



**Offthalmoleg Ardal  
De-ddwyrain Cymru  
South East Wales  
Regional Ophthalmology**

**Aneurin Bevan, Cardiff and Vale and Cwm Taf Morgannwg**

**University Health Boards**

**Business Case**

<b>Title</b>	Regional Cataracts Expansion Business Case		
		<b>Date Last Updated</b>	02/02/23
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<b>Clinical Service</b>	Planned Care, Ophthalmology		

## 1. Executive Summary

This Business Case seeks to provide a 12 month solution for additional regional capacity for cataract outpatient and inpatient stages to enact a collaborative regional approach to recovery and to maximise the use of our assets across the region.

This additional capacity will provide a service for health board patients from Aneurin Bevan, Cwm Taf Morgannwg and Cardiff and Vale University Health Boards.

### Aims

The aims of the regional solution outlined in this business case are

- to enact a collaborative regional approach to recovery
- to provide additional regional capacity for cataract outpatient and inpatient stages
- to demonstrate optimal utilisation of our assets and resources across the region
- to address current waiting list backlogs
- to reduce clinical risk on an equitable basis across the region

The Regional Ophthalmology Programme Board have also agreed a set of regional working principles on which the approach to expanding cataract capacity will be based.

- Treating the longest waiters first, regardless of their 'home' health board
- Using the outsourcing, insourcing, evenings and weekends capacity for less complex patients
- Adopting best practice guidance in all sites
- Adopting shared waiting list (PTL) management arrangements

Each health board is at a different starting point for their waiting list and this is reflected in the trajectories and projections. It is anticipated that as a result of this business case the following trajectories will be met:

- Aneurin Bevan: no patients waiting over 104 weeks for an outpatient appointment by the end of the 12 month period
- Cwm Taf Morgannwg: no patients waiting over 104 weeks for an outpatient appointment by the end of the 12 month period
- Cardiff and Vale: no patients waiting over 78 weeks for an outpatient appointment by the end of the 12 month period

### **Staged Delivery**

The Regional Ophthalmology Programme Board have agreed the following staged approach to delivering sustainable cataracts solutions in the region, whilst balancing the need to activate capacity quickly and reduce the rate that the backlog is growing. This business case represents the first stage.

- Stage 1 – A Business Case for maximising our existing assets and increasing capacity with a focus on recovery activity and reducing waiting lists to run for 12 months, April 2023 to March 2024.
- Stage 2 – Developing sustainable staffing and clinical models for the region. For cataracts and VR in University Hospital Wales (UHW), Cardiff, and cataracts and VR referral pathways across the region. To include new staffing models, new clinical models and costings, this model will be operational from March 2024.

### **Demand and Capacity**

The region is presented with a sizable challenge for backlog, demand and capacity. Demand continues to outstrip capacity and is forecast to grow year on year.

- The total number of patients waiting for assessment and treatment for cataracts is forecast to reach over 19,000 by the end of March 2023.

- Demand across the region has returned to pre-pandemic levels and is forecast to be 9,960 per year for 23/24
- The projected combined core capacity across the region for 23/24 with no further intervention is 5,940 treatments and assessments per year, broken down as follows
  - Aneurin Bevan UHB – 2,400
  - Cardiff and Vale UHB – 1,440
  - Cwm Taf Morgannwg UHB – 2,100

Eliminating the waiting list backlog in 23/24 would require a capacity of 28,960 in one year, almost five times the projected combined core capacity. With no further intervention the projected waiting list of 19,000 in March 2023 would therefore be over 23,000 by March 2024.

## **Delivery Assumptions**

### **Shared PTL**

To support a regional approach, the three health boards have agreed to pool their patient treatment lists (PTL) and adopt shared waiting list management arrangements for the allocation of the additional regional capacity. This will be supported by a regional booking team who will also manage the shared patient waiting list ensuring that the patients who have been waiting the longest are treated first, regardless of their 'home' health board.

### **North and South Hubs**

The geography of the region lends itself to distributing the capacity is across a North and South Hub model. This model that will keep service delivery closer to home and reduce patient travel as far as possible.

### **Insourcing and Outsourcing**

The capacity across the region can be rapidly increased by utilising the local opportunities for insourcing and outsourcing. These arrangements make the best use of our assets across the region for short-term flexible arrangements that protect our core capacity.

### **Patient Second Offer and Travel**

Patients will be offered the opportunity to travel to receive their assessment and treatment as part of the additional capacity arrangements where they may be able to be treated sooner. At a maximum travel would be 40 miles and 55 minutes by private car under normal traffic conditions and most of the patient travel will be shorter. Patients unable or unwilling to travel will keep their place on the waiting list and receive treatment from their home health board. A recent survey of 140 patients across the region shows that 71% of patients would be willing to travel.

### **Allocation by Health Board**

The table below shows the numbers of patients waiting and how this is split proportionally across the region. Data relates to August 2022 and includes the total number of patients waiting in each health board.

Patient Waits	Total			Over 52 weeks	
AB	7041	39%		2175	36%
CAV	4066	22%		891	15%
CTM	7103	39%		2939	49%
	18210			6005	

As a proportion of the patients waiting, 39% are from AB. 39% from CTM and 22% from CAV. When this is viewed as patients waiting at the end of the lists the proportions change and it is from this pool of patients that the additional capacity would be targeted.

Of this group of longer waiters 49% are from CTM, 36% from AB and 15% from CAV and this indicates how the additional capacity will be used.

## Options

To achieve the stated aims of the business case, the options need to:

- Be mobilised quickly
- Be deliverable with the resources available
- Protect the viability of the core capacity
- Keep patient travel to a minimum

The options for the next 12 months are:

- **Option 1: Do nothing**
  - Core capacity 5,940 only
- **Option 2: Maximising the use of NHH and POWH**
  - North Hub: in NHH (1,610, weekdays NHS staff recruitment)
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: in POWH (3,558, for 1 NHS session and Evenings and Weekend Insourcing)
  - Outsourcing (2,000)
  - Total additional 8,668 (plus 5,940 core is 14,608 total)
  - One theatre in NHH and twin theatres in POWH
- **Option 3a: Vanguard and NHH**
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: 12.5 sessions of Vanguard Unit (2,770 weekdays NHS staff)
  - South Hub: in UHW (1,500 Weekend Insourcing)
  - Outsourcing (2,000)

- Total additional 7700 (plus 6,120 core is 13,820 total)
- One theatre in NHH and twin theatres in Vanguard
  
- **Option 3b: Vanguard and Maximising NHH**
  - North Hub: in NHH (1,610, weekdays NHS staff recruitment)
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: 12.5 sessions of Vanguard Unit (2,770 weekdays NHS staff)
  - South Hub: in UHW (1,500 Weekend Insourcing)
  - Outsourcing (2,000)
  - Total additional 9,310 (plus 6,120 core is 15,430 total)
  - One theatre in NHH and twin theatres in Vanguard
  
- **Option 4: Weekend Insourcing and Outsourcing only**
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: in POWH (1,500 Weekend Insourcing)
  - Outsourcing (2,000)
  - Total additional 5000 (plus 5,940 core is 10,940 total)
  - One theatre in NHH and twin theatres in POWH
  
- **Option 5: Outsourcing activity to external provider (s)**
  - Outsourcing (5,000)
  - Total additional 5000 (plus 5,940 core is 10,940 total)

**Options Summary**

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
North Hub: NHH Weekdays NHS Staff		1610		1610		
North Hub: NHH Weekends Insourcing		1500	1500	1500	1500	
South Hub: Vanguard Weekdays NHS Staff			2700	2700		
South Hub: Vanguard Weekends Insourcing			1500	1500		
South Hub: POWH Evenings insourcing (+1 NHS session)		2058				
South Hub: POWH Weekends Insourcing		1500			1500	
Outsourcing		2000	2000	2000	2000	5000
Total Additional	0	8668	7700	9310	5000	5000
Plus Core	5940	5940	6120	6120	5940	5940
<b>Total</b>	<b>5940</b>	<b>14608</b>	<b>13,820</b>	<b>15430</b>	<b>10940</b>	<b>10940</b>

\*Yellow – Provision on AB site, Blue – provision on CAV site, Green – provision on CTM site

**High level Financials**

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Core Capacity	5,940	5,940	6,120	6,120	5,940	5,940
Additional Regional Capacity	0	8668	7,700	9,310	5,000	5,000
Total Capacity	5,940	14,608	13,820	15,430	10,940	10,940
Total Revenue Costs	£0	£12.4m	£10.5m	£12.4m	£7.5m	£7m
Total Capital Costs	£0	£0	£2.4m	£2.4m	£0	£0
Total Costs (Capital + Revenue)	£0	£12.4m	£12.9m	£14.8m	£7.5m	£7m
Cost per patient	n/a	£1,436	£1,672	£1,594	£1,504	£1,410

**Waiting List Changes**

The table below shows the impact of each of the options on the total size of the waiting list. The start position for each option is 19,000 patients waiting.

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Waiting list year end	23,046	14,352	15,186	13,567	18,483	18,483
Waiting list change from 19,000 baseline	+4,046	-4,648	-3,814	-5,433	-517	-517

### Options Appraisal

The six options have been through an options appraisal process. An exercise was undertaken with each health board individually to score and assess each option against the business case aims and the principles of regional working in section 2.1 below and appendix two.

Weighting for the scoring was allocated as follows:

- Quality and Safety: 35%
- Effective use of resources: 10%
- Strategic Fit: 10%
- Sustainability: 15%
- Access: 10%
- Deliverability: 20%

Results of the appraisal process are shown below. All three health boards have selected the same option as the highest scoring option against the criteria. Results are shown below. Scores are out of 5, with the regional total out of 15.

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Cardiff and Vale	1.65	3.10	4.00	4.25	1.85	1.65
Cwm Taf Morgannwg	1.60	4.30	3.70	4.35	2.30	2.00
Aneurin Bevan	1.80	3.35	3.30	3.55	2.15	2.15
Regional Total	5.05	10.75	11.00	12.15	6.30	5.80

### Preferred Option

The preferred option in this business case is Option 3b Vanguard and Max NHH

- South Hub Weekdays: Retaining the weekday 20 sessions in vanguard and using 7.5 sessions for CAV core capacity (1620 patients per year, funded by CAV) and 12.5 sessions for regional capacity (2700 patients per year, regionally funded, provided by NHS staff)
- South Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in Vanguard (UHW)
- North Hub Weekdays: 1610 outpatient assessment and inpatient procedures carried out in weekdays in NHH using NHS staffing

- North Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- An additional 2,000 outsourced outpatient and inpatient procedures
- One theatre in NHH and twin theatres in Vanguard
- Total core 6,120
- **Plus 9,310 additional**
- **Total capacity 15,430 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24: £14.8m
- Cost per patient: £1,594

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## 2. Introduction and Background

### 2.1 Regional Working

The Regional Portfolio is made up of three main programmes, Orthopaedics, Diagnostics and Ophthalmology. The three University Health Boards in South East Wales, Aneurin Bevan, Cardiff and Vale and Cwm Taf Morgannwg have agreed to work together regionally and adopt the following regional working principles

- To reduce unwarranted variation and inequality in health outcomes, access to services and experience at a regional population level.
- To improve resilience.
- To make effective use of capacity and capability in whichever organisation it sits.
- To create critical mass for effective high quality care delivery when and where it makes sense to do so accepting that it may not reside in every organisation.
- Take all opportunities to use the evidence base and best practice to improve quality, efficiency, productivity, and use of finite resources.
- To enable clinical leaders, and others, to work together, lead together and learn together.
- Distributed leadership (The SRO maybe from organisation A, clinical lead from org B and delivery of service in B and C.)
- Approach collaboration with benign intent, honesty, transparency, and integrity in order to build trusting and effective relationships.
- To agree approaches to engagement and communications together.
- To avoid leaving anyone behind and learn from the past and progress in an open, honest and humble way.

### 2.2 Regional Ophthalmology Programme and Clinical Summit

The Regional Ophthalmology Programme has been running for 4 years in South East Wales with a pause for the pandemic and restarted with a renewed focus in summer 2021. The Programme aligns strongly with national priorities and is designed around delivering solutions on a regional basis where this would provide the best care to patients. The three Health Boards in the region are committed to working together, sharing resources and solutions across Ophthalmology, where working together would add value for patients and the workforce. The Programme includes active clinical and management representation from Cwm Taf Morgannwg, Cardiff and Vale and Aneurin Bevan University Health Boards.

A Clinical Summit was held in December 2021 where clinical staff were engaged in discussing and agreeing key issues and priorities for Ophthalmology services in South East Wales. It was agreed that a new regional strategy should be developed to inform the future direction of the programme, including agreement regarding the ophthalmic specialties that would benefit from a collaborative regional approach

### 2.3 Regional Ophthalmology Strategy

A Regional Ophthalmology Strategy has been developed with clinical staff to set out the high level direction for the Regional Programme. The principles set out in the strategy are:



Learning and Improvement



Reducing Variation and Inequity



Designing Value Based best practice services



Delivering timely and high quality patient centred care

The Strategy has a number of delivery themes that reflect the issues and priorities identified in the Clinical Summit and now inform the future direction for the service on a regional footprint, these are set out below

1. **Regional Model:** Adoption of a regional model would bring together ophthalmic services under the umbrella described as a Regional Centre of Excellence network model. This will provide additional regional cataracts capacity and will use the network model approach to bring experts together to provide the best care for patients and sector-leading teaching and education expertise.
2. **Sustainable Services:** There are many services that cannot be sustained on a health-board only level and need to be brought together on a regional footprint. These include Vitreo-Retinal (VR) services, Corneal Cross linking and out of hours and emergency cover as requiring the most urgent attention.
3. **Workforce:** There is a significant skills shortage across the Ophthalmic disciplines and the strategy will also work to address the training and development of key staff to deliver a regional sustainable workforce with strong succession planning, teaching, training and development.
4. **Research, Innovation and Development:** Key to attracting workforce and achieving the other aspects of the strategy over the longer term is a Regional Clinical Research Facility allowing delivery of high quality clinical research trials which will increase income and quality of care for patients whilst building links with industry partners with strong consultant support.

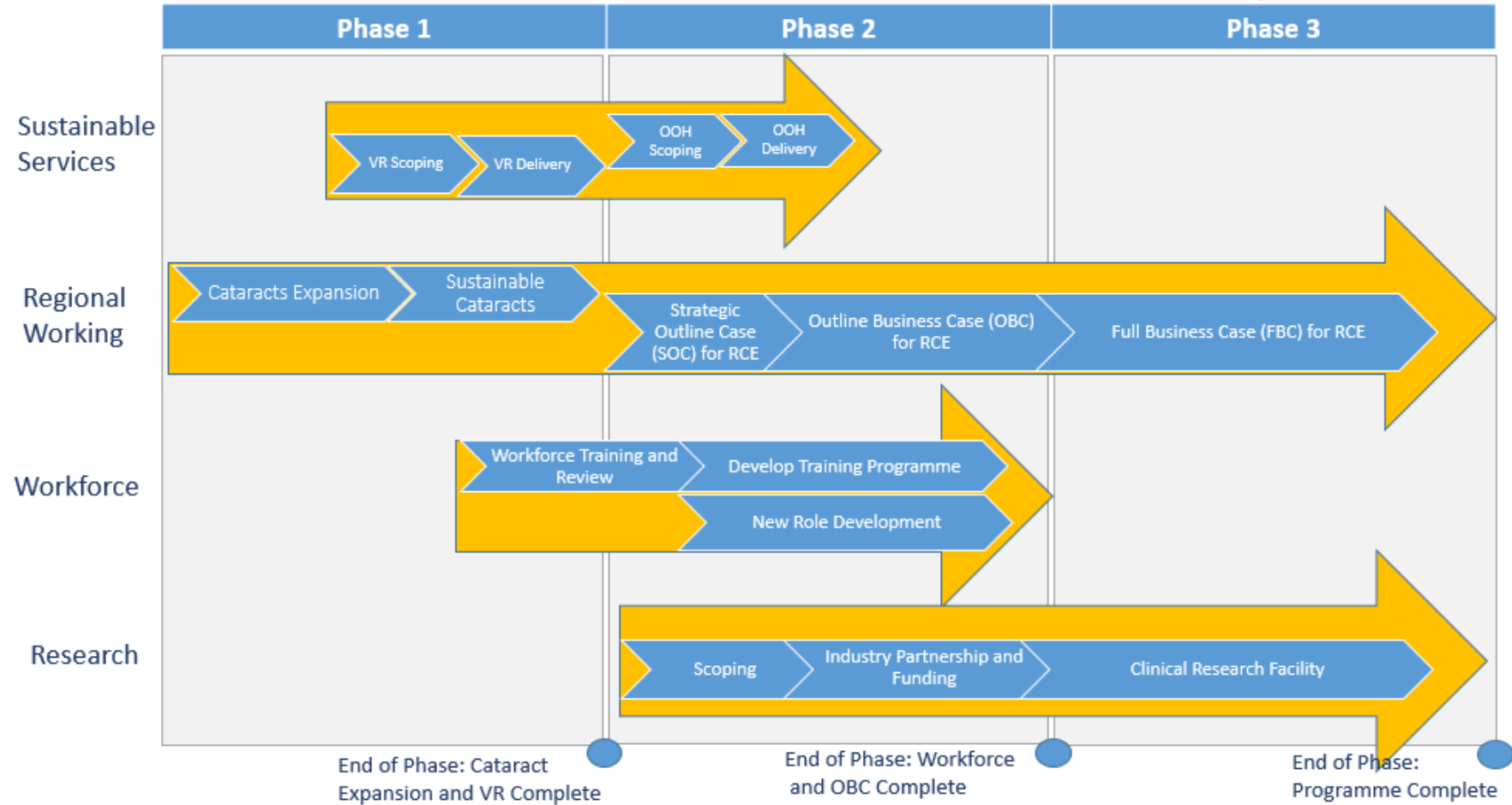
Regionalising Services to ensure their sustainability and offer the best services to patients aligns with *A Healthier Wales*, *The National Clinical Framework* and Royal College

of Ophthalmologists Clinical Guidance and best practice. The long term goal is a South East Wales regional centre of eye care excellence which can co-ordinate and provide the services identified above at a tertiary level. This will enable the region to care for all complex eye care procedures, for specialist clinicians to share and enhance their skills and to reduce the need for patients to travel outside Wales for certain specialist treatment.

#### **2.4 Programme Plans and Phased approach**

The diagram below represents the timeframes for the implementation of the strategy through a programme approach. Regional working starts first with the cataracts solution, closely followed by Vitreo Retinal hub and out of hours arrangements. The plans for the Regional Centre of Excellence will be developed through the 3 stage business case process alongside workforce developments and a research and innovation facility.

# High Level Programme Plan



## **2.5 Cataracts Sustainability Staged Approach**

The Regional Ophthalmology Programme Board have agreed the following staged approach to delivering sustainable cataracts solutions in the region, whilst balancing the need to activate capacity quickly and reduce the rate that the backlog is growing. This business case represents the first stage.

- Stage 1 – A Business Case for maximising our existing assets and increasing capacity with a focus on recovery activity and reducing waiting lists to run for 12 months, April 2023 to March 2024.
- Stage 2 – Developing sustainable staffing and clinical models for the region. For cataracts and VR in University Hospital Wales (UHW), Cardiff, and cataracts and VR referral pathways across the region. To include new staffing models, new clinical models and costings, this model will be operational from March 2024.

## 3. The Case for Change

### 3.1 National Drivers for Change

Throughout the United Kingdom ophthalmic services are under considerable pressure. The Way Forward<sup>1</sup> document produced by the Royal College of Ophthalmologists in 2017 indicate

- Cataract surgery alone represents 6% of all surgery carried out in the UK, with an expected growth within 10 years of 25%.
- 35% of patients over the age of 65 have visually significant cataract.
- 10% of all out-patient appointments within the UK (9 million appointments) are for eye clinics, and the demand on our services is expected to increase by 40% over the next 20 years.
- Overall, the economic burden of sight loss in the country was estimated to be £28 billion.
- In 2019 UK wide there was a shortfall of 230 consultants, and 67% of eye units were using locums to fill 127 vacant posts.
- 85% of units depended on waiting list initiatives in out-of-hours sessions to try and meet their demand.
- 22 patients a month were losing vision from hospital-initiated system delays.

All of these statistics pre-date the Covid pandemic, during which things have grown considerably worse (External Review of Eye Care Services in Wales, 2021<sup>2</sup>).

### 3.2 Planned Care

The Welsh Government April 2022 document “Our programme for transforming and modernising planned care and reducing waiting lists in Wales” states 5 planned care goals

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<sup>1</sup> [The Way Forward | The Royal College of Ophthalmologists \(rcophth.ac.uk\)](https://www.rcophth.ac.uk/way-forward/)

<sup>2</sup> [External Review of Eye Care Services in Wales \(rcophth.ac.uk\)](https://www.rcophth.ac.uk/external-review-of-eye-care-services-in-wales/)



And 7 Planned Care priorities to support and influence recovery planning and investment decisions:

- Transformation of outpatients.
- Prioritisation of diagnostic services.
- Focus on early diagnosis and treatment of suspected cancer patients.
- Implementing a fair and equitable approach to patient prioritisation to minimise health inequalities.
- Eliminating long waiters at all stages of the pathway.
- Build sustainable planned care capacity across the care pathway.
- The provision of appropriate information and support to people.

This business case, and the long term proposals that it supports in stage 2 align closely with the Planned Care priorities, in particular the patient prioritisation and the long waiters.

### 3.3 Getting It Right First Time (GIRFT)

The Ophthalmology GIRFT Programme National Specialty Report 2019<sup>3</sup> also considers the challenging context for Ophthalmic services in the UK with demand for services across primary and secondary care increasing by over 10% in a 5 year period to 2019 and further increases expected. The report notes that workforce has not grown in line with demand and that Ophthalmology departments are cramped with little room for expansion. This review

<sup>3</sup> [Ophthalmology \(gettingitrightfirsttime.co.uk\)](http://ophthalmology.gettingitrightfirsttime.co.uk)

makes some cataract specific recommendations including making optimum use of theatre time

This business case and the longer-term approach planned for cataract provision across the region addresses the points raised in the report.

### **3.4 Royal College of Ophthalmologists, External Review of Eye Care Services in Wales**

An External Review of Eye Care Services in Wales<sup>4</sup> published in 2021 makes ten recommendations for Wales including Data Management, a reduction in patients transferred to England for treatment and more frequent sharing of best practice. Recommendation 8 is about Cataract Service Redesign and increased use of high-volume surgery. This will reduce waiting times and also - but as the report notes - encourage improvements in the end to end process where surgery is just one part.

This business case aims to address this recommendation for South East Wales and provide an increased number of high volume lists. The longer term approach identified in section 2.5 above will then address other areas for improvements.

### **3.5 Patient Harm**

Cataracts can lead to progressive visual loss and if left untreated can lead to almost total vision loss with the sufferer only being able to perceive light and dark. Prior to Covid-19, vision loss of this nature was an unusual occurrence however, in the current climate this is alarmingly becoming more common.

A significant proportion of patients waiting for this surgery have been rendered severely sight impaired because of the delay to the treatment albeit in a reversible manner. Furthermore, the surgical complexity and time taken to perform cataract surgery increases in such cases. This reduces the number of cases that can be completed on a list, but also increases the risk of a serious complication that could lead to a second or third surgery being needed at a specialist centre.

The disability that cataracts cause has a significant impact on the sufferer. Driving is impossible leading to loss of independence. The ability to work or carry out activities of daily living may also be impaired. Poor mental health in people with vision impairment is an all too familiar problem. Furthermore, it has been identified that falls and the resulting injury and morbidity are significantly increased in this vulnerable population, thereby significantly adding to the trauma load and the hospitalisation that inevitably accompanies it.

Evidence suggests sight impairment in older people is associated with increases in the incidence of falls and hip fractures. Compared to the general older population, this group is

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<sup>4</sup> [External Review of Eye Care Services in Wales \(rcophth.ac.uk\)](https://www.rcophth.ac.uk)

1.7 times more likely to fall, 1.9 times more likely to have multiple falls and 1.3–1.9 times more likely to experience hip fractures. Often the patients may be a carer for their family, and their preventable visual impairment begins to make this impossible, further increasing the burden on social care.

### **3.6 Service issues and gaps**

There are some significant service issues and gaps that further evidence the need for increased capacity of cataracts procedures across the region. These include:

- Demand across the region being greater than the cataract capacity across the region - with no additional capacity the total number of patients waiting by March 2024 will be over 23,000
- Shortage of trained ophthalmology staff at all levels. All health boards have vacancies they cannot fill
- Burn out amongst staff
- Due to long waits, case mix can be more challenging
- Currently limited ability to share resources across the region for cataract surgery
- Patients waiting longer and are at greater risk of coming to additional harm

## 4. Current Service Provision

This section sets out the current activity and capacity assumptions for cataract surgery across AB, CAV, and CTM UHB's.

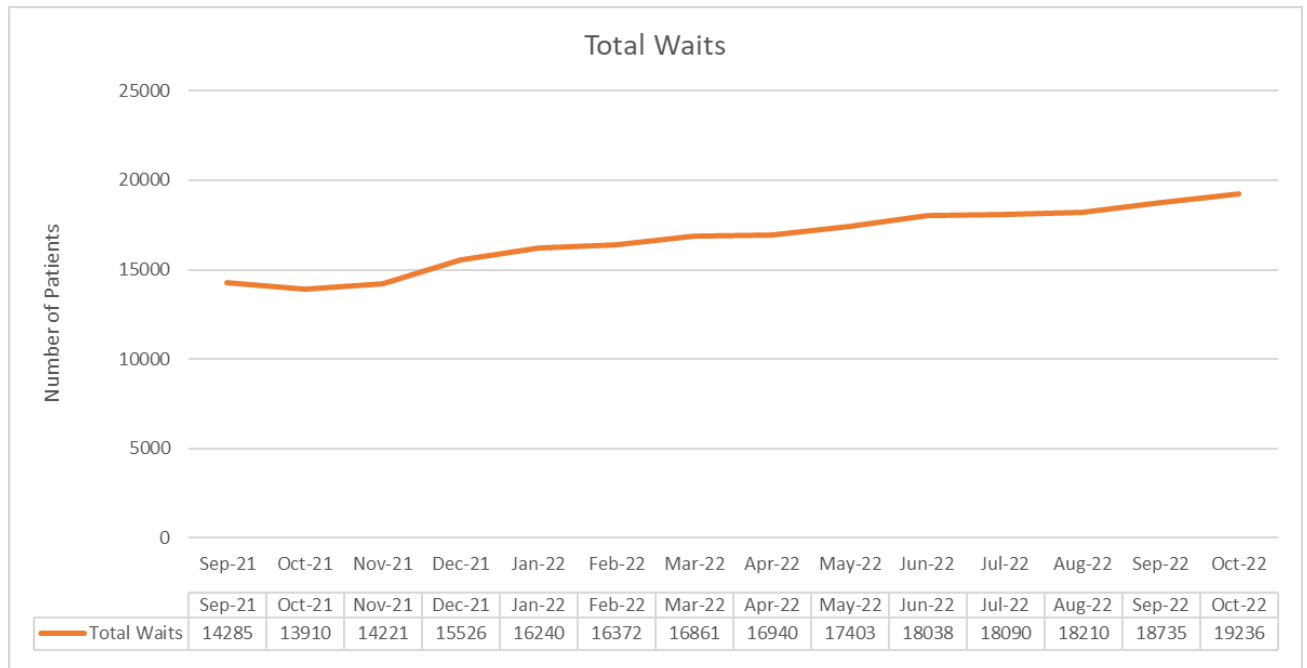
### 4.1 Current Situation Background

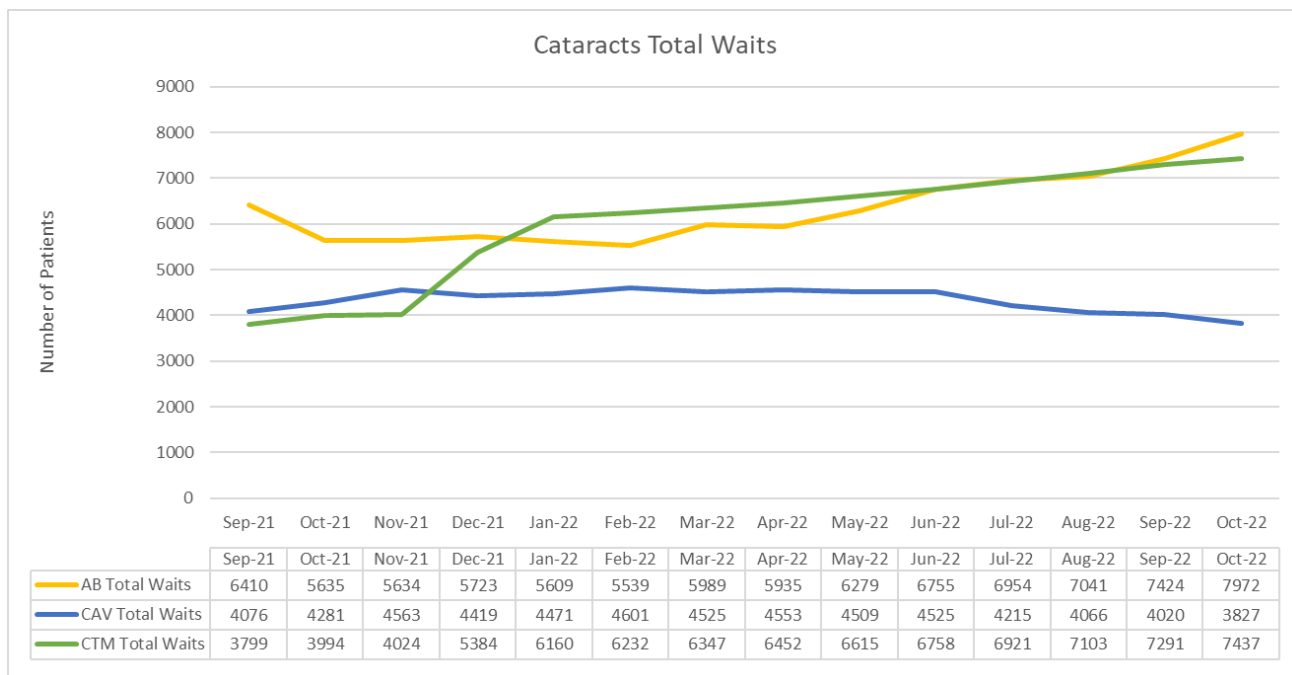
During the covid-19 pandemic, the ability to operate on cataracts patients was reduced significantly. This has resulted in a considerable backlog of patients waiting to be seen for both assessments and surgery. Cataract surgery is the most frequently performed surgery within the NHS. Quality of life gains following successful surgery are amongst the highest of any procedure in Ophthalmology. With an ageing population the demand for the service across the region has steadily grown and demand outstrips the resources available to delivery capacity at current levels.

Current demand for cataract surgery is high. Across the region there are over 830 new cataract referrals every month and the current capacity across the region is struggling to cope with this level of demand. Across the region approximately 735 surgical procedures are undertaken per month. This will reduce to 495 per month From April 2023 if there is no further regional investment.

### 4.2 Current Waiting Lists

Waiting times are high for patients and are increasing across the region as capacity is consistently not able to meet the current demand. The total number of patients waiting across the region as at October 2022 is 19,236 and of these 6,163 (32%) have been waiting longer that 52 weeks





### 4.3 Pre-pandemic Referral Levels and Demand

The referrals for cataracts are expected to return to pre pandemic levels once the referrals delayed through covid are received into the system. For planning purposes projections suggest that 830 referrals is the monthly level across the region. This results in approximately 10,000 referrals across the region per year.

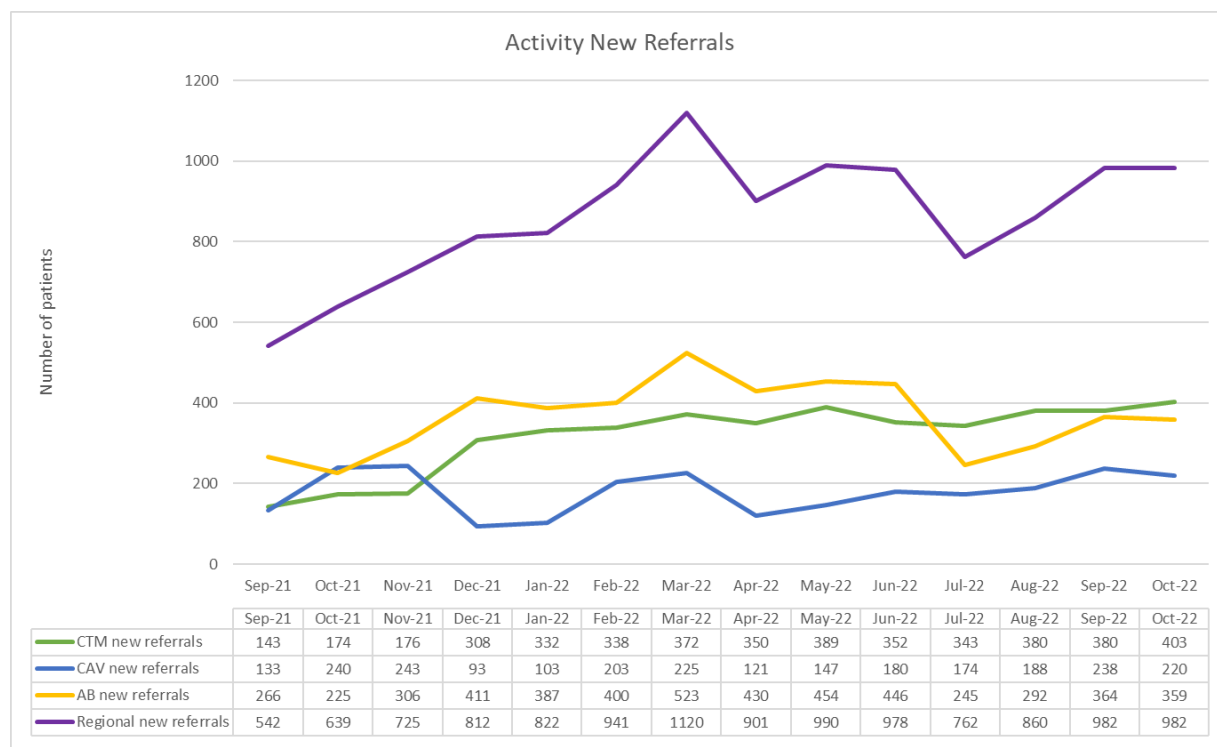
Pre pandemic referral levels for cataracts are shown below:

Year	CTM	AB	CAV	Total	Average per Month
2018/19	3705	3571	2205	9481	790
2019/20	4438	3594	2094	10126	844

### 4.4 Current Referral Levels / Demand

The rate of new referrals in the region is further extending the waiting times for patients, as more patients are added to the list per month than are treated. New referrals have been steadily climbing since September 2021, reaching a peak of over 1,100 in March 2022. From arch 22 onwards referral levels stop climbing and provide a better basis for planning future demand. Between March 2022 and November 2022 inclusive, average demand across the region is Since For the last 5 months the referrals have been returning to pre covid levels or an average of 850 per month across the region.

## Regional Cataracts Business Case AB, CAV, CTM

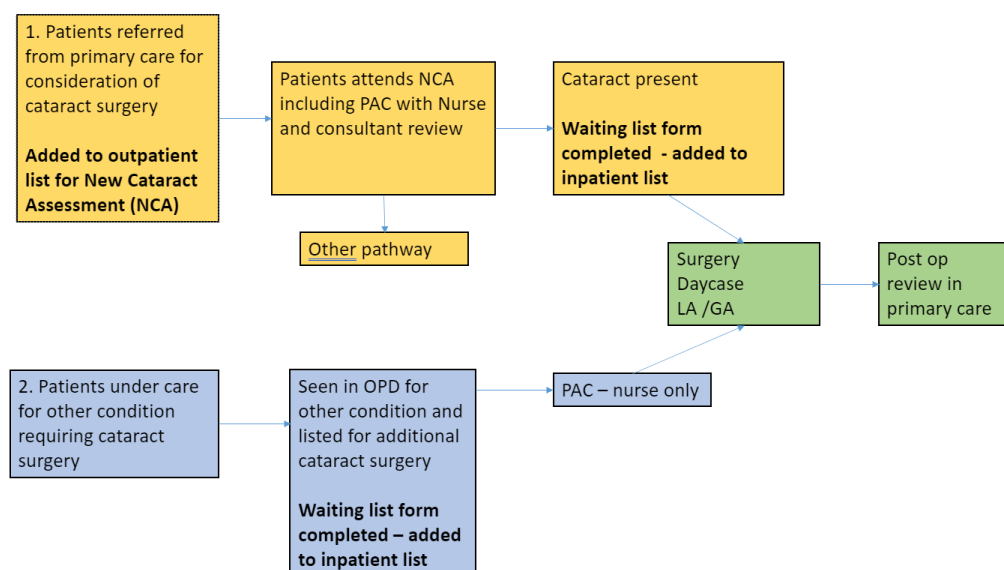


For the purposes of this business case the demand is forecast for 2023/24 as shown below:

Health Board	Monthly	Annual
AB	340	4080
CAV	150	1800
CTM	340	4080
<b>Regional Total</b>	<b>830</b>	<b>9,960</b>

Current referral rates are now slightly higher than pre pandemic levels, indicating that there is still some latent demand coming through the system, however most of the demand that presented by mid-2022 is in line with pre pandemic referral levels for the service.

#### 4.5 Patient Pathway and Case mix



The diagram above demonstrates the patient pathway and the outpatient and inpatient sections of the pathway. Many of the patients are waiting to start this pathway at the outpatient stage and 19% are waiting for the inpatient stage.

The case mix of the patients at the end of the waiting list has been clinically assessed as:

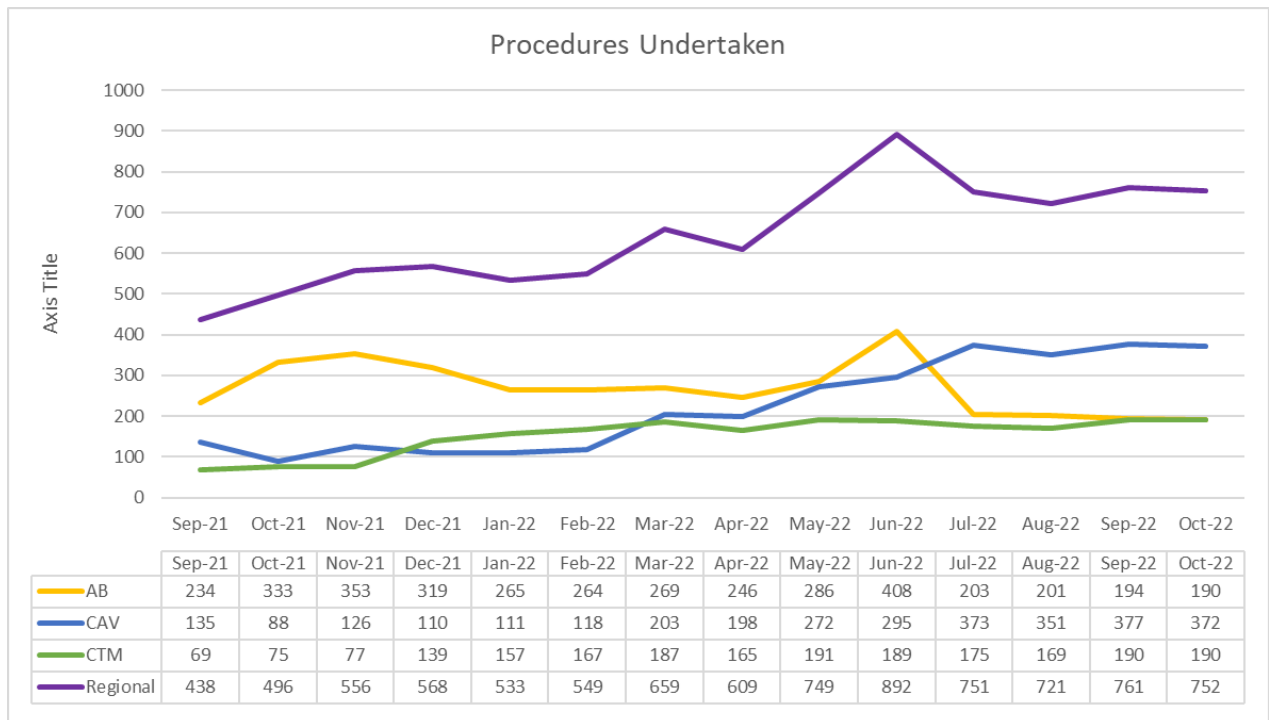
- 50% complex patients
- 30% non-complex (high flow)
- 20% no further action on cataracts pathway

It is anticipated that the increased capacity that this business case will provide will reduce the percentage of complex patients as backlogs are addressed. The case mix will then move towards a greater proportion of non-complex patients. This will in turn will release core capacity within Health Boards to provide optimal care for the remaining complex cases.

#### 4.6 Current Activity Inpatient and Outpatient

Activity across the region has been increasing, as operational teams and clinical staff work hard to restore sessions and undertake additional sessions to build back capacity post-COVID. The addition of the Vanguard mobile twin theatre theatre unit in Cardiff has also had a big impact towards increasing the activity the teams are able to provide. The Vanguard Unit opened in January 2022 and reached full capacity by March 2022. In September 2021 the regional inpatient activity including outsourcing was 438 procedures per month and in May 2022 including outsourcing, increasing capacity and opening the Vanguard theatres the activity was 749 procedures per month, an increase of 71% capacity in 8 months and demonstrating the work of the operational teams to increase capacity. Outpatient activity to prepare patients for surgery is also a critical step in the pathway. Outpatient activity was 1,038 in September, increasing to 1,564 in May 2022.

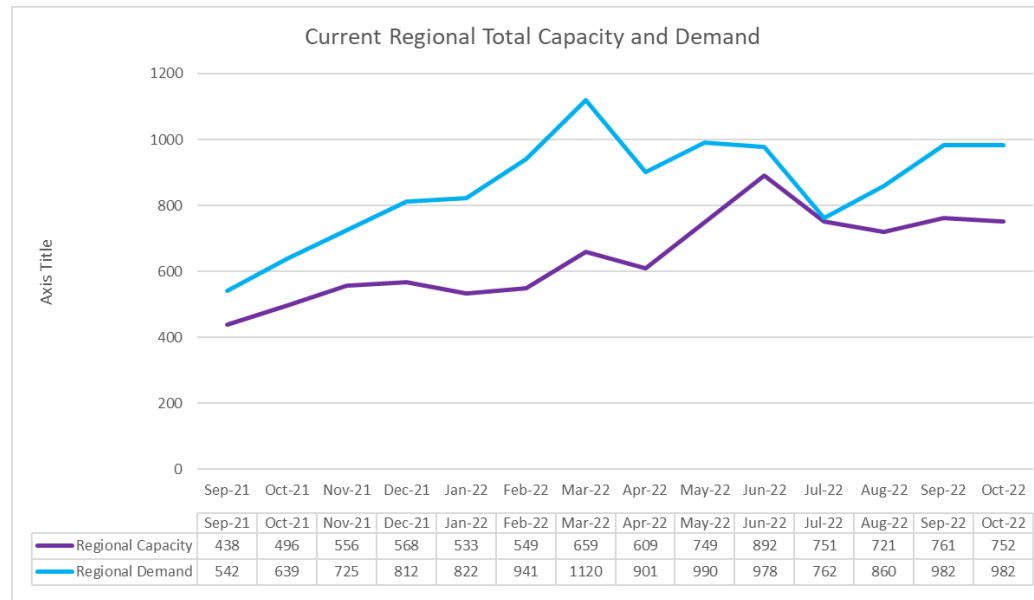
Regional Cataracts Business Case AB, CAV, CTM



## Regional Cataracts Business Case AB, CAV, CTM

Row Labels	Sum of Sep-21	Sum of Oct-21	Sum of Nov-21	Sum of Dec-21	Sum of Jan-22	Sum of Feb-22	Sum of Mar-22	Sum of Apr-22	Sum of May-22	Sum of Jun-22	Sum of Jul-22	Sum of Aug-22	Sum of Sep-22	Sum of Oct-22
<b>AB</b>	<b>234</b>	<b>333</b>	<b>353</b>	<b>319</b>	<b>265</b>	<b>264</b>	<b>269</b>	<b>246</b>	<b>286</b>	<b>408</b>	<b>203</b>	<b>201</b>	<b>194</b>	<b>190</b>
procedures outsourced	66	121	130	175	163	115	54	100	100	267	0	0	0	0
Procedures undertaken	168	212	223	144	102	149	215	146	186	141	203	201	194	190
<b>CAV</b>	<b>135</b>	<b>88</b>	<b>126</b>	<b>110</b>	<b>111</b>	<b>118</b>	<b>203</b>	<b>198</b>	<b>272</b>	<b>295</b>	<b>373</b>	<b>351</b>	<b>377</b>	<b>372</b>
procedures outsourced	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Procedures undertaken	135	88	126	110	111	118	203	198	272	295	373	351	377	372
<b>CTM</b>	<b>69</b>	<b>75</b>	<b>77</b>	<b>139</b>	<b>157</b>	<b>167</b>	<b>187</b>	<b>165</b>	<b>191</b>	<b>189</b>	<b>175</b>	<b>169</b>	<b>190</b>	<b>190</b>
procedures outsourced	12	18	20	20	15	20	20	20	15	15	15	15	15	15
Procedures undertaken	57	57	57	119	142	147	167	145	176	174	160	154	175	175
<b>Regional</b>	<b>438</b>	<b>496</b>	<b>556</b>	<b>568</b>	<b>533</b>	<b>549</b>	<b>659</b>	<b>609</b>	<b>749</b>	<b>892</b>	<b>751</b>	<b>721</b>	<b>761</b>	<b>752</b>
procedures outsourced	78	139	150	195	178	135	74	120	115	282	15	15	15	15
Procedures undertaken	360	357	406	373	355	414	585	489	634	610	736	706	746	737

The gap between demand and capacity is growing, as shown in the chart below.



## **4.7 Workforce**

### **Workforce**

The current session planning and job planning arrangements include some sessions that are assigned as cataract only lists and some theatres sessions that run mixed lists where cataracts procedures are on the same surgical list as other ophthalmic procedures. Running mixed lists does enable the service to use any available theatre time to undertake cataract surgery but makes identifying the exact workforce assigned to cataract surgery more difficult.

As an illustration, the workforce typically required to undertake cataract surgery, and the outpatient pre-operative assessment is shown below.

### **Outpatient Pre-Operative assessment**

During 1 session the workforce can see approximately 7 patients on a list, however the numbers may reduce if the patients are more complex. Workforce for 1 session includes a Consultant, 2 pre-assessment Nurses, 2 Health Care Support Workers and a Receptionist. There is also workforce required for booking and for notes retrieval and typing after the session.

### **Theatre Session**

During 1 theatre session there will be up to 6 patients booked on a theatre list, depending upon case complexity. Workforce for 1 session includes a Consultant, Anaesthetist, 2 Scrub Nurses, 1 ODP, 2 Health Care Support Workers and 2 Nurses for the recovery area and a Receptionist. There is also workforce required for booking and for notes retrieval and typing after the session.

### **Workforce Gaps**

The vacancy levels across the region for Ophthalmology services have been identified as shown below. This information helps to demonstrate that in the short term the capacity can only be increased by an insourcing and outsourcing model.

### **CTMU**

- 0.7 WTE Corneal consultant
- 1 WTE Specialty Doctor
- 1 WTE Band 6 nurse
- 1 WTE band 5 qualified nurse

### **ABUHB**

- 1x Band 3 Scheduler & 1 x Band 3 Outpatient booking Clerk- Both Full time posts
- 5.8 WTE Band 5 Nurses

- 3.4 WTE Band 6 Nurse Practitioners,
- 4.7 WTE Band 2 HCSW
- 1 WTE Consultant

#### **CVUHB**

- 1 x trainee vacancy
- 2.5 x Band 3 admin vacancies
- 1 x Band 2 nursing vacancy
- 2 x Band 5 Directorate Support Managers

### **4.8 Service Improvements**

All service provision is being reviewed on a continuous basis to identify where small changes can be made to improve the way the service is delivered. These changes will ensure optimal utilisation of existing core capacity in Health Boards, while this business case sets out the further additional capacity required to support cataracts recovery. Actions include:

#### **CTMUHB**

- All vacancies within theatres are in the process of being filled, which will ensure all available space can be adequately staffed.
- A Health Board theatre utilisation group has been formed to look at how we can maximise the theatre space we have in both areas, as well as looking at late starts and early finishes.
- IPC regulations are due to change, allowing the department to fill lists at short notice, which will help with utilisation when patients cancel at short notice.
- Eye bay nurse staffing is also being looked at with support from the main nursing hub being sought so that ophthalmic nurses can be utilised elsewhere, such as pre-assessment clinics.
- The concept of a 'golden list' has been developed, involving optimal circumstances of efficiency, flow and patient attendance. This will be rolled out to as many clinicians as possible

#### **ABUHB**

- Start and finish times of Theatre sessions are being monitored with reasons being audited for improvements to be identified.
- A patient "Stand by list" is being generated to utilise any very short notice cancellations.
- All patient biometry is being uploaded to Clinical Workstation for Consultants to review patients sooner to prevent delays to treatment and to reduce day of admission cancellations.

#### **CVUHB**

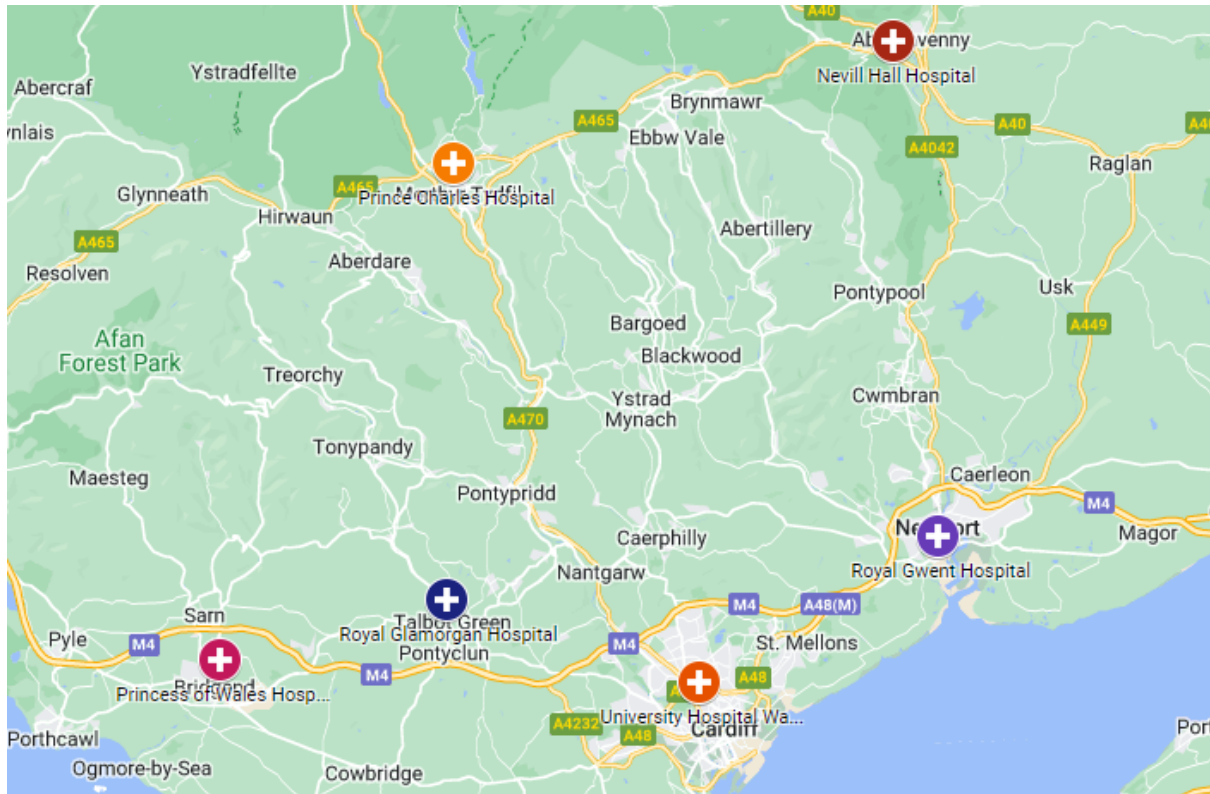
- Maximising utilisation by ensuring templates are booked to agreed capacity and backfilled as necessary when cancellations occur.
- Theatre utilisation – both booking and in-session – is monitored with the scheduling team on a weekly basis.

- HVLC lists are run where appropriate cases are identified, with performance and utilisation monitored with the scheduling team on a weekly basis

## 5. Cataracts and the opportunities for collaboration across the region

### 5.1 North and South Hubs and Patient Travel

The large geographical area of South East Wales, the road network and the position of the hospitals lends itself to a North / South split that can reduce patient travel across the region by providing hubs in the North and South of the region. These hub have the potential to provide additional capacity.



Geographical options for Cataracts in the North are Prince Charles Hospital (PCH) and Nevill Hall Hospital (NHH). There is no opportunity for expanding provision in PCH due to existing theatre usage and NHH is the remaining North option where 1 theatre is available. In Nevill Hall Hospital in Abergavenny as there is potential theatre space available to the region. The population in the North of the region is approximately 500,000 people and includes North Cwm Taf Morgannwg and North Aneurin Bevan.

In the South the Hub is proposed to be either University Hospital of Wales or Princess of Wales Hospital depending on the option taken forward both site use a twin theatre model. The population of the South of the region is approximately 1,000,000 people and includes South Cwm Taf Morgannwg, Cardiff and Vale and South Aneurin Bevan.

#### Travel Times By Car (From the centre of the town to the hospital site)

North Hub	South Hub	South Hub
-----------	-----------	-----------

To Abergavenny NHH	To Cardiff Vanguard	To Bridgend POWH
From Cwmbran = 30 minutes / 15 miles	From Newport = 30 minutes / 13 miles	From Pontypridd = 35 minutes / 25 miles
From Merthyr = 30 minutes / 18 miles	From Blackwood = 40 minutes / 23 miles	Treorchy = 35 minutes / 15 miles
From Blackwood = 35 minutes / 20 miles	From Bridgend = 45 minutes / 20 miles	From Newport = 40 minutes / 30 miles
From Aberdare = 45 minutes / 25 miles	From Aberdare = 50 minutes / 23 miles	From Cardiff = 40 minutes / 25 miles
From Newport = 40 minutes / 30 miles	From Treorchy = 55 minutes / 22 miles	From Aberdare = 55 minutes / 40 miles

Through the use of the North and south model no patient would travel further than 40 miles or for longer than 55 minutes by private car in normal traffic conditions.

The North and South hub model enables the additional regional capacity for cataract outpatient and inpatient stages to enact a collaborative regional approach to recovery and to maximise the use of our assets across the region.

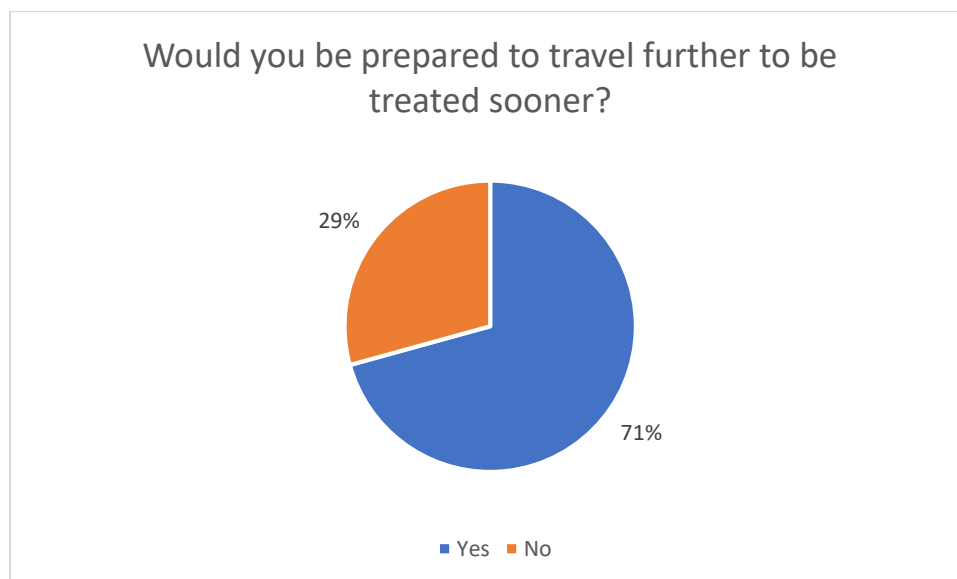
#### **Patient Second Offer and Travel**

Patients will be offered the opportunity to travel to receive their assessment and treatment as part of the additional capacity arrangements where they may be able to be treated sooner. At a maximum travel would be 40 miles and 55 minutes by private car under normal traffic conditions and most of the patient travel will be shorter. Patients unable or unwilling to travel will keep their place on the waiting list and receive treatment from their home health board.

#### **Patient travel Survey**

A patients travel questionnaire was undertaken in Princess of Wales Hospital on 5<sup>th</sup> January, Royal Gwent Hospital on 11<sup>th</sup> January, and University of Wales Hospital on 12<sup>th</sup> January 2023. A total of 140 patients attending appointments on those day were asked questions about their travel to hospital and their willingness to travel to another hospital for treatment. All respondents were anonymous. An extract of the survey is shown below. Full results are in appendix ten

#### **Would you be prepared to travel further if you could have been treated sooner?**



Would you be prepared to travel further to the treated sooner?	Princess of Wales Hospital	Royal Gwent Hospital	University Hospital of Wales	Grand Total
Yes	25 (71%)	27 (77%)	47 (67%)	99 (71%)
No	10 (29%)	8 (23%)	23 (33%)	41 (29%)
<b>Grand Total</b>	<b>35</b>	<b>35</b>	<b>70</b>	<b>140</b>

**Where would you travel to?**

- From Princess of Wales Hospital in Bridgend, of the 25 patients willing to travel 25 would go to Cardiff and 19 to Swansea
- From Royal Gwent Hospital in Newport, of the 27 patients willing to travel 19 would be willing to travel to Cardiff and 25 to Abergavenny
- From University Hospital of Wales in Cardiff, of the 47 patients willing to travel 38 would be willing to travel to Bridgend and 41 to Newport

Where would you travel to?	From Princess of Wales Hospital	From Royal Gwent Hospital	From University Hospital of Wales
Bridgend / POWH			7
Cardiff / UHW		25	19
Newport / RGH		11	
Abergavenny / NHH		5	25
Bristol		5	6
Swansea		19	3
Further in the UK		5	3
<b>Grand Total</b>		<b>70</b>	<b>63</b>

*\*patients could provide multiple answers to this question*

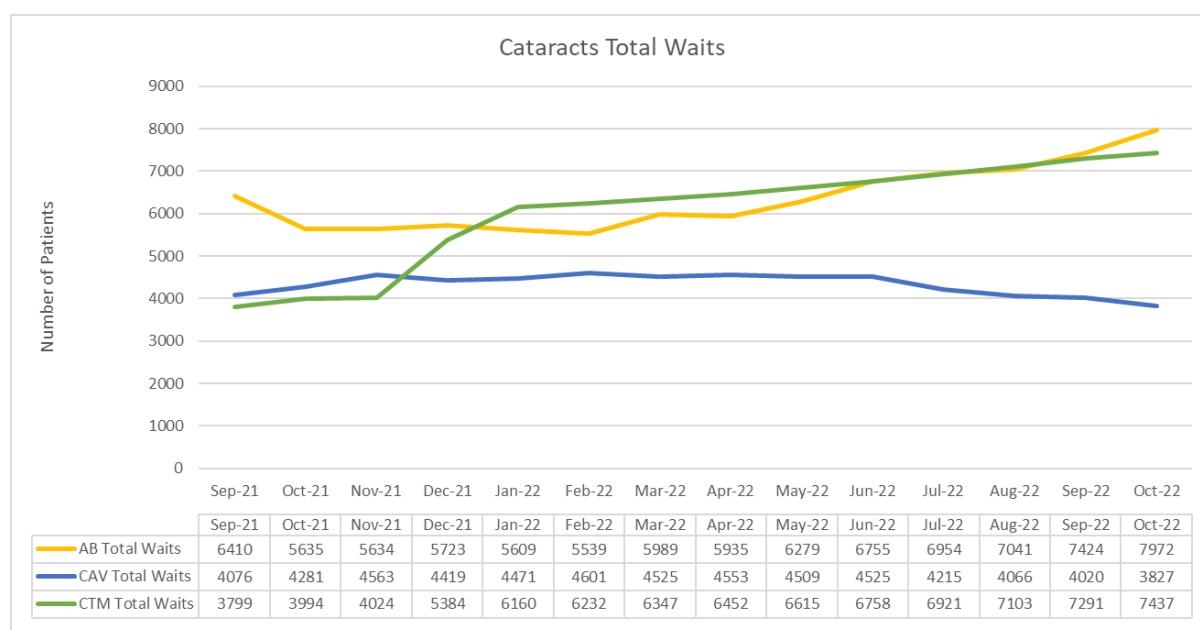
## 5.2 Regional Working Principles

The Regional Ophthalmology Programme Board have endorsed the following regional working principles

- Treating the longest waiters first, regardless of their ‘home’ health board
- Using the outsourcing, insourcing, evenings and weekends capacity for less complex patients
- Adopting best practice guidance in all centres
- Adopting shared waiting list management arrangements

The three Health Boards have committed to working as a region and understand that this does not necessarily mean sharing the provision requested in this business case equally, but equitably across the region and allocating this provision to the patients of greatest need regardless of their ‘home’ health board.

The chart below shows the waits for outpatient and inpatient appointments across the region and the variation across Health Boards. Both AB are approaching 8,000 total patients waiting and CTM 7,500. CAV have under 4,000 patients waiting with trajectories moving towards reducing this figure each month.



### 5.3 Insourcing and Outsourcing

The capacity across the region can be rapidly increased by utilising the local opportunities for insourcing and outsourcing. These arrangements make the best use of our assets across the region for short-term flexible arrangements that protect our core capacity.

### 5.4 Shared Patient Treatment List (PTL)

As an agreed principle of this regional model, the three health boards have agreed to work together to share waiting list management (see section 5.4) and ensure that capacity is distributed across the region to the patients who have been waiting the longest and require this treatment.

The three health boards will share their patient treatment lists through a regional team and those patients at the end of the list that are suitable for this type of treatment will be assessed and treated as part of this regional capacity.

The table below shows the numbers of patients waiting and how this is split proportionally across the region. Data relates to August 2022 and includes the total number of patients waiting in each health board.

Patient Waits	Total			Over 52 weeks	
AB	7041	39%		2175	36%
CAV	4066	22%		891	15%
CTM	7103	39%		2939	49%
	18210			6005	

As a proportion of the patients waiting, 39% are from AB. 39% from CTM and 22% from CAV. When this is viewed as patients waiting at the end of the lists the proportions change and it is from this pool of patients that the additional capacity would be targeted.

Of this group of longer waiters 49% are from CTM, 36% from AB and 15% from CAV and this indicates how the additional capacity will be used.

### 5.5 Regional Waiting List Management

Also see section 5.3 (shared PTL)

#### 5.5.1 Shared waiting list management arrangements

All health Boards have agreed to share waiting lists and treat the longest waiters from across the region first.

The waiting lists could be shared via a SharePoint which is supported from an information governance perspective as access is only via NADEX numbers so access can be limited and monitored. To ensure that longest waiters are treated first, the three spreadsheets could be merged.

In terms of how patients are removed from waiting lists once treated, this would be managed in the same way that patients are treated in Spire/Nuffield. The NHH/UHW centres would be added as options for removal on a drop down list a feature which is on the CTM and C&V waiting lists.

The regional team will hold the shared list and the patients waiting the longest will be treated first, any issues will be managed by the regional team and demonstrated with the data.

SLA type arrangements will be in place for sharing data and resolving issues

### **5.5.2 Regional Booking and Scheduling**

There will be a joint Regional Booking and Scheduling Team across the region to book all the additional capacity patients into outpatient appointments and schedule them for surgery. This team will be hosted by a Health Board but work for the region to support this additional service for the patients. Bringing this team together offers resilience in the service and flexibility to book into the North and South hubs via access to all the systems operated by each of the Health Boards.

The manager of this team will also oversee the data integrity for the joint waiting list arrangements with the three regional Ophthalmology Directorate Managers.

## **5.6 IT and Data Systems**

### **North Hub**

Patients booked and scheduled for assessment and treatment in the North Hub will be assigned an AB patient number and recorded on the AB systems as AB patients. Records will be shared with other health boards via Welsh Clinical Portal (WCP). CTM and CAV patients treated in the North hub will be recorded as 'outsourced' on the CTM and CAV systems (see below)

### **South Hub**

Patients booked for outpatient appointments in the South Hub will attend POWH for their appointment and, if required, UHW for surgery. Upon funding approval the specific details for sharing information across the two health boards for patients will be developed and delivered as part of the implementation plan

### **Outsourcing**

There are established practices to follow for recording outsourced patients already as outsourcing is a continuing practice in health boards within the region. Patients are listed as outsourced on the home system and information is shared between the outsourcing provider and the home health board via Welsh Clinical Portal (WCP)

Uploading on to the Welsh Clinical Portal upload records between the Health Boards

IT and data systems will require more full scoping when funding is agreed.

### **5.7 Additionality**

The service model represents additional capacity established in the region when compared to the core base capacity that was provided before the pandemic. In Cardiff and Vale, there were 7.5 cataract sessions per week and the Vanguard Unit has increased this to 20 sessions per week. Through this business case two thirds of the Vanguard Unit would be available for regional use, returning the Cardiff and Vale capacity to pre pandemic levels.

In Aneurin Bevan the way services are delivered has been reconfigured but the total capacity for cataract surgery remains unchanged from pre pandemic levels, demonstrating that this business case represents additional capacity across the region.

## 6. Benefits, Risks and Governance

### 6.1 High Level Benefits

The high-level benefits associated with undertaking the additional capacity are demonstrated below. Through the do-nothing option, these benefits will be foregone.

#### Patient Benefits

- Reduced waiting times for patients
- Improved quality of life (measured through PROMS/PREMS)

#### Wider Regional and Health Board Benefits

- Increased Capacity across the region
- Reduced waiting list size
- Making the best use of regional resources

#### Health gain

- Reducing sight loss
- Reducing complications and other relating to sight loss e.g.falls
- Improving outcomes for patients
- Improving timely clinical care and patient experience

#### Equity

- Equity of service provision and access across the region
- Capacity for the longest waiters

### 6.2 High Level Risks

The high level risks associate with undertaking the additional capacity are demonstrated below.

#### High-level Risks to Delivery

Delivery of the business case is dependent on the following risks being managed and mitigated:

Risk	Assessment	Mitigation
Reliability of providers to deliver services: that the service provider cannot fulfil the staffing required to meet the sessions they are contracted for	Prob: 1 Impact: 3 Score: 3 (low)	Contract management and open communication with the provider to manage any changes in the volumes and arrange times to increase capacity in future weeks/months
Availability of additional support service and equipment, trays, HSDU: That the additional capacity on weekends compromises the core capacity and there	Prob: 2 Impact: 3 Score: 6 (Medium)	Early modelling of requirements and ordering of supplies with longer lead in times. Detailed planning of these

Risk	Assessment	Mitigation
is not enough equipment to service the whole capacity required		resources and close monitoring of all usage and risk areas
Booking and scheduling staff appointments: That there is not enough booking and scheduling time to manage the additional patients and that the additional capacity is not fully utilised	Prob: 1 Impact: 4 Score: 4 (Low)	Planning for resource required and bringing them together into a regional team to enable cross cover and resilience to the service.
Ensuring equity of provision across the region: That the regional provision does not go to the patients waiting longest and HB's benefit disproportionately	Prob: 1 Impact: 4 Score: 4 (Low)	Regular and robust waiting lists management processes and pooled lists that adjust and review on a monthly basis to manage the lists as a whole
Reduction in core capacity: That core capacity is reduced or compromised because the regional solution is in place	Prob: 3 Impact: 3 Score: 9 (Medium)	Regular monitoring and early corrective actions towards additional capacity and core capacity alongside waiting list reductions in size and waiting times
IT systems and record keeping: that IT systems can't share information across HB boundaries and that patient records get lost through manual processes	Prob: 3 Impact: 4 Score: 12 (High)	Bring additional IT support into the programme to provide expertise and enable accurate record keeping and sharing through system and maintenance of information governance
Contracting impacting on core capacity: That staff take on contracting shifts and are then not able to provide the core capacity required to maintain Health Board levels of activity	Prob: 3 Impact: 3 Score: 9 (Medium)	Working with the provider to limit impacts on HB staff and planning schedules in advance and communicating this widely. Monitoring sickness levels
Clinical Risk: That staff do not have the appropriate qualifications and experience	Prob: 2 Impact: 5 Score: 10 (Medium)	Clinical Governance processes and working with provider to ensure every member of staff is suitable qualified and experienced.
Clinical Risk: That unsuitable patients are referred for insourcing and outsourcing and are routed back into core capacity making the patient journey longer	Prob: 1 Impact: 4 Score: 4 (Low)	Clear and clinically agreed criteria for referring patients for insourcing and outsourcing treatment routes
Clinical Risk: That patient cancellation rates are high and the insourcing and outsourcing efficiency is compromised	Prob: 1 Impact: 3 Score: 3 (Low)	Communication with patients prior to referral and follow ups of cancelling patients for feedback/reasons

Low Risk 1-5, medium 6-10, High 12-20

### 6.3 Contracting arrangements

Local Health Boards will utilise the expertise of the All Wales Procurement team to undertake a tender process on behalf of all three Health Boards. Depending on their technical advice the intention would be to undertake one procurement exercise for both insourcing and outsourcing recognising that these will be awarded to separate providers. In

addition, given the scale of the volumes required, the awards may include a multitude of providers to enable flexibility of patients and to promote patient choice.

The procurement timetable will need to include a full 30 days tender advertisement given the volumes and financial value involved. The procurement process will be undertaken by the All Wales team, with the detailed specification around clinical requirements, patient pathways, governance and processes etc led by a small working group comprised of all three Health Boards and involving expertise from all relevant disciplines. This will confirm the contractual arrangements around the awarding and management of the contracts. Tenders will then be evaluated by a team drawn from all Health Boards and awarded to the successful providers.

Contracts are awarded on a cost per case basis with the expectation that the full number of procedures will be delivered by the Provider. The award of any new contracts would be underpinned by an activity plan, with clear timescales for delivery, and any appropriate scaling back of insourced activity in line with the implementation plan for the sustainable regional solution.

#### **6.4 Clinical Governance**

The Clinical Governance arrangements will be mainly managed through the contracting arrangements. The contracting will include all the clinical staffing required to undertake outpatient assessments and inpatient procedures.

Specific areas of attention for clinical governance are:

##### **Surgeon Competence**

Insourced and Outsourcing contracts need to ensure that surgeons are of an appropriate competence and quality and have comparable complication rates to consultant surgeons on the National Ophthalmic Database. Processes for checking and ageing the competence of surgeons will be in place as part of the contracting and implementation of the business case.

##### **Follow Ups and Complications**

As part of core Health Board delivery of this type of surgery, any complications are the responsibility of the operating surgeon and follow up arrangements of this nature will be included in the insourcing contracting details. If follow ups cannot be rectified by the operating surgeon (or insourcing company) then they will be invoiced for the follow up treatments required.

**Any follow ups required resulting from surgery undertaken in the Vanguard on weekdays will be followed up by the patients own health board.**

#### **Clinical Processes**

Insourcing staff will be expected to follow the clinical processes of the site on which they are working including incident reporting. There may be occasions where clinical policies vary across sites and the implementation of the business case will aim to address areas of significant variation by aligning guidance across sites as far as practicable, although in the short term this will not be possible in every case.

## **6.5 Waiting List Modelling**

The Regional Ophthalmology Programme have been working with the Delivery Unit to develop a mathematical model to inform the planning of the additional cataracts capacity. Data to feed into the model has been sourced from health boards and operational colleagues have been refining and testing the model with the Delivery unit and have finalised the model for this purpose. The model ensures that there is balance between the outpatient and inpatient capacity based on the following assumptions.

- There is a waiting list of 19,000 patients (forecast position end of March 2023)
- 80% of patients referred as suitable for surgery
- 18% of patients are not suitable for surgery
- 2% of patients DNA
- Patients are reviewed by primary care post-surgery within 3 weeks
- None of the outpatient appointments undertaken on patients expire
- 20% of patients require surgery on a second eye
- One outpatient appointment will cover both eyes
- Second eye surgery is undertaken at least 10 weeks after first eye surgery

In section 4.5 the case mix discusses that 20% of the patients who move through the outpatient stage will not require surgery. However, 20% of the patients who require surgery require it for both eyes and so the demand for surgery/inpatient stage is then in line with the demand for the outpatient stage.

## **6.7 Exit Plan**

The use of insourcing and outsourcing is a temporary solution proposed for 12 months with a 6 month exit strategy. The 12 months of full capacity will enable the backlog to be addressed across the region whilst providing the headroom necessary to implement a more sustainable solution (see section 2.5). The 6 month exit strategy runs at reduced capacity and enables the region to maintain capacity levels whilst the implementation of new staffing and clinical arrangements build to full capacity.

The exit plan involves a higher proportion of outsourcing and a smaller tail of insourcing in the North hub. The extension of the outsourcing will maintain capacity during the time that sustainable capacity is implemented in the region. All insourcing and outsourcing arrangements will cease by the end of September 2024.

Regional Cataracts Business Case AB, CAV, CTM

	Outsourcing	Insourcing (North hub)	Total
Apr-24	166	100	266
May-24	167	80	247
Jun-24	167	60	227
Jul-24	166	40	206
Aug-24	125	0	125
Sep-24	84	0	84
Total			1155

## 7. Options

The business case considers six options to achieve the following key aims:-

- to enact a collaborative regional approach to recovery
- to provide additional regional capacity for cataract outpatient and inpatient stages
- to demonstrate optimal utilisation of our assets across the region
- to address current waiting list backlogs
- to reduce clinical risk on an equitable basis across the region

To achieve the stated aims of the business case, the options need to:

- Be mobilised quickly
- Be deliverable with the resources available
- Protect the viability of the core capacity
- Keep patient travel to a minimum
- Deliver value for money

The options for the next 12 months are:

- **Option 1: Do nothing**
  - Core capacity 5,940 only
- **Option 2: Maximising the use of NHH and POWH**
  - North Hub: in NHH (1,610, weekdays NHS staff recruitment)
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: in POWH (3,558, for 1 NHS session and Evenings and Weekend Insourcing)
  - Outsourcing (2,000)
  - Total additional 8,668 (plus 5,940 core is 14,608 total)
  - One theatre in NHH and twin theatres in POWH
- **Option 3a: Vanguard and NHH**
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: 12.5 sessions of Vanguard Unit (2,770 weekdays NHS staff)
  - South Hub: in UHW (1,500 Weekend Insourcing)
  - Outsourcing (2,000)
  - Total additional 7700 (plus 6,120 core is 13,820 total)
  - One theatre in NHH and twin theatres in Vanguard
- **Option 3b: Vanguard and Maximising NHH**
  - North Hub: in NHH (1,610, weekdays NHS staff recruitment)
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: 12.5 sessions of Vanguard Unit (2,770 weekdays NHS staff)

- South Hub: in UHW (1,500 Weekend Insourcing)
- Outsourcing (2,000)
- Total additional 9,310 (plus 6,120 core is 15,430 total)
- One theatre in NHH and twin theatres in Vanguard
  
- **Option 4: Weekend Insourcing and Outsourcing only**
  - North Hub: in NHH (1,500 Weekend Insourcing)
  - South Hub: in POWH (1,500 Weekend Insourcing)
  - Outsourcing (2,000)
  - Total additional 5000 (plus 5,940 core is 10,940 total)
  - One theatre in NHH and twin theatres in POWH
  
- **Option 5: Outsourcing activity to external provider (s)**
  - Outsourcing (5,000)
  - Total additional 5000 (plus 5,940 core is 10,940 total)

### **Theatres Available**

- University Hospital of Wales: The Vanguard Unit is a twin theatre set up based in the car park in UHW. This will be used for the weekday and the weekend sessions.
- Princess of Wales Hospital: In Bridgend Eye theatres there is a twin theatre set up. This would be used for the weekend and evening sessions. The 1 NHS session in POWH would be run as a single theatre set up.
- Nevill Hall Hospital: One theatre is available in the main theatres block in NHH. The weekday sessions and the weekend sessions will be run from this theatre.

**Options Summary**

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
North Hub: NHH Weekdays NHS Staff		1610		1610		
North Hub: NHH Weekends Insourcing		1500	1500	1500	1500	
South Hub: Vanguard Weekdays NHS Staff			2700	2700		
South Hub: Vanguard Weekends Insourcing			1500	1500		
South Hub: POWH Evenings insourcing (+1 NHS session)		2058				
South Hub: POWH Weekends Insourcing		1500			1500	
Outsourcing		2000	2000	2000	2000	5000
Total Additional	0	8668	7700	9310	5000	5000
Plus Core	5940	5940	6120	6120	5940	5940
<b>Total</b>	<b>5940</b>	<b>14608</b>	<b>13,820</b>	<b>15430</b>	<b>10940</b>	<b>10940</b>

\*Yellow – Provision on AB site, Blue – provision on CAV site, Green – provision on CTM site

**High level Financials**

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Core Capacity	5,940	5,940	6,120	6,120	5,940	5,940
Additional Regional Capacity	0	8668	7,700	9,310	5,000	5,000
Total Capacity	5,940	14,608	13,820	15,430	10,940	10,940
Total Revenue Costs	£0	£12.4m	£10.5m	£12.4m	£7.5m	£7m
Total Capital Costs	£0	£0	£2.4m	£2.4m	£0	£0

Total Costs (Capital + Revenue)	£0	£12.4m	£12.9m	£14.8m	£7.5m	£7m
Cost per patient	n/a	£1,436	£1,672	£1,594	£1,504	£1,410

### Waiting List Changes

The table below shows the impact of each of the options on the total size of the waiting list. The start position for each option is 19,000 patients waiting.

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Waiting list year end	23,046	14,352	15,186	13,567	18,483	18,483
Waiting list change from 19,000 baseline	+4,046	-4,648	-3,814	-5,433	-517	-517

### Options Appraisal

The six options have been through an options appraisal process. An exercise was undertaken with each health board individually to score and assess each option against the business case aims and the principles of regional working in section 2.1 below and appendix two.

Weighting for the scoring was allocated as follows:

- Quality and Safety: 35%
- Effective use of resources: 10%
- Strategic Fit: 10%
- Sustainability: 15%
- Access: 10%
- Deliverability: 20%

Results of the appraisal process are shown below. All three health boards have selected the same option as the highest scoring option against the criteria. Results are shown below. Scores are out of 5, with the regional total out of 15.

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard	Option 4 Weekends	Option 5 Outsourcing
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				and Max NHH		
Cardiff and Vale	1.65	3.10	4.00	4.25	1.85	1.65
Cwm Taf Morgannwg	1.60	4.30	3.70	4.35	2.30	2.00
Aneurin Bevan	1.80	3.35	3.30	3.55	2.15	2.15
Regional Total	5.05	10.75	11.00	12.15	6.30	5.80

### Preferred Option

The preferred option in this business case is Option 3b Vanguard and Max NHH

- South Hub Weekdays: Retaining the weekday 20 sessions in vanguard and using 7.5 sessions for CAV core capacity (1620 patients per year, funded by CAV) and 12.5 sessions for regional capacity (2700 patients per year, regionally funded, provided by NHS staff)
- South Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in Vanguard (UHW)
- North Hub Weekdays: 1610 outpatient assessment and inpatient procedures carried out in weekdays in NHH using NHS staffing
- North Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- An additional 2,000 outsourced outpatient and inpatient procedures
- One theatre in NHH and twin theatres in Vanguard
- Total core 6,120
- **Plus 9,310 additional**
- **Total capacity 15,430 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24: £14.8m
- Cost per patient: £1,594

## 8. Option 1 - Do Nothing

This option involves providing no further funding and resources to cataract surgery across the region at this stage. Each health board will continue with only their planned core capacity and there will be no sharing of patient treatment lists (PTL's). The Vanguard rental will end on 31<sup>st</sup> March 2023 following the two month short term regional extension arrangement.

### 8.1.1 Core capacity

The annual core capacity of each Health Board is shown below

	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	Regional Total Core	Regional Demand	Difference
2023/24	2400	1920	180	1440	5940	9,960	-4,020

### 8.1.2 Option Assumptions

This option is based on the following assumptions

- Use of Vanguard ends by March 31<sup>st</sup> 2023
- Capacity in CTM and AB for 23/24 remains at 2022 activity levels
- CAV have 7.5 sessions in main theatres to undertake core cataracts activity, reverting to pre-Vanguard capacity.

## 8.2 Option 1 – Option Appraisal

### 8.2.1 Option 1 Benefits

The high level benefits identified above (section 6.1) are foregone in this option. The benefits identified for this option are listed below

- No changes to the way that services are currently run
- No management capacity required to organise additional services
- No direct costs

### 8.2.2 Option 1 Risks

The specific risks associated with option 1 are:

- Demand continues to outstrip supply (high risk as business case is mitigation action)
- Backlogs will continue to grow (high risk as business case is mitigation action)
- Planned Care target will be missed (high risk as business case is mitigation action)
- Increased proportions of higher complexity patients as waiting times are increased (medium risk as business case is mitigation action)
- Loss of experienced and well trained staff at the Vanguard Unit (medium risk as business case is mitigation action)

- Reduction in training capacity across the region (medium risk as business case is mitigation action)
- Increases the backlog by 4,046 patients (high risk as business case is mitigation action)

### **8.2.3 Option 1 Patient Considerations**

Through this option all patients will continue to be treated by their home health board. They will be treated within their own health board boundary but are likely to have to wait more than 1 year for assessment and treatment. As patient waits lengthen, the risk increases of patients coming to harm while waiting.

### **8.2.4 Option 1 costs**

There are no direct costs associated with this option

Indirect costs include:

- Increased reliance on WLI's / agency staff
- Increased patient complaints
- Multiple patient referrals as primary care escalate patients due to deterioration
- Additional waiting list validation required
- Increased costs of complications as patient complexity increases

### **8.2.5 Option 1 Activity Modelling**

This scenario is based on the following assumptions for year 1:

- 5,940 cataracts procedures per year (114 per week, 495 per month)
- 5,940 outpatients per year (114 per week, 495 per month)
- 9,960 referrals per year (192 per week, 830 per month)

After 52 weeks of the total capacity of 5,940 per year the waiting list is increased from 19,000 across the region to 23,046

## 9. Option 2 – Maximising the use of NHH and POWH

Option 2 is an NHS recruitment, insourcing and outsourcing option involving a two-hub model of NHH in the North and POWH in the South. At both sites the weekday and weekend capacity is utilised, along with outsourcing in the following volumes over a 12 month period:

- North Hub Weekdays: 1610 outpatient assessment and inpatient procedures carried out in weekdays in NHH using NHS staffing
- North Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- South Hub: 3,558 (2,058 weekdays plus 1,500 weekends) outpatient assessment and inpatient procedures carried out by an insourcing company in POWH
- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 5,940
- **Plus 8,668 additional**
- **Total capacity 14,608 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24: £12.4m
- Cost per patient: £1,436

### 9.1. Option 2 - Clinical and Service Model

The Clinical Model includes an outpatient stage and inpatient stage.

At the outpatient stage the clinical teams review the patients, determine their suitability for surgery and conduct pre-operative assessments. Through the proposed model this will be carried out during a single patient visit.

At the inpatient stage patient receive their cataract surgery. Following surgery patients are discharged to Primary Care. Primary Care advisors have confirmed that no additional resource is required in primary care at present for the additional capacity as it will be adequately dispersed amongst optometric practices across the region.

#### 9.1.1 Clinical Service Model North Hub (NHH)

The North hub would primarily provide outpatient and inpatient provision to patients primarily in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny as the regional geography suits. There is 1 theatre available in NHH that will be used for 7 sessions in the week by NHS staff and both days on the weekend by an insourcing team.

#### Delivery Plan for NHH Sessions

##### Delivery Plan Outpatients

	April	May	June	July	Aug - Feb	Mar		Total
Patients per list	6	7	8	8	8	8		

Sessions per week	5	5	5	5	5	5		
weeks	4	4	4	4	25	1		42
total patients	120	140	160	160	1000	40		1620

### Delivery Plan Inpatients

	April	May	June	July	Aug - Feb	Mar		Total
Patients per list	4	5	6	6	6	6		
Sessions per week	4	5	5	7	7	5		
weeks	1	4	4	4	28	1		42
total patients	16	100	120	168	1176	30		1610

### Delivery Plan for Insourcing Sessions in NHH

	Outpatients	Inpatients
Patients per list	8	7.5
Sessions per week	4	4
Patients per week	32	30
weeks per year	47	50
total patients	1504	1500

### 9.1.2 Clinical Service Model South Hub (POWH)

Through Option 2 the South Hub would provide outpatient and inpatient provision for patients in the south of the region. The outpatient and inpatient provision will be delivered from Princess of Wales Hospital site on weekdays and weekends via an insourcing company with one weekday session per week provided by NHS staff.

#### Delivery Plan

weekdays

Outpatients

Session Type	method	patients per list	Sessions	patients per week	Weeks	Total Patients
1 day session	Insourcing	8	1	8	38	304
Evenings	Insourcing	8	6	48	38	1824
<b>Total</b>				<b>56</b>		<b>2128</b>

Inpatients

Session Type	method	patients per list	Sessions	patients per week	Weeks	Total Patients
1 day session	NHS Staff	7	1	7	42	294
Evenings	Insourcing	7	6	42	42	1764
<b>Total</b>				<b>49</b>		<b>2058</b>

**weekends**

Outpatients

Session Type	method	patients per list	Sessions	patients per week	Weeks	Total Patients
Saturday	Insourcing	8	4	32	32	1024
Sunday	Insourcing	8	2	16	31	496
<b>Total</b>				<b>48</b>		<b>1520</b>

Inpatients

Session Type	method	patients per list	Sessions	patients per week	Weeks	Total Patients
Saturday	Insourcing	7	4	28	36	1008
Sunday	Insourcing	7	2	14	36	504
<b>Total</b>				<b>42</b>		<b>1512</b>

**9.1.3 Outsourcing Arrangements**

Option 2 Outsourcing @ 2,000 cases per year

**9.1.4 Booking and scheduling For Option 2 (Maximising the use of NHH and POWH):**

In one year the team will need to book 6,700 outpatient appointments across both the North and South Hubs and schedule 6,700 inpatient procedures and facilitate 2,000 outsourced patients. Totalling 15,400 patient bookings per year. A Regional booking and scheduling team are required for these patient volumes, along with a POWH Eye Unit Manager and NHH Eye Unit Manager to ensure capacity levels are maximised.

**9.1.5 Option 2 Assumptions**

- Shared PTL across the region
- Share of regional capacity based on percentage split of over 52 week waiters
- 52 weeks waiters numbers under monthly review and capacity adjusted accordingly
- Regional booking team may not all be based in one place
- IT solutions will need to be worked through
- Insourcing and Outsourcing contracting will be done at a National level
- That insourcing and outsourcing capacity will be available in the market through contracting arrangements
- Insourcing numbers on a list to be determined by the insourcing company with annual numbers included in the contracting arrangement
- Effective clinical governance arrangements
- NHH Workforce can be fully recruited
- Patients receive pre-assessment and surgery through the same element of provision (e.g. weekend pre-assessment and weekend surgery)
- Patient eligibility criteria are to be developed and agreed
- 80% conversion rate from outpatients to surgery
- 20% of patients require a second eye

- Patients requiring second eye have one pre assessment to cover both eyes

## 9.2 Option 2 – Option Appraisal

### 9.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Regional	Total	Average Demand	Difference
AB	2400	36%	3121	<b>5521</b>	4080	1441
CAV	1440	15%	1300	<b>2740</b>	1800	940
CTM	2100	49%	4247	<b>6347</b>	4080	2267
Regional Total	5940		8668	<b>14608</b>	9960	4648

### 9.2.2 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total from this business case
2023/24	2400	3121	5521
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total from this business case
2023/24	1920	180	4247	6347
2024/25	960	90	566	1616

#### CAV Patients

	Core: CAV In house	CAV 15%	CAV Total from this business case
2023/24	1440	1300	2740
2024/25	720	173	893

#### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	5521	2740	6347	14608
2024/25	1616	893	1616	4125

### 9.2.3 Option 2 Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Recruiting additional NHS workforce for NHH
- Provides a solid base to develop the sustainable regional solution
- Fully utilised the POWH Eye Unit 7 days per week
- Enables a greater reduction in the backlog
- No additional capital required
- Reduces the backlog by 4,648 patients waiting

### 9.2.4 Option 2 Risks

The specific risks associated with option 2 are:

- High volumes of surgery through POWH Eye Unit may put a strain on equipment readiness levels (low risk following mitigation actions)
- Clinical risks and patient harm risks associated with outsourcing and insourcing capacity (low risk following mitigation actions)

### 9.2.5 Option 2 Patient Considerations

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will start to reduce. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

## 9.2.6 Option 2 costs

### Option 2: POWH and NHH

Revenue Costs

2023/24

Provider Health Board	Delivery	Outpatients	Outpatients	Surgical Procedures	Surgical Procedures	Total Estimated Costs
		Activity	Cost	Activity	Cost	
Aneurin Bevan	Insource Weekend	1,500	£258,032	1,500	£1,843,811	£2,101,843
Aneurin Bevan	Weekday Capacity	1,610	£184,342	1,610	£1,659,078	£1,843,420
Cwm Taf	Insource Weekend	1,500		1,500	£2,200,500	£2,200,500
Cwm Taf	Insource Weekday	2,058		2,058	£2,671,284	£2,671,284
External	Outsource	2,000	£316,000	2,000	£2,379,333	£2,695,333
Regional Operational Team						£934,145
<b>TOTAL</b>		<b>8,668</b>	<b>£758,374</b>	<b>8,668</b>	<b>£10,754,006</b>	<b>£12,446,525</b>

Indicative Cost per Patient

£1,436

## 9.2.7 Option 2 Activity Modelling

This scenario is based on the following assumptions for year 1:

- 9,960 referrals per year (192 per week, 830 per month)
- 14,608 cataracts procedures per year (281 per week, 1217 per month)
- 14,608 outpatients per year (282 per week, 1224 per month)

After 52 weeks of the total capacity of 14,608 per year the waiting list is reduced from 19,000 across the region to 14,352

*Further details on Option 2 can be found in Appendix Four*

## 10. Option 3a –Vanguard and NHH

Option 3a is an insourcing and outsourcing option involving a two-hub model of NHH in the North and the Vanguard Unit in the South with the following volumes over a 12 month period:

- South Hub: Retaining the weekday 20 sessions in vanguard and using 7.5 sessions for CAV core capacity (1620 patients per year, funded by CAV) and 12.5 sessions for regional capacity (2700 patients per year, regionally funded, provided by NHS staff)
- South Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in Vanguard (UHW)
- North Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 6,120
- **Plus 7,700 additional**
- **Total capacity 13,820 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24: £12.9m
- Cost per patient: £1,672

### 10.1 Option 3a - Clinical and Service Model

The Clinical Model includes an outpatient stage and inpatient stage.

At the outpatient stage the clinical teams review the patients, determine their suitability for surgery and conduct pre-operative assessments. Through the proposed model this will be carried out during a single patient visit.

At the inpatient stage patient receive their cataract surgery. Following surgery patients are discharged to Primary Care. Primary Care advisors have confirmed that no additional resource is required in primary care at present for the additional capacity as it will be adequately dispersed amongst optometric practices across the region.

#### 10.1.1 Maximising the Use of the Vanguard Unit in UHW

The Vanguard Unit in UHW is a mobile twin theatre alongside modular units for consulting, patient waiting and recovery. It is currently contracted for use for cataract surgery by CAV on a 5 day per week basis Monday to Friday with this arrangement running until 8<sup>th</sup> January 2023. As a short-term solution and to maximise the options available for this business case, the unit will be extended until 31<sup>st</sup> March 2023 and the capacity during this extension period will be divided between the three health boards in the region.

If extended, then the new contract for the Vanguard Unit will be for 7 days per week to maximise the use of the unit for the regional extension of the cataracts service. The Vanguard Unit requires capital funding.

The benefits of retaining the Vanguard Unit include the stability of staff and retaining this well trained and experienced staffing group, the ability to treat more complex patients than the insourcing and outsourcing will enable, increasing the training opportunities available across the region and providing a solid foundation for the second sustainable phase of the cataracts expansion to be based.

### 10.1.2 Clinical Service Model North Hub

The North hub would primarily provide outpatient and inpatient provision to patients in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny as the regional geography suits. There is 1 theatre available in NHH that will be used on both days on the weekend by an insourcing team.

#### Delivery Plan for Insourcing Sessions in NHH

	Outpatients	Inpatients
Patients per list	8	7.5
Sessions per week	4	4
Patients per week	32	30
weeks per year	47	50
total patients	1504	1500

### 10.1.3 Clinical Service Model South Hub

Through this option The South Hub would provide outpatient and inpatient provision for patients in the south of the region. The Vanguard Unit would be used 7 days per week.

On weekdays the twin theatre unit will be staff by NHS staff in a continuation of current practice. These 20 sessions will be split, 7.5 for CAV and 12.5 for regional patients. On the weekends the provision in the vanguard unit will be staffed via an insourcing company.

#### Weekdays

##### Outpatients

Time	Delivery	patients Per list	Sessions	patients per week	Weeks	Total Patients
Weekdays	NHS Staff	8	7.5	60	46	2760

##### Inpatients

Time	Delivery	patients Per list	Sessions	patients per week	Weeks	Total Patients (less CNA's)
Weekdays	NHS Staff	5	12.5	62.5	48	2700

#### Weekends

Outpatients

Time	Delivery	patients Per list	Sessions	patients per week	Weeks	Total Patients
Weekends	Insourcing	8	6	48	32	1536

Inpatients

Time	Delivery	patients Per list	Sessions	patients per week	Weeks	Total Patients
Weekends	Insourcing	7	6	42	36	1500

**10.1.4 Outsourcing Arrangements**

Outsourcing @ 2,000 cases per year

**10.1.5 Booking and scheduling For Option 3a (Vanguard Capacity and North Hub NHH Weekends):**

In one year the team will need to book 5,900 outpatient appointments across both the North and South Hubs and schedule 5,900 inpatient procedures and facilitate 2,000 outsourced patients. Totalling 13,800 patient bookings per year. A Regional booking and scheduling team are required for these patient volumes, along with a Vanguard Unit Manager and NHH Eye Unit Manager to ensure capacity levels are maximised.

**10.1.6 Option 3a Assumptions**

- Shared PTL across the region
- Share of regional capacity based on percentage split of over 52 week waiters
- 52 weeks waiters numbers under monthly review and capacity adjusted accordingly
- Regional booking team may not all be based in one place
- IT solutions will need to be worked through
- Insourcing and Outsourcing contracting will be done at a National level
- That insourcing and outsourcing capacity will be available in the market through contracting arrangements
- Insourcing numbers on a list to be determined by the insourcing company with annual numbers included in the contracting arrangement
- Effective clinical governance arrangements
- Vanguard workforce can continue into 23/24
- NHH Workforce can be fully recruited
- Patients receive pre-assessment and surgery through the same element of provision (e.g. weekend pre-assessment and weekend surgery)
- Patient eligibility criteria are to be developed and agreed
- 80% conversion rate from outpatients to surgery
- 20% of patients require a second eye
- Patients requiring second eye have one pre assessment to cover both eyes

## 10.2 Option 3a – Option Appraisal

### 10.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Capacity	Total	Average Demand	Difference
AB	2400	36%	2772	<b>5172</b>	4080	1092
CAV	1620	15%	1155	<b>2775</b>	1800	975
CTM	2100	49%	3773	<b>5873</b>	4080	1793
Regional Total	6120		7700	13820	9960	3860

### 10.2.2 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total from this business case
2023/24	2400	2772	5172
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total from this business case
2023/24	1920	180	3773	5873
2024/25	960	90	566	1616

#### CAV Patients

	Core: CAV In house	CAV 15%	CAV Total from this business case
2023/24	1620	1155	2775
2024/25	720	173	893

#### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	5172	2775	5873	13820
2024/25	1616	893	1616	4125

### 10.2.3 Option 3a Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Retaining a well trained and experienced staff within the Vanguard unit
- Ability to treat more complex patients are part of the regional capacity<sup>5</sup>
- Continuity and stability of employment for Vanguard staff
- Increased opportunities for staff training learning and development<sup>6</sup>
- Provides a solid base to develop the sustainable regional solution
- Fully utilised the Vanguard unit 7 days per week
- Enables a greater reduction in the backlog
- Stabilises the short term regional arrangement (Jan-March 2023)
- Reduces the backlog by 3,814 patients waiting

### 10.2.4 Option 3a Risks

The specific risks associated with option 1 are:

- High volumes of surgery through Vanguard Unit may put a strain on equipment readiness levels (low risk following mitigation actions)
- Clinical risks and patient harm risks associated with outsourcing and insourcing capacity (low risk following mitigation actions)

### 10.2.5 Option 3a Patient Considerations

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will start to reduce. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

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<sup>5</sup> Insourcing and Outsourcing will take the less complex patients

<sup>6</sup> Vanguard offers the opportunity for more training lists that are shorter in size

## 10.2.6 Option 3a Costs

### Option 3a: Use of NHH weekends and Vanguard

#### Revenue Costs

2023/24

Host Health Board	Delivery	Outpatients	Outpatients	Surgical Procedures	Surgical Procedures	Total Estimated Costs
		Activity	Cost	Activity	Cost	
Cardiff and Vale	Insource Weekend	1,500		1,500	£2,831,000	£2,831,000
Cardiff and Vale	NHS Weekday	2,700		2,700	£1,944,000	£1,944,000
Aneurin Bevan	Insource Weekend	1,500	£258,032	1,500	£1,843,811	£2,101,843
External	Outsource	2,000	£316,000	2,000	£2,379,333	£2,695,333
Regional Operational Team						£899,438
<b>TOTAL</b>		<b>7,700</b>	<b>£574,032</b>	<b>7,700</b>	<b>£8,998,144</b>	<b>£10,471,614</b>

Revenue: Indicative Cost per Patient

£1,360

#### Capital Costs

Temporary Theatre @UHW	<b>£2,400,000</b>
Indicative Cost per Patient	£1,672

## 10.2.7 Option 3a Activity Modelling

This scenario is based on the following assumptions for year 1:

- 9,960 referrals per year (192 per week, 830 per month)
- 13,820 cataracts procedures per year (266 per week, 1152 per month)
- 13,820 outpatients per year (266 per week, 1152 per month)

After 52 weeks of the total capacity of 13,820 per year the waiting list is reduced from 19,000 across the region to 15,186

*Further details on Option 3a can be found in Appendix Five*

## 11. Option 3b –Vanguard and maximising NHH

### This is the preferred option

As option 3a but with the addition of 7 weekday NHS sessions in NHH

Option 3b is an insourcing and outsourcing option involving a two-hub model of NHH in the North and the Vanguard Unit in the South with the following volumes over a 12 month period:

- South Hub Weekdays: Retaining the weekday 20 sessions in vanguard and using 7.5 sessions for CAV core capacity (1620 patients per year, funded by CAV) and 12.5 sessions for regional capacity (2700 patients per year, regionally funded, provided by NHS staff)
- South Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in Vanguard (UHW)
- North Hub Weekdays: 1610 outpatient assessment and inpatient procedures carried out in weekdays in NHH using NHS staffing
- North Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 6,120
- **Plus 9,310 additional**
- **Total capacity 15,430 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24: £14.8m
- Cost per patient: £1,594

### 11.1 Clinical and Service Model

#### 11.1.1 Clinical Service Model North Hub (NHH) Additional for Option 3b

The North hub would primarily provide outpatient and inpatient provision to patients primarily in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny as the regional geography suits using an additional theatre in NHH on weekdays, staffed by NHS staff

#### Delivery Plan for NHH Sessions

##### Delivery Plan Outpatients

	April	May	June	July	Aug - Feb	Mar		Total
Patients per list	6	7	8	8	8	8		
Sessions per week	5	5	5	5	5	5		
weeks	4	4	4	4	25	1		42
total patients	120	140	160	160	1000	40		1620

### Delivery Plan Inpatients

	April	May	June	July	Aug - Feb	Mar		Total
Patients per list	4	5	6	6	6	6		
Sessions per week	4	5	5	7	7	5		
weeks	1	4	4	4	28	1		42
total patients	16	100	120	168	1176	30		1610

#### 11.1.2 Option 3b Assumptions

As 3a with the addition of

- NHH Workforce can be fully recruited

### 11.2 Option 3b – Option Appraisal

#### 11.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Regional	Total	Average Demand	Difference
AB	2400	36%	3352	<b>5752</b>	4080	1672
CAV	1620	15%	1397	<b>3017</b>	1800	1217
CTM	2100	49%	4562	<b>6662</b>	4080	2582
Regional Total	6120		9310	<b>15430</b>	9960	5470

#### 11.2.2 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total from this business case
2023/24	2400	3352	5752
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total from this business case
2023/24	1920	180	4562	6662
2024/25	960	90	566	1616

### CAV Patients

	Core: CAV In house	CAV 15%	CAV Total from this business case
2023/24	1620	1397	3017
2024/25	720	173	893

### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	5752	3017	6662	15430
2024/25	1616	893	1616	4125

#### 11.2.3 Option 3b Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Retaining a well trained and experienced staff within the Vanguard unit
- Ability to treat more complex patients are part of the regional capacity<sup>7</sup>
- Continuity and stability of employment for Vanguard staff
- Increased opportunities for staff training learning and development<sup>8</sup>
- Provides a solid base to develop the sustainable regional solution
- Fully utilised the Vanguard unit 7 days per week
- Greater proportion of cataracts surgery undertaken by NHS staff
- Enables a greater reduction in the backlog
- Stabilises the short term regional arrangement (Jan-March 2023)
- Reduces the backlog by 3,814 patients waiting

#### 11.2.4 Option 3b Risks

The specific risks associated with this option are:

- High volumes of surgery through Vanguard Unit may put a strain on equipment

<sup>7</sup> Insourcing and Outsourcing will take the less complex patients

<sup>8</sup> Vanguard offers the opportunity for more training lists that are shorter in size

readiness levels (low risk following mitigation actions)

- Clinical risks and patient harm risks associated with outsourcing and insourcing capacity (low risk following mitigation actions)

### 11.2.5 Option 3b Patient Considerations

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will start to reduce. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

### 11.2.6 Option 3b Costs

#### Option 3b: Use of NHH weekends and weekdays and Vanguard

Revenue Costs

2023/24

Host Health Board	Delivery	Outpatients	Outpatients	Surgical Procedures	Surgical Procedures	Total Estimated Costs
		Activity	Cost	Activity	Cost	
Cardiff and Vale	Insource Weekend	1,500		1,500	£2,831,000	£2,831,000
Cardiff and Vale	Insource Weekday	2,700		2,700	£1,943,438	£1,943,438
Aneurin Bevan	Insource Weekend	1,500	£258,032	1,500	£1,843,811	£2,101,843
Aneurin Bevan	Weekday Capacity	1,610	£184,342	1,610	£1,659,078	£1,843,420
External	Outsource	2,000	316,000	2,000	2,379,333	2,695,333
Regional Operational Team						£1,023,950
<b>TOTAL</b>		<b>9,310</b>	<b>£758,374</b>	<b>9,310</b>	<b>£10,656,660</b>	<b>£12,438,984</b>

Revenue: Indicative Cost per Patient

£1,336

#### Capital Costs

Temporary Theatre @UHW		<b>£2,400,000</b>
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Indicative Cost per Patient

£1,594

### **11.2.7 Option 3b Activity Modelling**

This scenario is based on the following assumptions for year 1:

- 9,960 referrals per year (192 per week, 830 per month)
- 15,430 cataracts procedures per year (297 per week, 1286 per month)
- 15,430 outpatients per year (297 per week, 1286 per month)

After 52 weeks of the total capacity of 15,430 per year the waiting list is reduced from 19,000 across the region to 13,567

*Further details on Option 3b can be found in Appendix Six*

## 12. Option 4 – Weekend Insourcing and Outsourcing Only

The Insourcing and outsourcing option involves a two hub model of NHH in the North and the use of POWH in the south for outpatients and Inpatients, along with outsourcing in the following volumes over a 12 month period:

- North Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- South Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in POWH
- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 5,940
- **Plus 5,000 additional**
- **Total capacity 10,940 per year**
- Waiting list reduction 517 (from 19,000 to 18,483)
- Total costs 23/24: £7,.5m
- Cost per patient: £1,504

### 12.1 Option 4 – Clinical and Service Model

The Clinical Model includes an outpatient stage and inpatient stage.

At the outpatient stage the clinical teams review the patients, determine their suitability for surgery and conduct pre-operative assessments. Through the proposed model this will be carried out during a single patient visit.

At the inpatient stage patient receive their cataract surgery. Following surgery patients are discharged to Primary Care. Primary Care advisors have confirmed that no additional resource is required in primary care at present for the additional capacity as it will be adequately dispersed amongst optometric practices across the region.

#### 12.1.1 Clinical Service Model North Hub

The North hub would primarily provide outpatient and inpatient provision to patients in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny as the regional geography suits. There is 1 theatre available in NHH that will be used on both days on the weekend by an insourcing team.

#### Delivery Plan for Insourcing Sessions in NHH

	Outpatients	Inpatients
Patients per list	8	7.5
Sessions per week	4	4
Patients per week	32	30
weeks per year	47	50

total patients	1504	1500
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### 12.1.2 South Hub

Through this Option the South Hub would provide outpatient and inpatient provision for patients in the south of the region. The outpatient and inpatient provision will be delivered from Princess of Wales Hospital in Bridgend on weekends via an insourcing company

#### weekends

##### Outpatients

Session Type	method	patients per list	Sessions	patients per week	Weeks	Total Patients
Saturday	Insourcing	8	4	32	32	1024
Sunday	Insourcing	8	2	16	31	496
<b>Total</b>				<b>48</b>		<b>1520</b>

##### Inpatients

Session Type	method	patients per list	Sessions	patients per week	Weeks	Total Patients
Saturday	Insourcing	7	4	28	36	1000
Sunday	Insourcing	7	2	14	36	500
<b>Total</b>				<b>42</b>		<b>1500</b>

### 12.1.3 Outsourcing Arrangements

This Option will deliver an additional 2,000 cases per year. Outsourcing arrangements and costs include patient travel.

### 12.1.4 Booking and scheduling for Option 4 (Weekend Insourcing and Outsourcing)

In one year the team will need to book 3,000 outpatient appointments across both the North and South Hubs and schedule 3,000 inpatient procedures in addition to facilitating 2,000 outsourced patients totalling 8,000 patient contacts per year. A Regional booking and scheduling team are required for these patient volumes.

### 12.1.5 Option 4 Assumptions

- Shared PTL across the region
- Share of regional capacity based on percentage split of over 52 week waiters
- 52 weeks waiters numbers under monthly review and capacity adjusted accordingly
- Regional booking team may not all be based in one place
- IT solutions will need to be worked through
- Insourcing and Outsourcing contracting will be done at a National level
- That insourcing and outsourcing capacity will be available in the market through contracting arrangements

- Insourcing numbers on a list to be determined by the insourcing company with annual numbers included in the contracting arrangement
- Effective clinical governance arrangements
- Patients receive pre-assessment and surgery through the same element of provision (e.g. weekend pre-assessment and weekend surgery)
- Patient eligibility criteria are to be developed and agreed
- 80% conversion rate from outpatients to surgery
- 20% of patients require a second eye
- Patients requiring second eye have one pre assessment to cover both eyes

## 12.2 Option 4 – Option Appraisal

### 12.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Capacity	Total	Average Demand	Difference
AB	2400	36%	1800	<b>4200</b>	4080	120
CAV	1440	15%	750	<b>2190</b>	1800	390
CTM	2100	49%	2450	<b>4550</b>	4080	470
Regional Total	5940		5000	<b>10940</b>	9960	980

### 12.2.2 Regional Capacity by expected patients treated

Reviewing the end of the list, 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total
2023/24	2400	1800	4200
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total
2023/24	1920	180	2450	4550
2024/25	960	90	566	1616

#### CAV Patients

	Core: CAV In House	CAV 15%	CAV Total
2023/24	1440	750	2190
2024/25	720	173	893

### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	4200	2190	4550	10940
2024/25	1616	893	1616	4125

#### 12.2.4 Option 4 Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Outpatient assessments and inpatients treatments are performed on the same site
- Reduces the backlog by 517 patients waiting

#### 12.2.5 Option 4 Risks

The specific risks associated with this option are:

- Loss of experienced and well trained staff at the Vanguard Unit (low risk following mitigation actions)
- Reduction in training capacity across the region (medium risk following mitigation actions)
- Reduced capacity to treat more complex patients (medium risk following mitigation actions)

#### 12.2.6 Option 4 Patient Considerations

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will remain at current levels. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

### 12.2.7 Option 4 Costs

Option 4 costs are shown here

#### Option 4: POW and NHH weekends without Vanguard

Revenue Costs

2023/24

Host Health Board	Delivery	Outpatients	Outpatients	Surgical Procedures	Surgical Procedures	Total Estimated Costs
		Activity	Cost	Activity	Cost	
Aneurin Bevan	Insource Weekend	1,500	£258,032	1,500	£1,843,811	£2,101,843
Cwm Taf	Insource Weekend	1,500		1,500	£2,200,500	£2,200,500
External	Outsource	2,000	316,000	2,000	2,379,333	2,695,333
Regional Operational Team						£524,453
<b>TOTAL</b>		<b>5,000</b>	<b>£574,032</b>	<b>5,000</b>	<b>£6,423,644</b>	<b>£7,522,129</b>

Indicative Cost per Patient

£1,504

Costing assumptions-

- Cost assumptions are based on locally provided figures
- Insource cost estimates are based on Framework expectation of PbR plus 10% but will depend on casemix and provider
- Outsourcing estimates are based on PbR with an element for transport but dependent on casemix and provider

### 12.2.8 Option 4 Activity Modelling

This scenario is based on the following assumptions for year 1:

- 9,960 referrals per year (192 per week, 830 per month)
- 10,940 cataracts procedures per year (202 per week, 874 per month)
- 10,940 outpatients per year (202 per week, 874 per month)

After 52 weeks of the total capacity of 10,940 per year the waiting list is reduced from 19,000 across the region to 18,483

*Further details on Option 4 can be found in Appendix Seven*

## 13. Option 5 – Outsourcing

The option involves outsourcing the whole additional capacity. By using outsourcing only, the demands on the regional booking and scheduling team also reduce. It is unlikely that one supplier would be able to fulfil the whole 5,000 procedures per year and so it would be split across different providers with the following volumes over a 12 month period:

- An additional 5,000 outsourced outpatient and inpatient procedures
- Total core 5,940
- **Plus 5,000 additional**
- **Total capacity 10,940 per year**
- Waiting list reduction 517 (from 19,000 to 18,483)
- Total costs 23/24: £7m
- Cost per patient: £1,410

### 13.1 Option 5 – Clinical and Service Model

#### 13.1.1 Outsourcing Arrangements

Outsourcing can relieve some of the management and back office administrative time associated with working through the backlog as the booking and scheduling, record keeping, outpatient and inpatient activity are all supplied as part of the contract. In this way the outsourcing opportunities also represent value for money and free up valuable resources for allocation towards the management of the core capacity and the insourcing arrangements. Through this option 5,000 cases are outsourced. Outsourcing arrangements and costs include patient travel.

Patients are reviewed by a non-clinical administrator for their suitability for outsourcing and then referred on to the outsourcing company for assessment and treatment.

Communication with the patient about booking and scheduling and locations are conducted by the outsourcing company. Follow ups post-surgery are conducted in primary care.

Hospital patient records are updated.

#### 13.1.2 Booking and scheduling For Option 5 (Outsourcing)

In one year the team would need to facilitate 5,000 outsourced patients and ensure records are kept up to date and that these patients are suitable for the outsourcing route.

#### 13.1.3 Option 5 Assumptions

- Shared PTL across the region
- Share of regional capacity based on percentage split of over 52 week waiters
- 52 weeks waiters numbers under monthly review and capacity adjusted accordingly
- Regional booking team may not all be based in one place
- IT solutions will need to be worked through
- Outsourcing contracting will be done at a National level
- Outsourcing may be through a number of providers

- That outsourcing capacity will be available in the market through contracting arrangements
- Outsourcing company(ies) to carry out enough outpatient assessments to treat 5,000 patients
- Effective clinical governance arrangements

### 13.2 Option 5 – Option Appraisal

#### 13.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Capacity (outsourced)	Total	Average Demand	Difference
AB	2400	36%	1800	<b>4200</b>	4080	120
CAV	1440	15%	750	<b>2190</b>	1800	390
CTM	2100	49%	2450	<b>4550</b>	4080	470
Regional Total	5940		5000	<b>10940</b>	9960	980

#### 13.2.3 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total
2023/24	2400	1800	4200
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total
2023/24	1920	180	2450	4550
2024/25	960	90	566	1616

#### CAV Patients

	Core: CAV In House	CAV 15%	CAV Total
2023/24	1440	750	2190
2024/25	720	173	893

#### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	4200	2190	4550	10940
2024/25	1616	893	1616	4125

### 13.2.4 Option 5 Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Outpatient assessments and inpatients treatments are performed on the same site
- Additional capacity delivered at reduced costs from insourcing
- Reduces the backlog by 517 patients waiting

### 13.2.5 Option 5 Risks

The specific risks associated with option 2 are:

- Loss of experienced and well trained staff at the Vanguard Unit (medium risk following mitigation actions)
- Reduction in training capacity across the region (medium risk following mitigation actions)
- Reduced capacity to treat more complex patients (medium risk following mitigation actions)
- Increased number of patients required to travel further for treatment

### 13.2.6 Option 4 Patient Considerations

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will remain at current levels.

This option is for outsourcing activity where patients who meet the criteria for this additional capacity would be directed to outsourcing for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and outsourcing capacity provision. This option also includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity does not include patient travel contributions.

### 13.2.7 Option 5 Costs

#### Option 5: Outsourcing Only

Revenue Costs

2023/24

Host Health Board	Delivery	Outpatients	Outpatients	Surgical Procedures	Surgical Procedures	Total Estimated Costs
		Activity	Cost	Activity	Cost	
External	Outsource	5,000	£790,000	5,000	£5,948,333	£6,738,333
Regional Operational Team						£312,427
<b>TOTAL</b>		<b>5,000</b>	<b>£790,000</b>	<b>5,000</b>	<b>£5,948,333</b>	<b>£7,050,760</b>

Indicative Cost per Patient

£1,410

### 13.2.8 Option 5 Activity Modelling

The assumptions used in this option are the same as in option 4, as the capacity stays the same but the mode of delivery changes.

After 52 weeks of the total capacity of 10,940 per year the waiting list is reduced from 19,000 across the region to 18,483

*Further details on Option 5 can be found in Appendix Eight*

## 14. Preferred Option

### 14.1 Preferred Option

The preferred option is option XX

[set out the option here]

### 14.2 Options Assessment Criteria

Options have been assessed through a series of workshops with members of the Regional Ophthalmology Programme Board and wider Planning, Finance, Operational and Clinical colleagues.

The criteria for assessing the options agreed by the Regional Ophthalmology Programme Board is:

<b>Strategic Fit (20%)</b>	<b>Financial Viability (35%)</b>	<b>Operational Feasibility (45%)</b>
How well the options fit with: <ul style="list-style-type: none"> <li>❖ The aims of the business case</li> <li>❖ The aims of the Ophthalmology Strategy</li> <li>❖ The HB IMTP's</li> <li>❖ The wider Local/national plans</li> </ul>	For each option: <ul style="list-style-type: none"> <li>❖ Relative cost per case</li> <li>❖ Level of risk of financial inefficiencies</li> </ul>	The extent that each option: <ul style="list-style-type: none"> <li>❖ Can be delivered</li> <li>❖ Impacts existing services</li> <li>❖ Mitigates clinical risk</li> <li>❖ Achieves operational goals</li> </ul>

## 15.Summary

The business case demonstrates a clear need for additional capacity for cataracts assessment and surgery in the South East Wales Region. By working together the three health boards can provide this capacity for patients and deliver the benefits described in the case.

This business case has strong strategic links with the National Planned Care goals, the Ophthalmology GIRFT Programme report and the Royal College of Ophthalmologists External Review of Eye Care Services in Wales and contributes towards the delivery of reducing waiting times for patients.

The additional capacity addresses the significant backlog in this area and provides the headroom necessary to plan and implement longer term sustainable solution and to demonstrate the successes of regional working. This business case enables the region to maximise the existing capacity available on our hospital sites and more provide timely care to patients regardless of where they live within the region.

The table below summarises the options

### High level Financials

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Core Capacity	5,940	5,940	6,120	6,120	5,940	5,940
Additional Regional Capacity	0	8668	7,700	9,310	5,000	5,000
Total Capacity	5,940	14,608	13,820	15,430	10,940	10,940
Total Revenue Costs	£0	£12.4m	£10.5m	£12.4m	£7.5m	£7m
Total Capital Costs	£0	£0	£2.4m	£2.4m	£0	£0
Total Costs (Capital + Revenue)	£0	£12.4m	£12.9m	£14.8m	£7.5m	£7m
Cost per patient	n/a	£1,436	£1,672	£1,594	£1,504	£1,410

## 16. Interdependencies

The interdependencies identified through this work are:

- Stabilising and protecting core capacity in CAV
- Stabilising and protecting core capacity in CTM
- Stabilising and protecting core capacity in AB
- Commissioners –appropriate commissioning frameworks to be developed
- Capital funding required for Vanguard.

## 17. Implementation Plans

The implementation plan for the business case is shown below.

### Outline Plan



		Weeks Past Funding Agreement	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Workstream</b>	<b>Action</b>												
Contracting	Agree requirements		█											
	Issue requirements			█	█	█	█	█						
	Review proposals							█	█					
	Award Contract									█				
Site Set up & Equipment	Finalise space requirements		█											
	Order Equipment			█	█	█								
	HSDU Capacity						█	█	█	█	█	█		
Recruitment	Issue JD's		█	█										
	Appoint staff				█	█	█	█						
	Staff Training								█	█	█	█		
IT and Systems	Detail IT design		█	█	█									
	Build and Test				█	█	█	█	█	█	█	█		
	Implement IT links								█	█	█	█		
Patient Appointments	Set up waiting list sharing		█	█	█	█	█	█	█	█				
	Identify and invite patients						█	█	█	█				
Go Live	Testing										█	█	█	
	Go Live													█

### Implementation

The Implementation of this business case is a priority across Health Boards and the outline plan above is for a 12 week implementation phase prior to go live. This will be an intensive phase of activity across the health boards and will require an additional project manager to

work full time on this work as part of the programme. There will likely be a soft launch of the additional capacity and time significantly beyond the 12 weeks will be required to embed the new models and make improvements to processes. As part of the wider Regional Programme proposals for a regional Vitreo-Retinal hub service need to be planned and implemented early in the calendar year to support the complications arising from the cataract service and so additional project support and a dedicated clinical lead is required for the programme.

## 18.Approvals

<b>Timeframe</b>	<b>Date</b>	<b>Decision</b>
Completion by the working group	Wednesday 16 <sup>th</sup> November	Agreement to go forward to Ophthalmology Programme Board
Ophthalmology Programme Board	12 <sup>th</sup> December	Approved to go forward to next stage
Regional Portfolio Delivery Board	5 <sup>th</sup> January	
Regional Portfolio Oversight Board	13 <sup>th</sup> January	
Management Execs x 3		
Welsh Gov Submission		

## Appendix One: Financials

### Option 4 - Weekend Insourcing and Outsourcing Only

Option 2: Use of NHH and POWH and not retaining Vanguard

Revenue Costs

2023/24

Host Health Board	Delivery	Outpatients		Surgical Procedures		Total Estimated Costs
		Activity	Cost	Activity	Cost	
Cardiff and Vale						
Aneurin Bevan	Insource	1,500	£246,182	1,500	£1,711,811	£1,957,993
Cwm Taf	Insource	1,500	£246,182	1,500	£1,711,811	£1,957,993
External	Outsource	2,000	£316,000	2,000	£2,379,333	£2,695,333
Regional Operational Team						£581,709
<b>TOTAL</b>		<b>5,000</b>	<b>£808,364</b>	<b>5,000</b>	<b>£5,802,955</b>	<b>£7,193,028</b>

Indicative Cost per Patient

£1,439

2024/25

Host Health Board	Delivery	Outpatients		Surgical Procedures		Total Estimated Costs
		Activity	Cost	Activity	Cost	
Cardiff and Vale	Insource					
Aneurin Bevan	Insource	280	£45,954	280	£319,538	£365,492
Cwm Taf	Insource	280	£45,954	280	£319,538	£365,492
External	Outsource	875	£138,250	875	£1,040,958	£1,179,208
Regional Operational Team						£229,441
<b>TOTAL</b>		<b>1,435</b>	<b>£230,158</b>	<b>1,435</b>	<b>£1,680,034</b>	<b>£2,139,633</b>

### Option 5 - Outsourcing

Option 3: Outsourcing

Revenue Costs

2023/24

Host Health Board	Delivery	Outpatients		Surgical Procedures		Total Estimated Costs
		Activity	Cost	Activity	Cost	
External	Outsource	5,000	£790,000	5,000	£5,948,333	£6,738,333
Regional Operational Team						£240,103
<b>TOTAL</b>		<b>5,000</b>	<b>£790,000</b>	<b>5,000</b>	<b>£5,948,333</b>	<b>£6,978,436</b>

Indicative Cost per Patient

£1,396

2024/25

Host Health Board	Delivery	Outpatients		Surgical Procedures		Total Estimated Costs
		Activity	Cost	Activity	Cost	
External	Outsource	875	£138,250	875	£1,040,958	£1,179,208
Regional Operational Team						£120,052
<b>TOTAL</b>		<b>875</b>	<b>£138,250</b>	<b>875</b>	<b>£1,040,958</b>	<b>£1,299,260</b>

## Appendix Two: Options Appraisal details

The following six options were considered as part of the options appraisal.

# Business Case Options Appraisal Criteria



**Offthalmoleg Ardal  
De-ddwyrain Cymru  
South East Wales  
Regional Ophthalmology**

The options developed in the business case will be assessed through separate financial and non-financial appraisals. The proposed criteria for assessing non-financial options in the business case is set out below

Domain	Weight	Principles	Business Case Aims
Quality & safety	35%	Evidences a reduction in unwarranted variation and inequality in health outcomes, access to services and experience at a regional population level. Evidences patient safety, quality and/or compliance issues Evidences any poor benchmarking indicators across the region are being addressed.	to address current waiting list backlogs to reduce clinical risk on an equitable basis across the region
Effective use of resources	10%	Makes effective use of capacity and capability across the region Evidences a direct link to one or more operational 'targets' for HBs and/or region	to provide additional regional capacity for cataract outpatient and inpatient stages to demonstrate optimal utilisation of our assets across the region Deliver value for money
Strategic Fit	10%	Evidence of fit with national clinical strategies and professional reviews Evidences a direct link to improving population health Evidences a direct link to key national policy / frameworks / legislation	to enact a collaborative regional approach to recovery
Sustainability	15%	Evidences improved sustainable service resilience. Evidences a link to the NHS Wales decarbonization agenda	Protect the viability of the core capacity
Access	10%	To agree approaches to engagement and communications together.	Keep patient travel to a minimum
Deliverability	20%	Evidence that benefits, measures and a critical path for delivery is understood and achievable.	Be mobilised quickly Be deliverable with the resources available

Method: There are six options in the business case, each Health board will assess each option against each domain and award a score between 1-5 (5 fully meets, 1 does not meet). The scores will be combined to determine the preferred option.

Results of the Options appraisal are shown below

Regional Cataracts Business Case AB, CAV, CTM

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Cardiff and Vale	1.65	3.10	4.00	4.25	1.85	1.65
Cwm Taf Morgannwg	1.60	4.30	3.70	4.35	2.30	2.00
Aneurin Bevan	1.80	3.35	3.30	3.55	2.15	2.15
Total	5.05	10.75	11.00	12.15	6.30	5.80

## Appendix Three: Option 1 Details

This option involves providing no further funding and resources to cataract surgery across the region at this stage. Each health board will continue with only their planned core capacity and there will be no sharing of patient treatment lists (PTL's). The Vanguard rental will end on 31<sup>st</sup> March 2023 following the two month short term regional arrangement.

### 8.1.1 Core capacity

The annual core capacity of each Health Board is shown below

	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	<b>Regional Total Core</b>	Regional Demand	Difference
2023/24	2400	1920	180	1440	5940	9,960	-4,020

### 8.1.2 Option Assumptions

This option is based on the following assumptions

- Use of Vanguard ends by March 31<sup>st</sup> 2023
- Capacity in CTM and AB for 23/24 remains at 2022 activity levels
- CAV have 7.5 sessions in main theatres to undertake core cataracts activity, reverting to pre-Vanguard capacity.

## 8.2 Option 1 – Option Appraisal

### 8.2.1 Option 1 Benefits

The high level benefits identified above (section 6.1) are foregone in this option. The benefits identified for this option are listed below

- No changes to the way that services are currently run
- No management capacity required to organise additional services
- No direct costs

### 8.2.2 Option 1 Risks

The specific risks associated with option 1 are:

- Demand continues to outstrip supply (high risk as business case is mitigation action)
- Backlogs will continue to grow (high risk as business case is mitigation action)
- Planned Care target will be missed (high risk as business case is mitigation action)
- Increased proportions of higher complexity patients as waiting times are increased (medium risk as business case is mitigation action)
- Loss of experienced and well trained staff at the Vanguard Unit (medium risk as

- business case is mitigation action)
- Reduction in training capacity across the region (medium risk as business case is mitigation action)
- Increases the backlog by 4,046 patients (high risk as business case is mitigation action)

### **8.2.3 Option 1 Patient Considerations**

Through this option all patients will continue to be treated by their home health board. They will be treated within their own health board boundary but are likely to have to wait more than 1 year for assessment and treatment. As patient waits lengthen, the risk increases of patients coming to harm while waiting.

### **8.2.4 Option 1 costs**

There are no direct costs associated with this option

Indirect costs include:

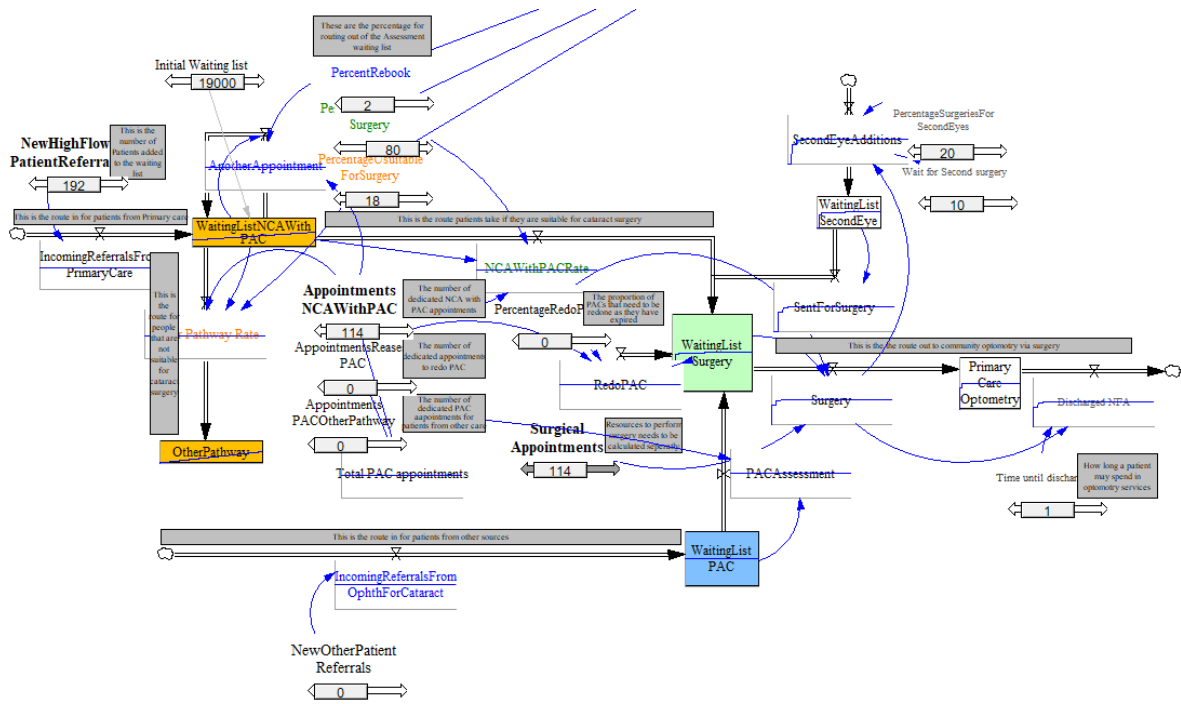
- Increased reliance on WLI's / agency staff
- Increased patient complaints
- Multiple patient referrals as primary care escalate patients due to deterioration
- Additional waiting list validation required
- Increased costs of complications as patient complexity increases

### **8.2.5 Option 1 Activity Modelling**

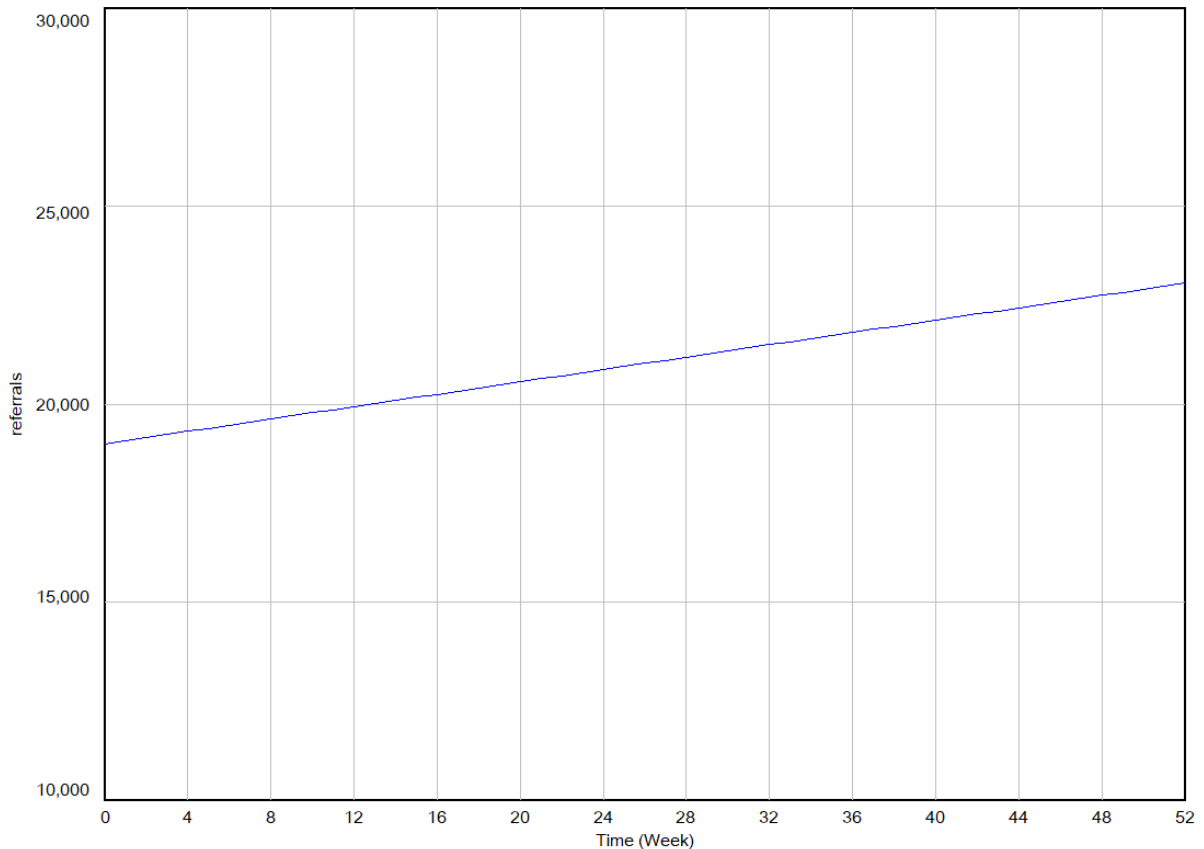
This scenario is based on the following assumptions for year 1:

- 5,940 cataracts procedures per year (114 per week, 495 per month)
- 5,940 outpatients per year (114 per week, 495 per month)
- 9,960 referrals per year (192 per week, 830 per month)

# Regional Cataracts Business Case AB, CAV, CTM



Waiting List for NCAWithPAC



After 52 weeks of the total capacity of 5,940 per year the waiting list is increased from 19,000 across the region to 23,046

## Appendix Four: Option 2 Details

Option 2 is an NHS recruitment, insourcing and outsourcing option involving a two-hub model of NHH in the North and POWH in the South. At both sites the weekday and weekend capacity is utilised, along with outsourcing in the following volumes over a 12 month period:

- North Hub Weekdays: 1610 outpatient assessment and inpatient procedures carried out in weekdays in NHH using NHS staffing
- North Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- South Hub: 3,558 (2,058 weekdays plus 1,500 weekends) outpatient assessment and inpatient procedures carried out by an insourcing company in POWH
- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 5,940
- **Plus 8,668 additional**
- **Total capacity 14,608 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24: £12.4m
- Cost per patient: £1,436

### 9.1. Option 2 - Clinical and Service Model

The Clinical Model includes an outpatient stage and inpatient stage.

At the outpatient stage the clinical teams review the patients, determine their suitability for surgery and conduct pre-operative assessments. Through the proposed model this will be carried out during a single patient visit.

At the inpatient stage patient receive their cataract surgery. Following surgery patients are discharged to Primary Care. Primary Care advisors have confirmed that no additional resource is required in primary care at present for the additional capacity as it will be adequately dispersed amongst optometric practices across the region.

#### 9.1.1 Clinical Service Model North Hub (NHH)

The North hub would primarily provide outpatient and inpatient provision to patients primarily in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny as the regional geography suits.

*Weekdays: Outpatients Stage (NHS Staff)*

Patients will be booked into the additional capacity for outpatients in NHH via the regional booking and scheduling team (see section 5.4)

In order to undertake 135 outpatient appointments per month (38 per week, 1,620 per year) the sessions will be a 'one stop shop' model, held on weekdays in the OP dept in NHH.

4 consulting rooms will be required plus a waiting area. This weekday activity will be staffed through recruitment of NHS staff for all of the clinical and not clinical staff required.

*Weekends: Outpatient Stage (Insourcing Staff)*

Patients will be booked into the additional capacity for outpatients in NHH via the regional booking and scheduling team (see section 5.4)

In order to undertake 125 outpatient appointments per month (30 per week, 1,500 per year) the sessions will be a 'one stop shop' model, held on a Saturday in the OP dept in NHH. 4 consulting rooms will be required plus a waiting area. This will be staffed through an insourcing company

Assuming that the required clinical staff including Consultants, PAC nurse and biometry staff will be provided by the Insourcing provider, the following additional staff will also be required to run weekly Saturday OP clinics for 1 year:

- 0.5 WTE Receptionist Band 2 £15,780
- 0.5 WTE Health Records Clinical Notes Band 2 £15,780
- 0.5 WTE Governance Nurse band 6 £29,372

Other non staff requirements for the OP sessions are

- Cleaning (Saturday) £7500

Lenses will be also ordered at this point if the patient is suitable for surgery. Costs of lenses will be included in the Inpatient section.

*Outpatients Clinical Model*

These patients are taken from new or stage 1 waiting list. During the one-stop session, patients are:

- Ophthalmic history/general medical history/medication/family history/allergies
- Vision
- Anterior segment examination
- Biometry +/- corneal topography
- Pupil dilatation
- Posterior segment examination by ophthalmologist
- Choose intraocular lens/refractive plan
- Cataract care pathway checklist completed
- Consented for surgery

*Weekdays; Inpatient Stage (NHS Staff)*

Patients attending the weekday regional capacity for cataract surgery in the North Hub will be booked through the regional booking team (see section 6.4). They will also have had their OP assessment through the North hub weekday arrangements in NHH with NHS staff.

In order to undertake 38 procedures per week (135 per month, 1,610 per year) the procedures will be undertaken in Main Theatres at NHH on weekdays, Mondays and Wednesday to Friday.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity.

*Weekends: Inpatient Stage (Insourcing Staff)*

Patients attending the weekend regional capacity for cataract surgery in the North Hub will be booked through the regional booking team (see section 6.4). They will also have had their OP assessment through the North hub weekend arrangements in NHH with insourcing staff.

In order to undertake 30 procedures per week (125 per month, 1,500 per year) the procedures will be undertaken in Main Theatres at NHH on Saturdays and Sundays.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity.

Assuming that all of the clinical staff required for the surgery and recovery are provided by the insourcing company (Consultants, Nurses, HCSW's) then the following additional staff are required to support the service model:

- 0.6 WTE Receptionist Band 2 £18,936
- 0.6 WTE Health Records Clinical Notes Band 2 £18,936
- 0.6 WTE Governance Nurse band 6 £35,246

*Non-Staff Requirements*

Other non-staff requirements for the Inpatient sessions are:

Weekends
Cleaning / Waste / Facilities - £47,883

HSDU costs (Including transport) - £30,000
Purchase of additional surgical trays and equipment - £38,284
Stellaris Handpieces- £87,500
Pharmacy costs, Lens and consumables - £224,310
Additional lens costs £7,716

### 9.1.2 Clinical Service Model South Hub (POWH)

Through Option 2 the South Hub would provide outpatient and inpatient provision for patients in the south of the region. The outpatient and inpatient provision will be delivered from Princess of Wales Hospital site on weekdays and weekends via an insourcing company with one weekday session per week provided by NHS staff.

#### *Weekdays: Outpatient Stage*

During Weekdays the outpatient stage will be undertaken through insourcing with all clinical staff provided by the insourcing company. Outpatient assessments will be carried out during evenings on the POWH site. Two pre assessment rooms are available.

#### *Weekends: Outpatient Stage*

The POWH site has two pre-assessment rooms which can be used concurrently during weekends during 2023/24. Each room would house one pre-assessment nurse each, and both could be serviced with one doctor in clinic. All the clinical staff would be provided through the insourcing company. In one session using two PAC nurses concurrently, 10 patients could be assessed.

#### *Staff Recruitment*

In addition the staffing costs for running outpatient clinics evenings and weekends would be:

Weekends
<ul style="list-style-type: none"><li>• 0.5 WTE B2 Receptionist</li><li>• 0.5 WTE B3 Booking</li><li>• 0.5 WTE B6 Governance Nurse</li></ul>

#### *Non- staffing costs*

- Cleaning for evenings and weekends

*Outpatient Clinical Model*

Patients are taken from new or stage 1 waiting list. During the one-stop session, patients are:

- Ophthalmic history/general medical history/medication/family history/allergies
- Vision
- Anterior segment examination
- Biometry +/- corneal topography
- Pupil dilatation
- Posterior segment examination by ophthalmologist
- Choose intraocular lens/refractive plan
- Cataract care pathway checklist completed
- Consented for surgery

*Weekdays: Inpatient Stage (Insourcing, plus 1 NHS staffed session)*

Patients accessing the additional capacity for weekday insourcing in the South Hub will be booked through the regional booking team (see section 5.4). They will also have had their OP assessment through the South hub weekday arrangements in POWH.

POWH has a twin theatre set up and the flow enables a maximum of 7 patients on a list for high flow low complexity patients. Running the twin theatres enables 14 patients to be seen in a morning. Weekday capacity in POWH will be achieved through 1 weekday 'in hours' session to be staffed by NHS staff and 3 evenings per week to be staffing through insourcing.

By running the two theatres on three evenings per week on weekdays, 42 patients can be seen in the evenings (total 6 sessions) plus the additional day session with 7 patients on a list totalling 49 patients per week on evenings and the 1 day session.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity

*Weekends: Inpatient Stage (Insourcing)*

Patients accessing the additional capacity for weekend insourcing in the South Hub will be booked through the regional booking team (see section 5.4). They will also have had their OP assessment through the South hub weekend arrangements in POWH.

POWH has a twin theatre set up and the flow enables a maximum of 7 patients on a list for high flow low complexity patients. Running the twin theatres enables 14 patients to be seen

in a morning. By running the two theatres on Saturdays all day and Sunday mornings, 42 patients can be seen in a weekend (total 6 sessions). This model can run for 36 weeks to treat the 1,500 patients through the insourcing.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity

#### *Staff Recruitment*

Assuming that all of the clinical staff required for the surgery and recovery are provided by the insourcing company (Consultants, Nurses, HCSW's) then the following additional staff are required to support the service model:

Weekends
<ul style="list-style-type: none"><li>• 0.6 WTE Receptionist Band 2 £18,936</li><li>• 0.6 WTE Health Records Clinical Notes Band 2 £18,936</li><li>• 0.6WTE Governance Nurse band 6 £35,246</li></ul>

#### *Non Staff Requirements*

Other non-staff requirements for the Inpatient sessions are:

Weekends
<ul style="list-style-type: none"><li>• Cleaning / Waste / Facilities - £47,883</li><li>• HSDU costs (Including transport) - £30,000</li><li>• Purchase of 45 additional surgical trays and handpieces - £239,682</li><li>• Pharmacy costs, Lens and consumables - £225,000 - This is based on a consumable pack costing £150 per patient (1500 patients )Alcon managed contract</li></ul>

### **9.1.3 Outsourcing Arrangements**

In addition to the insourcing arrangements the capacity across the region can be further increased by utilising the local opportunities for outsourcing. Outsourcing can relieve some of the management and back office administrative time associated with working through

the backlog as the booking and scheduling, record keeping, outpatient and inpatient activity are all supplied as part of the contract. In this way the outsourcing opportunities also represent value for money and free up valuable resources for allocation towards the management of the core capacity and the insourcing arrangements. Outsourcing arrangements and costs include patient travel.

- Option 2 Outsourcing @ 2,000 cases per year

#### **9.1.4 Booking and scheduling For Option 2 (Maximising the use of NHH and POWH):**

In one year the team will need to book 6,700 outpatient appointments across both the North and South Hubs and schedule 6,700 inpatient procedures and facilitate 2,000 outsourced patients. Totalling 15,400 patient bookings per year

A team of 16 booking and scheduling staff on Band 3 are required to support the regional arrangements along with a band 7 team leader and 3 waiting list managers band 5. A POWH Eye Unit Manager and NHH Eye Unit Manager is also required to manage the unit on evenings and weekends as much of the activity is happening outside of usually office hours and to ensure capacity levels are maximised.

Staff Required:

- 8 WTE Patient Schedulers Band 3
- 8 WTE Booking Clerks Band 3
- 3 WTE Waiting list managers Band 5
- 1 WTE Team Leader Band 7
- 1 WTE POWH Eye Unit Manager Band 7
- 1 WTE NHH Unit Manager Band 7

Non Staff Costs

- Facilities costs for 22 members of staff, IT costs and office space have been estimated at £90,000

#### **9.1.5 Option 2 Assumptions**

- Shared PTL across the region
- Share of regional capacity based on percentage split of over 52 week waiters
- 52 weeks waiters numbers under monthly review and capacity adjusted accordingly
- Regional booking team may not all be based in one place
- IT solutions will need to be worked through

- Insourcing and Outsourcing contracting will be done at a National level
- That insourcing and outsourcing capacity will be available in the market through contracting arrangements
- Insourcing numbers on a list to be determined by the insourcing company with annual numbers included in the contracting arrangement
- Effective clinical governance arrangements
- NHH Workforce can be fully recruited
- Patients receive pre-assessment and surgery through the same element of provision (e.g. weekend pre-assessment and weekend surgery)
- Patient eligibility criteria are to be developed and agreed
- 80% conversion rate from outpatients to surgery
- 20% of patients require a second eye
- Patients requiring second eye have one pre assessment to cover both eyes

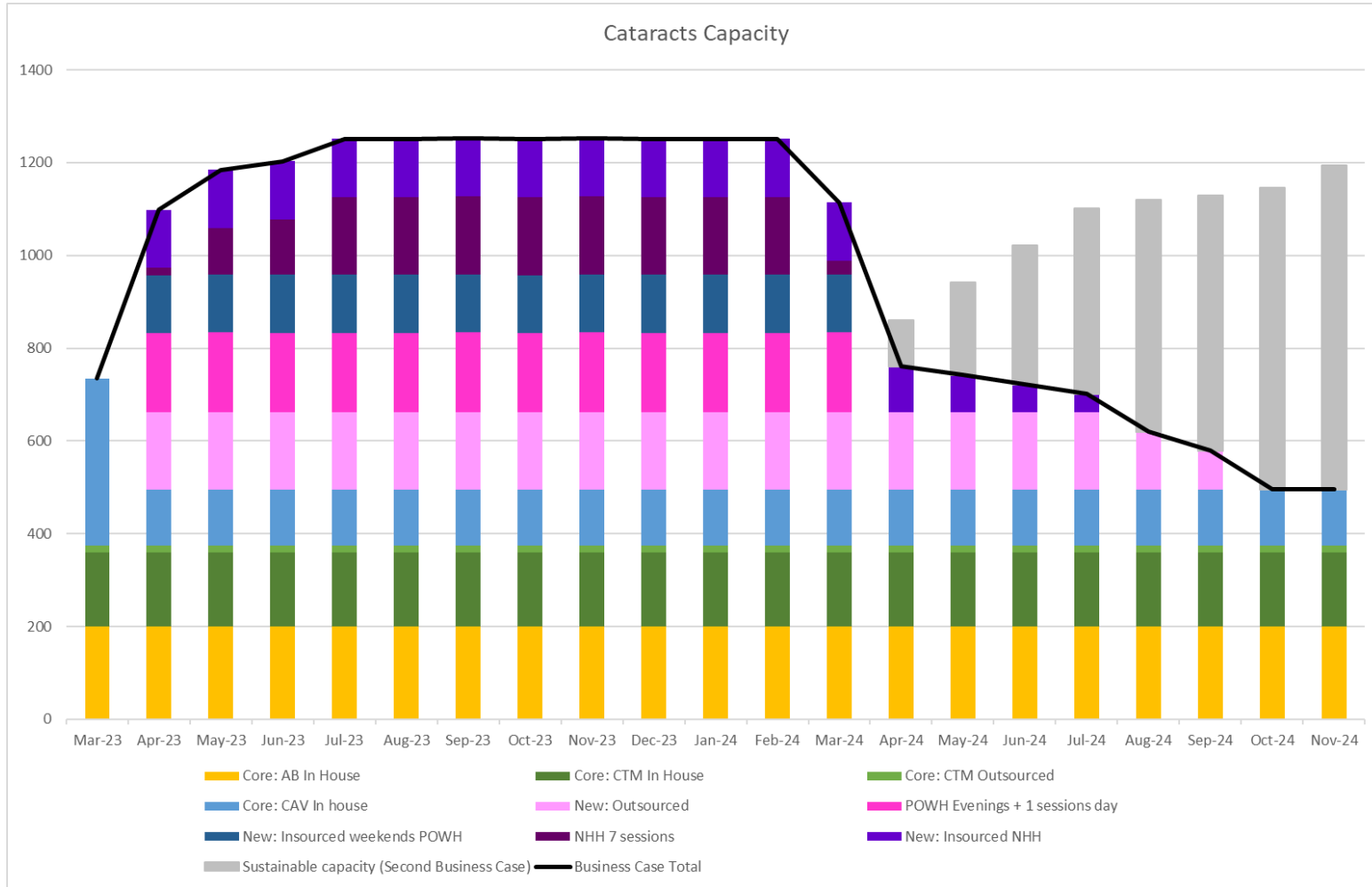
## 9.2 Option 2 – Option Appraisal

### 9.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Regional	<b>Total</b>	Average Demand	Difference
AB	2400	36%	3121	<b>5521</b>	4080	1441
CAV	1440	15%	1300	<b>2740</b>	1800	940
CTM	2100	49%	4247	<b>6347</b>	4080	2267
Regional Total	5940		8668	<b>14608</b>	9960	4648

### 9.2.2 Regional Capacity Plan

The chart below shows how the regional capacity will be delivered during 2023 and 2024. The business case will run for 12 months with a 'tail' of 6 months to enable the sustainable capacity (second business case) to build up.



	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: POWH	New: NHH	Business Case Total
2023/24	2400	1920	180	1440	2000	3558	3110	<b>14608</b>
2024/25	1200	960	90	720	875	0	280	<b>4125</b>

### 9.2.3 Regional Delivery by Site

This chart indicates the volumes that will be delivered on each site, for outpatients and for day case/inpatients

#### For Outpatients

	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: POWH	New: NHH	Business Case Total
23/24	2400	1920	180	1440	2000	3628	3120	14688
24/25	1200	960	90	720	875	0	280	4125

#### For Inpatients

	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: POWH	New: NHH	Business Case Total
23/24	2400	1920	180	1440	2000	3558	3110	14608
24/25	1200	960	90	720	875	0	280	4125

### 9.2.4 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

## Regional Cataracts Business Case AB, CAV, CTM

	Core: AB In House	AB 39%	AB Total from this business case
2023/24	2400	3121	5521
2024/25	1200	416	1616

### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total from this business case
2023/24	1920	180	4247	6347
2024/25	960	90	566	1616

### CAV Patients (estimated)

	Core: CAV In house	CAV 15%	CAV Total from this business case
2023/24	1440	1300	2740
2024/25	720	173	893

### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	5521	2740	6347	14608
2024/25	1616	893	1616	4125

### 9.2.5 Option 2 Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Recruiting additional NHS workforce for NHH
- Provides a solid base to develop the sustainable regional solution
- Fully utilised the POWH Eye Unit 7 days per week
- Enables a greater reduction in the backlog
- No additional capital required
- Reduces the backlog by 4,648 patients waiting

### 9.2.6 Option 2 Risks

The specific risks associated with option 2 are:

- High volumes of surgery through POWH Eye Unit may put a strain on equipment readiness levels (low risk following mitigation actions)
- Clinical risks and patient harm risks associated with outsourcing and insourcing capacity (low risk following mitigation actions)

### 9.2.7 Option 2 Patient Considerations

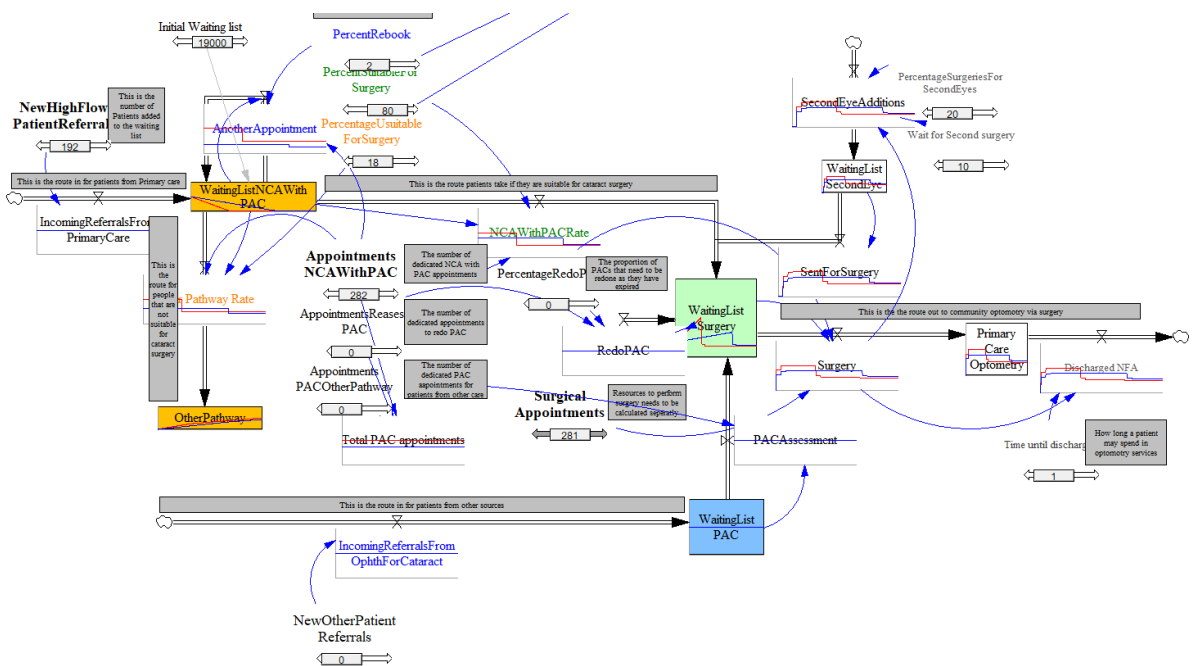
Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will start to reduce. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

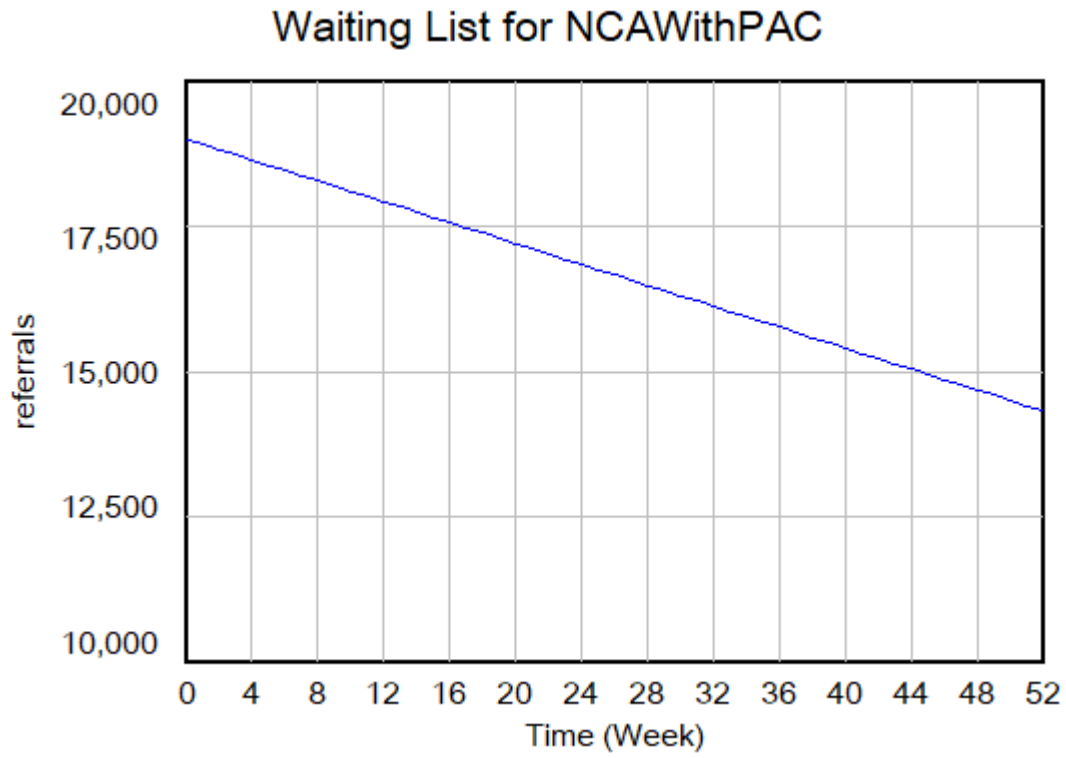
This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

### 9.2.9 Option 2 Activity Modelling

This scenario is based on the following assumptions for year 1:

- 9,960 referrals per year (192 per week, 830 per month)
- 14,608 cataracts procedures per year (281 per week, 1217 per month)
- 14,608 outpatients per year (282 per week, 1224 per month)





After 52 weeks of the total capacity of 14,608 per year the waiting list is reduced from 19,000 across the region to 14,352

## Appendix Five: Option 3a Details

### Option 3a –Vanguard and NHH

Option 3a is an insourcing and outsourcing option involving a two-hub model of NHH in the North and a combination of POWH for outpatients and Vanguard for Inpatients in the South, along with outsourcing in the following volumes over a 12 month period:

- South Hub: Retaining the weekday 20 sessions in vanguard and using 7.5 sessions for CAV core capacity (1620 patients per year, funded by CAV) and 12.5 sessions for regional capacity (2700 patients per year, regionally funded, provided by NHS staff)
- South Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in Vanguard (UHW)
- North Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 6,120
- **Plus 7,700 additional**
- **Total capacity 13,820 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24:
- Cost per patient:

#### 10.1 Option 3a - Clinical and Service Model

The Clinical Model includes an outpatient stage and inpatient stage.

At the outpatient stage the clinical teams review the patients, determine their suitability for surgery and conduct pre-operative assessments. Through the proposed model this will be carried out during a single patient visit.

At the inpatient stage patient receive their cataract surgery. Following surgery patients are discharged to Primary Care. Primary Care advisors have confirmed that no additional resource is required in primary care at present for the additional capacity as it will be adequately dispersed amongst optometric practices across the region.

##### 10.1.1 Maximising the Use of the Vanguard Unit in UHW

The Vanguard Unit in UHW is a mobile twin theatre alongside modular units for consulting, patient waiting and recovery. It is currently contracted for use for cataract surgery by CAV on a 5 day per week basis Monday to Friday with this arrangement running until 8<sup>th</sup> January 2023. As a short-term solution and to maximise the options available for this business case, the unit will be extended until 31<sup>st</sup> March 2023 and the capacity during this extension period will be divided between the three health boards in the region.

If extended, then the new contract for the Vanguard Unit will be for 7 days per week to maximise the use of the unit for the regional extension of the cataracts service. The Vanguard Unit requires capital funding.

The benefits of retaining the Vanguard Unit include the stability of staff and retaining this well trained and experienced staffing group, the ability to treat more complex patients than the insourcing and outsourcing will enable, increasing the training opportunities available across the region and providing a solid foundation for the second sustainable phase of the cataracts expansion to be based.

### **10.1.2 Clinical Service Model North Hub**

The North hub would primarily provide outpatient and inpatient provision to patients in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny.

#### *Outpatient Stage*

Patients will be booked into the additional capacity for outpatients in NHH via the regional booking and scheduling team (see section 5.4)

In order to undertake 125 outpatient appointments per month (30 per week, 1,500 per year) the sessions will be a 'one stop shop' model, held on a Saturday in the OP dept in NHH. 4 consulting rooms will be required plus a waiting area.

Assuming that the required clinical staff including Consultants, PAC nurse and biometry staff will be provided by the Insourcing provider, the following additional staff will also be required to run weekly Saturday OP clinics for 1 year:

- 0.5 WTE Receptionist Band 2 £15,780
- 0.5 WTE Health Records Clinical Notes Band 2 £15,780
- 0.5 WTE Governance Nurse band 6 £29,372

Other non staff requirements for the OP sessions are

- Cleaning (Saturday) £7500

Lenses will be also ordered at this point if the patient is suitable for surgery. Costs of lenses will be included in the Inpatient section.

#### **Clinical Model**

These patients are taken from new or stage 1 waiting list. During the one-stop session, patients are:

- Ophthalmic history/general medical history/medication/family history/allergies

- Vision
- Anterior segment examination
- Biometry +/- corneal topography
- Pupil dilatation
- Posterior segment examination by ophthalmologist
- Choose intraocular lens/refractive plan
- Cataract care pathway checklist completed
- Consented for surgery

*Inpatient Stage*

Patients accessing the additional capacity for insourcing in the North Hub will be booked through the regional booking team (see section 6.4). They will also have had their OP assessment through the North hub arrangements in NHH.

In order to undertake 30 procedures per week (125 per month, 1,500 per year) the procedures will be undertaken in Main Theatres at NHH every Saturday and Sunday.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity

Assuming that all of the clinical staff required for the surgery and recovery are provided by the insourcing company (Consultants, Nurses, HCSW's) then the following additional staff are required to support the service model:

- 0.6 WTE Receptionist Band 2 £18,936
- 0.6 WTE Health Records Clinical Notes Band 2 £18,936
- 0.6 WTE Governance Nurse band 6 £35,246

Other non-staff requirements for the Inpatient sessions are:

- Cleaning / Waste / Facilities - £47,883
- HSDU costs (Including transport) - £30,000
- Purchase of additional surgical trays and equipment - £38,284
- Stellaris Handpieces- £87,500
- Pharmacy costs, Lens and consumables - £224,310
- Additional lens costs £7,716.

### **10.1.3 Clinical Service Model South Hub Weekends (Option 1 UHW)**

Through Option 1 The South Hub would provide outpatient and inpatient provision for patients in the south of the region. The outpatient and inpatient provision will be delivered from University Hospital of Wales on weekends via an insourcing company

#### *Outpatients Stage (Weekend Insourcing in UHW)*

The UHW site has two pre-assessment rooms which can be used concurrently during weekends during 2023/24. Each room would house one pre-assessment nurse each, and both could be serviced with one doctor in clinic. All the clinical staff would be provided through the insourcing company. In one session using two PAC nurses concurrently, 10 patients could be assessed.

In addition the staffing costs for running outpatient clinics evenings and weekends would be:

- 0.5 WTE B2 Receptionist
- 0.5 WTE B3 Booking
- 0.5 WTE B6 Governance Nurse

Non- staffing costs are

- Cleaning

### **Clinical Model**

These patients are taken from new or stage 1 waiting list. During the one-stop session, patients are:

- Ophthalmic history/general medical history/medication/family history/allergies
- Vision
- Anterior segment examination
- Biometry +/- corneal topography
- Pupil dilatation
- Posterior segment examination by ophthalmologist
- Choose intraocular lens/refractive plan
- Cataract care pathway checklist completed
- Consented for surgery

#### *Inpatient Stage (Weekend Insourcing in Vanguard Unit UHW)*

Patients accessing the additional capacity for insourcing in the South Hub will be booked through the regional booking team (see section 5.4). They will also have had their Outpatient assessment through the South hub insourcing arrangements in UHW.

In the Vanguard theatres the flow enables a maximum of 7 patients on a list for high flow low complexity patients. Running the twin theatres enables 14 patients to be seen in a

morning. By running the two theatres for AM and PM on Saturdays and AM on Sundays 42 patients can be seen in a weekend (total 6 sessions). This model can run for 36 weeks to treat the 1,500 patients through the insourcing.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity

Assuming that all of the clinical staff required for the surgery and recovery are provided by the insourcing company (Consultants, Nurses, HCSW's) then the following additional staff are required to support the service model:

- 0.33WTE Receptionist Band 2 £TBC
- 0.33WTE Health Records Clinical Notes Band 2 £TBC
- 0.33WTE Governance Nurse band 6 £TBC
- 1 wte Manager 8b (included in section 8.1.5)

Other non-staff requirements for the Inpatient sessions are:

- Cleaning / Waste / Facilities
- HSDU costs - £TBC
- Purchase of 45 additional surgical trays and handpieces - £239,682
- Pharmacy costs, Lens and consumables - £225,000 - This is based on a consumable pack costing £150 per patient (1500 patients )Alcon managed contract

#### **10.1.4 Additional Vanguard Capacity for the Region**

This option includes the additional Vanguard capacity for the region. The Vanguard Unit surgical capacity and the associated outpatient capacity required to run the service would continue to operate as it has since January 2022, retaining the same staff, maintaining the same list size, training opportunities and job plans as are currently in place and operational Monday to Friday for 20 sessions per week across the twin theatre arrangement. Through this option this existing service model would be retained until March 2024.

One third of the capacity would be for Cardiff and Vale core capacity funded by Cardiff and Vale and the other two thirds would be available to the regional patients and funded by this regional business case.

As it is currently set up, the Vanguard Unit treats more complex patients that the outsourcing and insourcing capacity can. The unit will continue to treat the same complexity

of patient and clinical criteria will need to be developed to determine the referral criteria for the regional proportion of the Unit.

Under this model, patients treated in the Vanguard unit will have their outpatient assessment on the UHW site on a weekday and this will continue to run as it currently is with the Cardiff and Vale staff and estates.

#### **10.1.5 Outsourcing Arrangements**

In addition to the insourcing arrangements the capacity across the region can be further increased by utilising the local opportunities for outsourcing. Outsourcing can relieve some of the management and back office administrative time associated with working through the backlog as the booking and scheduling, record keeping, outpatient and inpatient activity are all supplied as part of the contract. In this way the outsourcing opportunities also represent value for money and free up valuable resources for allocation towards the management of the core capacity and the insourcing arrangements. Outsourcing arrangements and costs include patient travel.

- Outsourcing @ 2,000 cases per year

#### **10.1.6 Booking and scheduling For Option 3a (Vanguard Capacity and North Hub NHH Weekends):**

In one year the team will need to book 5,900 outpatient appointments across both the North and South Hubs and schedule 5,900 inpatient procedures and facilitate 2,000 outsourced patients.

A team of 14 booking and scheduling staff on Band 3 are required to support the regional arrangements along with a band 7 team leader and 3 waiting list managers band 5. A Vanguard Unit Manager and NHH Eye Unit Manager are also required to manage the unit and to ensure capacity levels are maximised.

Staff Required:

- 7 WTE Patient Schedulers Band 3
- 7 WTE Booking Clerks Band 3
- 3 WTE Waiting list managers Band 5
- 1 WTE Team Leader Band 7
- 1 WTE Vanguard Unit Manager Band 8b
- 1 WTE NHH Eye Unit Manager Band 7

Non Staff Costs

- Facilities costs for 20 members of staff, IT costs and office space have been estimated at £90,000

### 10.1.7 Option 3a Assumptions

- Shared PTL across the region
- Share of regional capacity based on percentage split of over 52 week waiters
- 52 weeks waiters numbers under monthly review and capacity adjusted accordingly
- Regional booking team may not all be based in one place
- IT solutions will need to be worked through
- Insourcing and Outsourcing contracting will be done at a National level
- That insourcing and outsourcing capacity will be available in the market through contracting arrangements
- Insourcing numbers on a list to be determined by the insourcing company with annual numbers included in the contracting arrangement
- Effective clinical governance arrangements
- Vanguard workforce can continue into 23/24
- NHH Workforce can be fully recruited
- Patients receive pre-assessment and surgery through the same element of provision (e.g. weekend pre-assessment and weekend surgery)
- Patient eligibility criteria are to be developed and agreed
- 80% conversion rate from outpatients to surgery
- 20% of patients require a second eye
- Patients requiring second eye have one pre assessment to cover both eyes

## 10.2 Option 3a – Option Appraisal

### 10.2.1 Additional Regional Capacity

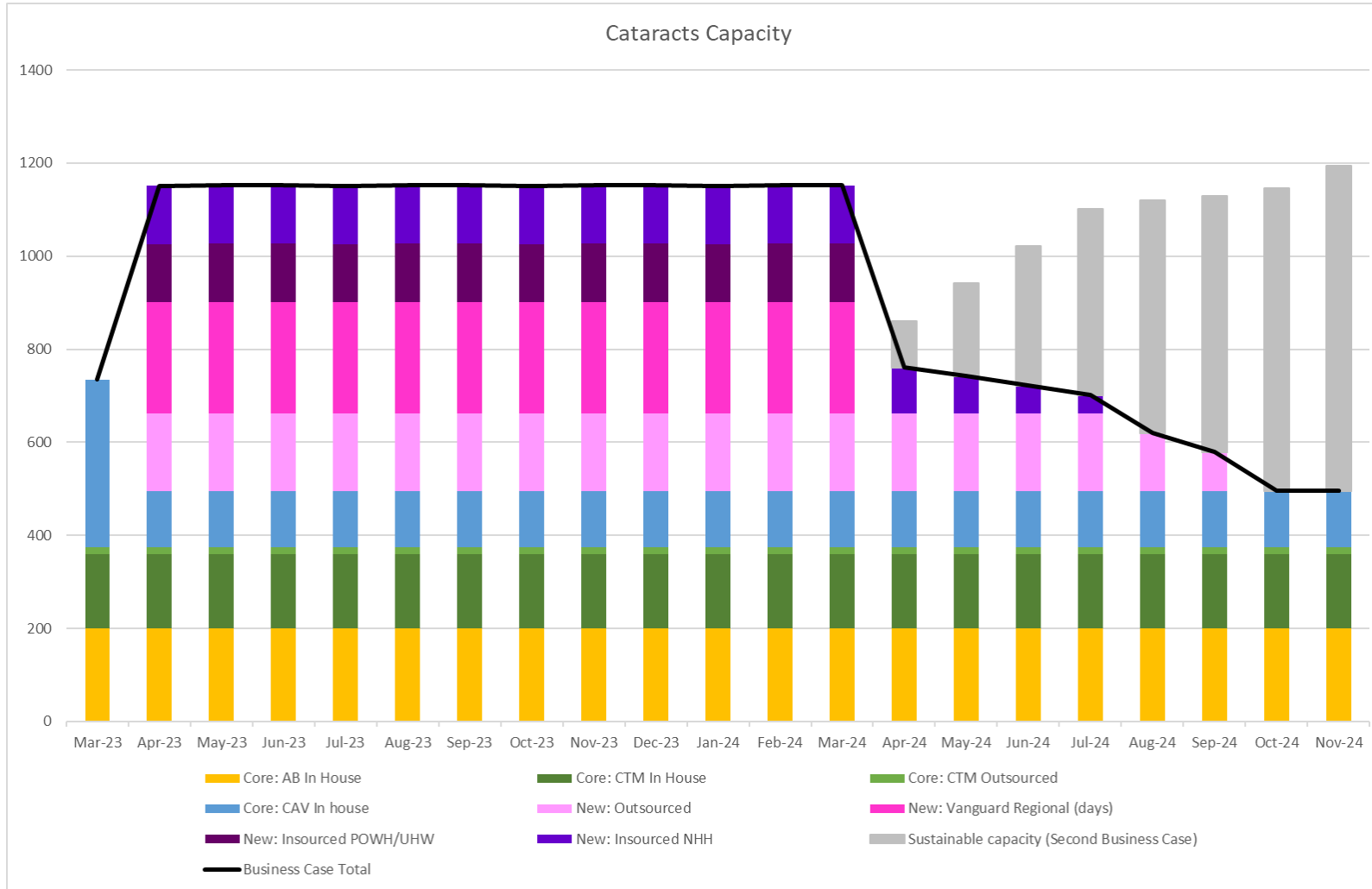
Capacity	Core Annual	Additional Capacity %	Additional Vanguard	Additional Capacity	Total	Average Demand	Difference
AB	2400	36%	1037	1800	<b>5237</b>	4080	1157
CAV	1440*	15%	432	750	<b>2622</b>	1800	822
CTM	2100	49%	1411	2450	<b>5961</b>	4080	1881
Regional Total	5940		2880**	5000	<b>13820</b>	9960	3860

\*one third of 4320

\*\*two thirds of 4320

### 10.2.2 Regional Capacity Plan

The chart below shows how the regional capacity will be delivered during 2023 and 2024. The business case will run for 12 months with a 'tail' of 6 months to enable the sustainable capacity (second business case) to build up.



Regional Cataracts Business Case AB, CAV, CTM

	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: Vanguard Regional (days)	New: Insourced POWH/UHW	New: Insourced NHH	Business Case Total
2023/24	2400	1920	180	1440	2000	2880	1500	1500	<b>13820</b>
2024/25	1200	960	90	720	875	0	0	280	<b>4125</b>

### 10.2.3 Regional Delivery by Site

This chart indicates the volumes that will be delivered on each site, for outpatients and for day case/inpatients

#### For Outpatients

	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: Vanguard Regional (days)	New: Insourced POWH	New: Insourced NHH	Business Case Total
23/24	2400	1920	180	1440	2000	2880	1500	1500	13820
24/25	1200	960	90	720	875	0	0	280	4125

#### For Inpatients

	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: Vanguard Regional (days)CAV Surgery	New: Insourced UHW	New: Insourced NHH	Business Case Total
23/24	2400	1920	180	1440	2000	2880	1500	1500	13820
24/25	1200	960	90	720	875	0	0	280	4125

### 10.2.4 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total from this business case
2023/24	2400	2837	5237
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total from this business case
2023/24	1920	180	3861	5961
2024/25	960	90	566	1616

#### CAV Patients (estimated)

	Core: CAV In house	CAV 15%	CAV Total from this business case
2023/24	1440	1182	2622
2024/25	720	173	893

#### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	5237	2622	5961	13820
2024/25	1616	893	1616	4125

### 10.2.5 Option 3a Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Retaining a well trained and experienced staff within the Vanguard unit
- Ability to treat more complex patients are part of the regional capacity<sup>9</sup>
- Continuity and stability of employment for Vanguard staff
- Increased opportunities for staff training learning and development<sup>10</sup>
- Provides a solid base to develop the sustainable regional solution

<sup>9</sup> Insourcing and Outsourcing will take the less complex patients

<sup>10</sup> Vanguard offers the opportunity for more training lists that are shorter in size

- Fully utilised the Vanguard unit 7 days per week
- Enables a greater reduction in the backlog
- Stabilises the short term regional arrangement (Jan-March 2023)
- Reduces the backlog by 3,814 patients waiting

### **10.2.6 Option 3a Risks**

The specific risks associated with option 1 are:

- High volumes of surgery through Vanguard Unit may put a strain on equipment readiness levels (low risk following mitigation actions)
- Clinical risks and patient harm risks associated with outsourcing and insourcing capacity (low risk following mitigation actions)

### **10.2.7 Option 3a Patient Considerations**

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will start to reduce. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

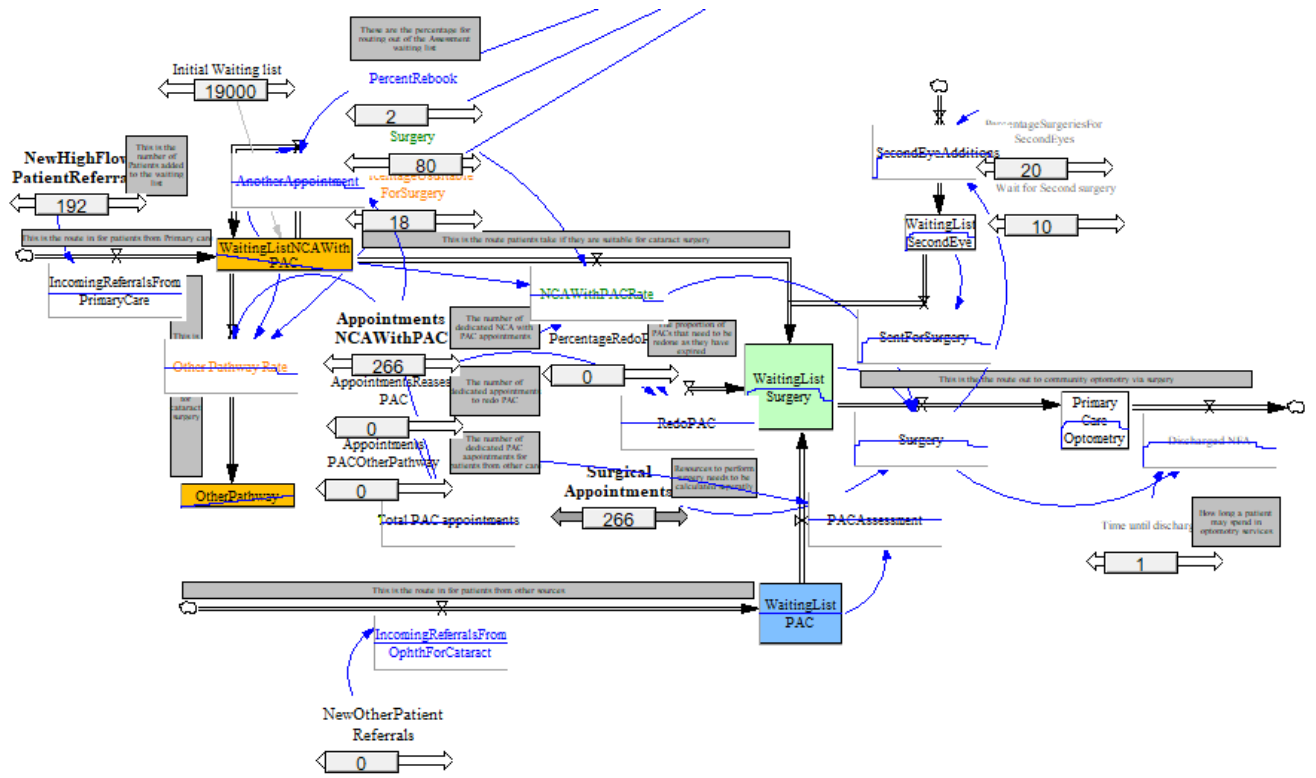
This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

### **10.2.9 Option 3a Activity Modelling**

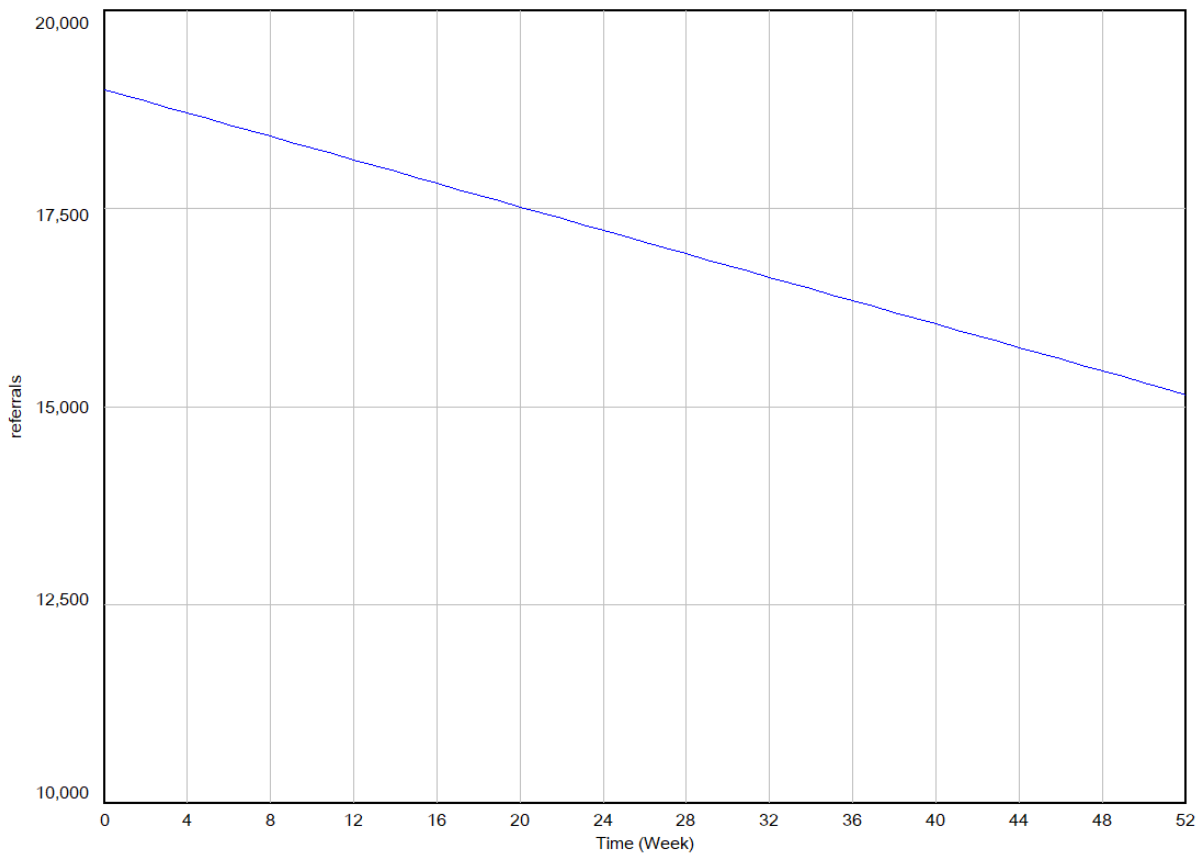
This scenario is based on the following assumptions for year 1:

- 9,960 referrals per year (192 per week, 830 per month)
- 13,820 cataracts procedures per year (266 per week, 1152 per month)
- 13,820 outpatients per year (266 per week, 1152 per month)

Regional Cataracts Business Case AB, CAV, CTM



Waiting List for NCAWithPAC



After 52 weeks of the total capacity of 13,820 per year the waiting list is reduced from 19,000 across the region to 15,186

## Appendix Six: Option 3b Details

### Option 3b –Vanguard and maximising NHH

As option 3a but with the addition of 7 weekday NHS sessions in NHH

Option 3b is an insourcing and outsourcing option involving a two-hub model of NHH in the North and a combination of POWH for outpatients and Vanguard for Inpatients in the South, along with outsourcing in the following volumes over a 12 month period:

- South Hub Weekdays: Retaining the vanguard and using one third for CAV core capacity (1440 patients per year, funded by CAV) and two thirds for regional capacity (2880 patients per year, regionally funded, provided by NHS staff)
- South Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in Vanguard/UHW
- North Hub Weekdays: 1610 outpatient assessment and inpatient procedures carried out in weekdays in NHH using NHS staffing
- 
- North Hub Weekends: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 5,940
- **Plus 9,490 additional**
- **Total capacity 15,430 per year**
- Waiting list reduction 3,814 (from 19,000 to 15,186)
- Total costs 23/24:
- Cost per patient:

#### 11.1 Clinical and Service Model

##### 11.1.1 Clinical Service Model North Hub (NHH) Additional for Option 3b

The North hub would primarily provide outpatient and inpatient provision to patients primarily in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny as the regional geography suits.

*Weekdays: Outpatients Stage (NHS Staff)*

Patients will be booked into the additional capacity for outpatients in NHH via the regional booking and scheduling team (see section 5.4)

In order to undertake 135 outpatient appointments per month (38 per week, 1,620 per year) the sessions will be a 'one stop shop' model, held on weekdays in the OP dept in NHH.

4 consulting rooms will be required plus a waiting area. This weekday activity will be staffed through recruitment of NHS staff for all of the clinical and not clinical staff required.

*Outpatients Clinical Model*

These patients are taken from new or stage 1 waiting list. During the one-stop session, patients are:

- Ophthalmic history/general medical history/medication/family history/allergies
- Vision
- Anterior segment examination
- Biometry +/- corneal topography
- Pupil dilatation
- Posterior segment examination by ophthalmologist
- Choose intraocular lens/refractive plan
- Cataract care pathway checklist completed
- Consented for surgery

*Weekdays; Inpatient Stage (NHS Staff)*

Patients attending the weekday regional capacity for cataract surgery in the North Hub will be booked through the regional booking team (see section 6.4). They will also have had their OP assessment through the North hub weekday arrangements in NHH with NHS staff.

In order to undertake 38 procedures per week (135 per month, 1,610 per year) the procedures will be undertaken in Main Theatres at NHH on weekdays, Mondays and Wednesday to Friday.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional

*Non-Staff Requirements*

Other non-staff requirements for the Inpatient sessions are:

Weekends
Cleaning / Waste / Facilities - £47,883
HSDU costs (Including transport) - £30,000
Purchase of additional surgical trays and equipment - £38,284
Stellaris Handpieces- £87,500
Pharmacy costs, Lens and consumables - £224,310
Additional lens costs £7,716

### 11.1.2 Booking and scheduling For Option 3b (Vanguard and Maximising NHH):

In one year the team will need to book 7,500 outpatient appointments across both the North and South Hubs and schedule 7,500 inpatient procedures and facilitate 2,000 outsourced patients. Totalling 17,000 patient bookings per year

A team of 18 booking and scheduling staff on Band 3 are required to support the regional arrangements along with a band 7 team leader and 3 waiting list managers band 5. A Vanguard Unit Manager and NHH Eye Unit Manager are also required to manage the unit and to ensure capacity levels are maximised.

#### Staff Required:

- 9 WTE Patient Schedulers Band 3
- 9 WTE Booking Clerks Band 3
- 3 WTE Waiting list managers Band 5
- 1 WTE Team Leader Band 7
- 1 WTE Vanguard Unit Manager Band 8b
- 1 WTE Eye Unit Manager NHH band 7

#### Non Staff Costs

- Facilities costs for 24 members of staff, IT costs and office space have been estimated at £100,000

### 11.1.3 Option 3b Assumptions

As option 3a with the inclusion of

- NHH Workforce can be fully recruited

## 11.2 Option 3b – Option Appraisal

### 11.2.1 Additional Regional Capacity

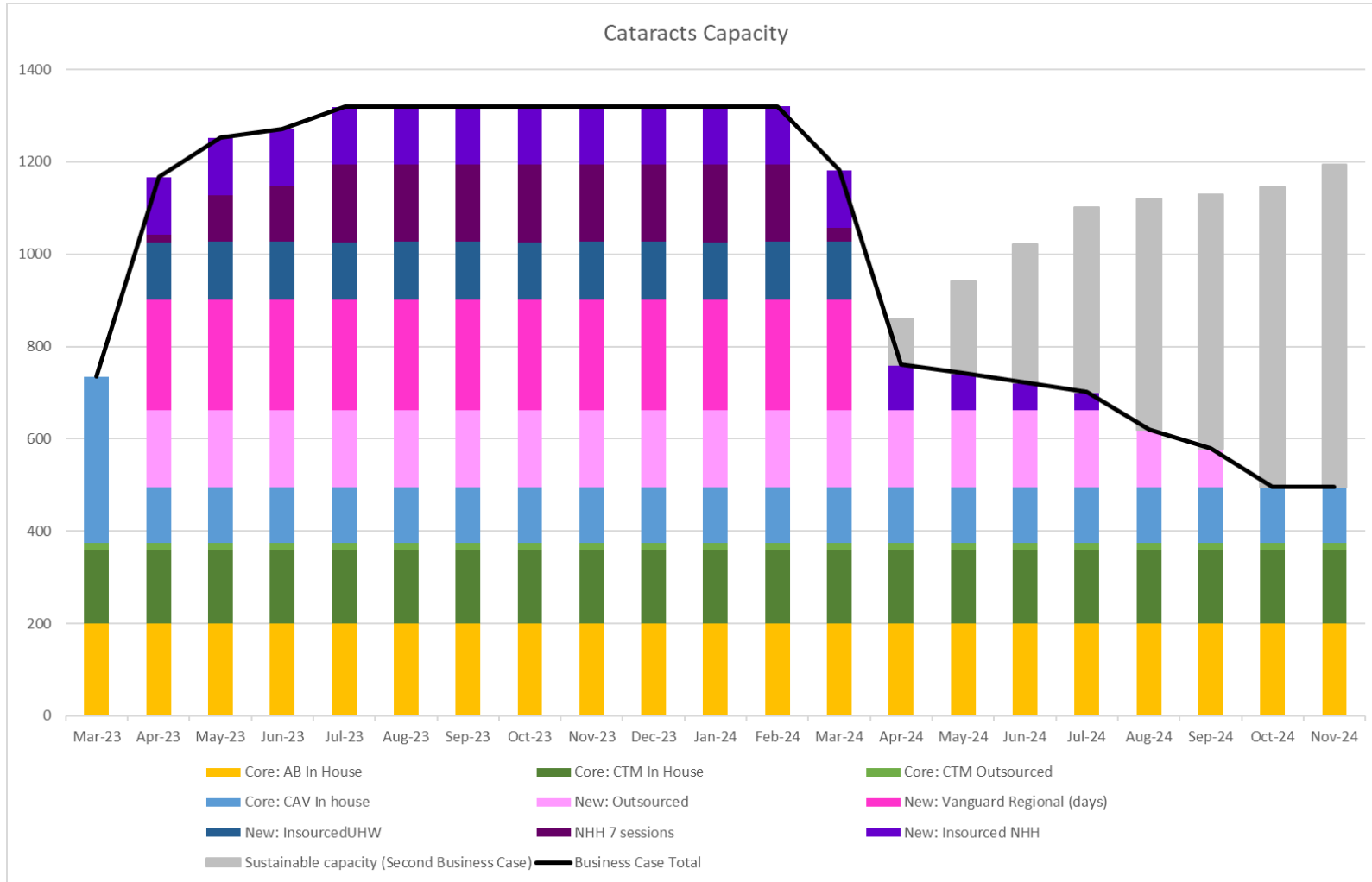
Capacity	Core Annual	Additional Capacity %	Additional Regional	Total	Average Demand	Difference
AB	2400	36%	3416	<b>5816</b>	4080	1736
CAV	1440	15%	1424	<b>2864</b>	1800	1064
CTM	2100	49%	4650	<b>6750</b>	4080	2670

Regional Cataracts Business Case AB, CAV, CTM

Regional Total	5940		9490	<b>15430</b>	9960	5470
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### 11.2.2 Regional Capacity Plan

The chart below shows how the regional capacity will be delivered during 2023 and 2024. The business case will run for 12 months with a 'tail' of 6 months to enable the sustainable capacity (second business case) to build up.



	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: Vanguard	New: NHH	Business Case Total
2023/24	2400	1920	180	1440	2000	4380	3110	<b>15430</b>
2024/25	1200	960	90	720	875	0	280	<b>4125</b>

### 11.2.3 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total from this business case
2023/24	2400	3416	5816
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total from this business case
2023/24	1920	180	4650	6750
2024/25	960	90	566	1616

#### CAV Patients

	Core: CAV In house	CAV 15%	CAV Total from this business case
2023/24	1440	1424	2864
2024/25	720	173	893

#### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	5816	2864	6750	15430
2024/25	1616	893	1616	4125

#### **11.2.4 Option 3b Benefits**

In addition to the high level benefits identified above, the additional benefits of this option include

- Retaining a well trained and experienced staff within the Vanguard unit
- Ability to treat more complex patients are part of the regional capacity<sup>11</sup>
- Continuity and stability of employment for Vanguard staff
- Increased opportunities for staff training learning and development<sup>12</sup>
- Provides a solid base to develop the sustainable regional solution
- Fully utilised the Vanguard unit 7 days per week
- Greater proportion of cataracts surgery undertaken by NHS staff
- Enables a greater reduction in the backlog
- Stabilises the short term regional arrangement (Jan-March 2023)
- Reduces the backlog by 3,814 patients waiting

#### **11.2.5 Option 3b Risks**

The specific risks associated with this option are:

- High volumes of surgery through Vanguard Unit may put a strain on equipment readiness levels (low risk following mitigation actions)
- Clinical risks and patient harm risks associated with outsourcing and insourcing capacity (low risk following mitigation actions)

#### **11.2.6 Option 3b Patient Considerations**

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will start to reduce. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

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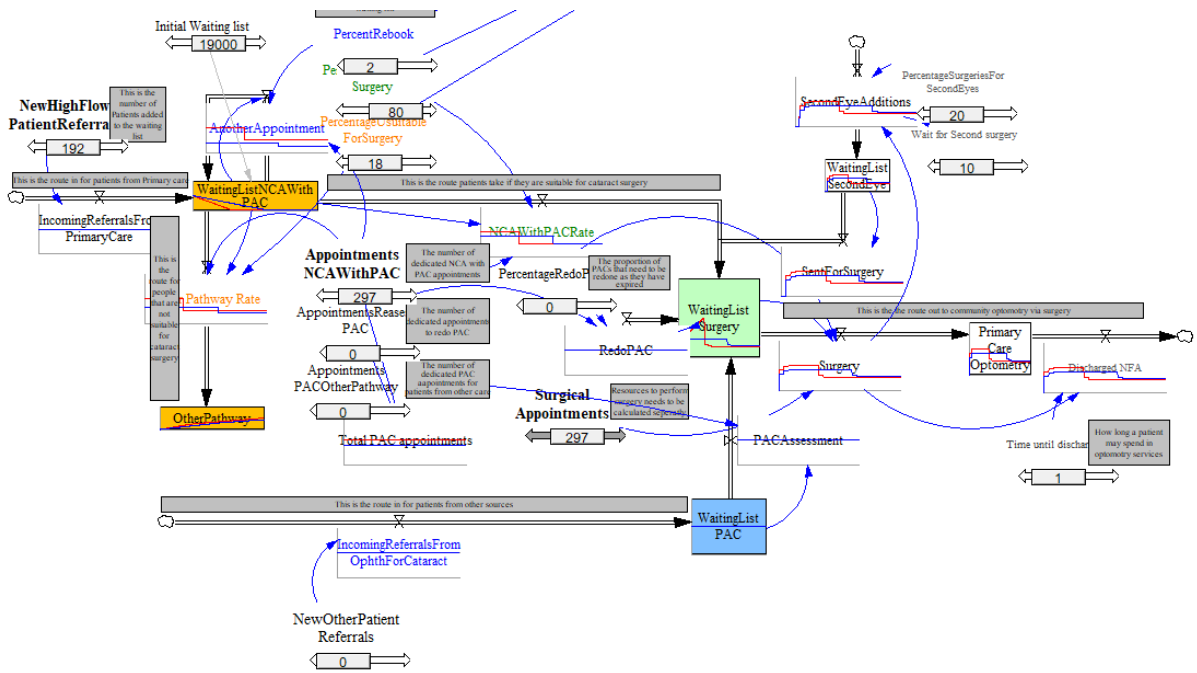
<sup>11</sup> Insourcing and Outsourcing will take the less complex patients

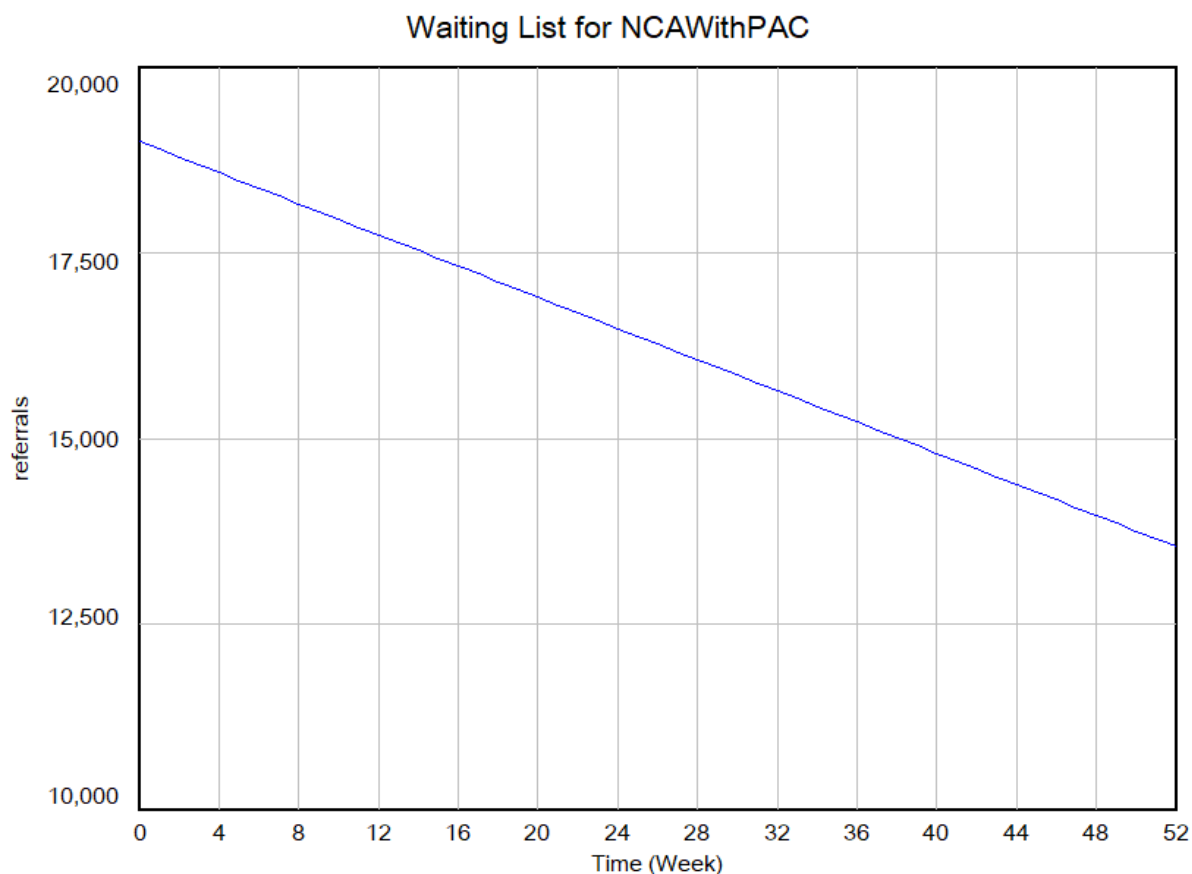
<sup>12</sup> Vanguard offers the opportunity for more training lists that are shorter in size

### 11.2.8 Option 3b Activity Modelling

This scenario is based on the following assumptions for year 1:

- 9,960 referrals per year (192 per week, 830 per month)
- 15,430 cataracts procedures per year (297 per week, 1286 per month)
- 15,430 outpatients per year (297 per week, 1286 per month)





After 52 weeks of the total capacity of 15,430 per year the waiting list is reduced from 19,000 across the region to 13,567

## Appendix Seven: Option 4 Details

### Option 4 – Weekend Insourcing and Outsourcing Only

The Insourcing and outsourcing option involves a two hub model of NHH in the North and the use of POWH in the south for outpatients and Inpatients, along with outsourcing in the following volumes over a 12 month period:

- North Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in NHH
- South Hub: 1,500 outpatient assessment and inpatient procedures carried out by an insourcing company in POWH

- An additional 2,000 outsourced outpatient and inpatient procedures
- Total core 5,940
- **Plus 5,000 additional**
- **Total capacity 10,940 per year**
- Waiting list reduction 517 (from 19,000 to 18,483)
- Total costs 23/24: £7,193,028
- Cost per patient: £1,439

## **12.1 Option 4 – Clinical and Service Model**

The Clinical Model includes an outpatient stage and inpatient stage.

At the outpatient stage the clinical teams review the patients, determine their suitability for surgery and conduct pre-operative assessments. Through the proposed model this will be carried out during a single patient visit.

At the inpatient stage patient receive their cataract surgery. Following surgery patients are discharged to Primary Care. Primary Care advisors have confirmed that no additional resource is required in primary care at present for the additional capacity as it will be adequately dispersed amongst optometric practices across the region.

### **12.1.1 North Hub**

The North hub would primarily provide outpatient and inpatient provision to patients in North CTM and North AB from Nevill Hall Hospital (NHH) in Abergavenny.

#### *Outpatient Stage*

Patients will be booked into the additional capacity for outpatients in NHH via the regional booking and scheduling team (see section 5.4)

In order to undertake 125 outpatient appointments per month (30 per week, 1,500 per year) the sessions will be a 'one stop shop' model, held on a Saturday in the OP dept in NHH. 4 consulting rooms will be required plus a waiting area.

Assuming that the required clinical staff including Consultants, PAC nurse and biometry staff will be provided by the Insourcing provider, the following additional staff will also be required to run weekly Saturday OP clinics for 1 year:

- 0.5 WTE Receptionist Band 2 £15,780
- 0.5 WTE Health Records Clinical Notes Band 2 £15,780
- 0.5 WTE Governance Nurse band 6 £29,372

Other non staff requirements for the OP sessions are

- Cleaning (Saturday) £7500

Lenses will be also ordered at this point if the patient is suitable for surgery. Costs of lenses will be included in the Inpatient section.

Patients are taken from new or stage 1 waiting list. During the one-stop session, patients are:

- Ophthalmic history/general medical history/medication/family history/allergies
- Vision
- Anterior segment examination
- Biometry +/- corneal topography
- Pupil dilatation
- Posterior segment examination by ophthalmologist
- Choose intraocular lens/refractive plan
- Cataract care pathway checklist completed
- Consented for surgery

#### *Inpatient Stage*

Patients accessing the additional capacity for insourcing in the North Hub will be booked through the regional booking team (see section 6.4). They will also have had their OP assessment through the North hub arrangements in NHH.

In order to undertake 30 procedures per week (125 per month, 1,500 per year) the procedures will be undertaken in Main Theatres at NHH every Saturday and Sunday.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity

Assuming that all of the clinical staff required for the surgery and recovery are provided by the insourcing company (Consultants, Nurses, HCSW's) then the following additional staff are required to support the service model:

- 0.6 WTE Receptionist Band 2 £18,936
- 0.6 WTE Health Records Clinical Notes Band 2 £18,936
- 0.6 WTE Governance Nurse band 6 £35,246

Other non-staff requirements for the Inpatient sessions are:

- Cleaning / Waste / Facilities - £47,883
- HSDU costs (Including transport) - £30,000
- Purchase of additional surgical trays and equipment - £38,284
- Stellaris Handpieces- £87,500

- Pharmacy costs, Lens and consumables - £224,310
- Additional lens costs £7,716.

### **12.1.2 South Hub**

Through Option 2 The South Hub would provide outpatient and inpatient provision for patients in the south of the region. The outpatient and inpatient provision will be delivered from Princess of Wales Hospital in Bridgend on weekends via an insourcing company

*Outpatients Stage (Weekend Insourcing in POWH)*

The POWH site has two pre-assessment rooms which can be used concurrently during weekends during 2023/24. Each room would house one pre-assessment nurse each, and both could be serviced with one doctor in clinic. All the clinical staff would be provided through the insourcing company. In one session using two PAC nurses concurrently, 10 patients could be assessed.

In addition the staffing costs for running outpatient clinics evenings and weekends would be:

- 0.5 WTE B2 Receptionist
- 0.5 WTE B3 Booking
- 0.5 WTE B6 Governance Nurse

Non- staffing costs are

- Cleaning

Patients are taken from new or stage 1 waiting list. During the one-stop session, patients are:

- Ophthalmic history/general medical history/medication/family history/allergies
- Vision
- Anterior segment examination
- Biometry +/- corneal topography
- Pupil dilatation
- Posterior segment examination by ophthalmologist
- Choose intraocular lens/refractive plan
- Cataract care pathway checklist completed
- Consented for surgery

Inpatient Stage (*Weekend insourcing at POWH*)

Patients accessing the additional capacity for insourcing in the South Hub will be booked through the regional booking team (see section 5.4). They will also have had their OP assessment through the South hub arrangements in POWH.

POWH has a twin theatre set up and the flow enables a maximum of 7 patients on a list for high flow low complexity patients. Running the twin theatres enables 14 patients to be seen in a morning. By running the two theatres on Saturdays all day and Sunday mornings, 42 patients can be seen in a weekend (total 6 sessions). This model can run for 36 weeks to treat the 1,500 patients through the insourcing.

As this is additional volume and there is a strong requirement to protect the core capacity additional trays and handpieces will need to be purchased to support this additional capacity

Assuming that all of the clinical staff required for the surgery and recovery are provided by the insourcing company (Consultants, Nurses, HCSW's) then the following additional staff are required to support the service model:

- 0.6 WTE Receptionist Band 2 £18,936
- 0.6 WTE Health Records Clinical Notes Band 2 £18,936
- 0.6WTE Governance Nurse band 6 £35,246

Other non-staff requirements for the Inpatient sessions are:

- Cleaning / Waste / Facilities - £47,883
- HSDU costs (Including transport) - £30,000
- Purchase of 45 additional surgical trays and handpieces - £239,682
- Pharmacy costs, Lens and consumables - £225,000 - This is based on a consumable pack costing £150 per patient (1500 patients )Alcon managed contract

### **12.1.3 Outsourcing Arrangements**

In addition to the insourcing arrangements the capacity across the region can be further increased by utilising the local opportunities for outsourcing. Outsourcing can relieve some of the management and back office administrative time associated with working through the backlog as the booking and scheduling, record keeping, outpatient and inpatient activity are all supplied as part of the contract. In this way the outsourcing opportunities also represent value for money and free up valuable resources for allocation towards the management of the core capacity and the insourcing arrangements. Option 4 will deliver an additional 2,000 cases per year. Outsourcing arrangements and costs include patient travel.

### 12.1.4 Booking and scheduling for Option 4 (Weekend Insourcing and Outsourcing)

In one year the team will need to book 3,000 outpatient appointments across both the North and South Hubs and schedule 3,000 inpatient procedures in addition to facilitating 2,000 outsourced patients. There is also a requirement to confirm which patients are suitable for the additional capacity and which need to be treated as part of core capacity as they are more complex cases.

A team of 8 booking and scheduling staff on Band 3 are required to support the regional arrangements along with a band 7 team leader and 3 waiting list managers band 5.

Staff Required:

- 4 WTE Patient Schedulers Band 3
- 4 WTE Booking Clerks Band 3
- 3 WTE Waiting list managers Band 5
- 1 WTE Team Leader Band 7

Non Staff Costs

- Facilities costs for 14 members of staff, IT costs and office space have been estimated at £30,000

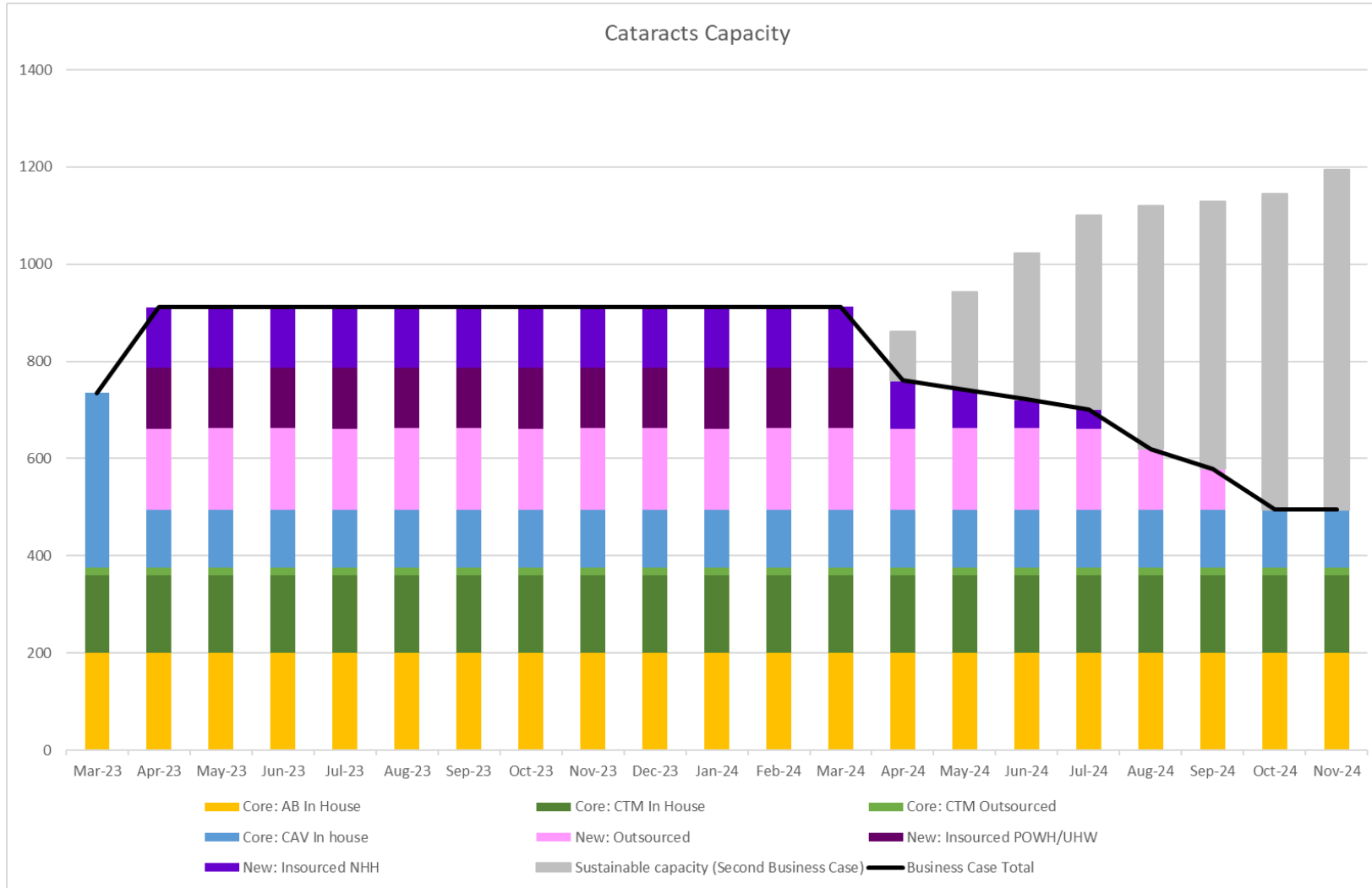
## 12.2 Option 4 – Option Appraisal

### 12.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Capacity	Total	Average Demand	Difference
AB	2400	36%	1800	<b>4200</b>	4080	120
CAV	1440	15%	750	<b>2190</b>	1800	390
CTM	2100	49%	2450	<b>4550</b>	4080	470
Regional Total	5940		5000	<b>10940</b>	9960	980

### 12.2.2 Regional Capacity Plan

The chart below shows how the regional capacity will be delivered during 2023 and 2024. The business case will run for 12 months with a 'tail' of 6 months to enable the sustainable capacity (second business case) to build up.



	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: Insourced POWH	New: Insourced NHH	Business Case Total
2023/24	2400	1920	180	1440	2000	1500	1500	<b>10940</b>
2024/25	1200	960	90	720	875	0	280	<b>4125</b>

### 12.2.3 Regional Capacity by expected patients treated

Reviewing the end of the list, 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total
2023/24	2400	1800	4200
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total
2023/24	1920	180	2450	4550
2024/25	960	90	566	1616

#### CAV Patients

	Core: CAV In House	CAV 15%	CAV Total
2023/24	1440	750	2190
2024/25	720	173	893

#### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	4200	2190	4550	10940

2024/25	1616	893	1616	4125
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#### 12.2.4 Option 4 Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Outpatient assessments and inpatients treatments are performed on the same site
- Reduces the backlog by 517 patients waiting

If the Vanguard theatres are not taken forward after March 2023 there will be additional staff from UHW that could be utilised at one of the other hub areas.

#### 12.2.5 Option 4 Risks

The specific risks associated with this option are:

- Loss of experienced and well trained staff at the Vanguard Unit (low risk following mitigation actions)
- Reduction in training capacity across the region (medium risk following mitigation actions)
- Reduced capacity to treat more complex patients (medium risk following mitigation actions)

#### 12.2.6 Option 4 Patient Considerations

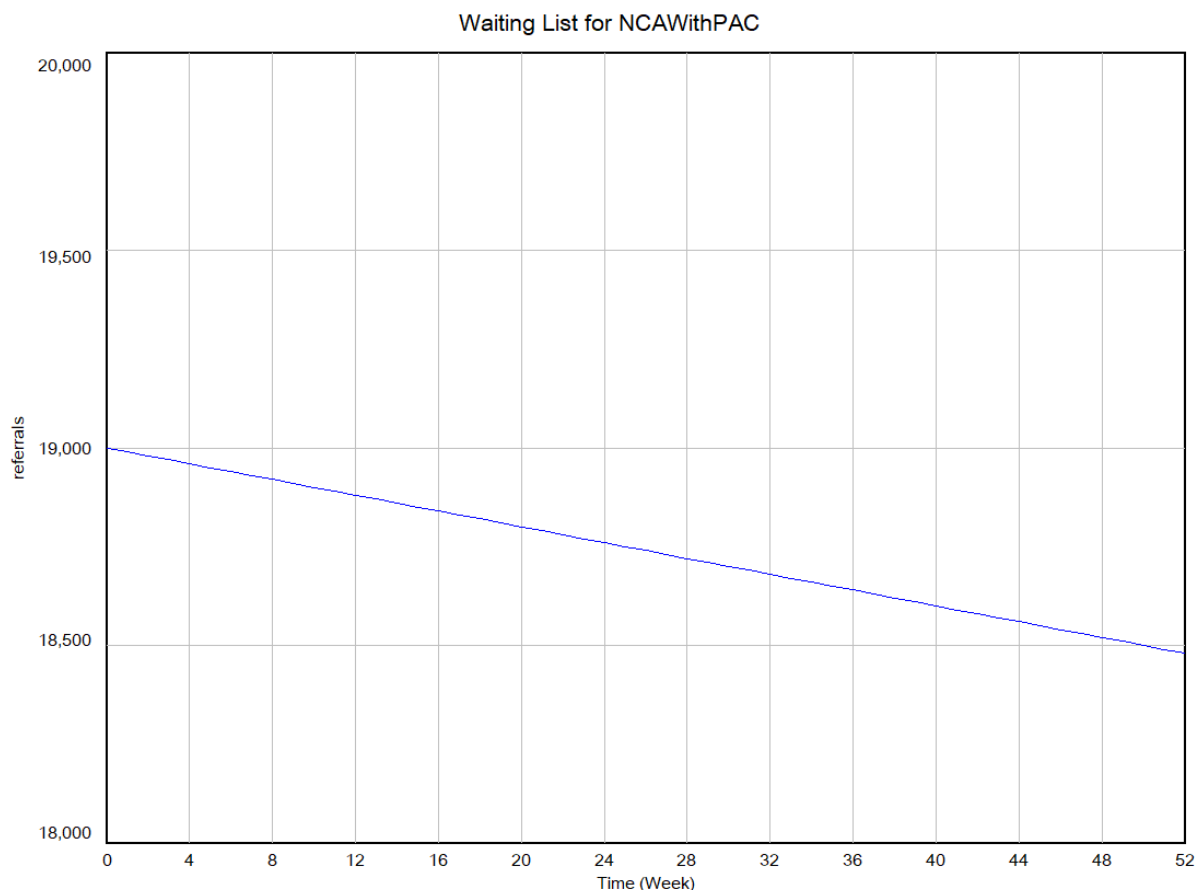
Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will remain at current levels. This option includes a North and South Hub where patients who meet the criteria for this additional capacity would be directed to their closest hub for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and additional capacity provision.

This option also includes outsourcing where the costing includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity, insourcing, and NHS sessions do not include patient travel contributions.

#### 12.2.7 Option 4 Costs

Option 4 costs are shown here





After 52 weeks of the total capacity of 10,940 per year the waiting list is reduced from 19,000 across the region to 18,483

## Appendix Eight: Option 5 Details

### Option 5 – Outsourcing

The option involves outsourcing the whole additional capacity and not insourcing or using the Vanguard Unit for capacity. By using outsourcing only, the demands on the regional booking and scheduling team also reduce. It is likely that one supplier would not be able to fulfil the whole 5,000 procedures per year and so it would be split across different providers with the following volumes over a 12 month period:

- An additional 5,000 outsourced outpatient and inpatient procedures
- Total core 5,940
- **Plus 5,000 additional**

- **Total capacity 10,940 per year**
- Waiting list reduction 517 (from 19,000 to 18,483)
- Total costs 23/24: £6,978,436
- Cost per patient: £1,396

### **13.1 Option 5 – Clinical and Service Model**

#### **13.1.1 Outsourcing Arrangements**

Outsourcing can relieve some of the management and back office administrative time associated with working through the backlog as the booking and scheduling, record keeping, outpatient and inpatient activity are all supplied as part of the contract. In this way the outsourcing opportunities also represent value for money and free up valuable resources for allocation towards the management of the core capacity and the insourcing arrangements. Through this option 5,000 cases are outsourced. Outsourcing arrangements and costs include patient travel.

Patients are reviewed by a non-clinical administrator for their suitability for outsourcing and then referred on to the outsourcing company for assessment and treatment.

Communication with the patient about booking and scheduling and locations are conducted by the outsourcing company. Follow ups post-surgery are conducted in primary care.

Hospital patient records are updated.

#### **13.1.2 Booking and scheduling For Option 5 (Outsourcing)**

In one year the team would need to facilitate 5,000 outsourced patients and ensure records are kept up to date and that these patients are suitable for the outsourcing route.

A team of 4 patient liaison, 1 waiting list manager and a team leader are required to support the outsourcing

Staff Required:

- 4 WTE Patient Liaison Band 3
- 1 WTE Waiting List Manager Band 5
- 1 WTE Team Leader Band 7

Non Staff Costs

- Facilities costs for 6 members of staff, IT costs and office space have been estimated at £15,000

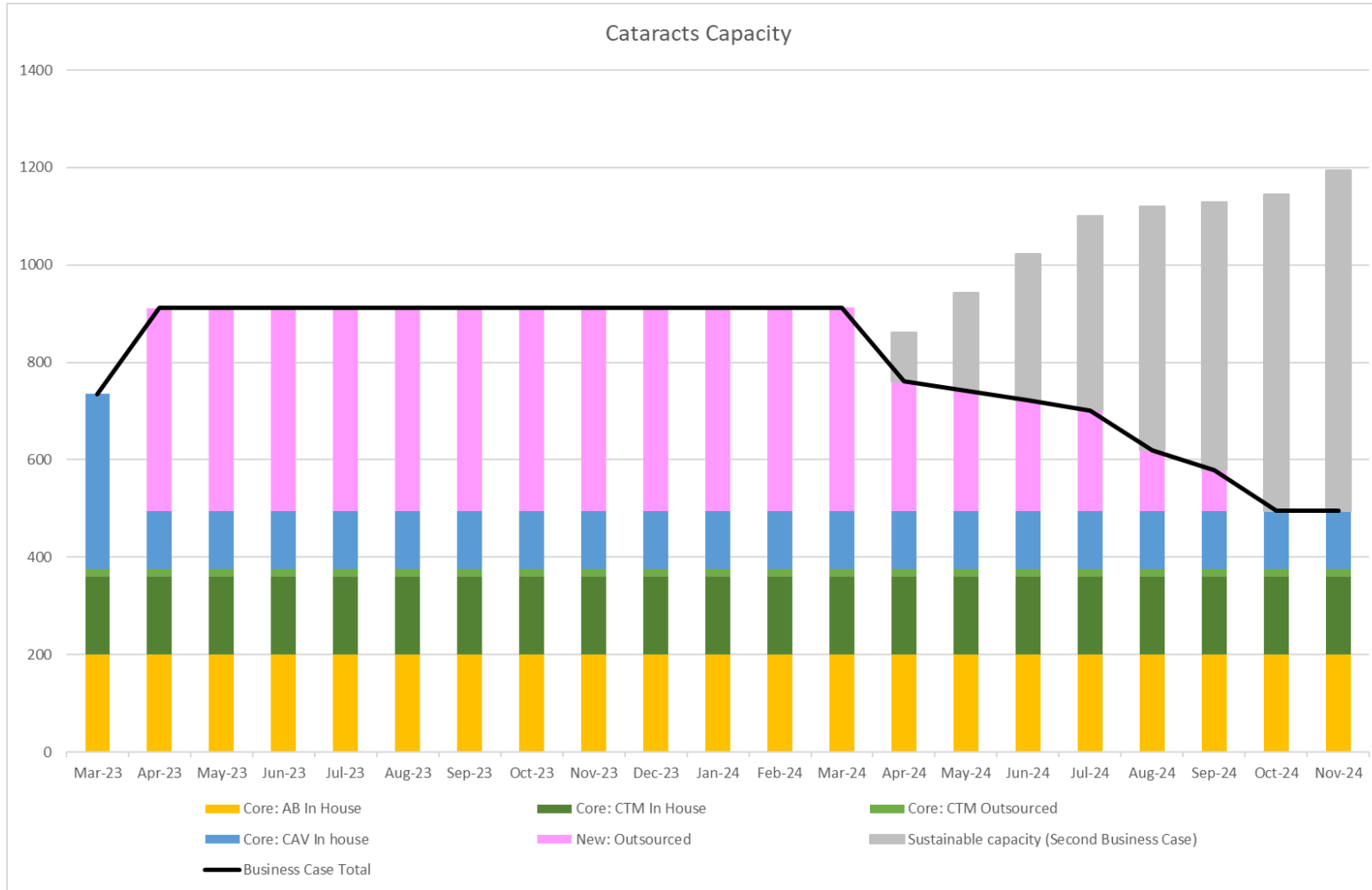
## 13.2 Option 5 – Option Appraisal

### 13.2.1 Additional Regional Capacity

Capacity	Core Annual	Additional Capacity %	Additional Capacity (outsourced)	<b>Total</b>	Average Demand	Difference
AB	2400	36%	1800	<b>4200</b>	4080	120
CAV	1440	15%	750	<b>2190</b>	1800	390
CTM	2100	49%	2450	<b>4550</b>	4080	470
Regional Total	5940		5000	<b>10940</b>	9960	980

### 13.2.2 Regional Capacity Plan

The chart below shows how the regional capacity will be delivered during 2023 and 2024. The business case will run for 12 months with a 'tail' of 6 months to enable the sustainable capacity (second business case) to build up.



	Core: AB In House	Core: CTM In House	Core: CTM Outsourced	Core: CAV In house	New: Outsourced	New: Insourced POWH	New: Insourced NHH	Business Case Total
2023/24	2400	1920	180	1440	5000	0	0	10940
2024/25	1200	960	90	720	1155	0	0	4125

### 13.2.3 Regional Capacity by expected patients treated

Reviewing the end of the list 49% of the long waiters are from CTM, 36% from AB and 15% from CAV. Projections of the use of the regional capacity are based on these percentages, however as the waiting list progresses, the percentages will change over time

#### AB Patients

	Core: AB In House	AB 39%	AB Total
2023/24	2400	1800	4200
2024/25	1200	416	1616

#### CTM Patients

	Core: CTM In House	Core: CTM Outsourced	CTM 49%	CTM Total
2023/24	1920	180	2450	4550
2024/25	960	90	566	1616

#### CAV Patients

	Core: CAV In House	CAV 15%	CAV Total
2023/24	1440	750	2190
2024/25	720	173	893

#### Regional Total

	AB Total	CAV Total	CTM Total	Regional Total
2023/24	4200	2190	4550	10940

2024/25	1616	893	1616	4125
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#### 13.2.4 Option 5 Benefits

In addition to the high level benefits identified above, the additional benefits of this option include

- Outpatient assessments and inpatients treatments are performed on the same site
- Additional capacity delivered at reduced costs from insourcing
- Reduces the backlog by 517 patients waiting

#### 13.2.5 Option 5 Risks

The specific risks associated with option 2 are:

- Loss of experienced and well trained staff at the Vanguard Unit (medium risk following mitigation actions)
- Reduction in training capacity across the region (medium risk following mitigation actions)
- Reduced capacity to treat more complex patients (medium risk following mitigation actions)
- Increased number of patients required to travel further for treatment

#### 13.2.6 Option 4 Patient Considerations

Through this option there would be additional capacity for patients across the region for cataract assessment and surgery and patient waiting time will remain at current levels.

This option is for outsourcing activity where patients who meet the criteria for this additional capacity would be directed to outsourcing for assessment and treatment. Patients unable or unwilling to travel will be treated within their own health board as part of the core capacity. Waiting times may vary between core and outsourcing capacity provision. This option also includes patient travel as this may be outside of the boundary of the region (dependent on the contracting). The core capacity does not include patient travel contributions.

### 13.2.7 Option 5 Costs

Option 3: Outsourcing

Revenue Costs

2023/24

2024/25

Host Health Board	Delivery	Outpatients		Surgical Procedures		Total Estimated Costs
		Activity	Cost	Activity	Cost	
External	Outsource	5,000	£790,000	5,000	£5,948,333	£6,738,333
Regional Operational Team						£240,103
<b>TOTAL</b>		<b>5,000</b>	<b>£790,000</b>	<b>5,000</b>	<b>£5,948,333</b>	<b>£6,978,436</b>

Host Health Board	Delivery	Outpatients		Surgical Procedures		Total Estimated Costs
		Activity	Cost	Activity	Cost	
External	Outsource	875	£138,250	875	£1,040,958	£1,179,208
Regional Operational Team						£120,052
<b>TOTAL</b>		<b>875</b>	<b>£138,250</b>	<b>875</b>	<b>£1,040,958</b>	<b>£1,299,260</b>

Indicative Cost per Patient

£1,396

### 13.2.8 Option 5 Activity Modelling

The assumptions used in this option are the same as in option 4, as the capacity stays the same but the mode of delivery changes.

After 52 weeks of the total capacity of 10,940 per year the waiting list is reduced from 19,000 across the region to 18,483

## Appendix Nine: Split of Options By Health Board

### Aneurin Bevan

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Regional Total Additional	0	8668	7700	9310	5000	5000
Plus Regional Core	5940	5940	6120	6120	5940	5940
<b>Regional Total</b>	<b>5940</b>	<b>14608</b>	<b>13,820</b>	<b>15430</b>	<b>10940</b>	<b>10940</b>

AB Core	2400	2400	2400	2400	2400	2400
AB Allocation 23/24	0	3120	2772	3352	1800	1800
<b>Total AB 23/24</b>	<b>2400</b>	<b>5520</b>	<b>5172</b>	<b>5752</b>	<b>4200</b>	<b>4200</b>

AB Core Mar24 to Sept24	1200	1200	1200	1200	1200	1200
AB Allocation Mar24 to Sept24	0	416	416	416	416	416
<b>Total AB Mar 24 to Sept24</b>	<b>1200</b>	<b>1616</b>	<b>1616</b>	<b>1616</b>	<b>1616</b>	<b>1616</b>

### Cardiff and Vale

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Regional Total Additional	0	8668	7700	9310	5000	5000
Plus Regional Core	5940	5940	6120	6120	5940	5940
<b>Regional Total</b>	<b>5940</b>	<b>14608</b>	<b>13,820</b>	<b>15430</b>	<b>10940</b>	<b>10940</b>

CAV Core	1440	1440	1620	1620	1440	1440
CAV Allocation 23/24	0	1300	1155	1397	750	750
<b>Total CAV 23/24</b>	<b>1440</b>	<b>2740</b>	<b>2775</b>	<b>3017</b>	<b>2190</b>	<b>2190</b>

CAV Core Mar24 to Sept24	720	720	720	720	720	720
CAV Allocation Mar24 to Sept24	0	173	173	173	173	173
<b>Total CAV Mar 24 to Sept24</b>	<b>720</b>	<b>893</b>	<b>893</b>	<b>893</b>	<b>893</b>	<b>893</b>

### Cwm Taf Morgannwg

	Option 1 Do Nothing	Option 2 POWH and NHH	Option 3a Vanguard and NHH	Option 3b Vanguard and Max NHH	Option 4 Weekends	Option 5 Outsourcing
Regional Total Additional	0	8668	7700	9310	5000	5000
Plus Regional Core	5940	5940	6120	6120	5940	5940
<b>Regional Total</b>	<b>5940</b>	<b>14608</b>	<b>13,820</b>	<b>15430</b>	<b>10940</b>	<b>10940</b>

CTM Core	2100	2100	2100	2100	2100	2100
CTM Allocation 23/24	0	4247	3773	4562	2450	2450
Total CTM 23/24	2100	6347	5873	6662	4550	4550

CTM Core Mar24 to Sept24	1050	1050	1050	1050	1050	1050
CTM Allocation Mar24 to Sept24	0	566	566	566	566	566
Total CTM Mar 24 to Sept24	1050	1616	1616	1616	1616	1616

## Appendix Ten: Full Patient Travel Survey

Patient Travel Survey

January 2023



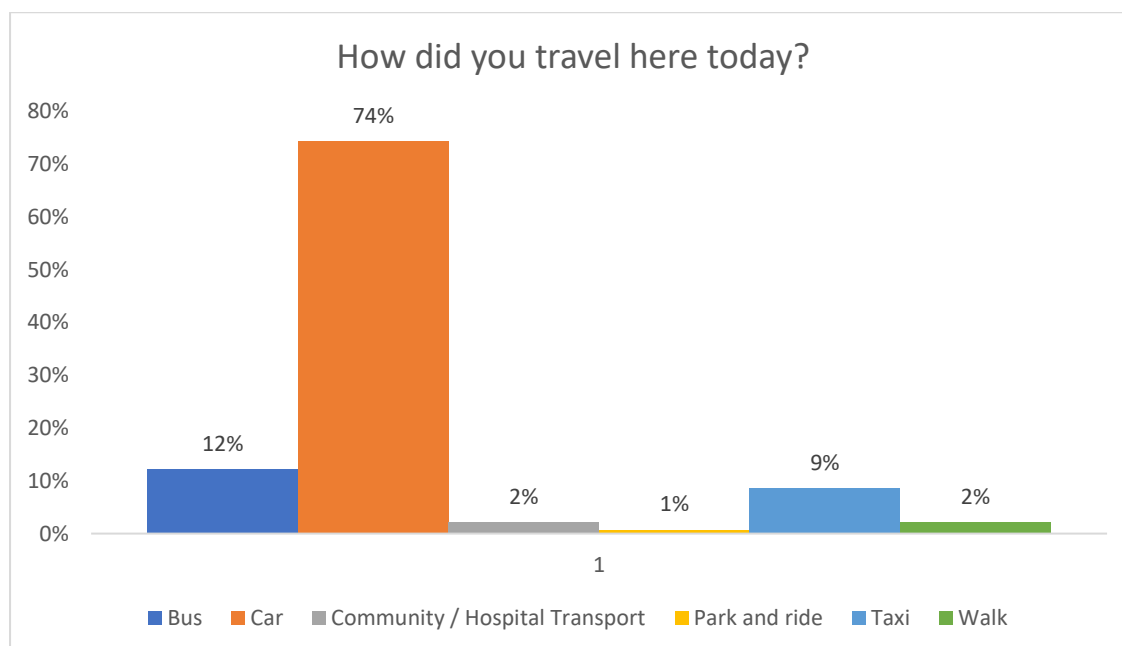
**Offthalmoleg Ardal  
De-ddwyrain Cymru  
South East Wales  
Regional Ophthalmology**

A patients travel questionnaire was undertaken in Princess of Wales Hospital on 5<sup>th</sup> January, Royal Gwent Hospital on 11<sup>th</sup> January, and University of Wales Hospital on 12<sup>th</sup> January. 140 patients attending appointments on those day were asked questions about their travel to hospital and their willingness to travel to another hospital for treatment. All respondents were anonymous. This report show the total responses from each location and will form part of the supporting information for the Regional Cataracts business case.

### Question 1. Which Hospital are you attending today?

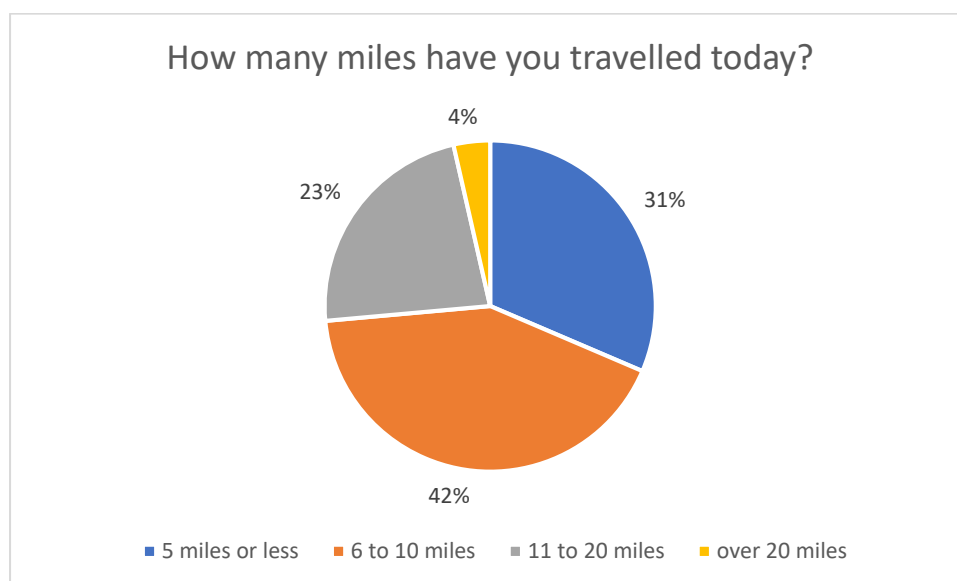
Princess of Wales	35 patients	25%
Royal Gwent	35 patients	25%
University Hospital of Wales	70 patients	50%
Total	140 patients	100%

### Question 2. How did you travel here today?



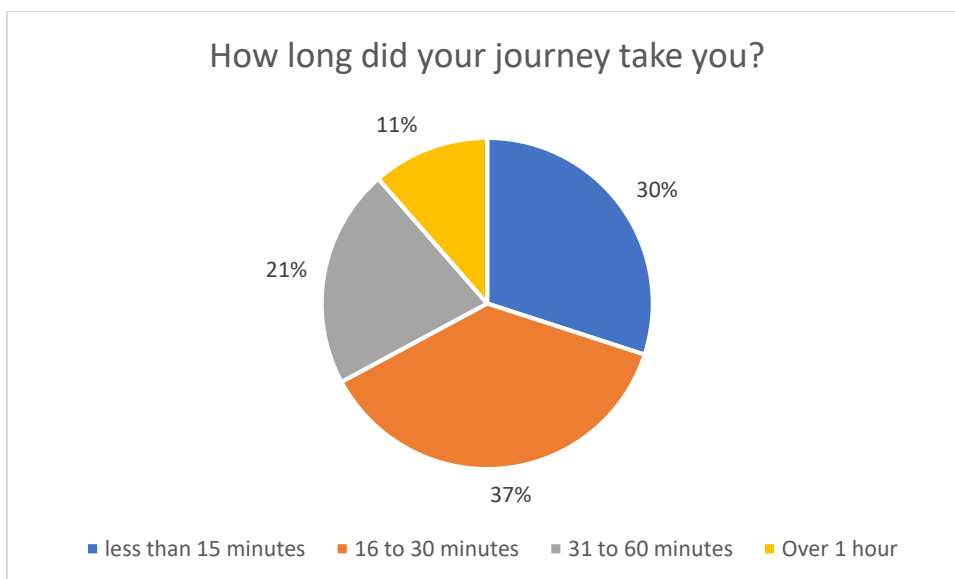
How did you travel here today?	Princess of Wales Hospital	Royal Gwent Hospital	University Hospital of Wales	Grand Total
Bus	6	1	10	17
Car	28	29	47	104
Community / Hospital Transport			3	3
Park and ride			1	1
Taxi		4	8	12
Walk	1	1	1	3
<b>Grand Total</b>	<b>35</b>	<b>35</b>	<b>70</b>	<b>140</b>

**Question 3. How many miles Have you travelled today?**



How many miles have you travelled today?	Princess of Wales Hospital	Royal Gwent Hospital	University Hospital of Wales	Grand Total
5 miles or less	17	7	20	44
6 to 10 miles	16	15	28	59
11 to 20 miles	2	13	17	32
over 20 miles			5	5
<b>Grand Total</b>	<b>35</b>	<b>35</b>	<b>70</b>	<b>140</b>

**Question 4. How long did your journey take you?**

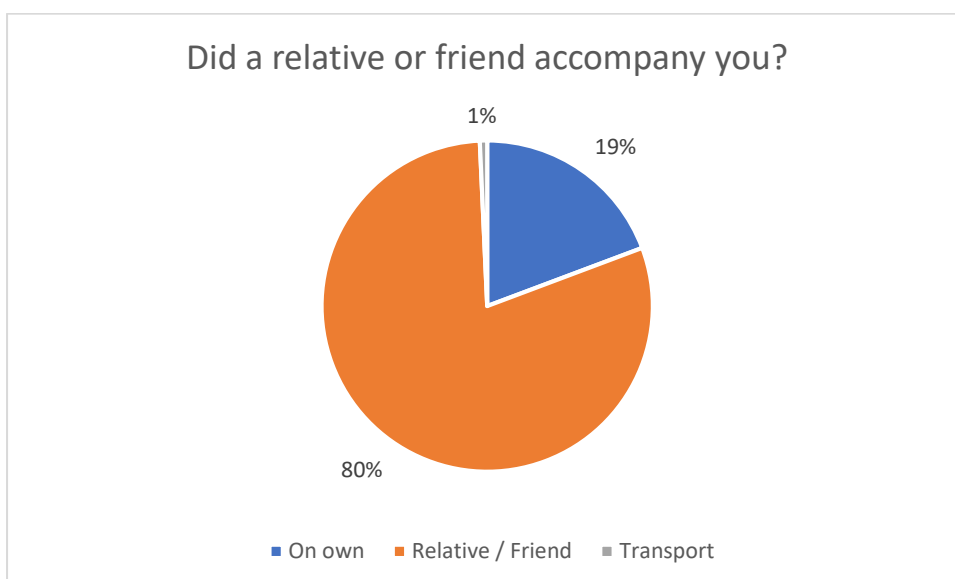


How long did your journey take you?	Princess of Wales Hospital	Royal Gwent Hospital	University Hospital of Wales	Grand Total
less than 15 minutes	16	6	20	42
16 to 30 minutes	16	18	18	52
31 to 60 minutes	3	10	17	30
Over 1 hour		1	15	16
<b>Grand Total</b>	<b>35</b>	<b>35</b>	<b>70</b>	<b>140</b>

\*on the day of the survey in UHW there was sever weather, flooding and an accident on the A470 resulting in journeys that were longer than the patients were expecting.

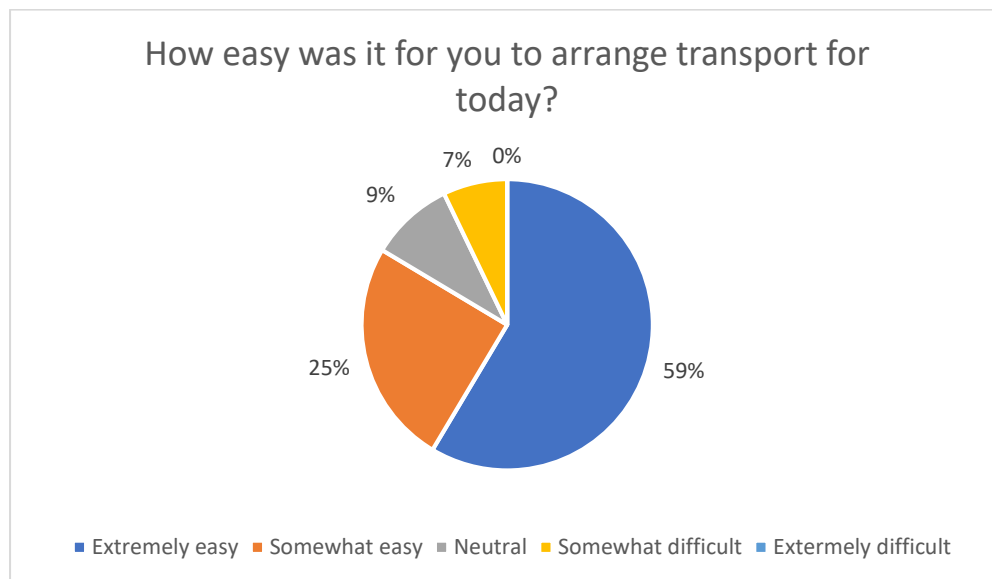
**Question 5 asked patients where they travelled from**

**Question 6. Did a Relative or friend accompany you?**



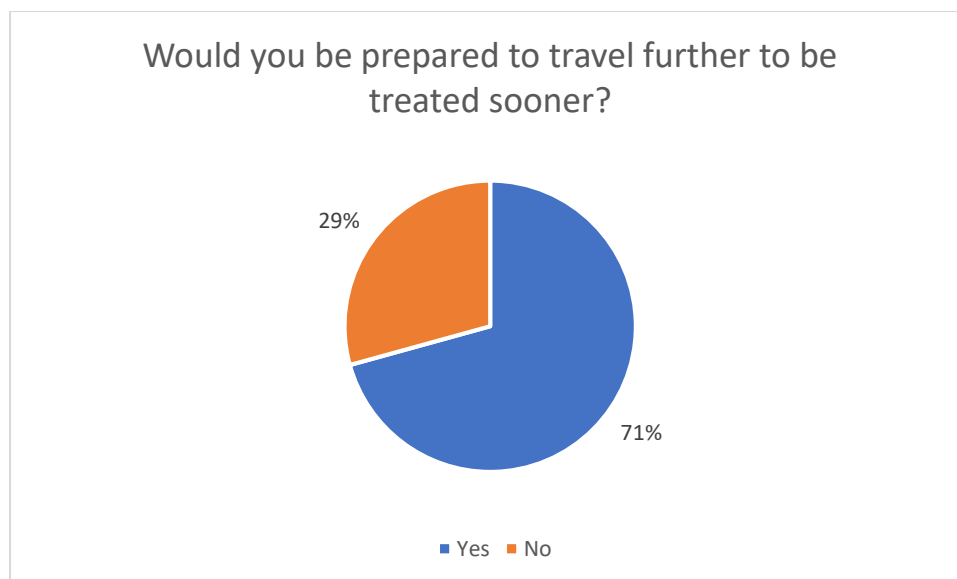
Did a relative or friend accompany you?	Princess of Wales Hospital	Royal Gwent Hospital	University Hospital of Wales	Grand Total
On own	5	3	19	27
Relative / Friend	30	32	50	112
Transport			1	1
<b>Grand Total</b>	<b>35</b>	<b>35</b>	<b>70</b>	<b>140</b>

**Question 7. How easy has it been for you to arrange transport today?**



How easy was it for you to arrange transport for today?	Princess of Wales Hospital	Royal Gwent Hospital	University Hospital of Wales	Grand Total
Extremely easy	24	23	35	82
Somewhat easy	6	9	20	35
Neutral	4	1	8	13
Somewhat difficult	1	2	7	10
Extremely difficult				0
<b>Grand Total</b>	<b>35</b>	<b>35</b>	<b>70</b>	<b>140</b>

**Question 8. Would you be prepared to travel further if you could have been treated sooner?**



Would you be prepared to travel further to the treated sooner?	Princess of Wales Hospital	Royal Gwent Hospital	University Hospital of Wales	Grand Total
Yes	25 (71%)	27 (77%)	47 (67%)	99 (71%)
No	10 (29%)	8 (23%)	23 (33%)	41 (29%)
<b>Grand Total</b>	<b>35</b>	<b>35</b>	<b>70</b>	<b>140</b>

**Question 9. Where would you travel to?**

- From Princess of Wales Hospital in Bridgend, of the 25 patients willing to travel 25 would go to Cardiff and 19 to Swansea
- From Royal Gwent Hospital in Newport, of the 27 patients willing to travel 19 would be willing to travel to Cardiff and 25 to Abergavenny
- From University Hospital of Wales in Cardiff, of the 47 patients willing to travel 38 would be willing to travel to Bridgend and 41 to Newport

Where would you travel to?	From Princess of Wales Hospital	From Royal Gwent Hospital	From University Hospital of Wales
Bridgend / POWH			7
Cardiff / UHW	25	19	
Newport / RGH	11		41
Abergavenny / NHH	5	25	30
Bristol	5	6	10
Swansea	19	3	10
Further in the UK	5	3	4
<b>Grand Total</b>	<b>70</b>	<b>63</b>	<b>133</b>

*\*patients could provide multiple answers to this question*

