Cardiff and Vale University Health Board

Service Delivery in 2020 / 2021

GIG CYMRU NHS WALES

Bwrdd Iechyd Prifysgol Caerdydd a'r Fro

Cardiff and Vale University Health Board

Foreword

2020 has been a year of many challenges so far and the response of the public, essential workers and especially the staff of Cardiff and Vale University Health Board has been exceptional. COVID-19 is a dreadful disease that has affected and claimed the lives of many of us and, as a Health Board, we owe it to everyone who has suffered from the pandemic and to our staff who have worked so hard in the response to it to build or services back safely, stronger and better.

As we look to the future, we must consider how we continue to treat COVID-19 patients while delivering our other services safely and look beyond this to a complete renewal of our Health System.

We have been very impressed with our staff in their ingenuity and embrace of digital technology while treating their non-COVID patients during the pandemic, and have been heartened to hear feedback that our staff feel that barriers between departments have begun to dissipate.

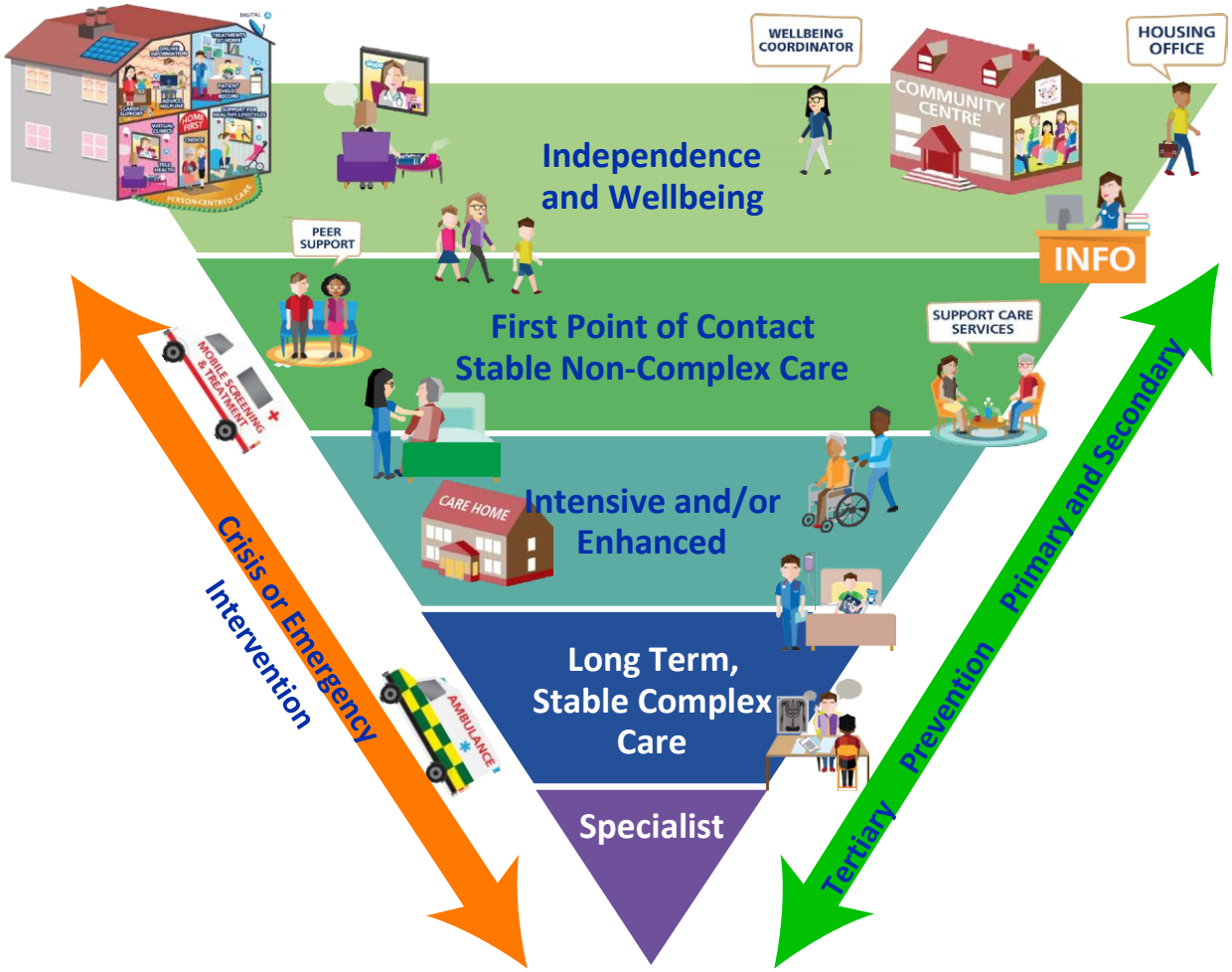
This is something which we must endeavour to retain going forward and this plan sets out how we aim to do so while incorporating the treatment of COVID-19 into our 10-year strategy, Shaping our Future Wellbeing.

Len Richards
Chief Executive
Jane.Bennett2@wales.nhs.uk

Charles Janczewski
Interim UHB Chair
SeniorEA.Chair@wales.nhs.uk

This paper sets out the approach to the delivery of services in 2020/21 across the system, incorporating our response to Covid-19 demand and looking beyond this to the renewal of our system.

Shaping Our Future Wellbeing remains our strategy and has guided the approach throughout. We have delivered on the first three phases of our Covid-19 response. The objective during the first part of this financial year, phase four of our plan, is to minimise harm to our population during an anticipated prolonged period of Covid-19 prevalence within the community, we are implementing this fourth phase. It is also essential we look beyond this to the future of our system and set in place conditions which allow teams to transform our system in line with our strategy.



This plan is divided into two sections:

Section One

This section provides a brief overview of the delivery of Phases 1-3 of the organisation's response to Covid-19 and sets out our approach and plans for Phase 4 (the next 6-12 months).

Section Two

This Section describes the work we will be undertaking to renew our system.

Section 1

Phases 1-3

The coronavirus pandemic reached the UK in February and cases of Covid-19 began to emerge in Cardiff and Vale in early March. Initial modelling at UK and Wales level identified the potential for an extreme surge event, with a substantial peak in cases, hospitalisation, critical care requirement and deaths.

A three phase plan was rapidly put in place in order to mitigate the impact of the anticipated surge in demand:

- ***Phase 1 – Repurposing capacity and zoning***
- ***Phase 2 – Commissioning additional capacity within UHB facilities***
- ***Phase 3 – 'In extremis', commissioning capacity outside UHB facilities*** Further information on these plans is provided in Appendix1

Delivered During Phase 1-3

A 1500 Bed facility at the Dragons Heart Hospital	*Over 400 additional Beds for Cohorting of patients*	*Expansion of the Critical Care Unit to 85 Beds a 124% increase*	*700 Urgent Cancer and other procedures delivered at Spire Hospital*	*460 Patients Discharged Home*
55 Patients Stepped down from Critical Care	5169 Staff Tested	3665 Returned to Work	Recruited 1007 Additional Staff	

The impact of the 'lockdown' measures implemented by the UK Government on the 23rd March has significantly altered the nature of the virus spread and as a result there has been a clear change in the course of anticipated demand. Consequently we altered planning assumption from a single surge event to a longer-term, undulating model. In this scenario coronavirus remains prevalent in the community for many months with periods of higher Covid demand. Given we believe the majority of the public remains susceptible, the potential still exists for substantial surges in demand. In addition there is growing evidence locally and nationally of increased mortality over recent weeks, which may only partially be directly attributable to Covid-19.

In the next phase, it is therefore necessary to both plan for varying levels of Covid demand and restore a wider range of non-Covid service delivery in order to prevent broader harm to our population.

Phase 4

Design Principles

Shaping Our Future Wellbeing remains our strategy and has guided the approach through the first three phases. Indeed we have seen an acceleration in the delivery of the strategy over the last month, e.g. virtual appointments, rapid discharge, single points of entry, enhanced cluster working, greater community

integration, enhanced partnership with social care and perhaps most importantly a culture that has empowered front line staff to act with confidence at pace.

As part of this fourth phase we have established some clear principles which allow us to remain vigilant to the threat of Covid-19, ensure we reduce harm for both Covid-19 and non-Covid patients, continue to transform at pace and focus on the long term.

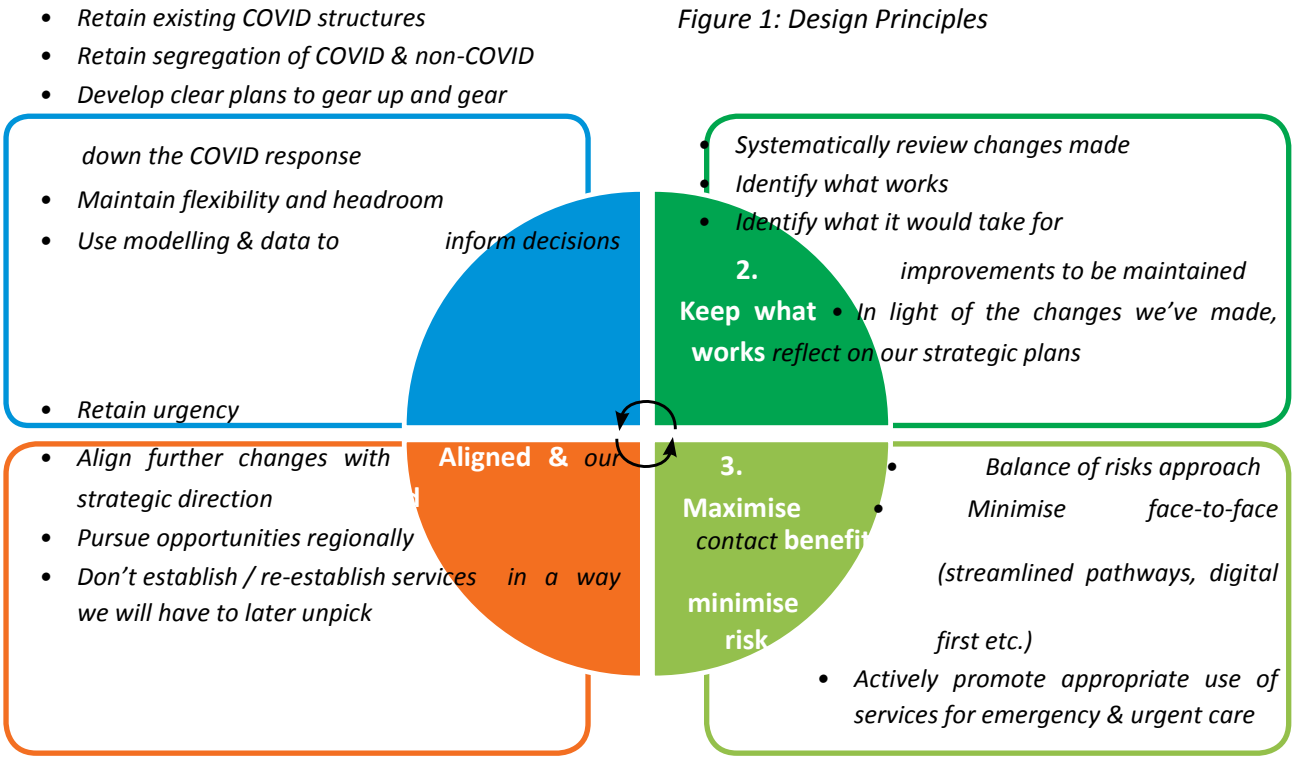


Figure 1: Design Principles

Operating Model

The situation NHS Wales now faces is uniquely challenging. Not only is demand expected to be highly volatile but the delivery of services will need to significantly alter to account for the risk of transmission. In response to this we have developed an operating model designed to be highly adaptable and provide for both Covid and non-Covid patient groups. It is anticipated that, even with the earliest warning system, it will only be possible to plan up to 4-6 weeks ahead. We will therefore need to operate within rolling six week planning cycles, informed by data and modelling, and 'gear' the service provision to appropriately respond to the changing levels of demand.

Figure 2: Operating Model

We have, in collaboration with Lightfoot, established a suite of information to monitor trends and predict demand levels in different scenarios. Planning assumptions from these scenarios are set out later in this document.

Gearing

We anticipate periods of undulating Covid demand over many months, with the potential for extreme surges. It is likely this will mean different responses are required at different times. To support this we have defined three levels of Covid escalation – Significant (Yellow), Substantial (Amber) and Severe (Red). The UHB is currently at Yellow escalation. The intention is to report the status daily at the operational group meetings and, using the early warning system described earlier, project the forecast for the next six weeks. The strategic group will use these forecasts to trigger an escalation / de-escalation. This will provide a common basis for planning services (Covid and non-Covid) and help get into an operational rhythm.

	Post-COVID	Significant *(current level)*	Substantial	Severe	In extremis
COVID daily attendances	0	0 – 50	50 – 100	100 – 200	> 200

COVID daily admissions	0	0 – 25	25 – 50	50 – 100	>100
COVID patients in hospital	0	0 – 250	250 – 500	500 – 1000	>1000
COVID critical care	0	0 – 35	35 – 75	75 – 150	>150

The necessary segregation of Covid, non-Covid and Covid-free, combined with unpredictable and undulating demand means, not only will overall bed demand be higher, but it will also be necessary to reserve significantly more headroom and adaptability into the system than would previously have been the case, in addition to the reduced effective capacity within the green zones. To mitigate this it will be essential to provide alternatives to hospital admission, step-down patients at the earliest opportunity and maintain resilience in primary, community and social care. The Dragon's Heart Hospital (DHH) is expected to play an important role in this regard, offering significant "step-down" capacity for Covid patients in the recovery phase of their illness or with a ceiling of treatment, plus the option to provide support to care homes. Again, the DHH can support the region / South Wales in restoring non-Covid activity.

Primary and Community Care

In Primary Care contracted providers in General Medical Services, Dental and Ophthalmology have moved to cluster models, with 'red' practices and single cluster sites open. Rapid expansion of virtual appointments has taken place, with all GPs moving to a telephone triage first model and practices buddying to provide support. Contractors have adhered to social distancing requirements through both physical measures but, significantly, rapid roll-out of remote consultation working.

The establishment of Community testing centres initially for patients and then for staff has enabled significant number of staff to return to work.

In relation to the contractor services, there will be a need for the next stage to be agreed at a national level with the respective clinical leads. Phase 4 however will continue the new ways of working to ensure patients have access to advice and services, through triage and use of technology but seeing patients when face to face appointments are appropriate.

Whilst discussions are ongoing, some of the key areas for GMS that are being considered within the Health Board are:

- ***Active management of chronic conditions***
- ***Responsive urgent care with access to diagnosis and management of acute problems***
- ***Timely diagnosis of new problems with access to appropriate consultation type, access to diagnostics eg imaging and endoscopy***

- ***Proactive management of vulnerable groups including shielded patients, care home residents, palliative care.***
- ***Essential prevention work including childhood immunisations***

In relation to dental and optometry services, the aim will be to implement a phased, risk-based approach to re-establish services to meet population needs. This will include prioritising care for at risk groups, and people with symptoms/ more urgent needs. This approach will be based on risk to minimise the possibility of transmission of COVID to patients and staff.

For dental this is likely to include:

- ***Urgent dental centres will continue to treat people with symptoms of COVID who need Urgent/ Emergency treatment and all patients who require aerosol generating procedures***
- ***Re introduce routine dental care based on risk this could include treatments for dental conditions causing pain and other dental symptoms for patients who do not have symptoms of COVID-19 .***
- ***Increase availability of treatment for patients who are currently being treated for orthodontics to manage issues or potential issues arising from their care.***

For optometry this is likely to include:

- ***General Ophthalmic services.***
- ***Eye Health Examination services.***
- ***Low Vision service provided (with careful consideration for this vulnerable group of patients).***

For community services, there will be a need to provide increased reablement support to avoid people deconditioning, increased daytime services, including palliative and falls. For the district nursing teams this will include chronic conditions management and support, proactive monitoring and support for housebound, wound clinics, continence clinics.

Mental Health

From early surveys and existing knowledge we can plan on the basis of a reasonable assumption that we will need to expand certain elements of Mental Health services. In the main, this is likely to be around the lower tier services model to allow the minimum and earliest intervention possible. This response should include a wide population based approach as well some more targeted and specialist services, with a particular focus on primary care. As a starting point, the following services should be considered for early expansion:

Tier 0	Mental Health and Well Being General Advice and Support / On Line Low Level Interventions / Book Prescriptions / Debt and Benefits Advice / CALL enhancement / step towards support move to single triage for OOHs / Population mental health and wellbeing on line guidance and products via PHW and CALL

Tier 1	Mental Health and Well Being Targeted Advice and Support / Primary Care Support and Assessments / On Line Low Level Interventions / Debt and Business Advice
Tier 2	Psychological Interventions Including on line suicide prevention / Support for Schools
Tier 3	Trauma Services / Specialist Psychological Interventions
Tier 4	Detox

We have developed a more detailed Mental Health services plan, to guide the development of the service over the next period, in line with Together for Mental Health.

Streams

In recognition of the risk the virus presents it is necessary to separate patient groups and provide appropriate levels of protection to these individuals and the staff who care for them. This is important both to reduce actual risks and to provide greater confidence in services to patients using them and clinicians working within them. We have identified five distinct patient streams based upon their Covid status:

Stream		Definition
RED stream	Confirmed C19+	Has had +ve test in past 14 days
PURPLE stream	Suspected C19	Symptomatic, not confirmed
ORANGE stream	Non-COVID	Asymptomatic, does not meet green stream criteria, e.g. emergency
GREEN stream	COVID-free	Planned activity, meets green stream criteria
BLUE stream	C19 Recovered	>14 days post confirmed +ve

Aligned to this approach we are zoning acute facilities in order to safely provide services to both Covid and non-Covid patients.

Green Zones

As described in appendix 1, we have for the past few weeks been segregating Covid +ve, Covid suspected and non-Covid patients. In addition the Spire hospital and the Short Stay Surgical Unit

(SSSU) at UHW have been used as 'Covid-free' facilities to provide essential and urgent operating. Utilising the RCS definitions we are prioritising the recommencement of the remaining level 2 surgery, with the intention to shortly expand that to level 3 surgery. Local audit data, international evidence and national guidance all strongly indicate that, in order to provide safe surgery, it is necessary to provide dedicated, 'Covid-free' environments with strict admission criteria. We are therefore in the process of re-configuring the UHW and UHL sites in order to provide such facilities, in addition to that available at Spire.

These green zones are intended to operate as a 'hospital within a hospital', including separate access, facilities, processes and staffing. We anticipate, for example, that staff in green zones will not move between areas and will wear suitable levels of PPE to reduce the risk of staff transmitting the virus to patients (rather than the other way around). This approach is strongly supported, indeed has been designed, by our clinical teams.

We have rapidly reviewed the options to achieve this and has agreed the revised configuration below for the two main sites. This is being operationalised over the coming week, with the intention to commence this model from w/c 18th May. As part of this the exact details of the theatre and ward provision are being reviewed, however the implications of enhanced theatre cleaning between cases and the requirement to increase the spacing of ward beds is expected to mean significant reductions in effective capacity relative to the pre-Covid baseline.

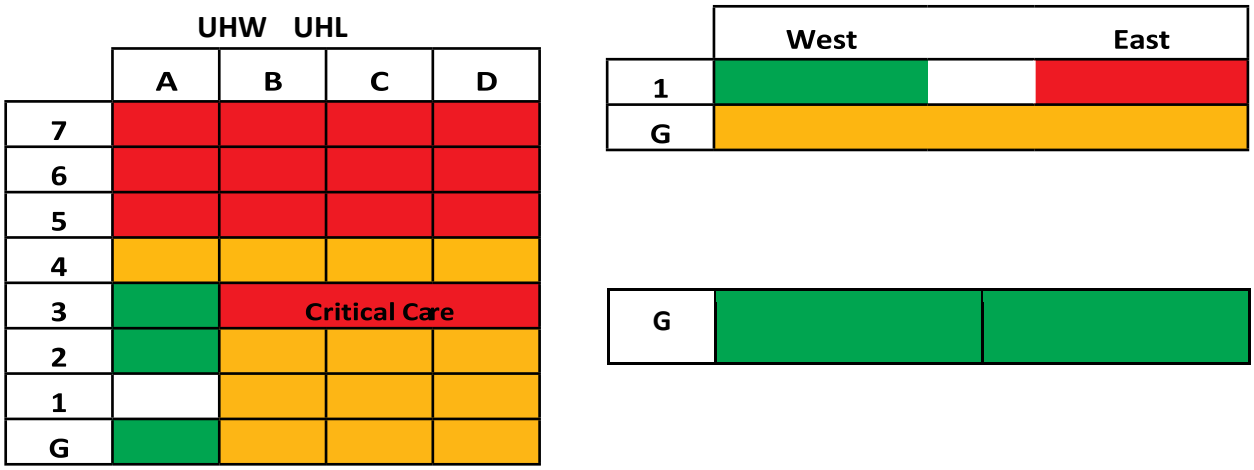


Figure 3: Simplified schematic of site zoning

Spire

The fundamental objective of establishing these green zones is to protect patients whilst recommencing core services. To support this we have a systematic clinical audit process in place to capture the outcomes of all surgical procedures.

We clearly have a role in providing services to patients outside of Cardiff and Vale and are in active dialogue with WHSSC and other Health Boards (Swansea Bay in particular) on the support we can offer through these green zones to ensure time critical services (e.g. thoracic, upper GI and hepatobiliary surgery) can recommence across South Wales.

Throughout phases 1-3 we continued to deliver activity at Spire Hospital as a Green Site, with a spot contract in place from 23rd March enabling over 700 patients to have received their treatments to the beginning of May. We will now be enhancing the number and range of procedures we provide at the site.

NHS activity carried out in the Independent Sector (IS)

Spire Hospital, Cardiff	*Cancer surgery*	*Non Cancer surgery*	*Outpatients (incl Treatments)*	*Endoscopy*	*Cardiology*	*Total*
NHS Cases from 23/3 to 15/5	132	18	650	74	-	874
Projected to end of Q1	108	102	810	157	60	1237
Total	**240**	**120**	**1460**	**231**	**60**	**2111**

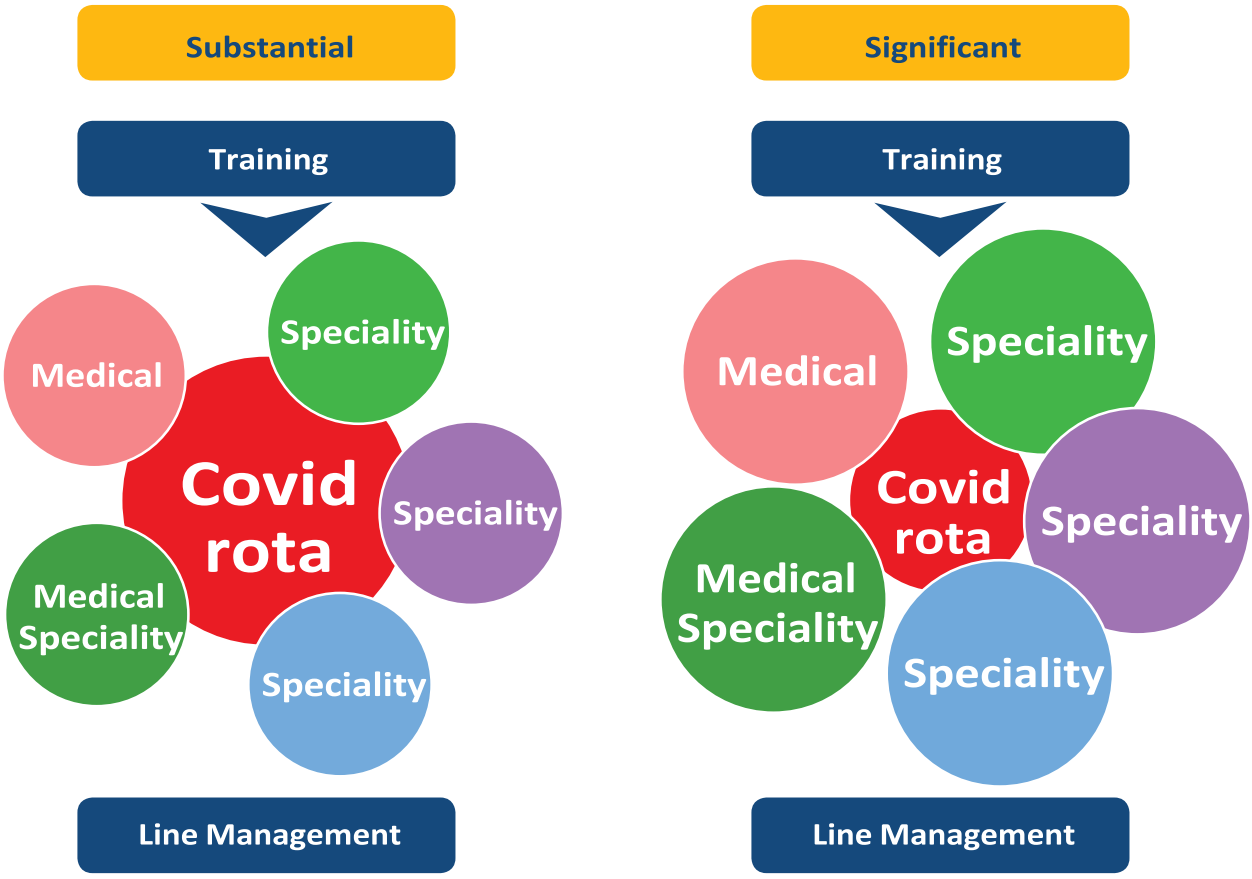
Complex and Tertiary Elective Surgery

We have a significant role providing complex and tertiary elective surgery for the population of South Wales. To support this we have undertaken a demand and capacity analysis for level 2 and level 3 surgery (using the RCS definitions), which is summarised in appendix 2. The conclusion is we will likely have the internal capacity for level 2 surgery (through extended operating days) and the physical theatre capacity to meet the ongoing level 3 demand. However, fully utilising this capacity (i.e. 7 days/ week) will require the recruitment of more theatre staff and more beds than originally planned in the green zones. Therefore, in order to provide for level 2 and level 3 surgery (including the backlog), it is anticipated it will be necessary to continue to utilise Spire for the remainder of the financial year.

Further plans are also being developed to provide for some level 4 surgery and enhance the scope or range of tertiary services - in support of other Health Boards – but this again will be dependent upon ongoing access to Spire and may ultimately require additional physical theatre capacity.

Workforce

Our workforce plans overlay with our zoning and gearing plans. Our medical workforce has redesigned its rotas to reflect our operating approach, building from a core covid ‘red’ rota to understand how staff can be freed to return to core specialties. Importantly training requirements have been fundamental to building this model, prioritising those who need to complete core competencies to progress their medical training and ensuring clear oversite and supervision of trainees. We have successfully appointed 57, Year 5 medical students; 40, Year 3-4 students and a further 40, Year 3-4 students are joining in June.



Similarly nursing rotas have been adjusted to ensure we meet Safe Staff Nursing requirements across our plans. Staff have responded extremely positively to the need to be flexible and have been deployed across zones and sites as required. Our nursing numbers have been considerably bolstered by effective recruitment through the UHB Workforce Hub. We have recruited over 100 registered nurses to the Bank as well as 290 Health Care Support Workers. In addition, we have appointed over 400 student nurses on fixed contracts since April and a number of retired nurses who have positively responded to the Welsh Government advertisements and call to action. Our Therapy staff have also been flexible in their rotas and have developed 7 day working to support clinical areas; specifically to support rehabilitation models and Dragons Heart Hospital. Therapy students will come on stream in September 2020 as planned.

The early recruitment of medical and nursing students will help bolster and back-fill for non covid activity.

Significant recruitment has also taken place across a range of essential roles in order to enable the effective operating of our plans.

Additional Temporary Staff Recruited	
Role offered	**Total**
Administrator	12
Catering	52
Catering - Ward Based	16

Catering Supervisor	2
Communications Team Manager *Band 5*	1
Driver	19
Housekeeper	199
Housekeeper - NIGHTS	6
Housekeeper/ Porter	4
Housekeeping & Catering	139
Nurse - Swabbing	1
Porter	74
Porter - Pharmacy	7
Porter/Security	4
Porter/Waste	5
Proner – ITU	8
Runner - Pathology	2
Runner - Pharmacy	1
Security Officer	2
Physiotherapists	35
Dietician	1
Occupational Therapists	3
Pharmacy	14
Labs	7
Registered Nurses approx.	100
HCSW	290
Grand Total	**1,007**

The ability to flexibly redeploy staff and recruit at pace has only been possible though effective partnership working with our Trade Union Partners.

Staff Well-being

Our staff health and wellbeing is of upmost importance especially at this unprecedented time. The Health Board has been actively listening and proactively enabling facilities and resources to support staff and

teams. This includes staff havens to give head space, rest and complimentary refreshments, additional showers, hotel accommodation and additional psychological support. We recognise going forward into the next period it is vitally important we continue to care for ourselves and keep each other well. The following link provides details of many initiatives and tools available. We are fortunate to have enlisted the support of our Occupational Health and Employee Well-being Team and a number of senior Clinical Psychologists within service areas.

http://nww.cardiffandvale.wales.nhs.uk/portal/page?_pageid=253,172024171,253_172024187&_dad=portal&_schema=PORTAL

The safety of our workforce is fundamental to our organisation. A risk assessment process is in place for all staff to ensure staff are not placed at greater risks through their deployment in the organisation. This risk assessment has recently been updated to reflect the requirement to support BAME members of staff.

We are actively monitoring absence levels within the organisation and continue to work with staff to ensure they are supported when they are sick; able to return to work after a period of illness and supported to undertake homeworking if they require Shielding and are able to do so. The latest data shows we have in excess of 550 individuals shielding on any given day and we are working with line managers, trade union representatives and individuals to better understand this picture. Daily COVID-19 sickness levels are reporting at around 2% in addition to the non-covid absence, however, we believe there is under-reporting in some operational areas and therefore we will continue to monitor this closely.

Daily communications are sent to all staff from the Chief Executive and we have recently launched a new Staff App to help promote good communications with our staff. FAQ's and guidance notes are available via this App and on the Intranet.

We have robust staff testing processes in place through our Community Testing Units, which have already provided testing for around a third of our total workforce.

Quality and Safety

Our focus on quality, safety and the patient experience extends across all settings where healthcare is provided. What really matters for our patients carers and citizens must be central to our decision making, so that we can use our time, skills and other resources more wisely.

In the next year, we plan to further develop our QSE systems so that they allow CVUHB to provide the safest and highest quality clinical care in Wales, which is at least comparable with the best in the UK. In doing this we hope that it will allow us:

- ***to give CVUHB Board the right escalation and assurance framework***
- ***to align that framework with the operational, financial and workforce reporting process, in an integrated way at Board level***
- ***to give appropriate escalation and assurance to our external regulatory stakeholders***

There are a number of high level areas that we will particularly focus on:

- ***Development of a Quality, Safety and Patient Experience Framework for 2020-2025.***
- ***Implementation of the Health and Social Care (Quality and Engagement) (Wales) Bill and the Quality and Safety plan for Wales***
- ***Agreement of a Human Factors Framework***
- ***Preparation for the Medical Examiner Role in 2021***
- ***Learning from Deaths Framework***
- ***Creating a culture where data is used to drive improvement***

In keeping with our normal day to day QSE arrangements we continue to focus on; ***Quality and Safety:***

- ***Monitoring of patient safety incidents***
- ***Mortality rates***
- ***Infection, prevention and control processes and the maintenance of current trajectories for improvement against WG targets***
- ***Currently we are focusing our continued efforts, in partnership with the Health and Safety department on the continued provision of appropriate Personal Protective Equipment (PPE) to our staff during the Covid-19 pandemic.***

Patient Experience:

- ***To continue the management of concerns in accordance with the Putting Things Right Regulations 2011***
- ***Thematic analysis of concerns in conjunction with analysis of the real time, retrospective, proactive, reactive and balancing elements.***
- ***Learning from concerns, redress cases and claims through robust investigation, identification of root causes and monitoring of actions taken.***
- ***Review of the sustainability of a 7 day Enquiry/ Concerns line***
- ***To understand what it feels like to be a patient using our services through***
- ***Development of short on line surveys***
- ***Develop APPS***
- ***We will have in excess of 400 managed tablets where we can host patient experience feedback questionnaires as well as providing patients with access to virtual visiting, news sites and activity apps***
- ***The development of a library of patient, carers and relative's experiences will be a focus with thematic analysis of anthologies of stories***
- ***Support of those who are bereaved through our follow up service***
- ***Supporting people who are lonely and isolated through the volunteer led befriending service***

- ***Delivering prehabilitation patient information so that they feel confident to use our services, their time in the preparation/ waiting list is active rather than passive to promote their well-being and evaluating the use of the "nudge" methodology.***
- ***Use of virtual focus groups to listen to patients experiences and identify what matters to them.***

Rehabilitation

The Cardiff and Vale University Health Board Rehabilitation model (February 2020) was developed within the context of local and national strategies aiming to put the patient/citizen at the centre of care. It is designed to help people live well. It was co-produced with patients, citizens and our multidisciplinary clinical staff, and illustrated in relation to our model citizen "Wyn", inclusive of physical and mental health. The aim of the model is to empower patients to take control and responsibility for their ongoing health and wellbeing, equipped with skills and knowledge to manage their ongoing rehabilitation needs. The model is still applicable in the post Covid-19 period, though the demands and circumstances have changed, which have been reflected in this update.

During the period of Covid-19 social isolation and lockdown rehabilitation needs have been hindered for many. In addition there is a new cohort of people recovering from the virus, who have rehabilitation needs. We therefore also need to address the needs of Wyn's wider family who have not received treatment or care during the pandemic. The difference with this Covid-19 Rehabilitation model is that many patients recovering from the virus begin their rehabilitation journey in hospital, and at the higher tiers of need, with the most severely impacted by Covid-19 receiving critical care (i.e. Specialised rehabilitation). Though consistent with our overarching model, the aim will be to step down rehabilitation through the lower tiers to enable Wyn to live independently. During the period of lockdown we have missed the contribution that communities and third sector partners can bring to supporting Wyn.

Once again we have again drawn on UK and international evidence, and the learning we have gained through the pandemic. There is an opportunity to work collaboratively to rebuild services on a better, more co-operative model. This includes the strengthening of multidisciplinary working across our health and care system, maximising the use of workforce skills, as well as the step change in embracing digital technology.

Our Model for Rehabilitation has 5 Tiers, these illustrate the different types of rehabilitation that may be offered. In the recovery from Covid-19 the model is presented from the higher tiers to lower, as patients with the virus, are likely to have received care in this sequence as they progress their rehabilitation journey.

Those who have had their rehabilitation interrupted by the pandemic, but not have Covid-19, will access rehabilitation at the tiers appropriate for them. Not everyone will go through every Tier, but Tier 1 remains the goal for all, to help people live well.

Tier 5 Specialised Rehabilitation: e.g. Critical Care, Tertiary rehabilitation (Rookwood), or specialised neurological rehabilitation provided in community settings.

Tier 4 Specialist Hospital Rehabilitation: e.g. Post critical care Covid ward with CPAP, tracheostomy, psychological or ambulatory needs.

Tier 3 Supported Rehabilitation: e.g. Hospital step down in Covid ward, or a non Covid ward, or a Covid rehabilitation programme in the community.

Tier 2 Primary Care Support: e.g. Using technology and on-line resources, including "Attend Anywhere", and a bespoke digital set of resources to support rehabilitation, getting back to provide face-to-face care as needed and when possible for both physical and mental health.

Tier 1 Health and Wellbeing: e.g. A range of community "assets" to help Wyn thrive and maintain his level of rehabilitation and independence. Mindful that these will only become available as lockdown and social isolation ease

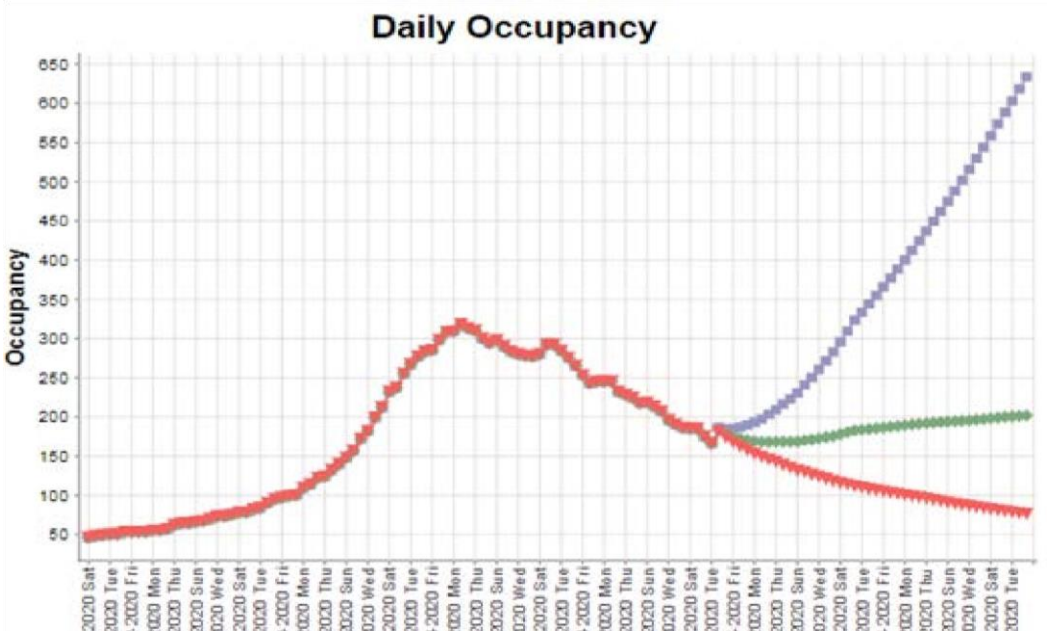
Data-modelling and Governance

We want our system decisions to be data driven. As we have set out we have clear processes in place for zoning our estate, flexing and growing our workforce and understanding our equipment need. We also know that unlike in traditional practice these elements will be in constant flux, as we have showed in our approach to gearing we also know that our demand requirements will also fluctuate.

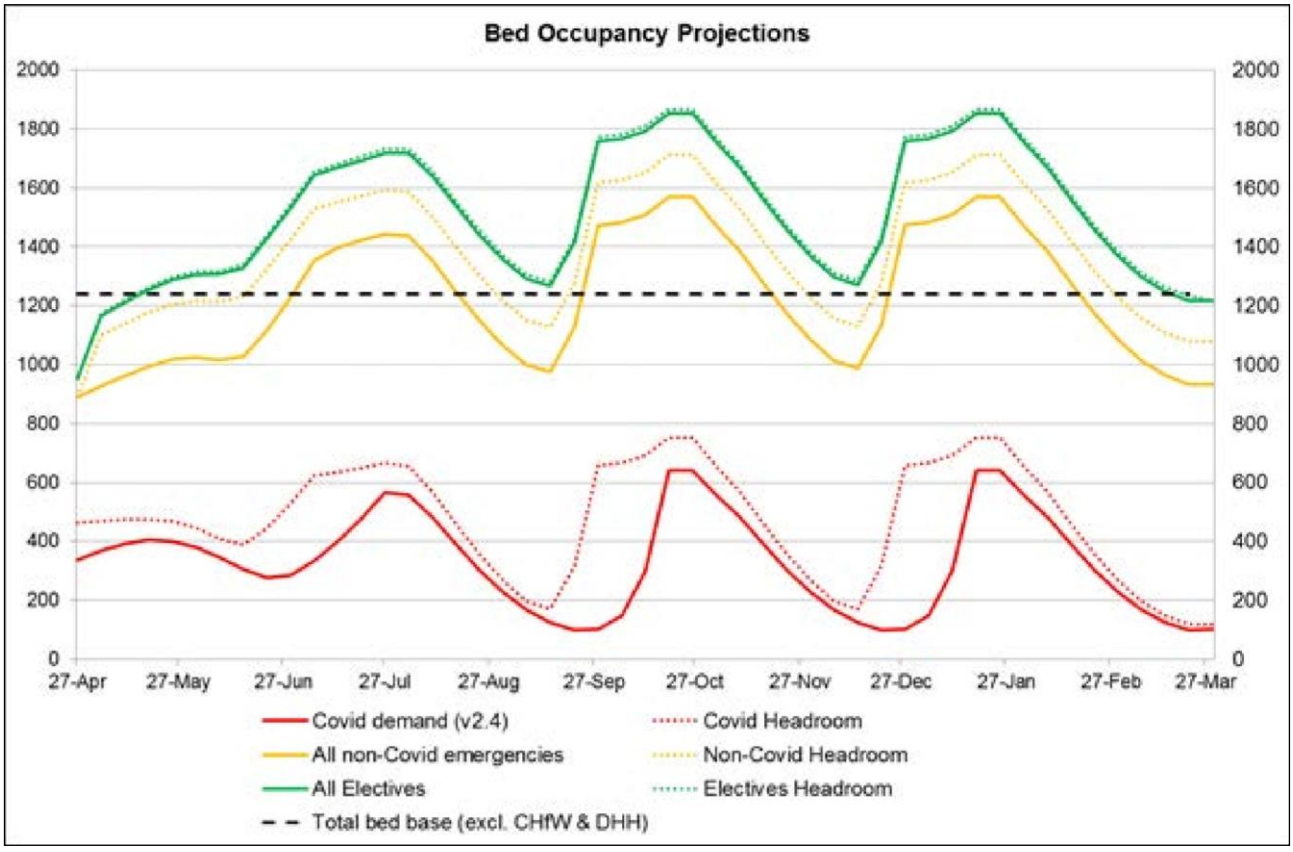
Therefore in considering our approach to understanding demand and how we utilise our system needs to take into account a broad range of factors.

Strategic	Strategic	Tactical	Operational
Population Data	**Early Warning System**	**Modelling and Forecasting**	**Key Capacity Indicators**
Susceptible group	Government policy consultation rates	WG models	ED attendances
Confirmed cases	Public compliance	Local scenario planning	Admissions
Test volumes	Public mobility (Google)	Cluster modelling	% to ITU
Deaths	Infection rate (R) estimates		LOS Total
	GP / 111		LOS ITU
	Ambulance data		Covid & Non-Covid

The UHB, working with Lightfoot, has developed a model for predicting admissions and occupancy for Covid based upon different scenarios for the infection rate, R. An example of this is shown below for R at 0.8, 1.1 and 1.7. This is being used to support the short and medium term capacity planning for Covid, based upon scenarios.



The UHB's approach is to work to 4-6 week planning cycles, responding in an agile fashion to the changing Covid demand profile. Given the uncertainty in both Covid and non-Covid activity it is not possible to provide meaningful projections beyond 4-6 week time horizons however it is possible to model different scenarios and test the implications for capacity and service provision. The graph below is an example of this, utilising the v2.4 Covid model (extended to year-end), and a return to 80% of non-Covid activity. This demonstrates the potential need for additional bed capacity in a high Covid scenario and again the value of a protected Covid-free facility at Spire.



Performance Management

Absolute transparency has been a fundamental pillar of our delivery arrangements throughout our response to the pandemic. Being open with frontline staff on demand modelling, emerging plans and changing policy environments. This has allowed our staff to lead the response, cohorting, capacity and zoning plans have all been driven locally by our teams within the principles we agreed together. For the Health Board traditional forms of performance management for our teams have limited value as we work through phase 4 and 5 of our plans. Typically we would profile activity and hold to account against that profile, however any profile produced is likely to have a very limited lifespan as we flex workforce, estate and equipment to respond to three forms of demand; Covid, non-covid unscheduled care and elective care.

We recognise this is provides a challenge in delivering appropriate performance management to Welsh Government. It is appropriate that Health Boards are held accountable to the Welsh Government. Welsh Government have a key role in ensuring equity across the population, helping to allocate resources and supporting opportunities to join up services across our wider public sector system.

Therefore we need a balanced performance management process which provides clarity to frontline teams on expectations, provides appropriate assurance and allows us across our Cardiff and Vales System Partners and nationally to identify opportunities to flexibly and proactively allocate resources.

The proposed approach is therefore one of absolute transparency coupled with utilisation of live data.

- ***Firstly we will provide a clear and transparent set of operating principles for our teams. These have been set out in this paper as we describe our design principles, zoning and gearing arrangements.***
- ***Secondly, we will openly use our live data systems to understand predicted demand across our system. This will allow our frontline teams to understand expected activity but also allow partners regionally and nationally to see how we are responding to demand and spot proactively opportunities to make changes across our pathways and services***
- ***Thirdly, we will continue to define our Cardiff and Vale Outcomes framework, this will provide a clear and transparent approach to longer team measures focussing on value and population outcomes, giving assurance on the delivery of our strategy***

Finance

The Welsh Government wrote on 19th March 2020 to inform the health board whilst it had an approvable plan, it had paused the IMTP process for an indefinite period so that organisations could focus on the challenges of COVID 19. The main focus of the Health Board is managing the impact of COVID 19, which will inevitably come with a significant cost.

We have developed plans at pace for managing COVID 19. This includes deferring elective work and increasing its available bed capacity to manage surges in activity. The next challenge will be to increase urgent elective work for which we have identified clinical priorities and plans as set out in the doucment.

We are incurring significant additional expenditure as a result of COVID 19. The costs of the Dragon's Heart Hospital are significant, especially the set up costs which allow for significant expansion. In addition, we are incurring additional costs to cover sickness and absence and to resource the additional in COVID 19 hospital capacity that has been been generated.

COVID 19 is also adversley impacting on the savings programme with substantial underachievment against the annual savings plan. It is not anticipated that this will improve until the COVID 19 pandemic passes.

Elective work has significantly been curtailed during this period as part of the response to COVID

19 and this has seen a reduction in planned expenditure. Plans are being developed to reintroduce some of this work, but this is unlikly to have a material impact in quarter 1.

The net expenditure due to COVID 19 is being captured in revisions that have been made to the monthly financial monitoring returns. These returns also include a forecast position and this will be reviewed and refined on a monthly basis.

What is key for the Board is how it recovers from this period. It needs to avoid adding recurrent expenditure to its underlying position an to embed the many transformation changes that have been delivered at pace due to neccesity. This is a period of both significant financial risk and opportunity for the organisation.

Evaluation and Constant Feedback

Throughout the delivery of our plan we have put in place a process to constantly capture the views of our staff. Working with our partnership body, Cedar, a research collaborative with Cardiff University we have installed a staff feedback survey. Feedback from the survey is provided collated and provided on a weekly basis to our Operations Group to enable our response incorporate the views of frontline staff.

We have also commissioned a number of pieces of work to capture the transformation happening in our system again working in partnership with Cardiff University.

Section 2

Phase 5 - System Renewal

There will be no hard stop to our response to Covid-19 but a transition to a renewed and refreshed Cardiff and Vale health and care system. Therefore it is important we maintain a focus on our long term ambition through this year. We have built a platform of sustained delivery, there has been continued improvement in the performance of our health system and we have demonstrated operational grip. We now need to move from this foundation of delivery to tangible transformation of services for our communities, focused on delivering improved outcomes for people and better value for the system. This can only be achieved by working in partnership to common objectives.

The predominant focus of phases 1-4 has been the delivery of health services to our population. We know that to transform our services we need to work at a system level. Therefore the fundamental principle for phase 5 of our plan is to Think System.

Our system is complex with intricate relationships between the Health Board and other NHS providers, locally, regionally and nationally; between Regional Partnership Board organisations and across the wider Public Services Boards arena. Therefore phase 5 will be a Cardiff and Vale Plan to articulate the outcomes we need to achieve and the partnerships required to deliver them. Central to this will be the Regional Partnership Board Area Plan which will be refreshed to capitalise on. our experiences of the last few months which have shown we can deliver at pace. There have been some key elements to our ability to deliver successful transformation;

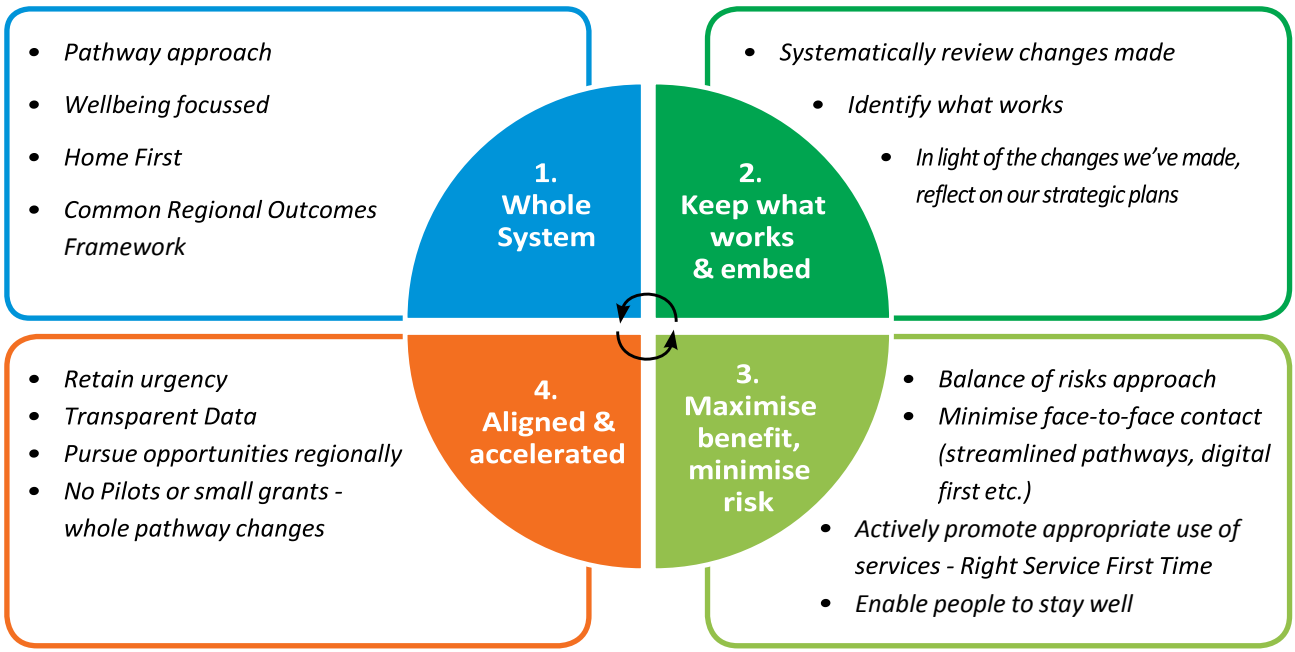
- ***Urgency***
- ***Clarity of purpose***
- ***Clear operating principles***
- ***Freedom for frontline staff to act and the time to do it***
- ***Removal of constraints***
- ***The ability to act and sense make***
- ***No pilots- make the change, if it doesn't work - stop***

The challenge is also there to be bold. Whilst we have clear narrative in our Regional Partnership Board Area Plan and the Health Board's Shaping Our Future Wellbeing this is an opportunity to reshape our approach to delivery, rethink how we use the collective grant and transformation funding and our wider Cardiff and Vale pound to focus on population outcomes, regardless of where they are delivered in the system. We can galvanise partners around a common vision for a truly integrated whole health and care system which is focused on the needs of our communities and outcomes that matter to people at different stages of their lives:

- ***Starting well: from birth to 21***
- ***Living well: working age adults***
- ***Ageing well: older people***

This approach recognises that there are many determinants to health and wellbeing and health services alone won't enable people and communities to thrive.

Phase 5 Principles



Regional Outcomes Framework (draft): each outcome can only be achieved by partners working together.

Our system level outcomes: what we aim to achieve by focusing on our priority themes

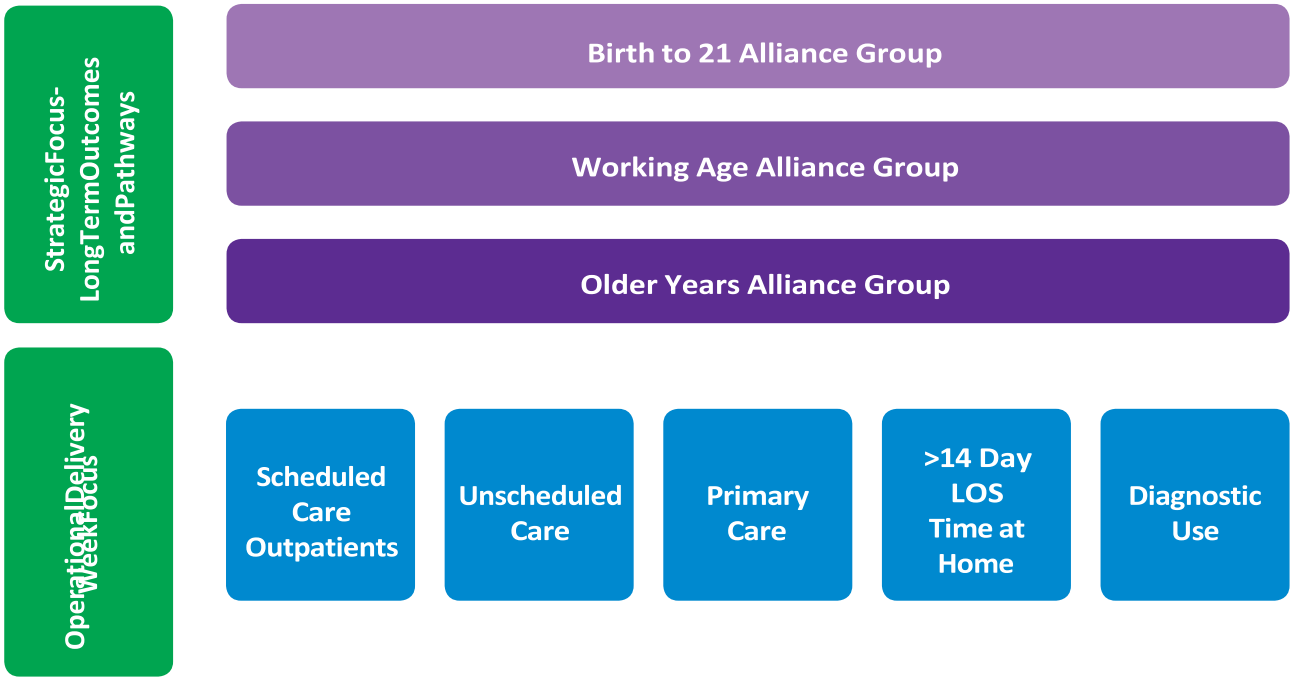
Clinical Services

There are clearly elements of this plan which will be delivered by us as a health board. In our approved IMTP for 2020/23 we set out 6 priorities for the organisation. These remain extant

1. ***Primary Care: Continue to sustain and transform Primary and Community Based Services to enable people to remain healthy and independent at home.***
2. ***Unscheduled Care: delivering a resilient and high performing system.***
3. ***Planned Care: meeting standards and achieving outcomes that matter.***
4. ***Cancer Service: delivering the single cancer pathway and improved outcomes.***
5. ***Achieving Financial Balance and embedding value based approaches.***
6. ***Mental Health: continue to transform and improve our services focusing on home first models, coproduced with those who use our services.***

We have also developed a clinical services plan thought to 2029 which will guide our decision making and provide a clear framework to our frontline teams in arranging services.

As we have set out in this document, there has already been a significant amount of service transformation across our system. We need to continue to build on this change with pace and urgency. Therefore we need a dual effort which allows us to deliver change in our operational service, for example urgent care, outpatients, whilst also considering the longer time life course pathways and outcomes we want for our system.



In this way, the 5th phase of our plan will allow us to focus on transferring the energy of change triggered by the Covid-19 pandemic into a long term sustainable system.

Appendix 1: Phases 1-3

Phase 1 – Repurposing and Zoning

Within a two week period the Health Board repurposed and reconfigured a large proportion of its facilities in order to maximise the bed capacity available for Covid-19 patients:

- ***a receiving ward for 'suspected' Covid-19 patients was put in place on both hospital sites***
- ***a zoning plan was established to provide segregated ward capacity for confirmed Covid-19 patients on floors 5-7 at UHW and the East wing of UHL***
- ***the critical care footprint at UHW was extended to the fourth floor, to allow the existing unit on the third floor to be dedicated for Covid-19 patients***

These changes meant the Health Board had a total of 85 critical care beds available plus over 300 ward beds dedicated for cohorting/zoning of non-ventilated Covid-19 patients. In addition a number of service moves were made to allow expansion of essential services, for example the fracture clinic at UHW was transferred to UHL, and a single-unit model for paediatric emergencies put in place at the Children's Hospital in order to allow the expansion of the Emergency unit footprint.

Phase 2 – Additional capacity

In the second phase the UHB identified suitable areas outside of its normal adult bed capacity to expand the available bed base. This included vacating Owl ward in the Children's Hospital for Wales, re-commissioning one ward at Barry and one at St David's, converting the physiotherapy outpatients in UHW and an area alongside East 4 and 6 in UHL into additional ward areas. In total this additional capacity provides for a further 200 inpatient beds, with the option to utilise Owl ward for further critical care expansion.

Phase 3 – In extremis

In the event that demand substantially exceeds the capacity available a surge hospital has been constructed in the Principality Stadium - the Dragons Heart Hospital. If the demand for ventilated capacity exceeds that already identified in phases 1 & 2 there are established plans in place to utilise theatres at UHW and UHL for up to 50 additional ventilated patients.

Further Changes

Significant change has also taken place in Primary Care alongside this phased plan. Contracted providers in General Medical Services, Dental and Ophthalmology have moved to cluster models, with 'red' practices and single cluster sites open. Rapid expansion of virtual appointments has taken place, with all GPs moving to a telephone triage first model and practices buddying to provide support.

The establishment of Community testing centres initially for patients and then for staff has enabled significant number of staff to return to work.

Through a workforce hub rapid recruitment of additional staff alongside support to enable retired staff and students to on-board has been delivered. A staff wellbeing programme has also been delivered.

We have also changed the operating model for the organisation, with a move to four central coordinating hubs; UHW, UHL, Primary and Community and the Dragons Heart Hospital. These hubs provide agility to be able to rapidly respond to site issues, particularly in relation to workforce, PPE and equipment.

This captures a sense of the activity to date in relation to Covid-19. Whilst this has taken place we have also maintained a programme of essential services, delivering emergency surgery, cancer treatment and other care, with utilisation of theatre capacity at Spire in the private sector.

Appendix 2: Level 2 Surgery Demand and Capacity

	Demand per week			Backlog		
Specialty	**Level 2**	**Level 3**	**Level 2 & 3**	**Level 2**	**Level 3**	**Level 2 & 3**
Neurosurgery	5	5	10	24	36	60
Vascular	2	2	4	0	18	18
Upper GI	4	4	8	15	25	40
Liver	4	5	9	20	44	64
Lower GI	8	8	16	40	83	123
Gynaecology	4	4	8	10	137	147
Head & Neck (major)	4	4	8	0	50	50
Endocrine	4	8	12	15	59	74
Urology (Non Robotic)	15	30	45	40	406	446
Urology (Robotic)	4	0	4	5	0	5
Head & Neck (Robotic)	1	0	1	0	0	0
Head & Neck (Non Robotic, short stay)	5	10	15	0	84	84
Ophthalmology	3	0	3	60	0	60
Breast	10	0	10	0	20	20

Spine	2	6	8	40	40	80
Cardiac & Thoracic	12	2	14	20	20	40
Orthopaedics	0	0	0	0	429	429
	87	88	**175**	289	1451	**1740**

Green Zones – Potential Capacity once fully operational

Spire

Speciality	*Theatre days per week*	*Cases per Day (12 hour day)*	*Cases per Week*	*Length of Stay*	*Bed Requirement*
Breast Cancer	*2.00*	*2.00*	*4.00*	*2.00*	*1.3*
Lower GI	*3.00*	*2.00*	*6.00*	*2.00*	*1.9*
Gynae	*2.00*	*2.00*	*4.00*	*2.00*	*1.3*
Urology	*1.00*	*2.00*	*2.00*	*2.00*	*0.6*
ENT	*1.00*	*2.00*	*2.00*	*2.00*	*0.6*
Ophthalmology	*1.00*	*6.00*	*6.00*	*2.00*	*1.9*
Spines	*2.00*	*2.00*	*4.00*	*2.00*	*1.3*
AV Fistula	*1.00*	*2.00*	*2.00*	*2.00*	*0.6*
General Surgery	*1.00*	*2.00*	*2.00*	*2.00*	*0.6*
Total	***14.00***		***32.00***		***10***

UHW

Speciality	*Theatre days per week*	*Cases per Day (12 hour day)*	*Cases per Week*	*Length of Stay*	*Bed Requirement*
Neurosurgery	*5.00*	*2.00*	*10.00*	*5.00*	*7.9*
Vascular	*2.00*	*2.00*	*4.00*	*5.00*	*3.2*
Upper GI	*5.50*	*1.50*	*8.25*	*5.00*	*6.5*
Liver	*9.00*	*1.00*	*9.00*	*6.00*	*8.6*
Lower GI	*8.00*	*2.00*	*16.00*	*5.00*	*12.7*
Gynaecology	*4.00*	*2.00*	*8.00*	*3.00*	*3.8*
Head & Neck (major)	*4.00*	*2.00*	*8.00*	*4.00*	*5.1*
Total	***37.50***		***63.25***		***48***

Green Zones – Potential Capacity once fully operational

SSSU (UHW)					
Speciality	*Theatre days per week*	*Cases per Day (12 hour day)*	*Cases per Week*	*Length of Stay*	*Bed Requirement*
Endocrine	*3.00*	*4.00*	*12.00*	*2.00*	*3.8*
Urology (Non Robotic)	*11.50*	*4.00*	*46.00*	*2.00*	*14.6*
Urology (Robotic)	*2.00*	*2.00*	*4.00*	*2.00*	*1.3*
Head & Neck (Robotic)	*0.50*	*2.00*	*1.00*	*2.00*	*0.3*
Head & Neck	*4.00*	*4.00*	*16.00*	*2.00*	*5.1*
Ophthalmology	*1.00*	*3.00*	*3.00*	*1.00*	*0.5*
Total	***22.00***		***82.00***		***26***

UHL					
Speciality	*Theatre days per week*	*Cases per Day (12 hour day)*	*Cases per Week*	*Length of Stay*	*Bed Requirement*
Breast	*5.00*	*2.00*	*10.00*	*3.00*	*4.8*
Spine	*7.00*	*2.00*	*14.00*	*3.00*	*6.7*
Cardiac & Thoracic	*13.00*	*1.00*	*13.00*	*6.00*	*12.4*
Orthopaedics	*0.00*	*0.00*	*0.00*	*0.00*	*0.0*
Total	***25.00***		***37.00***		***24***