CYFARFOD BWRDD PRIFYSGOL IECHYD
UNIVERSITY HEALTH BOARD MEETING

DYDDIAD Y CYFARFOD: **DATE OF MEETING:**	27 May 2021
TEITL YR ADRODDIAD: **TITLE OF REPORT:**	COVID-19 Report and Update on the Health Board's Annual Plan
CYFARWYDDWR ARWEINIOL: **LEAD DIRECTOR:**	Steve Moore, Chief Executive
SWYDDOG ADRODD: **REPORTING OFFICER:**	Steve Moore, Chief Executive

Pwrpas yr Adroddiad (dewiswch fel yn addas) **Purpose of the Report** (select as appropriate)
Ar Gyfer Penderfyniad/For Decision

ADRODDIAD SCAA
SBAR REPORT

Sefyllfa / Situation

This report provides the Board with an update on the ongoing response to the COVID-19 pandemic within the Hywel Dda University Health Board (HDdUHB) area. It also updates the Board on the progress with developing our Annual Plan for Recovery.

Cefndir / Background

Continuing the theme from my previous update to the Board, the situation regarding the COVID-19 pandemic remains positive, with rates of infection in our communities and hospitalisations remaining low and stable. Our local vaccination programme continues to make remarkable progress and, with many restrictions now being eased, it is likely that the protective effect of vaccination is being felt in both the level of community infection and the need for hospital care. Our hospitals remain busy, however, with non-COVID-19 demand returning to pre-pandemic levels, putting pressure on our staff and services whilst social distancing and PPE requirements continue to limit our capacity.

Despite this, the Executive Team has been able to turn its attention more fully to post pandemic recovery and has been developing our 2021/22 Plan for Recovery, the first draft of which was presented to Board at its meeting in March 2021.

This paper will set out the position at time of writing regarding our operational response, the work of our Gold Command, Silver, Bronze, Cells and the delivery of the vaccination programme. Executive Directors will verbally update at the meeting on the very latest position.

It will also set out the progress made in developing our Plan for Recovery and seek Board support for developments since our last Board meeting in public.

Asesiad / Assessment

Since our last meeting, infection rates have remained consistently low. However, the fact that we are still seeing a level of infection and new hospitalisations is a reminder that the virus is still

circulating in our communities and is still capable of causing serious illness. Continued adherence to the rules and guidelines set out by Welsh Government and receiving the vaccination when offered remain the most important ways for our local population to keep themselves and their loved ones safe. It has been a hallmark of the response in West Wales that our local population has shown its support for the hard work and dedication of our front line staff by complying so well with these rules and guidelines and have taken up the offer of a vaccine in such high numbers. Continuing to do so will enable us to recover more quickly and start to address the significant numbers of people now waiting for our services.

The table below shows the rate per 100,000 population and positivity rate (the proportion of those tested who receive a positive result) for each county compared to that set out in the March Board update.

County	Previous Update – 7 days to 28th Feb (rate per 100k)	Latest update – 7 days to 12th May (rate per 100k)	Previous Update – 7 days to 28th Feb (positivity rate)	Latest update – 7 days to 12th May (positivity rate)
Carmarthenshire	42.9	11.7	16.6%	1.0%
Ceredigion	19.3	8.3	15.3%	1.1%
Pembrokeshire	19.9	4.8	13.8%	0.5%
Hywel Dda	**31.0**	**8.8**	**15.5%**	**0.9%**

Since our last Board meeting, rates have fallen further, to levels not seen since last summer. As such low levels, the data becomes “noisy” with small numbers of infections having a larger relative effect (especially at county level) but at time of writing, the overall trend in Wales continues to be downward or stable.

Operational Update

It is very encouraging to be able to report that the numbers of patients in our hospital beds with confirmed or suspected COVID-19 has fallen from the last report of 108 to zero (as at Thursday 13th May 2021) – the first time this has happened since the pandemic started. However, our hospitals and community services remain busy with occupancy across the 4 main hospital sites at 98% and the Field Hospital based in the Selwyn Samuel Centre, Llanelli, remains in operation and, at time of writing was 67% occupied (16 beds occupied out of 24 staffed beds). The Director of Operations will provide a verbal update on the latest operational position across the four hospitals at the meeting.

There are currently no active COVID-19 outbreaks in any of our hospitals. The Director of Nursing will provide a verbal update on the latest position at the Board meeting.

Staff sickness levels have continued to improve with the latest position being:

- General sickness rate – 4.0%
- COVID rate – 0.5%
- Shielding/self-isolating rate – 1.3%

This gives an overall sickness rate of 5.8% which compares with 10.2% at peak in December. The workforce team continues to support teams and provide advice and guidance on working from home arrangements as the pandemic continues to ease.

Vaccination Programme Update

The local vaccination programme continues to move at remarkable pace. In line with the Welsh Government's milestone commitments, the Health Board successfully offered a first dose vaccine to all local people in the nine priority groups specified by the Joint Committee on Vaccinations and Immunisations (JCVI) by April 18th 2021. The programme has since moved into offering vaccinations to those under 50 and, following regulatory approval of the Moderna vaccine earlier in the year, Hywel Dda became the first place in the UK to administer doses to its local population. Our ability to do this was both a reflection of the strength of planning and coordination in the national team and a vote of confidence in the capability and professional approach of the Hywel Dda vaccination delivery team.

At time of writing, a remarkable 360,423 vaccinations have been administered – well over 200,000 since the Board last met in public. 243,673 of this number were first doses and, reflecting the significant ramping up of second dose delivery, 116,750 were second doses (a 10 fold increase from the last report).

We are now offering 3 different vaccines locally – Pfizer, Oxford AstraZeneca (OxAz) and Moderna using a mixture of GP practices and 7 Mass Vaccinations Centres (we are the only Health Board to have an operating model using 3 vaccines for reasons set out below).

With the recent change in advice from the JCVI regarding under 40 year olds being preferentially offered a vaccine other than OxAz at relatively short notice, the Health Board experienced a short lived slowdown in first dose delivery in the following week. Being able to offer the Moderna vaccine has been a major benefit to the local delivery programme, given its ease of handling compared to Pfizer, but with limited supplies it was unable fill the gap left by the OxAz guidance change. This required some fast work from the vaccine team for bookings already made and to realign the delivery plan to use Pfizer again. The logistical challenge remains daunting, with supply mix, changing guidance, second dose demand and delivery channels all requiring careful orchestration.

Despite this, the team has high confidence of meeting the end of July 2021 milestone to have offered a first dose vaccination to all eligible adults in the Hywel Dda area. To date, more than 76% of all adults have now received a first dose in Hywel Dda with 36% having had both doses. Uptake across the 9 priority groups in total is a remarkably high 89.4% and with our "no one left behind" policy, supported by rolling communications across all our social media and radio outlets, we are hopeful that it can grow even further.

Indications from the roll out to under 50s is also encouraging. At time of writing, two thirds of 45 – 49 years had received a first dose, almost three fifths of the 40 – 44 years and almost half of the 35 – 39 year olds have also been given a first dose. As we move down the age group there is some concern that rates will reduce and our communications team, working with Welsh Government, are doing all they can to encourage uptake in these younger groups – not just to protect themselves but to also provide protection to their loved ones who may be more vulnerable to this awful virus.

Letters offering appointments to all remaining eligible adults are due to be sent out in the next few days and, supplies allowing, will be offering dates up to the end of June, leaving ample space in July to ensure no-one is left behind in our local area.

As the landscape continues to be highly fluid, the delivery plan continues to evolve and is being actively managed by the Tactical Group whilst delivery is driven by the Bronze Vaccine Group.

A verbal update on the latest position will be provided by the Director of Public Health.

Weekly Vaccination bulletins continue to keep our staff, partners and local population informed of the progress we are making.

Test, Trace and Protect (TTP) programme

The TTP system continues to work well, with no constraints in testing capacity or availability. Contact rates with index cases and their contacts remains high at 87% and 97% respectively within 48 hours respectively for the week commencing 8th May 2021.

In relation to community instances of infection; as reported above, the overall numbers are low and therefore subject to small number volatility. The Regional Incident Management Team (IMT) maintains its oversight of these instances and, at time of writing, was confident that they were arising from discrete, well defined sources. One of these relates to the industrial maritime industry in Pembrokeshire and the Regional IMT is exploring a bespoke solution with Welsh Government, given the importance of this industry.

Welsh Government recently requested that Health Boards refresh their Regional Prevention and Response Plans. This was in development at time of writing and will be shared with Board members once completed.

A revised Testing Delivery Plan has been developed and is attached at ***Appendix 1.***

Welsh Government is currently revisiting the benefits/risks of asymptomatic testing in view of the current low prevalence rates and the risk associated with false positive results.

Welsh Government has considered the re-opening of hospital visiting and has advised Health Boards to take local decisions with respect to asymptomatic testing of visitors, dependent upon local circumstances including local COVID-19 prevalence rates. In view of our low prevalence rates, the implementation of 'booked' visiting arrangements, the continuation of appropriate infection prevention and control measures such as PPE, hand hygiene and social distancing and the practicalities associated with testing visitors on attending our hospital sites, the Executive Team has agreed not to implement visitor testing at this time. This decision will be kept under review, should circumstances change.

Gold Command Group

The Gold Command Group remains on standby, should additional decisions or changes to existing decisions be required. The group has met 2 times since the last Board meeting to consider and agree decisions as follows:

At a meeting held on ***11th May 2021***, the Gold Group ratified an urgent decision taken the week before to supply oxygen concentrators and CPAP machines to India as part of a Wales wide effort to respond to the significant COVID-19 crisis that was unfolding in the country. Given the urgency and the need to respond at speed, individual Executives signed off the return of **450** concentrators and **50** CPAP machines to NHS Wales Shared Services on 7th May 2021, to join a consignment of equipment from across NHS Wales. The Gold Command Group reviewed the rationale and risks associated with this, supporting and ratifying the decisions made, which were based on the anticipated requirement of equipment at the Health Board to address future potential peaks and the equipment replacement requirement we have as a Health Board.

Across two meetings, the second on the ***18th May 2021***, Gold Strategic Group were requested to consider the risks and support the extension of current fixed term contracts in the Testing Team until 31st March 2022, and approve an external recruitment advert for vacant posts for fixed term contracts to 31st March 2022. The associated risks involved with extending versus not extending the fixed term contracts for the Testing Team to March 2022 had been considered and agreed in principle by Tactical Group. It was recognised that the proposed staffing model was more cost effective, with the financial risk calculated at £10,198.25. The potential risk relating to the need to offer redundancy payments for those staff in post for two years or more was reviewed, with it recognised that at present this does not present a risk due to the time in post being 17 months. Furthermore, it was agreed to amend the job advert to cover both testing and vaccinating, in order to provide further flexibility. The Gold Command Group approved the extension of current fixed term contracts in the Testing Team to 31st March 2022 and approved recruitment to vacant posts on fixed term contracts to 31st March 2022.

Gold Level Cell Updates

The Executive Team continues to meet formally on a weekly basis to review and co-ordinate the work of both the Silver Tactical Group and the Gold level Cells. At the time of writing, all Cells were reporting no issues with their latest position and projections.

Progress with the Recovery Plan for 2021/22

Work on the development of our Recovery Plan for 2021/22 has continued since the version presented to Board as an initial draft in March. Progress with all Planning Objectives are reviewed weekly by the Executive Team and individual delivery plans are in development for every objective. There are two key areas where Board support/ratification is sought today to assist the finalisation of the plan and progress key elements of it, prior to Board approval of the full plan in June 2021, for onward submission to Welsh Government.

The first relates to our plan for recovery in our services. On 7th May 2021, The Health Board was notified that it had secured £11.322m of non-recurrent revenue funding and £2.513m of capital funding from the £100m announced by the government in April. This allows the team to begin the procurement process for additional demountable capacity at Prince Philip Hospital (for additional orthopaedic and endoscopy work), secure additional ophthalmology cases in the private sector and through internal waiting list initiatives, and provide additional activity across a range of diagnostic modalities and specialities through both internal initiatives and outsourcing. Additional funding sought for our Single Point of Contact/Waiting List Support plan is subject to further discussion with Welsh Government colleagues but we remain hopeful of being successful in securing this shortly.

The detailed delivery plans for all the above schemes are in development and will be finalised in time for inclusion in our final draft Recovery Plan for 2021/22 but given the scale of the challenge we face, it is encouraging that this early announcement of funding allows key decisions on procurement to be made.

There is, however, a risk related to the non-recurrent nature of this funding stream and the need for a multi-year contract for the supply of the demountable solution if value for money and sufficient impact on the backlog are to be secured. No contracts are yet being discussed however the Board is asked to support the Executive Team in principle to seek a contractual agreement of reasonable length to ensure value for money. Board scrutiny through a relevant committee will be secured prior to contract award when the actual financial risk is known. As the other elements of our plan involve insourcing or outsourcing initiatives, there

is no recurrent financial risk being assumed due to their flexible nature and our ability to halt them at short notice.

The second area where Board support is sought relates to minor changes to existing Planning Objectives. These objectives were largely signed off at Board in September 2020 (with two further additions agreed at Board in November 2020) and were the result of the work undertaken over the summer to review and consolidate all outstanding Board decisions from 201/7/18 onwards and align them with the Board's refreshed Strategic Objectives. As work has progressed on developing delivery plans it has become apparent that some require realignment and/or rewording and to maintain a clear audit trail, these are set out below for Board agreement:

Planning Objective	**Proposed Change**
6D - Develop the capability for the routine capture of PROMS and implement in all clinical services within 3 years. Establish the required digital technology and clinical leadership and engagement to facilitate pathway redesign based on these insights and put in place impact measurement processes to evaluate changes at a pathway level.	Change of Executive Lead from Director of Finance to Medical Director/Deputy Chief Executive
2E - From April 2021, develop a programme of activities to increase our income from both new and existing opportunities and income streams to make a positive difference to the health, wellbeing and experience of patients, service users and staff across Hywel Dda University Health Board. Develop user friendly grant-making procedures, whilst maintaining good governance, so that staff are empowered to access our charitable funds and be innovative and proactive in their approaches to making a difference. Maximise opportunities to extend our reach and become more visible internally and externally so that more people across our region are aware of the charity's existence, its purpose and the importance of their support.	Change of wording to: From April 2021 develop a programme of activities which promote awareness of the Health Board's official charity and the opportunities available to raise and use funds to make a positive difference to the health, wellbeing and experience of patients, service users and staff across Hywel Dda University Health Board. Develop clear processes for evidencing the impact of our charitable expenditure on our patients, service users and staff fundraising activities and expenditure on our staff, the patients and the public with the aim of increasing our income and expenditure levels on an annual basis.

If the Board supports these changes, they will then flow through to the final draft recovery plan for 2021/22 for Board review in June.

Argymhelliad / Recommendation

The Board is asked to:

- Ratify the Gold Command Group decisions:
  - Approve the extension of current fixed term contracts in the Testing Team to 31st March 2022;
  - Approve recruitment to vacant posts on fixed term contracts to 31st March 2022;

- Approve the release of 394 Nidek Oxygen Concentrators, 56 Devilbiss Healthcare Oxygen Concentrators and 50 CPAP machines as part of the humanitarian aid for India, recognising the monetary loss will need to be reported and approved by the Audit and Risk Assurance Committee at its next meeting.
- Provide in principle support to the Executive Team to seek to procure the demountable required over a longer period than the current non-recurrent funding allows for, and to request that the contract is scrutinised by the relevant committee prior to formal award.
- Approve the changes to Planning Objectives set out above

Amcanion: (rhaid cwblhau) **Objectives: (must be completed)**	
Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:	853 - Risk that Hywel Dda's response to COVID-19 will be insufficient to manage demand (Score 5) 854 - Risk that Hywel Dda's Response to COVID-19 will be larger than required for actual demand (Score 6) 855 - Risk that UHB's non-covid related services and support will not be given sufficient focus (Score 8)
Safon(au) Gofal ac Iechyd: Health and Care Standard(s): Hyperlink to NHS Wales Health & Care Standards	All Health & Care Standards Apply
Amcanion Strategol y BIP: UHB Strategic Objectives: Hyperlink to HDdUHB Strategic Objectives	All Strategic Objectives are applicable
Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Objectives Annual Report 2018-2019	9. All HDdUHB Well-being Objectives apply

Gwybodaeth Ychwanegol: **Further Information:**	
Ar sail tystiolaeth: Evidence Base:	Included within the report
Rhestr Termau: Glossary of Terms:	Included within the report
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Cyfarfod Bwrdd Iechyd Prifysgol: Parties / Committees consulted prior to University Health Board:	Hywel Dda University Health Board Gold Command Hywel Dda University Health Board Silver Tactical Hywel Dda University Health Board Bronze Group Chairs

Effaith: (rhaid cwblhau) **Impact: (must be completed)**	
Ariannol / Gwerth am Arian: **Financial / Service:**	Any financial impacts and considerations are identified in the report.
Ansawdd / Gofal Claf: **Quality / Patient Care:**	Any issues are identified in the report

Gweithlu: **Workforce:**	Any issues are identified in the report
Risg: **Risk:**	Consideration and focus on risk is inherent within the report. Sound system of internal control helps to ensure any risks are identified, assessed and managed.
Cyfreithiol: **Legal:**	Any issues are identified in the report
Enw Da: **Reputational:**	Any issues are identified in the report
Gyfrinachedd: **Privacy:**	Not applicable
Cydraddoldeb: **Equality:**	Not applicable

Hywel Dda University Health Board

COVID-19 Testing Delivery Plan

Version 0.9 April 2021

Hywel Dda University Health Board

COVID-19 Testing Delivery Plan

April 2021

Version	Date Issued	Amendment History	Distribution
0.1	3rd August 2020	First draft – circulated for comment	Subject Matter Experts across the UHB
0.2	6th August 2020	Comments incorporated from version 0.1 Sections added for Antibody Testing and Future developments Circulated for comment	Subject Matter Experts across the UHB
0.3	7th August 2020	Comments incorporated from version 0.2	Subject Matter Experts across the UHB PH Gold Cell members
0.4	10th August 2020	Final comments incorporated	
0.5	3rd November 2020	Refreshed plan	Public Board papers
0.6	12th March 2021	Refreshed plan	Subject Matter Experts across the UHB PH Gold Cell members
0.7	16th March 2021	Final comments incorporated	Tactical Group Public Board papers
0.8	26th April 2021	Refreshed plan	Subject Matter Experts across the UHB PH Gold Cell members
0.9	30th April 2021	Comments incorporated	Tactical Group PH Gold Cell Public Board papers

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1.0 Introduction

Hywel Dda University Health Board (the Health Board) first commenced community testing for COVID-19 in March 2020. Since that time, the demand for testing, national strategy and testing infrastructure have changed dramatically. This refreshed COVID-19 Testing Delivery Plan provides a brief description of those changes over time, gives a detailed current position statement and looks ahead to the projected likely requirements for testing over the next 12 months.

The Health Board has developed a robust testing infrastructure, which has been responsive to the changing expectations from Welsh Government, as the national Testing Strategy has developed. The Health Board is able to provide COVID-19 testing to anyone who needs it.

This now includes the provision of testing to:

- Those with COVID-19 symptoms in the community
- Identified contacts of COVID-19 positive individuals
- Patients prior to surgery and chemotherapy
- All patients on admission to hospital
- All inpatients routinely every five days
- Inpatients when they become symptomatic
- Patients prior to discharge to or admission to a care home, or home with domiciliary care support
- Residents within care homes
- All care home and ward residents/patients and staff in response to outbreaks
- The population as appropriate in response to outbreaks or identification of a variant of concern
- Asymptomatic Health Board staff and students routinely with Lateral Flow Devices (LFDs)

The Health Board is currently using a range of testing methodologies including RT-PCR and point of care testing (POCT). Previously the Health Board also provided antibody testing, which has now been discontinued on a national basis.

2.0 National Testing Strategy and the Hywel Dda University Health Board Operational Delivery Plan

On 15 July 2020, Welsh Government published its first Testing Strategy, setting out the testing priorities as we emerged from lockdown in preparation for the winter. The Strategy required Health Boards to develop local Delivery Plans, which set out clear deliverables, timeframes and current and future planning arrangements. These plans were based on local and regional priorities, to ensure testing capacity was maximised to support changing testing requirements as we moved through the autumn and winter 2020/21. This included the need to be agile and flexible, to respond to any changing circumstances, such as the emergence of flu, as we moved towards the winter period.

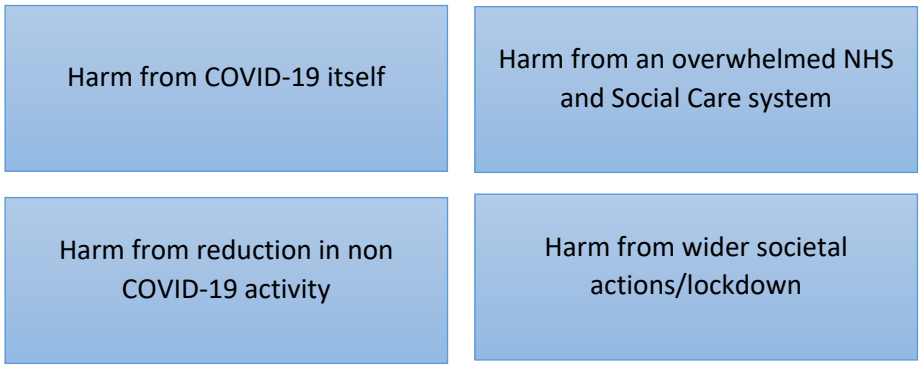
The first version of the Health Board's Delivery Plan was published in August 2020 and identified a number of up and coming challenges that could affect the demand for COVID-19 testing. These included factors that could increase the number of **symptomatic** individuals across our region, significantly increasing the demand for RT-PCR testing, including:

- An increased population due to a rising number of tourists and visitors to the region over the summer months
- A further increase in population due to the re-opening of universities and other higher education facilities
- An increase in the number of individuals with respiratory symptoms from other causes e.g. influenza, leading to requests for COVID-19 testing and possibly multi-viral testing
- At any point we could see a second wave of infection

There was also a need to review the changing Welsh Government expectations regarding **asymptomatic** RT-PCR testing e.g. for pre-operative and pre-diagnostic procedures, hospital admissions and discharges, and care homes/other closed settings, which could create additional demand.

The Delivery Plan was updated in November 2020, with a revised projection for testing demand and review of suitability of testing facilities over the winter period. We also took the opportunity to align testing with parts of the vaccination programme and phlebotomy services to deliver some of these activities on multi-use sites, creating economies of scale in relation to workforce and equipment.

Welsh Government refreshed the national Testing Strategy in February 2021. The refreshed Strategy identified four causes of harm relating to COVID-19.



The Strategy reviewed the national testing priorities:

- To support NHS clinical care – diagnosing those who are infected so that clinical judgments can be made to ensure the best care
- To protect our NHS and social care services and individuals who are our most vulnerable

- To target outbreaks and enhance community surveillance in order to prevent the spread of the disease amongst the population
- To support the education system and the health and well-being of our children and young people and to enable them to realise their potential
- To identify contacts of positive cases to prevent them from potentially spreading the infection if they were to become infected and infectious, and to maintain key services
- To promote economic, social, cultural and environmental wellbeing and recovery

The Strategy was re-set to five key areas of focus:

- Test to diagnose
- Test to safeguard
- Test to find
- Test to maintain
- Test to enable

Test to Diagnose

To identify patients who are infected/infectious as quickly as possible, particularly those presenting to hospital so that they may benefit from specific treatment for COVID-19. A confirmed diagnosis is also important to reduce uncertainty and the need for further investigations.

This includes testing:

- All emergency patients on admission
- Any patients who develop symptoms during admission
- Asymptomatic inpatients five days after admission and every subsequent five days to identify asymptomatic infected/infectious individuals who may have been incubating infection at the time of admission or contracted COVID-19 through nosocomial transmission
- All planned admissions within 72 hours prior to admission to protect patients who would be at increased risk from Covid-19 due to planned procedures (e.g. chemotherapy or surgery)

Test to Safeguard

COVID-19 is a challenge in closed settings such as hospitals, care homes and prisons because it can be difficult to control the spread once infection is introduced. The risk of infection being brought into a closed setting is related to the prevalence of infection in the community, therefore greater vigilance is needed when prevalence within the population is higher.

Infected individuals may enter closed settings as symptomatic or asymptomatic residents, visitors, or staff members. The primary measures to control risk of infection

are the use of appropriate Infection, Prevention and Control procedures. Testing can provide some additional safeguards but cannot be used as a sole means of control.

Aspects of testing include:

- Symptomatic staff, wherever they work, should self-isolate and request a RT-PCR test
- Routine testing of asymptomatic staff working with vulnerable people, using lateral flow tests, including patient-facing NHS staff, public-facing social care staff, care home staff, supported living staff, visiting professionals to care homes, domiciliary care staff, special school staff
- Symptomatic care home residents
- Admissions to care homes from the community, hospitals or other closed settings
- Visitors to care homes

Test to Find

Identifying and isolating COVID-19 cases in the community reduces the transmission of infection, supports contact tracing and helps to slow or stop the spread of the disease.

Reduced prevalence of infection in the community reduces the number of severe infections, protects vulnerable individuals, protects the NHS, and reduces mortality.

- Everyone who thinks they have symptoms of COVID-19 should get a test
- In specific instances e.g. in response to outbreaks in a community or workplace, mass testing could be used to seek out cases. This includes mass testing of care homes with a positive case

Test to Maintain

Regular testing of staff in the workplace, including in education and childcare settings, increases surveillance to identify asymptomatic cases faster. Testing can support other critical measures (such as social distancing) to help reduce the spread of the virus and maintain services.

- Routine asymptomatic LFD testing is being rolled out across a wide range of workplaces including education, public services and private companies and businesses
- LFD tests are available for all who are unable to work from home and cannot access testing via their workplace, and their households, through LFD Collect from our community testing centres and LFD Direct, with tests ordered on the UK Portal and delivered to their home.

Test to Enable

As we move forward with the vaccine roll out and towards lower prevalence of the virus, later in 2021, Welsh Government will be considering how testing can further support a return to normality and meet the sixth testing priority - to promote economic, social, cultural and environmental wellbeing and recovery.

As we move from pandemic to endemic, our approach will evolve and could involve testing to enable people with a negative result or those who demonstrate the required level of antibodies in their system to attend work and normal daily activity, attend a cultural or sporting event, travel internationally and meet friends and family.

This refresh of the Health Board's Testing Delivery Plan has fully considered the expectations set out in the current national Testing Strategy, the national Community Testing Framework and the Hospital Testing Paper.

We have and will continue to build on our existing Test, Trace and Protect (TTP) Communications Strategy to forecast, review and adapt information and messaging as required for our staff, communities and partners. We have developed strong partnership working across our partner agencies for an aligned, accurate and consistent communications strategy. We have established three county-specific Incident Management Teams (IMTs) and a Regional IMT.

This continues to be a live Delivery Plan, which will be monitored and adapted to meet any changing local circumstances or national policy direction e.g. disadvantaged communities or 'hot spots' which may require more targeted focus and communication. We will continue to utilise a wide range of tactics and platforms, in line with Welsh Government and Public Health Wales (PHW) national campaigns (e.g. Keep Wales Safe) and local strategic operational plans where appropriate. We will continue to collaborate with local agencies in the Hywel Dda area to ensure clear, accurate and consistent messaging that informs and reassures our communities.

3.0 RT-PCR Testing

The viral RT-PCR detection test utilises a throat or dual throat and nose swab, which is analysed in a laboratory. This test detects the presence of viral RNA and can determine whether an individual currently has the infection. It has a high level of sensitivity and specificity.

It is now known that viral ribonucleic acid (RNA) may be detected by RT-PCR in upper respiratory samples for prolonged periods, in some cases more than 120 days, after an initial infection. However, the presence of viral RNA does not necessarily correlate with either the presence of live virus, or indeed infectivity.

The Health Board has developed a testing infrastructure to ensure that anyone who needs an RT-PCR test can access one.

The testing of **symptomatic critical staff and members of the public** is undertaken at a number of community testing sites across Carmarthenshire, Ceredigion and Pembrokeshire (currently four sites). All of this capacity is provided via the Department of Health and Social Care (DHSC) system, booked via the UK Portal or 119, and analysed in UK Lighthouse Laboratories (LHLs). Recently a LHL has opened in Newport, Gwent.

The testing of **symptomatic care home residents and mass testing of care homes** and inpatient wards in response to outbreaks is undertaken by Health Board staff, and analysed by the PHW laboratory in Newport, Gwent.

The **routine weekly RT-PCR testing of asymptomatic care home staff** is undertaken via the UK Portal and analysed in the LHLs.

The testing of **asymptomatic pre-operative and pre-chemotherapy patients** within 72 hours before the procedure is managed and delivered by Health Board staff, across all three counties (currently five sites). These swabs are analysed by the Public Health Wales (PHW) laboratory in Newport, Gwent.

Testing of all **emergency and unplanned admissions to our hospitals**, **repeat testing every 5 days after admission or when an inpatient becomes symptomatic** is undertaken by Health Board staff and swabs are analysed within our local Health Board laboratories.

The Regional IMT has developed a list of options to respond swiftly and effectively to community outbreaks or the identification of a variant of concern. Wherever possible this will utilise RT-PCR swabs rather than Lateral Flow Devices (LFDs).

3.1 Controlling and preventing transmission of the virus by supporting contact tracing

Reducing the onward transmission of the virus requires that we know who is infected and in turn requires those individuals and their close contacts to self-isolate to break the chain of transmission.

We will continue to prioritise the testing of symptomatic individuals, encouraging those with symptoms of COVID-19 in our communities to request a test. This will include the targeting of communications at the tourist industry and visitors, to enable local testing where an immediate journey home is not practical.

The Hywel Dda region includes a number of university and higher education sites, with significant numbers of students entering the areas of Aberystwyth, Carmarthen and Lampeter. This is an area of particular concern to the Health Board and its partners, as the majority of these students live in houses of multiple occupation or university accommodation, with shared facilities.

We have developed excellent partnership working with our university partners, and local universities form part of our local Incident Management Teams, with robust plans

and processes established to support TTP, infection protection and control and management of potential spread across the university population.

This includes the establishment of a walk-in testing option in Aberystwyth for those students without access to transport. We have since established a walk-in testing option in Haverfordwest.

We have established robust Contact Tracing Teams across all three counties and all individuals with a positive RT-PCR result are contact traced to identify others that may be or become infectious. These contacts are then in turn, contacted by the Tracing Teams and advised to self-isolate and book a RT-PCR test.

4.0 Point of Care Testing

A number of Point of Care Testing (POCT) methods for COVID-19 have developed over recent months and have started to be implemented at pace across a number of settings. This is to support the 'test to maintain' strand of the Testing Strategy as a routine test for asymptomatic workers and students.

The main POCT being rolled out across Wales is the Innova SARS-CoV-2 Antigen Rapid Qualitative Test, which is a **Lateral Flow Device (LFD)** that uses a nasal swab and gives a result within 30 minutes.

The LFDs have a very high specificity of 99.6%, but a much lower sensitivity of between 50% and 70. The lower sensitivity of LFDs compared to RT-PCR, means that not all positives will be detected, however the tests are more likely to detect people with a high viral load, who are by implication those who are most infectious, rather than people who have had COVID-19 recently and are no longer infectious or are pre-infectious. False positive results will still occur so positive results require confirmation by laboratory RT-PCR.

Routine twice-weekly LFD testing started to be offered to asymptomatic patient-facing staff and students in the Health Board (circa 8,000) in February 2021. A roll-out plan has been developed with five priority groups for implementation in a phased manner, with a date for full implementation by 31 May 2021. This is now including non-patient facing staff. This testing is not mandatory and staff can reserve the right to decline the offer. The offer of twice-weekly LFD testing is also being made to all Primary Care Contractors.

Staff who choose to take up the offer will upload their results to a UK Portal and any positive results will lead to the requirement to immediately self-isolate and book an urgent RT-PCR test for confirmation. Positive LFD results are now flowing into the Case Record Management system (CRM) so the Tracing Teams are alert to positive results and able to commence contact tracing and follow up with the individual the need for a confirmatory RT-PCR.

LFD testing is also being offered to:

- Public-facing social care staff
- Care home staff (in addition to weekly RT-PCR)
- Visiting professionals to care homes
- Domiciliary care workers
- School staff
- Pupils in secondary schools
- University students
- Private industries and businesses
- Anyone who cannot work from home, and their households, where they are unable to access testing through their workplace

In December 2020, LumiraDx POCTs were introduced into the Health Board's admitting units for symptomatic patients to provide a rapid result (within 20 minutes). The use of these kits was suspended at the beginning of February due to concerns linked to a high proportion of false positive results. These were subsequently been suspended across NHS Wales due to two Field Notices recalling specific batches.

The Health Board's Testing Cell is currently considering the introduction of a different POCT into our admitting units and undertaking a risk assessed approach to manage any risks of introducing or not introducing a rapid POCT.

We will continue to review the use of POCT as further developments ensue.

5.0 Antibody Testing

In the summer of 2020, the Health Board provided antibody testing to circa 5,500 school staff, Health Board, Primary Care and Welsh Ambulance Service staff and domiciliary care workers as requested by Welsh Government.

At the time there was no agreed clinical utility to antibody testing and its purpose was to provide information on the prevalence of COVID-19 in different work groups to help us to better understand how the disease spreads.

A positive antibody result means an individual has probably had the virus, however, it does not mean that they are immune to catching the disease again or that they cannot infect other people.

A negative antibody result means that the laboratory reviewing the sample has not detected antibodies to the virus that causes COVID-19. This could be because they have not been exposed to the virus that causes COVID-19, or the test was taken before an antibody response could be generated, or the levels of antibodies are too low to be detected.

Antibody testing has now ceased nationally whilst priority is given to RT-PCR and antigen POCT. Welsh Government is currently considering the use of home testing kits for any future antibody testing requirements.

6.0 Proposed Model for a Sustainable COVID-19 Testing Infrastructure

Our current community RT-PCR testing infrastructure comprises a mixture of Health Board managed Community Testing Units (CTUs) in Aberystwyth, Cardigan, Haverfordwest, Carmarthen and Llanelli, one DHSC Regional Testing Centre (RTC) in Carmarthen, and three third party MTUs based in Aberystwyth, Haverfordwest and Llanelli. We also have access to two central reserve MTUs.

The current RT-PCR testing infrastructure uses a mixture of Welsh dry throat swab kits, analysed within the Public Health Wales laboratories and the UK wet dual throat/nose swab kits analysed through the UK LHLs, with dual access points via the Health Board's Command Centre or the UK portal/119.

6.1 Community Symptomatic Testing and Contact Testing

The vast majority of our community symptomatic testing is delivered via the UK model. This includes symptomatic members of the public, critical workers, tourists/visitors and students. Tests are booked through the UK Portal or 119 and swabs are analysed in the LHLs. Testing is also offered to identified contacts of COVID-19 positive cases.

Whilst there were significant issues with the system between August and November 2020, all issues have now resolved and the system is delivering a high quality service with plenty of local sampling capacity and 24 hour results turnaround times circa 96% for those tests that require a rapid response.

The Health Board provides testing to symptomatic individuals who cannot attend a testing site e.g. those that are housebound, and to international travellers with a suspected variant of concern. This is delivered via home visit by the CTU staff.

Modelling work has been undertaken to establish the maximum daily community RT-PCR testing demand through to March 2022 across our three counties. The modelling was based on the possible number of new infections and symptomatic individuals with the following assumptions:

- Baseline population figures, including typical patient flows from North Wales and Powys and second home ownership
- The likely increase in population by County associated with tourists/visitors and university students
- 80% population will be infected
- 66% population will be symptomatic
- 2.7% those who contract the virus will be admitted into hospital (in-line with national models)
- These figures do **NOT** take account of potential clusters/outbreaks or the impact of other respiratory illnesses such as influenza
- These figures do **NOT** take account of the impact of new variants of concern

- These figures do **NOT** include the demand for testing of asymptomatic individuals e.g. pre-operatively and pre-chemotherapy, or contacts identified through contact tracing

Two scenarios have been considered:

- The possible worst-case scenario (scenario 22) using a stepped approach with a range of Rt values e.g. as restrictions are eased, starting at the actual position in January 2021. This scenario anticipates no impact from the vaccination programme, and does not taking into account the impact of new variants of concern or other respiratory illnesses.
- The more likely but still conservative scenario (scenario 23) assumes a 50% positive impact from the vaccination programme but also does not account for the impact of any new variants of concern or other respiratory illnesses.

In both scenarios, possible community testing demand has been calculated based on 5 times the likely infected rate each month over the coming year.

Scenario 23 (with 50% efficacy of the vaccination programme) based on 5 x the likely numbers of infected individuals, equates to a daily demand of 114 community tests per day for the region, from March 2021 tapering off to no demand from December 2021 onwards.

By county, this equates to a decreasing demand month on month to December 2021, from a maximum demand of:

- Carmarthenshire up to 72 tests per day in March 2021
- Ceredigion up to 10 tests per day in March 2021
- Pembrokeshire up to 31 tests per day in March 2021

Scenario 22 (possible worst-case scenario with no positive impact from the vaccination programme) based on 5 x the likely numbers of infected individuals, equates to a daily demand of 262 community tests per day for the region in March 2021. This rises to a peak of 1,058 tests per day in October 2021, before declining rapidly to no testing required by March 2022.

By county, this equates to an increasing demand month on month to a maximum demand of:

- Carmarthenshire up to 613 tests per day at a peak in October 2021
- Ceredigion up to 212 tests per day at a peak in September 2021
- Pembrokeshire up to 243 tests per day at a peak in October 2021

These then taper to no demand by March 2022

The predicted worst-case scenario 22 shows a maximum demand circa 1,000 tests per day, for a short period of time, which equates to only 50% of the routine sampling capacity available across the region without the use of the reserve MTUs (See Table

1). Whilst this demand does not include any consideration of demand from new variants of concern or other respiratory illnesses, the figures are truly worst-case scenario with no impact from the vaccination programme, which gives confidence that sufficient community sampling capacity is available for the coming year.

In reality, the true symptomatic community demand is likely to be somewhere between the two scenarios. The actual testing demand in March 2021 was relatively close to scenario 23.

On 10 March 2021 the Minister for Health and Social Care announced that all contacts of positive cases would be asked to undertake a RT-PCR test on day 1 and day 8. These are directed via the DHSC testing system.

Whilst the prevalence is low as it currently is, this will not create any challenge to the system. However, scenario 22 projects a peak of 6,561 new infections in the month of October 2021. Assuming all of these are detected and a worst-case average number of 8 contacts per positive case (currently 5 but expected to rise as restrictions are lifted), each requiring two tests, this equates to circa an additional 3,400 tests per day, which will exceed capacity if the worst-case scenario is experienced. This will be a national challenge and has been flagged as a risk to Welsh Government. In reality, it is unlikely that this amount of contacts will require RT-PCR testing as those undertaking a routine LFD testing programme will not require a RT-PCR if identified as a contact and receiving negative LFD results. Testing of contacts is also not mandatory and it is likely that a proportion of individuals will decline the offer of a RT-PCR test.

Table 1. Current DHSC Community Symptomatic RT-PCR Sampling Capacity

Testing Facility	**Type of Facility**	**Maximum Daily RT-PCR Swabbing Capacity March 2021**
Aberystwyth Canolfan Rheidol	Dual drive-through and walk-in MTU, managed/delivered by 3rd party on behalf of DHSC, UK swab kits and lighthouse labs	500
Haverfordwest Pembrokeshire Archives	Dual drive-through and walk-in MTU, managed/delivered by 3rd party on behalf of DHSC, UK swab kits and lighthouse labs	500
Llanelli Dafan Park	Drive-through MTU, managed/delivered by 3rd party on behalf of DHSC, UK swab kits and lighthouse labs	500
Carmarthen Showground	Drive-through RTC, managed/delivered by 3rd party on behalf of DHSC, UK swab kits and lighthouse labs	500
2 Central Reserve MTUs	For deployment for outbreaks or targeted testing as required*	1000*
Total		**2,000 – 3,000***

*The 2 central reserve MTUs are based in the Carmarthen Showground and have been deployed locally as and when required. They could be called upon to support other parts of Wales, if needed so are not assumed within our local capacity.

The public is also able to access home testing kits, although these are not as timely as attendance at a testing centre and as such are not generally recommended. Due to the geographical and travel challenges for the population served by the Health Board, we will continue to provide an easily accessible solution across a number of sites as shown in Table 1.

6.2 Community Asymptomatic Pre-operative and Pre-chemotherapy Testing

We are currently directing all asymptomatic testing of pre-operative and pre-chemotherapy patients via the Health Board CTUs and PHW laboratories to ensure rapid TATs for results.

The current demand for pre-chemotherapy testing is circa 140 tests per week. We do not anticipate this figure increasing significantly in the future.

Based on pre-COVID planned surgical numbers, the maximum weekly planned operations within the Health Board requiring pre-operative RT-PCR tests are circa 536 per week.

The average number of daily pre-operative and pre-chemotherapy RT-PCR tests required are circa 100/day. Whilst this does not include tests for regional surgery or pre-anaesthetic dental procedures, Table 2 shows that our current community Health Board asymptomatic RT-PCR sampling capacity, is more than sufficient to meet the predicted demands for these groups. If a need arises to increase capacity further, some of our testing sites have the ability to add an additional room or lane to provide additional testing slots.

These facilities are supporting one-stop clinics for pre-chemotherapy RT-PCR testing and phlebotomy. They are also being utilised as COVID-19 vaccinations centres, maximising facilities and staffing resources. Consideration is being given regarding the longer-term continuation of phlebotomy at such community sites, rather than returning fully to hospital-based phlebotomy services post-COVID.

Health Board testing staff based at these sites are also supporting testing within care homes for symptomatic residents, mass home testing in response to outbreaks and domiciliary testing where required.

Table 2. Current Health Board Community Asymptomatic RT-PCR Sampling Capacity

Testing Facility	Type of Facility	Maximum Daily RT-PCR Swabbing Capacity March 2021
Aberystwyth University Thomas Parry Building,	Walk-in CTU, managed/delivered by Health Board, Welsh swab kits, PHW labs	37
Cardigan Leisure Centre	Walk-in CTU, managed/delivered by Health Board, Welsh swab kits, PHW labs	31
Haverfordwest Picton Centre	Walk-in CTU, managed/delivered by Health Board, Welsh swab kits, PHW labs	39
Llanelli Ty'r Nant	Drive-through CTU, managed/delivered by Health Board, Welsh swab kits, Welsh labs	84
Carmarthen Showground	One lane managed/delivered by Health Board, Welsh swab kits, PHW labs	60
Total		**251**

Routine weekly asymptomatic RT-PCR testing of care home staff continues to be managed via the UK on-line portal and direct delivery of swabs to the care homes. As such this does not impact on Health Board or regional sampling capacity.

Over the past year, the Health Board has successfully managed to deliver timely, targeted mass testing in relation to specific outbreaks in care homes, communities or workplaces. Between October 2020 and January 2021 the demand for mass testing, particularly in care homes was a significant challenge. Over recent months we have seen a steadily improving position as the prevalence rate has declined.

The Regional IMT has recently considered how we will rapidly deploy mass testing if required in relation to variants of concern. Based on our experience we are confident that we have implemented a range of actions that make us well placed to seek out cases of COVID-19, including asymptomatic and atypically-symptomatic individuals, identify variants of concern, trace contacts and implement mass testing if required. These include:

- Sufficient community testing capacity in place with the ability to flex to different communities if needed
- A rapidly increasing amount of asymptomatic testing, which will identify asymptomatic cases so we can get on top of them quickly
- Communications to encourage people with wider flu-like symptoms to book a test so are well placed to pick up those with wider symptoms
- All our community swabs are now going to the labs in Newport, where they are available for genomic sequencing
- Robust tracing processes in place to quickly identify potential contacts and source
- Commencement of routine backward tracing

- The ability to rapidly target mass testing in a town/community/workplace due to identification of a variant of concern or due to a cluster/outbreak. We are able to do this by mobilising an MTU and RT-PCR sampling, which will enable sequencing to be undertaken

The Regional IMT has agreed a range of viable options to rapidly respond to community outbreaks, including response to an identified variant of concern (VOC). Wherever possible this will utilise mass RT-PCR testing, only using LFDs where numbers requiring testing are above 1,500-2,000 per day.

6.3 Inpatient RT-PCR Testing

Welsh Government published its Framework for COVID-19 testing for hospital patients in Wales on 9 March 2021. The expectations in the framework are as follows:

- Undertake pre-admission RT-PCR testing in all patients due to be admitted for elective treatment
- Implement the 'discharge to care home' criteria of non-infectiousness for all planned elective admissions with previous history of COVID-19 infection
- Ensure robust and consistent data collection of testing practice for local and national assurance
- Emergency admissions may be tested using LFD or suitable rapid point of care devices like Lumira DX, in addition to RT-PCR, interpreting the results in the context of the likelihood of COVID-19 infection
- Follow the NHSE standard operating procedure for emergency admissions and pathways
- Repeat RT-PCR test at 5 days after an initial negative result and at 5 day intervals and consider retesting at 3 and 7 days in areas of high nosocomial transmission.
- Consider enhanced testing of patients who are clinically extremely vulnerable or receiving dialysis and cancer care in hospital
- Follow published Welsh Government guidance on testing prior to discharge to care homes or other health or social care facilities

The Health Board is compliant with the majority of the expectations in the framework and is currently developing a process for the new requirement to test all inpatients every 5 days across all hospital settings. The likely daily impact of this is an additional 400 tests per day, which will be sent to the Newport lab for analysis so will not affect local Health Board lab capacity.

In addition, we will continue to provide RT-PCR testing within our hospitals for all patients with COVID-19 symptoms, and where appropriate, in response to local outbreaks.

6.4 Laboratory Capacity

Over recent months laboratory capacity has been significantly increased across both the PHW laboratories and the UK LHLs capacity made available to Wales (circa 14,800 tests per day). There is confidence that sufficient lab capacity is available to manage analysis of RT-PCR swabs over the coming year. This has been helped by the opening of both a PHW lab and a LHL in Newport, Gwent, with the ability to send the majority of our community tests and routine inpatient testing to these, relieving pressure on our Health Board laboratories.

7.0 Future Developments

Our approach to testing continues to evolve rapidly and this Operational Delivery Plan will be a live document that will adapt to changes in national policy and local needs.

This will include the introduction of new technologies and testing methods, as they become available e.g. new point of care testing.

We will continue to strengthen and develop our testing approach to ensure that this is sustainable in the future, that we plan for future peaks, so that it can be flexible and responsive to local needs and to ensure that we can adapt to emergent evidence and the development of new technologies. This will require continued strong partnership working in order to adapt to these challenges and strong governance to ensure that we collectively respond as a system across Wales.

Moving forward will require us to utilise data collectively to identify trends and to respond quickly to emergent trends. We will continue to utilise our data to improve our understanding of the virus and how this impacts upon the future delivery of testing approaches across Wales as we move through the coming year.

We must also be clear that testing is just a part of our overall approach to preventing the transmission of the disease across Wales. We all need to play a part to ensure that we follow government guidelines in areas such as social distancing, wearing of face coverings and hand hygiene, in order to keep us all safe and reduce risk.