

# COVID-19 Vaccination Equity Strategy for Wales

## Executive Summary

**Aim:** All people in Wales should have **fair access** to COVID-19 vaccination with a **fair opportunity** to receive their vaccination so that individuals, families and their communities are protected from the harms of the virus.

**Strategic approach:** To promote vaccine equity, a key principle within the vaccination strategy for Wales, additional tailored support for under-served groups will be required. Ensuring equitable access to vaccination will help address the disproportionate impact that COVID-19 can have on under-served groups such as those from minority ethnic backgrounds, people with disabilities and people who live in poverty.

This vaccination equity strategy will follow a **community-led approach** so concerns can be raised and specific barriers acknowledged for each area. Identified barriers can be addressed through coordinated, tailored action to enable and encourage under-served groups to take up their offer of vaccination.

## Strategic framework:

A new **Vaccine Equity Committee** will work to ensure equitable uptake of COVID-19 vaccination across Wales. They will oversee four key aspects within the vaccination programme:

- 1. Strategy and Action Plan** – using the collective expertise of the Vaccine Equity Committee, that includes representatives from under-served group umbrella organisations, NHS Wales vaccination delivery teams, Public Health Wales and Welsh Government, an evidence-based and data-driven action plan underpinned by the principles of the vaccination equity strategy will be developed. Shared learning will be supported so evidence based interventions can be implemented.
- 2. Data and Intelligence** – targeted and tailored action will be driven by granular data on population groups where uptake is low or who are under-served by traditional healthcare services to address vaccine inequity. Where established data sources are not available, bespoke intelligence gathering will be encouraged to gather insights into specific barriers and enablers for vaccination within communities. Evaluation of the impact of interventions to improve equity will be encouraged.
- 3. Tailored Operational Delivery and Access** – NHS Wales will be supported to provide considered and equitable access for all people, including reasonable adjustments and novel delivery models to ensure no one is left behind.
- 4. Communication and Engagement** – responsive messages from trusted voices will continue to be developed, in conjunction with citizens, responding to community concerns and informed by behavioural insights research. Engagement with communities will empower understanding of the benefits of vaccination and support and motivate others to be vaccinated.

## Section 1: Overview

**Vaccination saves lives.** It is a highly effective public health intervention that prevents illness, disability and death from infectious diseases (Andre 2008). Following huge global efforts, safe and effective vaccinations for coronavirus are now approved for use in the UK (JCVI 2020) supported by real world studies of their effectiveness at reducing hospitalisations and death (Vasileiou et al. 2021; Lopez-Bernal et al 2021). Our first priority in Wales is to save lives and protect individuals who are at highest risk of severe illness and death from COVID-19 disease. The Joint Committee for Vaccination and Immunisation (JCVI) has recommended priority groups for vaccination based upon age and clinical risk factors with the first nine priority groups accounting for 99% of deaths from COVID-19 (JCVI 2020). Well over 1 million first doses have now been delivered into people's arms with a third of the population of Wales protected with at least one dose of the vaccination. Vaccination uptake across the first four priority groups has been high with at least 85% coverage and nearly 95% uptake amongst care home residents and those aged over 70 years (PHW 2021a). However there is early evidence of inequity in coverage of vaccination (PHW 2021b) and the underlying reasons for this need to be better understood. Ensuring equitable uptake of vaccination across all our population groups is essential, as we move into the next phase of the vaccination programme with the offer of vaccination to the adult population in Wales.

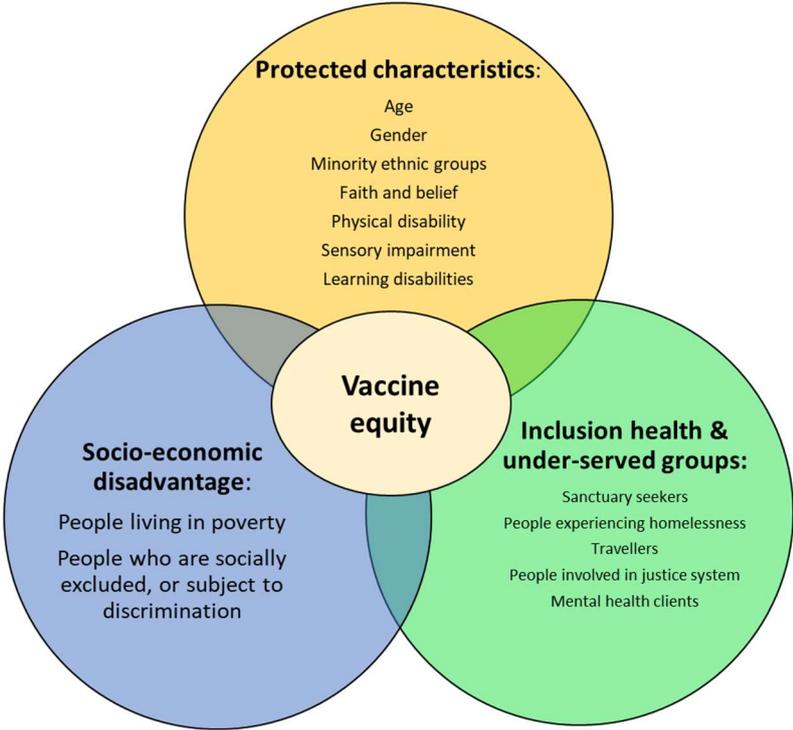
Vaccination in Wales must work towards an **equal and fair NHS Wales** adhering to the principles of equal concern and respect when delivering healthcare services relating to coronavirus (Welsh Government 2020a). This means equitable access to vaccination across all eligible population groups so **no-one is left behind**. This principle of social justice is supported by legislation in Wales to address inequalities, abiding by the principles of the Wellbeing of Future Generations Act, the **Socio-economic Duty** and the **Equality Act** (Future Generations Commissioner 2020, Welsh Government 2020b, UK Government 2010). It also aligns with Wales' Race Equality Action Plan in which Health is one of the key themes. The Plan contains goals and actions targeted at reducing health inequalities and ensuring equitable access to health services and improved outcomes for Black, Asian and Minority Ethnic people.

To ensure equity, each individual within a priority group must have a fair and meaningful opportunity to receive a vaccination (Council for Europe 2021, WHO 2020). For groups who have a historical legacy of being under-served by healthcare services, providing the opportunity for vaccination will require additional support to address specific barriers to their access and acceptance of the vaccination offer. A tailored approach, with every effort made to develop strategies to enable vaccination in vulnerable or under-served groups, will contribute to fair and just vaccination across Wales.

**Targeted action** for under-served groups can be considered across three interlinked dimensions; people with **protected characteristics** under the Equality Act 2010 including people from ethnic minority backgrounds and people with disabilities; those at **socio-economic disadvantage** living in communities with high deprivation or social exclusion and those within **marginalised or under-served groups** such as

asylum or sanctuary seekers, people experiencing homelessness, people involved in the justice system, mental health clients and people from Traveller communities who do not regularly access traditional healthcare services. To achieve equitable vaccine uptake across all population groups, increased scale and intensity of activities will be required to target under-served groups to re-dress the historical imbalance in their access to healthcare services. Key groups who may require additional support to access vaccination has been identified in Figure 1 following an Equality Health Impact Assessment for the vaccination programme.

**Figure 1: Three interlinked dimensions to be considered for vaccine equity**

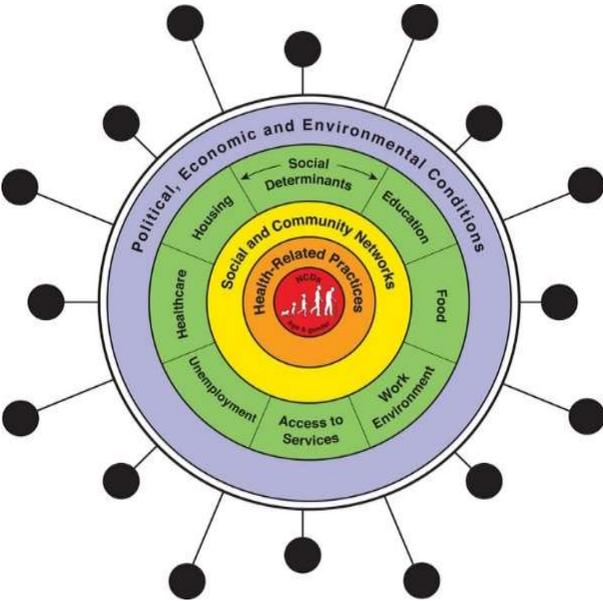


Action to ensure equitable vaccine uptake is important as the health harms from COVID-19 have not affected people in Wales equally. **Pre-existing poor health outcomes have been exacerbated by COVID-19** with higher death, hospitalisation and critical care admission in people from communities with socioeconomic disadvantage, compared to those of lower deprivation (Welsh Government 2020c, ICNARC 2021, ONS 2020a). People from minority ethnic backgrounds in Wales are also at higher risk of COVID-19 harms with Black males having a rate of death 2.9 times greater than those of White males, with higher rates of death also seen among males in the Bangladeshi or Pakistani, Indian and Other ethnic group (ONS 2020b). People with medically diagnosed learning disabilities have a 3.7 times higher risk of death than those who do not have a learning disability, with the risk remaining raised at 1.7 times greater risk even after adjusting for a range of contributory factors (ONS 2020c). This work has been supported by a recent Public Health Wales report that support the findings in a Wales context (PHW 2021c).

Health inequalities describe differences in health outcomes in population groups whereas **health inequities imply unfair and unjust differences in health outcomes**. Factors that are associated with higher rates of COVID-19 include pre-existing

conditions such as obesity, social conditions that leave limited space within homes for isolation and economic factors such as employment in public facing occupations such as health and social care that increases the number of opportunities for the virus to be transmitted (PHE 2020a, Welsh Government 2020c, Welsh Government 2020d). Long standing structural factors such as ease of access to healthcare services and trust in healthcare professionals due to structural racism should also be considered (PHE 2020b, Welsh Government 2020d). This complex interplay of personal, environmental, social and economic factors are potentially avoidable and that they lead to worse health outcomes is unjust. Figure 2 demonstrates the interplay between these factors and how the COVID-19 pandemic has impacted upon pre-existing health inequities.

**Figure 2: The syndemic of COVID-19, non-communicable diseases (NCDs) and the social determinants of health cited in Bambra et al. 2020**



**Section 2: Where we are now**

**Attitudes to vaccination in Wales are positive** with 85% in Wales reporting they would accept a COVID-19 vaccination if offered one (YouGov 2021a). However, vaccination acceptance is not equal across all of society. In the ‘Understanding Society’ COVID-19 survey Robertson et al (2021) identified that only 28% of people identifying as Black/Black British state they would take the vaccine compared to 84% of White British or Irish. A recent ONS study identifies increased vaccine acceptance across ethnic groups but significant variation persists with 44% of Black/Black British adults reporting vaccine hesitancy compared to 8% of White adults (ONS 2021).

**Vaccine hesitancy** describes the delay in acceptance or refusal to receive a vaccination. This can be a rejection of all vaccinations, acceptance of some vaccinations but rejection of others or the acceptance of vaccinations but with a concern or reluctance (WHO 2014). Factors that lead to vaccine hesitancy, are complex and context-specific, spanning all aspects **availability, accessibility and acceptability**. They can reflect personal values and beliefs, social and cultural norms

within communities and wider society in addition to structural issues such as access and convenience of vaccination service delivery.

The WHO (2014) describe vaccine hesitancy as resulting from one or combination of three factors:

- **Confidence** – the level of trust in the safety and effectiveness of the vaccine itself and the provider of the vaccination
- **Complacency** – indicates a perception that the vaccination is not needed or that the illness it prevents is not serious
- **Convenience** – delivery of the vaccine in a convenient setting that is easy for parents and children to access

Recent UK survey data provides insights into vaccine hesitancy in minority ethnic groups. YouGov (2021b) report that of people from Black, Asian and Minority Ethnic backgrounds who wouldn't take a vaccine 45% say it is because they don't know enough about the vaccine with 37% saying they think vaccines are unsafe.

In Wales there is emerging evidence that attitudes to vaccination are impacting on uptake of vaccination in some groups. A report from the Communicable Disease Surveillance Service, Public Health Wales (2021b) identified that there is an **inequity gap in uptake of vaccination** between people who live in the **most deprived communities** in Wales compared to those who live in the **least deprived communities**. In the over 80's, 75-79 years and 70-74 years the uptake gap is 5.7%, 4.4% and 5.2% respectively (PHW 2021c). The vaccination uptake gap is even starker when comparing uptake in **minority ethnic groups** compared to people of **white ethnicity**. In the over 80's there is a difference of 14.1% with those from Black, Asian, Mixed and Other ethnic groups having an average uptake of 71.5% compared to 85.6% in over 80's from a white ethnic background (PHW 2021b).

Inequity gaps exist in routine childhood vaccination programmes in Wales (PHW 2019) and routine adult vaccination programmes in the UK (UK Government 2020). Action is needed now to ensure that these emerging inequities do not become embedded within the COVID-19 vaccination programme.

### Section 3: What have we done so far

Local health boards are aware of their responsibilities to undertake an **equality health impact assessment (EHIA)** and have put in place reasonable adjustments to enable people with protected characteristics, such as disabilities, to safely and easily access the service they provide. This will include access to BSL interpreters, disabled access, provision of toilets and suitable private spaces. EHIA require regular review as the vaccination programme model of delivery adapts with progression through the priority groups. This will ensure that consideration has been given to delivering the service in a culturally sensitive way that meets the needs of their local population including those in under-served groups.

Local health boards through their local public health teams and immunisation teams are experienced in adapting and tailoring vaccination programmes to address the needs within their communities using evidence based recommendations (NICE 2017).

Using established and new links to local communities, local teams are already undertaking extensive **communication and engagement work** with Black, Asian and minority ethnic groups, people experiencing homelessness and members of Traveller communities. Novel and innovative approaches to tailoring their vaccination programmes have been developed such as the use of a converted mobile library into an “Immbulance” in Swansea Bay UHB that will enable mobile outreach clinics for under-served groups.

Welsh Government have also made available funding for new Black, Asian and Minority Ethnic Groups **outreach and engagement workers** within each health boards to support community engagement. Grant funding of over £2.5m has been awarded to 27 organisations through the Welsh Government Coronavirus Recovery Grant for Volunteering facilitated by the Wales Council for Voluntary Action (WCVA) to help support and sustain volunteering and community action during recovery from the Covid-19 pandemic.

A comprehensive **communications and engagement plan** has been developed using behavioural insights to explore and understand perceptions around vaccination. This includes the motivations for and barriers to uptake of any potential COVID-19 vaccine. Barriers can be overcome using trusted voices as messengers of reliable information. Engagement gathers insights to inform communication messaging and ensures two way communication. This involves professionals responding to questions and concerns identified by communities such as over vaccine safety profile and effectiveness. An equality and engagement group of the COVID-19 vaccination programme board has been established which is well attended by stakeholders.

The **Vaccine Preventable Disease Programme** (VPDP) in PHW provide expertise and experience in supporting national vaccination programmes. They are involved both in providing surveillance data, attitudinal surveys, reviewing scientific evidence on vaccine safety and effectiveness, behavioural science insights, stakeholder engagement and professional public health guidance. Increasing the accessibility of information on vaccination and ensuring equity of access to information in the appropriate language or format has been a priority within the vaccination programme. Information is available in over 20 minority languages in addition to easy-read, large print and British Sign Language format. Public Health Wales’ website utilises Recite Me web availability software so web users with dyslexia or visual impairment can adapt the website to their preferences for font and colour contrast or read aloud the written text including in minority languages.

Health professionals have been identified as a trusted source of information for the public with 76% of people consider health professionals and 72% consider Public Health Wales as a reliable source of information on COVID-19 vaccination (YouGov 2021a). Senior clinicians within NHS Wales and Public Health Wales have undertaken media interviews, Facebook Live Q+As and webinars to ensure that questions people have about the COVID-19 vaccines such as on safety profiles, effectiveness, development, testing and ingredients are addressed.

## Section 4: Our strategic framework

Equitable uptake of COVID-19 vaccination is needed across all people within Wales so that individuals, families and their communities are protected from the harms of the virus. This requires a proactive approach to ensure that:

- Everyone eligible for a COVID vaccination is appropriately offered an appointment and can access a vaccination
- Everyone is supported with the information that they need to make an informed decision on vaccination based upon reliable sources.

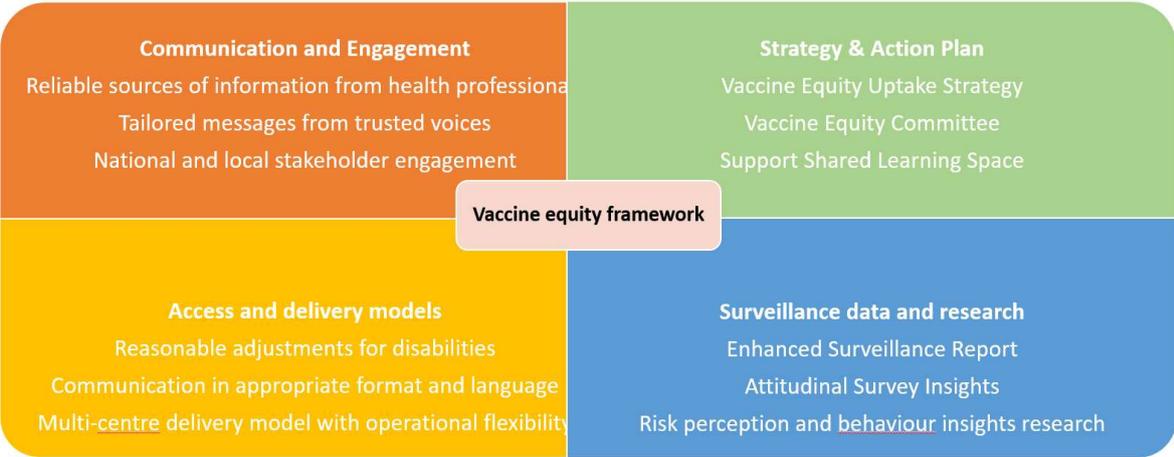
There are multiple strands of activity on inequity through the vaccination programme, however, due to the importance of addressing health inequities further concerted and coordinated action is required through a Vaccine Equity Committee.

The aim of the Covid 19 **Vaccine Equity Committee** will be to ensure the equitable delivery of the vaccination programme through an evidence-based and data-driven approach. It will bring together representatives from under-served groups, third-sector organisations, Welsh Government, NHS Wales and Public Health Wales to advise and guide the vaccine programme on addressing inequities. The Vaccine Equity Committee will monitor and review the CDSC data, intelligence and research on inequities in uptake of COVID-19 vaccination as the programme progresses through the JCVI prioritisation schedule. Through expert assessment of emerging research and intelligence they will advise on appropriate interventions and communications, including gaps in research evidence, to reduce inequity in the vaccination programme.

The Vaccine Equity Committee will have **key interfaces**, both strategically and operationally with other groups. These include; the First Minister's COVID-19 BAME Advisory Group and the BAME COVID-19 Scientific Subgroup who advise on practical steps to mitigate risk and review the evolving evidence within the community; the Risk Communication and Behavioural Insights TAG Sub-Group and the PHW attitudinal research group to utilise behavioural insights to optimise vaccine uptake and the Health Board Equality leads group addressing equality issues in all services including vaccination uptake across NHS Wales. The Vaccine Equity Committee will work across these key interfaces and ensure that there are benefits from integration of ideas and approaches to vaccine equity.

To support the work of the Vaccine Equity Committee within the vaccine programme four strategic areas have been identified to ensure focused action to address vaccine inequity (figure 3).

**Figure 3: Vaccine Equity Framework**



**Strategic area 1: Surveillance data and research: identifying areas for action**

To address vaccine inequity **identification** of population groups with low uptake is needed. This requires timely, complete and reliable data at the appropriate level of granularity. Public Health Wales produces a monthly enhanced surveillance report that provides a summary analysis of equality in coverage of COVID-19 vaccination in Wales. At present this includes determinants such as sex, socio-economic deprivation and ethnicity at a national level. To respect and understand the divergence within ethnic groups, greater granularity at regional level is required. Public Health Wales and academic partners will undertake data linkage across multiple data sources, such as through SAIL, to consider additional determinants and factors of relevance in addressing health

Current data collection on ethnic group will not fully capture the construct of ethnicity which is influenced by language, religion, country of origin and many other factors not recorded within current datasets. Local teams will be encouraged to utilise new and existing systems to gather data on these characteristics to develop local intelligence and understanding of local communities.

Wales-specific survey data with any qualitative insights from research will be supported to further our understanding of the underlying attitudes and beliefs of population groups that express vaccine hesitancy. This can be supported by gathering data on the reasons for refusal of the vaccine such as within Primary Care or by Local Public Health Teams.

**Strategic area 2: Strategy and Action Plan: taking a community-led approach**

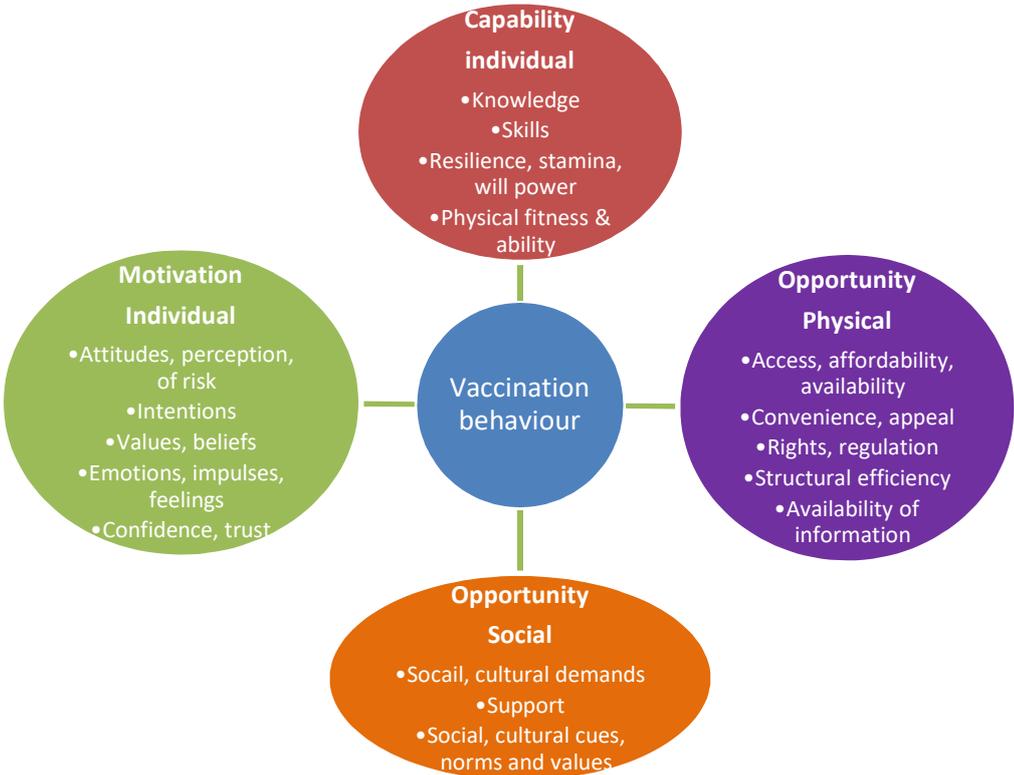
The vaccination strategy for Wales identifies the goals and milestones for vaccinating the people of Wales. Addressing variation in uptake requires a locally-led approach driven by the people who live, work and support communities. They are best placed to **understand** the specific concerns and barriers to vaccination and provide insights into where effective interventions should be targeted. Working with communities will prevent reinforcing negative stereotypes and enforcing stigma and discrimination that

can result when undertaking targeted interventions on rather than with communities (Campos-Matos & Mandal 2020).

Addressing some of the barriers can be achieved through changes to structural aspects of the vaccination programme, such as invitation letters, clinic locations, characteristics, practice, signage, timings but others are related to individual behavioural and decision-making drivers such as perception of risk and social norms towards vaccination. Training of those planning and administering the Vaccination Programme in cultural sensitivity, disability awareness and vaccine hesitancy for example will be needed.

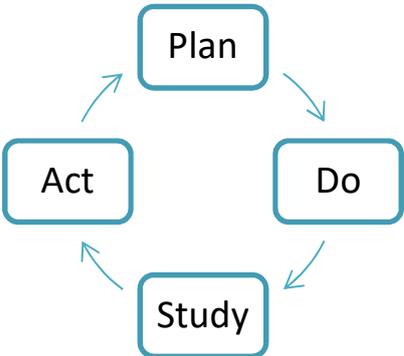
Understanding the enablers and barriers to vaccination can be helped by using theoretical models of behavioural change such as the COM-B model as advocated in the Tailoring Immunization Programmes (TIP) approach (WHO 2018). The COM-B model (figure 4) requires consideration of an individual’s capacity, opportunity and motivation to undertake a behaviour such as receiving a vaccination (WHO 2018).

**Figure 4: COM-B behavioural change model for vaccination (adapted from WHO 2018)**



To ensure that interventions with communities are prepared, planned, refined and evaluated the WHO Tailoring Immunisation Programmes adopts an Identify, Diagnose and Design approach. To support local teams to develop interventions a template framework can be utilised to provide a stepped approach to designing, applying and evaluating the impact of the intervention such as the Plan-Do-Study-Act cycle developed by the Institute for Healthcare Improvement and implemented throughout NHS Wales within the Improving Quality Together programme (1000 Lives Improvement 2014).

**Figure 5: The Institute for Health Improvement Plan-Do-Study-Act Cycle**



The range of interventions and approaches across health boards will provide a rich source of evidence that can inform implementation across Wales. An opportunity to share this learning would ensure ease of replication of intervention design to facilitate rapid rollout across Wales of successful interventions.

**Strategic area 3: Communication and engagement: tailoring messages**

People are accessing information about COVID-19 and the vaccination programme from many sources and able to bypass traditional media outlets leading to engagement with misinformation. Repeating misinformation can reinforce the myth. Community led co-production of messages helps with understanding fears and concerns that people may have and provides evidence based answers to address these concerns, providing tailored messages for communities. Communication tools such as video clips can be produced in formats that are easy to share, such as through local WhatsApp groups. This local dissemination can support sharing of reliable content within communities.

Feedback from our engagement groups tells us that messages should come from role models within the community that reflect diversity. For example, Muslim Doctors Cymru have produced video clips and webinars using clinical healthcare spokespeople and faith group leaders that promote positive messages of the effectiveness and safety of COVID-19 vaccination for minority ethnic communities using their minority ethnic language. Promotion of clips of known figures within the communities receiving their vaccination such as local community figures and faith leaders can help to normalise vaccination and identify as culturally and religiously acceptable.

The Equity and Engagement group with representation from national patient groups and support organisations for people who experience health inequalities has already been established to deliver this quadrant of the Strategy. This will provide a mechanism to connect and exchange ideas to between those delivering services and service users from seldom heard groups. The insights from the group can be used to tailor materials and resources. Local equity and engagement groups will be encouraged to ensure that local communities are able to raise concerns and advocate for under-served communities.

## **Strategic area 4: Access and delivery models: accounting for diversity**

Local teams will need to consider the end to end pathway of an individual through the vaccination process and ensure that any barriers have been considered and reasonable adjustments made. This requires a pragmatic and flexible approach to how the service is delivered to account for individual needs. For example for people with learning disabilities and autism it can be highly distressing to visit unfamiliar settings therefore vaccination should ideally be offered in familiar settings such as primary care rather than a mass vaccination centre. Consideration can be given to including health professionals with specific expertise such as community learning disability nurses to support vaccination in unfamiliar settings building on the national guidance on vaccination for people with a learning disability or severe mental illness (Welsh Government 2021).

For people in underserved groups such as people experiencing homelessness who are less engaged with healthcare services and may have mistrust following negative past experiences, the option for mobile units to deliver vaccination at a familiar community setting can be considered by health boards alongside vaccination training of staff working with clients for example in substance misuse services.

Local health boards can incorporate the offer of vaccination information in accessible formats to all callers or correspondents as part of the initial offer of an appointment. To address issues of digital exclusion call centre booking staff should have access to printed materials that can be sent directly to individual's home or appropriate supporting adult to share with the individual. Booking centres will ensure they can be contacted using a variety of methods including postal address, telephone, text message or online and should record preferences.

As the programme expands and more people are offered the vaccine, more centres such as community centres or places of worship should be considered as 'pop-up' vaccination hubs. This will improve access within local communities on established transport routes but also support the normalisation of vaccination within communities and promote the understanding of vaccination as safe and permitted by faith groups or other communities.

People may initially be hesitant about vaccination, wanting more information in an appropriate format before making their decision. It should be clear that the offer of vaccination remains open with individuals provided with options to rebook if they change their minds in the future. A call and recall system is in place to ensure that people receive a prompt to repeat the offer of vaccination. Health boards will consider how this can be tailored and adapted within existing IT infrastructure. This will also provide an opportunity to understand the reasons for delay or refusal and provide useful insights into future tailoring of the programme.

## **Section 5: Next steps**

This Vaccination Equity Strategy for Wales will provide a framework for evidence-based action towards ensuring fair opportunity for all to consider and access their vaccination.

The establishment of a Vaccine Equity Committee will provide essential governance of vaccine inequity work undertaken across Wales and provide national support for a data, intelligence and research based approach to drive forward action to address the inequitable uptake of vaccination currently seen in under-served groups in Wales.

The approach to addressing vaccine inequity will be locally-led to engage and empower communities to understand the benefits of vaccination and support and motivate others in their communities to be vaccinated.

Vaccination equity is a core and fundamental principle to ensure that no-one is left behind and all benefit from the scientific achievement of COVID-19 vaccinations and the operational success of the deployment in Wales to date.

## References

1000 Lives Improvement. 2014. The Quality Improvement Guide. Improving Quality Together Edition. Cardiff: Public Health Wales NHS Trust.

Andre et al. 2008. Vaccination greatly reduces disease, disability, death and inequity worldwide. *Bulletin of the World Health Organisation*. 86:2. Pp 81-160.

Bambra C et al. 2020. The COVID-19 pandemic and health inequalities. *J Epidemiol Community Health*. 74: pp964-968

Campos-Matos & Mandal. 2020. COVID-19 vaccine and health inequalities: considerations for prioritisation and implementation. Available online at:

<https://www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020/annex-a-covid-19-vaccine-and-health-inequalities-considerations-for-prioritisation-and-implementation#references>

Council of Europe. 2021. COVID-19 and vaccines: ensuring equitable access to vaccination during the current and future pandemics. Available online at: [1680a12785 \(coe.int\)](https://www.coe.int/t/dahlgreen/activities/covid19/1680a12785.aspx)

Future Generations Commissioner for Wales. 2020. Wellbeing of Future Generations (Wales) Act 2015: about us. Available at: <https://www.futuregenerations.wales/about-us/future-generations-act/>

Intensive Care National Audit and Research Centre (ICNARC). 2021. ICNARC report on COVID-19 in critical care: Wales 26 February 2021. London.

Joint Committee on Vaccination and Immunisation. 30 Dec 2020. Joint Committee on Vaccination and Immunisation: advice on priority groups for COVID vaccination, 30 December 2020. Available online at: <https://www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020/joint-committee-on-vaccination-and-immunisation-advice-on-priority-groups-for-covid-19-vaccination-30-december-2020>

Lopez Bernal J, Andrews N, Gower C, et al. Early effectiveness of covid-19 vaccination with BNT162b2 mRNA vaccine and ChAdOx1 adenovirus vector vaccine on symptomatic disease, hospitalisations, and mortality in older adults in the UK: a test negative case control study. Available online at: <https://khub.net/documents/135939561/430986542/Early+effectiveness+of+COVID+vaccines.pdf/ffd7161c-b255-8e88-c2dc-88979fc2cc1b?t=1614617945615>.

National Institute for Health and Care Excellence. 2017. Overview | Immunisations: reducing differences in uptake in under 19s | Guidance | NICE. Available from: <https://www.nice.org.uk/guidance/ph21>

Office for National Statistics. 2021. Coronavirus and vaccine hesitancy, Great Britain: 13 January to 7 February. Available online at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandvaccinehesitancygreatbritain/13januaryto7february2021>

Office for National Statistics. 2020a. Deaths involving COVID-19 by local area and socioeconomic deprivation: deaths occurring between 1 March and 31 July 2020. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvingcovid19bylocalareasanddeprivation/deathsoccurringbetween1marchand31july2020>

Office for National Statistics. 2020b. Coronavirus (COVID-19) related deaths by ethnic group, England and Wales: 2 March 2020 to 15 May 2020. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/coronaviruscovid19relateddeathsbyethnicgroupenglandandwales/2march2020to15may2020>

Office for National Statistics. 2020c. Coronavirus (COVID-19) deaths by disability status, England and Wales: 2 March to 14 July 2020. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/coronaviruscovid19relateddeathsbydisabilitystatusenglandandwales/2marchto14july2020#overview-of-covid-19-related-deaths-by-disability-status>

Public Health England. 2020a. Disparities in the risks and outcomes of COVID-19. Available online at: [Disparities in the risk and outcomes of COVID-19 \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892376/COVID_stakeholder_engagement_synthesis_beyond_the_data.pdf)

Public Health England. 2020b. Beyond the data: understanding the impact of COVID-19 on BAME groups. Available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/892376/COVID\\_stakeholder\\_engagement\\_synthesis\\_beyond\\_the\\_data.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892376/COVID_stakeholder_engagement_synthesis_beyond_the_data.pdf)

Public Health Wales. 2021a. Public Health Wales Rapid COVID-19 surveillance. Available online at: <https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary>

Public Health Wales. 2021b. Wales COVID-19 vaccination enhanced surveillance report 1, 16 February 2021. Available online at: [http://www2.nphs.wales.nhs.uk:8080/CommunitySurveillanceDocs.nsf/3dc04669c9e1eaa880257062003b246b/e61c928e715ece3180258680003449c3/\\$FILE/Wales%20COVID-19%20vaccination%20enhanced%20surveillance%20-%20equality%20report.pdf](http://www2.nphs.wales.nhs.uk:8080/CommunitySurveillanceDocs.nsf/3dc04669c9e1eaa880257062003b246b/e61c928e715ece3180258680003449c3/$FILE/Wales%20COVID-19%20vaccination%20enhanced%20surveillance%20-%20equality%20report.pdf)

Public Health Wales. 2021c. COVID-19-related deaths in Wales amongst People with Learning Disabilities from 1st March to 19th November 2020. Available online at: <https://phw.nhs.wales/publications/publications1/covid-19-related-deaths-in-wales-amongst-people-with-learning-disabilities-from-1st-march-to-19th-november-2020/>

Public Health Wales. 2019. Inequalities in uptake of routine childhood immunisations in Wales 2018-19. Available online at: [http://nww2.nphs.wales.nhs.uk:8080/VaccinationsImmunisationProgsDocs.nsf/3dc04669c9e1eaa880257062003b246b/8f12558145d6006080258485002b5117/\\$FILE/COVER\\_Inequalities\\_AnnualReport\\_201819\\_v1.pdf](http://nww2.nphs.wales.nhs.uk:8080/VaccinationsImmunisationProgsDocs.nsf/3dc04669c9e1eaa880257062003b246b/8f12558145d6006080258485002b5117/$FILE/COVER_Inequalities_AnnualReport_201819_v1.pdf)

Robertson et al. 2021. Predictors of COVID-19 vaccine hesitancy in the UK Household Longitudinal Survey. Available online as preprint: [Predictors of COVID-19 vaccine hesitancy in the UK Household Longitudinal Study | medRxiv](https://www.medrxiv.org/content/10.1101/2021.07.14.21255814v1)

UK Government. 2020. Factors influencing COVID-19 vaccine uptake among minority ethnic groups. Available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/952716/s0979-factors-influencing-vaccine-uptake-minority-ethnic-groups.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/952716/s0979-factors-influencing-vaccine-uptake-minority-ethnic-groups.pdf)

UK Government. 2010. Equality Act 2010. Available online at: <https://www.legislation.gov.uk/ukpga/2010/15/contents>

Vasileiou E et al. 2021. Effectiveness of first dose of COVID-19 vaccines against hospital admissions in Scotland: national prospective cohort study of 5.4 million people. Preprint. Available online at: [https://www.ed.ac.uk/files/atoms/files/scotland\\_firstvaccinedata\\_preprint.pdf](https://www.ed.ac.uk/files/atoms/files/scotland_firstvaccinedata_preprint.pdf)

Welsh Government. 2021. COVID-19 vaccinations: prioritisation of individuals with a learning disability or severe mental illness. Available online at: <https://gov.wales/sites/default/files/pdf-versions/2021/2/3/1614178336/covid-19-vaccinations-individuals-learning-disability-or-severe-mental-illness.pdf>

Welsh Government. 2020a. Coronavirus: ethical values and principles for healthcare delivery framework. Available online at: [Coronavirus: ethical values and principles for healthcare delivery framework \[HTML\] | GOV.WALES](#)

Welsh Government. 2020b. Socio-Economic Duty: an overview. Available at: <https://gov.wales/socio-economic-duty-overview>

Welsh Government. 2020c. Technical Advisory Cell: Coronavirus (COVID-19) and health inequalities. Available at: <https://gov.wales/technical-advisory-cell-coronavirus-covid-19-and-health-inequalities>

Welsh Government. 2020d. First Minister's BAME COVID-19 advisory group – report of the socioeconomic subgroup. Available at <https://gov.wales/black-asian-and-minority-ethnic-bame-covid-19-socioeconomic-subgroup-report>

World Health Organisation. 2020. WHO SAGE values framework for the allocation and prioritization of COVID-19 vaccination. Available online at: [WHO-2019-nCoV-SAGE Framework-Allocation and prioritization-2020.1-eng.pdf](#)

World Health Organisation. 2018. TIP: Tailoring Immunisation Programmes. Available online at: [9789289054492-eng.pdf \(who.int\)](#)

World Health Organisation. 2014. Report of the SAGE working group on vaccine hesitancy. Available online at: [https://www.who.int/immunization/sage/meetings/2014/october/1\\_Report\\_WORKING\\_GROUP\\_vaccine\\_hesitancy\\_final.pdf](https://www.who.int/immunization/sage/meetings/2014/october/1_Report_WORKING_GROUP_vaccine_hesitancy_final.pdf).

YouGov. 2021a. Public Health Wales COVID-19 vaccine and flu survey. February 2021. Available online at: <https://phw.nhs.wales/topics/immunisation-and-vaccines/covid-19-vaccination-information/you-gov-public-health-wales-covid-19-vaccine-and-flu-survey-february-2021/>

YouGov 2021b. Attitudes of Black, Asian and Minority Ethnic (BAME) Britons towards the vaccine. Available online at: [Survey Report \(yougov.com\)](#)

## **Appendix 1: Protected Characteristics under the Equality Act**

- Age
- Disability
- Gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation