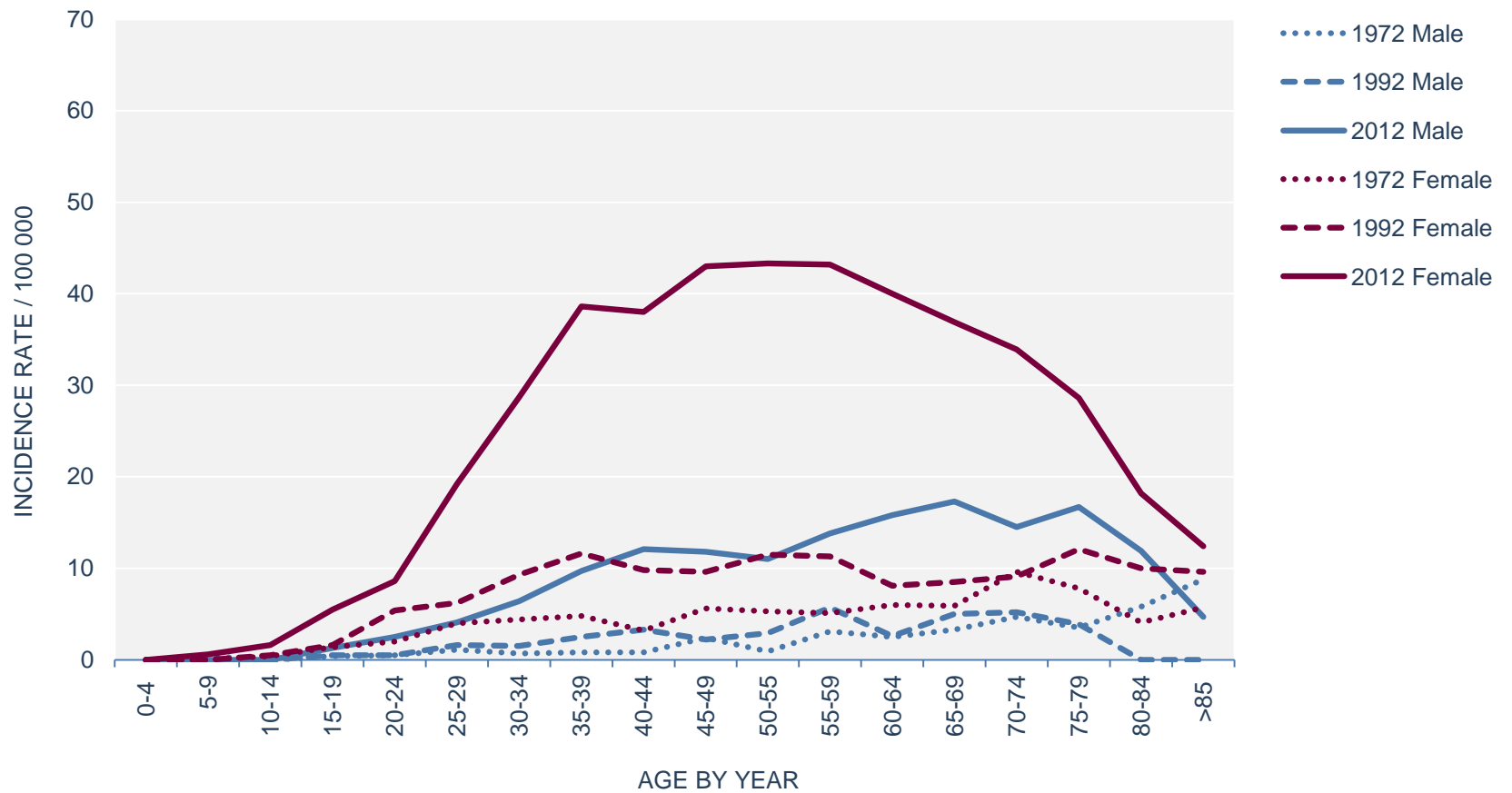
AGE STANDARDIZED INCIDENCE RATES

for THYROID CANCER in MALES by PROVINCE





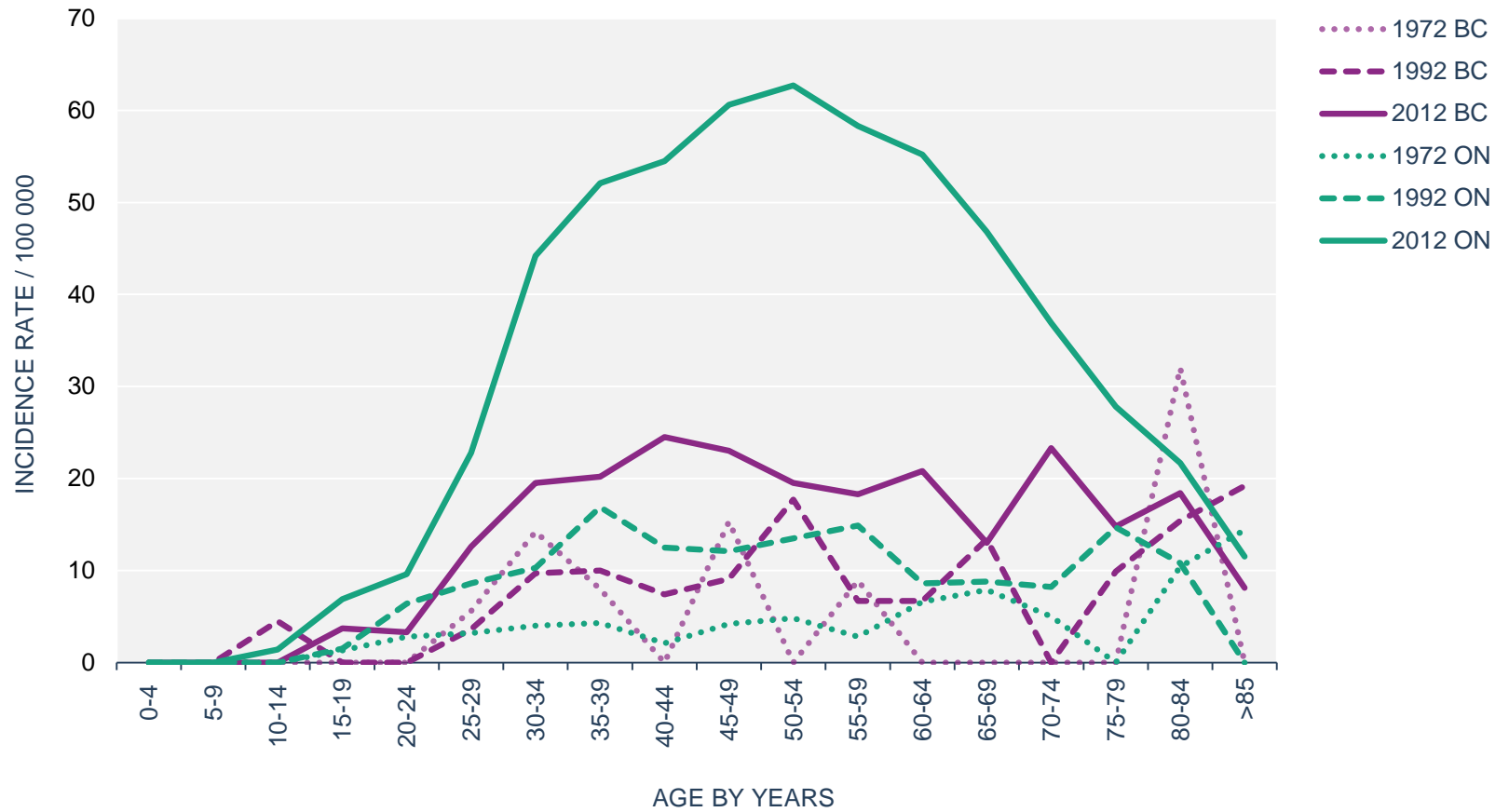
AGE SPECIFIC INCIDENCE RATES for THYROID CANCER by GENDER





AGE SPECIFIC INCIDENCE RATES

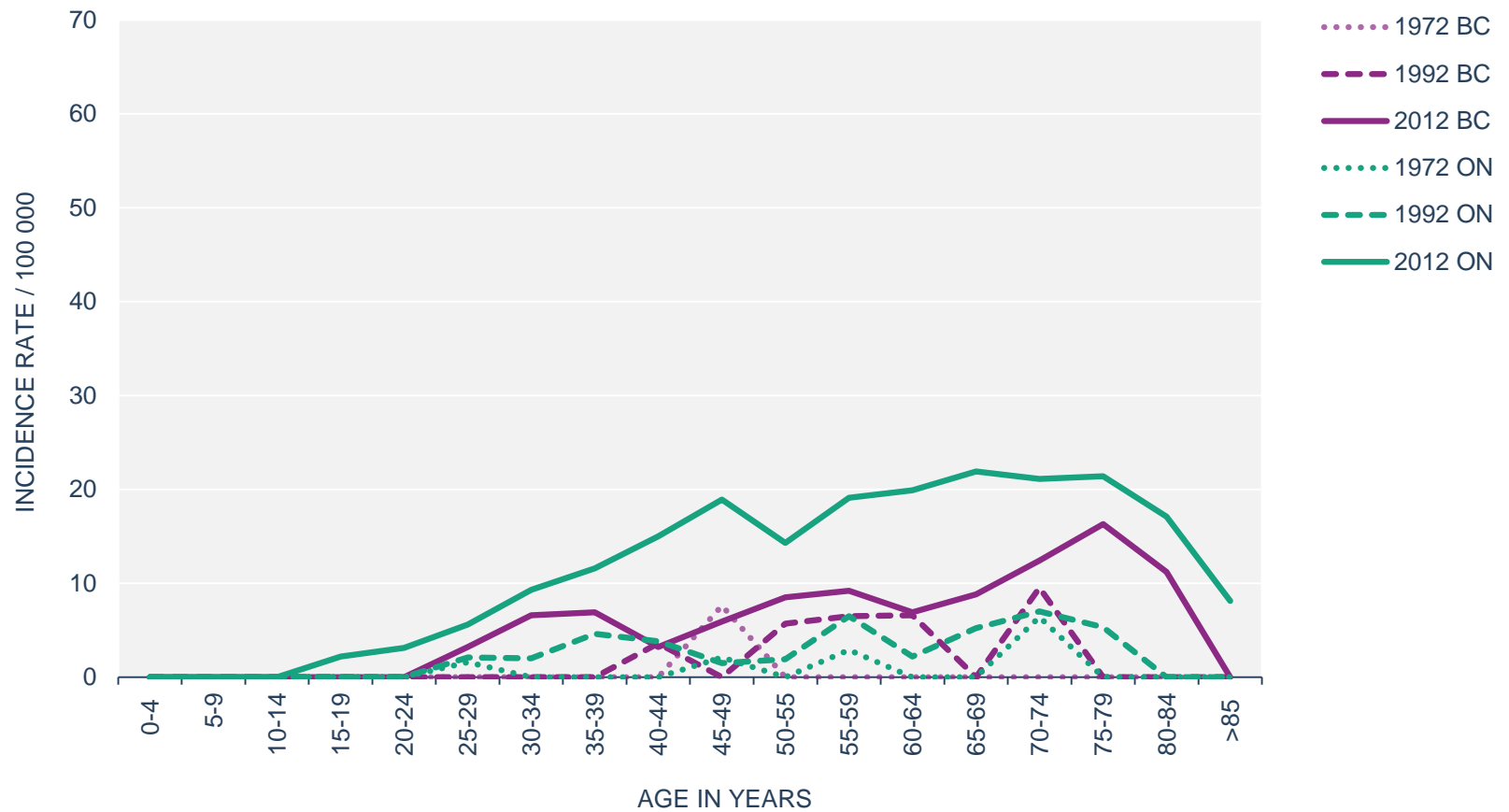
for THYROID CANCER in FEMALES by PROVINCE





AGE SPECIFIC INCIDENCE RATES

for THYROID CANCER in MALES by PROVINCE



CONCLUSIONS

- + Thyroid cancer incidence increasing since 1990
- + Mortality rate is unchanged
- + Incidence rates increasing more rapidly in females
- + Incidence rate varies widely by province
- + Rapid increase in 40-65 year females

IMPLICATIONS

WHY EPIDEMIC?

+ Risk factors

- Increase somatic mutation
- Increasing exposure to radiation
- Iodine deficiency or excess

+ Access to healthcare

- Universal healthcare in all Canadian provinces

+ Over-diagnosis

RECOMMENDATIONS

1. Raise awareness among medical personnel & patients
2. Identify small subset of patients who have potentially fatal thyroid cancer
3. Promote observation and less aggressive treatment for small thyroid cancers

ACKNOWLEDGMENTS

- + Special thanks to Public Health Agency of Canada for providing data from the National Cancer Incidence Reporting System database
- + Canada Cancer Registry
- + Canadian Task Force on Preventive Health Care & University of Alberta for funding

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