

A doubling in the use of Middle Ear Ventilation Tubes in one-year-olds in Denmark 1997-2010

A study based on two national registers:

The Danish National Health Service Register

The Danish National Patient Register

Purpose:

To study changes in the incidence rates of
ventilation tube insertion (VTI) in children in Denmark

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Material and Methods

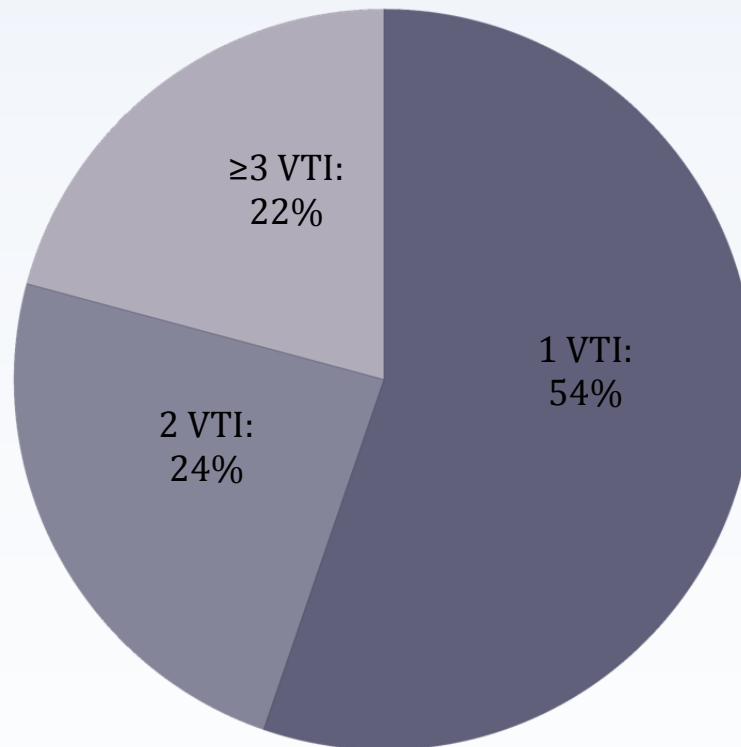
1997-2010:

The Danish National Health Service Register: 484.823 VTI's

The Danish National Patient Register: 17.746 VTI's

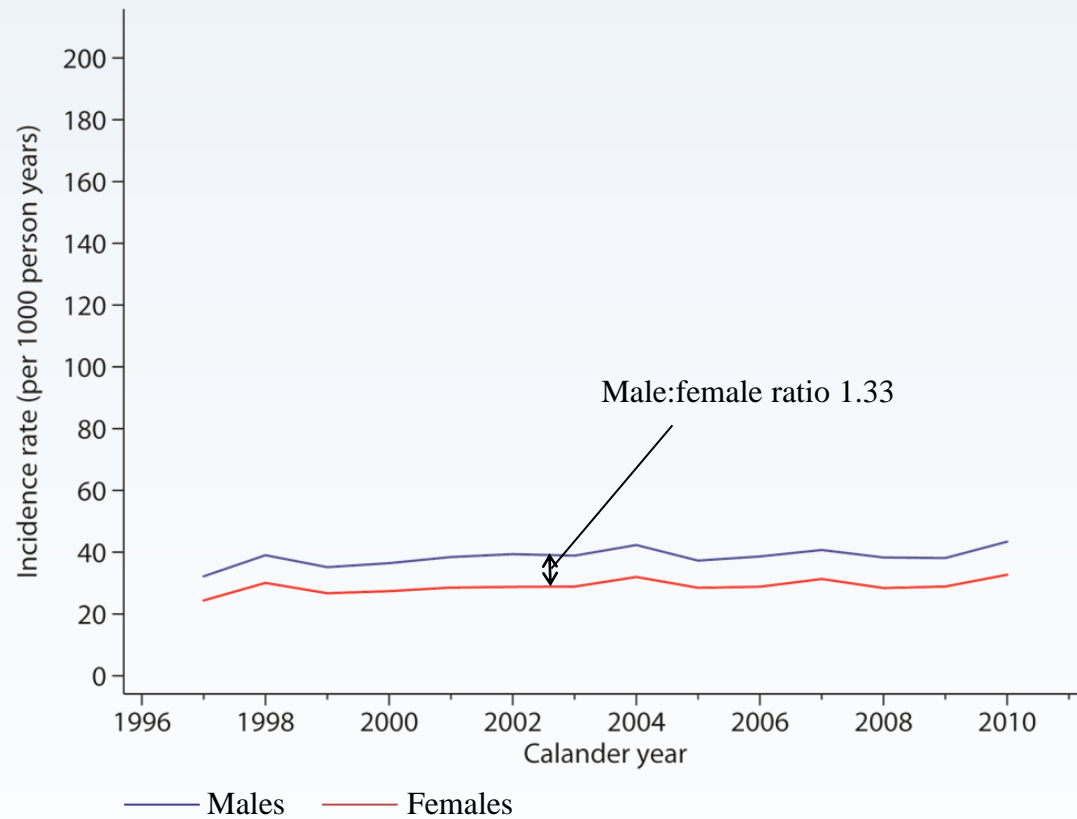
Altogether: 502.569 VTI's

In: 269.459 children



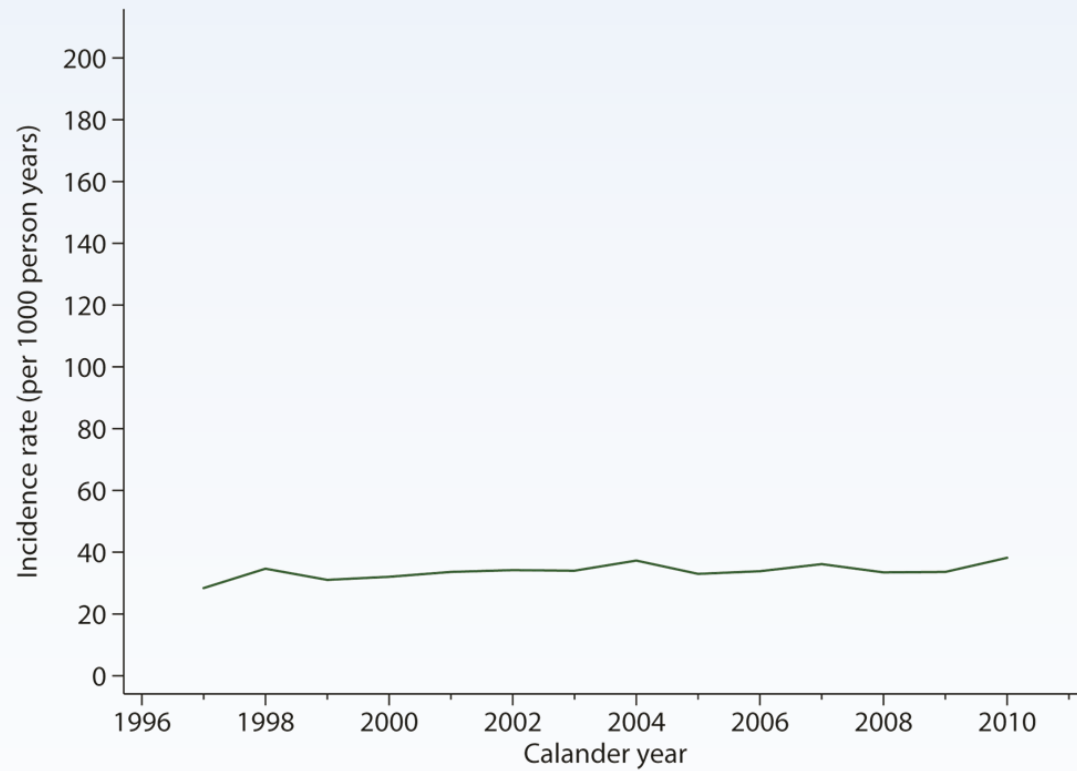
Results

VTI incidence rate (crude) in 0-15 years old in Denmark



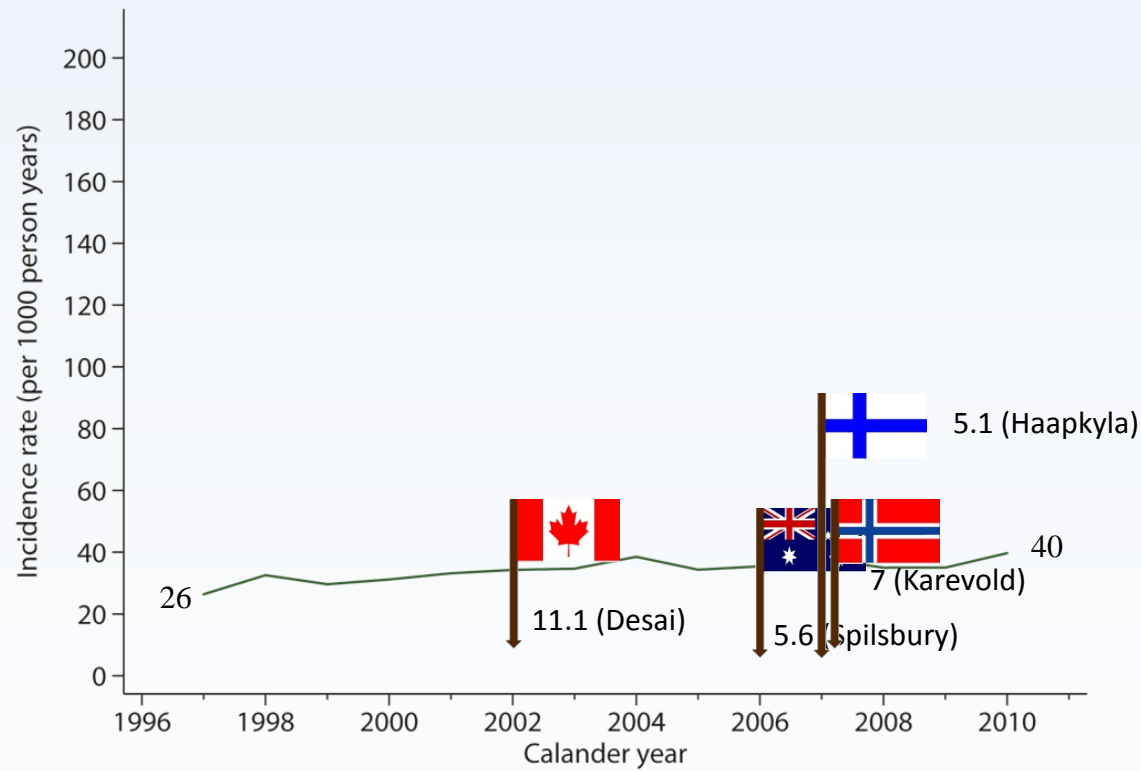
Results

VTI incidence rate (crude) in 0-15 years old in Denmark



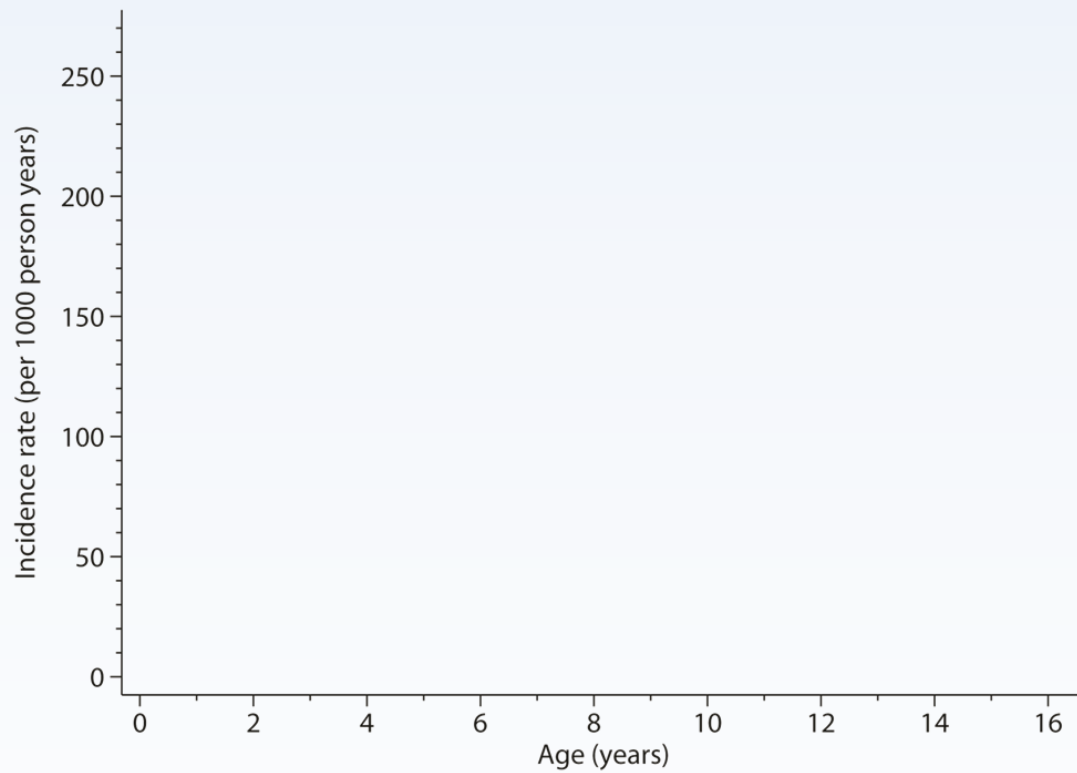
Results

VTI incidence rate (adjusted) in 0-15 years old in Denmark

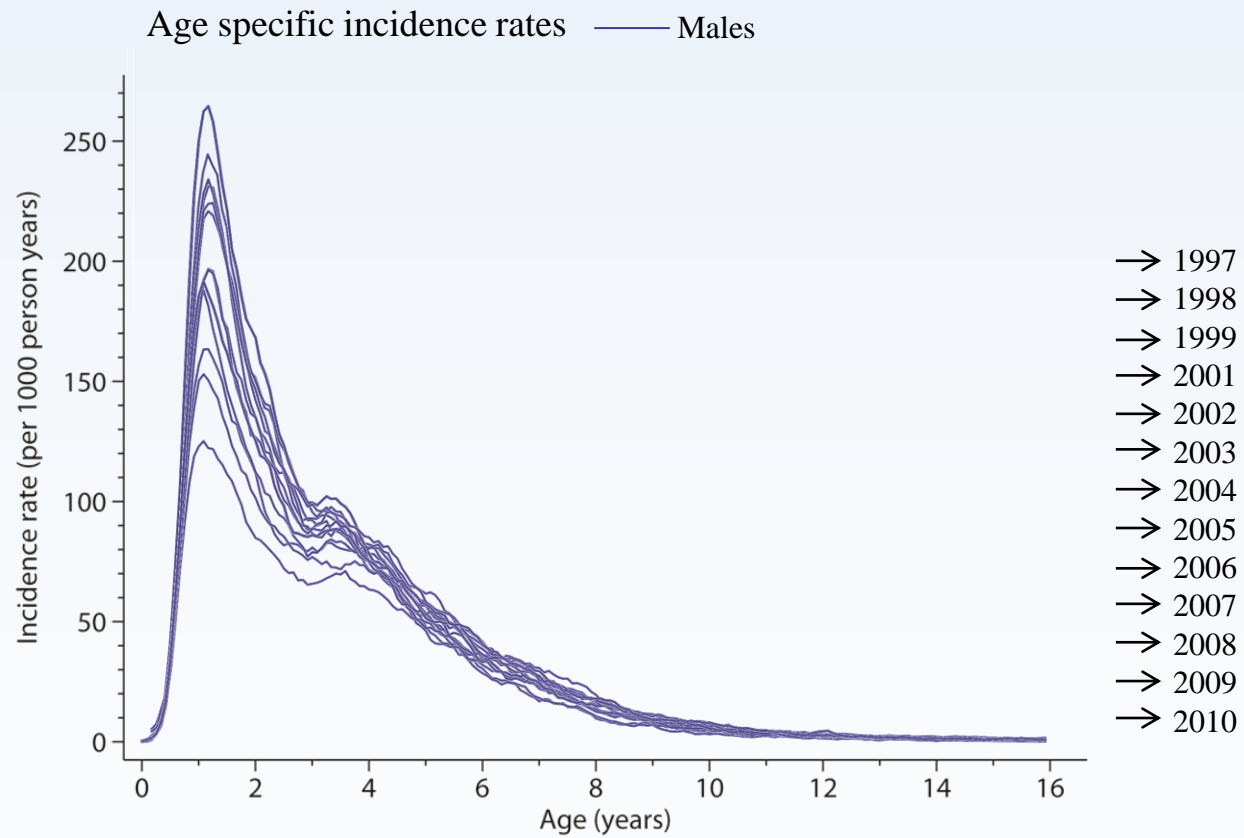


Results

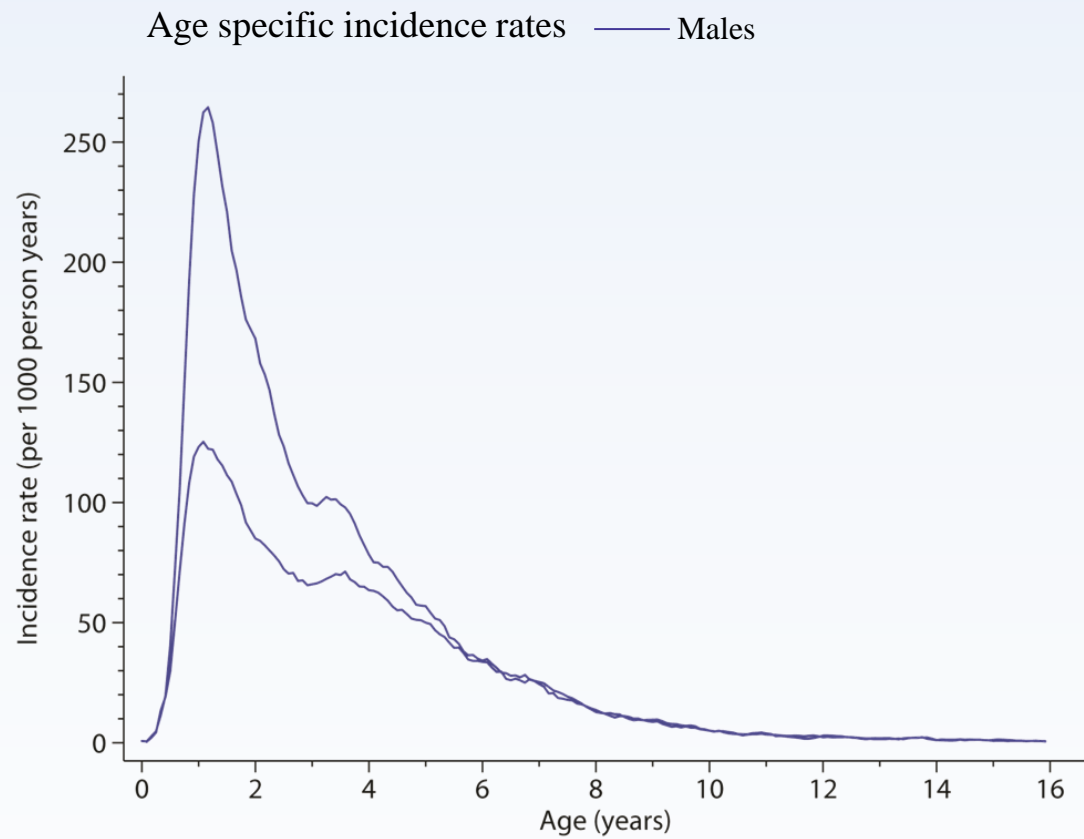
Age specific incidence rates



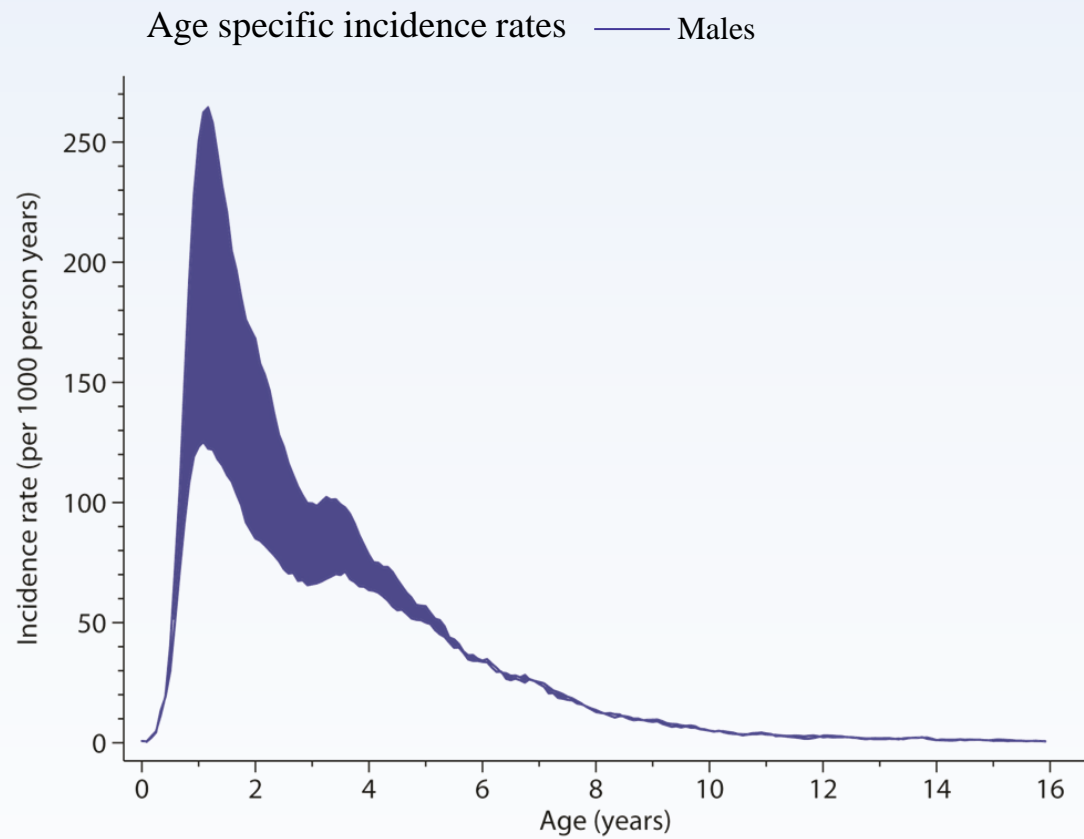
Results



Results

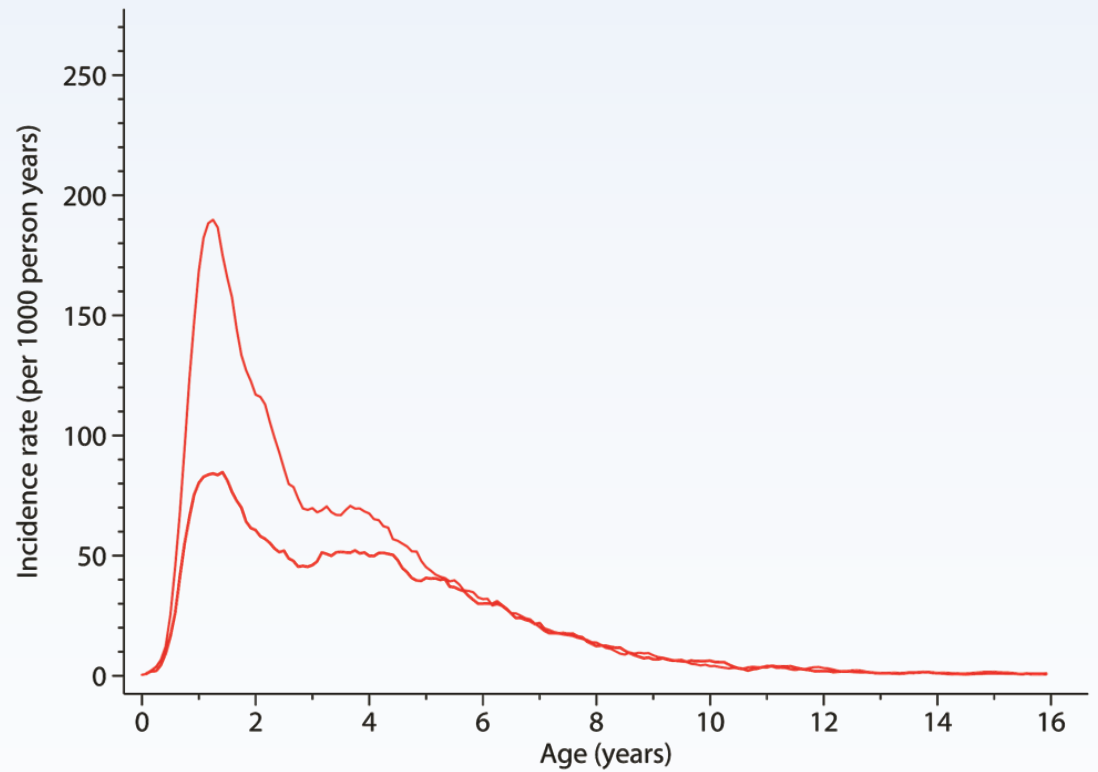
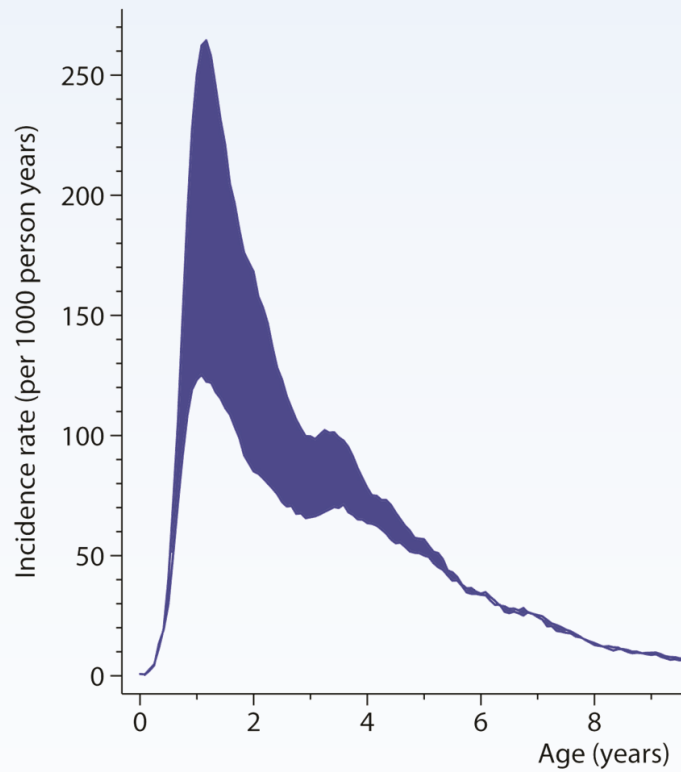


Results



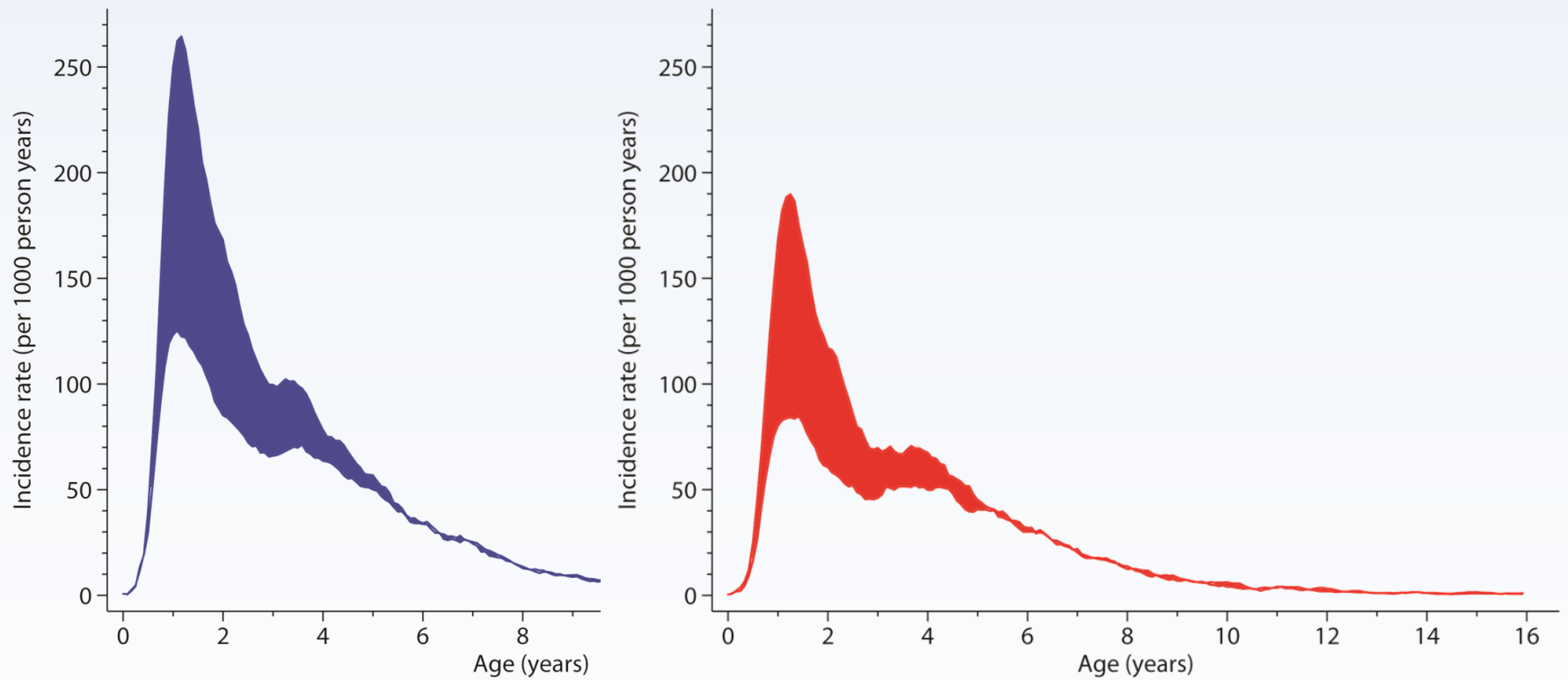
Results

Age specific incidence rates — Males — Females



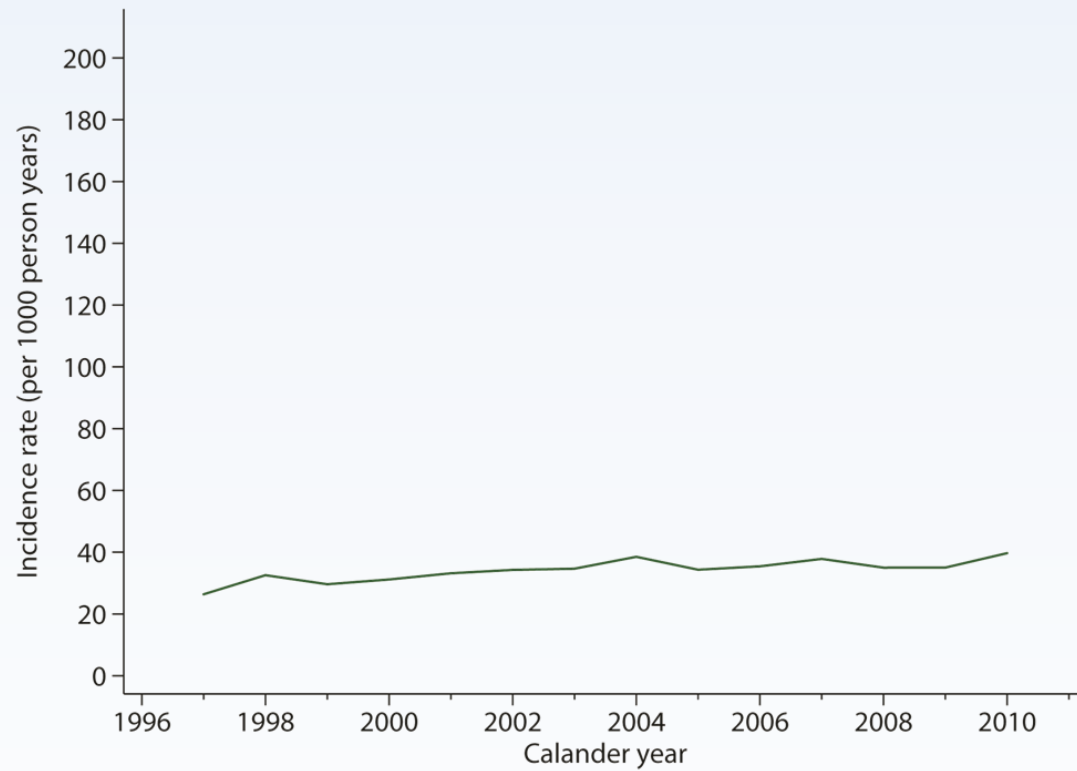
Results

Age specific incidence rates — Males — Females



Results

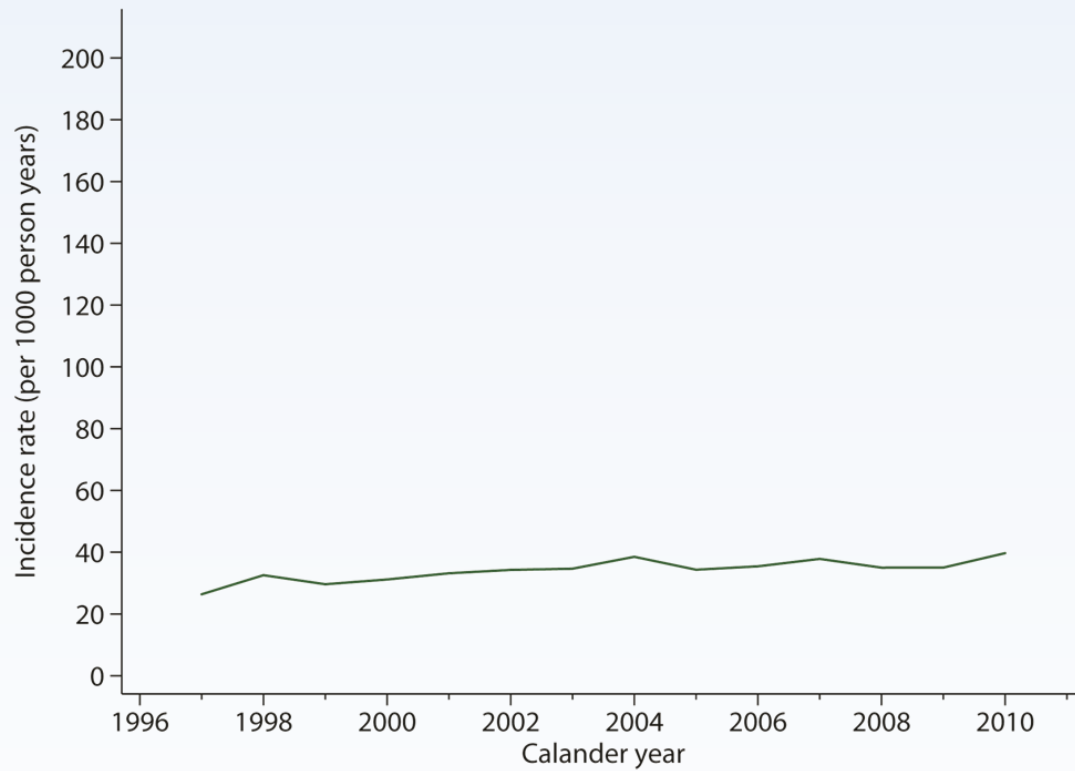
VTI incidence rate



Age (years)	Incidence rate		Annual change	95% CI
	1997	2010		

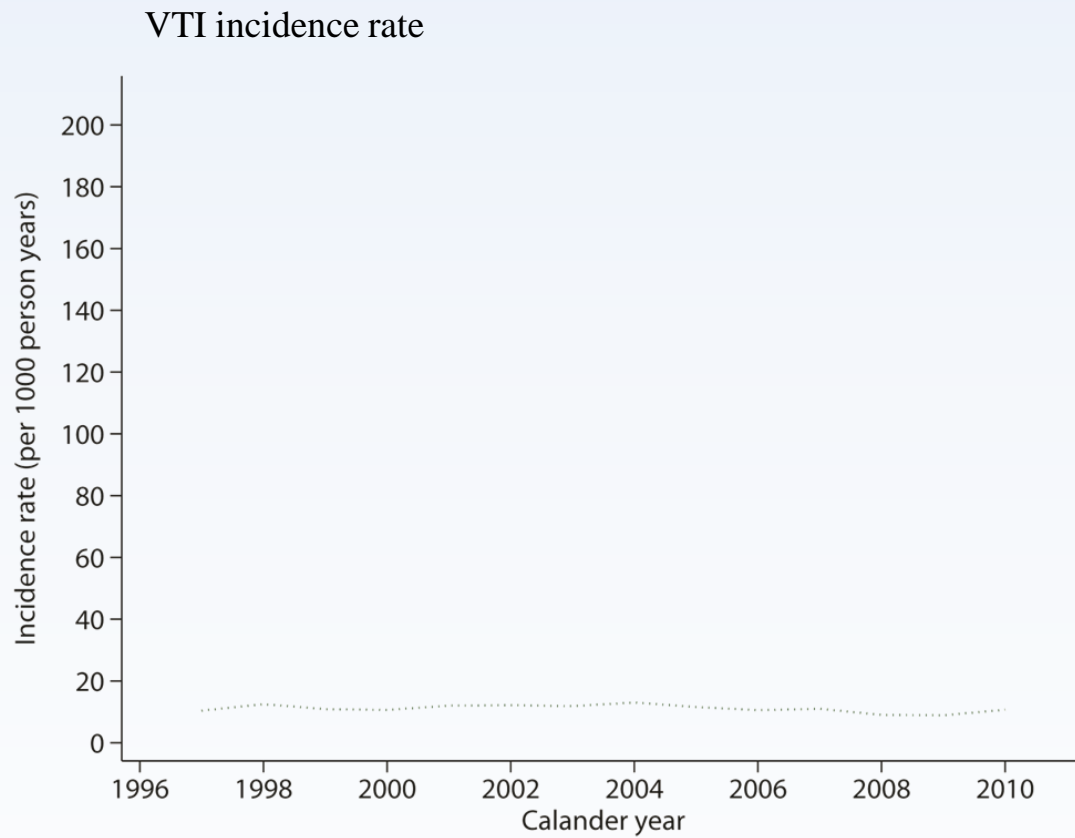
Results

VTI incidence rate



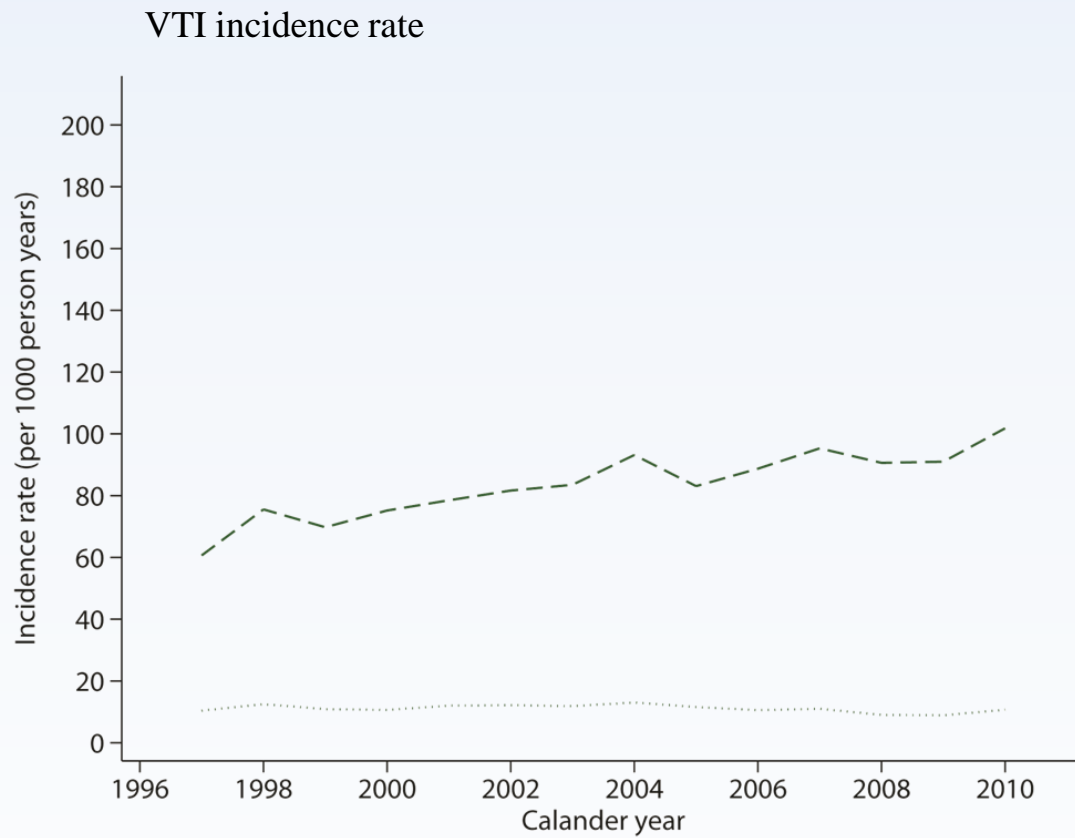
Age (years)	Incidence rate		Annual change	95% CI	
	1997	2010			
0-15	26	40	0.7	0.7	0.7

Results



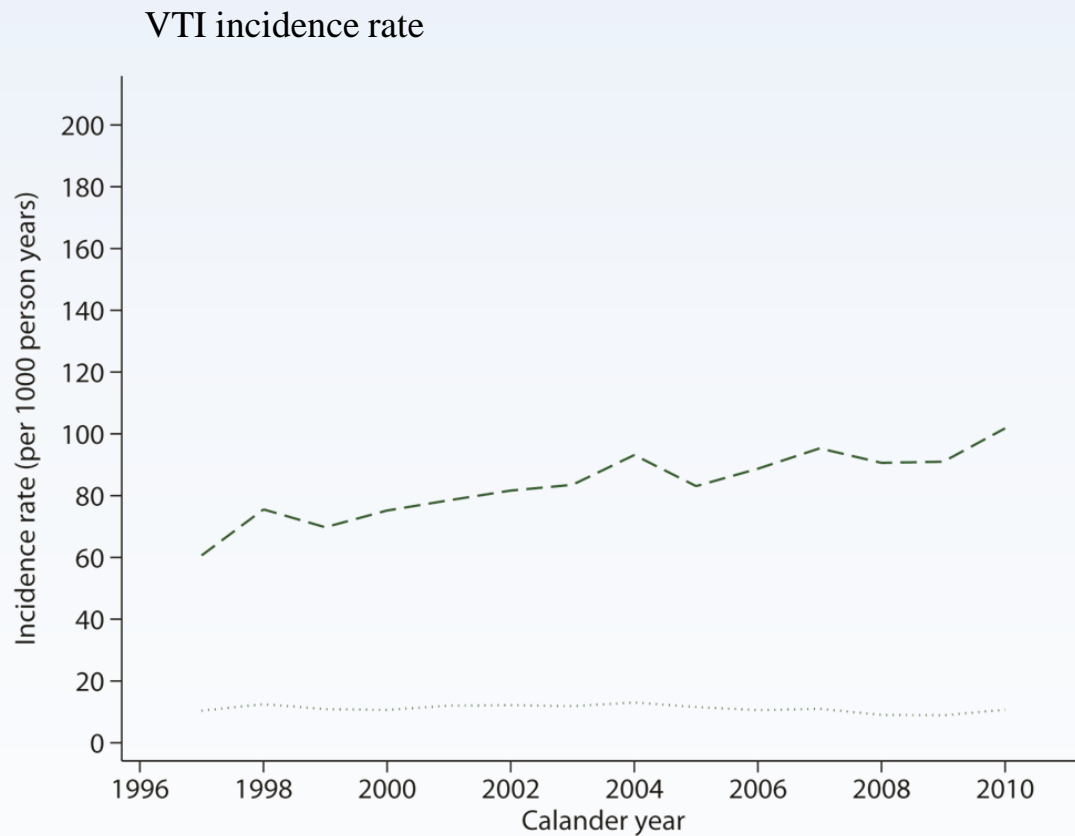
Age (years)	Incidence rate		Annual change	95% CI	
	1997	2010			
0-15	26	40	0.7	0.7	0.7
5-15	10	12	0.1	0.1	0.1

Results



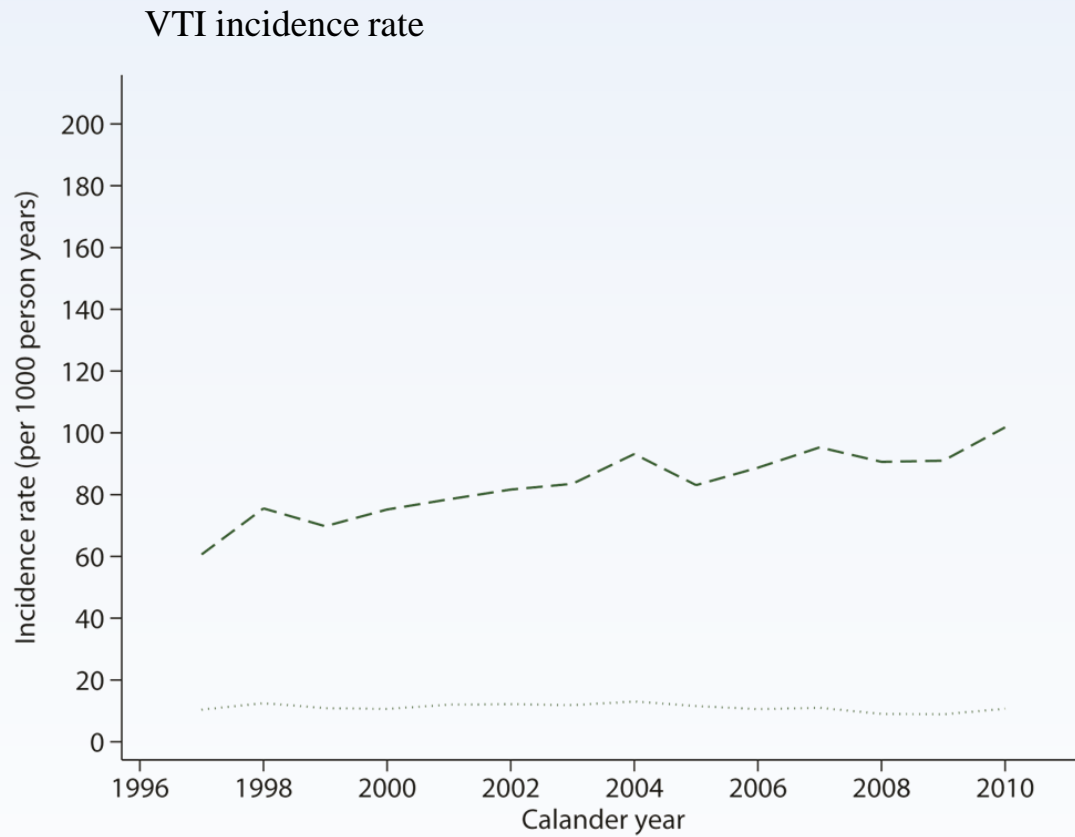
Age (years)	Incidence rate		Annual change	95% CI	
	1997	2010			
0-15	26	40	0.7	0.7	0.7
5-15	12	10	-0.1	-0.2	0.1
0-4	60	102	0.7	0.6	0.8

Results



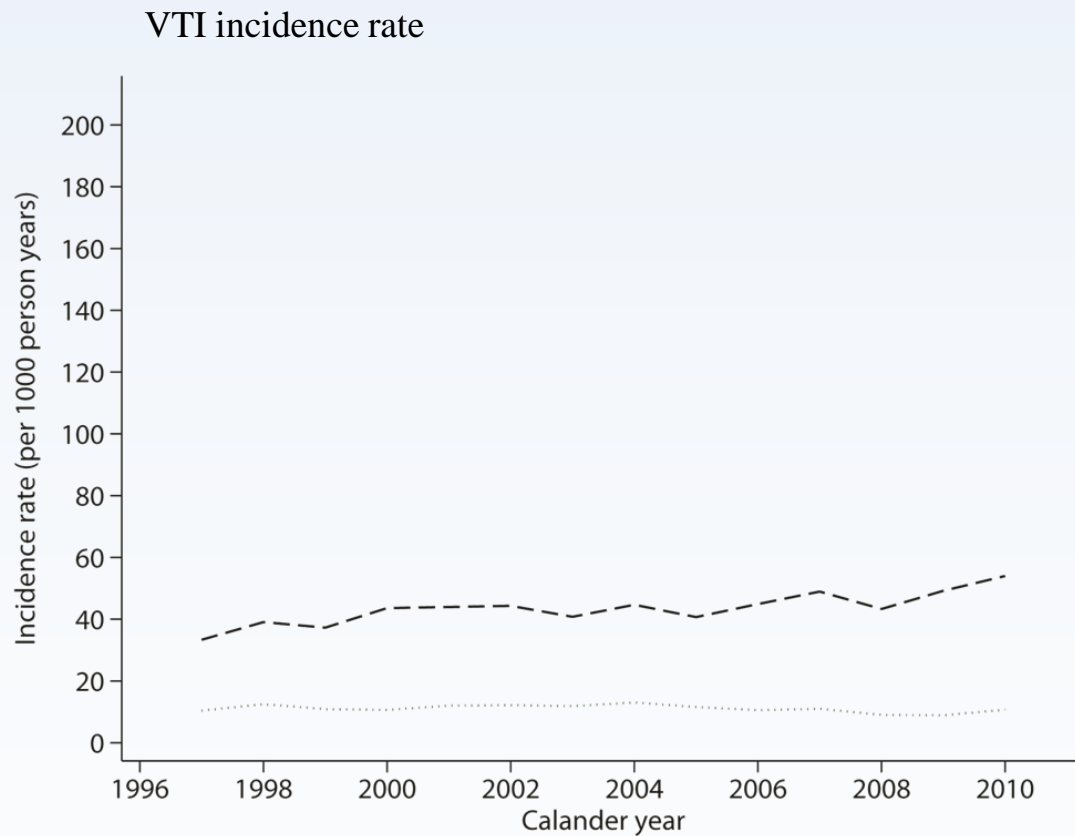
Age (years)	Incidence rate		Annual change	95% CI	
	1997	2010			
0-15	26	40	0.7	0.7	0.7
5-15	11	13	0.3	0.2	0.3
0-4	13	11	-0.5	-0.5	-0.5

Results



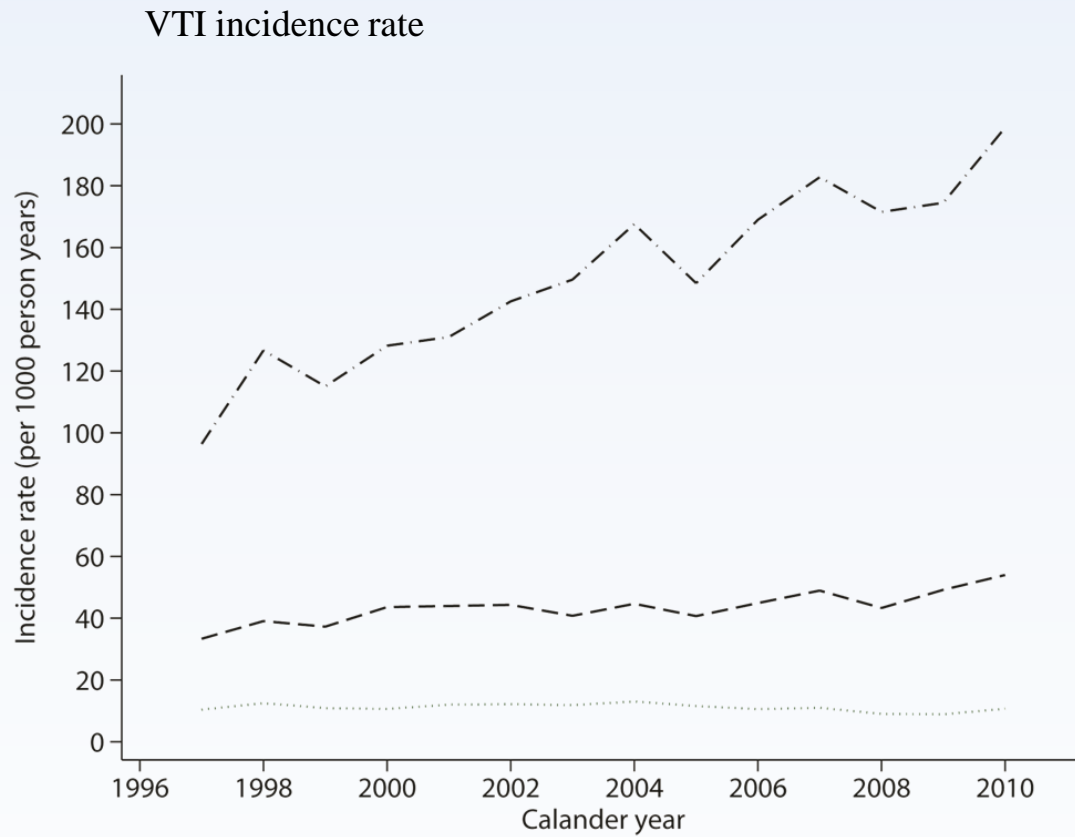
Age (years)	Incidence rate		Annual change	95% CI	
	1997	2010			
0-15	26	40	0.7	0.7	0.7
5-15	11	13	0.3	0.2	0.3
		13 11	-0.5	-0.5	-0.5
0-4	61	102	2.5	2.4	2.5

Results

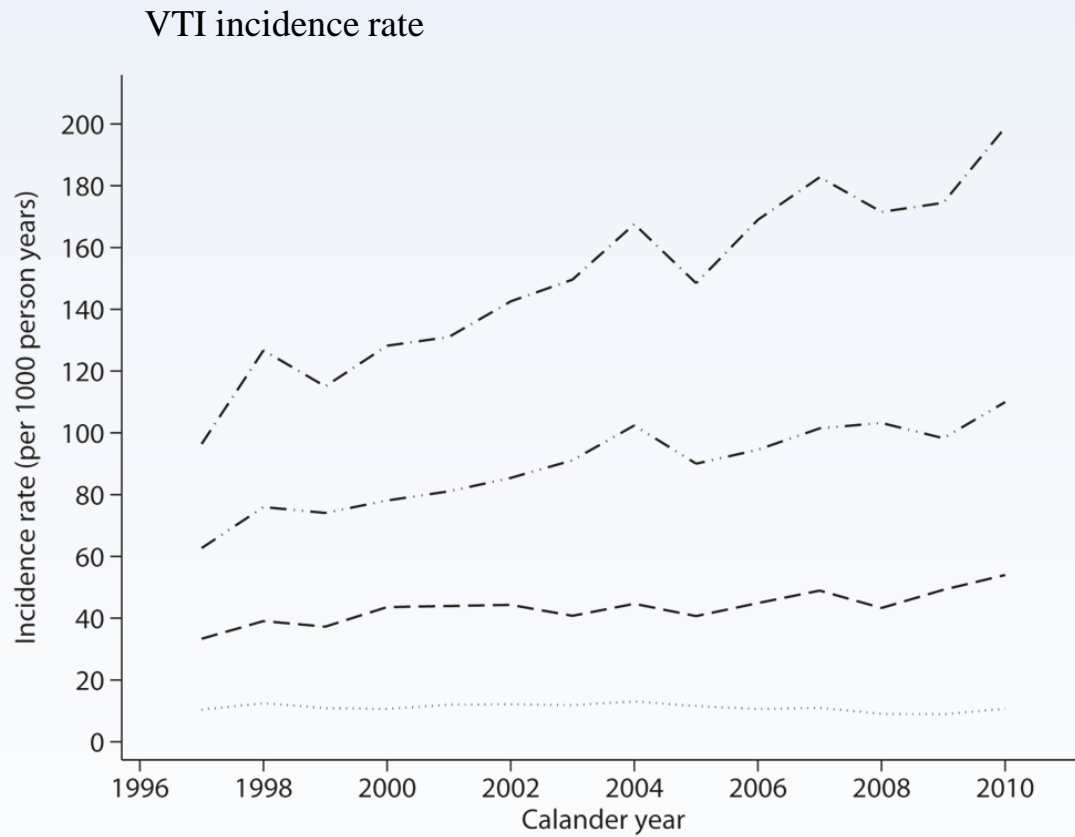


Age (years)	Incidence rate		Annual change	95% CI	
	1997	2010			
0-15	26	40	0.7	0.7	0.7
5-15	11	13	0.3	0.2	0.3
		13 11	-0.5	-0.5	-0.5
0-4	61	102	2.5	2.4	2.5
0	33	54	1.0	0.9	1.1

Results

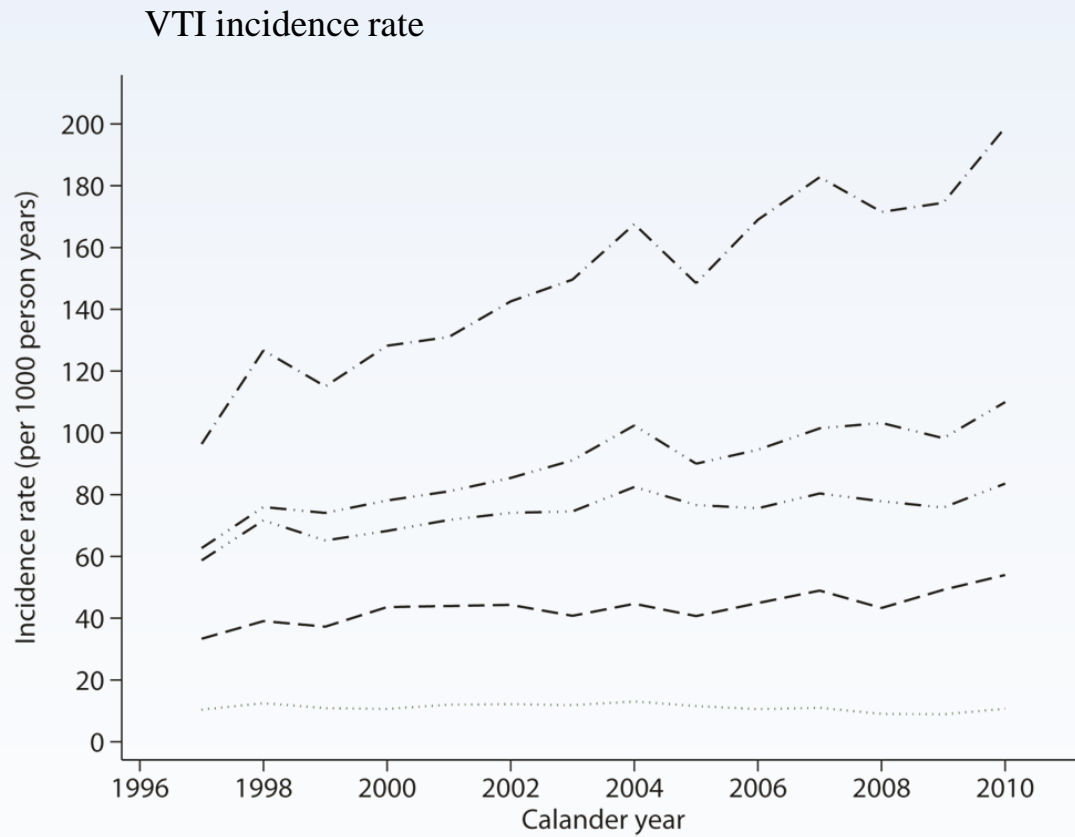


Results



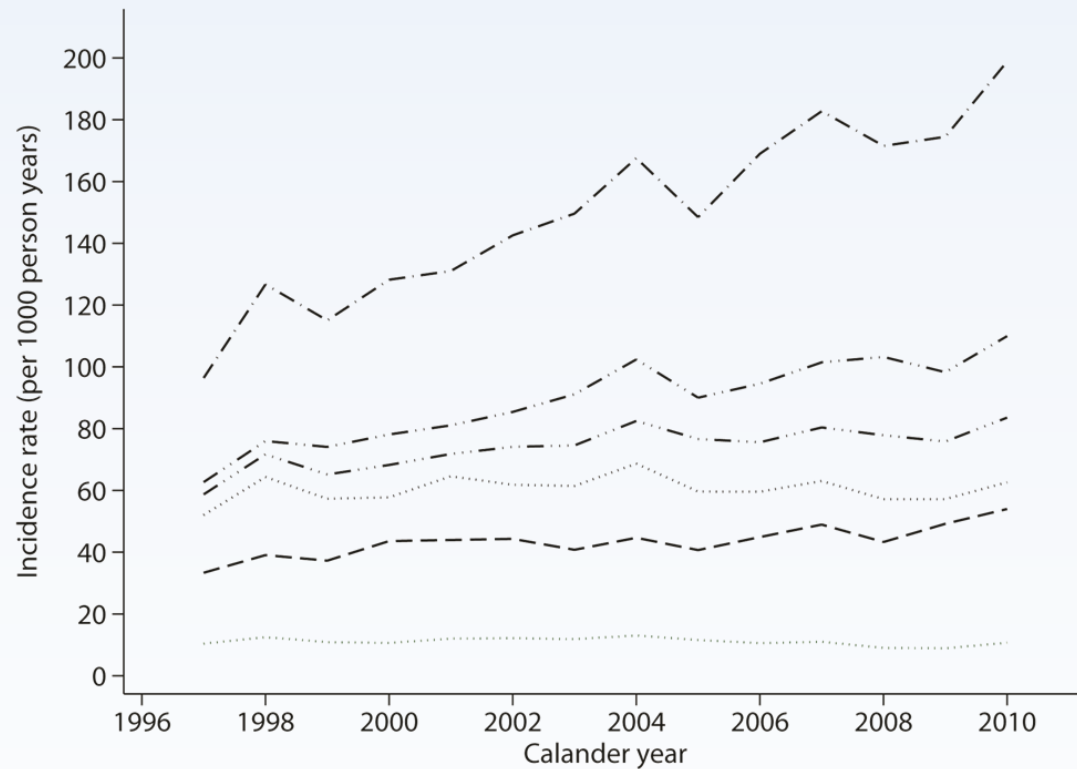
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0-15	26	40	0.7	0.7	0.7
5-15	11	13	0.3	0.2	0.3
		13 11	-0.5	-0.5	-0.5
0-4	61	102	2.5	2.4	2.5
0	33	54	1.0	0.9	1.1
1	96	199	6.7	6.5	6.8
2	63	110	3.1	3.0	3.3

Results



Results

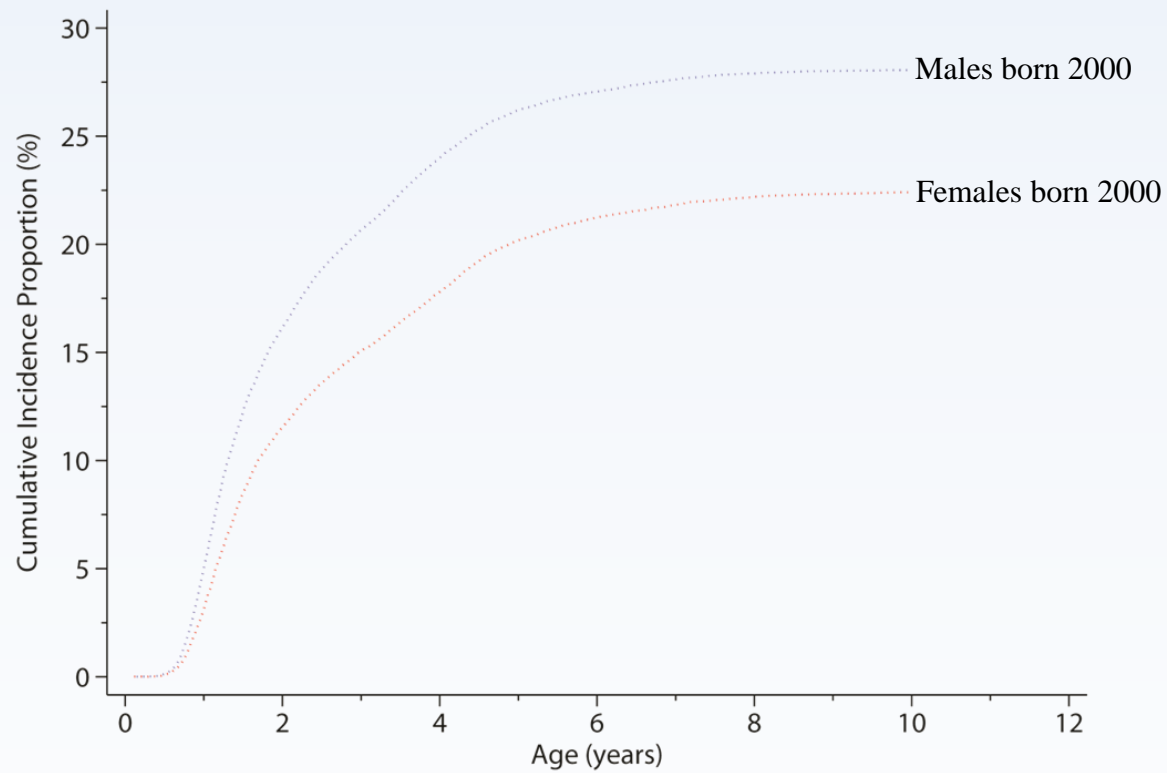
VTI incidence rate



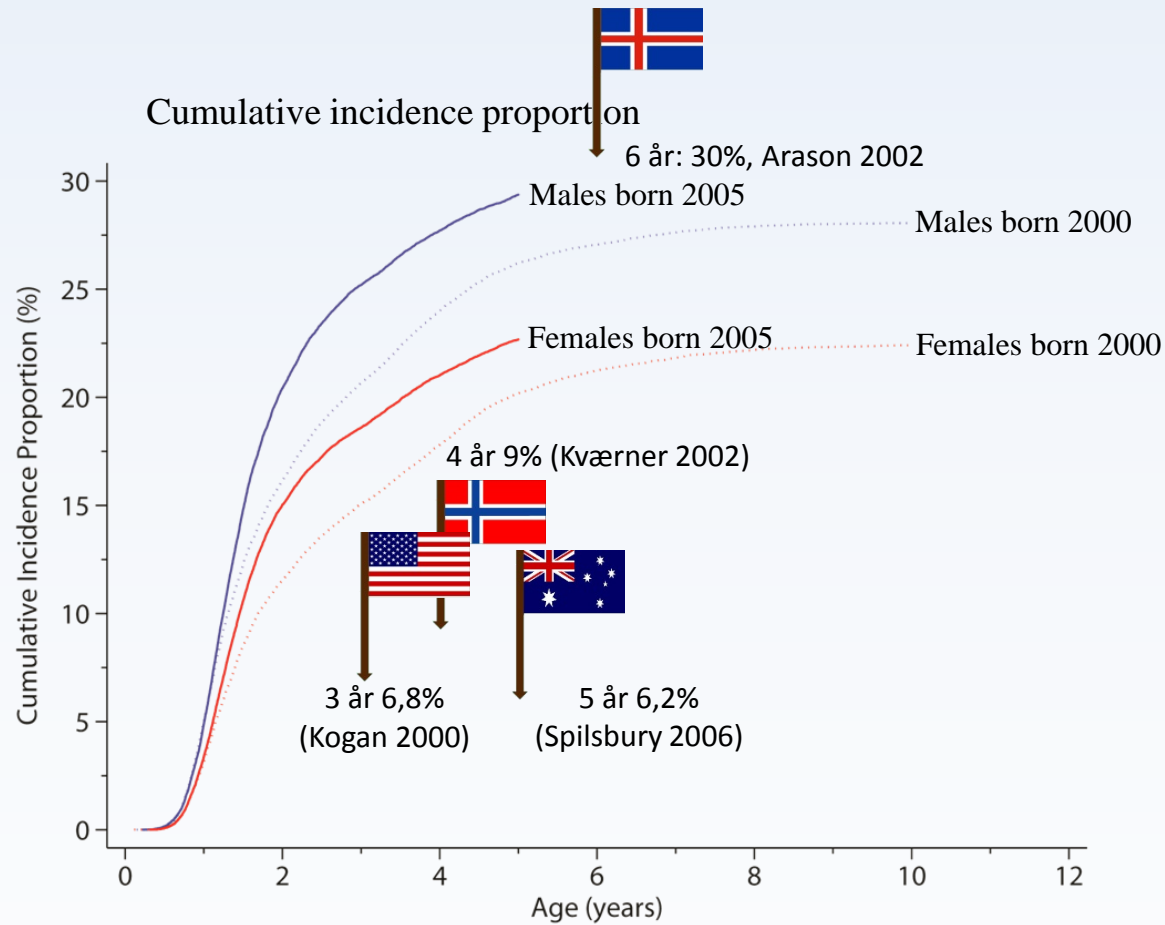
Age (years)	Incidence rate		Annual change	95% CI	
	1997	2010			
0-15	26	40	0.7	0.7	0.7
5-15	11	13	0.3	0.2	0.3
		13 11	-0.5	-0.5	-0.5
0-4	61	102	2.5	2.4	2.5
0	33	54	1.0	0.9	1.1
1	96	199	6.7	6.5	6.8
2	63	110	3.1	3.0	3.3
3	59	84	1.4	1.2	1.5
4	52	63	0.2	0.1	0.3

Results

Cumulative incidence proportion



Results



In summary

Middle ear ventilation tube insertion in Denmark

Annual incidence rates per 1000 person years

	1997	2010
0-15 year olds	26	40
1 year olds	96	199

Age specific incidence rates

Max around 14 months of age

Cumulative incidence proportion at 5 years of age

2005 birth cohort: 25%