

# Predicting cancer incidence and mortality as an important tool in improving assessment of cancer outcome and information

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The purposes of making cancer incidence/mortality predictions

Administrative ones

to plan the allocation of the resources  
(then predictions should be as accurate as possible)

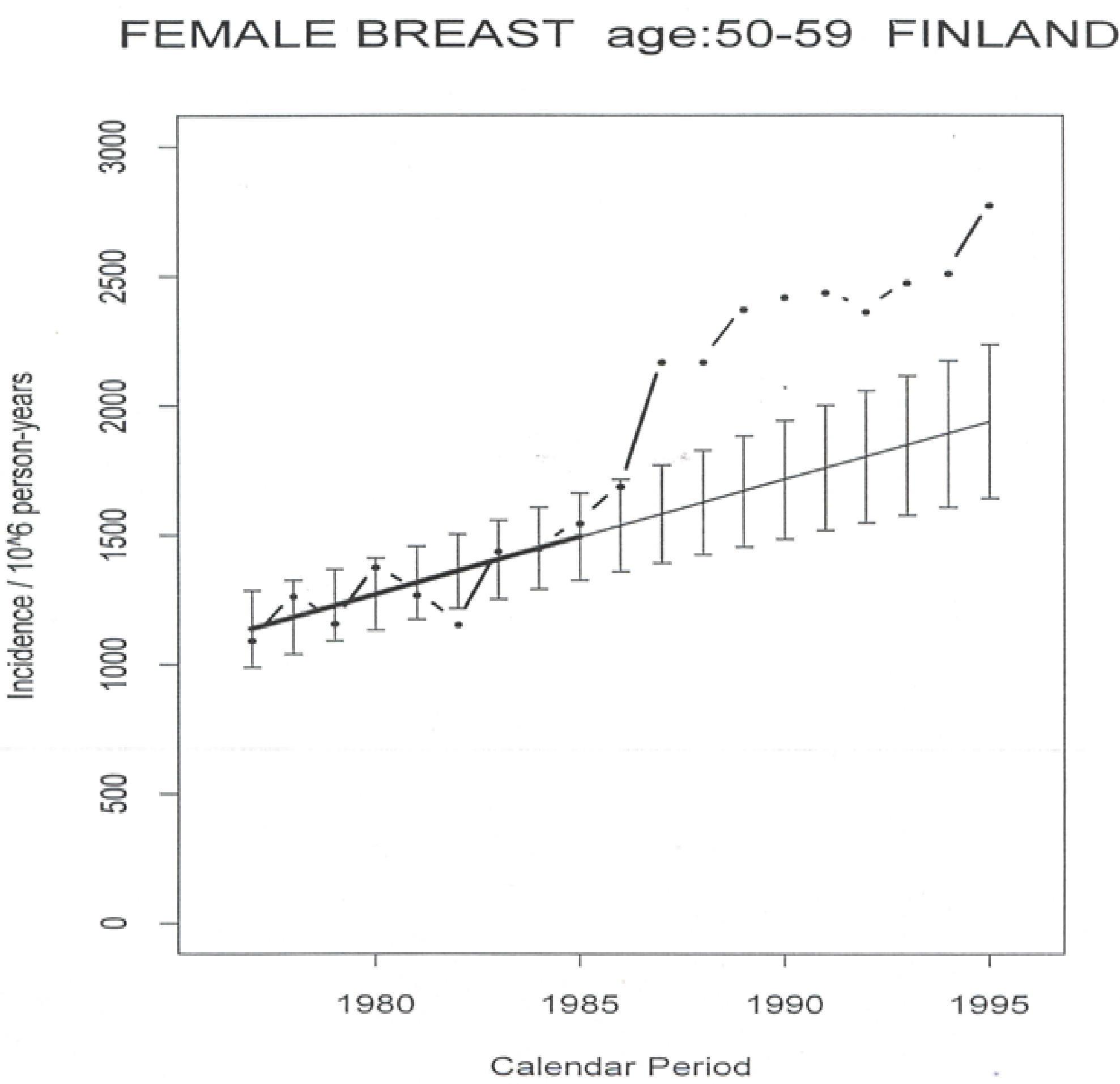
Scientific ones

to evaluate the success of disease control  
(then predictions that do not come true are useful)

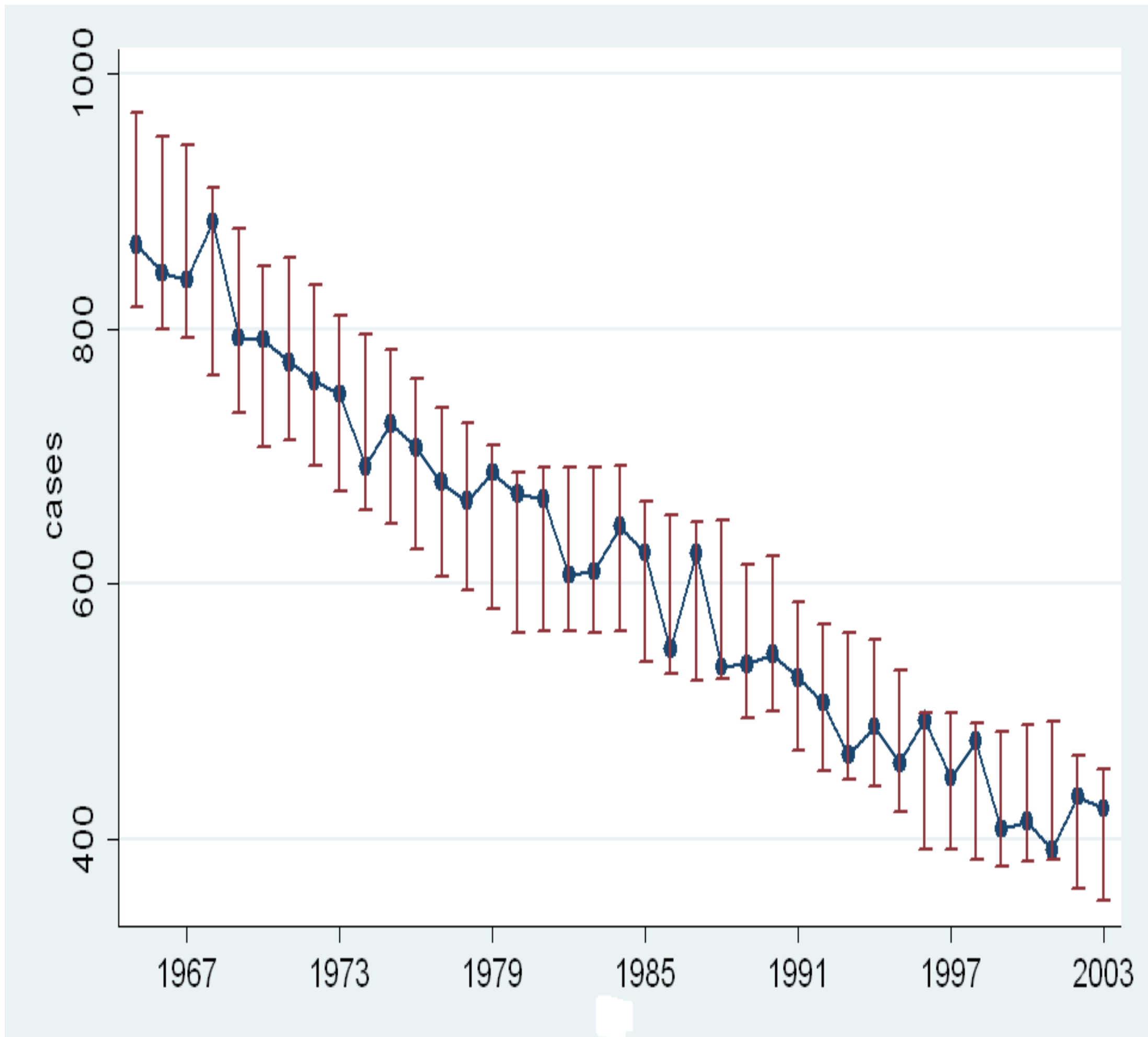
Example of administrative prediction for Stockholm-Gotland Oncological Region, Sweden



Example of scientific prediction showing a significant effect of screening on breast cancer incidence



Prediction as a tool for updating cancer registry data for cancer sites free of screening activities  
Finnish male, stomach cancer, horizon = 3years, coverage rate = 100%



Example of updating cancer registry data  
Annual Report of Finnish Cancer Registry 2006/2007

Leading sites of cancer in 2007 and 2010, by sex.

Primary site	2007			2010 (prediction)	
	No. of cases	%	Incidence per 100,000 <sup>1</sup>	No. of cases	95 % prediction interval
<b>MALES</b>					
Prostate	4183	31.9	85.6	4555	4423-4687
Lung, trachea	1511	11.5	30.3	1581	1469-1694
Colon	743	5.7	15.4	852	774-930
Bladder, ureter, urethra	588	4.5	11.6	653	585-720
Skin, non-melanoma <sup>2</sup>	557	4.2	10.4	636	569-703
Rectum, rectosigmoid, anus	555	4.2	11.6	615	548-682
Non-Hodgkin lymphoma	535	4.1	12.0	600	534-665
Melanoma of the skin	457	3.5	10.6	541	481-601
Pancreas	455	3.5	9.3	520	459-582
Kidney	399	3.0	8.8	412	360-465
Brain, central nervous system	372	2.8	10.7	420	365-474
Stomach	371	2.8	7.8	366	317-416
Leukaemia	316	2.4	8.4	339	286-391
Liver	255	1.9	5.1	317	272-363
Oesophagus	161	1.2	3.4	178	142-215
Multiple myeloma	130	1.0	2.7	141	110-172
Testis	129	1.0	4.8	131	102-159
All sites <sup>2</sup>	13121	100.0	281.9	14256	13959-14553
<b>FEMALES</b>					

STATA software ( <http://www.enccr.com/fr/stata-macros1.htm> )  
as ado-files to make predictions

