Appendix B Studies reviewed in revising relative risk estimates

This appendix lists the studies reviewed in revising the aetiological fractions for alcohol and female breast cancer, stroke and fall injuries.

Risk-ratio estimates were also revised for alcohol and road injuries, tobacco and peptic ulcer, and illicit drugs and road injuries. However, each of these was based on only a small number of studies which were listed in the relevant sections of Chapters 3 and 5. Recent research results do not support a causal relationship between smoking and cervical cancer, so no new relative risk estimate was calculated.

Table B.1: Studies used by English et al. to revise aetiological fractions for female breast cancer attributable to alcohol

Reference	Age	Cases[a]	Outcome	Country	Subjects[b]	Adjustments[c]	Study type[d]
Chu et al. 1989	20–54	I	Breast cancer	US	3,217/2,945	Age, T	C-C
Ewertz 1991	<70	I	Breast cancer	Denmark	1,486/1,336	Age	C-C
Ferraroni et al. 1991	30–65	I	Breast cancer	Italy	214/215	Age	C-C
Franceschi et al. 1991	<75	I	Breast cancer	Italy	132/499	Age	C-C
Harvey et al. 1987	All	I	Breast cancer	US	1,524/1,896	Age	C-C
Hiatt & Bawol 1984	15+	I	Breast cancer	US	838/838	Age, T	Coh
Hiatt et al. 1988		I	Breast cancer	US	303/69,303	Age, T	Coh
La Vecchia et al. 1989	23–74	I	Breast cancer	Italy	2,402/2,020	Age, T	C-C
La Vecchia et al. 1985	26–74	I	Breast cancer	Italy	437/437	Age, T	C-C
Le et al. 1984		I	Breast cancer	France	500/945	Age	C-C
Nasca et al. 1990	20–79	I	Breast cancer	US	1,617/1,617	Age	C-C
O'Connell et al. 1987		I	Breast cancer	US	275/1,519	Age, T	C-C
Rosenberg et al. 1990	<70	I	Breast cancer	Canada	607/1,214	Age, T	C-C
Schatzkin et al. 1987	25–74	I	Breast cancer	US	121/7,188	Age	Coh
	31–64	I	Breast cancer	US	143/2,636	Age, T	Coh
Simon et al. 1991	21+	I	Breast cancer	US	87/87	Age, T	Coh
Toniolo et al. 1989	<75	I	Breast cancer	Italy	250/499	Age	C-C
Webster et al. 1983	20–54	I	Breast cancer	US	1,226/1,279	Age	C-C
Adami et al. 1988	<45	I	Breast cancer	Sweden	422/527	Age, T	C-C

(continued)

Table B.1 (continued): Studies used by English et al. to revise aetiological fractions for female breast cancer attributable to alcohol

Reference	Age	Cases[a]	Outcome	Country	Subjects[b]	Adjustments[c]	Study type[d]
Friedenreich et al. 1993	Pre-menopausal	I	Breast cancer	Canada	284/691	Age, T	C-C
Harris et al. 1992	Pre-menopausal	I	Breast cancer	US	192/184	Age, T	C-C
Martin Moreno et al. 1993	Pre-menopausal	I	Breast cancer	Spain	247/356	Age	C-C
Meara et al. 1989	25–44	I	Breast cancer	UK	351/351 (hosp. study)	T	C-C
Richardson et al. 1989	25–45	I	Breast cancer	France	78/140		C-C
Rohan & McMichael 1988	Pre-menopausal	I	Breast cancer	Australia	146/132	Age, T	C-C
Sneyd et al. 1991	25–34	I	Breast cancer	NZ	64/423	Age, T	C-C
	35–44	I	Breast cancer	NZ	323/804	Age, T	C-C
Willett et al. 1987	34–39	I	Breast cancer	US	71/20,230	Age	Coh
	40–44	I	Breast cancer	US	92/18,175	Age	Coh
van't Veer et al. 1989	25–44	I	Breast cancer	Netherlands	47/89	Age, T	C-C
Friedenreich et al. 1993	Post-menopausal	I	Breast cancer	Canada	284/691	Age, T	C-C
Gapstur et al. 1992	55–69	I	Breast cancer	US	459/37,059	Age, T	Coh
Garfinkel et al. 1988	45+	D	Breast cancer	US	2,933/581,321	Age, T	Coh
Harris et al. 1992	Post-menopausal	I	Breast cancer	US	412/336	Age, T	C-C
Martin Moreno et al. 1993	Post-menopausal	I	Breast cancer	Spain	515/632	Age	C-C
Meara et al. 1989	45–69	I	Breast cancer	UK	647/647 (hosp. study)	T	C-C
Meara et al. 1989	45–69	I	Breast cancer	UK	647/647 (screening study)	T	C-C
Richardson et al. 1989	46–55	I	Breast cancer	France	126/165		C-C
Richardson et al. 1989	56–65	I	Breast cancer	France	145/154		C-C

(Continued)

Table B.1 (continued): Studies used by English et al. to revise aetiological fractions for female breast cancer attributable to alcohol

Reference	Age	Cases[(b)]	Outcome	Country	Subjects[(b)]	Adjustments[(c)]	Study Type[(d)]
Rohan & McMichael 1988	Post-menopausal	I	Breast cancer	Australia	281/288	Age, T	C-C
Sneyd et al. 1991	45–54	I	Breast cancer	NZ	501/649	Age, T	C-C
Willett et al. 1987	45–49	I	Breast cancer	US	153/18,661	Age	Coh
	50–54	I	Breast cancer	US	146/17,949	Age	Coh
	55–59	I	Breast cancer	US	139/14,523	Age	Coh
van't Veer et al. 1989	55–64	I	Breast cancer	Netherlands	73/79	Age, T	C-C

(a) Cases are classified as incident cases of breast cancer (I) or deaths from breast cancer (D).

(b) Numbers of subjects are presented as m/n, where m is the number of cases and n is the number of controls in a case-control study or the total number of subjects in a cohort study.

(c) This column shows whether results are adjusted for potential confounding by age or tobacco consumption (T).

(d) Studies are classified as either case-control studies (C-C) or cohort studies (Coh).

Table B.2: Studies used by English et al. and relative effect measures for aetiological fractions for female breast cancer and alcohol

Reference	Unit[a]	Level 1[b]	RR	95% CI	Level 2[b]	RR	95% CI	Level 3[b]	RR	95% CI	Level 4[b]	RR	95% CI	Level 5[b]	RR	95% CI	Level 6[b]	RR	95% CI
Chu et al. 1989	d/w	<1	1.00	0.80–1.10	1–3	1.00	0.80–1.20	4–7	0.90	0.70–1.10	8–14	1.10	0.90–1.30	15–21	1.00	0.80–1.40	22+	1.20	0.90–1.60
Ewertz 1991	g/d	1–23	0.74	0.47–1.15	24+	0.63	0.34–1.17												
Ferraroni et al. 1991	g/d	0.1–5.3	1.10	0.50–2.20	5.3–13.1	1.5	0.80–2.80	13.1–24.3	1.20	0.60–2.40	24.35+	2.10	1.10–3.90						
Franceschi et al. 1991	d/d	1	1.30	0.70–2.60	2	1.40	0.80–2.70	3+	1.70	0.90–3.20									
Harvey et al. 1987	g/w	1–13	1.12	0.90–1.30	14–91	1.06	0.90–1.30	92–182	1.31	1.00–1.70	183+	1.66	1.20–2.40						
Hiatt & Bawol 1984	d/d	≤2	1.19	1.02–1.38	3–5	1.67	1.28–2.18	6+	1.50	0.86–2.62									
Hiatt et al. 1988	d/d	1–2	1.50	0.98–2.29	3–5	1.47	0.78–2.79	6+	3.30	1.18–9.28									
La Vecchia et al. 1989	d/d	<1	1.30	1.10–1.60	1–2	1.30	1.10–1.50	2–3	1.40	1.20–2.70	>3	2.20	1.70–2.70						
La Vecchia et al. 1985	d/d	≤3	1.25	0.91–1.73	>3	2.10	1.12–3.95												
Le et al. 1984	g/w	1–79	1.00	0.70–1.40	80–159	1.40	1.00–2.00	160–239	1.50	1.00–2.10	240+	1.20	0.70–2.00						
Nasca et al. 1990	g/d	<1.4	1.07	0.83–1.36	1.5–4.9	1.04	0.78–1.39	5–14.9	1.10	0.87–1.39	15+	1.26	0.98–1.64						
O'Connell et al. 1987	d/w	1+	1.45	0.99–2.12															
Rosenberg et al. 1990	d/w	1–3/m	0.60	0.40–0.80	1–3	1.0	0.70–1.40	4–6	0.80	0.60–1.20	1/d	0.80	0.50–1.10	2+/d	1.00	0.70–1.50			

(continued)

Table B.2 (continued): Studies used by English et al. and relative effect measures for aetiological fractions for female breast cancer and alcohol

Reference	Unit[a]	Level 1[b]	RR	95% CI	Level 2[b]	RR	95% CI	Level 3[b]	RR	95% CI	Level 4[b]	RR	95% CI	Level 5[b]	RR	95% CI	Level 6[b]	RR	95% CI
Schatzkin et al. 1987	g/d	<1.2	1.40	0.80–2.50	1.3–4.9	1.60	0.90–3.10	5+	2.0	1.10–3.70									
	g/d	<1.4	1.00	0.60–1.50	1.5–4.9	0.70	0.40–1.10	5+	0.60	0.40–1.00									
Simon et al. 1991	d/d	<1	1.08	0.64–1.82	1<2	1.23	0.49–3.10	2+	1.12	0.25–5.01									
Toniolo et al. 1989	g/d	1–10	0.90	0.50–1.50	11–20	1.20	0.80–1.90	21–30	1.10	0.70–1.80	31–40	1.30	0.70–2.70	41+	1.90	1.10–3.30			
Webster et al. 1983	g/w	<50	0.90	0.70–1.20	50–149	0.90	0.70–1.20	150–199	1.10	0.70–1.70	200–249	1.10	0.70–1.90	250–299	1.00	0.50–1.70	300+	1.10	0.60–1.80
Adami et al. 1988	g/d	0.1–1.2	1.10	0.50–2.40	1.30–4.90	0.80	0.60–1.20	5–14.9	0.60	0.40–0.90	15+	0.50	0.20–1.30						
Friedenreich et al. 1993	g/d	1–9	1.11	0.71–1.71	10–19	1.37	0.79–2.30	20–29	1.51	0.80–2.86	30+	1.88	0.96–3.66						
Harris et al. 1992	g/d	1–15	1.20	0.70–1.90	16+	0.70	0.30–1.50												
Martin Moreno et al. 1993	g/d	<3.01	1.10	0.60–1.80	3.01–9.20	1.50	0.90–2.50	9.21–23.0	1.30	0.70–2.20	>23	1.60	0.90–2.80						
Meara et al. 1989	g/d	3–12	1.20	0.70–2.10	13–27	0.70	0.30–1.40	28+	0.70	0.30–1.70									
Richardson et al. 1989	d/w	1–7	2.00	1.00–3.80	>7	1.60	0.80–3.20												
Rohan & McMichael 1988	g/d	<2.51	0.77	0.28–2.12	2.51–9.30	1.64	0.62–4.36	>9.3	2.33	0.85–6.37									

(continued)

Table B.2 (continued): Studies used by English et al. and relative effect measures for aetiological fractions for female breast cancer and alcohol

Reference	Unit[a]	Level 1[b]	RR	95% CI	Level 2[b]	RR	95% CI	Level 3[b]	RR	95% CI	Level 4[b]	RR	95% CI	Level 5[b]	RR	95% CI	Level 6[b]	RR	95% CI
Sneyd et al. 1991	d/w	1–7	0.66	0.37–1.19	8+	1.10	0.36–3.34												
	d/w	1–7	0.67	0.50–0.89	8+	0.77	0.49–1.21												
Willett et al. 1987	g/d	<1.5	1.63	0.82–3.25	1.5–4.9	1.06	0.54–2.08	5–14.9	1.27	0.65–2.50	15+	1.35	0.59–3.08						
	g/d	<1.5	1.14	0.57–2.28	1.5–4.9	0.98	0.53–1.82	5–14.9	0.81	0.41–1.59	15+	2.35	1.35–4.08						
van't Veer et al. 1989	g/d	1–4	0.30	0.00–1.70	5–14	0.50	0.10–2.90	15–29	0.80	0.10–4.90	30+	2.30	0.30–19.1						
Friedenreich et al. 1993	g/d	1–9	1.02	0.72–1.43	10–19	0.77	0.47–1.26	20–29	1.16	0.64–2.12	30+	0.86	0.46–1.59						
Gapstur et al. 1992	g/d	<1.5	1.18	0.86–1.61	1.5–4.9	1.20	0.93–1.56	5–14.9	1.25	0.93–1.68	15+	1.46	1.04–2.04						
Garfinkel et al. 1988	d/d	<1	0.96	0.82–1.13	1	1.18	1.03–1.36	2	1.06	0.86–1.30	3	1.28	0.95–1.74	4	1.36	0.90–2.07	5	2.10	1.18–3.27
Harris et al. 1992	g/d	1–15	1.1	0.80–1.60	16+	0.80	0.50–1.30												
Martin Moreno et al. 1993	g/d	<1.81	1.2	0.80–1.70	1.81–6.60	1.60	1.10–2.40	6.61–18.8	1.80	1.30–2.70	>18.8	1.90	1.30–2.80						
Meara et al. 1989	g/d	<3	1.20	0.40–3.60	3–12	1.10	0.30–3.50	13–27	0.70	0.20–2.90	28+	1.20	0.10–9.40						
Meara et al. 1989	g/d	<3	1.20	0.40–3.60	3–12	1.10	0.30–3.50	13–27	0.70	0.20–2.90	28+	1.20	0.10–9.40						
Richardson et al. 1989	d/w	1–7	1.30	0.70–2.20	>7	3.30	1.80–5.60												

(continued)

Table B.2 (continued): Studies used by English et al. and relative effect measures for aetiological fractions for female breast cancer and alcohol

Reference	Unit[a]	Level 1[b]	RR	95% CI	Level 2[b]	RR	95% CI	Level 3[b]	RR	95% CI	Level 4[b]	RR	95% CI	Level 5[b]	RR	95% CI	Level 6[b]	RR	95% CI
Richardson et al. 1989	d/w	1–7	2.40	1.40–4.10	>7	3.20	1.70–6.10												
Rohan & McMichael 1988	g/d	<2.51	0.84	0.46–1.53	2.51–9.30	1.12	0.59–2.15	>9.30	1.27	0.69–2.33									
Sneyd et al. 1991	d/w	1–7	0.96	0.74–1.24	8+	1.20	0.77–1.87												
Willett et al. 1987	g/d	<1.5	0.83	0.45–1.54	1.5–4.9	0.61	0.34–1.08	5–14.9	1.58	1.03–2.41	15+	1.88	1.22–2.90						
	g/d	<1.5	1.00	0.56–1.80	1.5–4.9	0.88	0.53–1.47	5–14.9	1.63	1.07–2.49	15+	1.14	0.69–1.87						
	g/d	<1.5	0.78	0.41–1.48	1.5–4.9	1.23	0.77.1.98	5–14.9	0.66	0.37–1.17	15+	1.48	0.93–2.35						
van't Veer et al. 1989	g/d	1–4	0.80	0.30–2.30	5–14	1.00	0.03–3.60	15–29	1.10	0.30–4.30	30+	0.90	0.20–4.50						

(a) Unit of measurement used in the study—drinks per week (d/w), grams per day (g/d) or drinks per day (d/d).

(b) Studies used different classification schemes for levels of alcohol consumption. These columns show the definitions of these levels for each study, from the lowest (level 1) to the highest (level 6).

Table B.3: Studies reviewed to revise aetiological fractions for female breast cancer attributable to alcohol

Reference	Age	Cases[(a)]	Outcome	Country	Subjects[(b)]	Adjustments[(c)]	Study type[(d)]
Ferraroni et al. 1998	23–74	I	Breast cancer	Italy	2,569/2,588	Age, P,AR,AB,AM, BMI, F	C-C
Bowlin et al. 1997	20–79	I	Breast cancer	US	1,214/1,214	Age,R,I,MS,F,AM,P,A	C-C
Royo Bordonada et al. 1997	50–74	I	Breast cancer	Europe	315/364	Age,BMI,T,AM,P,HRT,+	C-C
Swanson et al. 1997	<45	I	Breast cancer	US	1,645/1,497	Age,R,P,OCP,	C-C
Thun et al. 1997	30–104	D	Breast cancer	US	691/230,552	Adjusted	Coh (prospective)
Haile et al. 1996	<50	I	Bilateral breast cancer	US	144/232	Age,E,AM,AB,HRT,OCP, +	C-C
Boice et al. 1995	>30	I	Breast cancer	US	528/2,640	Age,AM,AB,P,+	C-C
Freudenheim et al. 1995	40–85	I	Breast cancer	US	740/810	Age,E,BMI,MS,AM, +	C-C
Holmberg et al. 1995	40–70	I	Breast cancer	Sweden	380/525	F,P,AB,E,BMI	C-C
Longnecker et al. 1995a	<75	I	Breast cancer	US	6,888/9,424	Age,AB,P,BMI,AM,E+	C-C
Longnecker et al. 1995b	55–64	I	Breast cancer	US	1,431/1,431	Age matched,AM,P,BMI,+	C-C
van den Brandt et al. 1995	55–69	I	Breast cancer	Netherlands	422/62,573	Age,AM,F,OCP,P,AB,E,+	Coh
Katsouyanni et al. 1994		I	Breast cancer	Greece	820/1,548	Age, AB,P,AM, MS,+	C-C
Nasca et al. 1994	20–79	I	Breast cancer (Estrogen receptor +)	US	1,152 (792 ER+)/1,617	Age	C-C
Begg et al. 1983		I	Breast cancer	US/Can	75/75	Age, T	C-C
Byers & Funch 1982	30–69	I	Breast cancer	US	1,314/770	Age	

(a) Cases are classified as incident cases of breast cancer (I) or deaths from breast cancer (D).

(b) Numbers of subjects are presented as m/n, where m is the number of cases and n is the number of controls in a case-control study or the total number of subjects in a cohort study.

(c) This column shows whether results are adjusted for potential confounding. Potential confounders are age, parity (P), age at first birth (AB), age at menarche (AM), body mass index (BMI), family history (F), area of residence (AR), education (E), energy intake (EI), physical activity (PA), religion (R), income (I), marital status (MS), tobacco (T), hormone replacement therapy (HRT), oral contraceptive pill (OCP), race (R), and menopausal status (MS).

(d) Studies are classified as either case-control studies (C-C) or cohort studies (Coh).

Table B.4: Risk estimates for studies reviewed to revise aetiological fractions for female breast cancer attributable to alcohol

Reference	Age	Unit[a]	Level 1[b]	RR	95% CI	Level 2[b]	RR	95% CI	Level 3[b]	RR	95% CI	Level 4[b]	RR	95% CI	Level 5[b]	RR	95% CI	Level 6[b]	RR	95% CI
Ferraroni et al. 1998	23–74	g/d	1.00–5.87	1.21	1.00–1.47	5.88–13.4	1.23	1.02–1.50	13.4–24.55	1.19	0.98–1.45	24.6–27.6	1.21	0.99–1.47	>27.60	1.41	1.17–1.71			
	Pre-men	g/d	1.00–5.87	1.45	1.06–1.97	5.88–13.4	1.12	0.80–1.55	13.4–24.55	1.55	1.10–2.18	24.6–27.6	1.47	1.04–2.08	>27.60	1.80	1.30–2.50			
	Post-men	g/d	1.00–5.87	1.01	0.79–1.30	5.88–13.4	1.23	0.97–1.56	13.4–24.55	0.98	0.77–1.25	24.6–27.6	1.03	0.81–1.30	>27.60	1.13	0.89–1.44			
Bowlin et al. 1997	20–79	g/d	>0<5	1.29	1.00–1.65	≥5	1.46	1.13–1.89												
	Pre-men	g/d	>0<5	1.26	0.71–2.22	≥5	1.54	0.87–2.74												
	Post-men	g/d	>0<5	1.32	0.97–1.80	≥5	1.51	1.09–2.08												
Thun et al. 1997	30–104	d/d	<1	1.10	0.90–1.30	1	1.20	1.00–1.60	2–3	1.50	1.20–1.90	≥4	1.00	0.70–1.40						
Boice et al. 1995	>30	d/w	<1	0.86	0.67–1.10	1–6	0.91	0.69–1.20	7–13	0.86	0.61–1.22	≥14	2.12	1.06–4.27						
Holmberg et al. 1995	40–70	g/d	<=0.75	1.2	0.80–1.80	0.76–2.00	1.90	1.20–2.90	>=2.00	1.60	1.00–2.40									
	<=50	g/d	<=0.75	0.40	0.10–1.50	0.76–2.00	0.70	0.30–1.80	>=2.00	0.80	0.40–1.40									
	>50	g/d	<=0.75	1.4	0.90–2.30	0.76–2.00	2.10	1.30–3.40	>=2.00	1.80	1.10–2.90									
Longnecker et al. 1995a	<75	g/d	≤5	1.08	0.98–1.19	6–11	1.09	0.96–1.23	12–18	1.17	1.01–1.37	19–32	1.49	1.24–1.79	33–45	1.95	1.42–2.66	≥46	1.96	1.43–2.67
	Pre-men	g/d	≤5	1.25	0.97–1.61	6–11	1.25	0.93–1.67	12–18	1.18	0.83–1.67	19–32	1.43	0.96–2.13	33–45	1.65	0.88–3.10	≥46	1.61	0.90–2.86
	Post-men	g/d	≤5	1.05	0.94–1.17	6–11	1.07	0.92–1.24	12–18	1.20	1.00–1.44	19–32	1.59	1.28–1.98	33–45	2.01	1.37–2.95	≥46	2.28	1.51–3.44

(continued)

Table B.4 (continued): Risk estimates for studies reviewed to revise aetiological fractions for female breast cancer attributable to alcohol

Reference	Age	Unit[a]	Level 1[b]	RR	95% CI	Level 2[b]	RR	95% CI	Level 3[b]	RR	95% CI	Level 4[b]	RR	95% CI	Level 5[b]	RR	95% CI	Level 6[b]	RR	95% CI
Longnecker et al. 1995b	55–64	d/w	>0–5	1.01	0.84–1.22	6–11	1.21	0.95–1.55	12–18	0.94	0.69–1.44	19–32	1.63	1.14–2.33	33–45	2.45	1.22–4.93	≥46	0.94	0.46–1.93
Katsouyanni et al. 1994		d/w	≤1	1.30	1.01–1.67	2–6	1.11	0.86–1.43	7–13	0.95	0.65–1.38	14–20	1.29	0.66–2.52	21–27	3.01	1.14–7.95	28+	3.79	1.05–13.7
Nasca et al. 1994																				
Oestrogen receptor +	20–79	d/d	<1.5	1.18	0.88–1.57	1.5–4.9	1.28	0.91–1.80	5.0–14.9	1.28	0.96–1.70	≥15	1.35	0.99–1.85						
Oestrogen receptor –	20–79	d/d	<1.5	0.92	0.62–1.36	1.5–4.9	1.19	0.77–1.83	5.0–14.9	0.94	0.64–1.35	≥15	1.05	0.70–1.59						
Swanson et al. 1997	<45	d/w	<1	1.35	1.10–1.70	1–2.9	1.01	0.80–1.20	3–6.9	1.03	0.80–1.30	7–13.9	1.10	0.80–1.50	≥14	1.79	1.20–2.60			
Haile et al. 1996	<50	d/w	1–3	1.20	0.60–2.30	>3	1.80	1.00–3.40												
Royo Bordonada et al. 1997	50–74	g/d	1.7	1.00	0.60–1.67	6.0	1.01	0.60–1.73	20.0	1.18	0.69–2.03									
Freudenheim et al. 1995	40–85	d/w	<1	0.90	0.65–1.25	1–4	0.85	0.61–1.18	>4<7	0.91	0.55–1.50	≥8	0.89	0.62–1.30						
van den Brandt et al. 1995	55–69	g/d	>0<5	1.30	0.96–1.95	5–14	1.29	0.89–1.85	15–29	1.28	0.81–2.03	≥30	1.72	0.90–3.28						
Begg et al. 1983		d/w	1–7	0.90	0.80–1.10	>7	1.40	0.90–2.00												
Byers & Funch 1982	30–69	d/m	<3	1.11	0.85–1.44	3–8	1.02	0.76–1.33	9–25	1.09	0.77–1.44	26+	1.13	0.88–1.44						

(a) Unit of measurement used in the study—drinks per week (d/w), grams per day (g/d), drinks per day (d/d) or drinks per month (d/m).

(b) Studies used different classification schemes for levels of alcohol consumption. These columns present the definitions of these levels for each study, from the lowest (level 1) up to the highest (level 6).

Table B.5: Studies reviewed to revise aetiological fractions for alcohol exposure and stroke

Reference	Age	Sex	Cases[a]	Outcome	Country	Subjects[b]	Adjustments[c]	Study type[d]
Numminen et al. 1996	35–74	M+F	I	All stroke	Finland	426/157		C-C
Wannamethee & Shaper 1996	Middle age	M	I+D	All stroke	UK	216	Age	Coh (prospective)
Beghi et al. 1995	24–87	M+F	I	All stroke	Italy	200/602	Age, sex, pst stk, HT, D, T	C-C
Iso et al. 1995	40–69	M	I+D	All stroke	Japan	178	Age adjusted	Coh (prospective)
Lee et al. 1995	>65	M+F	I	All stroke	Taiwan	155	Age, T, HT,D,Chol	Coh (retrospective)
	>65	M	I	All stroke	Taiwan	91	Age, T, HT, D, Chol	Coh (retrospective)
Donahue et al. 1986	45+	M	I+D	All stroke	US	290	Age, HT, Chol, BMI, T, +	Coh (prospective)
Sacco et al. 1999	> 39	M+F	I+D	First ischaemic stroke	US	677/1,139	Matched age, sex, race	C-C
	>39	M	I+D	First ischaemic stroke	US	299/447	Age, sex, race, HT,D,IHD+	C-C
	>39	F	I+D	First ischaemic stroke	US	378/692	Age, sex, race, HT,D,IHD+	C-C
Haapaniemi et al. 1996	16–60	M+F	I	First ischaemic cerebral	Finland	535	Unadjusted	Case series
Goldberg et al. 1995	55–64	M	I+D	Thromboembolic stroke	US	184	HR, BP, S, Chol, BMI,+	Coh (prospective)
Hillbom et al. 1995	16–40	M+F	I	First ischaemic stroke	Finland	74/133	Age, sex, acuteness, +	C-C
	16–40	M	I	First ischaemic stroke	Finland	47/83	Age, sex, acuteness, +	C-C
	16–40	F	I	First ischaemic stroke	Finland	27/50	Age, sex, acuteness, +	C-C
Iso et al. 1995	40–69	M	I+D	First non-haemorrhagic stroke	Japan	104	Age adjusted	Coh (prospective)
Kiyohara et al. 1995	≥40	M+F	I	Cerebral infarction	Japan	244	Age, sex	Coh (prospective)
Lee et al. 1995	>65	M+F	I	Cerebral infarction	Taiwan	155	Age, T, HT, D, Chol	Coh (retrospective)
	>65	M	I	Cerebral infarction	Taiwan	91	Age, T, HT, D, Chol	Coh (retrospective)

(continued)

Table B.5 (continued): Studies reviewed to revise aetiological fractions for alcohol exposure and stroke

Reference	Age	Sex	Cases[a]	Outcome	Country	Subjects[b]	Adjustments[c]	Study type[d]
Donahue et al. 1986	45+	M	I+D	Thromboembolic stroke	US	190	Age, HT, Chol, BMI, T, +	Coh (prospective)
Giroud et al. 1995		M+F	I	Primary cerebral haemorrhage	France	130/130	Matched age, sex	C-C
Iso et al. 1995	40–69	M	I+D	First haemorrhagic stroke	Japan	58	Age adjusted	Coh (prospective)
Juvela et al. 1995	16–60	M+F	I+D	First intracerebral haemorrhage	Finland	156/332	Age, sex, BMI, T, HT	C-C
	16–60	M	I+D	First intracerebral haemorrhage	Finland	96/192	Age, sex, BMI, T, HT	C-C
	16–60	F	I+D	First intracerebral haemorrhage	Finland	60/140	Age, sex, BMI, T, HT	C-C
Kiyohara et al. 1995	≥40	M+F	I	Cerebral haemorrhage	Japan	60	Age, sex	Coh (prospective)
Longstreth et al. 1992	>18	M+F	I+D	Subarachnoid haemorrhage	US	149/298	Age, sex, respondent type	C-C
Donahue et al. 1986	45+	M	I+D	Total haemorrhagic stroke	US	76	Age, HT, Chol, BMI, T, +	Coh (prospective)

(a) Cases are classified as incident cases of breast cancer (I) or deaths from breast cancer (D).

(b) Numbers of subjects are presented as m/n, where m is the number of cases and n is the number of controls in a case-control study or the total number of subjects in a cohort study.

(c) This column shows whether results are adjusted for potential confounding. Potential confounders are age, sex, past stroke (Pst stk), Hypertension (HT), Diabetes (D), Tobacco use (T), Cholesterol level (Chol), body mass index (BMI), previous ischaemic heart disease (IHD) and acuteness of stroke.

(d) Studies are classified as either case-control studies (C-C), cohort studies (Coh) or case series.

Table B.6: Studies used by English et al. to revise aetiological fractions for alcohol exposure and stroke

Reference	Age	Sex	Cases[(a)]	Outcome	Country	Subjects[(b)]	Adjustments[(c)]	Study type[(d)]
Klatsky et al. 1981a	Mean (43.3)	M+F	D	All stroke	US	50/8,060		Coh
Klatsky et al. 1981b		M+F	I	All stroke	US	121/5,535		Coh
Herman et al. 1983	40–74	M+F	I	All stroke	Netherlands	132/239	Age, sex	C-C
von Arbin et al. 1985	52–96	M+F	I	All stroke	Sweden	209/209		C-C
Gill et al. 1986	20–70	M	I	All stroke	UK	143/143	T	C-C
Gill et al. 1986	20–70	F	I	All stroke	UK	87/87	T	C-C
Gordon & Doyle 1987	All (38–55)	M	D	All stroke	US	33/1,762		Coh
Oleckno 1988	15–40	M+F	I	All stroke	US	54/864	Age, sex, T	C-C
Shaper et al. 1991	40–59	M	I	All stroke	UK	110/7,735	Age, sex, T	Coh
Ben–Shlomo et al. 1992	15–69	M+F	I	All stroke	UK	115/84	Age, sex, T	C-C
Shinton et al. 1993	35–74	M	I	All stroke	UK		Age, T	C-C
Shinton et al. 1993	35–74	F	I	All stroke	UK		Age, T	C-C
Stampfer et al. 1988	34–59	F	I	Ischaemic stroke	US	76/87,526	Age, T	Coh
Gorelick et al. 1989	Middle age	M	I	Ischaemic stroke	US		Age	C-C
Gorelick et al. 1989	Middle age	F	I	Ischaemic stroke	US		Age	C-C
Henrich and Morwitz 1989	15–65	M+F	I	Ischaemic stroke	US	89/178	Age, sex	C-C
Klatsky et al. 1989		M	I	Ischaemic stroke	US	162/10,552	Age, T	Coh
Klatsky et al. 1989		F	I	Ischaemic stroke	US	130/10,552	Age, T	Coh
Gill et al. 1991	20–70	M	I	Ischaemic stroke	UK		Age, T	C-C
Gill et al. 1991	20–70	F	I	Ischaemic stroke	UK		Age, T	C-C
al-Roomi et al. 1992	35–69	M+F	I	Ischaemic stroke	Australia	91/480	Age, T, sex	C-C

(continued)

Table B.6 (continued): Studies used by English et al. to revise aetiological fractions for alcohol exposure and stroke

Reference	Age	Sex	Cases[a]	Outcome	Country	Subjects[b]	Adjustments[c]	Study type[d]
Marini et al. 1993	15–44	M+F	I	Ischaemic stroke	Italy	308/616	Age, T, sex	C-C
Palomaki & Kaste 1993	<60	M	I	Ischaemic stroke	Finland	156/153	Age, T	C-C
Rogers et al. 1993		M	I	Ischaemic stroke	UK	137/137	Age, T	C-C
Rogers et al. 1993		F	I	Ischaemic stroke	UK	172/172	Age, T	C-C
Jamrozik et al. 1994		M+F	I	Ischaemic stroke	Australia	360/518	Age, T, sex	C-C
Stampfer et al. 1988	34–59	F	I	Haemorrhagic stroke	US	35/87,526	Age, T	Coh
Klatsky et al. 1989		M+F	I	Haemorrhagic stroke	US	69/10,459	Age, T, sex	Coh
Gill et al. 1991	20–70	M	I	Haemorrhagic stroke	UK		Age, T	C-C
Gill et al. 1991	20–70	F	I	Haemorrhagic stroke	UK		Age, T	C-C
Gill et al. 1991	20–70	M	I	Intracerebral haemorrhage	UK		Age, T	C-C
Gill et al. 1991	20–70	F	I	Intracerebral haemorrhage	UK		Age, T	C-C
al-Roomi et al. 1992	35–69	M+F	I	Haemorrhagic stroke	Australia	31/480	Age, T, sex	C-C
Juvela et al. 1993	15–60	M	I	Haemorrhagic stroke	Finland	145/164	Age, T	C-C
Juvela et al. 1993	15–60	F	I	Haemorrhagic stroke	Finland	133/150	Age, T	C-C
Jamrozik et al. 1994		M+F	I	Haemorrhagic stroke	Australia	59/279	Age, T, sex	C-C

(a) Cases are classified as incident cases of breast cancer (I) or deaths from breast cancer (D).

(b) Numbers of subjects are presented as m/n, where m is the number of cases and n is the number of controls in a case-control study or the total number of subjects in a cohort study.

(c) This column shows whether results are adjusted for potential confounding. Potential confounders are: age, sex, and tobacco use (T).

(d) Studies are classified as either case-control studies (C-C) or cohort studies (Coh).

Table B.7: Studies used to revise aetiological fractions for alcohol exposure and stroke with associated relative effect measures

Reference[a]	Age	Sex	Outcome	Unit[b]	Level 1[c]	RR	95% CI	Level 2[c]	RR	95% CI	Level 3[c]	RR	95% CI	Level 4[c]	RR	95% CI	Level 5[c]	RR	95% CI
Donahue et al. 1986	45+	M	Thromboembolic	oz/m	None	1.0		1–14	1.0	0.9–1.5	15–39	1.3	0.9–1.4	≥40	1.3	0.9–1.7			
	45+	M	Haemorrhagic	oz/m	None	1.0		1–14	2.2	1.1–4.2	15–39	2.9	1.4–5.9	≥40	4.7	2.4–9.5			
Stampfer et al. 1988	34–59	F	Ischaemic	g/d	< 1.5	0.70	0.40–1.60	1.5–4.9	0.40	0.20–0.90	5–14.9	0.30	0.10–0.70	≥ 15	0.50	0.20–1.10			
Gorelick et al. 1989	Middle–age	M	Ischaemic	g/w	1–99	2.20	0.95–5.13	100–299	1.86	0.89–3.92	≥ 300	1.68	0.79–3.56						
	Middle–age	F	Ischaemic	g/w	1–99	1.06	0.23–4.86	100–299	2.70	0.75–9.77	≥ 300	1.77	0.23–13.4						
Klatsky et al. 1989		M	Ischaemic	d/d	< 1	0.58	0.34–0.98	1–2	0.48	0.27–0.87	≥ 3	0.50	0.25–0.98						
		F	Ischaemic	d/d	< 1	0.63	0.40–0.98	1–2	0.66	0.36–1.22	≥ 3	0.11	0.02–0.84						
Gill et al. 1991	20–70	M	Haemorrhagic	g/w	10–90	0.78	0.30–1.80	100–390	0.57	0.20–1.30	≥ 400	1.48	0.60–3.80						
	20–70	F	Haemorrhagic	g/w	10–90	0.71	0.40–1.30	100–390	0.34	0.10–0.90	≥ 400	0.00	0.00–0.00						
	20–70	M	Ischaemic	g/w	10–90	0.50	0.20–1.10	100–390	0.77	0.40–1.50	≥ 400	2.07	0.90–4.70						
	20–70	F	Ischaemic	g/w	10–90	0.71	0.40–1.30	100–390	0.45	0.20–1.20	≥ 400	4.98	0.40–67.9						
Palomaki & Kaste 1993	<60	M	Ischaemic	g/w	> 0–150	0.54	0.28–1.05	>150–300	0.86	0.34–2.18	>300	4.41	1.09–17.8						
Rogers et al. 1993		M	Ischaemic	g/w	< 8.5	0.21	0.08–0.55	8.5–180	0.31	0.16–0.59	181–300	0.65	0.24–1.79	301–430	0.79	0.21–3.04	≥ 431	1.50	0.37–6.11
		F	Ischaemic	g/w	< 8.5	0.37	0.21–0.66	8.5–120	0.28	0.16–0.48	121–220	0.00	0.00–0.00	221–300	0.00	0.00–0.00	≥ 301	0.00	0.00–0.00

(continued)

Table B.7 (continued): Studies used to revise aetiological fractions for alcohol exposure and stroke with associated relative effect measures (continued)

Reference[a]	Age	Sex	Outcome	Unit[b]	Level 1[c]	RR	95% CI	Level 2[c]	RR	95% CI	Level 3[c]	RR	95% CI	Level 4[c]	RR	95% CI	Level 5[c]	RR	95% CI
Juvela et al. 1993	15–60	M	Haemorrhagic	g/d	1–40	0.34	0.14–0.81	41–120	2.45	1.10–5.47	> 120	4.45	1.54–12.9						
	15–60	F	Haemorrhagic	g/d	1–40	0.35	0.16–0.80	> 40	6.36	2.26–17.9									
Goldberg et al. 1995	55–64	M	Thromboembolic	mL/m	None	1.0		≤ 111	1.07	0.66–1.73	114–714	1.12	0.69–1.84	≥717	1.18	0.73–1.91			
Hillbom et al. 1995	16–40	M	First ischaemic	g/w	None	1.0		1–150	0.95	0.39–2.33	151–300	1.20	0.35–4.16	>300	2.57	0.76–8.75			
	16–40	F	First ischaemic	g/w	None	1.0		1–150	1.40	0.52–3.73	151–300	2.36	0.29–19.0	>300	No	controls			
Juvela et al. 1995	16–60	M	Intracerebral haemorrhage	g/w	None	1.0		1–150	1.74	0.87–3.46	151–300	2.47	0.93–6.53	>300	16.86	7.21–39.4			
	16–60	F	Intracerebral haemorrhage	g/w	None	1.0		1–150	0.94	0.49–1.81	151–300	4.17	1.3–13.8	>300	5.21	0.4–59.8			
Sacco et al. 1999	> 39	M	First ischaemic	d/d	None	1.0		≤2	0.54	0.36–0.80	>2 – <5	0.72	0.38–1.36	≥5	1.33	0.56–3.17			
	> 39	F	First ischaemic	d/d	None	1.0		≤2	0.49	0.34–0.71	>2 – <5	0.23	0.05–1.08	≥5	5.35	0.51–56.7			

(a) Studies used by English et al. (1995) are listed in bold.

(b) Unit of measurement used in the study—grams per week (g/w), grams per day (g/d), drinks per day (d/d), ounces per month (oz/m) and millilitres per month (ml/m).

(c) Studies used different classification schemes for levels of alcohol consumption. These columns present the definitions of these levels for each study, from the lowest (level 1) up to the highest.

Table B.8: Studies used to revise aetiological fractions for alcohol exposure and fall injuries

Study	Age	Sex	Subjects	Cases	Exposure criteria	Country	Outcome	Residence
Allander et al. 1998 [a][b]	>49	M	730	72	Clinical judgment alcohol immediate contributor	Europe	Falls resulting in hip fracture	All
	>49	F	2,086	50				
Hutchison et al. 1998	All	M+F	2,416	269	Clinically assessed alcohol <4 hrs before injury	UK	Falls resulting in facial injury	All
Hartshorne et al. 1997	All	M	33	19	Ethyl alcohol with toxicology or noted in records	US	Fatal head injury due to ground-level fall	All
	All	F	15	4				
Mosenthal et al. 1995 [a]	18–64	M+F	131	68	Blood alcohol analysis or toxicology +ve alcohol	US	Fall injuries (non-occupational)	All
Borges et al. 1994	15+	M+F	73	8	Breathalyser reading >100 mg/100mL	Mexico	Fall injuries A&E patients	All
Grisso et al. 1994 [a]	>44	F	144	37	Alcohol consumed last year = >2 drinks per week	US	First hip fracture among black women due to falls	All
Hussain et al. 1994	15+	M+F	389	109	Clinical notation significant alcohol consumption	UK	Fall-related craniofacial trauma	All
O' Loughlin et al. 1994 [b]	>64	M+F	470	79	Self-report—daily alcohol consumption	Canada	Indoor or outdoor falls (non-injurious & injurious)	Non-inst.
Malmivaara et al. 1993 [a][b]	20–44[c]	M	131	22	Self-report (M ≥1,000g/mth; F≥500 g/mth)	Finland	Injurious falls leading to hospitalisation or death	All
		F	61	1				
	45–64[c]	M	124	8				
		F	124	4				
	>64	M	50	5				
		F	138	1				
O'Loughlin et al. 1993 [b]	>64	M+F	197	12	Self-report (M+F= low ≤ 100g/wk; haz/harm >110 ≤700g/wk)	Canada	Non-injurious falls	Non-inst.
	>64	M+F	91	9	Self-report (M+F= low ≤ 100g/wk; haz/harm >110 ≤700g/wk)	Canada	Injurious falls	Non-inst.
Rivara et al. 1993	18+	M+F	398	151	Admission BAC ≥ 100mg/100 mL	US	A&E admission with trauma due to fall	All

(continued)

Table B.8 (continued): Studies used to revise aetiological fractions for alcohol exposure and fall injuries

Study	Age	Sex	Subjects	Cases	Exposure criteria	Country	Outcome	Residence
Adams et al. 1992 [b]	>64	M+F	13	0	Self-report intake within 24 hours before A&E visit	US	Falls presenting as medical problem to A&E	Non-inst
Nelson et al. 1992 [b]	>64	M+F	320	3	Self-report (current consumption ≥ 140 g/wk)	US	Fall injuries	Non-inst
Rutledge & Messick 1992	All	M+F	142	41	BAC ≥100mg/100 mL	US	Death within 24 hours of fall	
Honkanen & Smith 1991 [a]	15–64	M	587	124	Clinically assessed intoxication or breath test (BAC ≥0.5 g/l)	Finland	Falls resulting in injury and hospitalisation	All
Felson et al. 1988 [a][b]	28–64	M	11	8	Self-report ounces of alcohol per week (≥7 oz=haz/harm) last examination before fracture	US	Falls resulting in hip fracture	All
		F	30	7				
	65–74[c]	M	12	4				
		F	50	5				
	>74[c]	M	20	3				
		F	94	5				
Centers for Disease Control 1984	15+	M+F	52	11	BAC ≥0.1g/l	US	Death within 8 hours of fall	All
Wechsler et al. 1969	>15	M+F	272	62	Breathalyser reading >0.01%	US	Falls injury and admission to hospital A&E	All

(a) Study used in revising fraction for ages under 65.

(b) Study used in revising fraction for ages 65 and over.

Notes

Age groups aggregated as weighted averages.

Studies were excluded from revision where data did not allow relevant age and/or sex categorisation.

Studies used by English et al. (1995) are listed in bold.