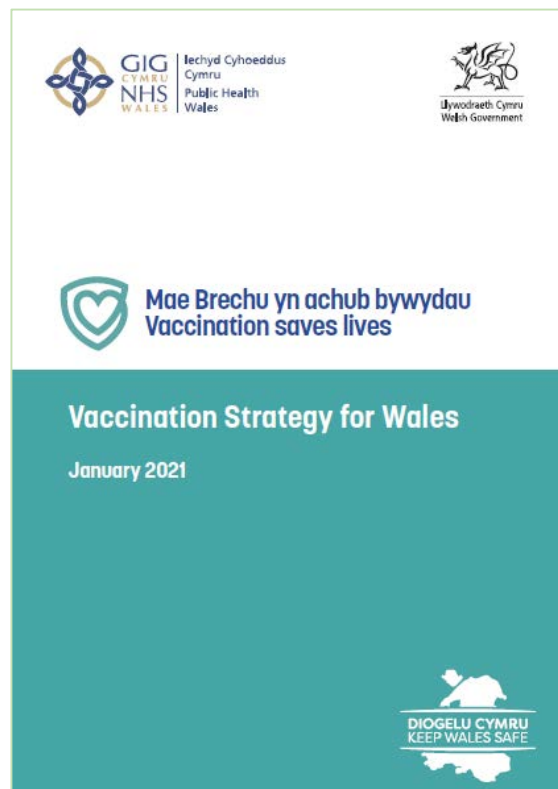


**PTHB Covid 19 Vaccination Delivery Plan
Phase 2
Version 1.0, 19 January 2021**

Vaccination Strategy for Wales - Milestones



- **Milestone 1 – by mid February – cohorts 1 - 4.**

Subject to supply, our aim is to offer vaccination to all care home residents and staff; frontline health and social care staff; those 70 years of age and over; and clinically extremely vulnerable individuals.

- **Milestone 2 – by the Spring – priority cohorts 5 – 9.**

Subject to supply, which becomes more uncertain further into the future, our aim is to offer vaccination to all Phase 1 priority cohorts (i.e. 50+s and clinically vulnerable/at risk).

Priority groups for coronavirus (COVID-19) vaccination: advice from the JCVI, 30 December 2020 - GOV.UK (www.gov.uk)

It is estimated that taken together, these at risk groups represent around **99%** of preventable mortality from Covid-19.

- **Milestone 3 – by the autumn**

Our ambition is to offer vaccination to the rest of the eligible adult population according to the further JCVI guidance that will be produced on priorities. We do not yet know supply for this phase, so there is further planning to do on this milestone that will take account of supply and the further JCVI guidance.

The PTHB plan provides the detail of how we will achieve the national plan milestones for the Powys population.

It should be noted that the PTHB plan is subject to securing adequate vaccine supply which becomes more uncertain further into the future.

The PTHB plan has been developed on the basis of confirmed vaccine supply until 14 February 2021 and assumes no supply issues for the baseline model thereafter.

Additional discussions are required with Welsh Government to secure additional vaccine supply to achieve the surge 1 and 2 modelling scenarios which would speed up the roll out of the programme across Powys.

PTHB Covid 19 Vaccination Delivery Plan

Programme Aims

To deliver swift, safe and effective approved vaccines for COVID 19 to population in accordance with the Vaccination Strategy for Wales published 11 January 2021.

To deliver the vaccine to the whole population, beginning with Priority Groups 1-4 and then Priority Groups 5-9 (people over 50 years old and all adults with significant underlying health conditions) as recommended by the UK's independent Joint Committee for Vaccination and Immunisation.

To ensure that no one is left behind – accessibility, cross-border, non-registered and temporary populations and other factors that may affect the ability to access the vaccine.

The delivery programme is based on all patients registered with the 16 GP Practices in Powys.

		Total	% of vaccinatable population
P1.1	Older adult resident in a care home	932	1%
P1.2	Care home worker	1,527	1%
P2.1	All those 80 years of age and over	9,101	8%
P2.2	Health care workers	5,794	5%
P2.3	Social care workers	2,072	2%
P3	All those 75 years of age and over	7,352	6%
P4.1	All those 70 years of age and over	10,046	8%
P4.2	High risk adults under 70 years of age	3,087	3%
P5	All those 65 years of age and over	8,879	7%
P6	Moderate risk 16 years to under 65 years of age	TBC	0%
P7	All those 60 years of age and over	9,263	8%
P8	All those 55 years of age and over	9,770	8%
P9	All those 50 years of age and over	8,883	7%
P10	Rest of the population (over 16)	44,594	37%
Total to vaccinate		121,300	100%
Under 16		21,376	
Total		142,676	

Workforce figures include non Powys residents

Vaccine Supply and Regulations

The **Pfizer BioNTech vaccine** was launched on 8 December 2020. The logistical challenges of storage at very low temperatures and the need to use within 5 days when at a higher temperature together with the vaccine delivered in trays of 975 doses and trays cannot be split has resulted in the vaccine being deployed in the mass vaccination sites.

The **Oxford AstraZeneca vaccine** was launched on 4 January 2021. The vector vaccine can be stored at room temperature is mobile and comes in smaller packs and we are now able to deliver to some of those groups that had been more difficult to reach with the Pfizer BioNTech vaccine. The Oxford AstraZeneca vaccine is being predominantly deployed through primary care, care homes and to the housebound.

Vaccine delivery and handling is managed in accordance with national / vaccine specific clinical guidance and directives.

Chapter 14a - COVID-19 - SARS-CoV-2 December 2020

14a

COVID-19 - SARS-CoV-2

NOTIFIABLE

The virus

COVID-19 disease first emerged as a presentation of severe respiratory infection in Wuhan, China in late 2019 (WHO, 2020). By January 2020, lower respiratory samples taken from affected patients were sequenced and demonstrated a novel coronavirus (SARS-CoV-2) (Kaur et al., 2020). The first two cases in the UK were seen in late January (Lille et al., 2020). In March 2020, the WHO declared a SARS-CoV-2 pandemic (WHO Director-General, 2020).

SARS-CoV-2 is a member of the family of Coronaviridae and genus Betacoronavirus (Zhu et al., 2020). Phylogenetic analysis of SARS-CoV-2 has shown that it is genetically distinct from the SARS coronavirus (Dhama, et al., 2020), but appears to share strong sequence similarity to bat coronaviruses in China (Lam et al., 2020).

As with other coronaviruses, SARS-CoV-2 is an RNA virus which encodes four major structural proteins, spike (S), membrane (M), envelope (E) and a helical nucleocapsid (N). (Dhama et al., 2020) The S glycoprotein is considered the main antigenic target and consists of an S1 and S2 subunit (Kaur et al., 2020). The S1 subunit has two functional domains: the N terminal domain (NTD) and receptor binding domain (RBD) which contains the receptor binding motif (RBM) (Kaur et al., 2020). The RBM binds to angiotensin converting enzyme 2 (ACE2) on host cells and is endocytosed with subsequent release of the viral genome into the cytoplasm (Amanat et al., 2020).

SARS-CoV-2 is primarily transmitted by person to person spread through respiratory aerosols, direct human contact and fomites (Kaur et al., 2020). Estimates of the basic reproduction number (R) were initially between 2 and 3 although a recent estimate was as high as 5.7 (Sanche et al., 2020). The high transmissibility indicates that stringent control measures, such as active surveillance, physical distancing, early quarantine and contact tracing are needed in order to control viral spread. Perinatal transmission has been reported although the exact transmission route has not been elucidated (ECDC, 2020).

After the initial exposure, patients typically develop symptoms within 5-6 days (incubation period) although about 20% of patients remain asymptomatic throughout infection (Ciccioli M et al., 2020). Polymerase chain reaction (PCR) tests can detect viral SARS-CoV-2 RNA in the upper respiratory tract for a mean of 17 days, although transmission is maximal in the first week of illness. Symptomatic and pre-symptomatic transmission (1-2 days before symptom onset), is thought to play a greater role in the spread of SARS-CoV-2 than asymptomatic transmission.

Medicines & Healthcare products Regulatory Agency

Decision

Information for Healthcare Professionals on Pfizer/BioNTech COVID-19 vaccine

Updated 31 December 2020

Contents

Regulation 174 Information for UK healthcare professionals

1. Name of the medicinal product
2. Qualitative and quantitative composition
3. Pharmaceutical form
4. Clinical particulars
5. Pharmacodynamic properties
6. Pharmaceutical particulars
7. Marketing authorisation holder
8. Marketing authorisation number(s)

Regulation 174 Information for UK healthcare professionals

This medicinal product has been given authorisation for temporary supply by the UK Department of Health and Social Care and the Medicines & Healthcare products Regulatory Agency. It does not have a marketing authorisation, but this temporary authorisation grants permission for the medicine to be used for active immunization to prevent COVID-19 disease caused by SARS-CoV-2 virus in individuals aged 16 years of age and over.

As with any new medicine in the UK, this product will be closely monitored to allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. [See section 4.8 for how to report adverse reactions.](#)

Medicines & Healthcare products Regulatory Agency

Decision

Information for Healthcare Professionals on COVID-19 Vaccine AstraZeneca

Updated 7 January 2021

Contents

Regulation 174 Information for UK healthcare professionals

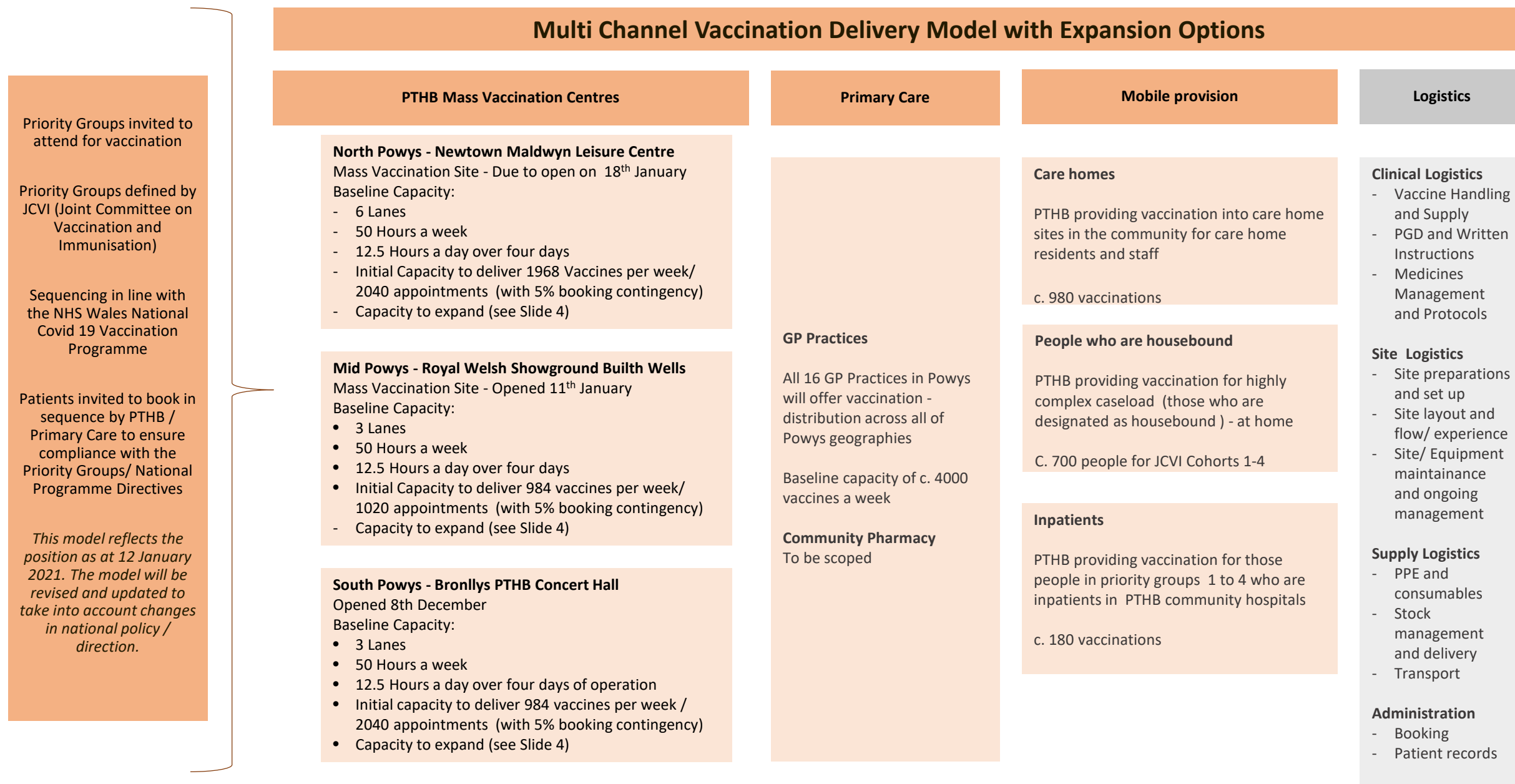
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As with any new medicine in the UK, this product will be closely monitored to allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. [See section 4.8 for how to report adverse reactions.](#)

PTHB Covid 19 Vaccination Delivery Model



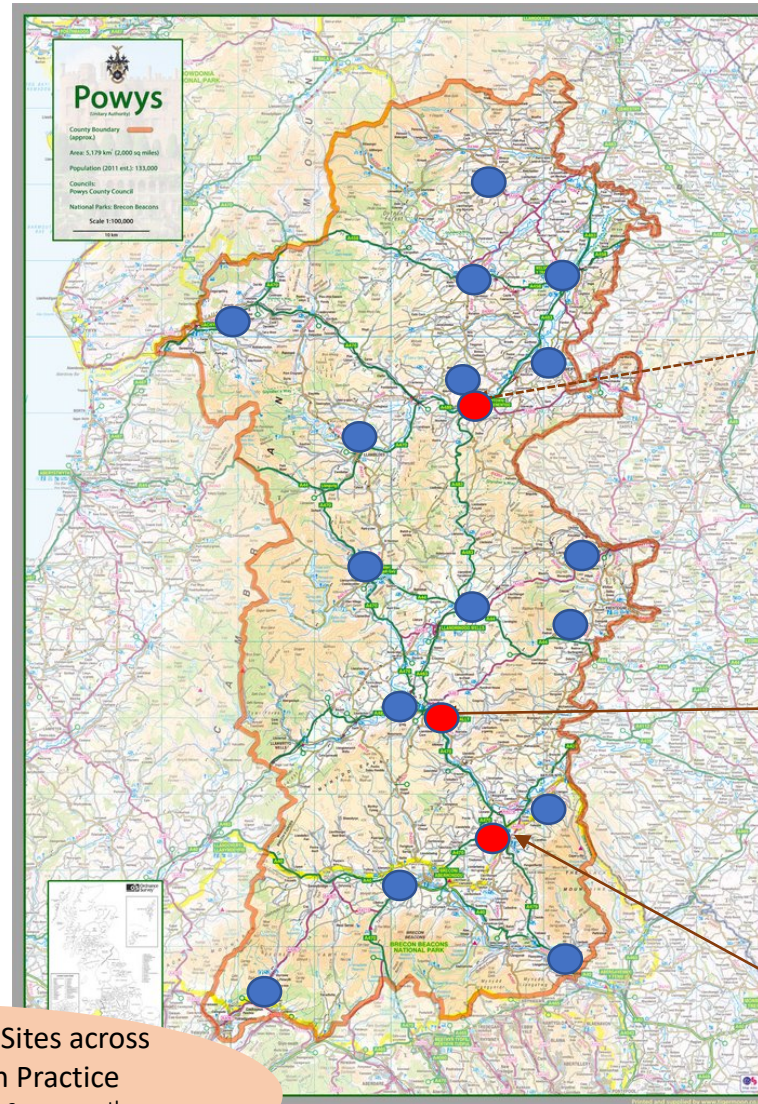
PTHB Covid 19 Vaccination - Geography and Sites

Sites in North, Mid and South Powys to provide coverage in line with the population distribution

North Powys population
c. 70,000

Mid Powys population
c. 25,000

South Powys population
c. 50,000



Additional Primary Care Sites across
the County in line with Practice
geographies going live from 25th
January

First Phase

Newtown Park Street Site
- Operational December 2020,
now closed

Bronllys Concert Hall

- 3 Lanes
- 50 Hours a week
- 12.5 Hours a day over four days of operation
- Initial Capacity to deliver 984 vaccines per week at steady state baseline
- Capacity and plans to expand

Second Phase

Newtown Maldwyn Leisure Centre
Mass Vaccination Site

- Due to open on 18th January
- 6 Lanes
- 50 Hours a week
- 12.5 Hours a day over four days
- Initial Capacity to deliver 1968 Vaccines per week
- Capacity and plans to expand

Royal Welsh Showground Builth Wells
Mass Vaccination Site

- Due to open 11th January
- 3 Lanes
- 50 Hours a week
- 12.5 Hours a day over four days
- Initial Capacity to deliver 984 vaccines per week
- Capacity and plans to expand

PTHB Covid 19 Vaccination - Workforce

Workforce Plan

Recruitment and Skill Mix

Internal and External recruitment carried out; to date includes Clinical Lead, 3 x Band 6 Charge Nurses at the MVCs; 9.2 fixed term FTE immunisers; over 200 staff have applied for either Bank or expressed an interest in undertaking additional hours/overtime as Band 5 Immunisers. Commenced recruitment of Health Care Support Workers and potential suitability by clinical modelling workstream. Also appointing 2 Business Support Managers, 3 MVC admin officers.

Redeployment

Internal Redeployment has commenced e.g. School Nursing staff as agreed at Gold

Further redeployment being scoped in line with the wider Local Options Framework to staff surge 1 and 2 scenarios.

Military Support

PTHB has support of 6 Military colleagues who are deployed to the Mass Vaccination Centres to support operational delivery.

Training and Competency

System in place for training and competency development and checks:

- Pre-employment checks to establish baseline competency and training / supervision requirements
- Shadow roster in place to provide training Experienced immunisers supervising and providing competency sign off
- Signed off staff entered into live rostering
- Skill mix and essential requirements on site scheduled into rosters including Life Support

Volunteer Programme

Co-ordination of large scale volunteer programme in association with PAVO - 136 volunteers deployed to support meet and greet / parking and flow at sites.

Staff engagement

Twice weekly meetings with staff side representatives and liaison with the Communications team to provide updates and ensure that staff are fully briefed on the programme and any opportunities or changes to roles and priorities.

FAQ produced to support technical communications on shift arrangements .

End to End Workforce planning

Recruitment and Redeployment

Pre-employment checks

Competency assessment



Training and shadow rosters

Sign off and live rostering

Whole site rostering / skill mix

Workforce plan in line with agreed Strategic Model and Level of Delivery

Staffing rotas currently in place and being staffed for Baseline Level

The challenges of staffing the programme on-going are tracked and recorded in Programme Risk Register and monitored at the Strategic Oversight Group, with escalation to Gold as required

PTHB Covid 19 Vaccination - Booking and Administration

Patient Booking and Records

Hub/ Call Centre

PTHB has rapidly evolved the booking process based on a Hub and Call Centre approach.

Helpline

A support helpline in recognition of the high volume of calls being received across the organisation with queries on vaccination and the need to separate those from the call handling capacity required for booking.

Patient Records and Consent

Patient recordkeeping including consent is managed using the WIS system for all components of the clinical delivery model, including PTHB sites, mobile provision and primary care.

Direct entry to the system is being used where possible and manual processes streamlined for mobile provision.

Booking

Booking processes have been quickly established and developed further for Phase 2, working closely with NWIS.

A process is in place to ensure that the appointments are being made in line with the JCVI Priority Group cohorts and NHS Wales Vaccination Plan - this has been assimilated for the Powys population into the PTHB Strategic Model.

The booking flow and throughput is managed in line with the Strategic Model capacity thresholds and timeline.

No Waste Policy / DNAs/ CNAs

A No Waste Policy is in place which includes a 5% excess booking contingency rate and the use of reserve booking lists. The initial rates of non attendance were low in the frontline staffing stage however this has increased as the vaccination is rolled out to public phases and is being tracked so that mitigations can be continually developed.

End to End Administration

Phased Offer to Priority Groups

Issuing of pre-appointment invitations

Call Centre Handling of Appointments



Implementation of No Waste Policy

Additional helpline for queries

Patient recordkeeping and consent using the WIS system

Booking in line with agreed Strategic Model and Level of Delivery

Staffing rotas for call handling and booking currently in place and being staffed for Baseline Level

The challenges of booking and call handling are tracked and recorded in Programme Risk Register and monitored at the Strategic Oversight Group, with escalation to Gold as required

PTHB Covid 19 Vaccination - Operating Procedures

Standard Operating Manual - 'End to End Whole Service Process'



Bwrdd Iechyd
Addysgu Powys
Powys Teaching
Health Board

Powys Teaching Health Board Standard Operating Manual

COVID Vaccination Programme

DRAFT V5

29 December 2020



Bwrdd Iechyd
Addysgu Powys
Powys Teaching
Health Board

Standard Operating Procedure for the management of PTHB COVID-19 Mass Vaccination Centres – South Powys.

Scope:

This document is designed for the management of PTHB COVID-19 staff operating within the management arrangements.

This Standard Operating Procedure covers the management of the PTHB COVID-19 Mass Vaccination Centres – South Powys.

The SOP covers the following:

- Infection Prevention and Control
- Process for Opening
- Site Layout and Flow
- Staff and Volunteers
- No Waste Protocol
- Traffic Management
- Cleaning
- Management of the Site
- Site Security
- Fire Evacuation
- Responding to emergencies
- Media Requests
- Risk Assessment
- Incident Recording
- Training
- Schedule of Equipment

Links to other PTHB

- PTHB SOP 'Health and Safety'
- PTHB SOP 'Local V'
- PTHB SOP 'PPE and Hygiene'
- PTHB SOP 'Incident Management'
- PTHB Management

SOP Mass Vaccination Centre



Standard Operating Procedure for Receipt of Pfizer BioNTech Covid 19 Vaccines at Powys Teaching Health Board Staff Vaccination Sites.

Objectives:

- To allow authorised registered c from Powys Teaching Health Board direct from Welsh Blood Service
- To complete relevant document

Scope:

- To ensure timely and safe receipt to PTHB staff vaccination site (B)
- To ensure timely and safe receipt Vaccination Site.
- To ensure Pfizer BioNTech Covid has been maintained. (See also: SOP Frigate Monitoring and Test)
- To be used in conjunction with F resources.

This process is following complete guidance.

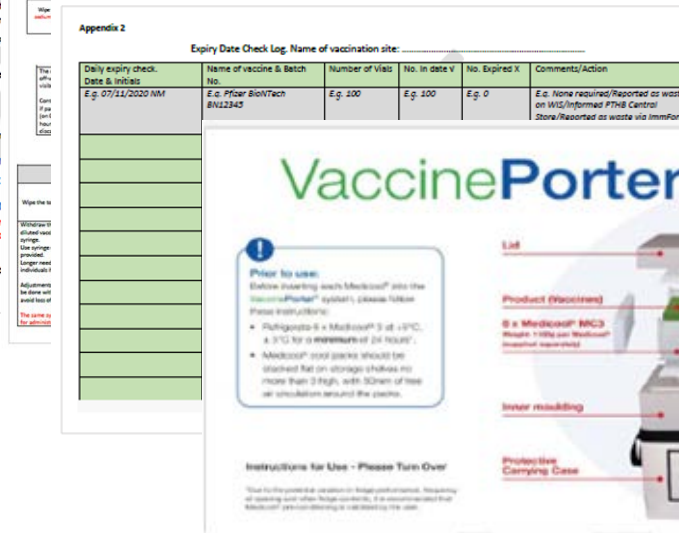
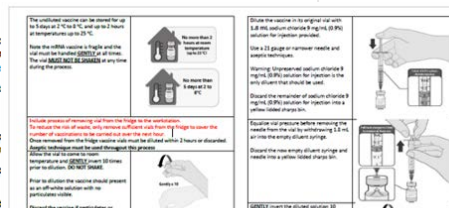
Responsibilities:

This SOP should be used by staff

1.Process for receipt in staff vaccination sites:

Bronllys Site – Concert Vaccine at Mass Vaccination Centre Courtyard vaccines, including a Programme) (Check)

Vaccines orders will be prepared from PTHB Central Store.



All SOPs (standard operating procedures), clinical and logistical guidance, site management and supplies arrangements and associated forms are being developed and collated into one manual so that they can be accessed easily, in context and sequence.



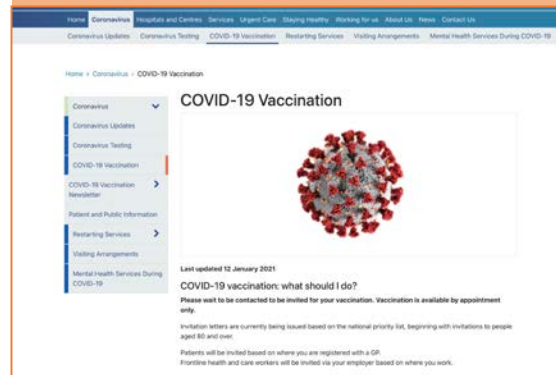
PTHB Covid 19 Vaccination – Engagement and Communication

An integrated approach to engagement and communication on COVID-19 immunisation

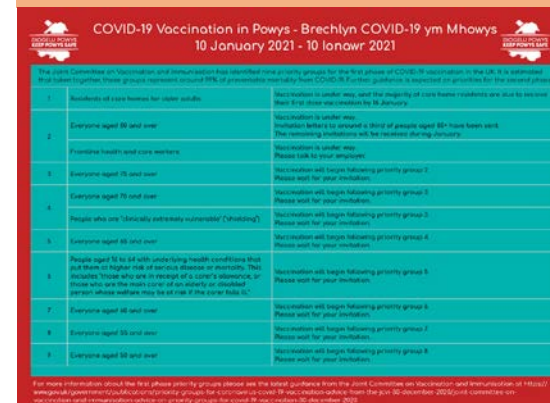
Direct Contact with eligible patients through the booking and appointment process
Ongoing

Priority Groups 1-4
Priority Groups 5-9
Wider public when guidance is available

Dedicated website at www.pthb.nhs.wales/coronavirus/covid-19-vaccination
Updated daily



Public and stakeholder updates via our social media channels
Updated daily



Ongoing programme of press and media activity linked to key milestones



Stakeholder engagement with critical stakeholders (CHC, MSs, MP, LA Cabinet/EMT, councillors, TCCs etc.) and weekly Bulletin



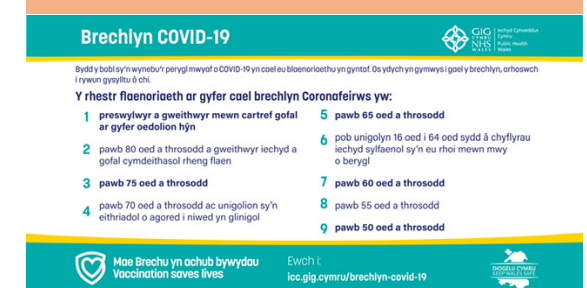
Staff engagement and communication
Ongoing

Daily staff bulletins
CEO videos
Intranet
Management Cascade
Stay Well in PTHB Facebook group

Public Online Q&A Events to provide updates and answer key questions



Local amplification of national communication and engagement plan



PTHB Covid 19 Vaccination – An Inclusive Approach

A COVID-19 immunisation programme that leaves no one behind

A population based approach to enable us to provide the maximum levels of protection for the maximum number of people as fast as possible

Priority Groups 1-4

Priority Groups 5-9

Wider Population as guidance becomes available

Addressing inequalities and inequity and leaving no one behind

Rurality and Social Deprivation

e.g. Travel, Transport, Distance

**Transient and non-registered
populations**

*e.g. temporary registrations,
homelessness, gypsy and traveller
communities etc.*

Cross-border

*e.g.
Resident vs. Registered
CCGs in England, Health Boards in
Wales*

Equality and Welsh Language

*e.g. accessible venues, inclusive
Booking & Appointment systems,
housebound. Welsh Language*

PTHB Covid 19 Vaccination Programme Management Arrangements

Strategic

Clinical Leadership, advice and assimilation of National / International Guidance, Policy and Directives

NHS Wales National Programme Interface and management of National / Regional and Cross Border Interdependencies

Population Vaccination Model and Timeline

Workforce Model and Planning

Strategic Communications and Engagement

Programme Direction, Control and Oversight

*Strategic Oversight Group
reporting by exception / escalation to Strategic Gold Group*

Surveillance and Assurance Mechanisms

- Population Model
- Performance Dashboard
- Programme Implementation Plan
- Standard Operating Manual
- Risk Register
- Reports by exception from Operational Group
- Direction and instruction to Operational Group
- Reports by exception to Gold
- Board reporting
- Clinical oversight arrangements

Operational

WORKSTREAMS

Clinical Delivery and Clinical Logistics

- PGD
- Written Instructions
- Vaccine Handling, Cold Chain
- Clinical Governance and Quality inc. IPC
- Patient Experience and Safety
- Service Delivery/ Site Management

Venue and Site Logistics

- Venue identification, negotiation and lease / legal
- Site preparation and set up
- Site Security and risk assessment
- Site layout / flow
- Fixtures, fittings, equipment
- Ongoing site maintenance & management

Supply/ Waste/ Transport Logistics

- PPE
- Consumables
- Stock control & management
- Ordering process
- Supply and distribution / transportation
- Public transport to access vaccine (new)

Booking and Documentation

- Patient recordkeeping
- Information Governance including consent
- Booking process
- Call centre set up and management
- ICT systems and equipment
- WIS Data Management & Quality

Workforce

- Workforce Planning
- Recruitment/ Redeployment
- Military Support
- Volunteer Programme
- Training and Competency
- Skill Mix and Rostering
- Staff Comms & Engagement/ Staff Side Liaison

Primary Care

- Local negotiation and agreement aligned to national
- Agreement of Capacity and related supply requirements
- Logistical interdependencies

Cohort Specific Task and Finish

- Care homes
- Over 80s
- Those who are housebound
- Those who are in the priority groups who are inpatients

*Operational Group
reporting by exception/ escalation to Strategic Gold Group*

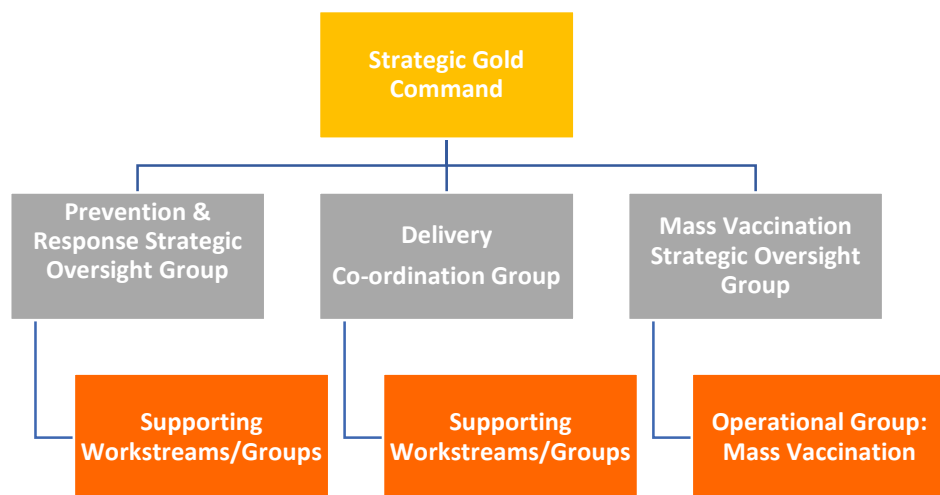
Operational Delivery Mechanisms

- Workstreams for all authorised areas of work with Workstream lead to co-ordinate and own Implementation Plan
- Workstream lead to update Implementation Plan weekly in line with schedule for Strategic Oversight Group
- SOG will instruct Workstreams to update Standard Operating Manual to include significant developments as appropriate; Workstreams can also recommend updates to be made to SOG
- Risk owners to update Risk Register weekly in line with schedule for Strategic Oversight Group
- Operational Group to bring together Workstream leads for knowledge transfer, horizon scanning / action learning and unblocking/ tactical level changes to plan, with
- Escalation to SOG for material changes or recommendations

PTHB Covid 19 Vaccination Programme Governance

The PTHB programme is part of the PTHB Strategic Gold Group governance arrangements. A Strategic Oversight Group is in place and first meeting held 23 December 2020.

This has a direct reporting arrangement to Strategic Gold Command to ensure rapid escalation and resolution of issues.



The programme is being delivered in partnership with:

- Welsh Government and Public Health Wales; National Covid 19 Vaccination Programme
- The Dyfed Powys Local Resilience Forum
- Primary Care Services
- Powys County Council
- The independent and third sectors

It is informed by the national, regional and local pandemic and civil contingency response arrangements including those for Dyfed Powys as noted above, Welsh Government and cross border system resilience arrangements.

It is also informed by ongoing engagement with the Powys Community Health Council.

Mass Vaccination Programme Strategic Oversight Group

Purpose	<ul style="list-style-type: none"> • Lead the development and delivery of the Mass Vaccination Programme • Monitor the Clinical and Non-clinical Performance and Outcomes of the Programme • Ensure the Programme remains compliant with National Guidelines and Professional Advice • Oversee development and delivery of the Programme's Communication and Stakeholder Plan • Own the High-Level Programme Risk Register
Reporting	<ul style="list-style-type: none"> • Provide Exception Reporting to Strategic Gold Command • Receive updates from the Mass Vaccination Operational Group
Chair	• Deputy Chief Executive (Director of Planning & Performance)
Membership	<ul style="list-style-type: none"> • Director of Workforce & OD and Support Services (Vice Chair) • Director of Primary, Community Care & Mental Health • Director of Finance & IT • Director of Public Health • Assistant Director of Communications & Engagement • Programme Director • Programme Clinical Lead <p><i>* Deputies are asked to attend in the absence of Members</i></p>
Secretariat	Programme Support Officer
Frequency	Twice Weekly, Mondays and Wednesdays
Review	Terms of Reference to be reviewed 15 th February 2021

Workstream/ Task Area	Executive Lead
Clinical Delivery & Logistics	Medical Director/Director of Nursing and Midwifery
Venue and Site Logistics	Director of Workforce & OD/ Planning & Performance
Supply / Waste / Transport	Director of Workforce & OD
Booking & Documentation	Director of Finance
Workforce	Director of Workforce and Organisational Development
Primary Care	Director of Primary, Community Care & Mental Health
Communications	Director of Planning & Performance
Care Homes	Director of Nursing and Midwifery
Strategic Model	Director of Planning & Performance

PTHB Covid 19 Vaccination Programme Risk Management

A Covid 19 Vaccination Programme Risk Register has been established with weekly update at Strategic Oversight Group and comprehensive monthly review.

There is a direct escalation to Strategic Gold Group and link to the Covid Risk Register / Corporate Risk Register and overarching Board Assurance process.

Catastrophic	5					
Major	4		<ul style="list-style-type: none"> Inadequate supplies and disposal arrangements including PPE, clinical and other consumables, cleaning supplies, sharps disposal Adverse reactions to the vaccine Other first aid / urgent / emergency care issues arising on the day (Covid-19 / vaccine / generic ill health related) Poor user and patient experience / risk of staff / public order incidents or issues We experience vaccine hesitancy which leads to poor uptake and prevents sufficient population immunity 	<ul style="list-style-type: none"> There is insufficient workforce capacity to deliver all phases of the Mass Vaccination Programme 	<ul style="list-style-type: none"> National vaccine supply is not aligned with local delivery and capacity plans 	
Moderate	3			<ul style="list-style-type: none"> The Mass Vaccination Programme is not delivered on schedule Inadequate information governance controls including in relation to national changes of direction which may impact on consent; subsequent risk of information governance breaches or errors in patient documentation Harm to staff wellbeing including stress during preparatory period of programme and implementation period There is an adverse impact locally caused by frequent short notice changes made nationally to the programme and plan / schedule / sequence of work Cohorts of the population are more difficult for the health board to reach and wait longer than lower priority groups 		
Minor	2	<ul style="list-style-type: none"> Adverse reactions to the vaccine could lead to staff absence for sickness and impact on capacity in health and social care 				
Negligible	1					
		1	2	3	4	5
		Rare	Unlikely	Possible	Likely	Almost Certain

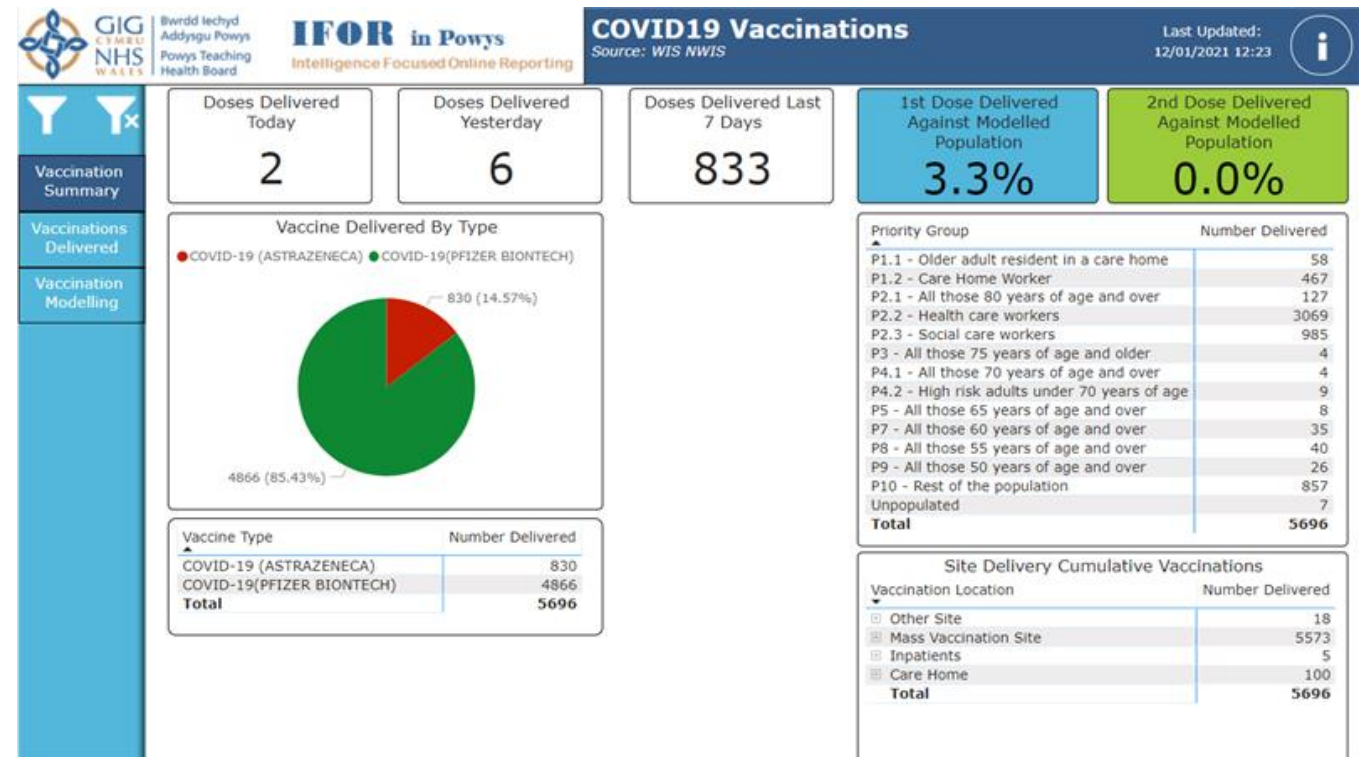
PTHB Covid 19 Vaccination - Performance and Assurance

Assurance Mechanisms

- Governance refreshed for Phase 2 of Programme including a Strategic Oversight Group reporting to Strategic Gold Group
- Strategic Population Model developed in accordance with JCVI Priority Groups and NHS Wales National Covid-19 Vaccination Plan and Milestones
- Trajectories produced by the Strategic Model can be adapted for any changes in assumptions / external and internal dependencies such as vaccine supply and workforce
- Steady State Baseline confirmed and two levels of surge modelled
- Steady State model in use and ensures consistency across booking, workforce and clinical delivery processes
- Programme Plan refreshed for Phase 2 to ensure High Level Actions are clearly identifiable for tracking at the Strategic Oversight Group and to Gold by exception
- Daily Sitrep process in place within PTHB and weekly vaccination surveillance and programme progress monitoring
- Weekly Dashboard in development to summarise and track progress against key performance indicators, in line with national requirements / regional and local arrangements and benchmarks
- Reporting and liaison in place with National Covid 19 Vaccination Programme
- Reporting and liaison in place with regional system resilience arrangements in Dyfed Powys and cross border
- Weekly national public facing report
- Data on supply and stock of vaccines

Key Performance Indicators and Dashboard for Daily Reporting

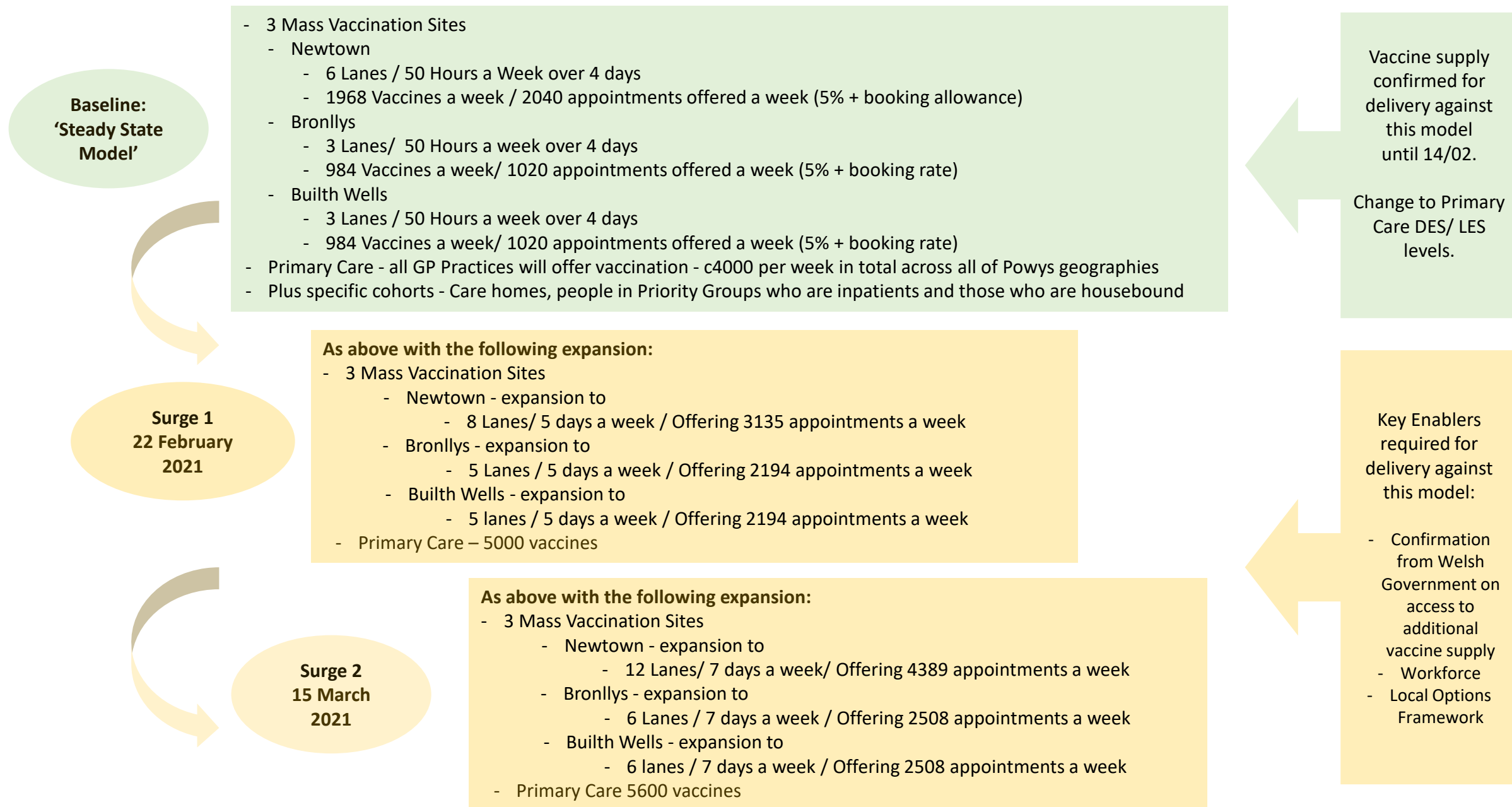
This is in development as shown below - Draft for illustration



Key Performance Indicators will include:

- ☐ % Care homes vaccinated
- ☐ % Health and Care Staff vaccinated
- ☐ % by Priority Cohort
- ☐ DNA / CNA Running Totals
- ☐ Record of any waste of vaccine
- ☐ Record of any missed second doses
- ☐ Incidents by number and type
- ☐ Adverse Reactions

PTHB Covid 19 Vaccination – Strategic Modelling of Delivery Scenarios



Demand - Population

These slides will briefly cover the Mass Vaccination of Powys population utilising different capacity scenarios. The model created is based on multiple data sources.

Scenarios Examples requested

1. Current baseline capacity including – 12 lanes, 6 North, 3 Mid, 3 South 960 daily capacity, 4 days per week in max vaccination sites with primary care vaccination capacity availability from week 9
2. Current maximum capacity including – 12 lanes, 6 North, 3 Mid, 3 South, 960 vaccines delivered per day, 4 days per week in max vaccination sites with primary care vaccination capacity availability from week 9.
3. Current baseline capacity + Surge 2 from week 15 which includes – 24 lanes, 12 North, 6 Mid, 6 South, 960 vaccines delivered per day, 7 days per week in max vaccination sites with primary care vaccination capacity of availability from week 9.

Model Data Sources

- NWIS PID Resident/Responsible data set
- NWIS closest drive time by LSOA data set
- NWIS WIS data tables
- PCC WCCIS care home resident extract
- Medicine Management Vaccination Stock Estimates

		Total	% of vaccinatable population
P1.1	Older adult resident in a care home	932	1%
P1.2	Care home worker	1,527	1%
P2.1	All those 80 years of age and over	9,101	8%
P2.2	Health care workers	5,794	5%
P2.3	Social care workers	2,072	2%
P3	All those 75 years of age and over	7,352	6%
P4.1	All those 70 years of age and over	10,046	8%
P4.2	High risk adults under 70 years of age	3,087	3%
P5	All those 65 years of age and over	8,879	7%
P6	Moderate risk 16 years to under 65 years of age	TBC	0%
P7	All those 60 years of age and over	9,263	8%
P8	All those 55 years of age and over	9,770	8%
P9	All those 50 years of age and over	8,883	7%
P10	Rest of the population (over 16)	44,594	37%
Total to vaccinate		121,300	100%
Under 16		21,376	
Total		142,676	

- Population demand is based on registered population, the data has been provided from NWIS prior to vaccine availability e.g. November 2020.
- Any identifiable key worker staff have been removed from their age cohort
- JCVI priority grouping circa December 2020 has been used for stratifying demand cohorts, added to this local assumptions based on WIS data specification criteria has been used for granularity.
- Proxy (WG) Health & Social care key worker demographics have been used within the model e.g. No definitive list of these care groups is currently available (P1.2), this data will be retrospectively validated during the vaccination process.
- Care home workers based on most recent available cohort proxy (20/01/2021)
- No patient level identifiable data is available for the P6 cohort at present (Moderate risk 16-65 years of age), this cohort will be amalgamated within P8,P9 & P10 cohort.

Delivery Scenario 1 – Current baseline capacity

Summary:

Current maximum capacity including – 12 lanes, 6 North, 3 Mid, 3 South, 960 vaccines delivered per day, 4 days per week in max vaccination sites with primary care vaccination capacity availability from week 9.

Delivery model

- **Week 1 (7/12/2020) to week 6 (11/01/2021)** have been modelled using the “known” vaccine capacity bottleneck e.g. stock we have received. These weeks are deploying to the targeted cohorts of P1.1,P1.2,P2.2 and P2.3.
- **Week 7 (18/01/2021)** modelled on current mass vaccination sites maximum delivery of vaccine. This is calculated on a 7.5 minutes per vaccine, based on a staffed deliverable of 960 vaccines per day over 12 lanes. When this model is used over a 4 day period it provides a total of **3,840** delivered vaccines per week within the centres
- From **week 8 (25/01/2021)** the vaccine bottleneck has been removed from the model e.g. we plan that Welsh Government stocks of vaccine can meet our deployable scenarios.
- **Week 8 (01/02/2021) and onward**, capacity uses current maximum delivery e.g. **3,840** but includes a further **4,000** units of capacity based on the addition of primary care services.

Caveats

- **This model does not account for delivery risk e.g. vaccine supply challenges, inclement weather or other potential capacity reducing scenarios**

Rollout of vaccination by cohort (1st Dose)

Cohort (JCVI) group	Final week when all patients in cohort will have been invited for their 1 st dose	Final week when all patients in cohort will have been invited for their 2 nd dose
P 1.1,1.2, P2.2+P2.3 (health care/key workers)	*Week 7 (18/01/2021)	Week 18 (05/04/2021)
P2.1 - All those 80 years of age and over	Week 8 (25/01/2021)	Week 19 (12/04/2021)
P3 - All those 75 years of age and over	Week 9 (01/02/2021)	Week 20 (19/04/2021)
P4.1 & P4.2 - All those 70 years of age and over & High risk adults under 70 years of age	Week 11 (15/02/2021)	Week 22 (03/05/2021)
P5 - All those 65 years of age and over	Week 12 (22/02/2021)	Week 23 (10/05/2021)
P7 - All those 60 years of age and over	Week 13 (01/03/2021)	Week 24 (17/05/2021)
P8 - All those 55 years of age and over	Week 15 (15/03/2021)	Week 26 (31/05/2021)
P9 - All those 50 years of age and over	Week 16 (22/03/2021)	Week 27(07/06/2021)
P10 - Rest of the population (over 16)	Week 32 (12/07/2021)	Week 43 (27/09/2021)

* Some care homes may be delayed beyond this week due to COVID outbreak/closed status

Delivery Scenario 2 – Current baseline capacity + Surge 1

Summary:

Current maximum capacity + Surge 1 from week 12 which includes – 18 lanes, 8 North, 5 Mid, 5 South, 960 vaccines delivered per day, 5 days per week in max vaccination sites with primary care vaccination capacity of availability from week 9.

Delivery model

- **Week 1 (7/12/2020) to week 6 (11/01/2021)** have been modelled using the “known” vaccine capacity bottleneck e.g. stock we have received. These weeks are deploying to the targeted cohorts of P1.1,P1.2,P2.2 and P2.3.
- **Week 7 (18/01/2021)** modelled on current mass vaccination sites maximum delivery of vaccine. This is calculated on a 7.5 minutes per vaccine, based on a staffed deliverable of 960 vaccines per day over 12 lanes. When this model is used over a 4 day period it provides a total of **3,840** delivered vaccines per week within the centres
- From **week 8 (25/01/2021)** the vaccine bottleneck has been removed from the model e.g. we plan that Welsh Government stocks of vaccine can meet our deployable scenarios.
- **Week 8 (01/02/2021) to week 11 (15/02/2021)**, capacity uses current maximum delivery e.g. **3,840** but includes a further **4,000** units of capacity based on the addition of primary care services
- **Week 12 (22/02/2022) and onward** – Capacity increased to **surge 1 level**. Mass vaccination sites will increase to 18 total lanes running over 5 days = **7,200**. Primary care will increase their capacity to **5,000** vaccination per week.

Caveats

- **This model does not account for delivery risk e.g. vaccine supply challenges, inclement weather or other potential capacity reducing scenarios.**

Rollout of vaccination by cohort (1st Dose)

Cohort (JCVI) group	Final week when all patients in cohort will have been invited for their 1 st dose	Final week when all patients in cohort will have been invited for their 2 nd dose
P 1.1,1.2, P2.2+P2.3 (health care/key workers)	*Week 7 (18/01/2021)	Week 18 (05/04/2021)
P2.1 - All those 80 years of age and over	Week 8 (25/01/2021)	Week 19 (12/04/2021)
P3 - All those 75 years of age and over	Week 9 (01/02/2021)	Week 20 (19/04/2021)
P4.1 & P4.2 - All those 70 years of age and over & High risk adults under 70 years of age	Week 11 (15/02/2021)	Week 22 (03/05/2021)
P5 - All those 65 years of age and over	Week 12 (22/02/2021)	Week 23 (10/05/2021)
P7 - All those 60 years of age and over	Week 13 (01/03/2021)	Week 24 (17/05/2021)
P8 - All those 55 years of age and over	Week 14 (08/03/2021)	Week 25 (24/05/2021)
P9 - All those 50 years of age and over	Week 14 (08/03/2021)	Week 25 (24/05/2021)
P10 - Rest of the population (over 16)	Week 20 (19/04/2021)	Week 31 (05/07/2021)

* Some care homes may be delayed beyond this week due to COVID outbreak/closed status

Delivery Scenario 3 – Current baseline capacity + surge 2

Summary:

Current baseline capacity + Surge 2 from week 15 which includes – 24 lanes, 12 North, 6 Mid, 6 South, 960 vaccines delivered per day, 7 days per week in max vaccination sites with primary care vaccination capacity of availability from week 9.

Delivery model

- **Week 1 (7/12/2020) to week 6 (11/01/2021)** have been modelled using the “known” vaccine capacity bottleneck e.g. stock we have received. These weeks are deploying to the targeted cohorts of P1.1,P1.2,P2.2 and P2.3.
- **Week 7 (18/01/2021)** modelled on current mass vaccination sites maximum delivery of vaccine. This is calculated on a 7.5 minutes per vaccine, based on a staffed deliverable of 960 vaccines per day over 12 lanes. When this model is used over a 4 day period it provides a total of **3,840** delivered vaccines per week within the centres
- From **week 8 (25/01/2021)** the vaccine bottleneck has been removed from the model e.g. we plan that Welsh Government stocks of vaccine can meet our deployable scenarios.
- **Week 8 (01/02/2021) to week 11 (15/02/2021)**, capacity uses current maximum delivery e.g. **3,840** but includes a further **4,000** units of capacity based on the addition of primary care services
- **Week 12 (22/02/2022) to week 14 (08/03/2021)**– Capacity increased to **surge 1 level**. Mass vaccination sites will increase to 18 total lanes running over 5 days = **7,200**. Primary care will increase their capacity to **5,000** vaccination per week.
- **Week 15 (15/03/2021) and onward** – Capacity increased to **surge 2 level**. Mass vaccination sites will increase to 24 total lanes running over 7 days at 12.5hr shifts = **13,440**. Primary care will increase their capacity to **5,600** vaccination per week.

Rollout of vaccination by cohort (1st Dose)

Cohort (JCVI) group	Final week when all patients in cohort will have been invited for their 1 st dose	Final week when all patients in cohort will have been invited for their 2 nd dose
P 1.1,1.2, P2.2+P2.3 (health care/key workers)	*Week 7 (18/01/2021)	Week 18 (05/04/2021)
P2.1 - All those 80 years of age and over	Week 8 (25/01/2021)	Week 19 (12/04/2021)
P3 - All those 75 years of age and over	Week 9 (01/02/2021)	Week 20 (19/04/2021)
P4.1 & P4.2 - All those 70 years of age and over & High risk adults under 70 years of age	Week 11 (15/02/2021)	Week 22 (03/05/2021)
P5 - All those 65 years of age and over	Week 12 (22/02/2021)	Week 23 (10/05/2021)
P7 - All those 60 years of age and over	Week 13 (01/03/2021)	Week 24 (17/05/2021)
P8 - All those 55 years of age and over	Week 14 (08/03/2021)	Week 25 (24/05/2021)
P9 - All those 50 years of age and over	Week 14 (08/03/2021)	Week 25 (24/05/2021)
P10 - Rest of the population (over 16)	Week 17 (29/03/2021)	Week 28 (14/06/2021)

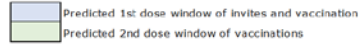
* Some care homes may be delayed beyond this week due to COVID outbreak/closed status

Caveats

- **This model does not account for delivery risk e.g. vaccine supply challenges, inclement weather or other potential capacity reducing scenarios**

PTHB Covid 19 Vaccination - Technical High Level Timeline

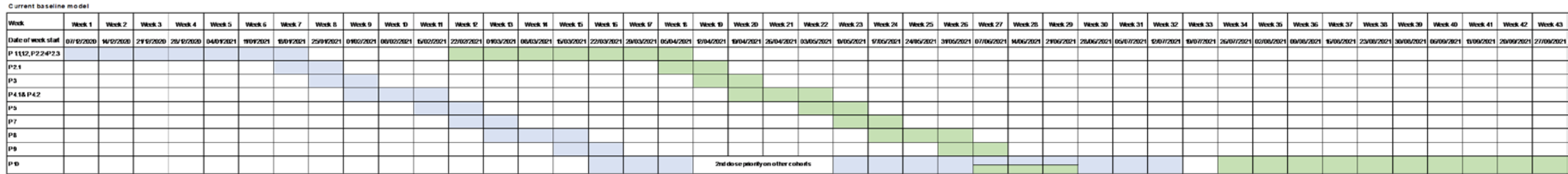
Below are the 3 models of delivery by priority group (JCVI)



Summary of delivery

Cohorts P1.1,1.2,P2.2+P3 are displayed as a single cohort in the gannt chart as a result of multiple overlapping delivery methods.

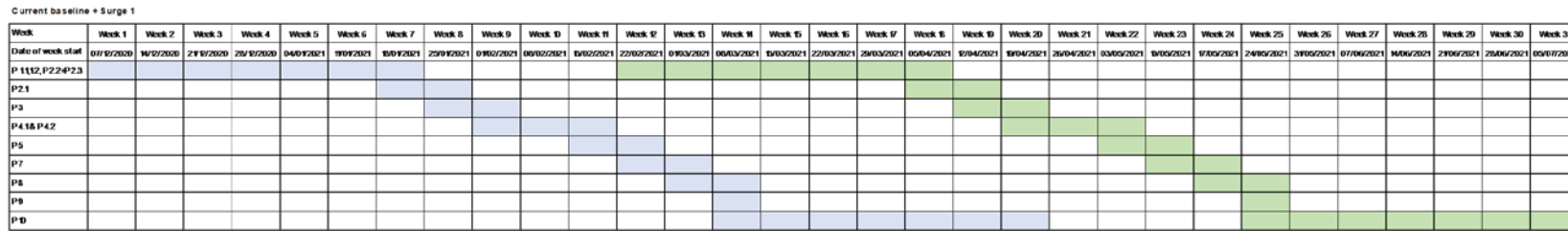
Week 1 to Week 6 using known vaccine stock profile.
Week 7 uses 3840 units of capacity
Week 8 onwards utilises delivery model of 3,840
vaccines delivered from 12 lanes with 4000 delivered
doses weekly by primary care.



Summary of delivery

Cohorts P1.1,1.2,P2.2+P3 are displayed as a single cohort in the gantt chart as a result of multiple overlapping delivery methods.

Week 1 to Week 6 using known vaccine stock profile.
Week 7 uses 3840
Week 9 to week 11 utilises delivery model of 3,840
vaccines delivered from 12 lanes with 4000 delivered
doses weekly by primary care.
Week 12 onwards increases to surge level 1 with 18
lanes delivering 7,200 doses and primary care
delivering a further 5000 doses weekly.



Summary of delivery

Cohorts P1.1,1.2,P2.2+P3 are displayed as a single cohort in the gantt chart as a result of multiple overlapping delivery methods.

Week 1 to Week 6 using known vaccine stock profile.
 Week 7 uses 3840 capacity
 Week 9 to week 11 utilises delivery model of 3,840 vaccines delivered from 12 lanes with 4000 delivered doses weekly by primary care.
 Week 12 to week 14 increases to surge level 1 with 18 lanes delivering 7,200 doses and primary care delivering a further 5000 doses weekly. Week 15 onwards increases capacity to surge level 2, this is our maximum model with 24 lanes open delivering 13,440 with primary care deploying a further 5600 weekly.

