

**Supplementary Table 1. Tumor and patient characteristics, SEER Other<sup>1</sup>(2004-10), SEER Detroit (2004-10), and PLG (1996-2006) by thickness subgroup**

Characteristic	Thickness (mm)											
	0.01-0.25mm			0.26-0.50mm			0.51-0.75mm			0.76-1.00mm		
	SEER			SEER			SEER			SEER		
	Other <sup>1</sup>	Detroit	PLG	Other <sup>1</sup>	Detroit	PLG	Other <sup>1</sup>	Detroit	PLG	Other <sup>1</sup>	Detroit	PLG
n=10,911	n=447	n=197	n=21,926	n=832	n=545	n=11,633	n=425	n=343	n=7,385	n=251	n=230	
%			%			%			%			
<b>Level</b>												
II	71.2	69.4	94.4	66.0	58.3	63.1	27.9	19.8	20.7	9.3	4.8	3.9
III	9.4	8.3	4.1	21.9	31.0	31.0	47.1	48.9	49.6	42.8	34.7	44.8
IV & V	10.0	13.9	1.5	4.4	6.1	5.9	17.2	27.1	29.7	39.9	56.2	50.9
Localized NOS	8.2	8.1	---	7.1	4.6	---	7.1	4.2	---	7.0	4.0	---
Unknown	1.2	0.5	0.0	0.7	0.0	0.0	0.8	0.0	0.0	1.1	.4	0.0
<b>Ulceration</b>												
Not Present	94.6	95.1	100.0	97.8	96.9	99.5	96.5	94.6	99.7	92.8	95.4	96.1
Present	5.4	4.9	0.0	2.2	3.2	0.5	3.5	5.4	0.3	7.2	4.6	3.9

<sup>1</sup>Seer Other registries include Seattle, Metropolitan Atlanta, Hawaii, Los Angeles, San Francisco-Oakland, Utah, Iowa, Greater California, Kentucky, New Jersey, San Jose/Monterey, Connecticut, Greater Georgia, New Mexico and Louisiana.

Abbreviations: SEER, Surveillance, Epidemiology and End Results; PLG, Pigmented Lesion Group, NOS, not otherwise stated.

**Supplementary Table 2. Thickness Coding Errors Among 1,955 Thin Melanomas**

	Thickness									
	0.01-0.25mm		0.26-0.50mm		0.51-0.75mm		0.76-1.00mm		All Thin	
	n	%	n	%	n	%	n	%	n	%
Chart not found	15	3.4	11	1.3	11	2.6	7	2.8	44	2.3
Correct	318	71.1	790	95.0	389	91.5	224	89.2	1721	88.0
Error	114	25.5	31	3.7	25	5.9	20	8.0	190	9.7
<b>Type of Error</b>	n=114		n=31		n=25		n=20		n=190	
10-fold increase	84	73.7	18	58.1	11	44.0	2	10.0	115	60.5
100-fold increase	12	10.5	0	0.0	0	0.0	0	0.0	12	6.3
0.1-fold decrease	1	0.9	1	3.2	0	0.0	0	0.0	2	1.1
Other	17	14.9	12	38.7	14	56.0	18	90.0	61	32.1

**Supplementary Table 3. Reclassification after correction (n=1,955)**

	Pre-Review Thickness			
	0.01-0.25mm	0.26-0.50mm	0.51-0.75mm	0.76-1.00mm
	n=447	n=832	n=425	n=251
	%			
<b>Post-Review Thickness</b>				
0.01-0.25mm	74.9	0.2	0.0	0.4
0.26-0.50mm	6.7	95.8	0.7	0.8
0.51-0.75mm	1.8	0.4	92.9	0.4
0.76-1.00mm	2.9	0.0	0.5	92.8
1.01-9.80mm	10.3	2.3	3.3	2.8
Chart not found	3.4	1.3	2.6	2.8

**Supplementary Table 4. SEER cases**

SEER Cohort	SEER		SEER		Detroit SEER	
	1988-2003		2004-2010		2004-2010	
Malignant cutaneous melanomas <sup>1</sup>	112,589	Tumors	123,108	Tumors	4,548	Tumors
Only 1 primary melanoma	75,794	Patients	84,820	Patients	3,186	Patients
Not diagnosed at autopsy	75,577	Patients	84,581	Patients	3,178	Patients
No metastasis at diagnosis	68,189	Patients	77,566	Patients	2,987	Patients
Thickness not missing	60,942	Patients	72,619	Patients	2,728	Patients
16 SEER registries <sup>2</sup>	60,857	Patients	72,491	Patients	---	Patients
0.01-1.00mm	42,795	Patients	51,855	Patients	1,955	Patients
0.01-0.25mm	8,023	Patients	10,911	Patients	447	Patients
Survival Time > 0	60,201	Patients	69,927	Patients	---	Patients
0.01-1.00mm	42,248	Patients	49,726	Patients	1,898	Patients
0.01-0.25mm	7,911	Patients	10,388	Patients	432	Patients

Abbreviations: SEER, Surveillance, Epidemiology and End Results.

<sup>1</sup>International Classification of Diseases for Oncology (ICD-O) codes for melanoma histological types: ICD-O-3 = 8720-8799. A case was included only if the ICD-O code indicated a malignant behavior type (behavior code= 3) and the case had a primary site of skin (Primary site = 440-449).

<sup>2</sup>The two excluded SEER registries reported only 9 and 76 melanoma patients.