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Table 1. *Estimates (with 95% confidence intervals) of differentials in “normal” mortality and excess mortality from colorectal cancer among Norwegian men, according to register and census data for 1960-1991*

=====				
	Number of deaths	Estimates		
<u>“Normal” mortality</u>				
CONSTANT		0.0025 deaths per person per month		
EDUCATIONAL LEVEL				
7 -9 years ^a	282421	1		
10-12 years	80673	0.86*	(0.85-0.86)	
13-16	17114	0.75*	(0.74-0.77)	
17-	6521	0.64*	(0.62-0.66)	
AGE				
50-54	22402	0.24*	(0.23-0.24)	
55-59	35849	0.39*	(0.38-0.39)	
60-64	54194	0.63*	(0.62-0.63)	
65-69 ^a	75718	1		
70-74	94996	1.60*	(1.59-1.62)	
75-79	103570	2.53*	(2.51-2.55)	
PERIOD				
1960-69 ^a	111569	1		
1970-79	130520	1.03*	(1.02-1.03)	
1980-85	66898	0.99*	(0.98-1.00)	
1986-91	77742	0.95*	(0.94-0.96)	
 <u>Excess mortality</u>				
CONSTANT		0.0051 deaths pr. person pr. month ^b		
EDUCATIONAL LEVEL				
7 -9 years ^a	7089	1		
10-12 years	2555	0.95*	(0.90-1.00)	
13-16	665	0.87*	(0.80-0.96)	
17-	292	0.83*	(0.73-0.95)	
AGE				
50-54	539	0.95	(0.86-1.05)	
55-59	921	0.93	(0.86-1.01)	
60-64	1496	0.96	(0.89-1.03)	
65-69 ^a	2194	1		
70-74	2660	1.09*	(1.02-1.16)	
75-79	2791	1.19*	(1.11-1.27)	
PERIOD				
1960-69 ^a	2284	1		
1970-79	3376	0.80*	(0.75-0.85)	
1980-85	2161	0.65*	(0.61-0.70)	
1986-91	2780	0.65*	(0.60-0.69)	
SUB-SITE				
caecum, ascendence ^a	1789	1		
transverse, descendence	1412	1.09*	(1.01-1.18)	
sigmoidium	2839	1.03	(0.96-1.10)	
rectum	4561	1.27*	(1.19-1.35)	

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(Table 1 continued from previous page)

STAGE			
local ^a	2630	1	
regional	3735	2.42*	(2.26-2.59)
distant	4080	12.61*	(11.82-13.44)
unknown	156	5.24*	(4-39-6.28)
HISTOLOGICAL TYPE/GRADE			
adenocarc., well differentiated. ^a	379	1	
adenocarc., moderately diff.	1911	1.20*	(1.05-1.39)
(adeno)carc., poorly diff.	830	2.37*	(2.04-2.75)
other	7481	1.50*	(1.31-1.71)

^a Arbitrarily chosen reference category

^b This excess mortality, which is experienced for men in the reference categories, corresponds to a 5-year relative survival of 74%

* significant at the 0.05 level

Table 2. *Estimates (with 95% confidence intervals) of educational differentials in excess mortality from cancer among Norwegian men and women, by cancer site, according to register and census data for 1960-1991^a*

		WOMEN			MEN		
		Number of deaths			Number of deaths		
Educational level		Estimates			Estimates		
STOMACH ^b	7- 9	5361	1		8809	1	
	10-12	1079	1.00	(0.93-1.07)	2113	0.95*	(0.90-0.99)
	13-	135	0.96	(0.80-1.14)	408	0.94	(0.84-1.04)
					128	0.85	(0.71-1.03)
COLON / RECTUM ^c	7- 9	6923	1		7089	1	
	10-12	1871	0.87*	(0.82-0.92)	2555	0.95*	(0.90-1.00)
	13-16	328	0.92	(0.82-1.04)	665	0.87*	(0.80-0.96)
	17-	24	0.65*	(0.42-1.00)	292	0.83*	(0.73-0.95)
PANCREAS ^d	7- 9	2597	1		3105	1	
	10-12	707	1.04	(0.95-1.13)	1029	0.93*	(0.87-1.00)
	13-	119	0.78*	(0.65-0.95)	256	0.80*	(0.71-0.92)
					85	1.04	(0.83-1.30)
LUNG ^e	7- 9	2798	1		11252	1	
	10-12	961	1.04	(0.96-1.12)	3635	0.93*	(0.89-0.97)
	13-	185	1.15	(0.99-1.34)	705	0.87*	(0.81-0.94)
					254	0.82*	(0.72-0.93)
BREAST ^f	7- 9	8170	1				
	10-12	2721	0.91*	(0.86-0.96)			
	13-16	514	0.76*	(0.69-0.84)			
	17-	34	0.77	(0.52-1.12)			
CERVIX ^g	7- 9	2650	1				
	10-12	624	1.05	(0.95-1.16)			
	13-	89	0.91	(0.72-1.14)			
CORPUS UTERI ^h	7- 9	1766	1				
	10-12	507	0.96	(0.95-1.08)			
	13-	95	0.89	(0.69-1.13)			
OVARIES ⁱ	7- 9	4540	1				
	10-12	1538	1.00	(0.93-1.06)			
	13-	298	0.91	(0.81-1.03)			
PROSTATE ^j	7- 9				9310	1	
	10-12				3054	0.90*	(0.85-0.95)
	13-16				693	0.96	(0.87-1.06)
	17-				314	0.66*	(0.56-0.76)
BLADDER ^k	7- 9	1176	1		3018	1	
	10-12	252	0.82*	(0.70-0.96)	1094	0.88*	(0.80-0.97)
	13-16	47	0.73	(0.52-1.04)	215	0.79*	(0.66-0.94)
	17-				91	0.58*	(0.43-0.78)

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MALIGNANT MELANOMA ^l	7- 9	606	1		895	1	
	10-12	298	1.01	(0.85-1.20)	487	0.72*	(0.63-0.83)
	13-16	71	0.77	(0.56-1.05)	153	0.58*	(0.47-0.72)
	17-				63	0.60*	(0.44-0.83)
LEUKEMIA ^m	7- 9	2518	1		3091	1	
	10-12	773	0.94	(0.86-1.02)	1093	0.90*	(0.83-0.97)
	13-16	121	0.84	(0.69-1.02)	261	0.81*	(0.70-0.93)
	17-				117	0.72*	(0.59-0.88)

- a The models also included age, period, sub-site, stage, and histological type/grade (the latter three only in the excess mortality term).
- b The sub-site control variable had 4 categories: i) pars pylorica, canalis, angulus, antrum, corpus, ii) previously recessed due to benignant ulcer, iii) several locations, and not specified, iv) all other. The histologic control variable had 4 categories: i) well differentiated adenocarcinoma, ii) moderately well differentiated adenocarcinoma, iii) poorly differentiated adenocarcinoma or carcinoma, iv) all other
- c The sub-site control variable had 4 categories: i) caecum and colon ascendence, ii) colon transversum and colon descendence, iii) sigmoideum, iv) rectum. The few other colon subsites and the anal channel were excluded. The histologic control variable had 4 categories: i) well differentiated adenocarcinoma, ii) moderately well differentiated adenocarcinoma, iii) poorly differentiated adenocarcinoma or carcinoma, iv) all other
- d The sub-site control variable had 3 categories: i) caput (head), ii) pancreas not specified, iii) all other. The histologic control variable had 4 categories: i) well differentiated adenocarcinoma, ii) moderately well differentiated adenocarcinoma, iii) poorly differentiated adenocarcinoma or carcinoma, iv) all other
- e Two histologic control variables were included. One of them was grade: i) well differentiated, ii) moderately well differentiated, iii) poorly differentiated, iv) all other. The other was type: i) squamous cell carcinoma, ii) small-cell carcinoma, iii) adenocarcinoma, iv) all other.
- f The histologic control variable had 4 categories, referring only to grade: i) well differentiated, ii) moderately well differentiated, iii) poorly differentiated, iv) all other
- g Two histologic control variables were included. One of them was grade: i) well differentiated, ii) moderately well differentiated, iii) poorly differentiated, iv) all other. The other was type i) adenocarcinoma, ii) squamous cell carcinoma, iii) all other
- h Two histologic control variables were included. One of them was grade: i) well differentiated, ii) moderately well differentiated, iii) poorly differentiated, iv) all other. The other was type i) adenocarcinoma, ii) adenosquamous carcinoma, adenocanthoma, iii) leiomyoma, iv) all other
- i Two histologic control variables were included. One of them was grade: i) well differentiated, ii) moderately well differentiated, iii) poorly differentiated, iv) all other. The other was type i) adenocarcinoma, ii) serous cystadenocarcinoma, iii) mucinoust cystadenoma, iv) all other
- j The histologic control variable had 4 categories: i) well differentiated adenocarcinoma or carcinoma, ii) moderately well differentiated adenocarcinoma or carcinoma, iii) poorly differentiated adenocarcinoma or carcinoma, iv) all other
- k The few cancers in urethra were excluded. The histologic control variable had 4 categories: i) slightly atypical transitional and papillary tumor or (in older classification) well differentiated adenocarcinoma or squamous cell carcinoma, ii) somewhat atypical transitional or papillary tumor or (in older classification) moderately well differentiated adenocarcinoma or squamous cell carcinoma, iii) markedly atypical transitional or papillary tumor or (in older classification) poorly differentiated adenocarcinoma or squamous cell carcinoma, iv) all other
- l The sub-site control variable had 4 categories: i) head and neck, ii) body excl. breast, iii) upper-extremities/lower extremities except feet, iii) all other. The histologic control variable had 4 categories: i) malignant melanoma with superficial spread, invasive, ii) nodular malignant melanoma, iii) lentigo malignant melanoma, iv) all other
- m The histology/sub-site variable had 7 categories: i) myelomatosis, ii) chronic lymphocytic leukemia, iii) chronic myelocytic leukemia, iv) acute leukemia/blast leukemia, v) acute lymphocytic leukemia, vi) acute myelocytic leukemia, vii) all other leukemia. No control for stage was included.

* significant at the 0.05 level

Table 3. *Estimates (with 95% confidence intervals) of educational and income differentials in “normal” and excess mortality from colorectal cancer among Norwegian men, according to register and census data for 1970-1991 ^a*

	Number of deaths	Estimates from model including only education	Estimates from model including education and income
“Normal” mortality			
EDUCATIONAL LEVEL			
7 -9 years ^b	188923	1	1
10-12 years	66361	0.86* (0.85-0.87)	0.93* (0.92-0.94)
13-16	13355	0.73* (0.72-0.74)	0.86* (0.85-0.88)
17-	6521	0.64* (0.62-0.65)	0.80* (0.78-0.82)
INCOME (100 NOK 1970-value)			
0 ^b	113334		1
1-99	34342		0.69* (0.69-0.70)
100-199	20299		0.57* (0.56-0.58)
200-299	28445		0.53* (0.52-0.54)
300-399	40284		0.48* (0.48-0.49)
400	38456		0.43* (0.43-0.44)
ALTERNATIVE INCOME MEASURES, STILL WITH CONTROL FOR EDUCATION :			
INCOME - trend effect			0.85* (0.84-0.85)
INCOME - trend effect when the group with zero income was excluded			0.91* (0.91-0.92)
Excess mortality			
EDUCATIONAL LEVEL			
7 -9 years ^b	5237	1	1
10-12 years	2229	0.99 (0.93-1.05)	1.01 (0.96-1.08)
13-16	559	0.87* (0.79-0.96)	0.93 (0.83-1.03)
17-	292	0.83* (0.735-0.952)	0.90 (0.78-1.03)
INCOME (100 NOK 1970-value)			
0 ^b	2747		1
1-99	982		0.96 (0.87-1.05)
100-199	619		0.96 (0.86-1.06)
200-299	927		0.89* (0.81-0.98)
300-399	1396		0.81* (0.75-0.88)
400	1646		0.79* (0.72-0.86)
ALTERNATIVE INCOME MEASURES, STILL WITH CONTROL FOR EDUCATION :			
INCOME - trend effect			0.95* (0.94-0.97)
INCOME - trend effect when the group with zero income was excluded			0.95* (0.93-0.97)

^a Controlled also for age, year, sub-site and stage (the latter two only in the excess mortality term). The men were followed only from 1970.

^b Arbitrarily chosen reference category

* significant at the 0.05 level

Table 5. *Estimates (with 95% confidence intervals) of educational and occupational differentials in “normal” and excess mortality from colorectal cancer among Norwegian men, according to register and census data for 1960-1991^a*

	Number of deaths	Estimates	
“Normal” mortality			
COMBINED OCCUPATION / EDUCATION			
low education (7-12 years)			
manual (except [ⓐ]) ^b	177062	1	
non-manual (except [ⓐ])	60714	0.96*	(0.95-0.97)
[ⓐ] : hotel and restaurant workers, ship officers, deck and engine-room crew	11956	1.24*	(1.22-1.26)
farmer	43785	0.78*	(0.77-0.79)
fisherman	13089	1.07*	(1.05-1.08)
no occupation recorded	56488	1.36*	(1.35-1.38)
medium education (13-16)			
(largely) manual ^c	1899	0.91*	(0.87-0.95)
non-manual, low level	2560	0.84*	(0.81-0.88)
non-manual, high level, (except teacher)	8856	0.75*	(0.74-0.77)
teacher	2853	0.69*	(0.67-0.72)
high education (17 or more)			
teacher	994	0.59*	(0.55-0.63)
physician	846	0.72*	(0.67-0.77)
others	4593	0.66*	(0.64-0.68)
medium or high education, no occupation recorded	1034	1.23*	(1.16-1.31)
Excess mortality			
COMBINED OCCUPATION / EDUCATION			
low education (7-12 years)			
manual (except [ⓐ]) ^b	4975	1	
non-manual (except [ⓐ])	1963	0.90*	(0.85-0.96)
[ⓐ] : hotel and restaurant workers, ship officers, deck and engine-room crew	298	0.94	(0.82-1.07)
farmer	1146	1.07	(0.99-1.05)
fisherman	250	0.89	(0.77-1.04)
no occupation recorded	1012	1.09	(0.99-1.20)
medium education (13-16)			
(largely) manual ^c	55	0.68*	(0.49-0.93)
non-manual, low level	92	0.92	(0.73-1.17)
non-manual, high level, (except teacher)	396	0.86*	(0.77-0.97)
teacher	94	0.84	(0.67-1.06)
high education (17 or more)			
teacher	43	0.98	(0.70-1.36)
physician	36	0.76	(0.52-1.13)
other groups	213	0.80*	(0.69-0.94)
medium or high education, no occupation recorded	28	1.34	(0.86-2.11)

^a Model included also age, year, sub-site and stage (the latter two only in the excess mortality term).

^b Arbitrarily chosen reference category

^c Included also the following small groups: farmers and fishermen, ship officers (who are usually reckoned as non-manual workers), and hotel and restaurant workers (also usually reckoned as non-manual workers).

* significant at the 0.05 level

Table 4. *Estimates of educational and income differentials in excess mortality from cancer among Norwegian men, by cancer site, according to register and census data for 1970-1991^a*

	STO- MACH	COLO- RECTAL	PAN- CREAS	LUNG	PROS- TATE	BLAD- DER	MAL. MEL.	LEUKE- MIA
Model including only education								
EDUCATIONAL LEVEL								
7 -9 years ^b	1	1	1	1	1	1	1	1
10-12 years	0.94*	0.99	0.91*	0.91*	0.90*	0.83*	0.74*	0.90*
13-16	0.98	0.87*	0.75*	0.87*	0.95	0.76*	0.60*	0.80*
17-	0.92	0.83*	1.02	0.82*	0.66*	0.61*	0.57*	0.77*
Model including education and income								
EDUCATIONAL LEVEL								
7 -9 years ^b	1	1	1	1	1	1	1	1
10-12 years	0.95	1.01	0.92*	0.93*	0.92*	0.85*	0.78*	0.91*
13-16	1.00	0.93	0.78*	0.92	0.99	0.82	0.67*	0.81*
17-	0.94	0.90	1.06	0.88	0.71*	0.69*	0.65*	0.79*
INCOME (100 NOK 1970-value)								
0 ^b	1	1	1	1	1	1	1	1
1-99	0.90*	0.96	0.99	0.86*	0.86*	0.76*	0.59*	0.96
100-199	0.89*	0.96	0.81*	0.90*	0.95	1.00	1.32	0.82*
200-299	0.89*	0.89*	1.00	0.91*	0.86*	0.74*	1.15	0.88
300-399	0.84*	0.81*	1.00	0.83*	0.80*	0.79*	0.89	0.88
400	0.85*	0.79*	0.91	0.78*	0.80*	0.72*	0.78	0.88
INCOME - trend effect	0.97*	0.95*	0.99	0.96*	0.95*	0.94*	0.97	0.98*
INCOME - trend effect when the group with zero income was excluded	0.97*	0.95*	1.01	0.97*	0.97*	0.97	0.98	0.98

^a Model included also age, year, sub-site and stage (the latter two only in the excess mortality term). The men were followed only from 1970.

^b Arbitrarily chosen reference category

* significant at the 0.05 level

Table 6. *Estimates of educational and occupational differentials in excess mortality from cancer among Norwegian men, by cancer site, according to register and census data for 1960-1991*^a

	STO- MACH	COLO- RECTAL	PAN- CREAS	LUNG	PROS- TATE	BLAD- DER	MAL. MEL.	LEUKE- MIA
COMBINED OCCUPATION / EDUCATION								
low education (7-12 years)								
manual (except ♂) ^b	1	1	1	1	1	1	1	1
non-manual (except ♂)	0.97	0.90*	1.08*	0.96*	0.93*	0.95	0.76*	0.94
♂: hotel and restaurant workers, ship officers, deck and engine-room crew	0.95	0.94	1.46*	0.92*	1.03	1.02	1.16	1.02
farmer	1.02	1.07	1.03	1.08*	1.04	1.11	0.98	1.01
fisherman	1.03	0.89	1.29*	0.97	1.01	0.91	0.52	1.10
no occupation recorded	1.12*	1.09	1.04	1.18*	1.16*	1.09	1.12	1.12
medium education (13-16)								
(largely) manual ^c	1.16	0.68*	1.26	1.15	1.19	0.55	0.81	0.94
non-manual, low level	1.07	0.92	1.19	0.95	1.03	1.08	0.53	0.90
non-manual, high level, (except teacher)	1.02	0.86*	0.98	0.84*	0.93	0.81	0.65*	0.76*
teacher	0.72*	0.84	0.46*	0.93	1.09	0.91	0.77	0.84
high education (17 or more)								
teacher	0.63	0.98	0.53*	0.90	0.87	0.60	(0.84)	0.96
physician	0.83	0.76	1.29	0.73	0.46*	0.49	(0.06)	0.75
other groups	1.02	0.80*	1.39*	0.85*	0.69*	0.68*	0.67	0.72*
medium or high education, no occupation recorded	1.55	1.34	(2.59)	0.68	0.80	1.35	(1.13)	1.86*

^a Model included also age, year, sub-site and stage (the latter two only in the excess mortality term).

^b Arbitrarily chosen reference category

^c Included also the following small groups: farmers and fishermen, ship officers (who are usually reckoned as non-manual workers), and hotel and restaurant workers (also usually reckoned as non-manual workers).

* significant at the 0.05 level

() estimates based on groups with less than 10 deaths

Table 7. *Estimates (with 95% confidence intervals) of educational and occupational differentials in excess mortality from cancer among Norwegian men, according to register and census data for 1960-1991^a*

=====			
	Number of deaths	Estimates	
COMBINED OCCUPATION / EDUCATION			
low education (7-12 years)			
manual (except ♂) ^b	30403	1	
non-manual (except ♂)	10572	0.95*	(0.93-0.97)
♂: hotel and restaurant workers, ship officers, deck and engine-room crew	2018	0.99	(0.95-1.05)
farmer	6872	1.04*	(1.00-1.07)
fisherman	2089	1.02	(0.97-1.07)
no occupation recorded	6696	1.13*	(1.09-1.17)
medium education (13-16)			
(largely) manual ^c	372	1.25*	(1.10-1.41)
non-manual, low level	442	1.13*	(1.01-1.27)
non-manual, high level, (except teacher) ²	1695	1	
teacher	500	0.95	(0.85-1.06)
high education (17 or more)			
teacher	188	0.86	(0.72-1.04)
physician	151	0.79*	(0.65-0.97)
other groups ²	900	1	

^a One model was estimated for all cancers, and stratified by educational level. The model included age, year, site and stage (the latter two only in the excess mortality term).

^b Arbitrarily chosen reference category

^c Included also the following small groups: farmers and fishermen, ship officers (who are usually reckoned as non-manual workers), and hotel and restaurant workers (also usually reckoned as non-manual workers).

* significant at the 0.05 level