

## Supplementary data

Table 1A. Proportion of cTx and cNx registries according to age group and study period.		Study period				Difference oldest and earliest period
		1989- 2003	2004- 2008	2009- 2013	2014- 2018	
Age: <50 years	cTx	60,1%	39,3%	26,2%	17,6%	-42,5%
	cNx	32,1%	19,2%	8,1%	8,2%	-23,9%
Age: 50-74 years	cTx	61,6%	40,0%	28,2%	16,0%	-45,5%
	cNx	34,8%	17,3%	9,9%	6,1%	-28,7%
Age: ≥75 years	cTx	77,8%	60,7%	48,3%	29,1%	-48,8%
	cNx	59,3%	36,2%	22,6%	15,6%	-43,7%

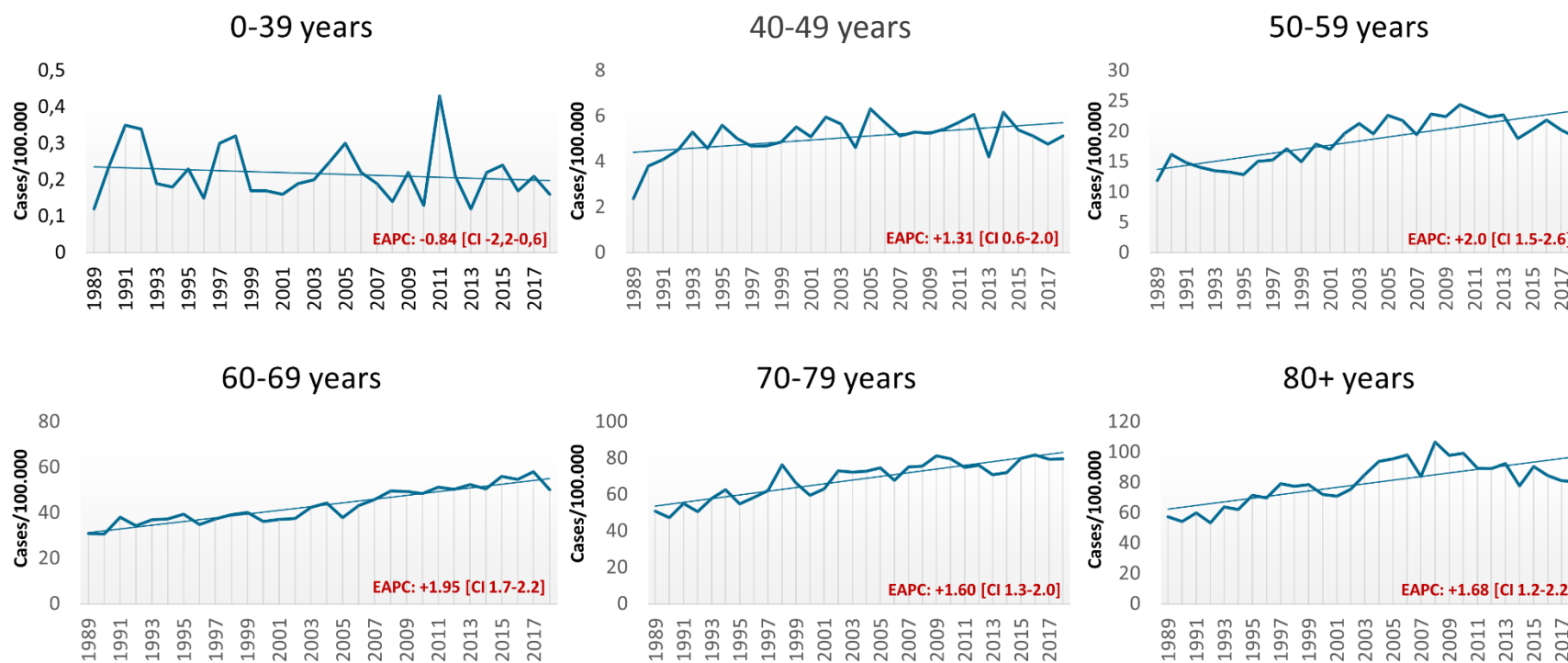
Table 1B. Proportion of cTx and cNx registries according to stage and study period.		Study period				Difference oldest and earliest period
		1989- 2003	2004- 2008	2009- 2013	2014- 2018	
Early-stage	cTx	0%	0%	0%	0%	0%
	cNx	0%	0%	0%	0%	0%
Potentially curable	cTx	63,5%	16,1%	12,3%	8,1%	-55,4%
	cNx	63,2%	15,4%	11,9%	9,6%	-53,6%
Palliative	cTx	44,2%	20,5%	21,1%	14,1%	-30,1%
	cNx	67,1%	16,7%	9,6%	6,6%	-60,4%

Supplementary Table 1. Baseline characteristics of study population according to diagnostic periods.											
Baseline variable	Total		1989-2003		2004-2008		2009-2013		2014-2018		
No. (% of total)											
	N	%	N	%	N	%	N	%	N	%	P-value
Age											< 0.001
18-49 years	3512	5.9	1819	7.9	590	5.6	581	4.7	522	3.8	
50-74 years	37469	63.2	14.236	61.5	6.560	62.8	7665	64.6	9008	66.0	
≥75 years	18303	30.9	7.095	30.6	3302	31.6	3779	30.7	4127	30.2	
Sex											< 0.001
Male	43625	73.2	16.574	71.6	7721	73.9	9194	74.6	10136	74.2	
Female	15959	26.8	6.576	28.4	2731	26.1	3131	25.4	3521	25.8	
Histology											< 0.001
Adenocarcinoma	41898	70.3	15408	66.6	7480	71.6	8999	73.0	10011	73.3	
SCC	16185	27.2	7055	30.5	2690	25.7	3085	25.0	3355	24.6	
Carcinoma NOS	1501	2.5	687	3.0	282	2.7	241	2.0	291	2.1	
Location of tumor											< 0.001
Cervical esophagus	685	1.1	388	1.7	116	1.1	100	0.8	81	0.6	
Upper third	2527	4.2	947	4.1	429	4.1	524	4.3	627	4.6	
Middle third	7744	13.0	3241	14.0	1270	12.2	1477	12.0	1756	12.9	
Lower third	29970	50.3	9060	39.1	5569	53.3	7096	57.6	8245	60.4	
Cardia	15483	26.0	8134	35.1	2585	24.7	2507	20.3	2257	16.5	
Esophagus NOS	1203	2.0	404	1.7	168	1.6	221	1.8	410	3.0	
Overlapping	1972	3.3	976	4.2	315	3.0	400	3.2	281	2.1	
Tumor differentiation											< 0.001
Well (G1)	2233	3.7	924	4.0	306	2.9	356	2.9	647	4.7	
Moderate (G2)	16339	27.4	7257	31.3	2444	23.4	2423	19.7	4215	30.9	
Poor (G3)	20719	34.8	8857	38.3	3696	35.4	3803	30.9	4363	31.9	
Undiff. (G4)	211	0.4	202	0.9	7	0.1	0	0.0	2	0.0	
Unknown (Gx)	20082	33.7	5910	25.5	3999	38.3	5743	46.6	4430	32.4	
Clinical T-stage											< 0.001
cT0	22	0.0	3	0.0	1	0.0	6	0.0	12	0.1	
cT1	2491	4.2	680	2.9	465	4.4	627	5.1	719	5.3	
cT2	9072	15.2	1536	6.6	1260	12.1	2270	18.4	4006	29.3	
cT3	15302	25.7	2811	12.1	2787	26.7	4306	34.9	5398	39.5	
cT4a	565	0.9	0	0.0	0	0.0	265	2.2	300	2.2	
cT4b	4931	8.3	2741	11.8	1080	10.3	625	5.1	485	3.6	
cTx	27201	45.7	15379	66.4	4859	46.5	4226	34.3	2737	20.0	
Clinical N-stage											< 0.001
cN0	17655	29.6	5865	25.3	2751	26.3	4148	33.7	4891	35.8	
cN+	29031	48.7	9248	39.9	5575	53.3	6622	53.7	7586	55.5	
cNx	12898	21.6	8037	34.7	2126	20.3	1555	12.6	1180	8.6	
Treatment stage											< 0.001
Early stage	1417	2.4	312	1.3	251	2.4	387	3.1	467	3.4	

<b>Potentially curable</b>	35609	59.8	14228	61.5	5989	57.3	7279	59.1	8113	59.4	
<b>Palliative</b>	21896	36.7	8.206	35.4	4059	38.8	4567	37.1	5064	37.1	
<b>Unknown</b>	662	1.1	404	1.7	153	1.5	92	0.7	13	0.1	

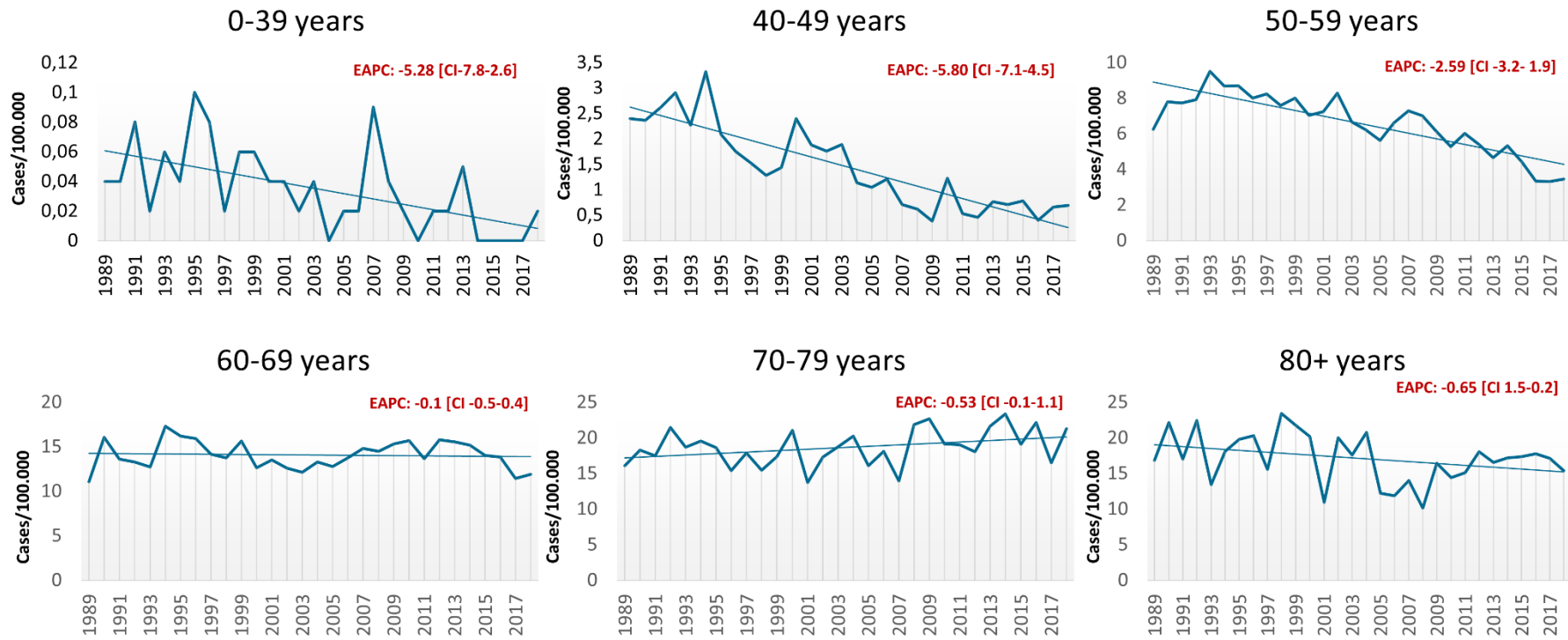
**Supplementary figure 1.** Estimated annual percent change (EAPC) in sex-specific esophageal cancer incidence rates in the Netherlands, period 1989-2018, according to smaller age groups and histology type: esophageal adenocarcinoma (2A and 2C) and squamous cell carcinoma (2B and D).

## A Incidence per age-groups (Male; EAC)



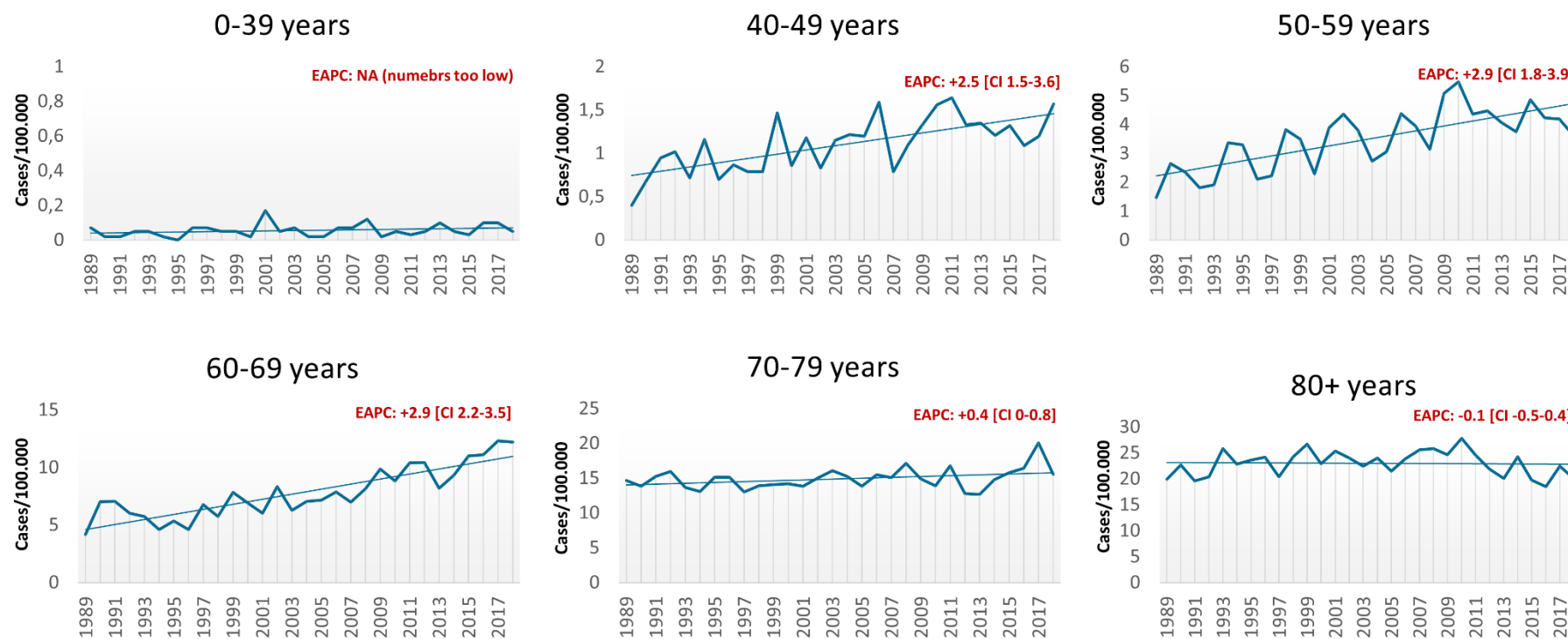
B

## Incidence per age-groups (Male; SCC)



C

## Incidence per age-groups (Female; EAC)



D

## Incidence per age-groups (Female; SCC)

