

INCIDENCE TRENDS AND SURVIVAL OF SKIN MELANOMA AND SQUAMOUS CELL CARCINOMAS IN CLUJ COUNTY ROMANIA



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INTRODUCTION AND OBJECTIVES

Cancer data from cancer registries are of utmost importance to study cancer trends and survival. At the North-Western Cancer Registry from Cluj, within the frame of a research project, with contract no 6SEE from EEA Financial Mechanism, one of the aims was to build institutional capacity for increasing cancer data quality.

Skin cancers registered in the last decades an increasing incidence worldwide. In Cluj County, in 2011, cutaneous melanoma (CM) ranked 8 in men and 5 in women, in the age group 25-49 years, whereas for skin squamous cell carcinoma (SCC), there is little information about their incidence and time trends.

Objectives. To study trends of standardized incidence rates of cutaneous melanoma (CM) and squamous cell carcinoma (SCC) in Cluj County, from 1998 to 2011, and to examine 5-year net survival between 2006-2010.

METHODS

Population-based data on skin cancers was obtained from the Cluj County Cancer Registry. Incidence rates were standardized by the direct method, using the world standard population (ASIR). Time trends were expressed as the annual percent change (APC) from 1998 to 2011 and the joinpoint regression analysis was used to identify time points where changes possibly occurred. Information about deaths of cancer cases was available for the cases registered in the period 2006-2011. Pohar-Perme estimator was used to examine the 5-year net survival by age, stage, period, anatomical location, histologic subtype, and urban/rural area of cases diagnosed during 2006-2010, and followed-up until 31 of December 2015.

RESULTS

A total of 580 cases of CM (56% in female) and 397 cases of SCC (50.6% in female) were reported. The distribution of cases by sites and sexes is presented in Figure 1.

CONCLUSIONS

This study reveals a significantly rising incidence of cutaneous cancers, in both sexes, in concordance with international ascending trends in the last decades. The rising incidence of both malignancies may be attributable to increased voluntary exposure to the sun, that is the most important environmental cause, especially for SCC. Increasing incidence rates should be expected in the next years in Cluj County because of increasing life expectancy. For SCC, it is difficult to distinguish between real and apparent rise of the incidence, because of improvement in the completeness of cancer registration. These data support the important role for primary and secondary prevention of skin cancers, focused not only on melanoma, due to its lower survival, but also on SCC.

RESULTS (CONTINUED)

The ASIR of CM increased significantly from 1998 to 2011, with APCs of 7.8% and 7.42% in males and females, respectively (Figures 2 and 3). For SCC, the incidence increased significantly with APCs of 9.40% in males, and during the interval 2002-2011, by 12.65% APCs in females (Figures 2 and 4).

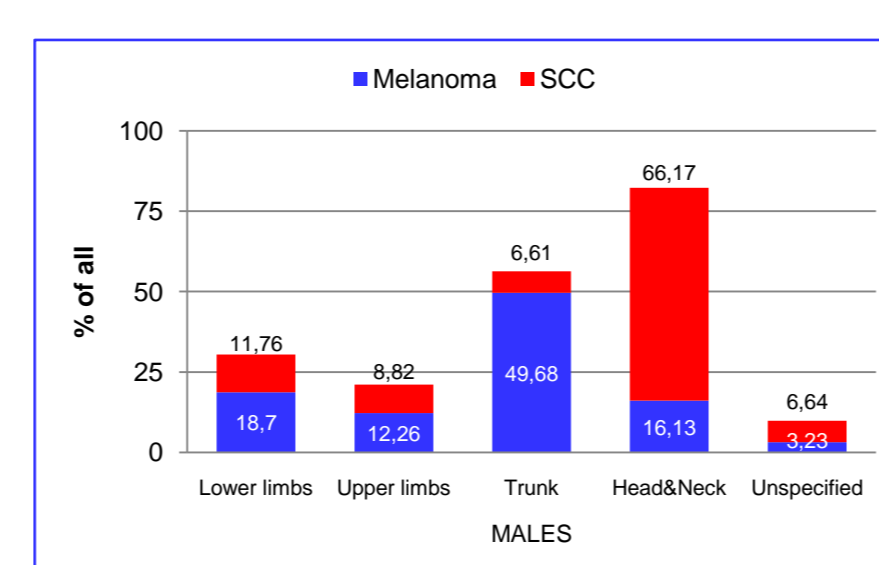


Figure 1. Distribution of SCC and CM by location on the body 1998-2011

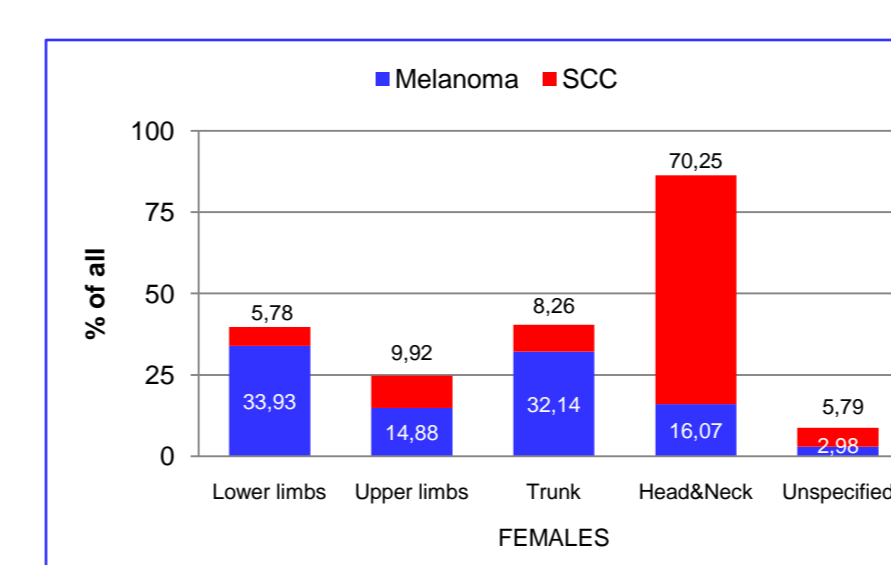


Figure 2. Evolution of ASIR for CM and SCC, 1998-2011

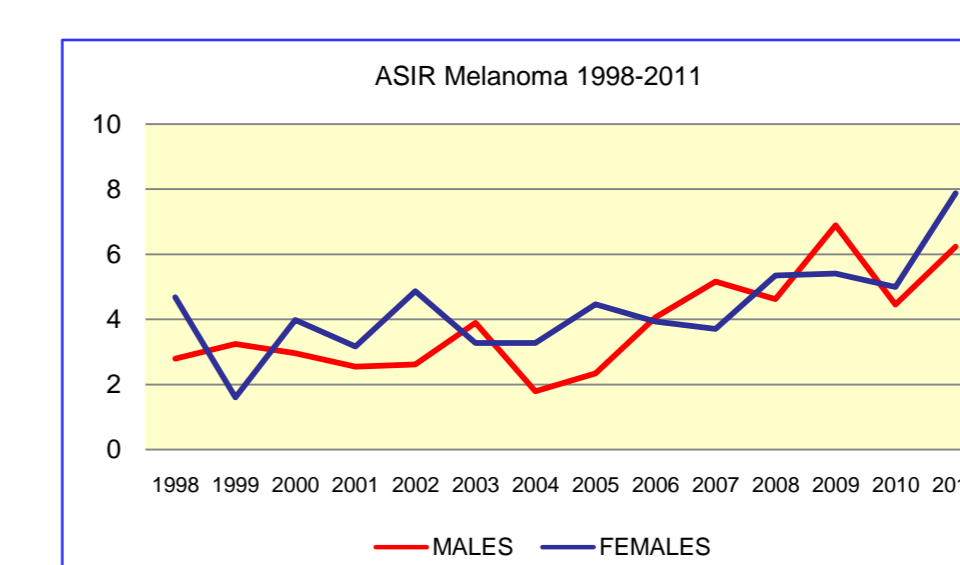


Figure 3. ASIR trends of CM, 1998-2011

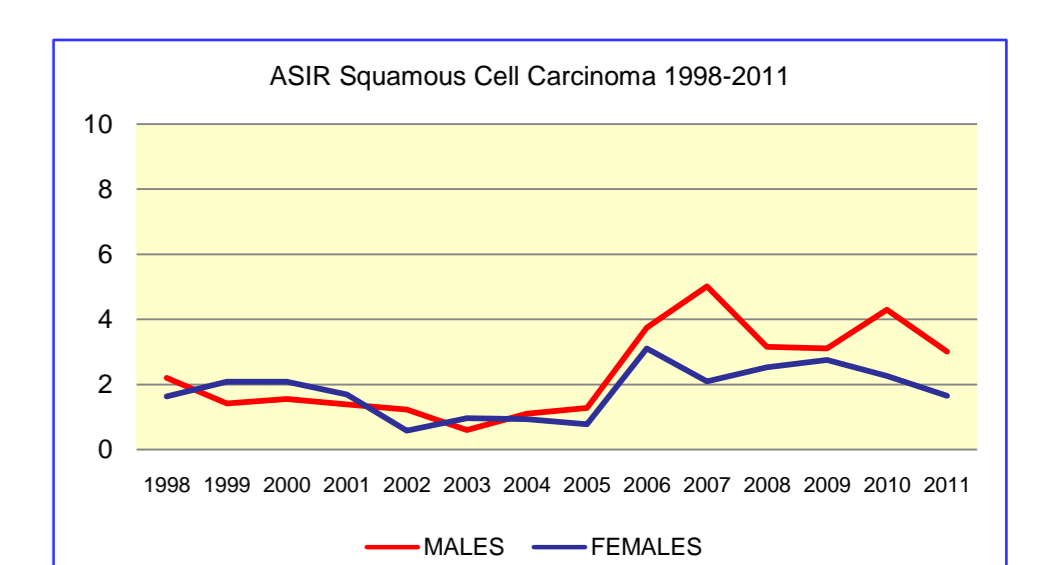


Figure 4. ASIR trends of SCC, 1998-2011

The survival was generally lower for CM and for men: 0.64 in men and 0.75 in women for CM and 0.95 and 1.00 respectively for SCC (Figures 6 and 7). Net survival for SCC as well as for CM is presented in Tables 1, 2 and Figure 8.

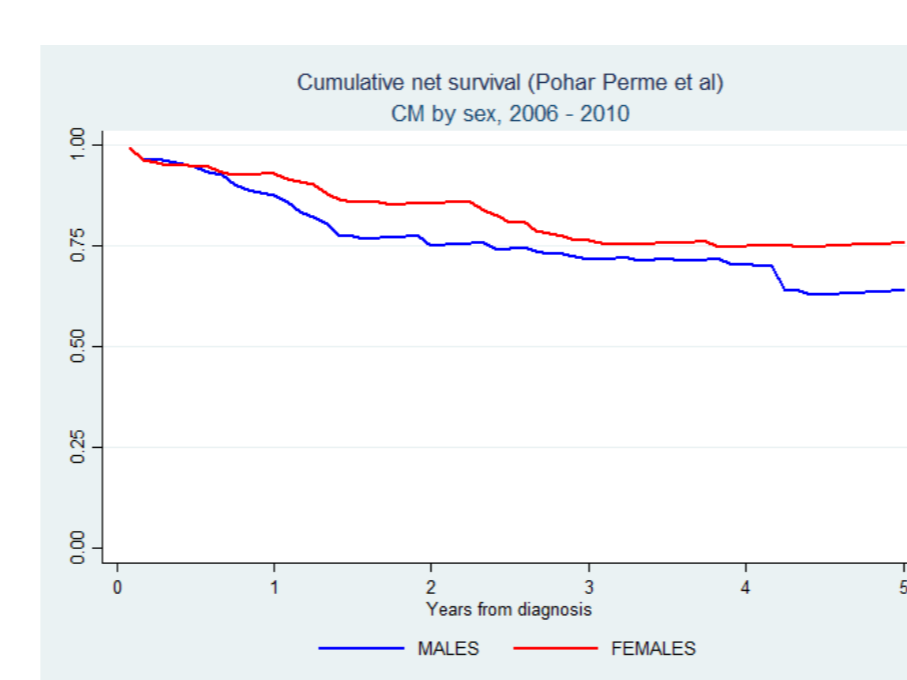


Figure 6. Net survival of CM, 2006-2010

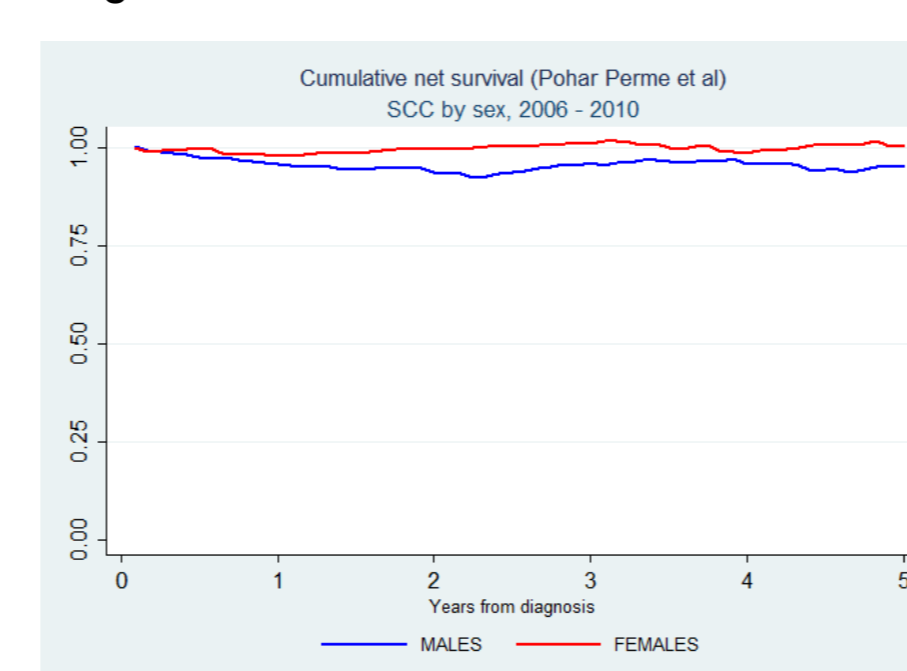


Figure 7. Net survival of SCC, 2006-2010

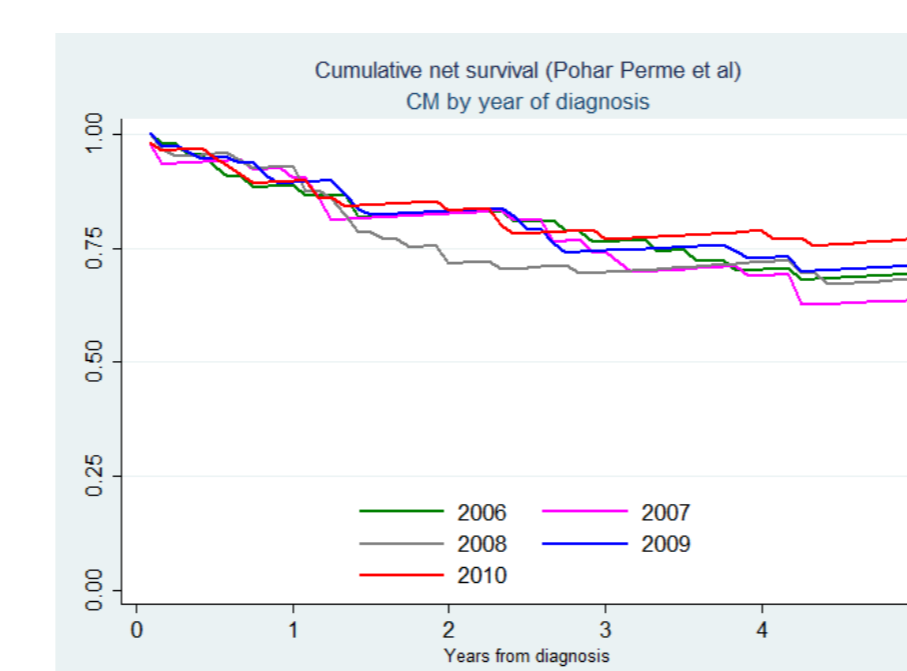


Figure 8. Net survival of CM by year, 2006-2010

Table 1. Net survival of CM, 2006-2010

CM	Sex	Net survival (%)	IC _{95%}
Age groups	0-49	M 0.78	0.61-0.88
		F 0.88	0.70-0.95
	50-69	M 0.72	0.53-0.85
		F 0.73	0.59-0.82
	+70	M 0.39	0.18-0.59
		F 0.69	0.38-0.87
Anatomical location	Head & Neck	M 0.52	0.21-0.76
		F 0.89	0.35-0.98
	Trunk	M 0.70	0.52-0.82
		F 0.72	0.55-0.84
	Upper limbs	M 0.59	0.27-0.81
		F 0.79	0.47-0.93
Stage	Localized	M 0.80	0.56-0.92
		F 0.96	0.64-0.99
	Advanced	M 0.53	0.38-0.66
		F 0.58	0.42-0.72
Milieu	Urban	M 0.67	0.53-0.77
		F 0.77	0.65-0.85
	Rural	M 0.24	0.06-0.49
		F 0.59	0.33-0.77
Histology	Nodular	-	0.63
	Superficial	-	0.83
Breslow scale	<1mm	-	0.93
	1-1.9 mm	-	0.90
	2-4 mm	-	0.67
	>4mm	-	0.60
	Year	2006	0.69
	2007	0.63	0.43-0.78
	2008	0.68	0.49-0.81
	2009	0.71	0.55-0.82
	2010	0.77	0.58-0.88

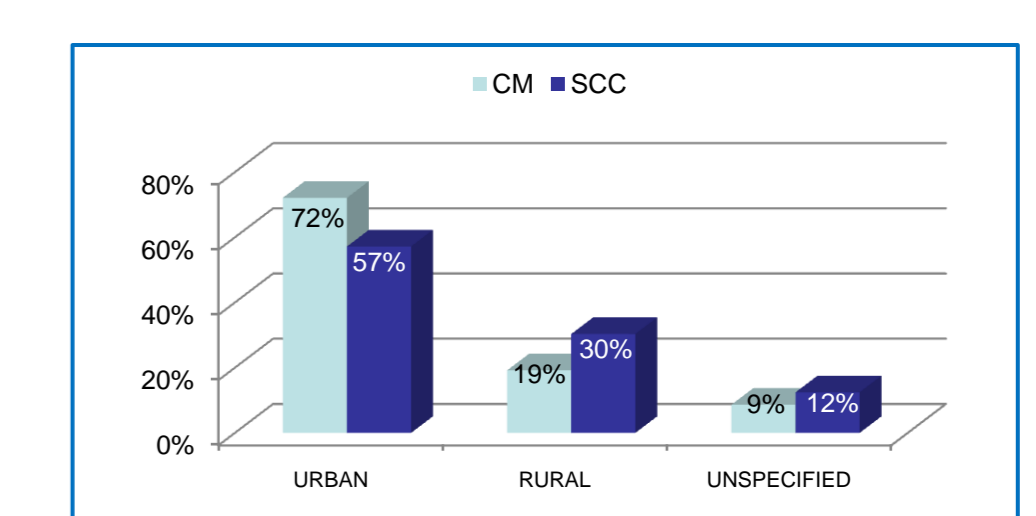


Figure 5. Repartition by milieu of CM and SCC, 1998-2011

Table 2. Net survival of SCC, 2006-2010

SCC	Sex	Net survival (%)	IC _{95%}
Age groups	0-49	M 0.89	0.65-0.97
		F 1	1-1
	50-69	M 0.95	0.75-0.99
		F 1	1-1
	+70	M 0.95	0.28-0.99
		F 1	1-1
Anatomical location	Head & Neck	M 0.98	0.04-0.99
		F 0.96	0.52-0.99
	Trunk	M 0.94	0.22-0.99
		F 1	1-1
	Upper limbs	M 0.76	0.31-0.93
		F 1	1-1
Lower limbs	M 0.90	0.01-0.99	
	F 0.99	0.00-1	
		F 0.95	0.65-0.99
Stage	Localized	M 0.57	0.19-0.82
		F 0.15	0.009-0.46
Milieu	Urban	M 0.89	0.73-0.96
		F 1	1-1
	Rural	M 0.84	0.53-0.96
	F 0.87	0.57-0.96	
Year	2006	0.92	0.45-0.99
	2007	1	1-1
	2008	0.99	0.00-1
	2009	0.99	0.00-1
	2010	0.98	0.08-0.99

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