

Supplementary Material*

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Supplement. Estimates

* This supplementary material was provided by the authors to give readers further details on their article. The material was reviewed but not copyedited.

Supplement: Estimates

Outcome Comparison	Study Design [^] (N)	Evidence	Certainty of Evidence*
N95 Respirators vs. Surgical Masks vs. Cloth Masks in Community Settings			
<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">+</div> Evidence for Potential Benefits[¶] </div>			
Risk of SARS-CoV-2 infection			
No studies identified			
Risk of coronavirus infections (SARS-CoV-1, MERS-CoV)			
<i>Masks (type not specified) vs. no masks</i>	3 OBS (2857)	Risk of SARS-CoV-1 (26-28) <ul style="list-style-type: none"> • Wearing or not a mask when a SARS-CoV-1 infected person (index case) in a hospital setting was visited (26) <ul style="list-style-type: none"> ○ Index case and household member using mask during the visit vs. index case not visited: Adjusted OR 1.77 (95% CI 0.79 to 3.97) ○ Index case or household member wearing mask during the visit vs. index case not visited: Adjusted OR 1.62 (95% CI 0.70 to 3.76) ○ Neither index case nor household member wearing mask during the visit vs. index case not visited: Adjusted OR 3.12 (95% CI 1.65, 5.91) • Wearing a mask when a close contact is in contact with a SARS-CoV-1 infected person (index case) (27) <ul style="list-style-type: none"> ○ Sometimes/most times wearing vs. never wearing a mask: OR with continuity correction 1.04 (95% CI 0.05 to 19.52) • Wearing a mask among persons without known contact with SARS patients (28) <ul style="list-style-type: none"> ○ Sometimes wearing a mask vs. never wearing a mask: Adjusted OR 0.4 (95% CI 0.2 to 0.9) ○ Always wearing a mask vs. never wearing a mask: Adjusted OR 0.3 (95% CI 0.1 to 0.6) 	Low
Risk of non-coronavirus respiratory infections (influenza-like or other viral respiratory)			
<i>N95 respirators or equivalent vs. surgical masks</i>	1 RCT (290)	Risk of influenza-like illness (22) <ul style="list-style-type: none"> • 2 adult household contacts wearing P2 masks vs. surgical masks at all times when in the same room as the index-case (child with fever and respiratory symptoms) (22) <ul style="list-style-type: none"> ○ Unadjusted RR 0.75 (95% CI 0.40 to 1.41) Risk of laboratory confirmed viral respiratory illness (22) <ul style="list-style-type: none"> • 2 adult household contacts wearing P2 masks vs. surgical masks at all times when in the same room as the index-case (child with fever and respiratory symptoms) (22) <ul style="list-style-type: none"> ○ Unadjusted RR 1.36 (95% CI 0.49 to 3.77) 	Low
<i>N95 respirators or equivalent vs. no masks</i>	1 RCT (290)	Risk of influenza-like illness (22) <ul style="list-style-type: none"> • 2 adult household contacts wearing P2 masks vs. no masks at all times when in the same room as the index-case (child with fever and respiratory symptoms) (22) <ul style="list-style-type: none"> ○ Adjusted RR 0.95 (95% CI 0.49 to 1.84) Risk of laboratory-confirmed viral respiratory illness (22) <ul style="list-style-type: none"> • 2 adult household contacts wearing P2 masks vs. no masks at all times when in the same room as the index-case (child with fever and respiratory symptoms) (22) <ul style="list-style-type: none"> ○ Adjusted RR 2.90 (95% CI 0.79 to 10.6) 	Low
<i>Surgical masks vs. no masks</i>	12 RCTs (16761)	<i>Risk of infections in household members/visitors with an influenza or influenza-like illness infected person (index case, e.g. child or adult)</i> Risk of clinical respiratory illness (21, 23) <ul style="list-style-type: none"> • Surgical mask worn by caretaker in household (within 3 feet of index case for 7 days, changing mask between interactions) and index case (within 3 feet of household members if possible) when influenza-like illness occurred in any household member plus hand sanitizer vs. education only (21) <ul style="list-style-type: none"> ○ Unadjusted rate per 1,000 person-weeks: mask + hand sanitizer 38.91 (1,972/50,676) vs. education only 35.38 (1,646/46,526); Adjusted model, $P = 0.190$ 	Moderate

- Surgical mask worn by index case at home whenever in same room as a household member or a visitor to the household vs. no mask (23)
 - RR 0.65 (95% CI 0.18 to 2.29), Adjusted for age RR 0.61 (95% CI 0.18 to 2.13)
 - Post-hoc analysis of mask wearers vs. non-mask wearers irrespective of randomization group: RR 0.23 (95% CI 0.06 to 0.88)

Risk of influenza-like illness (18-25)

- Surgical mask worn by index patient in household required to wear mask if another family member was in the same room vs. no mask (18)
 - Adjusted OR: 0.95 (95% CI 0.44 to 2.05)
 - Surgical mask worn by household contacts of index case (except when eating or sleeping) vs. lifestyle intervention (19)
 - Fever plus cough or sore throat: Adjusted OR 1.68 (95% CI 0.68 to 4.15)
 - Fever plus cough or sore throat when restricted to contacts of index cases receiving intervention within 36 hours of symptom onset: Adjusted OR 1.45 (95% CI 0.49 to 4.24)
 - ≥ 2 influenza-like illness symptoms: Adjusted OR 1.25 (95% CI 0.79 to 1.98)
 - ≥ 2 influenza-like illness symptoms when restricted to contacts of index cases receiving intervention within 36 hours of symptom onset: Adjusted OR 0.86 (95% CI 0.48 to 1.53)
 - Surgical mask worn by household contacts of index case (except when eating or sleeping) vs. lifestyle intervention (20)
 - Fever plus cough or sore throat: OR 2.00 (95% CI 0.57 to 7.02)
 - Fever or ≥ 2 influenza-like illness symptoms: OR 0.88 (95% CI 0.34 to 2.27)
 - ≥ 2 influenza-like illness symptoms: OR 0.87 (95% CI 0.30 to 2.51)
 - Surgical mask to be worn by caretaker in household (within 3 feet of index case for 7 days, changing mask between interactions) and index case (within 3 feet of household members if possible) when influenza-like illness occurred in any household member plus hand sanitizer vs. education only (21)
 - Unadjusted rate per 1,000 person-weeks mask + hand sanitizer 1.56 (79/50,676) vs. education only 2.26 (105/46,526); Adjusted model, $P = 0.160$
 - Surgical mask worn by index case at home whenever in same room as a household member or a visitor to the household vs. no mask (23)
 - RR 0.32 (95% CI 0.03 to 3.11)
 - Post-hoc analysis of mask wearers vs. non-mask wearers irrespective of randomization group: RR 0.18 (95% CI 0.02 to 1.71)
 - 2 adult household contacts wearing surgical mask vs. no mask at all times when in the same room as the index-case (child with fever and respiratory symptoms) (22)
 - Adjusted RR 1.29 (95% CI 0.69 to 2.31)
 - Surgical mask plus handwashing training vs. control (nutritional, physical activity and smoking cessation education) (24)
 - Adjusted OR 2.15 (95% CI 1.27 to 3.62)
 - If received intervention within 48 hours of index case symptom onset: OR 2.16 (95% CI 1.14 to 4.07)
 - Surgical mask plus hand sanitizer vs. surgical mask vs. no mask or hand sanitizer (25)
 - Surgical mask plus hand sanitizer vs. no mask or hand sanitizer: Adjusted OR 0.49 (95% CI 0.20 to 1.6) (including adjustment for cluster correlation)
 - Surgical mask plus hand sanitizer vs. no mask or hand sanitizer restricted to implementation of intervention within 36 hours after symptom onset: Adjusted OR 0.17 (95% CI 0.01 to 2.03)
 - Surgical mask vs. no mask or hand sanitizer: 0.50 (95% CI 0.20 to 1.60) (including adjustment for cluster correlation)
 - Surgical mask vs. no mask or hand sanitizer restricted to implementation of intervention within 36 hours after symptom onset: Adjust OR 0.63 (95% CI 0.08 to 4.92)
 - Risk of laboratory-confirmed viral illness (22, 23)
 - Surgical mask worn by index case at home whenever in same room as a household member or a visitor to the household vs. no mask (23)
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- Number of household contacts with outcome per person-days RR 0.97 (95% CI 0.06 to 15.5)
- Post-hoc analysis of mask wearers vs. non-mask wearers irrespective of randomization group: HR 0.11 (95% CI 0.01 to 4.40)
- 2 adult household contacts wearing surgical vs. no masks at all times when in the same room as the index-case (child with fever and respiratory symptoms) (22)
 - Adjusted RR 2.13 (95% CI 0.55 to 8.26)

Risk of laboratory-confirmed influenza infection (19-21, 24, 25)

- Surgical mask worn by household contacts of index case (except when eating or sleeping) vs. lifestyle intervention (19)
 - Adjusted OR 0.77 (95% CI 0.38 to 1.55)
 - When restricted to contacts of index cases receiving intervention within 36 hours of symptoms Adjusted OR 0.33 (95% CI 0.13 to 0.87)
- Surgical mask worn by household contacts of index case (except when eating or sleeping) vs. lifestyle intervention (20)
 - OR 1.16 (95% CI 0.31 to 4.34)
- Surgical mask worn by caretaker in household (within 3 feet of index case for 7 days, changing mask between interactions) and index case (within 3 feet of household members if possible) when influenza-like illness occurred in any household member plus hand sanitizer vs. education only (21)
 - Unadjusted rate per 1,000 person-weeks: masks plus hand sanitizer 0.49 (29/50,676) vs. education only 0.52 (24/46,526); from adjusted model, $P=0.89$
- Surgical mask plus handwashing training vs. control (nutritional, physical activity and smoking cessation education) (24) Adjusted OR 1.16 (95% CI 0.74 to 1.82)
 - If received intervention within 48 hours of index case symptom onset: 1.15 (95% CI 0.68 to 1.93)
 - Surgical masks plus hand sanitizer vs. surgical mask vs. no mask or hand sanitizer (25)
 - Surgical mask plus hand sanitizer vs. no mask or hand sanitizer: Adjusted OR 0.59 (95% CI 0.20 to 1.5) (including adjustment for cluster correlation)
 - Surgical mask plus hand sanitizer vs. no mask or hand sanitizer restricted to implementation of intervention within 36 hours after symptom onset: Adjusted OR 0.13 (95% CI 0.01 to 1.28)
 - Surgical mask vs. no mask or hand sanitizer: 0.30 (95% CI 0.10 to 0.94) for B vs. C (including adjustment for cluster correlation)
 - Surgical mask vs. no mask or hand sanitizer restricted to implementation of intervention within 36 hours after symptom onset: Adjusted OR 0.21 (95% CI 0.02 to 2.02)

Risk of infections in university students without specific contact with cases (14, 15)

Risk of influenza-like illness:

- Surgical mask plus hand sanitizer vs. surgical mask vs. no mask or hand sanitizer (14)
 - Surgical mask plus hand sanitizer vs. no mask or hand sanitizer Adjusted IRR 0.87 (95% CI 0.73 to 1.02)
 - Surgical mask vs. no mask or hand sanitizer 0.90 (95% CI 0.77 to 1.05)
- Surgical masks plus hand sanitizer vs. surgical mask vs. no mask or hand sanitizer (15)
 - Surgical mask plus hand sanitizer vs. no mask or hand sanitizer: Adjusted IRR 0.78 (95% CI 0.57 to 1.08)
 - Surgical mask vs. no mask or hand sanitizer: Adjusted IRR 1.10 (95% CI 0.88 to 1.38)

Risk of laboratory-confirmed influenza

- Surgical mask plus hand sanitizer vs. surgical mask vs. no mask or hand sanitizer (14)
 - Surgical mask plus hand sanitizer 0.5% vs. surgical mask 1.3% vs. no mask or hand sanitizer 0.5%
 - Surgical mask plus hand sanitizer vs. surgical mask vs. no mask or hand sanitizer (15)
 - Surgical mask plus hand sanitizer vs. no mask or hand sanitizer: Adjusted HR 0.57 (95% CI 0.26 to 1.24)
 - Surgical mask vs. no mask or hand sanitizer: Adjusted IRR 0.92 (95% CI 0.59 to 1.42)
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Risk of infections in Hajj pilgrims with or without an infected index case within the same tent (16, 17)

Risk of clinical respiratory illness


- Surgical mask plus educational material vs. no mask or educational material (16)
 - OR 1.10 (95% CI 0.88 to 1.39)

Risk of laboratory-confirmed viral illness


- Surgical mask plus educational material vs. no mask or educational material (16)
 - OR 1.35 (95% CI 0.88 to 2.07)
- Surgical mask plus education vs. general information on hygiene (17)
 - 10.3% (4/39) vs. 5.7% (2/35)

Risk of influenza-like illness

- Surgical mask plus education vs. general information on hygiene (17)
 - 31% (11/36) vs. 53% (28/53) $P = 0.040$

 Evidence for Potential Harms [¶]			
<i>N95 respirators equivalent vs. surgical mask</i>	1 RCT (290)	<ul style="list-style-type: none"> • No reported problem (22) <ul style="list-style-type: none"> ○ P2 masks 46% vs. surgical masks 49% • Uncomfortable (22) <ul style="list-style-type: none"> ○ P2 masks 15% vs. surgical masks 17% (22) 	Low
<i>Surgical masks vs. no masks</i>	3 RCTs (8363)	<ul style="list-style-type: none"> • Discomfort: (16, 18, 20) <ul style="list-style-type: none"> ○ Discomfort with mask use: 75% of the surgical mask group reported discomfort with mask use (18) ○ Overall discomfort: 22% (16) • Breathing difficulty: 26% (16) • Feeling hot: 3% (16) • Adverse Events: <ul style="list-style-type: none"> ○ No adverse events reported (20) 	Moderate

N95 Respirators vs. Surgical Masks vs. Cloth Masks in Healthcare Settings

 Evidence for Potential Benefits [¶]			
Risk of SARS-CoV-2 infection			
<i>N95 respirators vs. no masks</i>	1 OBS (493)	Risk of infection with SARS-CoV-2 (50) <ul style="list-style-type: none"> • Nurses and physicians in departments that wore N95 respirator plus disinfecting and cleaning hands frequently vs. those in departments not wearing medical masks plus disinfecting and cleaning hands (50) <ul style="list-style-type: none"> ○ Adjusted OR 0.002 (95% CI 0.0 to 0.21)^{¶¶} <small>¶¶ The direction of the comparison was reversed from no vs. yes as reported in study, for which the 95% CI was 97.73 to ∞</small>	Insufficient
<i>Consistent mask use (non-N95 respirator) vs. inconsistent mask use (non-95 respirator)</i>	1 OBS (37)	Risk of infection with SARS-CoV-2 (39) <ul style="list-style-type: none"> • Symptomatic health care workers after a potential exposure to hospitalized SARS-CoV-2 positive index patient (39) <ul style="list-style-type: none"> ○ Wearing non-N95 respirators always vs. wearing non-95 respirator sometimes or never during aerosol generating procedures: OR 0.77 (95% CI 0.03 to 20.02) ○ Wearing non-N95 respirator always vs. sometimes or never during non-aerosol generating procedures: OR 1.29 (95% CI 0.05 to 30.38) 	Insufficient
Risk of coronavirus infections (SARS-CoV-1, MERS-CoV)			
<i>N95 respirators or equivalent masks vs. surgical masks</i>	5 OBS (1208)	Risk of SARS-CoV-1 infection (36, 37, 41, 42, 47) <ul style="list-style-type: none"> • Health care workers who entered room of patient with unrecognized SARS-1 (36) <ul style="list-style-type: none"> ○ N95, gown, and gloves vs. surgical mask, gown, and gloves: OR 0.40 (95% CI 0.03 to 6.18) • Health care workers who performed tracheal intubations in SARS-CoV-1 patients (37) <ul style="list-style-type: none"> ○ N95 respirator or equivalent vs. surgical mask during intubation: OR 0.12 (95% CI 0.01 to 1.92) • Health care workers who were probable cases or with self-reported exposure to SARS-CoV-1 patients (41) <ul style="list-style-type: none"> ○ N95 vs. disposable surgical mask: OR 0.49 (95% CI 0.10 to 2.35) 	Low

- Nurses in a critical care unit that caring for SARS patients (42)
 - N95 vs. surgical mask: RR 0.50 (95% CI 0.06 to 4.23)
- Health care workers caring for intubated SARS-CoV-1 patients during treatment or transportation, or who entered the room of such patients from 24 hours prior to intubation until 4 hours after intubation (47)
 - N95 or equivalent vs. no mask while in the patient's room: OR 0.18 (95% CI 0.06 to 0.53)

<i>N95 respirators or surgical masks vs. cloth masks</i>	3 OBS (1207)	<p>Risk of SARS-CoV-1 infection (41, 43, 52)</p> <ul style="list-style-type: none"> • Health care workers who were probable cases or with self-reported exposure to SARS-CoV-1 patients (41) <ul style="list-style-type: none"> ○ N95 vs. vs. 12- or 16- layer cotton mask: OR 1.05 (95% CI 0.24 to 4.66) ○ Disposable surgical mask vs. 12- or 16-layer cotton mask: 2.13 (95% CI 1.00 to 4.54) * • Health care workers who had contacted or treated SARS-CoV-1 patients (43) <ul style="list-style-type: none"> ○ N95 and respirator vs. ≤12 layer: 0.00 (95% CI 0.00 to 0.33) ○ Disposable surgical mask vs. ≤12 layer: OR 0.13 (95% CI 0.05 to 0.34) • Staff members that accessed the isolation unit every day, and participated in direct first aid for severe SARS patients (52) <ul style="list-style-type: none"> ○ Disposable surgical mask vs. ≥12-layer mask: OR 3.39 (95% CI 1.72 to 6.67) 	Insufficient
<i>N95 respirators or surgical masks vs. no masks</i>	1 OBS (31)	<ul style="list-style-type: none"> • Health care workers who entered room of patient with unrecognized SARS-1 (36) <ul style="list-style-type: none"> ○ N95respirators or surgical mask vs. no masks: OR 1.50 (95% CI 0.25 to 8.98) 	Insufficient
<i>N95 respirators vs. no masks</i>	4 OBS (1441)	<p>Risk of SARS-CoV-1 infection (41, 47-49)</p> <ul style="list-style-type: none"> • Health care workers who were probable cases or with self-reported exposure to SARS-CoV-1 patients (41) <ul style="list-style-type: none"> ○ N95 vs. no mask: Adjusted OR 0.52 (95% CI 0.12 to 2.24) • Health care workers caring for intubated SARS-CoV-1 patients during treatment or transportation, or who entered the room of such patients from 24 hours prior to intubation until 4 hours after intubation (47) <ul style="list-style-type: none"> ○ N95 or equivalent vs. no mask: OR 0.59 (95% CI 0.17 to 2.08) ○ N95 or higher vs. no mask: OR 0.25 (95% CI 0.01 to 4.98) • Health care workers with documented exposures to SARS-CoV-1 patients (48) <ul style="list-style-type: none"> ○ N95 vs. no mask during patient care: OR 0.003 (95% CI 0.002 to 0.59) • Health care workers who were probable cases or with self-reported exposure to SARS patients (49) <ul style="list-style-type: none"> ○ N95 vs. no mask: Adjusted OR 0.1 (95% CI 0.02 to 0.9) 	Low
<i>Surgical masks vs. no masks</i>	6 OBS (1782)	<p>Risk of SARS-CoV-1 infection (41, 42, 44, 47, 48, 52)</p> <ul style="list-style-type: none"> • Health care workers who were probable cases or with self-reported exposure to SARS-CoV-1 patients (41) <ul style="list-style-type: none"> ○ Disposable surgical mask vs. no mask: OR 1.12 (95% CI 0.55, 2.27) • Nurses in a critical care unit that caring for SARS patients (42) <ul style="list-style-type: none"> ○ Surgical vs. no mask: RR 0.45 (95% CI 0.07, 2.71) • Health care workers with SARS-CoV-1 seropositivity (44) <ul style="list-style-type: none"> ○ Surgical mask use vs. no mask use in Period 1 (26 February to 4 March, 2003): Unadjusted OR 0.3 (95% CI 0.1 to 0.7) ○ Surgical mask vs. no mask use in Period 2 (5 March to 10 March, 2003: Unadjusted OR 0.1 (95% CI 0.0 to 0.3) • Health care workers caring for intubated SARS-CoV-1 patients during treatment or transportation, or who entered the room of such patients from 24 hours prior to intubation until 4 hours after intubation (47) <ul style="list-style-type: none"> ○ Surgical mask vs. no mask while in patient's room: OR 3.27 (95% CI 95% CI 0.72 to 14.79) • Health care workers with documented exposures to SARS-CoV-1 patients (48) 	Insufficient

- Surgical mask vs. no mask during patient care: OR 0.06 (95% CI 0.004 to 1.06)
- Staff members that accessed the isolation unit every day, and participated in direct first aid for severe SARS patients (52)
 - Disposable mask vs. no mask: OR 0.22 (95% CI 0.02 to 1.29)

<i>Cloth masks vs. no masks</i>	3 OBS (1177)	<p>Risk of SARS-CoV-1 infection (41, 46, 52)</p> <ul style="list-style-type: none"> ● Health care workers who were probable cases or with self-reported exposure to SARS-CoV-1 patients (41) <ul style="list-style-type: none"> ○ 12-layer cotton surgical mask vs. no mask : adjusted OR 0.22 (95% C, 0.08 to 0.62) ○ 16-layer cotton surgical mask vs. no mask: OR, 0.17 (95% CI 0.07 to 0.41) ● Health care workers in high-risk setting (46) <ul style="list-style-type: none"> ○ Cotton mask vs. no mask: Unadjusted OR 0.48 (95% CI 0.25 to 0.95) ○ Double 12-layer cotton mask vs. no mask: Unadjusted OR 0.13 (95% CI 0.05 to 0.30) ● Staff members that accessed the isolation unit every day, and participated in direct first aid for severe SARS patients (52) <ul style="list-style-type: none"> ○ ≥12-layer mask vs. no mask: Adjusted OR 0.78 (95% CI 0.60 to 0.99) 	Insufficient
<i>Masks (type not specified) vs. no masks</i>	5 OBS (1167)	<p>Risk of SARS-CoV-1 infection (43, 45, 48, 51, 52)</p> <ul style="list-style-type: none"> ● Health care workers who had contacted or treated SARS-CoV-1 patients (43) <ul style="list-style-type: none"> ○ Mask use vs. no mask use: Unadjusted OR 0.24 (95% CI 0.009 to 0.64) (Note: Mask use not included in multivariate model) ● Health care workers in contact with SARS patients (45) <ul style="list-style-type: none"> ○ Mask use always vs. no: Adjusted OR 0.38 (95% CI 0.01 to 0.50) ● Health care workers with documented exposures to SARS-CoV-1 patients (48) <ul style="list-style-type: none"> ○ Mask use vs. no mask: Adjusted OR 0.08 (95% CI 0.02 to 0.33) ● Health care workers exposed in SARS-CoV-1 prior to infection control implementation (51) <ul style="list-style-type: none"> ○ Mask use vs. no mask: Unadjusted OR 0.25 (95% CI 0.09-0.69) ● Staff members that accessed the isolation unit every day, and participated in direct first aid for severe SARS patients (52) <ul style="list-style-type: none"> ○ Mask use vs. no mask: Unadjusted OR 0.08 (95% CI 0.01 to 0.43) 	Low
<i>Consistent mask use (type not specified) vs. inconsistent mask use</i>	4 OBS (626)	<p>Risk of SARS-CoV-1 and MERS-CoV infection (35, 40, 42, 45)</p> <ul style="list-style-type: none"> ● Health care providers who had contact with MERS-CoV cases (35) <ul style="list-style-type: none"> ○ Always vs. sometimes/never using N95 or medical mask during direct contact: RR 0.69 (95% CI 0.28 to 1.69) ○ Always vs. sometimes/never using N95 during direct contact: RR 0.44 (95% CI 0.17 to 1.12) ○ Always vs. sometimes/never using medical mask during direct contact: RR 2.06 (95% CI 0.86 to 4.95) ○ Always vs. sometimes/never using N95 or medical mask during aerosol-generating procedure: RR 0.32 (95% CI 0.12 to 0.86) ○ Always vs. sometimes/never using N95 during aerosol-generating procedure: Adjusted RR 0.44 (95% CI 0.15 to 1.24) ○ Always vs. sometimes/never using medical mask during aerosolizing procedure: RR 0.59 (95% CI 0.20 to 1.71) ● Nurses in a critical care unit that caring for SARS (42) <ul style="list-style-type: none"> ○ Consistent vs. inconsistent use of N95: RR 0.22 (95% CI 0.05 to 0.93) ○ Consistent vs. inconsistent use of N95 or surgical mask: RR 0.23 (95% CI 0.07 to 0.78) ● Health care workers on wards with SARS inpatients (40) <ul style="list-style-type: none"> ○ Consistent vs. inconsistent use of a N95 or surgical mask: RR 0.27 (95% CI 0.08 to 0.95) ○ Consistent vs. inconsistent use of a N95 or surgical mask during direct contact with SARS-1 patient: OR 0.50 (95% CI 0 to 20) (Note: reversed from inconsistent vs. 	Low

- consistent as reported in study, 95% CI 0.05 to ∞)
- Consistent vs. inconsistent use of a N95 or surgical mask during direct patient contact in general: OR 0.25 (95% CI 0.004 to 4.76)
- Consistent vs. inconsistent use of a N95 or surgical mask with no patient contact: OR, 0.41 (95% CI 0.06 to 2.44) (Note: comparison was reversed)
- Consistent vs. inconsistent use of N95: 0.48 (95% CI 0.25 to 0.93) (Note: comparison was reversed)
- Consistent vs. inconsistent use of a N95 or surgical mask during direct contact with SARS-1 patient: OR 0.35 (95% CI 0.07 to 1.43) (Note: comparison was reversed)
- Consistent vs. inconsistent use of a N95 or surgical mask during direct patient contact in general: OR 0.78 (95% CI 0.10 to 6.25) (Note: comparison was reversed)
- Consistent vs. inconsistent use of a N95 or surgical mask with no patient contact: OR 0.55 (95% CI 0.21 to 1.39) (Note: comparison was reversed)
- Health care workers in contact with SARS patients (45)
 - Mask use sometimes vs. always: Adjusted RR 0.34 (95% CI 0.09 to 1.37) (Note: comparison was reversed) *

Risk of non-coronavirus respiratory infections (influenza-like or other viral respiratory)			
<i>N95 respirators vs. surgical masks in higher risk settings</i>	3 RCT (3532)	Risk of clinical respiratory illness (31-33)	Moderate
		<ul style="list-style-type: none"> • Health care workers (nurses) with current fit-test certification working full time (>37 hr/wk) in study units during 2008-2009 influenza season wearing protection when providing care or within 1 meter of patient with febrile respiratory illness (31) <ul style="list-style-type: none"> ○ N95 respirator vs. surgical mask: RR 1.01 (95% CI 0.48 to 2.13) • Full-time health care workers in hospital emergency or respiratory wards wearing masks all work shifts, stored in paper bag for toilet breaks, tea/lunch breaks, and at end of shift (32) <ul style="list-style-type: none"> ○ N95 mask (fit tested) or N95 (non-fit tested) vs. surgical mask: Adjusted OR 0.38 (95% CI 0.17 to 0.86) (Note: Adjusted for hospital, high-risk procedures, flu vaccine in 2008, and handwashing) • Full-time doctor or nurse working in hospital emergency or respiratory wards (33) <ul style="list-style-type: none"> ○ N95 worn at all times vs. surgical mask worn at all times: Adjusted HR 0.39 (95% CI 0.21 to 0.71) (Note: Adjusted for age, vaccination, handwashing, and being a doctor) ○ N95 worn intermittently during high-risk procedures or barrier situations vs. surgical mask worn at all times: Adjusted HR 0.70 (95% CI 0.39 to 1.24) (Note: Adjusted for age, vaccination, handwashing, and being a doctor) 	
		Risk of influenza-like illness (31-33)	
		<ul style="list-style-type: none"> • Health care workers (nurses) with current fit-test certification working full time (>37 hr/wk) in study units during 2008-2009 influenza season wearing protection when providing care or within 1 meter of patient with febrile respiratory illness (31) <ul style="list-style-type: none"> ○ N95 respirator vs. surgical mask: RR 0.58 (95% CI 0.05 to 1.03) (31) • Full-time health care workers in hospital emergency or respiratory wards wearing masks all work shifts, stored in paper bag for toilet breaks, tea/lunch breaks, and at end of shift (32) <ul style="list-style-type: none"> ○ N95 mask (fit tested) or N95 (non-fit tested) vs. surgical mask: Adjusted OR 0.58 (95% CI 0.10 to 3.47) (Note: Adjusted for hospital, high-risk procedures, flu vaccine in 2008, and handwashing) • Full-time doctor or nurse working in hospital emergency or respiratory wards (33) <ul style="list-style-type: none"> ○ N95 worn at all times 1.0% vs. surgical mask worn at all times 0.7%, $P = 0.54$ ○ N95 worn intermittently during high-risk procedures or barrier situations 0.4% vs. surgical mask worn at all times 0.7%, $P = 0.49$ 	
		Risk of laboratory-confirmed viral respiratory illness (31-33)	
		<ul style="list-style-type: none"> • Health care workers (nurses) with current fit-test certification working full time (>37 hr/wk) in study units during 2008-2009 influenza season wearing protection when providing care or within 1 meter of patient with febrile respiratory illness (31) <ul style="list-style-type: none"> ○ N95 respirator vs. surgical mask: RR 1.01 (95% CI 0.77, 1.32) 	

- Full-time health care workers in hospital emergency or respiratory wards wearing masks all work shifts, stored in paper bag for toilet breaks, tea/lunch breaks, and at end of shift (32)
 - N95 mask (fit tested) or N95 (non-fit tested) vs. surgical mask: OR 0.19 (95% CI 0.05 to 0.67) (Note: Adjusted for hospital, high-risk procedures, flu vaccine in 2008, and handwashing)
- Full-time doctor or nurse working in hospital emergency or respiratory wards (33)
 - N95 worn at all times 2.2% vs. surgical mask worn at all times 3.3%, $P=0.44$
 - N95 worn intermittently during high-risk procedures or barrier situations 3.3% vs. surgical mask worn at all times 3.3%, $P = 0.99$

Risk of laboratory-confirmed influenza (31-33)

- Health care workers (nurses) with current fit-test certification working full time (>37 hr/wk) in study units during 2008-2009 influenza season wearing protection when providing care or within 1 meter of patient with febrile respiratory illness (31)
 - N95 respirator vs. surgical mask: RR 0.97 (95% CI 0.68 to 1.37)
- Full-time health care workers in hospital emergency or respiratory wards wearing masks all work shifts, stored in paper bag for toilet breaks, tea/lunch breaks, and at end of shift (32)
 - N95 mask (fit tested) or N95 (non-fit tested) vs. surgical mask: OR 0.27 (95% CI 0.06 to 1.17) (Note: Adjusted for hospital, high-risk procedures, flu vaccine in 2008, and handwashing)
- Full-time doctor or nurse working in hospital emergency or respiratory wards (33)
 - N95 worn at all times 0.5% vs. surgical mask worn at all times 0.2%, $P = 0.35$
 - N95 worn intermittently during high-risk procedures or barrier situations 0.4% vs. surgical mask worn at all times 0.2%, $P = 0.52$

<i>N95 respirators vs. surgical masks in lower risk settings</i>	1 RCT (2862)	<p>Risk of clinical respiratory illness (34)</p> <ul style="list-style-type: none"> • Health care workers in outpatient settings with routine patient contact within 6 feet of patient with suspected or confirmed respiratory illness, during 12 weeks predicted for highest incidence of viral respiratory illness and infections (34) <ul style="list-style-type: none"> ○ N95 vs. surgical mask: Adjusted IRR 0.99 (95% CI 0.92 to 1.06), per protocol analysis IRR 1.00 (95% CI 0.93 to 1.08) <p>Risk of influenza-like illness: (34)</p> <ul style="list-style-type: none"> • Health care workers in outpatient settings with routine patient contact within 6 feet of patient with suspected or confirmed respiratory illness, during 12 weeks predicted for highest incidence of viral respiratory illness and infections (34) <ul style="list-style-type: none"> ○ N95 vs. surgical mask: Adjusted IRR 0.86 (95% CI 0.68 to 1.10), per-protocol analysis: IRR 0.83 (95% CI 0.64 to 1.06) <p>Risk of laboratory-confirmed respiratory infection (34)</p> <ul style="list-style-type: none"> • Health care workers in outpatient settings with routine patient contact within 6 feet of patient with suspected or confirmed respiratory illness, during 12 weeks predicted for highest incidence of viral respiratory illness and infections (34) <ul style="list-style-type: none"> ○ N95 vs. surgical mask: Adjusted IRR 0.99 (95% CI 0.89 to 1.09) <p>Risk of respiratory illness (34)</p> <ul style="list-style-type: none"> • Health care workers in outpatient settings with routine patient contact within 6 feet of patient with suspected or confirmed respiratory illness, during 12 weeks predicted for highest incidence of viral respiratory illness and infections (34) <ul style="list-style-type: none"> ○ N95 vs. surgical mask: Adjusted IRR 0.96 (95% CI 0.83 to 1.11) <p>Risk of laboratory-confirmed influenza (34)</p> <ul style="list-style-type: none"> • Health care workers in outpatient settings with routine patient contact within 6 feet of patient with suspected or confirmed respiratory illness, during 12 weeks predicted for highest incidence of viral respiratory illness and infections (34) <ul style="list-style-type: none"> ○ N95 vs. surgical mask: Adjusted IRR 1.18 (95% CI 0.95 to 1.45), Adjusted IRR, per protocol analysis 1.20 (95% CI 0.97 to 1.48) (34) 	Moderate
<i>Surgical masks vs. cloth masks in higher risk settings</i>	1 RCT (1868)	<p>Risk of clinical respiratory illness (30)</p> <ul style="list-style-type: none"> • Health care workers on hospital wards (emergency, infection/respiratory disease, intensive care, and pediatrics) wearing masks at all times on work shift (30) 	Low


- Cloth mask vs. surgical mask: Adjusted RR 1.56 (95% CI 0.97 to 2.48) (Note: Adjusted for sex, vaccination, handwashing, and compliance)
- Post-hoc analysis of HCWs who exclusively used a cloth or surgical mask irrespective of randomization group, cloth mask vs. surgical mask: RR 1.51 (95% CI 0.97 to 2.32) (Note: Adjusted for sex, vaccination, handwashing, and compliance)

Risk of influenza-like illness (30)

- Health care workers on hospital wards (emergency, infection/respiratory disease, intensive care, and pediatrics) wearing masks at all times on work shift (30)
 - Cloth mask vs. surgical mask: Adjusted RR 13.00 (95% CI 1.69 to 100.07) (Note: Adjusted for sex, vaccination, handwashing, and compliance)
 - Post-hoc analysis of HCWs who exclusively used a cloth or surgical mask irrespective of randomization group, cloth mask vs. surgical mask: RR 6.64 (1.45 to 28.65) (Note: Adjusted for sex, vaccination, handwashing, and compliance)

Risk of laboratory-confirmed viral respiratory illness (30)

- Health care workers on hospital wards (emergency, infection/respiratory disease, intensive care, and pediatrics) wearing masks at all times on work shift (30)
 - Cloth mask vs. surgical mask: Adjusted RR 1.54 (95% CI 0.88 to 2.70) (Note: Adjusted for sex, vaccination, handwashing, and compliance)
 - Post-hoc analysis of HCWs who exclusively used a cloth or surgical mask irrespective of randomization group, cloth mask vs. surgical mask: RR 1.51 (95% CI 0.97 to 2.32) (Note: Adjusted for sex, vaccination, handwashing, and compliance)

		 Evidence for Potential Harms [¶]	
<i>N95 respirators or equivalent mask vs. surgical masks</i>	4 RCT (6394)	<p>Discomfort</p> <ul style="list-style-type: none"> ● Full-time doctor or nurse working in hospital emergency or respiratory wards (33) <ul style="list-style-type: none"> ○ N95 worn at all times 62% (357/574) vs. N95 worn intermittently 38% (195/512) vs. surgical mask work at all times 48% (274/571); $P < 0.001$ <p>Breathing difficulty</p> <ul style="list-style-type: none"> ● Full-time health care workers in hospital emergency or respiratory wards wearing masks all work shifts, stored in paper bag for toilet breaks, tea/lunch breaks, and at end of shift (32) <ul style="list-style-type: none"> ○ N95 fit test or not fit tested [19.4% (136/701)] vs. surgical mask [12.5% (35/281)]; $P = 0.010$ <p>Headache</p> <ul style="list-style-type: none"> ● Full-time health care workers in hospital emergency or respiratory wards wearing masks all work shifts, stored in paper bag for toilet breaks, tea/lunch breaks, and at end of shift (32) <ul style="list-style-type: none"> ○ N95 fit test or not fit tested [13.4% (94/701)] vs. surgical mask [3.9% (11/281)]; $P < 0.001$ (32) <p>Adverse events</p> <ul style="list-style-type: none"> ● Health care workers (nurses) with current fit-test certification working full time (>37 hr/wk) in study units during 2008-2009 influenza season wearing N95 or surgical mask when providing care or within 1 meter of patient with febrile respiratory illness (31) <ul style="list-style-type: none"> ○ No adverse events reported ● Health care workers in outpatient settings with routine patient contact within 6 feet of patient with suspected or confirmed respiratory illness, during 12 weeks predicted for highest incidence of viral respiratory illness and infections wearing N95 or surgical mask (34) <ul style="list-style-type: none"> ○ No serious adverse events reported 	Low
<i>Surgical masks vs. cloth masks</i>	1 RCTs (1868)	<p>Any adverse event</p> <ul style="list-style-type: none"> ● Health care workers on hospital wards (emergency, infection/respiratory disease, intensive care, and pediatrics) wearing masks at all times on work shift (30) <ul style="list-style-type: none"> ○ Surgical or cloth mask [40.4% (227/562)] vs. no mask 42.6% [(242/568)] <p>Discomfort</p> <ul style="list-style-type: none"> ● Health care workers on hospital wards (emergency, infection/respiratory disease, intensive care, and pediatrics) wearing masks at all times on work shift (30) <ul style="list-style-type: none"> ○ Surgical or cloth mask 35% overall <p>Breathing problems:</p> <ul style="list-style-type: none"> ● Health care workers on hospital wards (emergency, infection/respiratory disease, intensive care, and pediatrics) wearing masks at all times on work shift (30) <ul style="list-style-type: none"> ○ Surgical or cloth mask 18% overall 	Moderate