Figure 2. N95 masks compared with surgical masks to prevent viral respiratory infections in health care workers: *A) Outcome of confirmed influenza; B) outcome of confirmed viral respiratory infection; C) outcome of influenzalike illness; and D) outcome of any clinical respiratory infection.*

A)

STUDY OR SUBGROUP	N95 MASK EVENTS	N95 MASK TOTAL	SURGICAL MASK EVENTS	SURGICAL MASK TOTAL	WEIGHT, %	RISK RATIO* (95% CI)	RISK RATIO* (95% CI)
Loeb, 2009	48	210	50	212	25.9	0.97 (0.68-1.37)	
MacIntyre, 2011—fit tested	2	237	1	127	0.7	1.07 (0.10-11.71)	
MacIntyre, 2011—not fit tested	0	248	1	125	1.0	0.17 (0.01-4.11)	
MacIntyre, 2013—N95	3	568	0	280	0.3	3.46 (0.18-66.69)	
MacIntyre, 2013—targeted N95	0	116	0	64		Not estimable	
Radonovich, 2019	154	1868	143	1984	72.1	1.14 (0.92-1.42)	
Total (95% CI)		**3247**		**2792**	**100.0**	**1.10 (0.91-1.32)**	
Total events	207		195				

Heterogeneity: $\chi^2_4 = 2.53$ ($P = .64$); $I^2 = 0\%$

Test for overall effect: $Z = 0.98$ ($P = .33$)

0.01 — 0.1 — 1 — 10 — 100 · Favours N95 masks · Favours surgical masks

*Mantel-Haenszel fixed-effects method.

B)

STUDY OR SUBGROUP	N95 MASK EVENTS	N95 MASK TOTAL	SURGICAL MASK EVENTS	SURGICAL MASK TOTAL	WEIGHT, %	RISK RATIO* (95% CI)	RISK RATIO* (95% CI)
Loeb, 2009	70	210	70	212	17.7	1.01 (0.77-1.32)	
MacIntyre, 2011—fit tested	4	237	3	127	1.0	0.71 (0.16-3.14)	
MacIntyre, 2011—not fit tested	3	251	3	125	1.0	0.50 (0.10-2.43)	
MacIntyre, 2013—N95	8	339	6	167	2.0	0.66 (0.23-1.86)	
MacIntyre, 2013—targeted N95	11	347	6	192	2.0	1.01 (0.38-2.70)	
Radonovich, 2019	276	1868	310	1984	76.3	0.95 (0.81-1.10)	
Total (95% CI)		**3252**		**2807**	**100.0**	**0.95 (0.83-1.07)**	
Total events	372		398				

Heterogeneity: $\chi^2_5 = 1.48$ ($P = .92$); $I^2 = 0\%$

Test for overall effect: $Z = 0.86$ ($P = .39$)

0.01 — 0.1 — 1 — 10 — 100 · Favours N95 masks · Favours surgical masks

*Mantel-Haenszel fixed-effects method.

C)

STUDY OR SUBGROUP	N95 MASK EVENTS	N95 MASK TOTAL	SURGICAL MASK EVENTS	SURGICAL MASK TOTAL	WEIGHT, %	RISK RATIO* (95% CI)	RISK RATIO* (95% CI)
Loeb, 2009	2	210	9	212	6.6	0.22 (0.05-1.03)	
MacIntyre, 2011—fit tested	1	237	1	127	1.0	0.54 (0.03-8.50)	
MacIntyre, 2011—not fit tested	1	251	1	125	1.0	0.50 (0.03-7.90)	
MacIntyre, 2013—N95	6	568	2	280	2.0	1.48 (0.30-7.28)	
MacIntyre, 2013—targeted N95	2	515	2	285	1.9	0.55 (0.08-3.91)	
Radonovich, 2019	95	1868	123	1984	87.6	0.82 (0.63-1.06)	
Total (95% CI)		**3649**		**3013**	**100.0**	**0.78 (0.61-1.00)**	
Total events	107		138				

Heterogeneity: $\chi^2_5 = 3.63$ ($P = .60$); $I^2 = 0\%$

Test for overall effect: $Z = 1.94$ ($P = .05$)

0.01 — 0.1 — 1 — 10 — 100 · Favours N95 masks · Favours surgical masks

*Mantel-Haenszel fixed-effects method.

D)

STUDY OR SUBGROUP	N95 MASK EVENTS	N95 MASK TOTAL	SURGICAL MASK EVENTS	SURGICAL MASK TOTAL	WEIGHT, %	RISK RATIO* (95% CI)	RISK RATIO* (95% CI)
MacIntyre, 2011—fit tested	11	237	8	127	0.8	0.74 (0.30-1.79)	
MacIntyre, 2011—not fit tested	8	248	9	125	0.9	0.45 (0.18-1.13)	
MacIntyre, 2013—N95	11	155	13	76	1.4	0.41 (0.20-0.88)	
MacIntyre, 2013—targeted N95	16	137	13	76	1.3	0.68 (0.35-1.34)	
Radonovich, 2019	1157	1868	1272	1984	95.6	0.97 (0.92-1.01)	
Total (95% CI)		**2645**		**2388**	**100.0**	**0.95 (0.90-1.00)**	
Total events	1203		1315				

Heterogeneity: $\chi^2_4 = 8.90$ ($P = .06$); $I^2 = 55\%$

Test for overall effect: $Z = 2.14$ ($P = .03$)

0.01 — 0.1 — 1 — 10 — 100 · Favours N95 masks · Favours surgical masks

*Mantel-Haenszel fixed-effects method.