

- Vertrouwen in wetenschap en opvolgen maatregelen - vraagt om een wetenschappelijke aanpak
- PCR, serologische testen hebben fout-negatieven en fout-positieven - meervoudig testen, quarantaine zinvol?
- Beperken contact nieuwe huishoudens - vraagt om strategische sociale netwerken [fysiek contact moet worden beperkt met mensen die niet ook verbonden zijn met iemands gebruikelijke andere sociale contacten.]
- De term 'sociale afstand nemen' zou kunnen betekenen dat men zinvolle interacties moet afsnijden. Een bruikbare alternatieve term zou kunnen zijn "fysieke afstand nemen", om te benadrukken dat sociale connectie mogelijk is, zelfs als mensen fysiek gescheiden zijn.
- Bewijsvoering aanwezig beperken besmetting middels mondkapjes - vraagt om gebruik mondkapjes in openbare ruimtes incl supermarkten etc
- Jonge kinderen ook besmettelijk - vraagt om mondkap gebruik voor zowel jong als oud
- Beperken contact nieuwe mensen - vraagt om vaste groep zorgpersoneel patiënten verpleeghuis.
- Het publiek collectief aan te spreken en 'ons' aan te sporen om te handelen voor het algemeen belang
- De impact van elke poging tot gedragsverandering benutten door ons te richten op goed verbonden individuen en hun gedragsverandering zichtbaar en opvallend te maken voor anderen
- Er zijn aanwijzingen dat het geven van feitelijke informatie aan mensen voordat ze aan complottheorieën worden blootgesteld, de overtuigingen van complottheorieën kan verminderen
- Om nepnieuws over COVID-19 over de hele wereld effectief tegen te gaan, moeten overheden en sociale-mediabedrijven rigoureuze interventies ontwikkelen en testen.
- Mensen zijn misschien minder bereid om offers te brengen voor anderen als de voordelen onzeker zijn
- Mensen werken ook eerder samen als ze denken dat anderen meewerken. Dit suggereert dat leiders en de media samenwerking kunnen bevorderen door deze gedragingen beter waarneembaar te maken.
- Het hebben van respect voor politici, beroemdheden en gemeenschapsleiders die voorbeeldig gedrag en opoffering modelleert, kan pro-sociaal gedrag en samenwerking bevorderen.
- Maatregelen eenvoudig houden. Rekening houden met beperkte mentale capaciteit.
- Maskers subsidiëren?

Naarmate regels worden versoepeld en individuen minder streng worden, en dus de ambiguïteit in het beleid toeneemt, zal de handhaving van aanbevolen sociale afstandsnormen afhangen van meer informele sociale interactieprocessen. Moraliserende van deze praktijken, gecombineerd met versoepelingen van het beleid, kan mogelijk interactiespanningen veroorzaken tussen individuen die dat wel doen versus individuen die sociale afstand niet handhaven. Bovendien is het van cruciaal belang om de frustratie van mensen te begrijpen om paniek te verminderen en sociale afstand te bevorderen om de beheersing van de pandemie te vergemakkelijken. Routinematige lange-termijn implementatie van sommige fysieke maatregelen om de verspreiding van COVID-19 te verminderen kan moeilijk zijn maar veel eenvoudige en goedkope interventies kunnen nuttig zijn om de verspreiding te verminderen. Om de vrijwillige naleving van COVID-19-maatregelen te vergroten, moeten gezondheidscampagnes strategisch geïmplementeerd worden die morele verplichtingen en vertrouwen in de overheid bevorderen, of kunnen betrouwbare individuen in de gemeenschap gebruikt worden om informatie te verspreiden. Om het best mogelijke evenwicht tussen maatregelen te behouden, moeten besluitvormers tegelijkertijd de uitbraaksituatie en de impact van de geïmplementeerde maatregelen voortdurend in de gaten houden.

Het naleven van regels voor sociale afstand is inmiddels onvoldoende. Een strategische vermindering van het contact op basis van een sociaal netwerk kan mogelijk de effectiviteit van sociale afstandsmaatregelen vergroten en tegelijkertijd de risico's beperken. Wanneer vermoedelijke of bevestigde infecties thuis moeten worden geïsoleerd, is het belangrijk om te bedenken dat overdracht via het huishouden een belangrijke bron van overdracht zal blijven. Modelstudies voorspellen dat schoolsluitingen slechts 2-4% van de sterfgevallen zouden voorkomen, veel minder dan andere interventies op het gebied van sociale afstand. Andere, minder verstorende interventies op het gebied van sociale afstanden op scholen moeten nader worden overwogen als restrictief beleid voor sociale afstand gedurende lange perioden wordt geïmplementeerd.

Het gebruik van een masker dient als aanvullende methode. Er zijn echter aanwijzingen met weinig zekerheid dat medische maskers en N95-ademhalingsmaskers vergelijkbare bescherming bieden tegen virale luchtweginfecties. N95-ademhalingsstoelstenen zijn echter duurder, oncomfortabel en irriterend voor de huid. Er is weinig tot zeer weinig zekerheid dat het bedekken van meer lichaamsdelen tot betere bescherming leidt, maar meestal ten koste gaat van moeilijker aan- en uittrekken en minder gebruikscomfort. Meer ademende soorten persoonlijke beschermingsmiddelen kunnen tot soortgelijke besmetting leiden, maar kunnen tot grotere tevredenheid van de gebruikers leiden. De effectiviteit van maskers is waarschijnlijk gekoppeld aan vroeg, consistent en correct gebruik. Dragen van een masker door gezonde mensen kan gunstig zijn wanneer de overdracht presymptomatisch kan zijn.

Bewijs over voorspellers voor het naleven van beperkende maatregelen is niet doorslaggevend. Een onderzoek toonde aan dat jongere mensen (18-31 jaar) emotioneel negatiever, egocentrischer en minder bezorgd zijn over het gezin, terwijl mensen van middelbare leeftijd groepsgericht zijn (32-44) en gericht op het gezin (32-64 jaar). De jongste groep had het laagste nalevingspercentage in vergelijking met de andere leeftijdsgroepen. Werkgeheugen (capaciteit om informatie op te slaan) is ook relevant gebleken voor het opvolgen van maatregelen. Alternatief bewijs gaf aan dat men zichzelf als kwetsbaar voor COVID-19 beschouwt, de mate van ernst van het krijgen van COVID-19, en vertrouwen in de overheid van relatief weinig belang. Vrouwen hadden iets meer kans om zich met dit gezondheidsgedrag bezig te houden dan mannen, en leeftijd was over het algemeen niet gerelateerd aan vrijwillig nalevingsgedrag. Vertrouwen in de wetenschap bleek belangrijk te zijn bij het verklaren van de verschillende niveaus van naleving van COVID-19-preventierichtlijnen. Niet-essentiële werkzaamheden, zorgen over mentale en fysieke gezondheid en de overtuiging dat andere voorzorgsmaatregelen voldoende zijn, waren de meest voorkomende redenen voor niet-naleving. Andere redenen waren onder meer de wens om alledaagse activiteiten voort te zetten en de overtuiging dat de samenleving overdreven reageert. Nalevingspercentages zijn ook afhankelijk van de vraag of gederfde lonen worden gecompenseerd. Bij een vergoeding was het nalevingspercentage hoog. Bij opgeheven compensatie daalde het nalevingspercentage aanzienlijk.

Age-Related Differences in Nasopharyngeal Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Levels in Patients With Mild to Moderate Coronavirus Disease 2019 (COVID-19)

2020, JAMA Pediatrics

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2768952>

We report that replication of SARS-CoV-2 in older children leads to similar levels of viral nucleic acid as adults, but significantly greater amounts of viral nucleic acid are detected in children younger than 5 years.

Ten considerations for effectively managing the COVID-19 transition

2020, Nature Human Behaviour

<https://www.nature.com/articles/s41562-020-0906-x>

We propose ten considerations to support this principle: (1) implement a phased approach to a 'new normal'; (2) balance individual rights with the social good; (3) prioritise people at highest risk of negative consequences; (4) provide special support for healthcare workers and care staff; (5) build, strengthen and maintain trust; (6) enlist existing social norms and foster healthy new norms; (7) increase resilience and self-efficacy; (8) use clear and positive language; (9) anticipate and manage misinformation; and (10) engage with media outlets. The transition phase should also be informed by real-time data according to which governmental responses should be updated.

Using social and behavioural science to support COVID-19 pandemic response

2020, Nature

<https://www.nature.com/articles/s41562-020-0884-z>

The paper argued that three main factors stand in the way of prevention: (i) people do not appreciate the risks they run, (ii) it goes against human nature for people to shut themselves up in rigid isolation as a means of protecting others, and (iii) people often unconsciously act as a continuing danger to themselves and others.

Using Insights from Behavioral Economics to Mitigate the Spread of COVID-19

2020, Applied Health Economics and Health Policy

<https://link.springer.com/content/pdf/10.1007/s40258-020-00595-4.pdf>

Behavioral economics can help policy makers identify individuals' decision biases and use them as starting points for designing COVID-19-preventive interventions. Behavioral economics interventions can help people behave rationally and make better COVID-19-related decisions. Reduce the current costs or increase the current benefits of adherence to social distancing/stay-at-home policies, arrange defaults in environments where people make COVID-19-related choices (i.e., choice architecture), design gain-framed messages for COVID-19-preventive behaviors, prime contamination with COVID-19 by presenting examples pertinent to a specific population, create negative feelings toward not adhering to COVID-19-preventive behavior, and draw individual's attention to what other individuals are doing about COVID-19-related decisions. While many health-related behaviors have been shown to be associated with the six decision biases discussed, the degree to which they impact COVID-19-preventive behaviors has not yet been empirically investigated.

Nudge in the Time of Coronavirus: The Compliance to Behavioural Messages during Crisis

2020, SSRN

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3644165

They found that the nudges increased respondents' intention to comply with guidelines to tackle Covid-19 but did not have the expected result of actually changing their behaviour. The study found that, directly after reading the messages, participants who received the nudges were significantly more likely to say they would comply with the lockdown and follow the guidelines. But when participants were asked again in follow-up experiments one and two weeks later, there was no difference in intention to comply among those who had been nudged and the control group. And when asked to recall their behaviour in the intervening weeks, the groups who had received nudges were no more likely than the control group to report following the rules.

Loss aversion fails to replicate in the coronavirus pandemic: Evidence from an online experiment

2020, Economics Letters

<https://www.sciencedirect.com/science/article/pii/S0165176520302706>

One of the most robust findings in social psychology is that people value losses more than they do gains of equivalent size. A message highlighting the potential lives lost without a well-managed extension to the lockdown was therefore expected to make respondents more cautious about Covid-19 than a message highlighting potential lives saved by a well-managed extension. Differing from the established literature on loss aversion, the researchers found that highlighting potential lives lost did not make people more cautious about ending lockdown or more likely to say they would follow the guidelines.

Profiles of Social Distance Compliance: Psychological and Situational Predictors of Risky Behavior during COVID-19

2020, medrxiv (pre-print)

<https://www.medrxiv.org/content/10.1101/2020.06.04.20122754v1>

We found situational and dispositional variables contributed unique variance to risky behavior, controlling for variability accounted for by demographic factors. More frequent report of risky activity was associated with higher extraversion, need for cognitive closure, behavior activation, and perceived resource scarcity; in contrast, more frequent report of risky activity was associated with less empathy and living space access, as well as younger age.

Who complies with the restrictions to reduce the spread of COVID-19?: Personality and perceptions of the COVID-19 situation

2020, Personality and Individual Differences

<https://www.sciencedirect.com/science/article/pii/S0191886920303883#ae-article-footnote-id1>

We found that the way people perceived the situation explained more variance in compliance than personality traits which is in accordance with the hypothesis that strong situations, such as the COVID-19 pandemic, leave less room for dispositional tendencies in predicting behaviors than situational cues. Moreover, people scoring low on agreeableness and high on aspects of the Dark Triad traits (i.e., Machiavellianism, psychopathy Factor 1, and narcissistic rivalry) were less likely to comply with the restrictions.

Non-compliance with COVID-19-related public health measures among young adults: Insights from a longitudinal cohort study

2020, SocArXiv (pre-print)

<https://osf.io/preprints/socarxiv/8edbj/>

In order to increase voluntary compliance with COVID-19 measures, public health campaigns should implement strategies that foster moral obligation and trust in authorities, or leverage trustworthy individuals in the community to disseminate information. For young adults with low self-control, self-monitoring, environmental restructuring, or nudging may increase compliance. Long-term investments into integrating antisocial youth into society may decrease rule-breaking behaviors, including during pandemics when compliance saves lives.

Predictors of COVID-19 voluntary compliance behaviors: An international investigation

2020, *Global Transitions*

<https://www.sciencedirect.com/science/article/pii/S2589791820300098>

The results demonstrate the importance of believing that taking health precautions will be effective for avoiding COVID-19 and generally prioritizing one's health. These beliefs continued to be important predictors of health behaviors after controlling for demographic and personality variables. In contrast, we found that perceiving oneself as vulnerable to COVID-19, the perceived severity of catching COVID-19, and trust in government were of relatively little importance. We also found that women were somewhat more likely to engage in these health behaviors than men, but that age was generally unrelated to voluntary compliance behaviors. These findings may suggest avenues and dead ends for behavioral interventions during COVID-19 and beyond.

Modeling compliance with COVID-19 prevention guidelines: the critical role of trust in science

2020, *Psychology, Health & Medicine*

<https://www.tandfonline.com/doi/full/10.1080/13548506.2020.1772988>

Findings provide empirical support for the proposed multivariate model and underline the importance of trust in science in explaining the different levels of compliance with COVID-19 prevention guidelines.

Functional Fear Predicts Public Health Compliance in the COVID-19 Pandemic

2020, *International Journal of Mental Health and Addiction*

<https://link.springer.com/content/pdf/10.1007/s11469-020-00281-5.pdf>

The only predictor of positive behavior change (e.g., social distancing, improved hand hygiene) was fear of COVID-19, with no effect of politically relevant variables.

Experience with Social Distancing Early in the COVID-19 Pandemic in the United States: Implications for Public Health Messaging

2020, medrxiv (pre-print)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7276999/>

Our data show that younger people (18-31) are more emotionally negative, self-centered, and less concerned with family, while middle-aged people are group-oriented (32-44) and focused on family (32-64). Of these participants, 39.8% reported not being compliant, with the youngest group (18-31) having the lowest compliance rate (52.4%) compared to the other age groups. Non-essential work requirements, concerns about mental and physical health, and the belief that other precautions were sufficient were the most common reasons, although other rationales included wanting to continue everyday activities and beliefs that society is over-reacting. Childcare was an important concern for a subset of respondents. Overall, our findings suggest that public health messages should focus on young people and 1) address their negative affect, 2) refocus their self-orientation by emphasizing the importance of individual behavior to group-level health outcomes, and 3) target the specific rationales that different people have regarding the pandemic to maximize compliance with social distancing.

Self-Isolation Compliance In The COVID-19 Era Influenced By Compensation: Findings From A Recent Survey In Israel

2020, *Health Aff (Millwood)*.

<https://pubmed.ncbi.nlm.nih.gov/32271627/>

Public compliance rates with self-quarantine were assessed, depending on whether lost wages would be compensated for. When compensation was assumed, the compliance rate was 94 percent. When compensation was removed, the compliance rate dropped to less than 57 percent. This study demonstrated that providing people with assurances about their livelihoods during self-quarantine is an important component of compliance with public health regulations.

Quantifying the impact of physical distance measures on the transmission of COVID-19 in the UK
2020, *BMC Med*

<https://pubmed.ncbi.nlm.nih.gov/32375776/>

The physical distancing measures adopted by the UK public have substantially reduced contact levels and will likely lead to a substantial impact and a decline in cases in the coming weeks. However, this projected decline in incidence will not occur immediately as there are significant delays between infection, the onset of symptomatic disease, and hospitalisation, as well as further delays to these events being reported. Tracking behavioural change can give a more rapid assessment of the impact of physical distancing measures than routine epidemiological surveillance.

Working memory capacity predicts individual differences in social-distancing compliance during the COVID-19 pandemic in the United States

2020, *Proc Natl Acad Sci*

<https://pubmed.ncbi.nlm.nih.gov/32651280/>

Our data reveal contributions of a core cognitive process (working memory) underlying social-distancing compliance during the early stage of the COVID-19 pandemic, highlighting a potential cognitive venue for developing strategies to mitigate a public health crisis.

Citizens' Adherence to COVID-19 Mitigation Recommendations by the Government: A 3-Country Comparative Evaluation Using Web-Based Cross-Sectional Survey Data

2020, *J Med Internet Res*.

<https://pubmed.ncbi.nlm.nih.gov/32716896/>

As the COVID-19 global pandemic continues to grow and governmental restrictions are ongoing, it is critical to understand people's frustration to reduce panic and promote social distancing to facilitate the control of the pandemic. This study finds that the government plays a central role in terms of adherence to restrictions. Governments need to enhance their efforts on publicizing information on the pandemic, as well as employ strategies for improved communication management to citizens through social media as well as mainstream information sources.

Harnessing behavioural science in public health campaigns to maintain 'social distancing' in response to the COVID-19 pandemic: key principles

2020, *BMJ J Epidemiol Community Health*

<https://jech.bmj.com/content/74/8/617.long>

We have drawn on our knowledge of behavioural and social science to outline key principles which can be used to inform the development of behavioural and social interventions for the response to the COVID-19 pandemic, to maximise their potential and minimise the risk of unintended harms. These principles do not remove the need for empirical formative research with relevant communities to inform interventions or for interventions to be pre-tested prior to implementation and evaluated once implemented. However, we hope that they provide a helpful means of ensuring that such efforts focus on the best candidate interventions.

'Distancers' and 'non-distancers'? The potential social psychological impact of moralizing COVID-19 mitigating practices on sustained behaviour change

2020, *Br J Soc Psychol*.

<https://pubmed.ncbi.nlm.nih.gov/32584437/>

As rules are being relaxed and individuals become less strict, and thus, the ambiguity in policy increases, the maintenance of recommended social distancing norms will rely on more informal social interactional processes. We argue that the moralization of these practices, twinned with relaxations of policy, may likely cause interactional tension between those individuals who do vs. those who do not uphold social distancing in the coming months: that is, derogation of those who adhere strictly to COVID-19 mitigating practices and group polarization between 'distancers' and 'non-distancers'.

Precision Public Health as a Key Tool in the COVID-19 Response

2020, *JAMA Network*

<https://jamanetwork.com/journals/jama/fullarticle/2769563>

The COVID-19 pandemic provides an opportunity for further evolution of the field of precision public health, as new tools and technologies begin to complement traditional medical and public health approaches to prevention and control.

Household transmission of SARS-CoV-2: a systematic review and meta-analysis of secondary attack rate

2020, medrxiv (pre-print)

<https://www.medrxiv.org/content/10.1101/2020.07.29.20164590v1>

To prevent the spread of SARS-CoV-2, people are being asked to stay at home worldwide. With suspected or confirmed infections referred to isolate at home, household transmission will continue to be a significant source of transmission.

Social network-based distancing strategies to flatten the COVID-19 curve in a post-lockdown world2020, *Nat Hum Behav.*<https://pubmed.ncbi.nlm.nih.gov/32499576/>

We demonstrate that a strategic social network-based reduction of contact strongly enhances the effectiveness of social distancing measures while keeping risks lower. We provide scientific evidence for effective social distancing that can be applied in public health messaging and that can mitigate negative consequences of social isolation.

Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis2020, *Lancet*<https://pubmed.ncbi.nlm.nih.gov/32497510/>

The findings of this systematic review and meta-analysis support physical distancing of 1 m or more and provide quantitative estimates for models and contact tracing to inform policy. Optimum use of face masks, respirators, and eye protection in public and health-care settings should be informed by these findings and contextual factors.

Initial impacts of global risk mitigation measures taken during the combatting of the COVID-19 pandemic2020, *Saf Sci.*<https://pubmed.ncbi.nlm.nih.gov/32296266/>

Various measures such as mobility restrictions, physical distancing, hygienic measures, socio-economic restrictions, communication and international support mechanisms have been clustered and are reviewed in terms of the nature of the actions taken and their qualitative early-perceived impact. At the time of writing, it is still too premature to express the quantitative effectiveness of each risk mitigation cluster, but it seems that the best mitigation results are reported when applying a combination of voluntary and enforceable measures.

Ten considerations for effectively managing the COVID-19 transition2020, *Nat Hum Behav.*<https://pubmed.ncbi.nlm.nih.gov/32581299/>

We propose ten considerations to support this principle: (1) implement a phased approach to a 'new normal'; (2) balance individual rights with the social good; (3) prioritise people at highest risk of negative consequences; (4) provide special support for healthcare workers and care staff; (5) build, strengthen and maintain trust; (6) enlist existing social norms and foster healthy new norms; (7) increase resilience and self-efficacy; (8) use clear and positive language; (9) anticipate and manage misinformation; and (10) engage with media outlets.

COVID-19 is rapidly changing: Examining public perceptions and behaviors in response to this evolving pandemic2020, *PLoS One.*<https://pubmed.ncbi.nlm.nih.gov/32574184/>

Adopting avoidance behaviors was associated with trust in government/authorities (aOR: 6.0, 95% CI 2.6-11.0), higher perceived rating of effectiveness of behaviors (aOR: 4.0, 95% CI: 1.8-8.7), higher levels of perceived ability to adopt social distancing strategies (aOR: 5.0, 95% CI: 1.5-9.3), higher trust in government (aOR: 6.0, 95% CI: 2.6-11.0) and higher level of concern if self-isolated (aOR: 1.8, 95% CI: 1.1-3.0).

Facemasks for prevention of viral respiratory infections in community settings: A systematic review and meta-analysis2020, *Indian J Public Health*<https://pubmed.ncbi.nlm.nih.gov/32496254/>

Existing data pooled from randomized controlled trials do not reveal a reduction in occurrence of influenza-like illness with the use of facemask alone in community settings.

Effectiveness of N95 respirators versus surgical masks against influenza: A systematic review and meta-analysis

2020, *J Evid Based Med*

<https://pubmed.ncbi.nlm.nih.gov/32167245/>

The use of N95 respirators compared with surgical masks is not associated with a lower risk of laboratory-confirmed influenza. It suggests that N95 respirators should not be recommended for general public and nonhigh-risk medical staff those are not in close contact with influenza patients or suspected patients.

Efficacy of face mask in preventing respiratory virus transmission: A systematic review and meta-analysis

2020, *Travel Med Infect Dis*

<https://pubmed.ncbi.nlm.nih.gov/32473312/>

This study adds additional evidence of the enhanced protective value of masks, we stress that the use masks serve as an adjunctive method regarding the COVID-19 outbreak.

Personal protective equipment for preventing highly infectious diseases due to exposure to contaminated body fluids in healthcare staff

2020, *Cochrane Database Syst Rev*

<https://pubmed.ncbi.nlm.nih.gov/32293717/>

We found low- to very low-certainty evidence that covering more parts of the body leads to better protection but usually comes at the cost of more difficult donning or doffing and less user comfort. More breathable types of PPE may lead to similar contamination but may have greater user satisfaction.

Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review

2020, *Cochrane Database Syst Rev*

<https://pubmed.ncbi.nlm.nih.gov/32267544/>

Current evidence for COVID-19 is limited to modelling studies that make parameter assumptions based on the current, fragmented knowledge. Findings consistently indicate that quarantine is important in reducing incidence and mortality during the COVID-19 pandemic. Early implementation of quarantine and combining quarantine with other public health measures is important to ensure effectiveness. In order to maintain the best possible balance of measures, decision makers must constantly monitor the outbreak situation and the impact of the measures implemented. Testing in representative samples in different settings could help assess the true prevalence of infection, and would reduce uncertainty of modelling assumptions.

Barriers and facilitators to healthcare workers' adherence with infection prevention and control (IPC) guidelines for respiratory infectious diseases: a rapid qualitative evidence synthesis

2020, *Cochrane Database Syst Rev*

<https://pubmed.ncbi.nlm.nih.gov/32315451/>

Healthcare workers point to several factors that influence their ability and willingness to follow IPC guidelines when managing respiratory infectious diseases. These include factors tied to the guideline itself and how it is communicated, support from managers, workplace culture, training, physical space, access to and trust in personal protective equipment, and a desire to deliver good patient care. The review also highlights the importance of including all facility staff, including support staff, when implementing IPC guidelines.

The need of health policy perspective to protect Healthcare Workers during COVID-19 pandemic. A GRADE rapid review on the N95 respirators effectiveness

2020, *PLoS One*.

<https://pubmed.ncbi.nlm.nih.gov/32492045/>

We found no direct high quality evidence on whether N95 respirators are better than surgical masks for HCWs protection from SARS-CoV-2. However, low quality evidence suggests that N95 respirators protect HCWs from clinical respiratory infections. This finding should be contemplated to decide the best strategy to support the resilience of healthcare systems facing the potentially catastrophic SARS-CoV-2 pandemic.

Meta-analysis of diagnostic performance of serological tests for SARS-CoV-2 antibodies up to 25 April 2020 and public health implications

2020, *Euro Surveill*.

<https://pubmed.ncbi.nlm.nih.gov/32553061/>

For specificity, the pooled estimate were 98% for IgM and 99% for IgG and total antibodies. In populations with $\leq 5\%$ of seroconverted individuals, unless the assays have perfect (i.e. 100%) specificity, the positive predictive value would be $\leq 88\%$. Serological tests should be used for prevalence surveys only in hard-hit areas.

Effectiveness of preventive measures against COVID-19: A systematic review of *In Silico* modeling studies in indian context

2020, *Indian J Public Health*.

<https://pubmed.ncbi.nlm.nih.gov/32496248/>

Although there is mathematical rationality behind implementation of social distancing measures including lockdown, this study also emphasised the importance of other associated measures like increasing tests and increasing the number of hospital and ICU beds. The later components are particularly important during the social mixing period to be observed after lifting of lockdown.

A rapid systematic review of the efficacy of face masks and respirators against coronaviruses and other respiratory transmissible viruses for the community, healthcare workers and sick patients

2020, *Int J Nurs Stud*

<https://pubmed.ncbi.nlm.nih.gov/32512240/>

The study suggests that community mask use by well people could be beneficial, particularly for COVID-19, where transmission may be pre-symptomatic. The studies of masks as source control also suggest a benefit, and may be important during the COVID-19 pandemic in universal community face mask use as well as in health care settings.

School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review

2020, *Lancet Child Adolesc Health*

<https://pubmed.ncbi.nlm.nih.gov/32272089/>

Recent modelling studies of COVID-19 predict that school closures alone would prevent only 2-4% of deaths, much less than other social distancing interventions. Policy makers need to be aware of the equivocal evidence when considering school closures for COVID-19, and that combinations of social distancing measures should be considered. Other less disruptive social distancing interventions in schools require further consideration if restrictive social distancing policies are implemented for long periods.

Medical masks vs N95 respirators for preventing COVID-19 in healthcare workers: A systematic review and meta-analysis of randomized trials

2020, *Influenza Other Respir Viruses*

<https://pubmed.ncbi.nlm.nih.gov/32246890/>

Low certainty evidence suggests that medical masks and N95 respirators offer similar protection against viral respiratory infection including coronavirus in healthcare workers during non-aerosol-generating care. Preservation of N95 respirators for high-risk, aerosol-generating procedures in this pandemic should be considered when in short supply.

Effectiveness of workplace social distancing measures in reducing influenza transmission: a systematic review

2018, *BMC Public Health*.

<https://pubmed.ncbi.nlm.nih.gov/29669545/>

Modeling studies support social distancing in non-healthcare workplaces, but there is a paucity of well-designed epidemiological studies.

Effectiveness of Masks and Respirators Against Respiratory Infections in Healthcare Workers: A Systematic Review and Meta-Analysis

2017, *Clin Infect Dis*

<https://pubmed.ncbi.nlm.nih.gov/29140516/>

This systematic review and meta-analysis supports the use of respiratory protection. However, the existing evidence is sparse and findings are inconsistent within and across studies.

Value for Money in H1N1 Influenza: A Systematic Review of the Cost-Effectiveness of Pandemic Interventions

2017, *Value Health*

<https://pubmed.ncbi.nlm.nih.gov/28577700/>

The existing studies suggest that hospital quarantine, vaccination, and usage of the antiviral stockpile are highly cost-effective, even for mild pandemics. However, school closures, antiviral treatments, and social distancing may not qualify as efficient measures, for a virus like 2009's H1N1 and a willingness-to-pay threshold of \$45,000 per disability-adjusted life-year. Such interventions may become cost-effective for severe crises.

Uptake and effectiveness of facemask against respiratory infections at mass gatherings: a systematic review

2016, *Int J Infect Dis*

<https://pubmed.ncbi.nlm.nih.gov/27044522/>

A modest proportion of attendees of MGs use facemask, the practice is more widespread among health care workers. Facemask use seems to be beneficial against certain respiratory infections at MGs but its effectiveness against specific infection remains unproven.

Effectiveness of N95 respirators versus surgical masks in protecting health care workers from acute respiratory infection: a systematic review and meta-analysis

2016, *CMAJ*

<https://pubmed.ncbi.nlm.nih.gov/26952529/>

Although N95 respirators appeared to have a protective advantage over surgical masks in laboratory settings, our meta-analysis showed that there were insufficient data to determine definitively whether N95 respirators are superior to surgical masks in protecting health care workers against transmissible acute respiratory infections in clinical settings.

Public perceptions of non-pharmaceutical interventions for reducing transmission of respiratory infection: systematic review and synthesis of qualitative studies

2014, *BMC Public Health*.

<https://pubmed.ncbi.nlm.nih.gov/24920395/>

People actively evaluate non-pharmaceutical interventions in terms of their perceived necessity, efficacy, acceptability, and feasibility. To enhance uptake, it will be necessary to address key barriers, such as beliefs about infection transmission, rejection of personal risk of infection and concern about the potential costs and stigma associated with some interventions.

The use of masks and respirators to prevent transmission of influenza: a systematic review of the scientific evidence

2012, *Influenza Other Respir Viruses*

<https://pubmed.ncbi.nlm.nih.gov/22188875/>

Eight of nine retrospective observational studies found that mask and/or respirator use was independently associated with a reduced risk of severe acute respiratory syndrome (SARS). Findings, however, may not be applicable to influenza and many studies were suboptimal. None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection. Some evidence suggests that mask use is best undertaken as part of a package of personal protection especially hand hygiene. The effectiveness of masks and respirators is likely linked to early, consistent and correct usage.

Physical interventions to interrupt or reduce the spread of respiratory viruses

2011, *Cochrane Database Syst Rev*.

<https://pubmed.ncbi.nlm.nih.gov/21735402/>

Surgical masks or N95 respirators were the most consistent and comprehensive supportive measures. N95 respirators were non-inferior to simple surgical masks but more expensive, uncomfortable and irritating to skin. Adding virucidals or antiseptics to normal handwashing to decrease respiratory disease transmission remains uncertain. Global measures, such as screening at entry ports, led to a non-significant marginal delay in spread. There was limited evidence that social distancing was effective, especially if related to the risk of exposure.

Face masks to prevent transmission of influenza virus: a systematic review

2010, *Epidemiol Infect*

<https://pubmed.ncbi.nlm.nih.gov/20092668/>

There is some evidence to support the wearing of masks or respirators during illness to protect others, and public health emphasis on mask wearing during illness may help to reduce influenza virus transmission. There are fewer data to support the use of masks or respirators to prevent becoming infected.

Physical interventions to interrupt or reduce the spread of respiratory viruses

2010, *Cochrane Database Syst Rev*.

<https://pubmed.ncbi.nlm.nih.gov/20091588/>

Many simple and probably low-cost interventions would be useful for reducing the transmission of epidemic respiratory viruses. Routine long-term implementation of some of the measures assessed might be difficult without the threat of a looming epidemic.

Physical interventions to interrupt or reduce the spread of respiratory viruses: systematic review

2009, *BMJ*

<https://pubmed.ncbi.nlm.nih.gov/19773323/>

Routine long term implementation of some of the measures to interrupt or reduce the spread of respiratory viruses might be difficult. However, many simple and low cost interventions reduce the transmission of epidemic respiratory viruses. More resources should be invested into studying which physical interventions are the most effective, flexible, and cost effective means of minimising the impact of acute respiratory tract infections.

Physical interventions to interrupt or reduce the spread of respiratory viruses: systematic review

2008, *BMJ*

<https://pubmed.ncbi.nlm.nih.gov/18042961/>

Routine long term implementation of some physical measures to interrupt or reduce the spread of respiratory viruses might be difficult but many simple and low cost interventions could be useful in reducing the spread.

