# Literature Review:

## Summary of Findings:

Here is a summary of findings from literature review, in the form of bullet points:

* There are three factors influencing vaccine hesitancy:
  + Confidence
  + Complacency
  + Convenience
* There is a distinction between vaccine hesitancy & outright rejection.
* Prevalence of vaccination has made people not see the benefits of vaccination

## Citations/Original

Please put citations/links to literature review here.

The Three C’s

According to the World Health Organization (WHO) (2019) vaccine hesitancy is influenced by factors such as: confidence, complacency and, convenience.

Confidence

Refers to a lack of trust in the effectiveness and safety of vaccines, the system that delivers them – including the reliability of the health professional – and/or the motivations of policy-makers who make determinations about vaccines.

Complacency

Refers to a low perceived risk of vaccine-preventable diseases and therefore it is assumed vaccines are not needed. Other issues are considered more important.

Convenience

Refers to the degree to which the comfort, convenience, time, place, and quality of a vaccine affects uptake of the vaccine. This continuum ranges from total acceptance to complete refusal. The concern is that hesitancy can lead to refusal, and unvaccinated clusters may emerge as disease outbreaks ([Gangarosa et al., 1998](https://www.sciencedirect.com/science/article/pii/S0277953614002421" \l "bib23); [Jansen et al., 2003](https://www.sciencedirect.com/science/article/pii/S0277953614002421#bib34)).

Link: https://ecampusontario.pressbooks.pub/immunizations/chapter/considerations-for-vaccine-hesitancy-3cs-model/

Attitudes towards vaccines, a critical review:

? Difference between hesitant and rejection?

<https://www.sciencedirect.com/science/article/pii/S0277953614002421#bib34>

“The policy concern is that hesitancy soon becomes refusal, as suggested by theory and experience ([Salathé and Bonhoeffer, 2008](https://www.sciencedirect.com/science/article/pii/S0277953614002421" \l "bib52)), and unvaccinated clusters emerge in which disease outbreaks can occur ([Gangarosa et al., 1998](https://www.sciencedirect.com/science/article/pii/S0277953614002421" \l "bib23), [Jansen et al., 2003](https://www.sciencedirect.com/science/article/pii/S0277953614002421" \l "bib34)). For example, a UK study of 14,578 children found that three-quarters of parents whose children were not vaccinated with MMR made a conscious decision to not vaccinate ([Pearce et al., 2008](https://www.sciencedirect.com/science/article/pii/S0277953614002421" \l "bib47)). The refusal rate suggests that the traditional assumption that parents suffer information deficit, lack access to the facts or are misinformed is, at best, an incomplete understanding of vaccination attitudes ([Hobson-West, 2003](https://www.sciencedirect.com/science/article/pii/S0277953614002421" \l "bib31)). We assume that, at one point, these parents were hesitant before they made their decision, and so there is an important distinction to be drawn between hesitancy and outright rejection”

If we take the distinction between hesitancy and rejection seriously, it becomes clear that whilst coverage rates are helpful for identifying those who reject, the metric does little to help us understand hesitant attitudes, their origins and the scope to change them. The goal of maintaining high coverage rates helps to ensure vaccination benefits are delivered widely, but the very act of delivering wide scale vaccination can make vaccines ‘victims of their own success’.

The WHO Director-General said about H1N1: “we did not anticipate that people would decide not to be vaccinated … In today's world, people can draw on a vast range of information sources. People make their own decisions about what information to trust, and base their actions on those decisions” ([Chan, 2010](https://www.sciencedirect.com/science/article/pii/S0277953614002421" \l "bib13)).

A picture containing timeline

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“Unsurprisingly, the most commonly cited reason for general population hesitancy towards vaccination is safety concerns. Lack of awareness, low perceived severity of illness and a belief in alternative medicine were often cited as reasons for hesitancy. However, lack of knowledge was mentioned less than distrust of government sources.”

For many people, ‘official’ sources were already seen as having been sullied by commercial interests or overzealous vaccinators. This means that, in addition to developing new metrics and monitoring them, restoring trust and credibility of the institutions involved with vaccinations must take centre-stage.

McKinsey report:

<https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/whos-left-engaging-the-remaining-hesitant-consumers-on-covid-19-vaccine-adoption>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8256776/>

Posts that circulated widely across the media included, for example, that vaccines have been manufactured to track personal data, are counter to the foundations of the Christian faith, and impact fertility. These worries created scepticism which often affect decision on whether to receive the vaccine [[8](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8256776/#CR8)].

recent data show that 1 in 5 Americans are unwilling to get the COVID-19 vaccine [[15](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8256776/#CR15)]. As more people are successfully vaccinated, trust increases and people realise that social media conspiracy theories are false. Due to the central role that social media plays, it is now assisting the vaccine process in the USA and the UK, rather than hindering it [[8](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8256776/#CR8)].

Research showed that trust in government is strongly associated with vaccine acceptance and can contribute to public compliance with recommended actions [[17](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8256776/#CR17)]. Unfortunately, building trust in vaccine safety and efficacy requires great effort. Programs will not achieve wide coverage unless an in-depth investigation is done to identify the community-specific reasons behind hesitancy.

*When asked whether “You would accept a vaccine if it were recommended by your employer and was approved safe and effective by the government,” 31.9% (4,286 of 13,426) completely agreed, whereas 17.9% (2,411 of 13,426) somewhat or completely disagreed (Table*[*​(Table1).1*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7573523/table/Tab1/)*). There was considerable variation by country, with China again having the highest proportion of positive responses (596 of 712, 83.7%) and the lowest proportion of negative responses (26 of 712, 3.7%). Russia had the highest proportion of negative responses (278 of 680, 40.9%) and the lowest proportion of respondents (184 of 680, 27.1%) willing to accept their employer’s recommendation (Supplementary Table*[*1*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7573523/#MOESM1)*).*

*People aged 25–54, 55–64 and 65+ were more likely to accept the vaccine than those who were aged 18–24. This difference was strongest (odds ratio (OR) = 1.73; 95% confidence interval (CI) (1.48, 2.02)) when responses from the oldest age cohort and those from the youngest age cohort were compared (Table*[*​(Table2).2*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7573523/table/Tab2/)*)*

*The opposite trend was observed in regard to acceptance of the vaccine if one’s employer required it.*

*People earning more than $32 per day were 2.18 (95 CI% (1.79, 2.64)) times more likely to respond positively to the general question than people earning less than $2 per day. Higher levels of education were also associated positively with vaccine acceptance on both questions. People who reported COVID-19 sickness in themselves or family members were no more likely to respond positively to the vaccine question than other respondents (OR = 0.97; 95% CI (0.87, 1.08)). Cases and mortality per million of a nation’s population were associated with a higher likelihood of vaccine acceptance in countries with medium and high disease incidence and mortality.*

*Future vaccine communication strategies should consider the level of health, scientific and general literacy in subpopulations, identify locally trusted sources of information*[*10*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7573523/#CR10)*and go beyond simply pronouncing that vaccines are safe and effective. Strategies to build vaccine literacy and acceptance should directly address community-specific concerns or misconceptions, address historic issues breeding distrust and be sensitive to religious or philosophical beliefs*[*11*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7573523/#CR11)*. Researchers have identified promising interventions for building confidence and reducing vaccine hesitancy in different contexts*[*12*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7573523/#CR12)*,*[*13*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7573523/#CR13)*, but translating this evidence into large-scale vaccination campaigns will require particular awareness of and attention to existing public perceptions and felt needs. Engaging formal and informal opinion leaders within these communities will be key.*

*Additionally, we observed age-related associations with vaccine acceptance. Older people were more likely to report that they would take a vaccine, whereas younger respondents were more likely to accept an employer’s vaccine recommendation. This finding might reflect who was actually employed or employable at the time of the survey—an issue we did not investigate. Men in this study were less likely than women to accept vaccines in general or their employer’s recommendation to get vaccinated; however, this association was not strong. Those with a higher income were most likely to accept a vaccine than those with a lower income.*

*The other source of concern was a discrepancy between reported acceptance of a COVID-19 vaccine and acceptance if vaccination was mandated by one’s employer. All respondents, regardless of nationality, reported that they would be less likely to accept a COVID-19 vaccine if it were mandated by employers. This finding across all countries with both high and low reported vaccine acceptance proportions suggests that promoting voluntary acceptance is a better option for employers. It might seem easier to monitor compliance among adults in the working age group if employers required it, but this could fail if it is perceived as limiting employees’ freedom of choice or a manifestation of employers’ self-interest*

Note:

Three ways to influence:

1. Logic Appeals: rational and intellectual position
2. Emotional Appeals: connect message to individual goals and values
3. Cooperative Appeals: involve consultation, collaboration and alliances