

# DIVERGING FIGURES FOR THIN AND THICK SKIN MELANOMA

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# Tuscany Cancer Registry



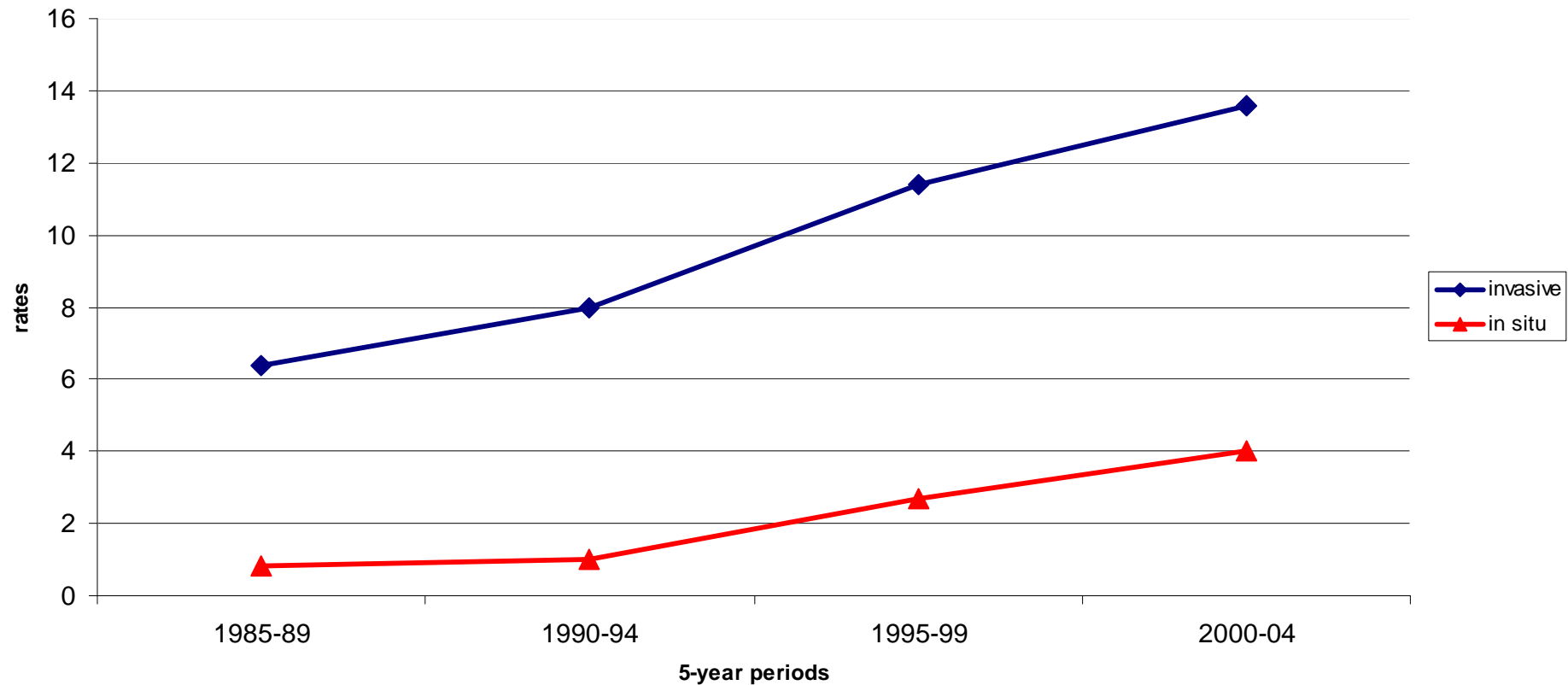
Active since 1985

Population: about 1.2 mil

Analysis based on 2,862  
cases of invasive skin

melanoma

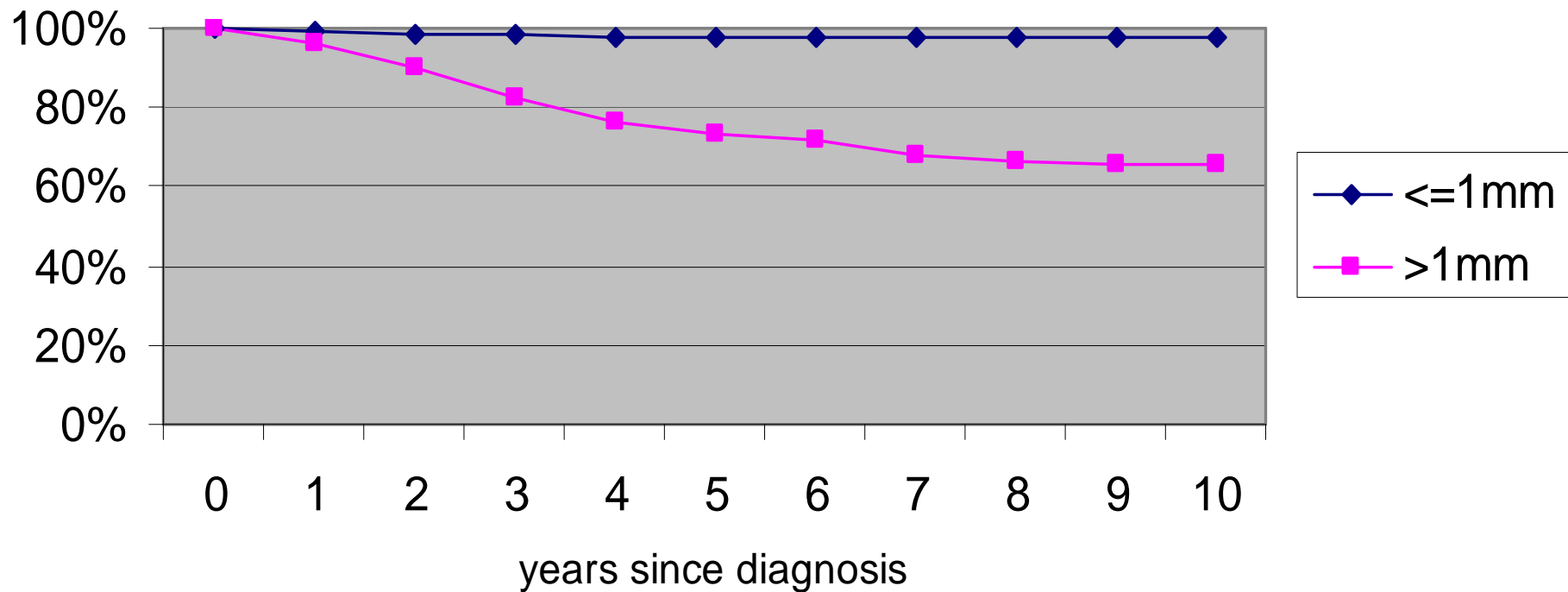
## Tuscany Cancer Registry. standardized incidence rates, for invasive and *in situ* skin melanoma by period



|               |     |     |     |       |
|---------------|-----|-----|-----|-------|
| #<br>Invasive | 442 | 565 | 835 | 1,020 |
| #<br>In situ  | 55  | 72  | 182 | 296   |

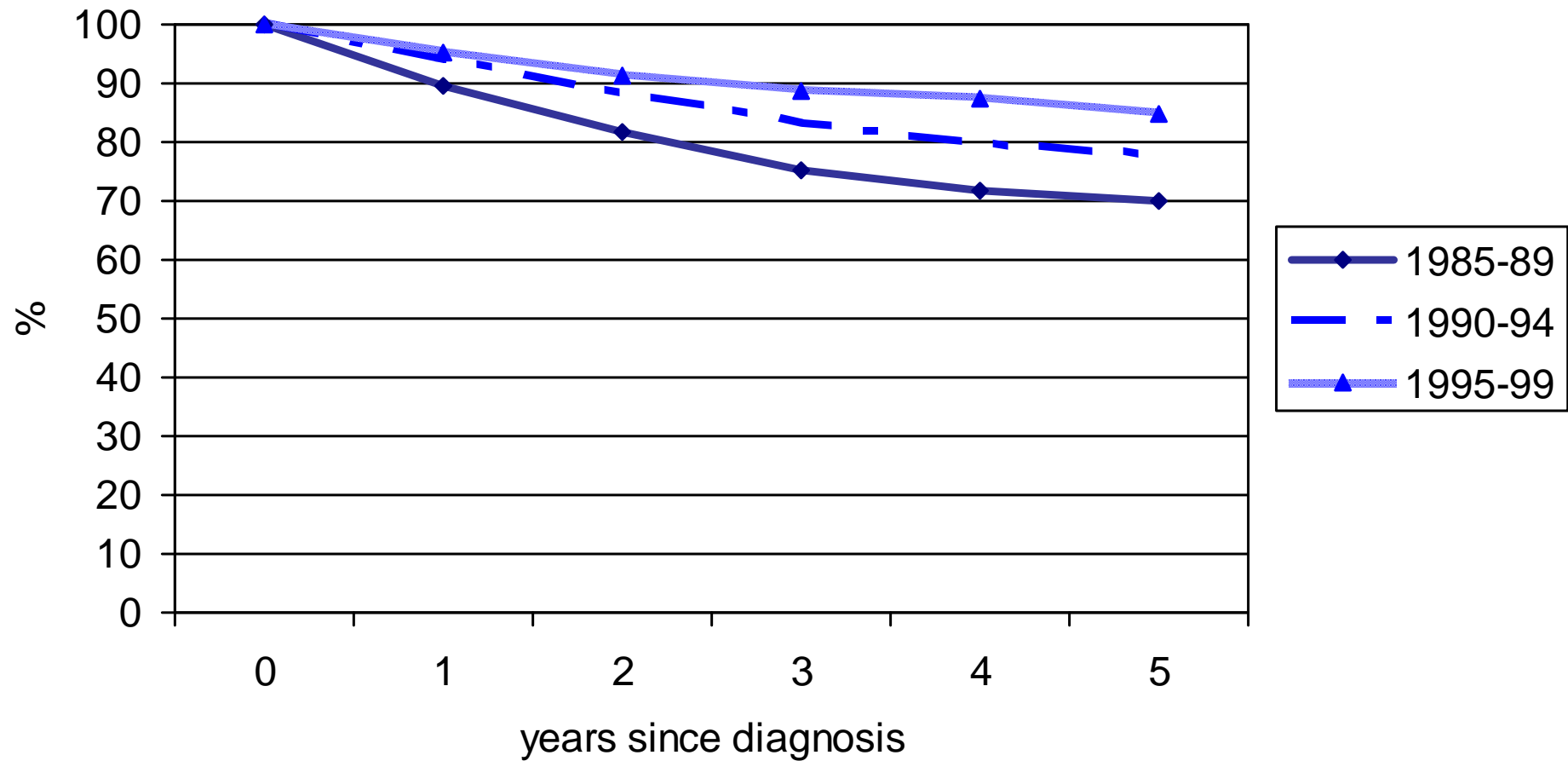
# Tuscany Cancer Registry. Skin melanoma: relative survival by Breslow thickness

cases incident during 1990-2002



| Tuscany Cancer Registry<br>Melanoma by<br>Breslow and<br>period (%) |   | 1985-<br>1989 | 1990-<br>1994 | 1995-<br>1999 | 2000-<br>2004 |
|---|---|---------------|---------------|---------------|---------------|
| <=1mm   | % | 20.8          | 32.2          | 45.2          | 46.9          |
| >1mm  | % | 43.7          | 40.2          | 31.5          | 32.2          |
| missing   | % | 35.5          | 27.6          | 23.4          | 21.0          |
| Total   | N | 442           | 565           | 835           | 1,020         |

# Tuscany Cancer Registry. Skin melanoma: relative survival by period of diagnosis



|       | 1985-89 | 1990-94 | 1995-99 | 2000-04 | APC<br>85-04 |
|-------|---------|---------|---------|---------|--------------|
| <=1mm | 1.4     | 2.7     | 5.5     | 6.7     | +9.5*        |
| >1mm  | 2.8     | 3.1     | 3.4     | 4.2     | +2.6*        |
| n.s.  | 2.2     | 2.2     | 2.5     | 2.7     | +1.9         |

\*=p<0.05

Not only incidence rates for thin MM do increase, but rates are also increasing (although to a less extent) for thick ones.

Tuscany cancer Registry. Skin melanoma Standardized incidence rates by Breslow thickness

| Tuscany<br>Cancer<br>Registry<br>Melanoma by<br>morphology<br>and period (%) |   | 1985-<br>1989 | 1990-<br>1994 | 1995-<br>1999 | 2000-<br>2004 |
|--|---|---------------|---------------|---------------|---------------|
| SSM  | % | 44.1          | 55.6          | 60.7          | 62.7          |
| Nodular  | % | 12.7          | 9.4           | 7.9           | 6.2           |
| Lentigo  | % | 3.4           | 2.7           | 2.3           | 2.9           |
| other  | % | 4.3           | 4.1           | 4.2           | 3.7           |
| nos  | % | 35.5          | 28.3          | 24.9          | 24.5          |
| Total  |   | 442           | 565           | 835           | 1,020         |



Tuscany Cancer Registry. Skin Melanoma. [Standardized incidence rates](#) by morphology and period

| Melanoma              | 1985-89<br>Overall | 1990-94<br>Overall | 1995-99<br>Overall | 2000-04<br>Overall | APC<br>1985-<br>2004 |
|-----------------------|--------------------|--------------------|--------------------|--------------------|----------------------|
| Superficial Spreading | 2.9                | 4.5                | 7.3                | 9.0                | +5.4*                |
| Nodular               | 0.8                | 0.8                | 0.8                | 0.8                | +0.4                 |
| Lentigo               | 0.2                | 0.2                | 0.2                | 0.2                | +0.9                 |
| Other                 | 0.3                | 0.3                | 0.4                | 0.4                | +2.3                 |
| Nos                   | 2.2                | 2.2                | 2.7                | 3.2                | +4.1*                |
|                       |                    |                    |                    |                    |                      |
| All                   | 6.4                | 8.0                | 11.4               | 13.6               | +5.1*                |

\*=p<0.05

|  | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p |
|--|---------|---------|---------|---------|---|
| Median thickness   |         |         |         |         |   |
| Median thickness<br>Males  |         |         |         |         |   |
| Median thickness<br>Females  |         |         |         |         |   |
| Median thickness<br>comparison between<br>males and females<br>by period |         |         |         |         |   |

Tuscany Cancer Registry. Skin melanoma

|  | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p      |
|--|---------|---------|---------|---------|--------|
| Median thickness   | 1.68    | 1.2     | 0.8     | 0.8     | <0.001 |
| Median thickness<br>Males  |         |         |         |         |        |
| Median thickness<br>Females  |         |         |         |         |        |
| Median thickness<br>comparison between<br>males and females<br>by period |         |         |         |         |        |

Tuscany Cancer Registry. Skin melanoma

|  | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p      |
|--|---------|---------|---------|---------|--------|
| Median thickness   | 1.68    | 1.2     | 0.8     | 0.8     | <0.001 |
| Median thickness<br>Males  | 2.1     | 1.3     | 0.8     | 0.8     | <0.001 |
| Median thickness<br>Females  | 1.3     | 1.15    | 0.8     | 0.75    | <0.001 |
| Median thickness<br>comparison between<br>males and females<br>by period | 0.004   | 0.24    | 0.97    | 0.75    |        |

Tuscany Cancer Registry. Skin melanoma

|  | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p      |
|--|---------|---------|---------|---------|--------|
| Median thickness   | 1.68    | 1.2     | 0.8     | 0.8     | <0.001 |
| Median thickness<br>Males  | 2.1     | 1.3     | 0.8     | 0.8     | <0.001 |
| Median thickness<br>Females  | 1.3     | 1.15    | 0.8     | 0.75    | <0.001 |
| Median thickness<br>comparison between<br>males and females<br>by period | 0.004   | 0.24    | 0.97    | 0.75    |        |

**MM are increasingly thin and now there are not any longer differences between sexes**

|                                       | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p      |
|---------------------------------------|---------|---------|---------|---------|--------|
| <b>Median thickness by morphology</b> |         |         |         |         |        |
| Superficial Spreading                 | 1.20    | 0.85    | 0.7     | 0.68    | <0.001 |
| Nodular                               | 3.33    | 3.39    | 3.3     | 4.0     | 0.517  |
| Lentigo                               | 1.80    | 0.81    | 0.665   | 0.79    | 0.398  |
| Other                                 | 1.3     | 2.68    | 2.0     | 2.5     | 0.111  |
| Nos                                   | 3.60    | 2.64    | 1.15    | 1.01    | 0.001  |

**SSM and n.o.s MM are increasingly thin but the others are not**

# Has the median thickness, within thin and thick MM, changed over time?

|                   | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p |
|-------------------|---------|---------|---------|---------|---|
| $\leq 1\text{mm}$ |         |         |         |         |   |
| $> 1\text{mm}$    |         |         |         |         |   |

Tuscany cancer Registry. Skin Melanoma. Median thickness by class of thickness

# Has the median thickness, within thin and thick MM, changed over time?

|                   | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p     |
|-------------------|---------|---------|---------|---------|-------|
| $\leq 1\text{mm}$ | 0.66    | 0.57    | 0.55    | 0.50    | 0.001 |
| $> 1\text{mm}$    |         |         |         |         |       |

Tuscany cancer Registry. Skin Melanoma. Median thickness by class of thickness



Has the median thickness, within thin and thick MM, changed over time?

|                   | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p     |
|-------------------|---------|---------|---------|---------|-------|
| $\leq 1\text{mm}$ | 0.66    | 0.57    | 0.55    | 0.50    | 0.001 |
| $> 1\text{mm}$    | 3.24    | 3.23    | 3.08    | 3.60    | 0.64  |

Thin MM are becoming increasingly thin, but thick ones are as thick as in the past

Tuscany cancer Registry. Skin Melanoma. Median thickness by class of thickness

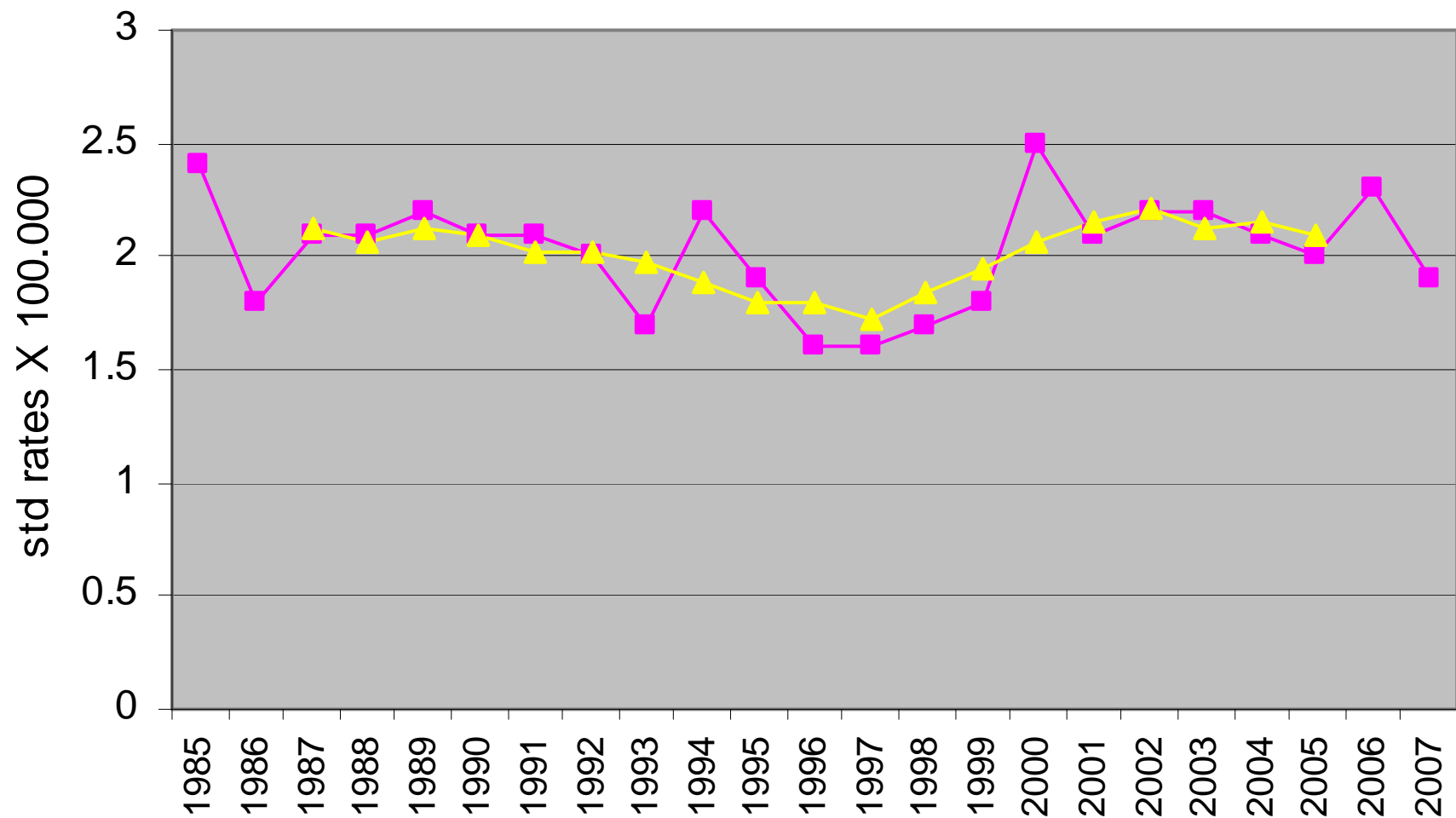
|                         | 1985-89 | 1990-94 | 1995-99 | 2000-04 |       |
|-------------------------|---------|---------|---------|---------|-------|
| Median thickness        |         |         |         |         |       |
| $\leq 1\text{mm}$       | 0.66    | 0.57    | 0.55    | 0.5     | 0.001 |
| $1.0 < \text{mm} < 2.0$ |         |         |         |         |       |
| $\geq 2\text{mm}$       |         |         |         |         |       |

Tuscany cancer Registry. Skin Melanoma. Median thickness by class of thickness

|                         | 1985-89 | 1990-94 | 1995-99 | 2000-04 | p     |
|-------------------------|---------|---------|---------|---------|-------|
| Median thickness        |         |         |         |         |       |
| $\leq 1\text{mm}$       | 0.66    | 0.57    | 0.55    | 0.5     | 0.001 |
| $1.0 < \text{mm} < 2.0$ | 1.45    | 1.43    | 1.4     | 1.3     | 0.141 |
| $\geq 2\text{mm}$       | 3.3     | 3.4     | 3.5     | 3.71    | 0.304 |

Thick MM do not show any change in median thickness not even considering two classes, one intermediate between thin and thick MM and another one made just of thick MM.

**RMR. Skin melanoma. Standardized mortality rates  
and 5-years mobile means.  
Tuscany Cancer Registry area**



# Conclusions (1/2)

- In the course of the last 20 years skin melanoma incidence is more than doubled. In the same period MM mortality has not changed. Why?
- Is it overdiagnosis the explanation?  
Only the melanoma that are no deadly are detected (survival increases) but the progressive ones are not early detected (stable mortality)
- Is there a real increase in incidence?  
Also rates for thick (therefore progressive) melanoma are increasing

# Conclusions (2/2)

- If also thick melanoma are increasing why mortality is stable?
- Probably because early diagnosis, in addition to producing overdiagnosis (and overtreatment) of indolent melanoma, has also detected some of the progressive melanoma improving their clinical course.
- However, the impression is that we are not yet really effective against deadly melanoma, e.g. nodular type (different ethiology? primary prevention?)