

## PLEURAL MALIGNANT MESOTHELIOMA Piemonte, 1990-2014

Pleural malignant mesothelioma. Observed cases, standardized incidence rates ( per 100,000 per year; standard: European population, EU27) and 95% confidence intervals by calendar period and sex.

INCIDENCE 1990-2014 (definite, probable and possible diagnoses)						
period	MEN			WOMEN		
	observed	rates	95% CI	observed	rates	CI 95%
1990-1994	239	2.7	2.3-3.0	143	1.2	1.0-1.4
1995-1999	447	4.8	4.3-5.2	240	1.9	1.7-2.2
2000-2004	590	5.9	5.5-6.4	345	2.6	2.3-2.9
2005-2009	671	6.3	5.8-6.7	376	2.7	2.4-2.9
2010-2014	733	6.4	6.0-6.9	357	2.3	2.1-2.6

INCIDENCE 1990-2014 (definite diagnoses)						
period	MEN			WOMEN		
	observed	rates	95% CI	observed	rates	CI 95%
1990-1994	182	2.0	1.7-2.3	116	1.0	0.8-1.2
1995-1999	331	3.4	3.0-3.8	154	1.3	1.1-1.5
2000-2004	417	4.0	3.6-4.4	222	1.7	1.5-2.0
2005-2009	503	4.6	4.2-5.0	251	1.9	1.6-2.1
2010-2014	613	5.3	4.9-5.8	285	1.9	1.7-2.2

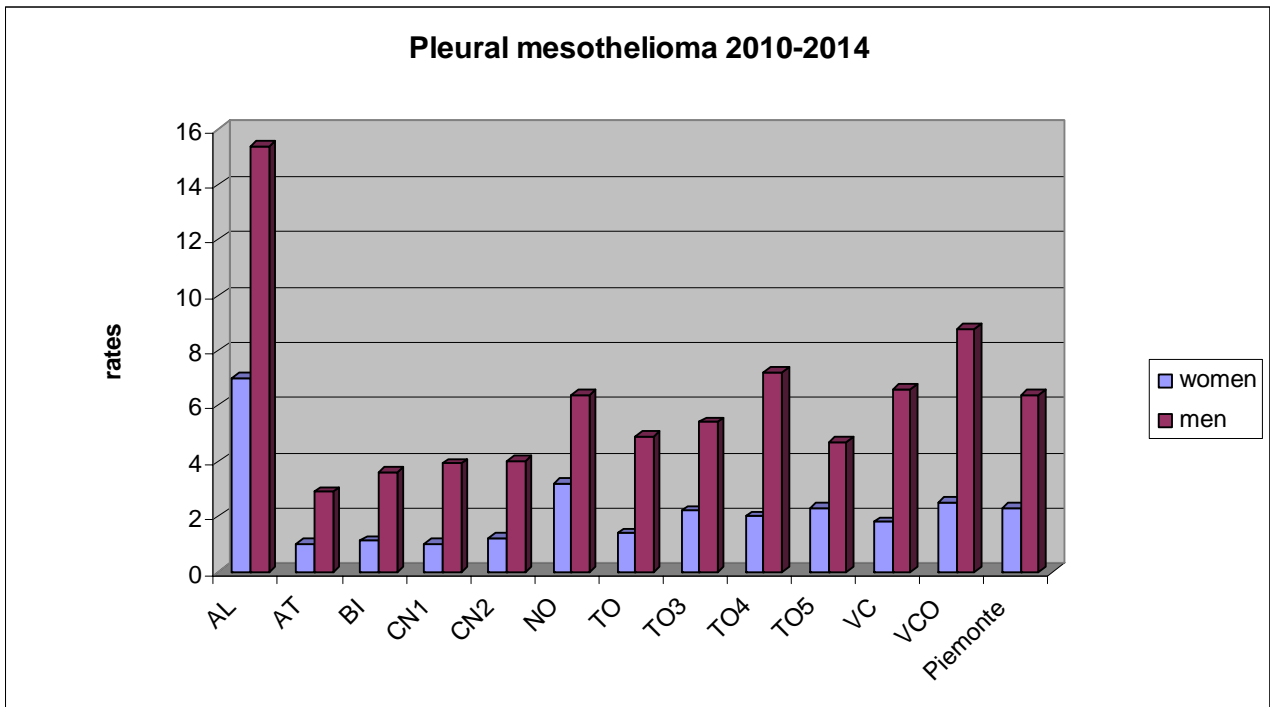
**Pleural malignant mesothelioma. Observed cases, standardized incidence rates ( per 100,000 per year; standard: European populationEU27) and 95% confidence intervals by area and sex. All diagnoses**

INCIDENCE 2010-2014 (definite, probable and possible diagnoses)								
LOCAL DISTRICT	MEN				WOMEN			
	rates	95% CI		observed	rates	95% CI		observed
Regione Piemonte	6.4	6.0	6.9	733	2.3	2.1	2.6	357
AL/1 (Acqui Terme)	5.1	1.3	8.9	5	3.7	0.7	6.8	6
AL/2 (Alessandria)	5.9	3.3	8.5	20	2.3	0.8	3.8	10
AL/3 (Casale Monferrato)	54.7	45.3	64.1	131	27.5	21.6	33.5	88
Comune Casale Monferrato	90.2	70.7	109.7	83	45.4	33.0	57.1	61
AL/4 (Novi Ligure)	7.0	3.5	10.6	15	0.3	0.0	0.8	1
AL/5 (Ovada)	7.8	2.0	13.5	7	3.3	0.0	6.5	4
AL/6 (Tortona)	3.4	0.7	6.2	6	0.9	0.0	2.1	2
AL/7 (Valenza)	9.7	2.9	16.4	8	3.6	0.0	7.3	4
AT/1 (Asti centro)	3.1	0.6	5.6	6	0.4	0.0	1.2	1
AT/2 (Asti nord)	3.2	0.6	5.7	6	2.6	0.5	4.8	6
AT/3 (Asti sud-Nizza M.to)	2.3	0.0	4.6	4	0.0	0.0	0.0	0
BI/1 (Biella)	3.0	1.1	4.9	10	0.8	0.0	1.8	3
BI/2 (Cossato)	4.8	1.5	8.1	8	1.6	0.0	3.4	3
CN1/1 (Borgo San Dalmazzo)	2.9	0.5	5.2	6	1.5	0.0	3.0	4
CN1/2 (Ceva)	3.9	0.0	8.3	3	1.5	0.0	4.4	1
CN1/3 (Cuneo)	4.3	1.3	7.2	8	1.7	0.0	3.5	4
CN1/4 (Fossano)	5.8	2.7	9.0	13	0.8	0.0	1.9	2
CN1/5 (Mondovì)	1.7	0.0	3.6	3	0.0	0.0	0.0	0
CN1/6 (Saluzzo)	4.1	1.2	7.0	8	0.9	0.0	2.2	2
CN2/1 (Alba)	4.1	1.6	6.5	11	0.9	0.0	1.9	3
CN2/2 (Bra)	4.0	0.8	7.2	6	1.9	0.0	3.8	4
NO/1 (Arona)	7.5	3.7	11.3	15	3.5	1.2	5.7	9
NO/2 (Borgomanero)	3.9	1.0	6.8	7	3.1	0.8	5.4	7
NO/3 (Galliate-Treccate)	5.1	1.3	8.8	7	3.1	0.4	5.9	5
NO/4 (Novara)	7.3	4.3	10.3	23	3.1	1.4	4.8	13
TO1-10 (Torino)	4.9	4.0	5.9	111	1.4	1.0	1.8	53
TO3/1 (Collegno)	7.9	4.2	11.6	18	3.0	0.9	5.1	8
TO3/2 (Giaveno)	6.3	0.8	11.9	5	1.9	0.0	4.5	2
TO3/3 (Orbassano)	5.2	2.4	8.0	13	2.0	0.4	3.7	6
TO3/4 (Pinerolo)	3.7	1.3	6.1	9	2.4	0.5	4.3	6
TO3/5 (Rivoli)	7.7	3.3	12.2	12	4.2	1.3	7.2	8
TO3/6 (Susa)	4.1	1.5	6.6	10	0.5	0.0	1.3	2
TO3/7 (Val Pellice)	6.1	0.1	12.1	4	1.2	0.0	3.5	1
TO3/8 (Val Chisone e Germanasca)	1.7	0.0	5.1	1	1.3	0.0	3.8	1
TO3/9 (Venaria)	5.8	2.4	9.1	12	2.0	0.2	3.8	5
TO4/1 (Ciriè)	9.8	6.2	13.4	29	2.8	1.1	4.5	11
TO4/2 (Chivasso)	7.5	3.5	11.5	14	4.1	1.6	6.7	10
TO4/3 (Settimo Torinese)	6.1	2.3	9.8	11	1.9	0.2	3.5	5
TO4/4 (San Mauro Torinese)	7.8	2.3	13.3	8	0.0	0.0	0.0	0
TO4/5 (Ivrea)	6.7	3.8	9.6	21	1.3	0.1	2.5	5
TO4/6 (Cuorgnè)	5.6	2.3	9.0	11	1.3	0.0	2.7	3
TO5/1 (Carmagnola)	3.5	0.0	7.0	4	2.0	0.0	4.3	3
TO5/2 (Chieri)	5.6	2.6	8.6	14	1.5	0.2	2.9	5
TO5/3 (Moncalieri)	4.2	1.2	7.2	8	4.3	1.8	6.9	11
TO5/4 (Nichelino)	4.6	1.2	8.0	8	1.4	0.0	3.0	3
VC/1 (Vercelli-Santhià)	7.8	4.5	11.2	21	2.4	0.8	3.9	9
VC/2 (Montano-Borghosesia-Varallo)	5.2	2.1	8.3	11	0.6	0.0	1.4	2
VCO/1 (Domodossola)	9.2	4.5	14.0	15	1.7	0.0	3.3	4
VCO/2 (Omegna)	5.4	1.1	9.7	6	1.9	0.0	4.0	3
VCO/3 (Verbania)	11.3	6.2	16.4	19	4.1	1.4	6.8	9

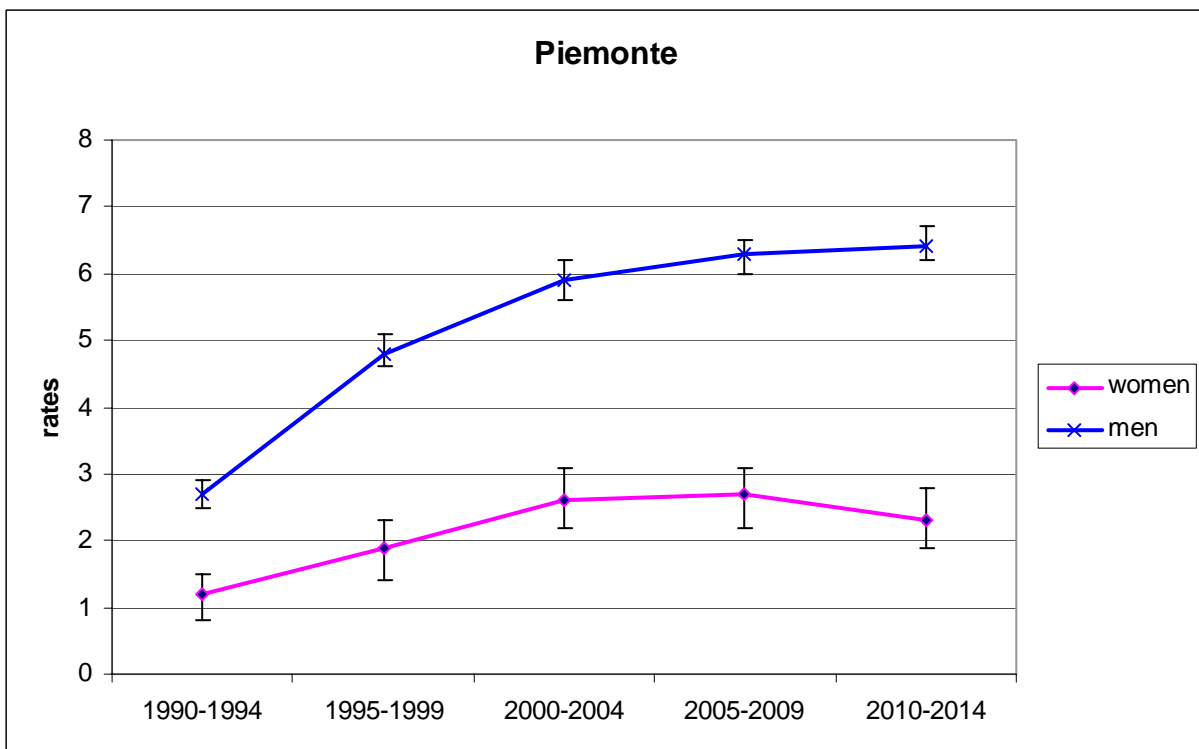
**Pleural malignant mesothelioma. Observed cases, standardized incidence rates ( per 100,000 per year; standard: European populationEU27) and 95% confidence intervals by area and sex. Definite diagnoses**

INCIDENCE 2009-2013 (definite diagnoses)								
LOCAL DISTRICT	MEN			WOMEN			observed	
	rates	95% CI	observed	rates	95% CI	observed		
Regione Piemonte	5.3	4.9	5.8	613	1.9	1.7	2.2	285
AL/1 (Acqui Terme)	5.1	1.3	8.9	7	3.7	0.7	6.8	6
AL/2 (Alessandria)	5.1	2.6	7.5	17	2.3	0.3	3.8	10
AL/3 (Casale Monferrato)	47.5	38.8	56.3	114	27.5	21.6	33.5	88
Comune Casale Monferrato	78.9	60.7	97.0	73	36.7	26.0	47.4	48
AL/4 (Novi Ligure)	5.6	2.4	8.8	12	0.3	0.0	0.8	1
AL/5 (Ovada)	6.6	1.3	11.9	6	3.3	0.0	6.5	4
AL/6 (Tortona)	2.9	0.3	5.4	5	0.9	0.0	2.1	2
AL/7 (Valenza)	6.0	0.7	11.3	5	3.6	0.0	7.3	4
AT/1 (Asti centro)	2.5	0.3	4.7	5	0.4	0.0	1.2	1
AT/2 (Asti nord)	3.2	0.6	5.7	6	2.6	0.5	4.8	6
AT/3 (Asti sud-Nizza M.to)	2.3	0.0	4.6	4	0.0	0.0	0.0	0
BI/1 (Biella)	3.0	1.1	4.9	10	0.8	0.0	1.8	3
BI/2 (Cossato)	3.6	0.7	6.5	6	1.6	0.0	3.4	3
CN1/1 (Borgo San Dalmazzo)	2.2	0.3	4.1	5	1.5	0.0	3.0	4
CN1/2 (Ceva)	2.6	0.0	6.1	2	1.5	0.0	4.4	1
CN1/3 (Cuneo)	4.3	1.3	7.2	8	1.7	0.0	3.5	4
CN1/4 (Fossano)	4.9	2.0	7.9	11	0.8	0.0	1.9	2
CN1/5 (Mondovì)	1.7	0.0	3.6	3	0.0	0.0	0.0	0
CN1/6 (Saluzzo)	3.5	0.9	6.1	7	0.9	0.0	2.2	2
CN2/1 (Alba)	4.1	1.6	6.5	11	0.9	0.0	1.9	3
CN2/2 (Bra)	3.3	0.4	6.3	5	1.9	0.0	3.8	4
NO/1 (Arona)	6.5	3.0	10.1	13	3.5	1.2	5.7	9
NO/2 (Borgomanero)	2.1	0.0	4.2	4	3.1	0.8	5.4	7
NO/3 (Galliate-Trecale)	3.6	0.4	6.7	5	2.4	0.0	4.9	4
NO/4 (Novara)	6.7	3.8	9.6	21	2.6	1.0	4.1	11
TO1-10 (Torino)	4.2	3.4	5.1	95	1.0	0.7	1.4	35
TO3/1 (Collegno)	6.7	3.4	9.9	16	1.9	0.2	3.5	5
TO3/2 (Giaveno)	5.0	0.1	10.0	4	1.1	0.0	3.4	1
TO3/3 (Orbassano)	4.8	2.1	7.4	12	1.7	0.2	3.2	5
TO3/4 (Pinerolo)	2.8	0.7	4.9	7	2.4	0.5	4.3	6
TO3/5 (Rivoli)	5.5	1.9	9.2	9	3.8	1.0	6.6	7
TO3/6 (Susa)	3.7	1.3	6.1	9	0.5	0.0	1.3	2
TO3/7 (Val Pellice)	6.1	0.1	12.1	4	1.2	0.0	3.5	1
TO3/8 (Val Chisone e Germanasca)	1.7	0.0	5.1	1	1.3	0.0	3.8	1
TO3/9 (Venaria)	4.9	1.8	8.0	10	2.0	0.2	3.8	5
TO4/1 (Ciriè)	7.5	4.3	10.7	22	2.2	0.7	3.7	8
TO4/2 (Chivasso)	5.2	1.9	8.4	10	3.4	1.1	5.8	8
TO4/3 (Settimo Torinese)	3.7	0.9	6.6	7	1.1	0.0	2.4	3
TO4/4 (SanMAuro Torinese)	6.2	1.6	10.9	7	0.0	0.0	0.0	0
TO4/5 (Ivrea)	5.0	2.6	7.5	16	0.9	0.0	1.8	3
TO4/6 (Cuorgnè)	3.5	0.9	6.1	7	1.0	0.0	2.4	2
TO5/1 (Carmagnola)	3.5	0.0	7.0	4	2.0	0.0	4.3	3
TO5/2 (Chieri)	3.8	1.4	6.1	10	1.0	0.0	2.2	3
TO5/3 (Moncalieri)	3.3	0.6	6.0	6	3.5	1.2	5.8	9
TO5/4 (Nichelino)	4.6	1.2	8.0	8	0.9	0.0	2.1	2
VC/1 (Vercelli-Santhià)	5.9	3.0	8.8	16	1.9	0.5	3.4	7
VC/2 (Montano-Borghesia-Varallo)	4.8	1.8	7.8	10	0.4	0.0	1.1	1
VCO/1 (Domodossola)	7.6	3.0	8.8	12	1.7	0.0	3.3	4
VCO/2 (Omegna)	4.5	0.6	8.4	5	1.4	0.0	3.3	2
VCO/3 (Verbania)	8.1	1.2	12.3	14	3.3	0.8	5.9	7

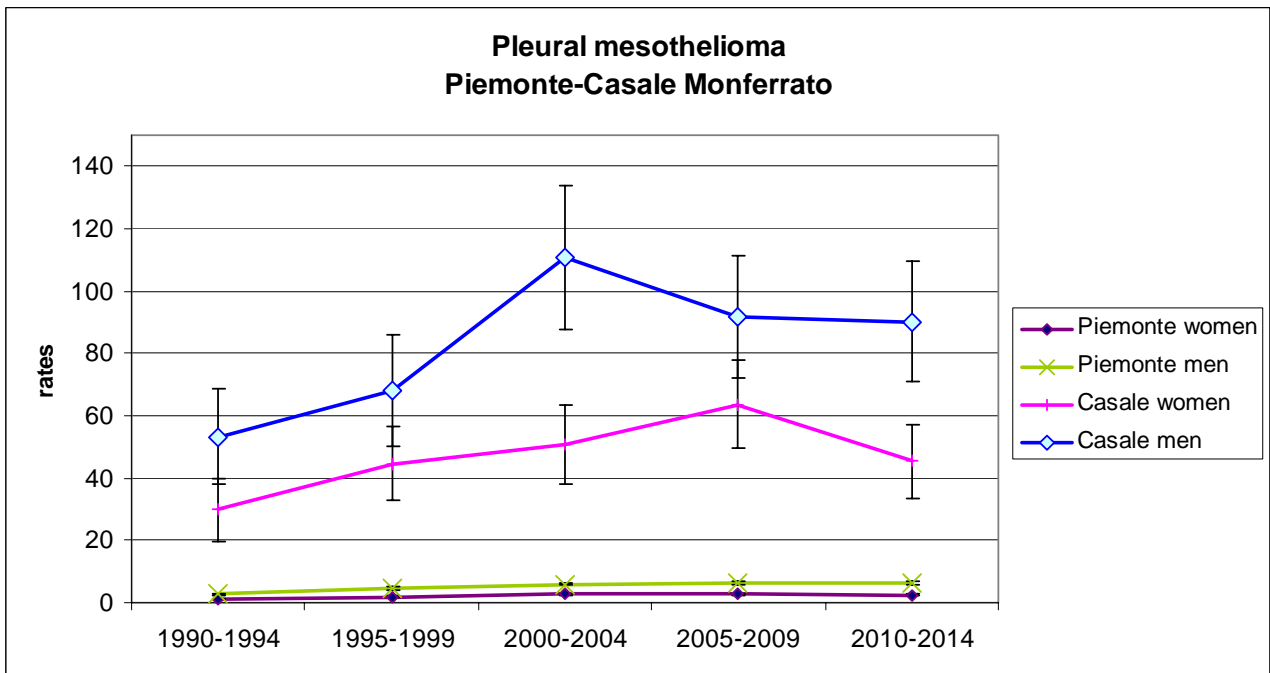
**Pleural malignant mesothelioma. Incidence by sex and local health authority (all diagnoses) : Standardized rates (per 100,000 per year; standard: European population EU27) (Piemonte, 2009-2014)**



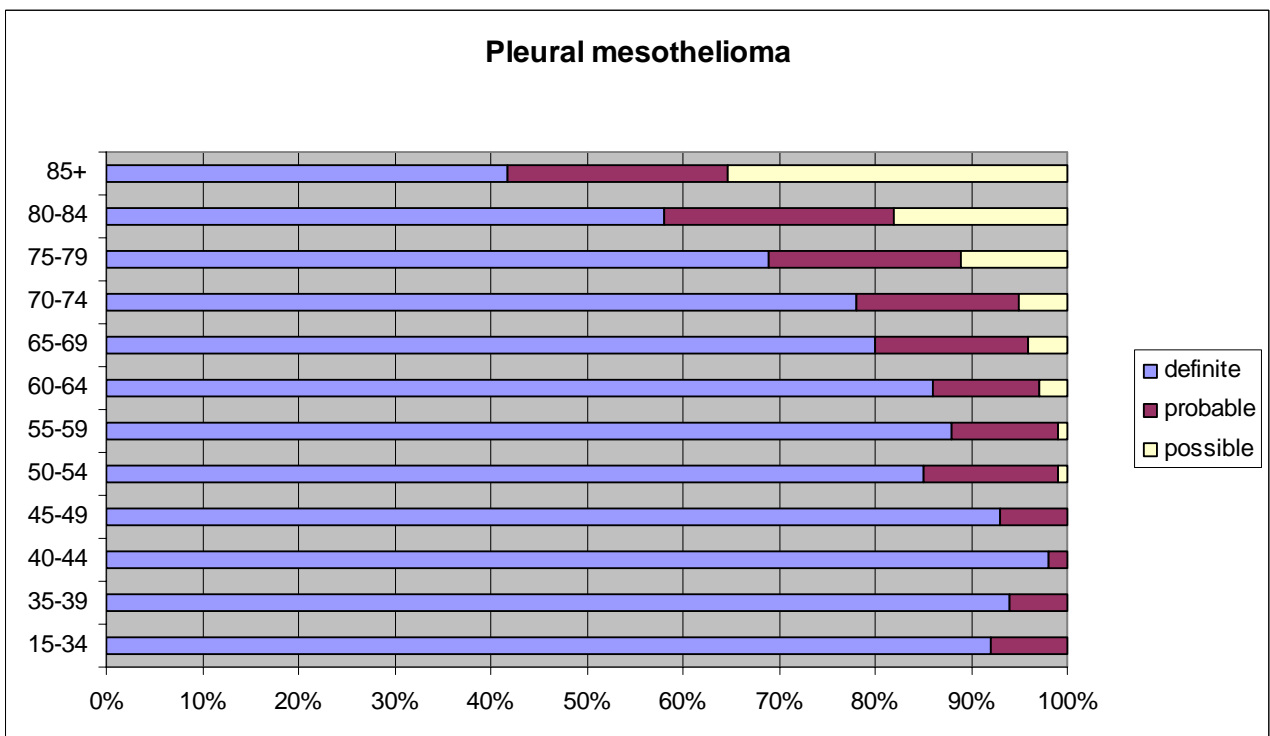
**Pleural malignant mesothelioma. Regione Piemonte time trends by sex. All diagnoses. Standardized rates (per 100,000 per year; standard: European population EU27) and 95% confidence intervals (Piemonte, 1990-2014)**



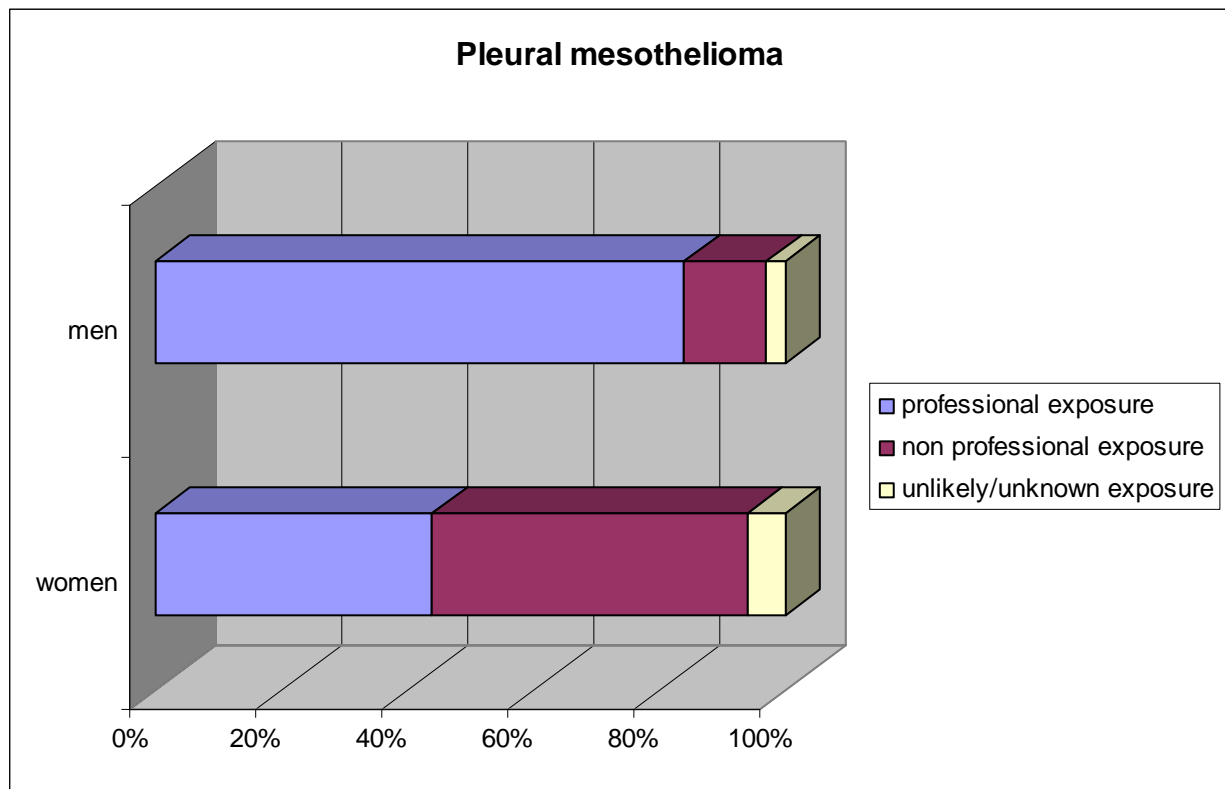
**Pleural malignant mesothelioma. Regione Piemonte and Casale Monferrato time trends by sex. All diagnoses. Standardized rates (per 100,000 per year; standard: European population EU27) and 95% confidence intervals**



**Pleural malignant mesothelioma. Proportion by age class and diagnosis level (Piemonte, 1990-2014)**



**Pleural malignant mesothelioma. All diagnoses. Proportion by sex and exposure (Piemonte, 1990-2014)**



**Pleural malignant mesothelioma (observed cases with defined exposure) by exposure type and gender (Piemonte, 1990-2014)**

	<b>Men</b>	<b>Women</b>	<b>Total</b>
<b>Definite occupational exposure</b>	<b>1203</b>	<b>228</b>	<b>1431</b>
	61.7%	22.9%	48.6%
<b>Probable occupational exposure</b>	<b>75</b>	<b>25</b>	<b>100</b>
	3.8%	2.5%	3.4%
<b>Possible occupational exposure</b>	<b>365</b>	<b>182</b>	<b>547</b>
	18.7%	18.3%	18.6%
<b>Familial exposure</b>	<b>71</b>	<b>266</b>	<b>337</b>
	3.6%	26.7%	11.4%
<b>Environmental exposure</b>	<b>165</b>	<b>208</b>	<b>373</b>
	8.5%	20.9%	12.7%
<b>Other non-occupational exposures</b>	<b>17</b>	<b>26</b>	<b>43</b>
	0.9%	2.6%	1.5%
<b>Unlikely exposure</b>	<b>9</b>	<b>13</b>	<b>22</b>
	0.5%	1.3%	0.7%
<b>Unknown exposure</b>	<b>44</b>	<b>48</b>	<b>92</b>
	2.3%	4.8%	3.1%
<b>Total</b>	<b>1949</b>	<b>996</b>	<b>2945</b>

**Median survival time and survival probability by calendar period**

SURVIVAL 1990-2014							
period		median (months)	Survival probability at :				
			6 months	1 yr	2 yrs	3 yrs	5 yrs
	1990-1994	8.4	63%	34%	15%	8%	2%
	1995-1999	8.5	61%	39%	16%	8%	4%
	2000-2004	10.1	66%	41%	17%	9%	4%
	2005-2009	11.1	71%	47%	20%	12%	5%
	2010-2014	11.0	70%	46%	20%	12%	5%

**Median survival time and survival probability by age class**

SURVIVAL 1990-2014							
age class		median (months)	Survival probability at :				
			6 months	1 yr	2 yrs	3 yrs	5 yrs
	00-54	13.1	79%	53%	28%	18%	8%
	55-64	13.6	77%	55%	25%	14%	6%
	65-74	11.7	72%	49%	20%	10%	5%
	75+	7.0	54%	29%	11%	6%	2%

**Median survival time and survival probability by histotype**

SURVIVAL 1990-2014							
histotype		median (months)	Survival probability at :				
			6 months	1 yr	2 yrs	3 yrs	5 yrs
	epithelioid	14.0	80%	56%	26%	14%	6%
	biphasic	9.5	69%	37%	11%	5%	2%
	sarcomatoid	5.0	41%	17%	5%	4%	3%
	not specified	7.1	57%	32%	13%	7%	4%
	unknown	3.4	34%	19%	12%	8%	4%