

THE LANCET HIV

Supplementary appendix 2

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: de Sampaio Morais GA, Magno L, Silva AF, et al. Effect of a conditional cash transfer programme on AIDS incidence, hospitalisations, and mortality in Brazil: a longitudinal ecological study. *Lancet HIV* 2022; **9**: e690–99.

Appendix table 1: Classification of histologies of lung cancer

Histology	ICD-O-3 codes
SCC (squamous cell carcinoma)	8051-2,8070-6, 8078, 8083-4, 8090, 8094, 8120, 8123
Adeno (adenocarcinoma)	8015,8050, 8140-1, 8143-5, 8147, 8190, 8201, 8211, 8250-5,8260, 8290, 8310, 8320, 8323, 8333, 8401, 8440, 8470-1, 8480-1, 8490, 8503, 8507, 8550, 8570-2, 8574, 8576
Small (small cell carcinoma)	8002, 8041-5
Large (large cell carcinoma)	8012-4, 8021, 8034, 8082
Other histologies included in lung cancers	carcinoma not otherwise specified (NOS) (8010); bronchioloalveolar carcinoma (8253), adenosquamous carcinoma (8560); giant cell and spindle cell carcinoma (8031); carcinoid tumor NOS (8240); sarcoma NOS (8800/3); solid carcinoma NOS (8230); spindle cell sarcoma (8801)

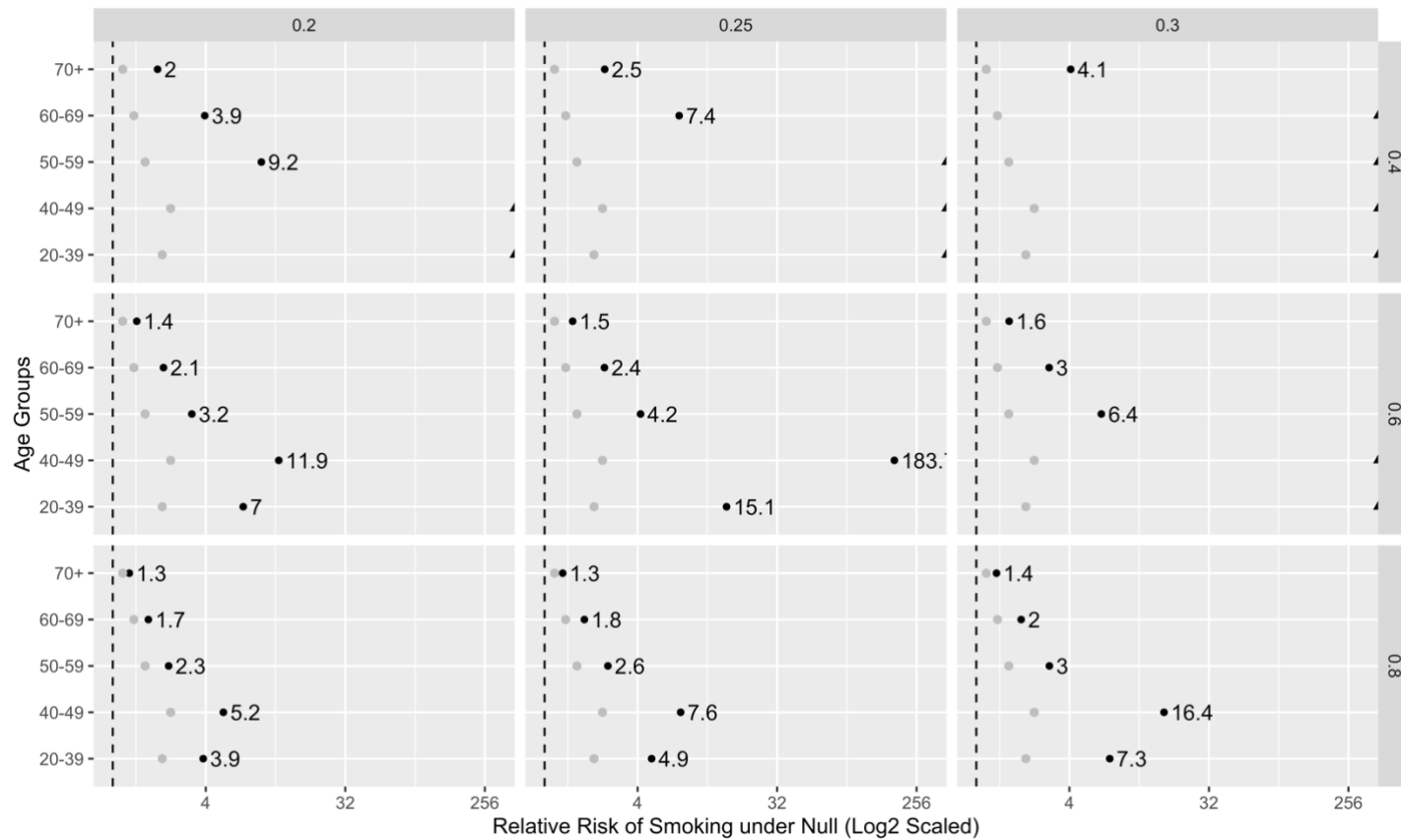
Appendix table 2. Average annual percentage change (AAPC) of lung cancer in PLWH in the United States in 2001-2016 stratified by age group.

Age group (years)	AAPC (95% confidence interval)
20-39	-11% (-16%, -6%)
40-49	-6% (-8%, -5%)
50-59	-5% (-7%, -4%)
60-69	-5% (-7%, -4%)
70-89	-3% (-6%, 1%)

Appendix table 3. Measures of excess risk of lung cancer in people living with HIV compared to the general population in the United States in 2001-2016 according to HIV risk group and age group.

Risk group	Year group	Observed	Expected	Person-years	SIR	EAR (per 100,000 person-years)
Female other / unknown	2001-2004	103	30.62	144548.25	3.36 (2.75-4.08)	50.07 (31.95-71.6)
	2005-2008	192	66.49	251947.19	2.89 (2.49-3.33)	49.82 (35.34-66.23)
	2009-2012	231	114.3	353793.76	2.02 (1.77-2.3)	32.99 (21.62-45.73)
	2013-2016	87	56.42	172893.29	1.54 (1.24-1.9)	17.69 (3.86-34.37)
Female PWID	2001-2004	88	14.47	63901.57	6.08 (4.88-7.49)	115.07 (77.42-160.43)
	2005-2008	102	24.43	81726.03	4.18 (3.4-5.07)	94.91 (63.03-132.82)
	2009-2012	143	35.63	90845.36	4.01 (3.38-4.73)	118.19 (83.83-157.94)
	2013-2016	53	16.2	37853.39	3.27 (2.45-4.28)	97.22 (49.07-158.49)
Male other / unknown	2001-2004	165	78.38	170789.61	2.11 (1.8-2.45)	50.72 (31-73.3)
	2005-2008	272	148.15	278085.31	1.84 (1.62-2.07)	44.54 (28.79-62.04)
	2009-2012	344	224.83	383216.99	1.53 (1.37-1.7)	31.1 (18.18-45.28)
	2013-2016	158	104.78	182493.85	1.51 (1.28-1.76)	29.16 (11.13-49.88)
Male PWID	2001-2004	186	62.86	125451.1	2.96 (2.55-3.42)	98.16 (69.56-130.65)
	2005-2008	211	97.38	161431.18	2.17 (1.88-2.48)	70.38 (46.64-97.15)
	2009-2012	254	125.61	174802.24	2.02 (1.78-2.29)	73.45 (49.28-100.41)
	2013-2016	84	48.51	73602.06	1.73 (1.38-2.14)	48.22 (16.34-86.8)
MSM	2001-2004	115	80.92	238529.65	1.42 (1.17-1.71)	14.29 (2.64-28)
	2005-2008	213	153.33	398583.87	1.39 (1.21-1.59)	14.97 (5.3-25.86)
	2009-2012	269	239.07	581223.87	1.13 (0.99-1.27)	5.15 (-2.34-13.48)
	2013-2016	156	137.86	344585.36	1.13 (0.96-1.32)	5.26 (-4.22-16.17)
Age group (years)						
20-39	2001-2004	37	7.16	284608.44	5.17 (3.64-7.12)	10.48 (5.25-17.48)
	2005-2008	28	6.71	356772.12	4.17 (2.77-6.03)	5.97 (2.41-10.93)
	2009-2012	22	6.26	425479.76	3.51 (2.2-5.32)	3.7 (1.11-7.48)
	2013-2016	5	3.18	235995.73	1.57 (0.51-3.67)	0.77 (-1-4.78)
40-49	2001-2004	219	69.66	299320.75	3.14 (2.74-3.59)	49.89 (36.83-64.58)
	2005-2008	269	96.83	474043.97	2.78 (2.46-3.13)	36.32 (27.14-46.53)
	2009-2012	238	92.86	567402.77	2.56 (2.25-2.91)	25.58 (18.38-33.64)
	2013-2016	56	27.84	237153.34	2.01 (1.52-2.61)	11.87 (3.95-21.89)
50-59	2001-2004	266	108.9	126514.71	2.44 (2.16-2.75)	124.18 (89.96-162.24)
	2005-2008	427	208.6	263485.87	2.05 (1.86-2.25)	82.89 (61.88-105.74)
	2009-2012	546	316.17	433146.06	1.73 (1.59-1.88)	53.06 (38.55-68.69)
	2013-2016	246	153.25	238147.63	1.61 (1.41-1.82)	38.95 (21.5-58.44)
60-69	2001-2004	109	60.86	27180.7	1.79 (1.47-2.16)	177.11 (77.77-294.53)
	2005-2008	209	131.25	64187.91	1.59 (1.38-1.82)	121.13 (61.7-188.16)
	2009-2012	343	236.97	131154.48	1.45 (1.3-1.61)	80.84 (43.17-122.23)
	2013-2016	171	130.97	82998.23	1.31 (1.12-1.52)	48.23 (6.88-95.47)
70-89	2001-2004	26	20.67	5595.58	1.26 (0.82-1.84)	95.25 (-121.99-402.54)
	2005-2008	57	46.4	13283.71	1.23 (0.93-1.59)	79.8 (-63.03-259.98)
	2009-2012	92	87.18	26699.15	1.06 (0.85-1.29)	18.05 (-74.25-128.81)
	2013-2016	60	48.53	17133.02	1.24 (0.94-1.59)	66.95 (-46.98-209.81)

Supplementary Figure 2. Bias factor analysis for the strength of confounding my smoking under the null hypothesis of no relative excess risk of lung cancer in people living with HIV (PLWH) compared to the general population stratified by age group under scenarios of prevalence of smoking in the general population (columns) and PLWH (rows).



Grey dots are the observed SIR, dashed line is the null SIR (i.e. 1), black dots represent the strength of smoking on lung cancer risk under the null SIR.

Appendix table 4. Within age group 5-year cumulative incidence of lung cancer, non-Hodgkin lymphoma, and Kaposi's sarcoma in people living with HIV at separate time of origins of 2001, 2006, and 2011.

Age group	Origin	Lung Cancer	non-Hodgkin lymphoma	Kaposi's sarcoma
20-39	2001	0.06% (0.05-0.08%)	0.67% (0.62-0.71%)	0.58% (0.54-0.62%)
	2006	0.04% (0.03-0.05%)	0.63% (0.59-0.67%)	0.54% (0.50-0.58%)
	2011	0.02% (0.01-0.03%)	0.45% (0.41-0.49%)	0.45% (0.41-0.49%)
40-49	2001	0.38% (0.34-0.42%)	0.96% (0.89-1.02%)	0.39% (0.35-0.43%)
	2006	0.32% (0.29-0.35%)	0.74% (0.69-0.78%)	0.30% (0.27-0.33%)
	2011	0.22% (0.19-0.25%)	0.59% (0.54-0.64%)	0.27% (0.24-0.30%)
50-59	2001	1.00% (0.88-1.10%)	1.07% (0.95-1.18%)	0.31% (0.24-0.37%)
	2006	0.83% (0.76-0.90%)	0.73% (0.66-0.79%)	0.21% (0.18-0.24%)
	2011	0.62% (0.56-0.68%)	0.56% (0.50-0.62%)	0.14% (0.11-0.17%)
60-69	2001	1.87% (1.52-2.18%)	1.31% (1.01-1.59%)	0.23% (0.11-0.35%)
	2006	1.55% (1.34-1.74%)	0.71% (0.57-0.84%)	0.16% (0.09-0.22%)
	2011	1.36% (1.17-1.53%)	0.45% (0.35-0.56%)	0.12% (0.06-0.17%)
70-89	2001	1.93% (1.03-2.79%)	0.86% (0.32-1.38%)	0.08% (0.00-0.25%)
	2006	1.58% (1.12-2.01%)	0.93% (0.58-1.27%)	0.27% (0.08-0.46%)
	2011	1.65% (1.19-2.08%)	0.62% (0.37-0.88%)	0.17% (0.02-0.32%)