



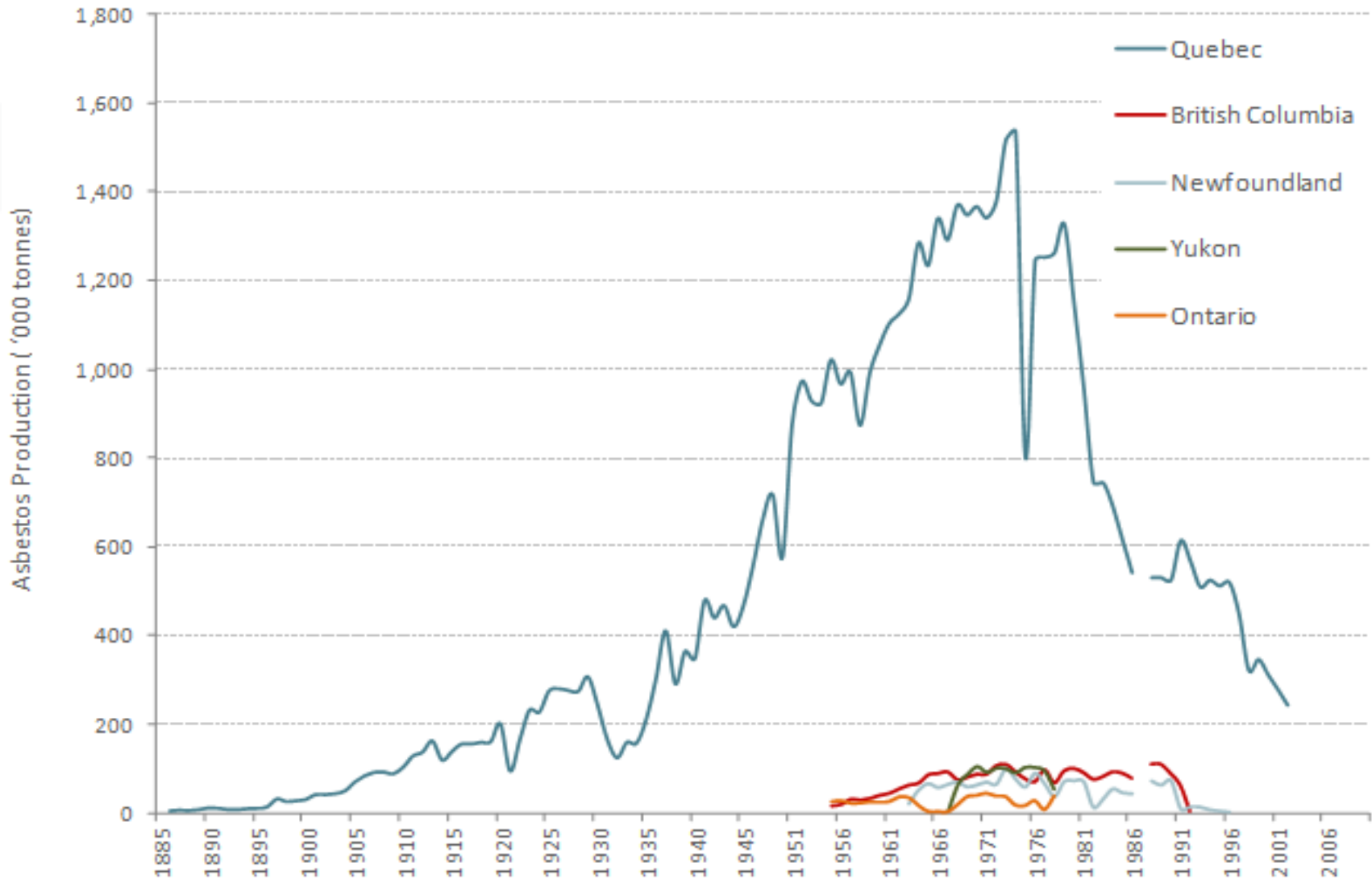
Occupational  
Cancer  
Research  
Centre

# Mesothelioma in Canada

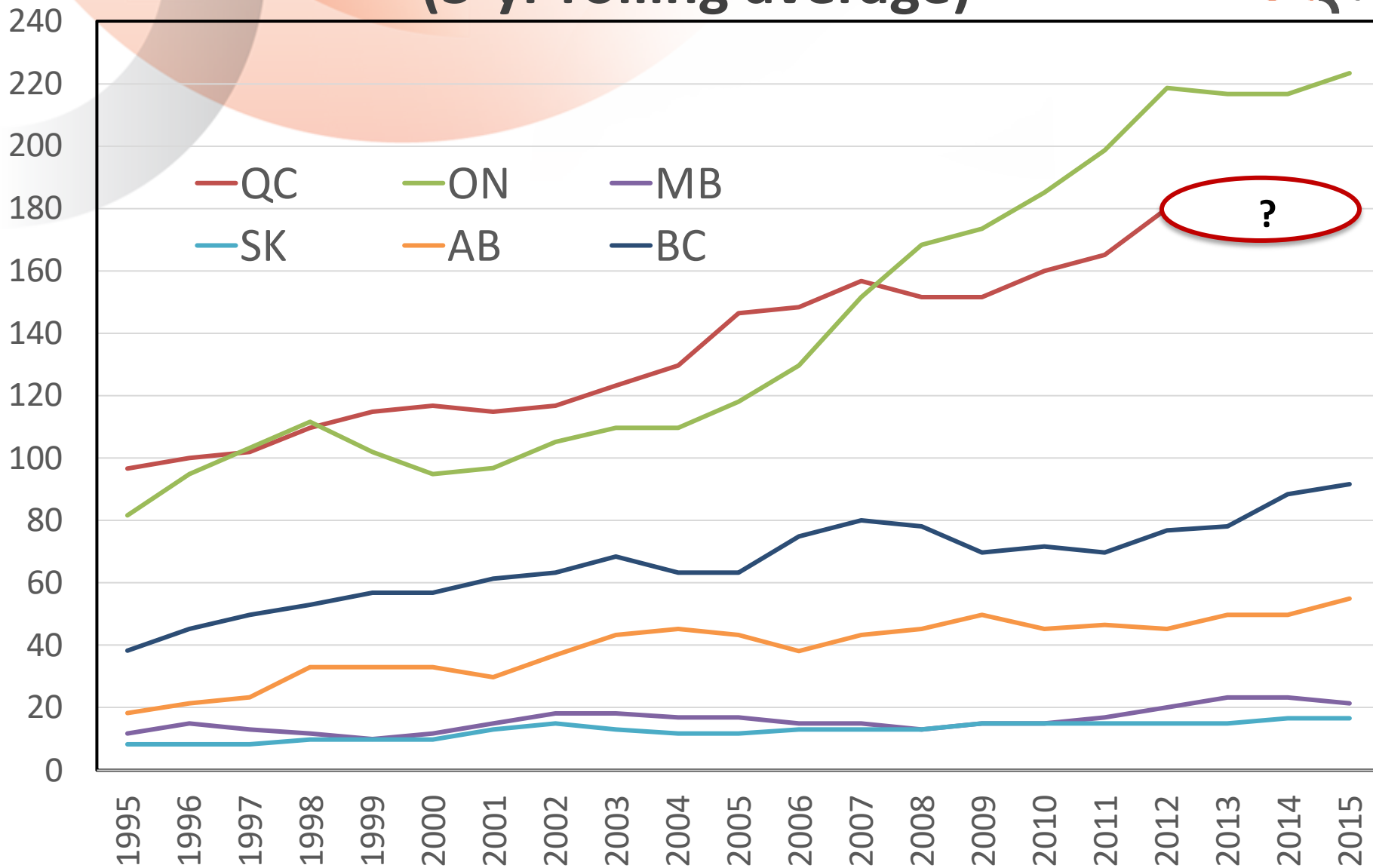
Paul Demers (1,2), Chris McLeod (3), Chris Lee (4),  
Hunter Warden (1), Cathy Slavik (1)

1. Occupational Cancer Research Centre
2. University of Toronto
3. University of British Columbia
4. BC Cancer Agency

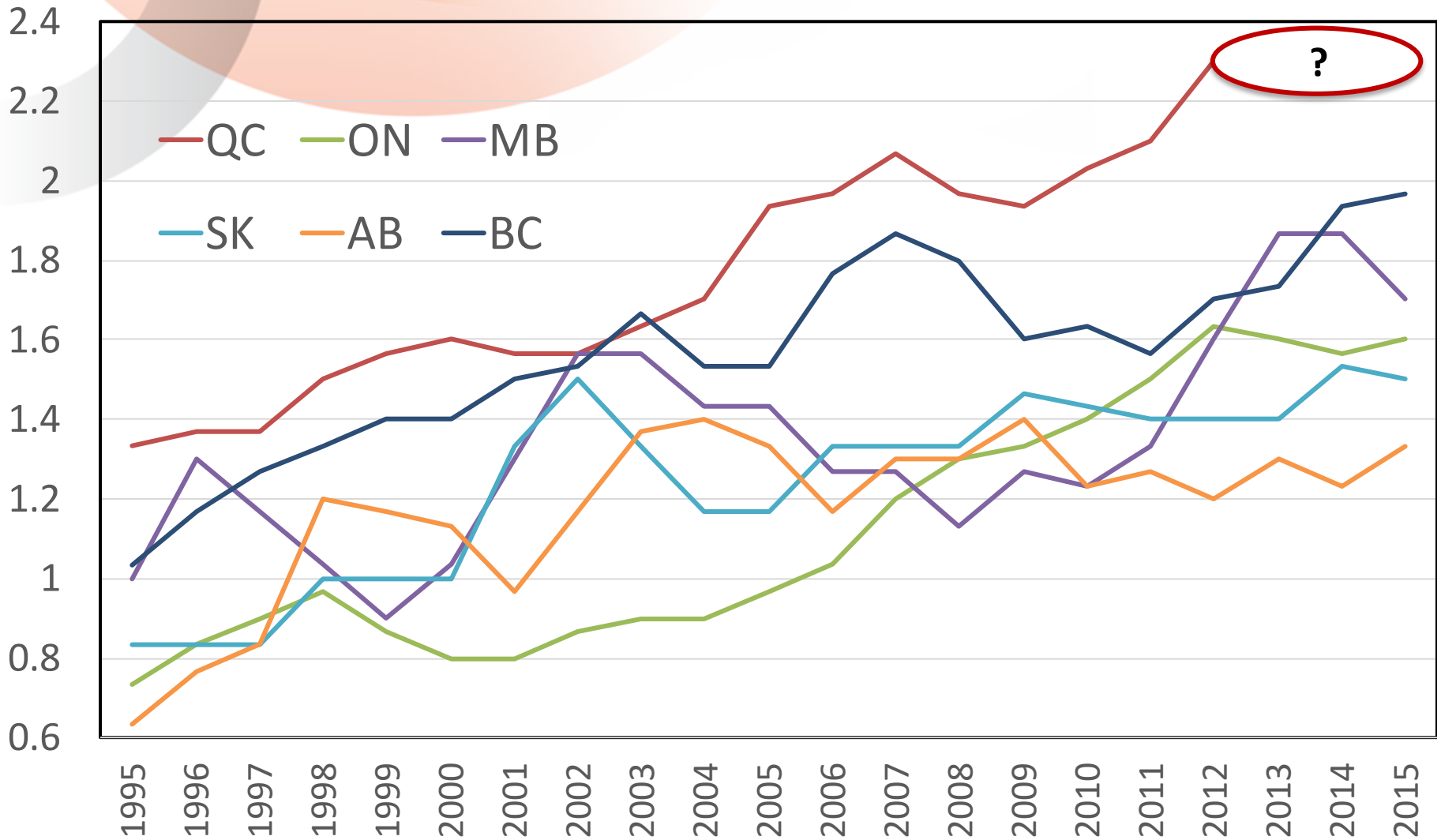
# Annual asbestos production: 1886-2006



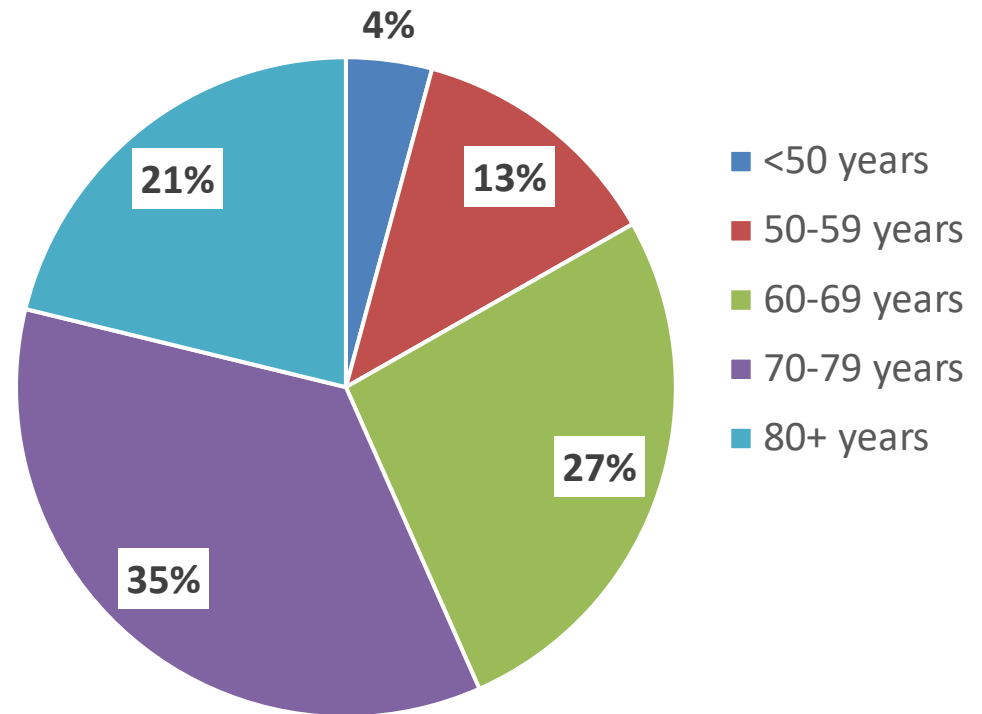
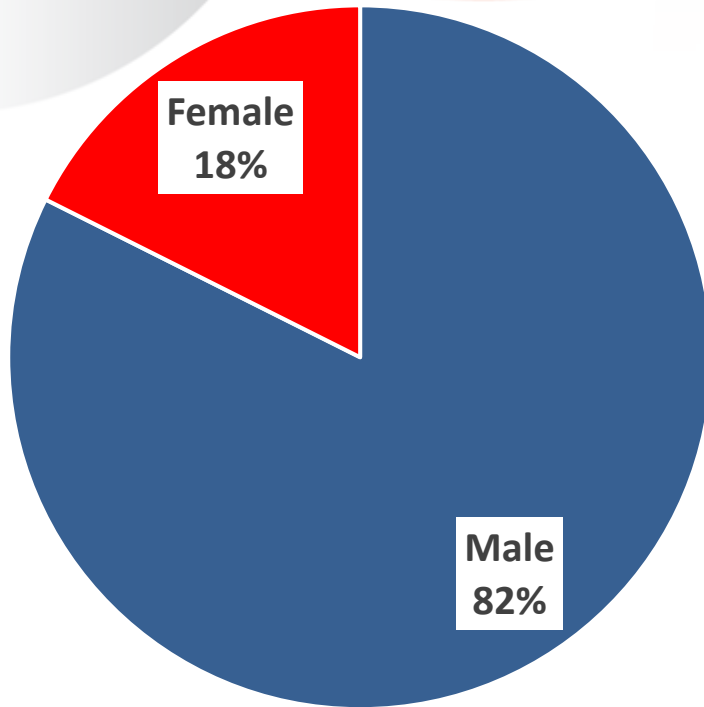
# Number of new cases of mesothelioma (3-yr rolling average)



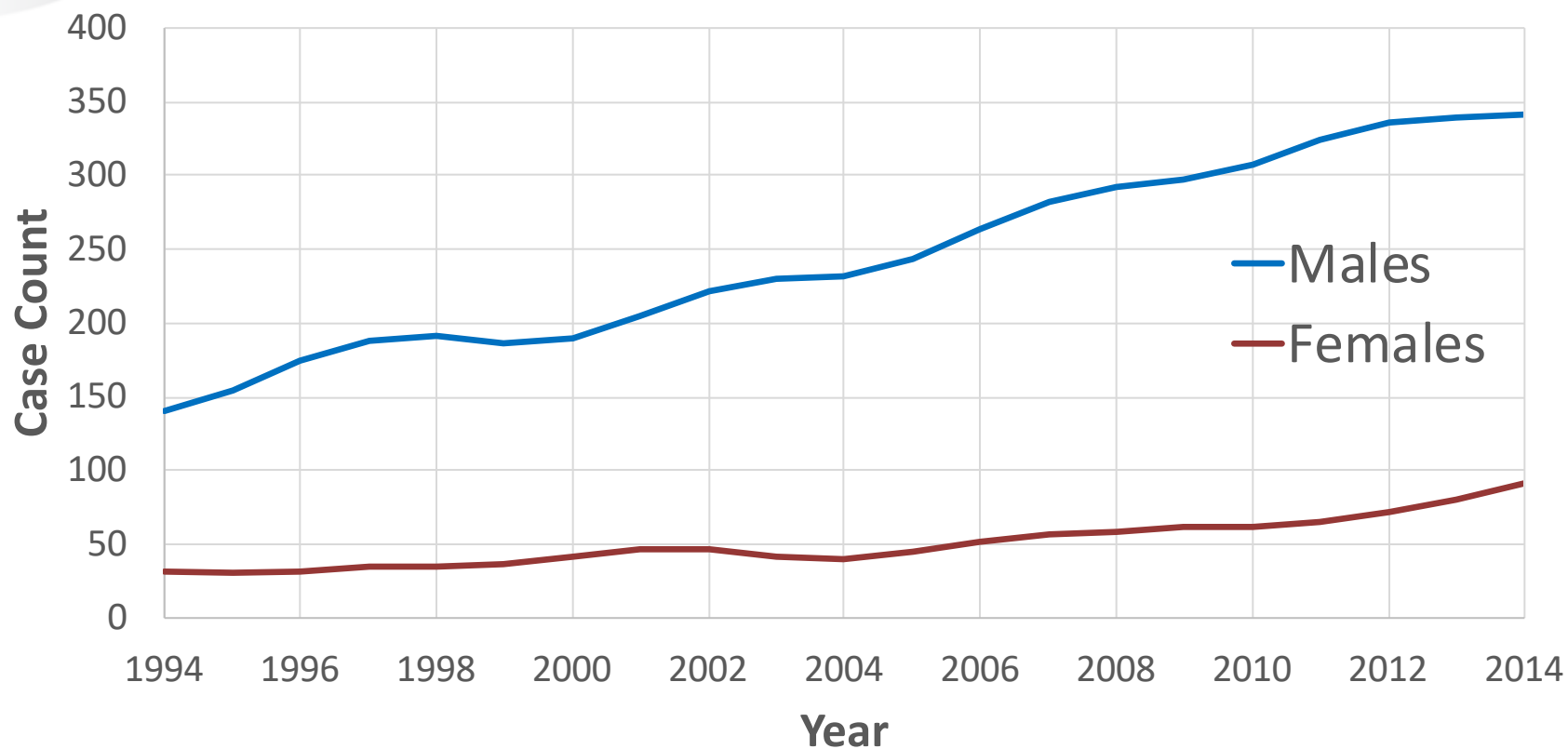
# Mesothelioma incidence rates per 100,000



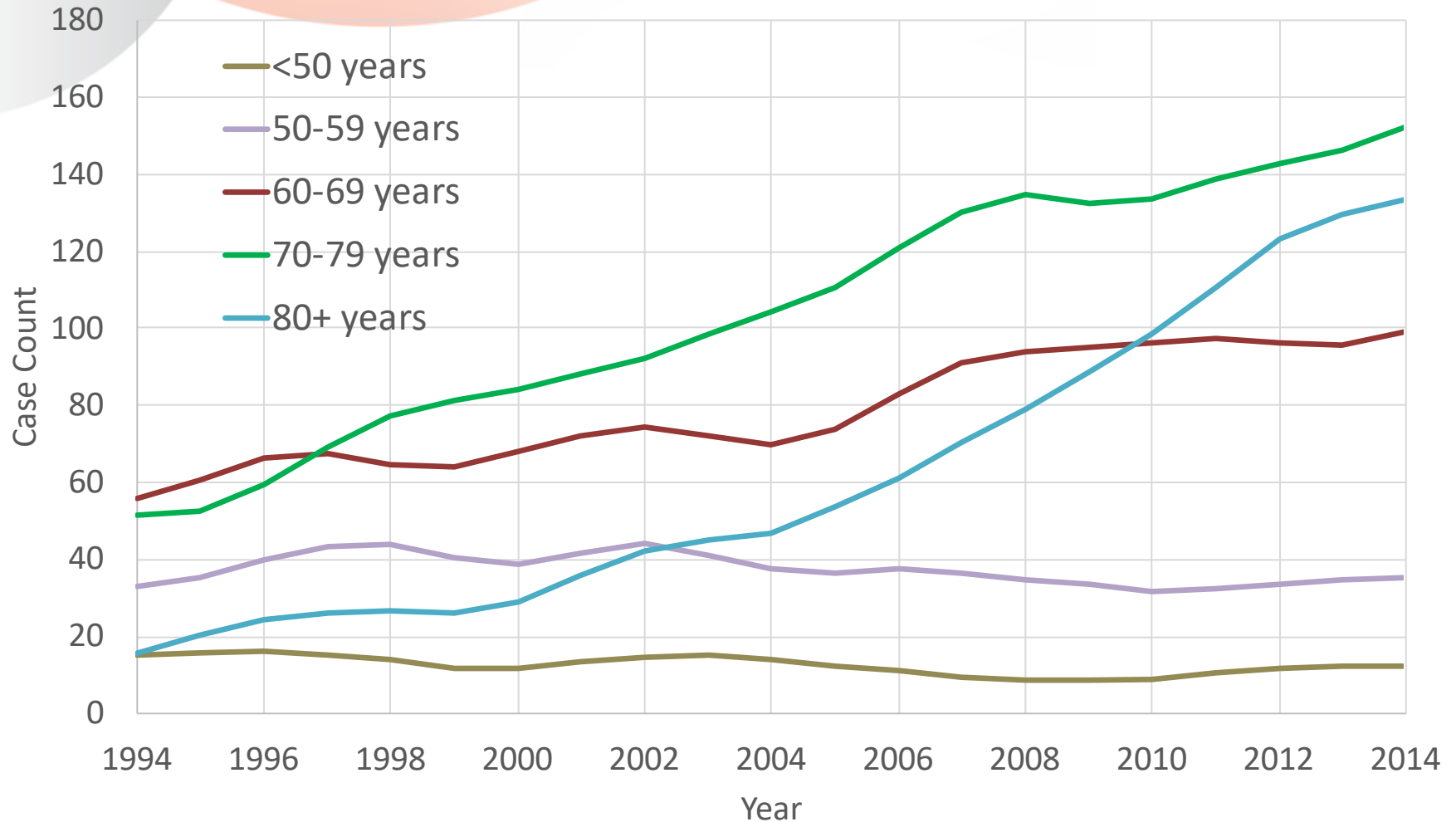
# Mesothelioma in Canada (excluding Qubec), 1992-2015



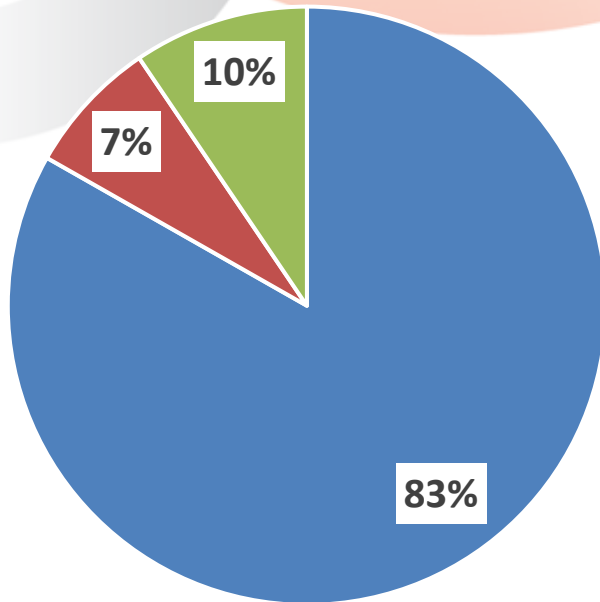
# Mesothelioma in Canada by Sex (3-year rolling average, excl. QC)



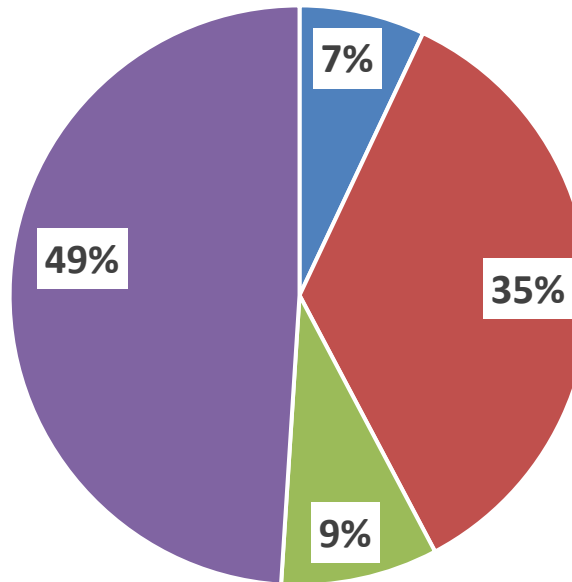
# Mesothelioma in Canada by Age Group (3-year rolling average, excl. QC)



# Proportion of mesothelioma cases by site & histology, Canada (excl QC) 1992-2015



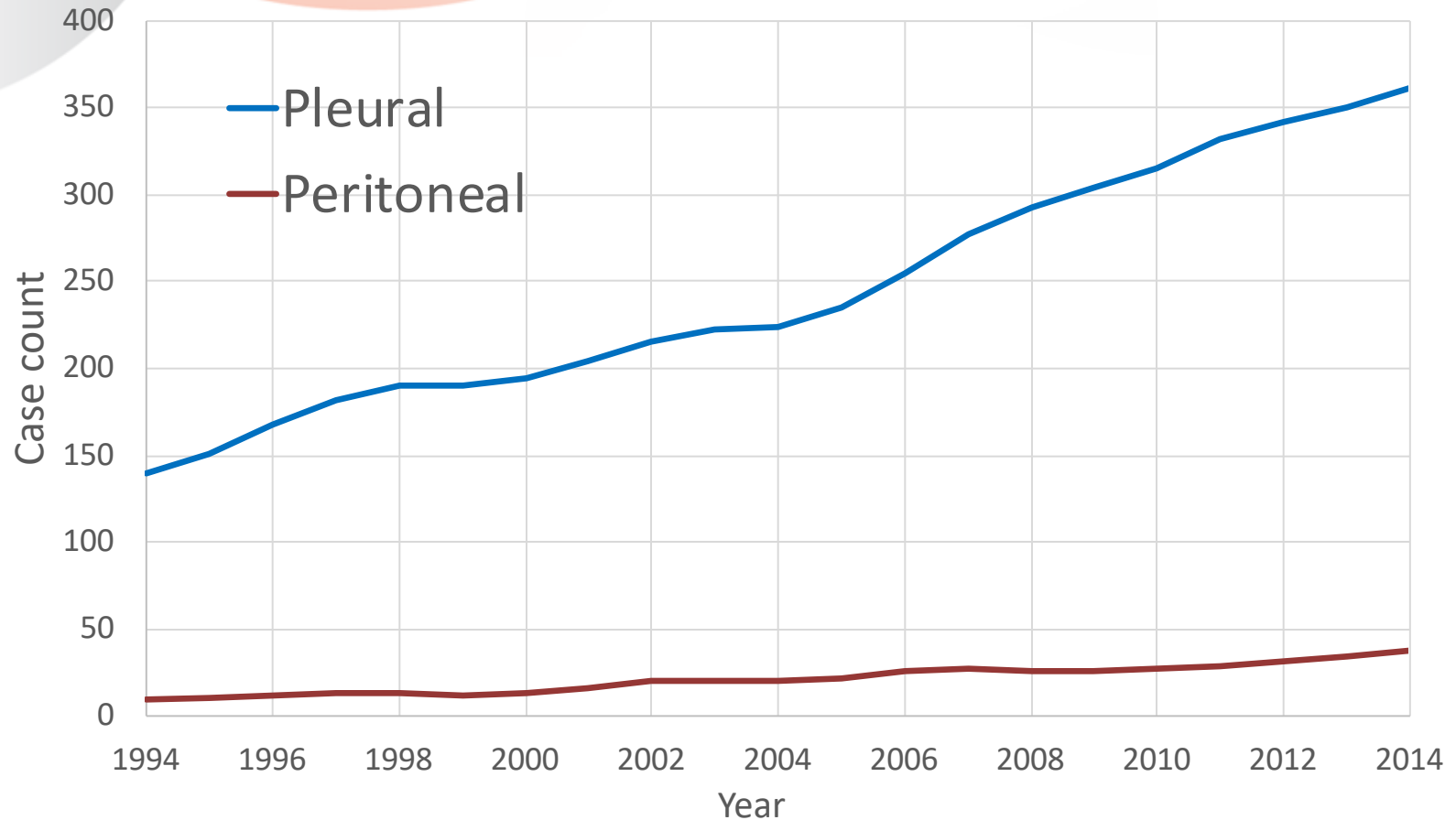
- Pleura
- Peritoneum
- Unknown or Other



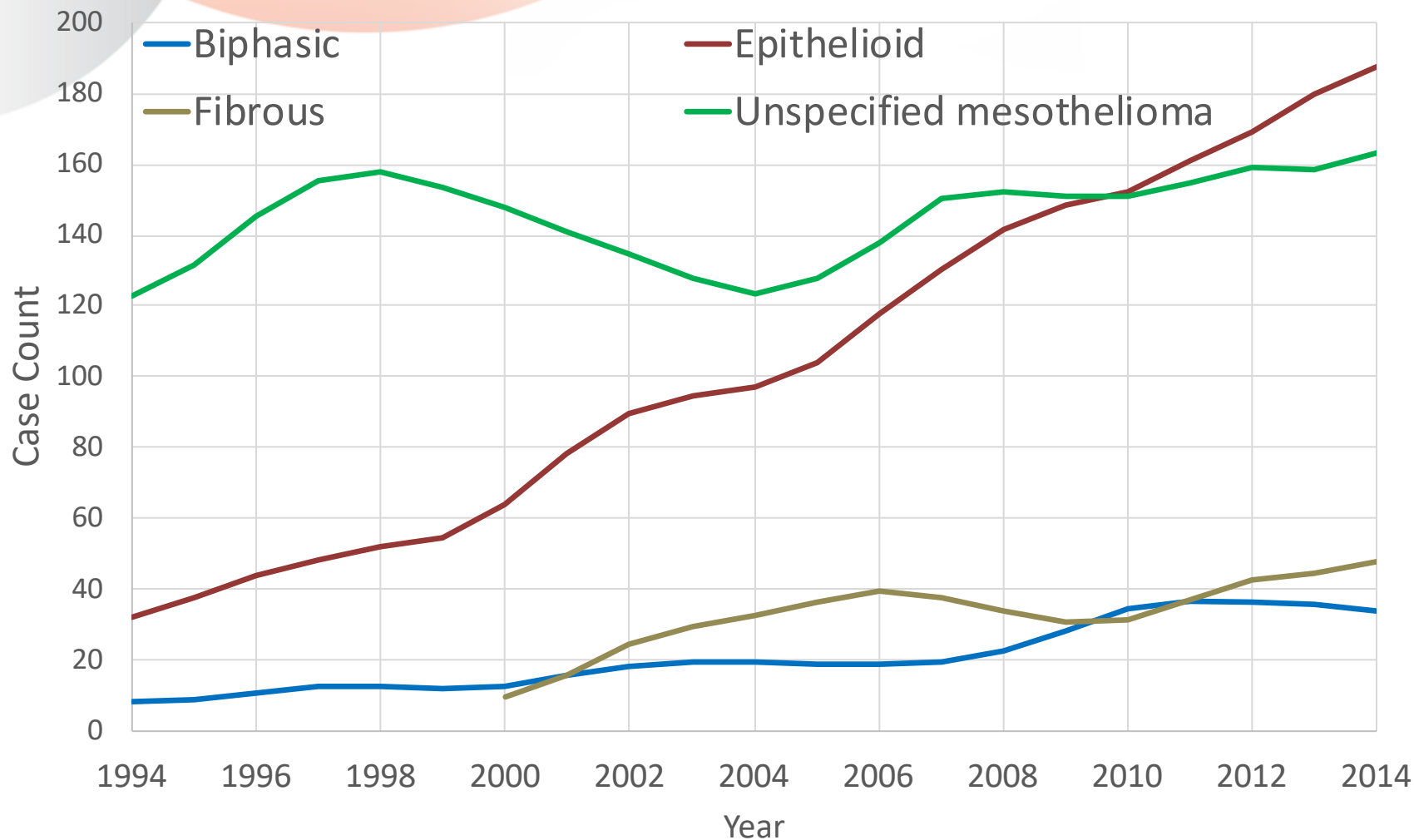
- Biphasic
- Epithelioid
- Fibrous
- Unspecified



# Mesothelioma in Canada by Site (3-year rolling average, excl. QC)

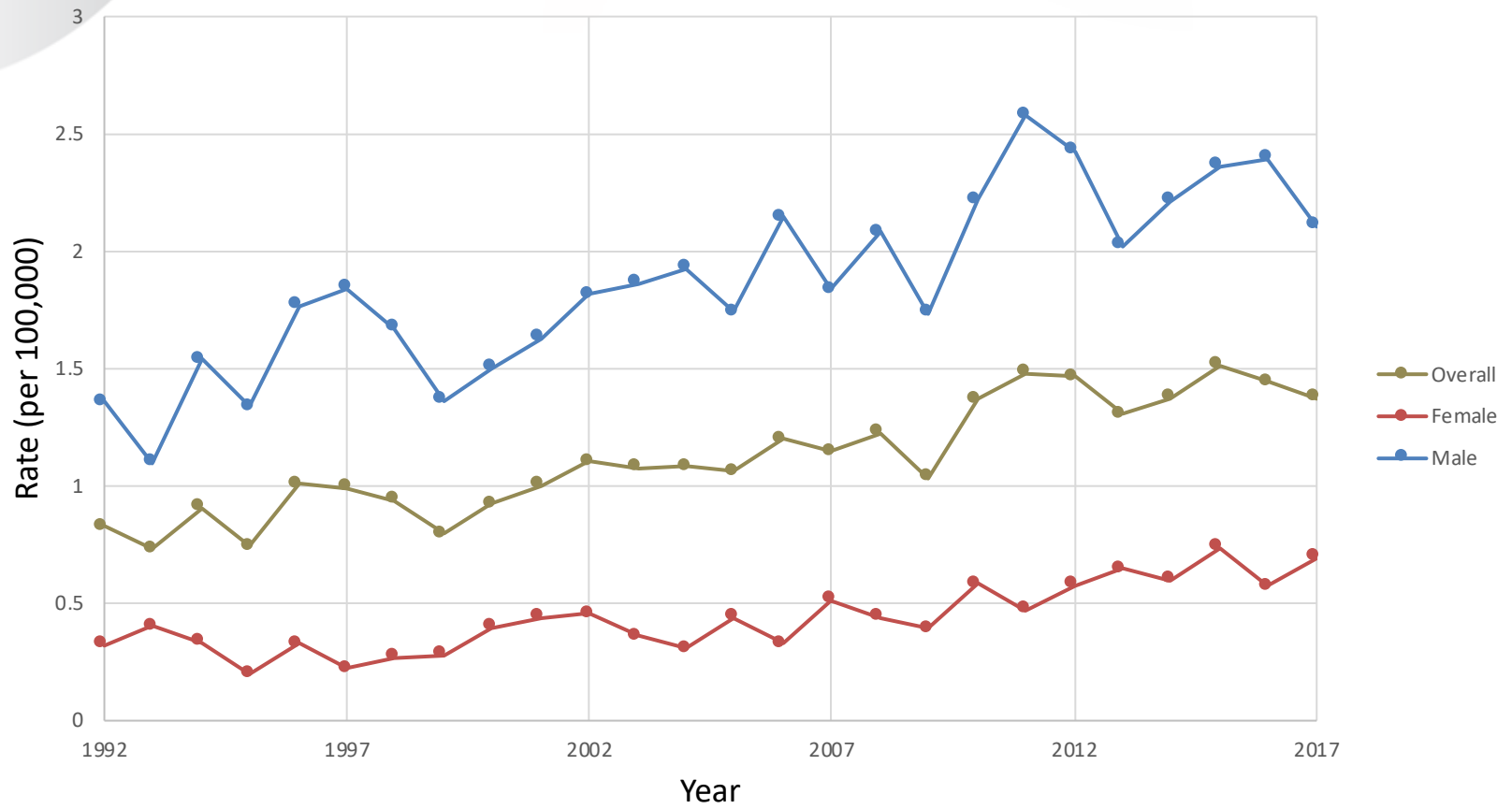


# Mesothelioma in Canada by Histology (3-year rolling average, excl. QC)





# Age-standardized rates of mesothelioma in Ontario (1992-2017)



# Preliminary Results: Survival after Pleural Mesothelioma Diagnosis in Ontario



- Mean survival: 9 months
  - Survival at 2 and 5 years: 14% and 5%, respectively
- No evidence of improvement over time
- Better survival for women, people diagnosed at a younger age, at an earlier stage and for epithelioid mesotheliomas
- No impact of neighborhood income or rural versus urban residence



# WSIB Compensated Claims: 2009-2018



- All cancer claims submitted: 4,044
- All cancer claims accepted: 1,682 (42%)
  - Asbestos claims submitted: 2,035
  - Asbestos claims accepted: 1,291 (63%)
    - 762 of these were for mesothelioma (ranging from 90 in 2009 to 62 in 2018)

# Mesothelioma: High risk Groups from the Occupational Disease Surveillance System



Group	HR (95% CI)
Construction electricians & repair	2.2 (1.5-3.3)
Foremen: construction trades	3.5 (2.1-5.9)
Carpenters and related	1.8 (1.3-2.5)
Brick/stone masons, tile setters	1.9 (1.1-3.3)
Plasterers and related	2.5 (1.2-5.3)
Painters, paperhangers & related	2.6 (1.5-4.7)
Insulating occupations	27.1 (16.0-46.1)
Pipefitting, plumbing and related	6.1 (4.7-8.0)
Boilermakers	5.0 (2.4-10.5)
Asbestos Mines	260 (130-523)

# Mesothelioma: Other Groups ODSS

Group	HR (95% CI)
Other occupations	
Industrial/farm/construction machinery mechanics & repair	2.4 (1.7-3.2)
Stationary engine & utilities equipment operating	3.9 (2.2-6.7)
Foremen: metal machining occupations	8.9 (4.1-18.2)
Welding and flame cutting occupations	1.6 (1.1-2.2)
Foremen: materials handling related occupations, nec	3.4 (1.5-7.6)
Other Industries	
Iron and Steel Mills	1.8 (1.2-2.5)
Iron Foundries	2.0 (1.0-4.1)
Boiler and Plate Works	2.9 (1.3-6.5)
Manufacturers of Industrial Chemicals	3.8 (1.9-7.6)
Electric Power	2.3 (1.4-3.6)
Universities and Colleges	2.8 (1.6-4.9)
Education and Related Services, nes	3.5 (1.5-8.6)

# No conflicts of interest to report

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Public Health  
Agency of Canada

Agence de la santé  
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