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## EDITORIAL

### **Harnessing the nursing contribution to COVID-19 mass vaccination programmes: addressing hesitancy and promoting confidence**

The need for a mass vaccination programme for COVID-19 is considered a pivotal public health strategy to reduce rates of infection, hospitalisations and deaths which have been so much a feature of the past year of the COVID-19 pandemic (DHSC 2021). Vaccinating whole populations quickly is key to control the global spread of the disease, reduce and prevent the long term effects of COVID-19, and limit the opportunity for mutations of the coronavirus to emerge (Bagcchi 2021, Pagel 2021). After the social restrictions in daily living and the economic upheaval experienced by people across the world, vaccines offer hope and the promise of better days to come, but this can only be fully realised if sufficient numbers of people across all sectors of the population take up the offer of a vaccine (DHSC 2021, Schoch-Spana et al 2020).

Critical to the success of COVID-19 mass vaccination programmes is the nursing contribution (Bajnok et al 2020). Nurses have for a long time been instrumental in the success of immunisation programmes across the life cycle, through key engagement activities concerned with awareness raising, education, vaccine administration, prescribing and policy development (Bajnok et al 2018, RCN 2021). The challenge this time, over and above the scale and urgency of the endeavour, is the need to promote vaccine confidence and acceptance against a background of misinformation and mistrust, arising in part due to the pervasive influence of social media combined with long standing distrust in public health measures in certain communities (Ashwell & Murray 2020, Harrison & Wu 2020, Schoch-Spana et al 2020). Approaches which are broader than simply the administration of vaccines in vaccine clinics are required (Harrison & Wu 2020, ICN 2020). From their own involvement in the UK National Vaccination Programme, the authors suggest that partnership working between nurses, individuals and communities holds the key to addressing vaccine hesitancy and promoting vaccine confidence.

#### **1. EMPOWERING INDIVIDUALS**

In planning and delivering mass vaccination campaigns, approaches that value and acknowledge individuals' perspectives and experiences are vital if sufficient uptake of COVID-19 vaccines is to be achieved (Schoch-Spana et al 2020). Though mass vaccination has been a widely used, cost-effective measure to prevent more than 20 common infectious diseases, low uptake within and across communities can lead to reduced herd immunity and outbreaks of preventable disease (Siciliani et al 2020, WHO 2021a). This has become an increasing issue in recent years, with vaccination rates in many countries decreasing, and particular communities or groups reluctantly engaging or actively refusing vaccines offered (Larson et al 2014, Paul et al 2021, Siciliani et al 2020). Referred to as *vaccine hesitancy*, decisions to delay accepting, or refusing a vaccine are complex and contextual; they may vary depending on time and vaccine offered, and perhaps may better be considered as a continuum, rather than a binary pro- or anti-vaccine choice (Larson et al 2014, MacDonald 2015).

Decisions by an individual to accept, delay or refuse a vaccine may be taken on the basis of an assessment of individual benefits (risk of contracting the disease and the health effects of the disease) against perceived costs (monetary, vaccine safety, injection phobia and discomfort). Societal benefits from vaccines such as protection of others and achievement of herd immunity, may also inform an individual's decision (Siciliani et al 2020). To achieve the primary goal of the UK COVID-19 vaccination programme, that as many people as possible across all communities decide to take up the vaccine when offered (DHSC 2021), individuals need to have confidence in the safety and efficacy of the available vaccines, and confidence in the health systems and staff delivering vaccines. They need to be persuaded of their individual role in contributing to societal protection, rather than relying on others to achieve and benefit from herd immunity, and they need convenient access to vaccination centres (MacDonald 2015).

So what are the implications for nursing practice if the goal of high uptake of COVID-19 vaccine is to be truly realised? It is suggested that a reframing of the issue of *vaccine hesitancy* may yield benefits; vaccine hesitancy and vaccine promotion has become an emotive topic in recent years (Ashwell & Murray 2020). Instead of focusing on an individual's hesitancy and perhaps refusal, practitioners should work from a broader health promotion perspective and seek to work in partnership with individuals to promote vaccine confidence, rather than mere acceptance (Harrison & Wu 2020). Within this frame of practice, establishing a trusting relationship and facilitating open and personalised discussions can positively influence immunisation decisions. Exploring and responding to concerns, and signposting to credible sources of information are also important (Hill et al 2021). Core areas identified that should be addressed in discussions include the safety, efficacy and purpose of the vaccine (Larson et al 2014). To support these discussions for the COVID-19 vaccines, a range of specific resources have been developed (Lewandowsky et al 2021). However, the potentially challenging nature of such discussions has been brought to the fore in recent weeks. Vaccinators have needed to assimilate and communicate complex information to people attending busy vaccination clinics, regarding safety concerns raised in a number of European countries with respect to the Oxford Astrazeneca vaccine (EMA 2021, MHRA 2021, WHO 2021b). Skilled communication strategies which focus on risk and address individual expectations (Harrison & Wu 2020, Lewandowsky et al 2021), have been fundamental to support positive individual decision making and confidence in the vaccine offered.

## 2. ENABLING COMMUNITIES

Despite the disproportionate impact of COVID-19 on Black, Asian and other minority ethnic communities, the uptake of COVID-19 vaccines has been slower in these groups, including amongst health and social care staff (Martin et al 2021). This is consistent with previous vaccine uptake trends across ethnic minority groups (Razai et al 2021, SAGE 2021). The reasons why people have refused to accept the vaccines are numerous and complex, but many reasons stem from mistrust of healthcare systems, structural systemic racism and discrimination (Schoch-Spana et al 2020).

Medical mistrust has historical roots. For example, the United States (US) public health service Tuskegee Study of Untreated Syphilis (TSUS) in African American men between 1932

and 1972, was a non-consented 40-year study to observe what happened to the natural progression of untreated syphilis in 400 men through to death (White, 2000). In 1996, in Kano, Northern Nigeria, Pfizer tested the efficacy of a new antibiotic 'Trovafloxacin' (Trovan) during a meningitis epidemic on 200 children, without parental knowledge. Several children suffered adverse complications including death during the study. Slow settlement of the case by Pfizer, and secrecy surrounding it has contributed to many believing that Black Africans are targeted for human experimentation (Evuleocha, 2012). Such historical beliefs and practices continue to contribute to controversies regarding vaccine trials in Africa (Etutu 2020, Okwonga 2020) at a time when it is critically important to understand how COVID-19 vaccines perform in populations of greatest need of protection (Makoni 2020).

Public trust is crucial in promoting public health and plays a pivotal role in community engagement with public health interventions (Schoch-Spana et al 2020). Built on trust, sensitive to local communities, health needs and different religious and cultural concerns, community engagement is key to the success of any COVID-19 vaccination programme (SAGE 2021). In the UK, insight and influence groups including healthcare professionals from a wide range of specialisms were set up initially with the aim of communicating directly with diverse communities. The goal was to enable all to make an informed choice about taking the vaccine and create a direct touchpoint (DHSC 2021). Whilst many people were influenced by misinformation circulated on social media platforms, it was important to not to label everyone with this assumption (Lewandowsky et al 2021, SAGE 2021). Employing a cultural humility approach, where power imbalances are addressed and non-paternalistic partnerships with communities are developed (Tervalon & Murray-Garcia 1998, Greene-Moton & Minkler 2019), enabled any assumptions viewing individual vaccine hesitancy as the problem, to be challenged. Instead, community engagement addressing contextual, individual and social group determinants of vaccine hesitancy could be addressed with the objective of promoting vaccine confidence (Larson et al 2014, SAGE 2021).

Communication in meaningful ways, which responds to community concerns, tackles misinformation, and provides consistent messages of the benefits of COVID-19 vaccines over the disease risks is crucial (DHSC 2021, Lewandowsky et al 2021, SAGE 2021). To address this, many interactive webinars, listening and stakeholder engagement events have been held to elicit the views of community and faith group leaders regarding uptake of the vaccine and dispel the myths surrounding the COVID19 vaccine. Involvement from health and social care staff from minority ethnic communities was encouraged, as it was known that mistrust, particularly amongst Black African and Caribbean staff was a major concern, and was likely to affect their confidence in, and uptake of any vaccine (Martin et al 2021, Razai et al 2021). Staff had expressed feeling pressured or stigmatised rather than their concerns being addressed. In addition, there were heightened concerns for pregnant black women or those wanting to start a family. Messaging was tailored to acknowledge mistrust issues and Black and Asian experts in the field of obstetrics, gynaecology, infectious diseases and virologists were involved in the delivery of the information sessions. At local and national levels a range of tailored social media resources have been produced to support vaccine communication within minority ethnic communities (NHS Leeds 2021).

In London, to support vaccine delivery, local health and social care staff were contacted through Black and Minority Ethnic networks and The Chief Nursing Officer for England's Strategic Advisory Group. Working with local Community Champions, trusted members of

minority ethnic communities, were trained by COVID-19 nursing vaccine leads to provide vaccine advice and administer COVID-19 vaccines under nurse supervision (MHCLG & DHSC 2021). Together professionals and the local community set up vaccination clinics in community halls, churches and mosques to encourage uptake of the vaccine. COVID-19 buses and mobile units were deployed to housing estates, high streets and town centres, encouraging access. Such health and community based partnerships have been much in evidence across the whole of the UK (Ford 2021, Haynes 2021).

Staff who were initially hesitant about getting vaccinated have shared their stories about how they developed vaccine confidence and decided to have the COVID-19 vaccine (NHSGGC 2021). Although many staff were encouraged to use social media to share their experiences of being vaccinated, it was also essential that people did not feel pressured to have the vaccine. Thus, the consistent message has been the benefits of taking the COVID-19 vaccine over the risks of contracting COVID-19 (MHRA 2021, WHO 2021).

### 3. SUPPORTING PROFESSIONALS

Healthcare professionals are central to the success of mass vaccination programmes. Not only are they at the forefront of vaccine administration, they are also key to changing hearts and minds in relation to vaccine acceptance amongst the general public (Mantel et al 2020). Of all healthcare professionals, nurses provide the closest patient facing care and as such possess a real opportunity to advocate for and promote important public health messages (Bajnok et al 2018). When applied to the vaccine programmes it is important that nurses and other healthcare professionals lead by example, through role-modelling, to reassure the public that vaccines are safe, low risk and can be easily administered (Hill et al 2021). Generally, the public place trust in healthcare professionals, relying on their knowledge, expertise and experience to guide them through difficult healthcare decision-making (Mantel et al 2020). However, this role-modelling has faltered as, despite all healthcare staff being offered the COVID-19 vaccine, many have still not taken this up, with a disproportionate number being from ethnic minority backgrounds (Mantel et al 2020, Iacobucci, 2021). This has the potential to create public uncertainty around why some supposedly informed healthcare professionals are refusing the vaccine. In response, England's Chief Medical Officer has suggested that all healthcare professionals have a professional responsibility to receive the vaccine (Kituno 2021); this is important for promoting good vaccine effectiveness and a high vaccine uptake amongst healthcare colleagues and the public (Godinot et al 2021).

Media coverage of doctors and nurses administering and receiving the vaccine may go some way to assuage public concerns and increase confidence in the vaccine programme. In addition, over the past year the clinical research nursing workforce has made an outstanding contribution to the global vaccination endeavour, with clinical research nurses working tirelessly to safely and rapidly deliver multiple COVID-19 vaccine trials. This has involved screening trial participants to check their eligibility, undertaking clinical assessments, obtaining informed consent, randomising participants, administering vaccines, monitoring for adverse reactions and collecting high quality trial data (Iles-Smith et al 2020). This momentous effort over a very short space of time has led to high profile, and often mistrusted, pharmaceutical companies reporting excellent safety and efficacy data, resulting in numerous COVID-19 vaccines being licenced for use across the globe. The raised profile of

clinical research nurses working to deliver these vaccines trials rigorously, transparently and to a high quality, has served to provide reassurance and increased confidence for the public and healthcare workers, who may have had concerns about vaccine safety and efficacy (Karafillakis et al 2016).

Healthcare professionals sit on national and regional COVID-19 vaccine taskforce groups and their frontline insights into some of the perceived challenges and barriers to successful vaccine uptake can be used to inform national and international guidance (DHSE 2021). However, reasons for vaccine hesitancy are complex, multi-faceted and must also be addressed at a local level (Schoch-Spana et al 2020, SAGE 2021). To maximise the nursing contribution to vaccine delivery programmes, there is a need for high quality vaccine related education and training so that they can be well positioned to provide comprehensive guidance to individuals, enabling them to make fully informed choices about whether to proceed with their vaccinations (Lewandowsky et al 2021). In addition, an ability for nurses to recognise the needs, views and perspectives of individuals within different communities is key to breaking down barriers and boundaries and to allaying fears that may have originated within different community networks (Larson et al 2014). Issues such as limited vaccine knowledge, misinformation, government and pharmaceutical company mistrust and perceptions of equality and discrimination in health and public services, may all serve to limit uptake within and across different factions of society (DHSC, 2021). To address these issues, nurses need to be supported to develop close partnership working with community leaders, who are gatekeepers to local populations, and need to understand the diverse range of issues influencing vaccine hesitancy, if high vaccine uptake across all population groups is to be achieved (DHSC 2021, SAGE 2021).

## CONCLUSION

Acknowledgement of the determinants of vaccine hesitancy is crucial to any COVID-19 mass vaccination programme (Larson et al 2014, Schoch-Spana 2020). To achieve high uptake of vaccines across all population groups in the UK, community engagement programmes built upon established trusting relationships between health professionals, including nurses, and the voluntary sector, faith groups and community organisations are key (DHSE 2021). Nurses also have a part to play in enabling appropriate information to be disseminated and promoted at the right time, at the right level and in the right format (Bajnok et al 2018, Hill et al 2021). Through the use of person-centred approaches, building partnerships with individuals and communities, vaccine hesitancy may be addressed and vaccine confidence, rather than simply vaccine acceptance, may be achieved.

## Conflict of interest

None

## Author Contributions

All authors have agreed on the final version and meet at least one of the criteria recommended by the ICMJE (<http://www.icmje.org/recommendations/>).

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## References

Ashwell D., Murray N. (2020) When being positive might be negative: An analysis of Australian and New Zealand newspaper framing of vaccination post Australia's No Jab No Pay legislation. *Vaccine* 38, 5627-5633 <https://doi.org/10.1016/j.vaccine.2020.06.070>

Bagcchi S. (2021) The world's largest COVID-19 vaccination campaign. *The Lancet, Infectious Diseases*, 21 (3) 323. [https://doi.org/10.1016/S1473-3099\(21\)00081-5](https://doi.org/10.1016/S1473-3099(21)00081-5)

Bajnok I., Shamian J., Catton H. et al (2018) The Role of Nurses in Immunisation. A snapshot from OECD countries. International Council of Nurses. Retrieved from [https://www.icn.ch/sites/default/files/inline-files/IMMUNISATION\\_Report%20%28002%29.pdf](https://www.icn.ch/sites/default/files/inline-files/IMMUNISATION_Report%20%28002%29.pdf)

DHSC (2021, February 13). UK COVID-19 vaccine uptake plan. Policy Paper. Department of Health & Social Care. Retrieved from <https://www.gov.uk/government/publications/covid-19-vaccination-uptake-plan/uk-covid-19-vaccine-uptake-plan>

Etutu J. (2020, June 24). Coronavirus vaccine trials in Africa: what you need to know. Retrieved from <https://www.bbc.co.uk/news/av/world-africa-53169928>

EMA (2021, March 18) COVID-19 Vaccine AstraZeneca: benefits still outweigh the risks despite possible link to rare blood clots with low blood platelets. European Medicines Agency. Retrieved from <https://www.ema.europa.eu/en/news/covid-19-vaccine-astrazeneca-benefits-still-outweigh-risks-despite-possible-link-rare-blood-clots>

Evuleocha, S. (2012) The Global Market in Human Experimentation: Pfizer and the Meningitis Experiment in Nigeria. *Interdisciplinary Journal of Research in Business*, 2 (6), 46-55.

Ford M. (2021, February 15) Covid-19 vaccines: Nurse volunteer draws on 40-year career to support programme. *Nursing Times* Retrieved from <https://www.nursingtimes.net/news/coronavirus/covid-19-vaccines-nurse-volunteer-draws-on-40-year-career-to-support-programme-15-02-2021/>

Godinot L.D., Sicsic J., Lacahtre M. et al (2021) Quantifying preferences around vaccination against frequent, mild disease with risk for vulnerable persons: A discrete choice experiment among French hospital health care workers *Vaccine* 39, 805-814 <https://doi.org/10.1016/j.vaccine.2020.12.057>

Greene-Moton E., Minkler M. (2020) Cultural Competence or Cultural Humility? Moving beyond the debate. *Health Promotion Practice* 21 (1) 142-145 <https://doi.org/10.1177/1524839919884912>

Harrison E.A., Wu J.W. (2020) Vaccine confidence in the time of COVID-19. *European Journal of Epidemiology* 35, 325-330 <https://doi.org/10.1007/s10654-020-00634-3>

Haynes L. (2021, January 29) GPs use bus as mobile COVID-19 vaccine clinic to boost uptake. Retrieved from <https://www.gponline.com/gps-use-bus-mobile-covid-19-vaccine-clinic-boost-uptake/article/1705924>

Hill M.C., Salmon D., Chudleigh J., Aitken L.M. (2021) Practice nurses' perceptions of their immunization role and strategies used to promote measles, mumps, and rubella vaccine



uptake in 2014-2018: A qualitative study. *Journal of Advanced Nursing* 77, 948-956  
<https://doi.org/10.1111/jan.14652>

Iacobucci G. (2021) Covid-19: Ethnic minority health staff are less likely to take up vaccine, early data show *British Medical Journal* 372 <https://www.bmj.com/content/372/bmj.n460>

Iles-Smith H. et al on behalf of the Association of UK Lead Research Nurses (2020) How research nurses and midwives are supporting Covid-19 clinical trials. *Nursing Times* [online]; 116, 11, 20-22 Retrieved from <https://cdn.ps.emap.com/wp-content/uploads/sites/3/2020/10/201007-How-research-nurses-and-midwives-are-supporting-Covid-19-clinical-trials.pdf>

ICN (2020, November 12) Success of mass COVID-19 vaccination programmes will depend on frontline nurses and nurse leaders at the highest level of government. Retrieved from <https://www.icn.ch/news/success-mass-covid-19-vaccination-programmes-will-depend-frontline-nurses-and-nurse-leaders>

Karafillakis E., Dinca I., Apfel F., et al (2016) Vaccine hesitancy among healthcare workers in Europe: A qualitative study *Vaccine* 34, 5013-5020  
<http://dx.doi.org/10.1016/j.vaccine.2016.08.029>

Kituno N. (2021, March 5) Staff who refuse covid vaccine face 'one-to-one' with managers. *Health Service Journal* Retrieved from [https://www.hsj.co.uk/workforce/-staff-who-refuse-covid-vaccine-face-one-to-one-with-managers/7029626.article?mkt\\_tok=OTM2LUZSWi03MTkAAAF7oXsBeQ8P\\_5kZUxCZfHVEke3Pr9jBlmtS6CwL12qSjbcAugHmA05G12Yf36oTLgCyrPCe0w6HcmI0z0Wg0-AFS4X3Ne87PDHPFpclr4uAiWKJL8&adredir=1&adredir=1](https://www.hsj.co.uk/workforce/-staff-who-refuse-covid-vaccine-face-one-to-one-with-managers/7029626.article?mkt_tok=OTM2LUZSWi03MTkAAAF7oXsBeQ8P_5kZUxCZfHVEke3Pr9jBlmtS6CwL12qSjbcAugHmA05G12Yf36oTLgCyrPCe0w6HcmI0z0Wg0-AFS4X3Ne87PDHPFpclr4uAiWKJL8&adredir=1&adredir=1)

Larson H.J., Jarrett C., Eckersberger E. et al (2014) Understanding vaccine hesitancy around vaccines and vaccination from a global perspective: a systematic review of published literature 2007-2012. *Vaccine* 32, 2150-2159  
<http://dx.doi.org/10.1016/j.vaccine.2014.01.081>

Lewandowsky S., Cook J., Schmid P., et al (2021, January 26) The COVID-19 Vaccine Communication Handbook. A practical guide for improving vaccine communication and fighting misinformation. Retrieved from <http://repository.essex.ac.uk/29625/>

MacDonald N.E., the SAGE Working Group on Vaccine Hesitancy (2015) Vaccine hesitancy: Definition, scope and determinants. *Vaccine* 33, 4161-4164  
<http://dx.doi.org/10.1016/j.vaccine.2015.04.036>

Makoni M. (2020) COVID-19 vaccine trials in Africa. *The Lancet, Respiratory Medicine* 8 (11) e79-e80 [https://doi.org/10.1016/S2213-2600\(20\)30401-X](https://doi.org/10.1016/S2213-2600(20)30401-X)

Mantel C., Chu S.Y., Hyde T.B. et al (2020) Seasonal influenza vaccination in middle-income countries: Assessment of immunization practices in Belarus, Morocco and Thailand. *Vaccine* 38, 212-219 <https://doi.org/10.1016/j.vaccine.2019.10.028>

Martin C.A., Marshall C., Patel P. et al (2021, February 18) Association of demographic and occupational factors with SARS-COV-2 vaccine uptake in a multi-ethnic UK healthcare workforce: a rapid real-world analysis. *medRxiv* Retrieved from <https://www.medrxiv.org/content/10.1101/2021.02.11.21251548v3.full-text>

MHRA (2021, March 18) UK regulator confirms that people should continue to receive the COVID-19 vaccine AstraZeneca. Medicines & Healthcare products Regulatory Agency. Retrieved from <https://www.gov.uk/government/news/uk-regulator-confirms-that-people-should-continue-to-receive-the-covid-19-vaccine-astrazeneca>

MHCLG & DHSC (2021, January 25) Community Champions to give COVID-19 vaccine advice and boost take up. Ministry of Housing, Communities & Local Government, Department of Health & Social Care. Retrieved from <https://www.gov.uk/government/news/community-champions-to-give-covid-19-vaccine-advice-and-boost-take-up>

NHSGGC (2021, March 10) “We’ve had the COVID-19 vaccination” NHS Greater Glasgow and Clyde. Retrieved from <https://www.youtube.com/watch?v=IM59xFz6jio>

NHS Leeds (2021, January 15) Receiving your COVID-19 vaccination -Bengali. NHS Leeds CCG. Retrieved from <https://www.youtube.com/watch?v=gIWC343BNkE>

Okwonga M. (2020, April 10) The French doctors who wanted to test vaccines on Africans and Western medicine’s dark history. *QuartzAfrica* Retrieved from <https://qz.com/africa/1836272/french-doctors-say-test-covid-19-vaccine-on-africans-spark-fury/>

Pagel C. (2021) How to break the cycle of covid-19 lockdowns. Opinion. *British Medical Journal* 372-169-210, 185.

Paul E., Steptoe A., Fancourt D. (2021) Attitudes towards vaccines and intention to vaccinate against COVID-19: implications for public health communications. *The Lancet Regional Health – Europe* 1, 100012 <https://doi.org/10.1016/j.lanepe.2020.100012>

Razai M.S., Osama T., McKechnie D.G.J., Majeed A. (2021) Covid-19 vaccine hesitancy among ethnic minority groups. *British Medical Journal* 372, 1-2 <https://doi.org/10.1136/bmj.n513>

RCN (2021) RCN position on vaccination. Royal College of Nursing. Retrieved from <https://www.rcn.org.uk/covid-19/rcn-position/vaccination>

SAGE (2021, January 15) Factors influencing COVID-19 vaccine uptake among minority ethnic groups. Scientific Advisory group for Emergencies. Retrieved from <https://www.gov.uk/government/publications/factors-influencing-covid-19-vaccine-uptake-among-minority-ethnic-groups-17-december-2020>

Schoch-Spana M., Brunson E.K., Long R. et al (2020) The public’s role in COVID-19 vaccination: Human-centred recommendations to enhance pandemic vaccine awareness,

access, and acceptance in the United States. *Vaccine*

<https://doi.org/10.1016/j.vaccine.2020.10.059>

Siciliani L., Wild C., McKee M. et al (2020) Strengthening vaccination programmes and health systems in the European Union: A framework for action. *Health Policy* 124, 511-518

<https://doi.org/10.1016/j.healthpol.2020.02.015>

Tervalon M., Murray-Garcia, J. (1998). Cultural humility versus cultural competence: A critical distinction in defining physician training outcomes in multicultural education. *Journal of Health Care for the Poor and Underserved*, 9, 117-125.

White R.M. (2000) Unraveling the Tuskegee Study of Untreated Syphilis. *Arch Intern Med* 160 (5) 585-598 <http://dx.doi.org/10.1001/archinte.160.5.585>

WHO (2021a, February 22) Vaccines and Immunisation. World Health Organisation.

Retrieved from <https://www.who.int/news-room/q-a-detail/vaccines-and-immunization-what-is->

[vaccination?adgroupsurvey={adgroupsurvey}&gclid=Cj0KCQiAs5eCBhCBARIsAEhk4r4y5YfYE\\_Llp8d8mXJdKqt\\_MWcV7bTOgDe4\\_glYZKxJE-a\\_SjHeJyGcaAhUZEALw\\_wcB](https://www.who.int/news-room/q-a-detail/vaccines-and-immunization-what-is-vaccination?adgroupsurvey={adgroupsurvey}&gclid=Cj0KCQiAs5eCBhCBARIsAEhk4r4y5YfYE_Llp8d8mXJdKqt_MWcV7bTOgDe4_glYZKxJE-a_SjHeJyGcaAhUZEALw_wcB)

WHO (2021b, March 17) WHO statement on AstraZeneca COVID-19 vaccine safety signals.

World Health Organisation. Retrieved from <https://www.who.int/news/item/17-03-2021-who-statement-on-astrazeneca-covid-19-vaccine-safety-signals>