A South West Wales Regional Glaucoma Service

Outline Business Case

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1. Strategic Case

Introduction

1.1. This ARCH South West Wales Glaucoma Service (SWWGS) Business Case has been developed in collaboration between Swansea Bay UHB and Hywel Dda UHB. Contributors include clinical and managerial staff from Ophthalmology (including glaucoma specialists), Optometry, Ophthalmic Nursing and Orthoptics as well as representatives from Finance, Informatics, and Workforce.

1.2. The ARCH initiative for Eye Care Services, is taking place against a background of nationally managed strategic change in Eye Care in Wales, and during a global viral pandemic that has resulted in significant backlogs in people needing eye care. These unique circumstances nevertheless offer unique opportunities for great advances in how we deliver sight-saving treatments.

1.3. Both clinical and managerial colleagues from within the eye care services in SBUHB and HDdUHB believe this is a once in a generation opportunity to develop a comprehensive, world class regional eye care service for South West Wales.

1.4. This Business Case sets out how the health boards may progress from their current difficulties to a SWWGS that will be balanced for demand and activity whilst being clinically and financially effective and efficient. This will be truly Prudent Healthcare.

Strategic Context

1.5. The Welsh Government strategic direction for a person-centred approach supports the proposal set out in this Outline Business Case. Services will be provided according to the best means of delivering on patients' needs, be that via their 'usual' optometrist, another local optometrist working as part of the wider SWWGS Team, in an Ophthalmic Diagnostic and Treatment Centre (ODTC) wherever suits local needs; e.g. NHS buildings including hospitals, outreach clinics, optometric practices etc.

1.6. Together for Health: Eye Health Care, Delivery Plan for Wales 2013-20 set out a range of key actions to improve the eye health of all children and adults in Wales, with specific, targeted support for those most vulnerable to eye health issues and sight loss.

1.7. A key enabler for the service improvement required is to adopt the prudent healthcare principle of reducing inappropriate variation by treating those with greatest need first and do only what is needed. Fulfilling this latter principle is possible through greater collaboration with non-medical registered professions such as specialist Ophthalmic nurses, Orthoptists and Optometrists (Ophthalmic Opticians) – the latter having the skills, capacity and infrastructure including equipment to manage more patients in Primary Care, where it is clinically appropriate and economically prudent to do so.

1.8. Glaucoma is a chronic progressive disease of the optic nerve known as an optic neuropathy, (Appendix 1A). It is the second commonest cause of blindness in the UK and the commonest preventable cause of blindness. Care for individuals with glaucoma makes up a significant proportion of all eye care and is essentially life-long. The NHS in Wales has a duty of care to individuals at risk of glaucoma blindness and this duty is discharged via the Local Health Boards. In 'usual times', the glaucoma service will be funded via health boards' 'usual' budgeting.

1.9. In recent times, Swansea Bay UHB has developed a highly effective, efficient and cost-effective multidisciplinary team for glaucoma care and as the first COVID-19 lockdown commenced in March 2020, the health board had essentially eliminated its glaucoma pathway backlog (aided by targeted Welsh Government support). Hywel Dda UHB has had a backlog in its glaucoma pathway for some years, and was still a service with a significant demand-capacity mismatch, as of March 2020.

1.10. Because of the COVID-19 pandemic and the associated reductions in clinical activity, both health boards now have thousands of patients awaiting glaucoma care. As part of the ARCH partnership, both health boards see benefit in developing a combined South West Wales Glaucoma Service to serve the combined population.

1.11. As a regional service, we would serve one third of the land area of Wales including Ceredigion, Pembrokeshire, Powys, Neath Port Talbot, Carmarthenshire and Swansea Bay, covering a population of some 900,000. This is an ambitious project, which has enthused the clinical body across the region as well as managerial colleagues and other stakeholders.

1.12. A regional approach, which is reflective of the geographical needs of the population, is supported by clinical and managerial teams working collaboratively across the region, and is considered the most appropriate way to deliver the eye care services.

1.13. To achieve this, now is the time to:

- Collaborate and integrate seamless eye care pathways across the two health boards
- Expand eye care services with full integration of members of our community of ophthalmic professionals across Primary and Secondary Care; optometrists, ophthalmologists, ophthalmic nurses, orthoptists and ophthalmic technicians working together as one regional team
- Develop and embed a sustainable workforce model based on population needs
- Support Clinical Governance and Prudent Health Care through the use of technology
- Strengthen links with education to underpin high quality patient care as well as clinically-based research

1.14. At the core of the vision is the desire to improve the patient's journey by delivering prudent, integrated, patient-focused services aligned to innovative technologies to improve the eye health in our population so that all may benefit from appropriate care, support, education and rehabilitation throughout their lifespan.

1.15. This ambition is reflected in the Hywel Dda and Swansea Bay Annual Plans:

Hywel Dda Annual Plan

Key actions for Eye Care Service delivery in 2021/22:

- Implementation of the pathways developed throughout the red phase of the pandemic with a shift of resource to support service development
- Develop a regional eye care service for South West Wales by focusing on several areas of the regional eye care service
- We will introduce a regional Glaucoma service to recover from COVID and deliver sustainable Ophthalmic Diagnostic Treatment Centres

Swansea Bay Annual Plan

Key actions for Eye Care Service delivery in 2021/22:

- Develop a regional eye care service for South West Wales by focusing on several areas of the regional eye care service
- We will introduce a regional Glaucoma service to recover from COVID and deliver sustainable Ophthalmic Diagnostic Treatment Centres
- To drive Recovery goals to improve the backlog position
- key ARCH Partnership priority for 2021-22

Annual Plan 21-22 Programmes of Work ***(select one)***	
☐	Cancer
☐	COVID-19 response, including vaccination and testing
☐	Maternity, Children, and Young People
☐	Mental Health and Learning Disabilities
☒	Planned Care
☐	Quality and Safety
☐	Urgent and Emergency Care,
☐	Workforce

1.16. The Regional Eye Care Service's Vision

- To build and strengthen the relationships between all professional groups across Primary and Secondary Care so as to strengthen the whole community
- To implement a nationally approved sub-speciality clinical pathways with assigned consultant ophthalmologists clinical leads
- To recruit new substantive sub-specialist consultants with appointment to the regional team
- To strengthen the establishment by recruiting allied professions, including ophthalmic nurses, optometrists, orthoptists, and ophthalmic technicians
- To explore new arrangements for existing staff to include cross-border working, sub-specialist surgery, virtual clinics and new peripatetic subspecialist clinics
- To provide equitable and sustainable Ophthalmic Diagnostic Treatment Centres (ODTCs) across the region
- To embed Education, Information Technology, Governance, Finance into our core business strategy

Case for Change

1.17. Whilst what we can do for our patients has been shown to be of high quality, there is increasing concern about the capacity for full provision of eye care services in the region, with documented failure to meet the whole population's clinical needs.

1.18. The traditional 'generalist' models of working and lack of subspecialist multidisciplinary teams (MDTs) has failed to meet the levels of demand chiefly associated with a growing elderly population with its blinding conditions of age-related macular degeneration, diabetic retinopathy, cataract and glaucoma. There is a significant lack of capacity across South West Wales and unfortunately, a majority of patients are now experiencing unacceptable delays in their care.

1.19. Clinical leads, senior managers, and consultants from Swansea Bay and Hywel Dda University Health Boards acknowledge that some aspects of the service across the region require additional clinical support and specific operational changes to be implemented urgently.

1.20. An area of great need is in the glaucoma care pathway. Glaucoma is a progressive and potentially blinding condition, with the outpatient workload accounting for nearly 30% of all ophthalmology attendances across the United Kingdom. Patients with glaucoma require long-term follow-up and subspecialist care. The absence of a full-time substantive consultant ophthalmologist trained to UK fellowship level in glaucoma supporting patients in the Hywel Dda area is an unacceptable deficit.

1.21. Wales was the first UK nation to implement a scheme for allocating required standards of care provision for all patients, both newly referred and existing. The addition of a 'target' for follow-up patients, to operate in parallel with (wholly reasonable) targets for referral to treatment time (RTT), means there is a greater need than ever for health boards to provide balanced services, where quantified demand is matched by sustainable levels of clinical activity. The 'New Measure' target of offering care to 95% of patients with an eye condition requiring timely care to prevent irreversible adverse outcome within 125% of their intended time to next clinical event has been reported to Welsh Government and made public now for several years. Prior to COVID-19, all health boards were improving their performance and waiting lists were coming down in many areas; but not for glaucoma in Hywel Dda. Since the onset of the pandemic, both Hywel Dda and Swansea Bay UHBs have fallen-away from their previous positions. Each health board has a backlog running to several thousand for glaucoma care alone.

1.22. In a purely clinical context a decision as to risk and complexity is taken every time a clinician sees a patient in outpatients and either discharges them or arranges a follow up appointment at a specific interval.

1.23. The purpose of identifying, treating and monitoring glaucoma is to enable a 'sighted lifetime'. In the face of high demand and unmet need due to insufficient capacity, and the consequent risk of avoidable blindness from delays in glaucoma care, an agreed mechanism for identification of people at highest risk of sight loss is desirable.

1.24. The Royal College of Ophthalmologists (RCOphth) and UK Ophthalmology Alliance (UKOA) have collaboratively developed a clinical tool for classification of patients with glaucoma into strata of risk for significant future sight loss and an estimate of resource requirement for managing the patient. The tool acknowledges diagnosis, stage of disease, complexity of disease, rate of disease progression, life expectancy, ocular and systemic comorbidities, dependency and socio-economic deprivation. The classification should be used to stratify patients according to the worse eye, which has remaining useful vision, for which the patient is willing to undergo treatment to retain sight.

1.25. The greatest current risk for irreversible sight loss from glaucoma is with those individuals who have a diagnosis of 'actual' glaucoma (rather than the related conditions of ocular hypertension or glaucoma suspect status). Most of these affected patients will be long overdue review and some will be deteriorating due to an inadequacy of response to treatment. Many of these patients will be suitable for at least their next review in an ODTC-style setting, provided consultant oversight is possible via remote and / or virtual clinic support. A significant minority will need consultant clinic appointments and some of these will need to be with a glaucoma subspecialist consultant. There will be a need for additional laser procedures and glaucoma surgeries, in both health boards.

1.26. Glaucoma is the commonest cause of preventable blindness in the UK (see links Appendix 1A and Appendix 1C). It is an absolute, non-negotiable requirement for the health boards to put in place, and maintain, services for the identification, diagnosis and management of individuals with glaucoma in the populations they serve.

1.27. In its 2014 report "Real patients coming to real harm" the RNIB estimated that 48 people lost their sight in Wales each year from avoidable delays in being seen for their eye condition. This would mean that several individuals per year of the population served by Swansea Bay and Hywel Dda might be in such a position. Clearly, as well as human tragedy, this is a significant medico legal risk, probably compounded by current levels of backlog. Health boards are required to meet various 'targets' with respect to eye care services. These include the 'usual' targets applied to referral to treatment (RTT) times for newly referred individuals.

1.28. In recent years, a novel scheme for patient centred measures has been applied in eye care. This scheme sets out categories for clinical prioritisation based on the implications of care not being accessed in a timely fashion. Patients with Health Risk Factor (HRF) 'R1' should be seen within a timeframe that allows for 'overrun' of no more than 25% of the intended time to 'target date' [for next event in a patient's personal pathway. Wales Ophthalmic Planned Care Board (WOPCB) has previously endorsed a Welsh Government target figure of at least 95% for this measure. In addition, as part of the development and support for multidisciplinary team working within clinical pathways, WOPCB has stated that some 75% of 'face-to-face' patient contacts within the glaucoma pathway should be a 'non-ophthalmologist' glaucoma practitioner. In the context of this pathway, glaucoma practitioner is taken to mean optometrist, clinical nurse specialist or orthoptist, provided they are practising within the scope of their confirmed competencies and qualifications, and have (where necessary) consultant supervision, e.g. via a virtual clinic or consultant connect.

1.29. Due to the progressive nature of glaucoma, all patients in this pathway (i.e. ocular hypertension and glaucoma suspect status included) are categorised, as 'R1' i.e. there is a risk of irreversible adverse outcome if pathway events do not take place to time. The target is for 95% of patients to be seen by their 'target date' or within an 'overrun' of no more than 25% of the time between the pathway events in question and the previous event that generated the target date (e.g. next and last clinic appointments). Non-medical glaucoma practitioners are well placed to see a great proportion of the patients in the pathway and may be any of; optometrists, orthoptists or ophthalmic nurse practitioners. These data are reported to Welsh Government via the Planned Care Planning Team and the all-Wales Ophthalmic Planned Care Board.

1.30. Performance against Key Target summary

Key measures applicable to this pathway are;

- The Referral to Treatment time (RTT) for new referrals
- The New (patient outcome focussed) Measures for Health Risk Factor (HRF) category 'R1'
- Patients being seen in timely fashion
- The proportion of face-to-face consultations (across the whole pathway) that are conducted by non-medical glaucoma practitioners.

It has been difficult to extract the exact data in relation to an ODTC model for Hywel Dda UHB due to the way that the coding is currently capturing activity. However, as the Health Board does not have a functioning ODTC model at this time, it is clear that its pre and post COVID performance would be far removed from the 75% target.

Key Target	Hywel Dda Performance		Swansea Bay Performance	
	Pre COVID	Now	Pre COVID	Now
75% of 'face-to-face' patient contacts within the glaucoma pathway should be a 'non-ophthalmologist' glaucoma practitioner	*Data Unavailable* (No different pre-post COVID, circa 105 patients per month reviewed in Community)		52%	57%
95% of 'R1' patients seen within 125% of intended time to next event in pathway	63.4%	40.6%	79%	47%

The Wales Glaucoma Pathway

1.31. The Wales Glaucoma Pathway (Appendix 2A, 2B & 2C) was designed and agreed in 2009-10 as part of the Welsh Government and NHS Wales project Focus on Ophthalmology (FOO), itself part of the Access [to care] 2009 initiative. This venture was supported by all stakeholder groups, from which a comprehensive participation was achieved. This included representation from; patients, the Third Sector, Primary Care, Secondary Care, Optometry, Ophthalmic Nursing, Orthoptics, Ophthalmology, Health Board Management, the NHS Wales Delivery and Support Unit, and Welsh Government.

1.32. The Pathway endorses the tenets of the NICE Guidelines (Appendix 3) and the statements regarding organisation of care as endorsed by the professional and regulatory bodies of the health care professionals involved with care for patient affects by glaucoma. The chief role of the day-to-day practice is to set out how patients may pass through the various pathway elements during their individual journeys. It is envisaged that health boards will use the Pathway's design to determine their local models of service delivery as supported by proceedings of their Eye Care Collaborative Groups, business cases and local health economics etc. to serve local needs.

1.33. In the Wales Glaucoma Pathway, usually following referral from an optometrist, patients will have their definitive baseline investigations via an Ophthalmic Diagnosis and Treatment Centre (OTDC). Here, a patient is able to have all of the required diagnostic tests as well as a clinical consultation with a glaucoma practitioner.

1.34. Support for and oversight of the ODTC care is provided by the consultant-led HES glaucoma team. This includes use of a standardised clinical record – which will be electronic via the Wales Electronic Patient Record (EPR) for Eye Care Open Eyes (installation by end of 2021) – and a virtual clinic, whose output includes plain language information for patients, shared with their general practitioners and optometrists.

1.35. The clinical competencies of the glaucoma practitioners will be underpinned by the specifications of the qualifications in glaucoma of the College of Optometrists and the Ophthalmic Common Clinical Competencies Framework / Ophthalmic Practitioner Training Curriculum (Appendix 4 & 5).

1.36. A formal diagnosis of glaucoma is via a consultant ophthalmologist. Diagnosis of OHT and suspected POAG / COAG ('glaucoma suspect status') is via a suitably trained healthcare professional with a specialist qualification in glaucoma and the relevant experience, in accordance with the local model for implementation of the Pathway. Diagnosis may take place anywhere a clinician who is able to make a diagnosis is in possession of sufficient clinical information (Appendix 2A).

1.37. Patients have their assessments in accordance with NICE NG81, with assessments and / or consultations taking place in lines with the local arrangements made by the relevant health board e.g. maximal prudent use of workforce and facilities, matching complexity of decision-making to most appropriate members of the Glaucoma MDT. Care will be patient-centred and take into account issues around travel. The majority of assessments may take place in an ODTC with a significant minority in both of the consultant-led hospital-based clinics as well as with patients' regular optometrists in primary care.

1.38. Since its inception, Swansea Bay UHB has embraced the Wales Glaucoma Pathway, with establishment of a multidisciplinary team approach and ODTC establishment such that more than half of face-to-face consultations were with a 'non-medical' practitioner.

1.39. This is very much in line with the principles of Prudent Healthcare that we should:

> *"Organise the workforce around the "only do, what only you can do" principle. The principle that all people working for the NHS in Wales should operate at the top of their clinical competence. Nobody should be seen routinely by a consultant, for example, when their needs could be appropriately dealt with by an advanced nurse practitioner".*
>
> *(Mark Drakeford as Minister for Health and Social Services 11/07/2014).*

Hywel Dda UHB has not been able to develop its service to the same extent. This deficit has been compounded in recent years by the departure of a significant number of consultant ophthalmologists, who have not been replaced with 'like-for-like', e.g. currently, there is not a glaucoma subspecialist able to see patients and lead the team.

1.40. The introduction of ORA IOP measurement devices will modify the way in which glaucoma clinics are run in SBUHB. The procedure would be able to be conducted by Ophthalmic Technicians, rather than a qualified staff member with Goldmann Applanation Tonometry (GAT) skills. This is in line with prudent health care and forms the basis of our plan to reduce the backlog and create a sustainable glaucoma service in SBUHB. We propose to run clinics where our band 3 Ophthalmic Technicians can perform vision, visual fields, OCT and ORA IOP measurements (i.e. working at A4C Band 3 sessional rates). This data will then be reviewed virtually by an ophthalmologist or advanced non-medical glaucoma practitioner to decide the on the management of the patient. This pathway has clinicians working to the top of their competencies and is an efficient and cost effective model for a more sustainable glaucoma service.

1.41. The changes required in glaucoma care in South West Wales are best approached from a patient's perspective. Their condition is most likely without symptoms in its early stages, so they will be reliant on a diagnosis based on opportunistic detection as part of regular sight testing. Therefore, a powerful public health message is that of promoting regular sight tests with an optometrist for all. Patients should have confidence in the competence of their optometrist(s) to detect signs suggestive of glaucoma or ocular hypertension. This confidence should be supported by the Wales Eye Care Services and Eye Health Examination Wales processes, which include clinical audit and peer review.

1.42. Once referred for a formal diagnosis of a Glaucoma Pathway condition, patients should be similarly confident that any condition they have would be properly investigated and managed, in accordance with best practice, by eye health care professionals working in a service that is fit for role. These considerations do not represent anything 'new' in terms of models of care. The existing Wales Glaucoma Pathway, adherent as it is to the Guidelines of both NICE and the European Glaucoma Society (Appendix 6) represents a suitable model for care provided that it is fully implemented.

1.43. This proposal is founded on a rigorous analysis of demand, capacity, activity and backlog for the glaucoma services of both health boards. This has allowed for quantification of gaps in service provision within the pathway, with further analysis of scope for enhanced multidisciplinary team working. The numerical data is set out in terms of what may be provided across the region covered by the two health boards, 'now' (analogous to no change in provision), during a phase of recovery, and development of a new regional service and our vision for how a sustainable balanced service could perform.

Future Proofing Regional Glaucoma Services

1.44. NHS Wales via a procurement led by the Welsh Ophthalmic Planned Care Board will be installing a national EPR for Eye Care by the end of 2021. The chosen system is OpenEyes from ToukanLabs and is a web-based modular product that covers all eye conditions, including glaucoma. It is via OpenEyes that patients' conditions and care will be set out. All clinical information will be entered in real time and shared in real time between all involved in a patient's care. Clinical data will include digital images and laser retinal and optic nerve scans (ocular coherence tomography, OCT), together with measurements of intraocular pressure and treatment with various medications as well as laser and other surgical procedures. This Digitisation of Eye Care will allow for all professionals involved to make their contributions to patient care at the right time, in the best location (for the patient), all with the oversight of senior specialists. In addition, real time business intelligence will be obtained to aid service delivery as well as clinical and cost effectiveness, plus clinical and financial audit processes.

Present Day Patient Experience

1.45. Hywel Dda

In general, the patient will wait to be seen in a 'general clinic' by a member of the Ophthalmology team in a general hospital or NHS outreach clinic setting. Some patients with more complex glaucoma issues or the need for some glaucoma surgical options are referred to Swansea Bay UHB. A small number of patients are seen in the private sector by consultants external to Hywel Dda, on a basis of self-referral or referral by optometrists or general practitioners.

1.46. Swansea Bay

Prior to 2019, often waits were significantly beyond 'target time', though mitigated for those at greatest risk via strict implementation of the scheme for clinical prioritisation. From 2019 to COVID-19 Lockdown 1, thanks in part to WG 'Sustainability' funding, NHS non-medical glaucoma practitioners, augmented by 'in-sourced' hospital subspecialty glaucoma clinic sessions, undertaken by optometrists, essentially eliminated backlog via additional ODTC activity. The latter engaged on the basis of their College of Optometrists higher qualifications in glaucoma, but seeing a more complex case mix as they had the required real time consultant supervision.

Proposal

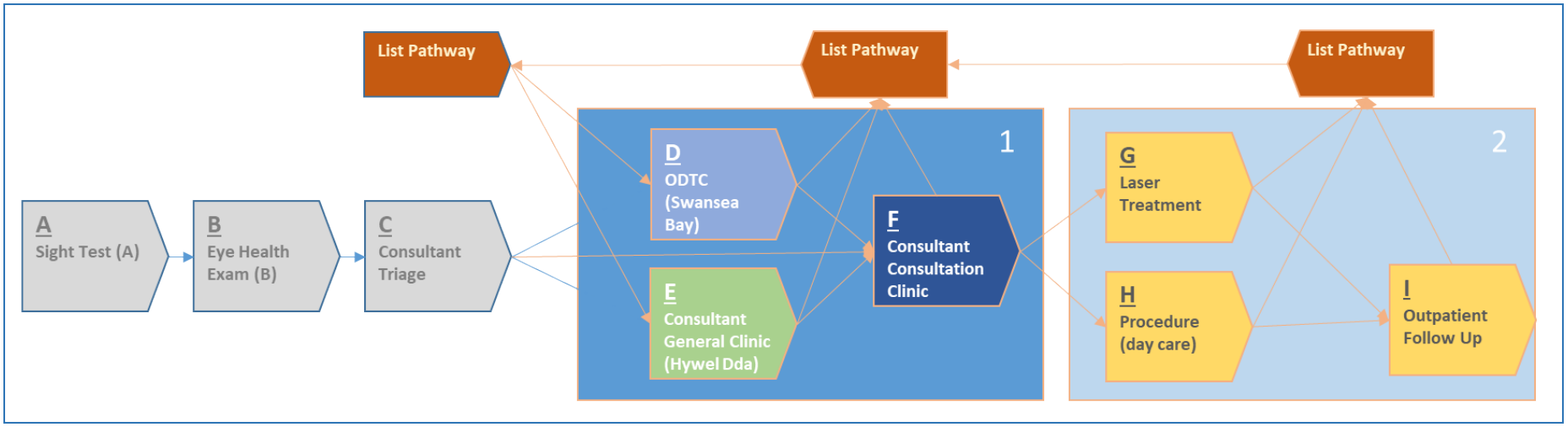
1.47. This business case covers:

- recovery following the disruption to services caused by the COVID-19 coronavirus pandemic
- the establishment of ODTCs in Hywel Dda
- Service development to establish a new regional glaucoma service for South West Wales, led by glaucoma specialist Consultant Ophthalmologists

1.48. The recovery phase will eliminate the backlog and initiate a project plan for a long-term regional service. Following the recovery, phase, and development of the regional service, a steady state will be possible, where demand for glaucoma care is matched by the level of activity provided.

1.49. This business case considers the area of greatest impact, highlighted in blue **(1)** and how changes affect other parts of the pathway in light blue **(2)** shaded box in Figure 1 below.

Figure 1 – Current Operational Model



1.50. Key changes in the proposal are:

Swansea Bay

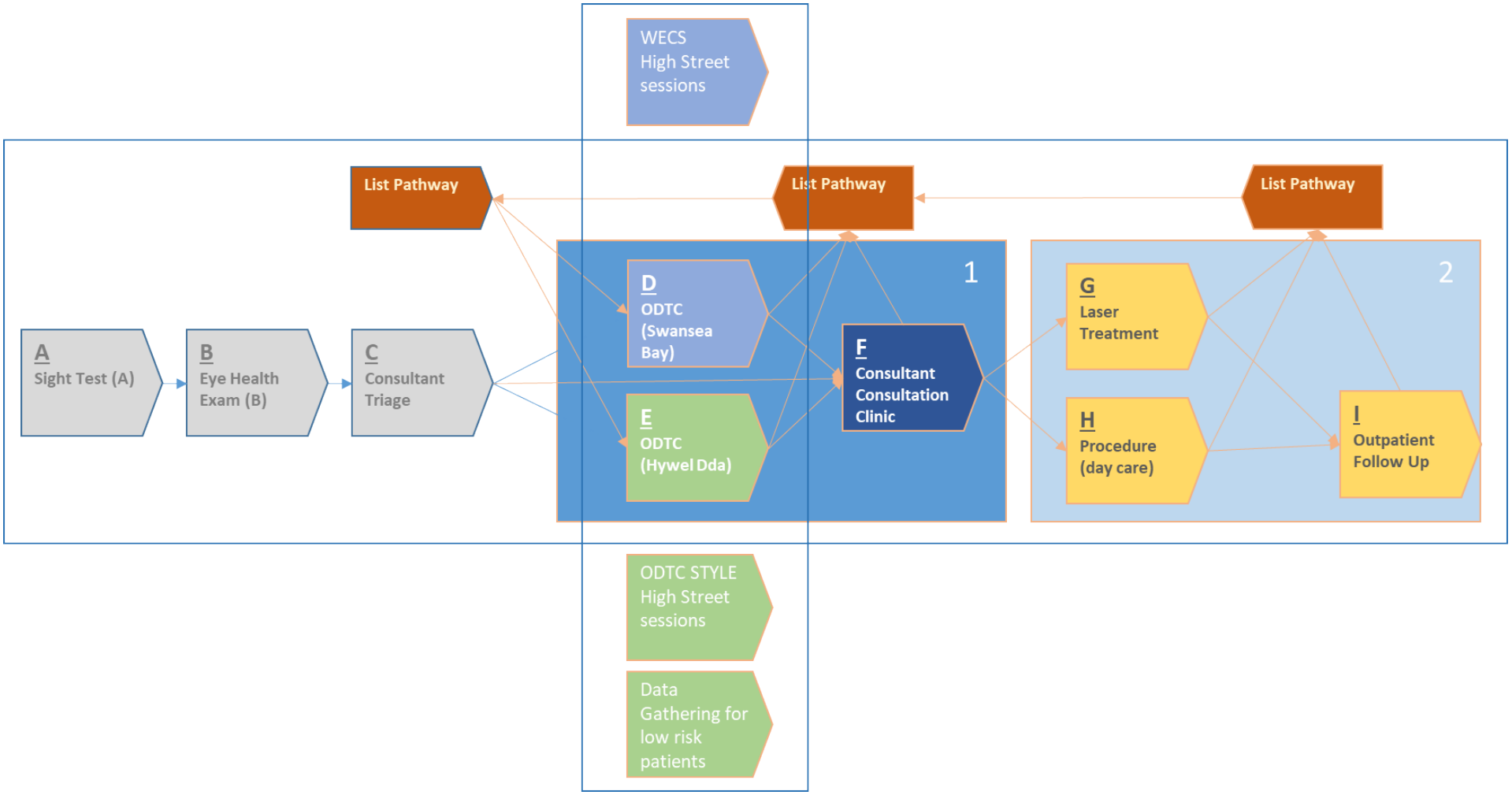
- Increased resources to attend to the COVID backlog
    - Additional ODTC activity
    - +3 WTE Glaucoma Practitioner
    - +3 WTE Ophthalmic Technicians
    - +1 WTE Administration Staff
- 1,500 WECS-style appointments with High Street Optometrists in Swansea Bay (time limited), and including a consultant virtual consultation
- The introduction of a single Ocular Response Analyser (ORA) to enable Band 3 Ophthalmic Technicians to conduct IOP measurements as part of a 'data hub' initiative.

Hywel Dda

- Increased resources to attend to the COVID backlog
    - New ODTC activity (including virtual clinic)
    - +2.7 WTE Glaucoma Practitioner
    - +2.7 WTE Ophthalmic Technicians
    - +1 WTE Administration Staff
    - Additional Consultant Sessions (3 sessions per week until February 2022)
- Establish the ODTC model in Hywel Dda
- 3,000 ODTC style appointments with High Street Optometrists, selected based on higher-level qualifications and equipment already in place, plus a consultant virtual consultation.
- 3,000 Data gathering by High Street Optometrists already involved in the health boards' current scheme for low risk patients (Visual Field, IOP Check, and Optic Nerve Image). This will be time-limited and will include a virtual clinic by a consultant with access to previous clinical records.
- Risk Stratification (additional Optometrist triage activity WTE 4 sessions per week for 40 weeks) (Appendix 7)

1.51. Proposals are highlighted in Figure 2 below

Figure 2 – Proposed Operational Model



2. Economic Case

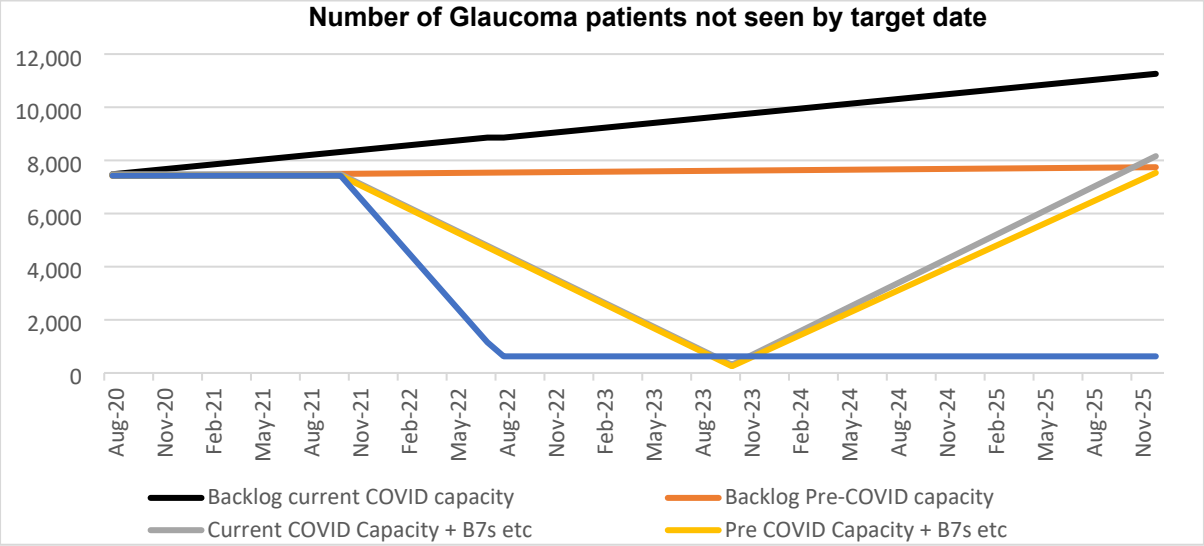
2.1. The Economic Case evaluates the options presented and describes the cost effectiveness and value for money of establishing a South West Wales Glaucoma Service. It also summarises the options considered to develop a preferred operational model for achieving the regional objectives for the service.

Recovery phase

2.2. In order to forecast the Recovery Phase of this service, assumptions have been made in order to produce the modelling and financial impact data to inform the case, these assumptions are based on the current capacity restrictions, due to COVID-19. The modelling assumes that clinical sessions will operate on the current restricted model until October 2021

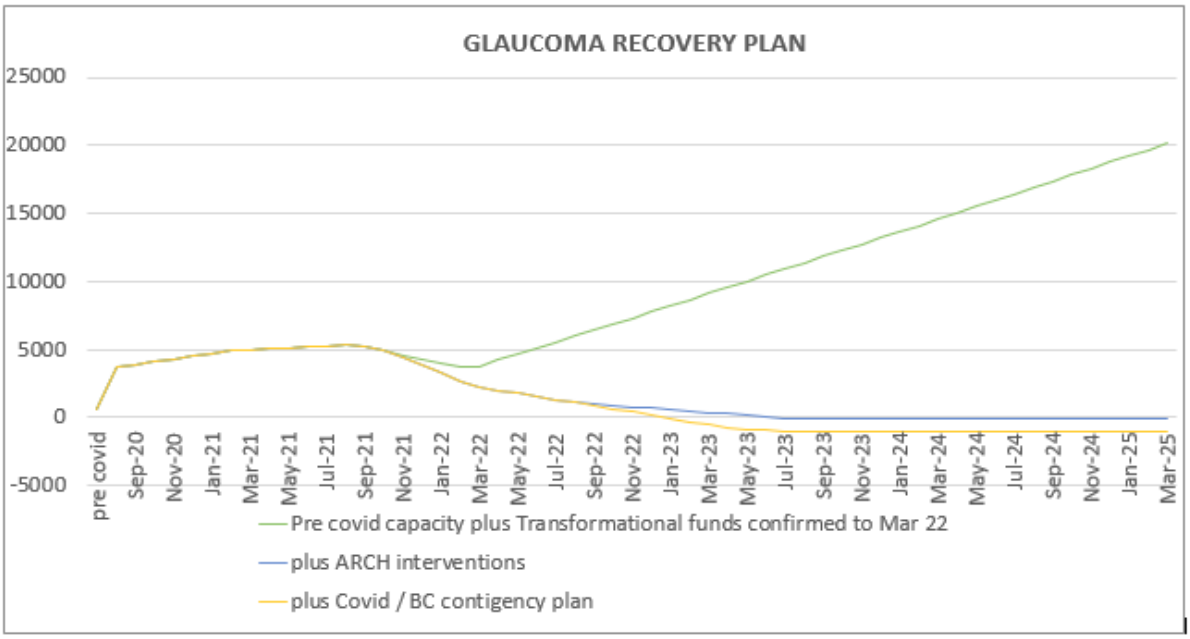
Hywel Dda

2.3. There will be a consultant-led triage exercise, utilizing selected optometrists, to allocate appointments based on clinical need and risk. Those at greatest risk or in need of glaucoma surgery will be seen in Hywel Dda in clinics led by glaucoma subspecialist consultant ophthalmologists. Initially this will be via current Swansea Bay consultants, augmented by new appointments to regional service from their start dates. Patients with need for hospital appointments, but suitable for a general clinic will be seen in such clinics. Those deemed most suitable for ODTC style appointments will be seen by in an ODTC setting. Given the current lack of ODTCs in Hywel Dda, new ODTC working will be established in selected optometry practices, where existing practitioners have appropriate qualifications and where suitable diagnostic equipment is already in place. These ODTC practices will have consultant oversight (where necessary) via virtual clinics and Consultant Connect. Patients deemed to be at lowest risk of glaucoma blindness will be seen for 'data-gathering-only' in an optometrist's practice, as per the scheme currently in place.



Swansea Bay

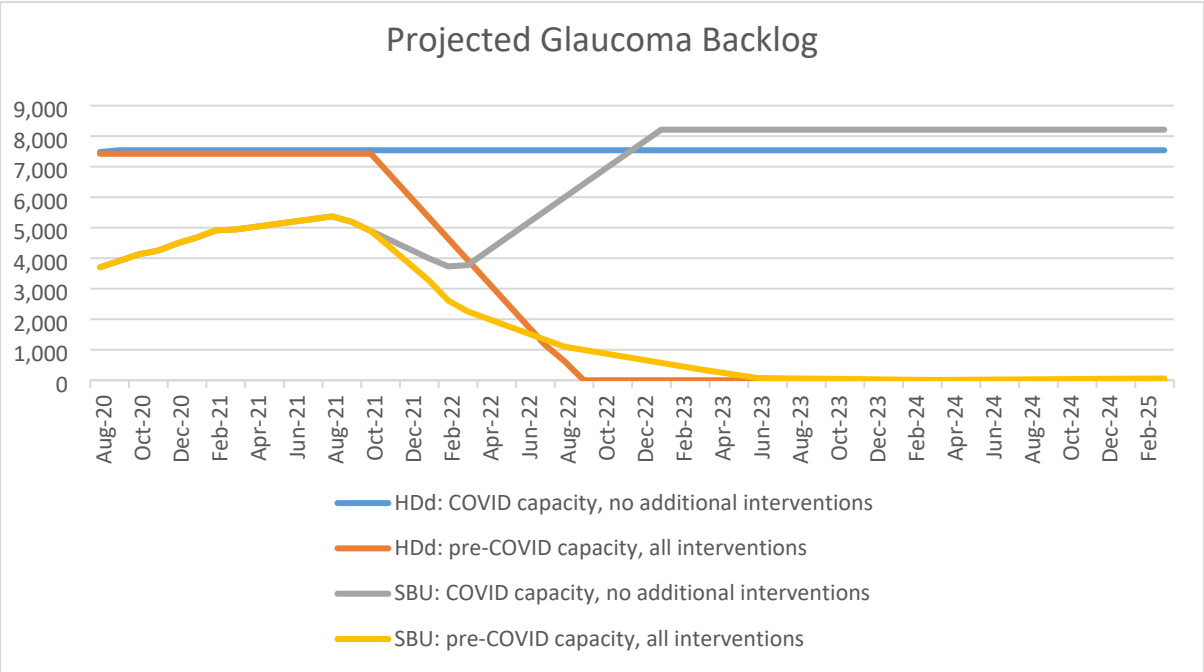
2.4. Patients will be seen in accordance with the Wales Glaucoma Pathway, in accordance with NICE Guidelines and Prudent Healthcare arrangements based on existing ODTCs and hospital general and subspecialty clinics. Existing hospital glaucoma clinics will have additional activity based on additional appointments of non-medical glaucoma practitioners. ODTC clinics will have increased activity because of new appointments of glaucoma practitioners and ophthalmic technicians. Some technicians' sessions will be in a (Moorfields-style) data hub fashion, utilising ORA technology for IOP assessment. These 'production line' clinics will follow for subsequent virtual clinic review to be undertaken by senior specialists for selected patients.



Both Health Boards

2.5. In accordance with current policy and practice, will prioritise a vigorous approach to discharge of patients with ocular hypertension not requiring treatment and those with 'previous glaucoma suspect status' to WECS EHEW optometrists. Compliance will be monitored and expected.

2.6. Given the locations and availability of both optometrists' practices and NHS premises, it is to be expected that patients will be seen as close to their homes as is feasible.



Regional Model

Post-Recovery Steady State

2.7. Both health boards; patients will have had their 'next pathway events' specified at their various recovery phase consultations. These events will be in accordance with NICE Guidelines, Wales Glaucoma Pathway and Prudent Healthcare, e.g. for ODTC or consultant clinics, and will be coded accordingly for ease of service planning and delivery. Target dates will likewise in accordance with guidelines and in a balanced service be expected to take place 'to time'. Both health boards will be expected to meet their targets for 75% of consultations being via a non-medical glaucoma practitioner and 95% of appointments being with an 'overrun' of no more than 25% of the intended interval between pathway events being requested and its taking place.

2.8. SBUHB had succeeded in eliminating its glaucoma pathway backlog by March 2020. This was aided by Welsh Government support, and is reflected in the 'additional capacity' outlined in the table below.

2.9. The table below demonstrates the 24 month trajectory for the reduction of that backlog if;

- The proposals in this business case are approved and implemented;
- The Health Board can resume pre-COVID clinic numbers by November 2021
- The Health Board continues to receive additional WG support in the form of Dyfed Road Clinics and additional weekly Optometrists appointments.

	pre covid sustainable state	**Current June 21**	Option 1 (Do Nothing with pre covid capacity) March 22	Option 2 (This proposal) March 22	Option 1 (Do Nothing) March 23	Option 2 (This proposal) March 23	Sustainable service April 23 25% medical 75% ODTC
Average Demand (New)	67	67	67	67	70	70	77
Average Demand (F/up)	1040	800	1040	1040	1100	1100	1153
Average Capacity -Medical	420	185	320	320	320	320	240
Average Capacity - ODTC	320	380	500	500	500	500	1000
Gap	367	302	287	287	350	350	0
Rolling WG Transformation ODTC scheme	400	216	400	400	400	0	0
New transformation bid for backlog only (8 mths)			125	125			0
ARCH proposal				500		500	0
Backlog	0	5497	4323	2343	6250	0	0

Hywel Dda University Health Board Recovery and shift towards ODTC

2.10. Hywel Dda UHB has had a backlog in its glaucoma pathway for some years, and going into 'Lockdown 1' was still a service with a significant demand-capacity mismatch. The table below demonstrates the 24 month trajectory for the reduction of that backlog if;

- The proposals in this business case are approved and implemented;
- The Health Board can resume pre-COVID clinic numbers by November 2021

	Option 1 (Do Nothing)		**Option 2 (This proposal)**		
	Current Service (COVID restrictions)	**Current Service (No COVID restrictions)**	**COVID restrictions + B7s**	**No COVID restrictions + B7s**	**Sustainable service Sep 2022 25% medical 75% ODTC No COVID Restrictions + B7s + Comm. OPTOMS**
Average Demand (New)	35	70	35	70	70
Average Demand (F/up)	49	98	49	98	98
Average Capacity - Medical	0	0	110 consultants 416 B7s	110 consultants 416 B7s	110 consultants 416 B7s
Average Capacity - ODTC	0	0	0	0	700
Total Slots	84	168	610	694	1,394
Gap (slots per month)	1,310	1,226	784	700	0
Rolling WG Transformation ODTC scheme	Hywel Dda have asked for monies for 1,456 ODTC appointments (for 1 year). This is subject to confirmation and is not recurrent funding. This costing has been excluded.				
New transformation bid for backlog only (8 mths)	In Hywel Dda the transformation bid includes a request to re-risk, stratify all patients so that they can be treated in order of risk and target date. This has not been approved yet.				
Arch proposal	In Hywel Dda, the only substantive posts are shown in option 1. Option 2 medical and ODTC are part of the business case request.				
Backlog (patients a month)	572	517	314	280	None

Benefits

2.11. In the case for change chapter, the relevant measure for this pathway are fully explained. In the context of this and in addition to the specified Welsh Government targets, there are a range of benefits, which will be realised by the proposed changes. Appendix 8 outlines the prospective benefits, which are categorised against the strategic landscape of government policy, individual health boards plans and ARCH portfolio objectives. In this table the 'do nothing' option has been considered. A more succinct version of this table can be seen below, which simply highlights the benefits to the implementation of the SWWGS against the current targets, as articulated in the Case for Change.

2.12. Well-Being of Future Generations Impact

Goal	Yes / No
A prosperous South West Wales	✓
A resilient South West Wales	✓
A healthier South West Wales	✓
A more Equal South West Wales	✓
A South West Wales with cohesive communities	✓
A South West Wales with vibrant culture and thriving Welsh language	✓
A globally responsible South West Wales	✓

Putting Things Right

2.13. The NHS (Wales) Redress Measure 2008 and the NHS (Concerns, Complaints and Redress Arrangements) (Wales) Regulations 2011 have given Health Bodies the opportunity to streamline the investigation of all concerns raised by patients, their families and staff. This legislation is unique to Wales and is known as 'Putting Things Right'. The Team is hosted within NHS Wales Shared Services Partnership (NWSSP).

2.14. In the last 3 years, the total cost of litigation in relation to the Glaucoma Service in our region has totalled just under £2.1 million pounds. It should be stressed that there have been zero claims for clinical negligence or malpractice. This total sum of settlement amounts and associated costs are solely attributable to a delay in access to care in the existing Glaucoma Service. Included in this is at least one case of bilateral blindness caused by a delay in care. While forecasting litigation costs is challenging, assumptions can be made that implementing the proposed improvements in the Glaucoma Service will minimise the risk of future harm and repeated litigation.

Roll out of Open Eyes EPR

2.15. The current position with the impact of COVID-19 has accelerated the case to digitise the eye care pathway. Cardiff & Vale University Health Board has been asked to manage this project on behalf of Welsh Health Boards to establish a Master Services Agreement for NHS Wales to procure a national Electronic Patient Record (EPS) and e-referral mechanism for Ophthalmology. The FBC for this has been approved.

2.16. The roll out of the standardised electronic clinical record; Wales Electronic Patient Record (EPR) for Eye Care Open Eyes is estimated to be available in the ARCH region for early familiarisation from 31 September 2021. Recruitment is in progress for the relevant project posts. These posts will support the structure, training and mobilisation of the Open Eyes system during October 2021 on onwards.

2.17. Although the SWWGS has a dependency on this work, there is no financial impact of the system roll out to be considered as part of this outline business case. The timeline of rollout has been highlighted as a risk to the service, and has been captured in the summary of Project Risks. Should the full functionality not be available by the specified date, a contingency plan is required for handling of paper-based clinical notes, so as to ensure that patients continue to flow as part of the SWWGS model. This has been included in the Project Risk section of this document and will be included in the Project Risk Register, which will include a full description of appropriate mitigation actions, which reflect the current process in the absence of an EPR.

2.18. While the risk can be mitigated, it will incur an associated cost, which will need to be considered as part of this overall planning. The costs incurred are estimated to be in the region of £400 per week if EPR is not fully functional to support this activity.

3. Commercial Case

3.1. As part of the development of a regional glaucoma service, there will be a greater contribution to patient care from optometrists in Primary Care. This will be in accordance with the competencies possessed via higher qualifications, including that for Independent Prescribing (IP) and with virtual clinic support where necessary. This increased use of Primary Care will be particularly important during the first phase of SWWGS development; Recovery following COVID.

3.2. Alongside developments in Primary Care, better use will be made of facilities for visual fields testing and clinical imaging within existing NHS premises in all centres of population, including the more rural ones. This will involve enhancements to the glaucoma multidisciplinary team.

3.3. A Service Specification and SLA is required for Optometry 3,000 ODTC Style (High Street Optometrist appointments) outline above. The service will be procured via Sell to Wales.

4. Financial Case

4.1. The purpose of this section is to set out the totality of costs (revenue and capital) and proposed funding arrangements to enable the SWWGS to mobilise.

The Financial Impact of Implementing a SWWGS

Revenue Costs

4.2. Whilst indicative costs have been estimated, as seen below. The full costings from both Health Boards can be seen in Appendix 9 & 10.

4.3. Non-recurrent funding for 2021/2022 has been agreed up until end of March 2022, utilising the Welsh Government Recovery Funds.

4.4. Existing budgets to cover recurrent costs from 2022 onwards will be identified and alternative sources to cover the shortfall will be sought. Appendix 9 for Hywel Dda's costings highlights in red where recurrent funding is required, and may potentially be funded from longer-term recovery moneys.

4.5. There is potential that longer-term WG recovery monies will be available for a recurrent financial stream.

	Additional cost for first 2 years		Additional annual cost of implementing SWWGS 2023 onwards
	2021/22 (£)	2022/23 (£)	
Hywel Dda TOTAL	420,205	987,215	982,215
Swansea Bay TOTAL	173,983	443, 429	296,109
Regional TOTAL	**594,188**	**1,430,644**	**1,278,324**

Capital Costs

The introduction of the proposed Ocular Response Analyzer (ORA) machines would incur Capital costs as follows. Each ORA costs £15,642.00. This cost includes the cost of the device, the associated equipment of safe storage/transportation, the installation and the training of staff on the day of installation. Therefore, the total capital costs would be as follows;

ORA Machine Purchase			TOTAL
Swansea Bay	4 x ORA @ £15,642.00 each including VAT	Annual Calibration Charge @£495 (X4)	64,548
Hywel Dda	3 x ORA @ £15,642.00 each including VAT	Annual Calibration Charge @£495 (X3)	£48,411

Steady State

4.6. Following the elimination of backlog within the glaucoma pathway, the levels of activity required during the Recovery Phase will no longer be required in the same configuration.

4.7. Prior to COVID-19, Hywel Dda had a significant Glaucoma backlog due to a capacity shortfall in the service. Swansea Bay relied on 'cross-flow' to ['non-glaucoma specialist'] consultant-led general clinics due to relative lack of ODTC capacity (despite its undoubted success of model and performance). It is clear that in order for pressure to be taken off 'non-glaucoma' consultant-led clinics, a larger glaucoma team is going to be needed in both health boards.

4.8. Support for such teams would deliver benefits of Prudent Healthcare, and free-up other (non-glaucoma) specialist clinics to deliver what 'only they can do'; and this includes cataract surgery. Additional benefits of an enhanced establishment of the Ophthalmic Technician role will provide time, clinical and cost-effective investigations within not only the glaucoma pathway, but also contribute to care in other integrated clinical pathways, e.g. medical retina and cataract.

5. Management Case

5.1. The management case of this OBC sets out the actions required to ensure the successful delivery of the South West Wales Glaucoma Service against the agreed objectives and timeline. To achieve this, it sets out the programme management arrangements and implementation plan. It gives details of any arrangements and considers how these will affect the organisational and clinical governance arrangements once the service is operational.

5.2. As the SWWGS moves from business case to mobilisation, and finally, operational delivery, the ownership will move from within the ARCH Programme Management Office to the relevant operational teams. This transition will include the change in ownership of activity and risks.

Project and Change Management

5.3. In its role as a Regional Project resource, the ARCH Programme Management Office (PMO) has dedicated capacity from within the portfolios of the Head of Strategy and Service Planning and a Service Planning Manager to develop and progress the SWWGS Business Case.

5.4. When the milestones in relation to Business Case approval have been reached, the ARCH PMO would hand over the Implementation Plan, Financial Plan and Risk Register to a suitable individual or team to manage the full implementation of the model.

5.5. The Operational Teams involved in Regional Eye Care work have discussed the capacity within their portfolios to manage large-scale change across complex eye care services and have highlighted a gap in capacity. It has therefore been decided that a BID be placed to the WG Recovery Funds to finance one role which will manage both the current projects within the Regional Eye Care Service portfolio; the SWWGS and the Cataracts Recovery Plan. Subject to funding approval, the role of Business Change Manager will be recruited as 1 WTE at a Band 7 for 12 months to manage the full scale of change and implementation of the South West Wales Glaucoma Service (SWWGS) and the Cataracts Recovery Plan across both Hywel Dda UHB and Swansea Bay UHB. This job description can be seen in Appendix 11.

5.6. If the outcome from the application for funding to Welsh Governments Recovery Funds is not favourable, then there is a risk that the SWWGS will be hindered and delayed based on the lack of capacity to implement the service changes proposed.

Operational Delivery Plan

5.7. The SWWGS Delivery Plan has been drafted, See Appendix 12. Due to the high number of interdependencies in this proposed service, a number of dates and timelines are yet to be confirmed. The plan currently features all the essential milestones and deliverables, which will see this SWWGS to fruition.

Project Risks

5.8. Project risks will be managed via the South West Wales Regional Glaucoma Service Implementation Group. An updated risk register will be presented at each meeting for appropriate review, discussion and agreed mitigating action. As the project transitions towards mobilisation, risk management will continue to be an important governance element of the new implementation structure. The ARCH Regional Recovery Group will oversee the management and transition of this process.

5.9. The Assumptions made in the modelling of the SWWGS are articulated in earlier sections of this business case. If these assumptions fail to be accurate at any point in time, they will become a risk to the delivery of the project.

5.10. There are ten identified project risks. The full risk register can be viewed in Appendix 13.
The five highest identified in the risk register can be seen in the table below.

Top 5 Risks to SWWGS

Risk Number	Description of Risk	Severity (RAG)	Mitigating Actions
R.02	There is a risk that the service will not be able to recruit to Consultant Ophthalmologist posts	16	To mitigate the risk of this there are two actions; A) Redesign the Recruitment Strategy B) Explore alternative options for continuity, including extending contracts for existing consultants and locum recruitment.
R.08	There is a risk to securing sufficient clinical space for ODTC clinics within Swansea Bay	16	1. Applications have been made through the health board planning mechanisms. 2. Additional clinical space has been requested at the Morriston site. 3. Employing Glaucoma Practitioners on a sessional basis and using them to fill weekend clinics using vacant clinical spaces
R.07	There is a risk that operational pressures will result in limited capacity of clinical staff and service managers to support development of key deliverables which may impact upon achievement within timescales	12	Maintain close contact with Clinical Lead, Ensuring, effectively cascading information to the wider team and being flexible in setting up meetings to suit clinical and service needs
R.05	Failure to secure dedicated Change Manager to support the implementation and delivery of the SWW Glaucoma Service	12	If a dedicated Change Manager cannot be funded from WG Recovery Funds to oversee the implementation of the service model, the operational teams would have to manage the fully implementation of the model
R.01	There is a risk that the service will be unable to resume Pre-COVID Clinic Capacity by November 2021	12	This is being reviewed regularly based on WG guidance. The impact of not resuming pre-COVID clinic levels has been modelled by the Service Teams

Health Board Governance

Health Board Governance Structures for Business Case Approval

5.11. Each Health Board has a local Governance Structure for approving Business Cases. After its approval by the ARCH NHS Regional Recovery Group, the Business Case will take these local routes. Within SBUHB the business case will seek approval through the Business Case Scrutiny Panel, Business Case Assurance Group and Management Board. Within HDdUHB, the business case will seek approval through the Executive Team.

Hywel Dda UHB and Swansea Bay UHB Eye Care Collaboration Group (ECCG)

5.12. The ECCGs work with all relevant stakeholders to implement the Together for Health: Eye Health Care Delivery Plan for Wales and the Planned Care Programme National Ophthalmic Implementation Plan and other related Welsh Government (WG), NHS Wales and health board required action plans, with specific reference to operational and executive roles and the health board IMTP. As part of ARCH-supported regionalisation schemes, a joint, combined Regional ECCG will be convened.

5.13. There are separate groups for each Health Board, with an identical mandate.

ARCH Governance

The ARCH Portfolio

5.14. The ARCH Portfolio has recently reviewed its governance structure in the context of other regional groups, Health Board recovery structures and operational delivery. This reviewed governance structure has been agreed by the Chief Executive Officers of both Health Boards and can be seen in Appendix 14. The governance structure is in place to support the ARCH project cycle.

5.15. The modus operandi for these groups in relation to the Regional Eye Care work can be seen below.

ARCH NHS Regional Recovery Group

5.16. The ARCH NHS Regional Recovery Group has been established to provide leadership for the ARCH Service Transformation Programme. The Group will have a key role to drive forward a range of projects that have been identified by partner organisations in the Service Transformation Project Initiation Document (PID). It will bring together in one place all the projects, which will deliver significant change in the health and care system for the ARCH region.

ARCH Eye Care Regional Services Steering Group.

5.17. The purpose of the Regional Eye Care Services Steering Group is to inform, develop and agree recommendations to Swansea Bay University Health Board and Hywel Dda University Health Board Executive Teams on the future delivery of regional eye care services; to ensure a safe, effective and sustainable quality service through the ARCH Service Transformation Board. This Steering group will oversee the development and submission of the Business Case.

ARCH South West Wales Glaucoma Service Business Case Development Group (Formerly the ARCH Glaucoma Task and Finish Group)

5.18. The purpose of the ARCH South West Wales Glaucoma Service Business Case Development Group was to develop, consult and agree on inclusions for the Business Case. The Business Case will be developed with robust analysis and justification, informed by the appropriate stakeholders.

ARCH Regional Eye Care Education and Workforce Subgroup

5.19. The purpose of the ARCH Regional Eye Care Workforce Planning Sub-Group is to inform, develop and agree recommendations on workforce planning, education and development that support and enable the delivery of the Regional Eye Care Services Vision. Workforce elements of this business case will be sited at this meeting to ensure thorough and specialist workforce input.

6. Appendices

These documents can be accessed via the following link:

https://hduhb.nhs.wales/about-us/your-health-board/board-meetings-2021/board-agenda-and-papers-30th-september-2021/

Appendix 1

1. A,B,C & D Links and basic information relating to glaucoma: Glaucoma UK, RNIB

Appendix 2

2. 2A. Pathway Diagram
   2B. Wales Glaucoma Pathway commentary
   2C. Glaucoma clinical scenarios mapped to qualifications for independent practice

Appendix 3

3. NICE NG81: Guidelines for Chronic Open Angle Glaucoma and Ocular Hypertension (2009 with 2017 update)

Appendix 4

4. Professional Higher certificate in Glaucoma – Royal College of Optometrists

Appendix 5

5. Ophthalmic Common Clinical Competencies Framework / Ophthalmic Practitioner Training Curriculum

Appendix 6

6. European Glaucoma Society: Terminology and Guidelines for Glaucoma

Appendix 7

7. Triage tool for risk-stratification of new and follow-up waiting lists for glaucoma care

Appendix 8

8. Local, National and Strategic Benefits to implementing a SWWGS

Appendix 9

9. Hywel Dda UHB Costings and Funding Streams

Appendix 10

10. Swansea Bay UHB Model Costings

Appendix 11

11. SWW Regional Eye Care Service Change Manager Job Description

Appendix 12

12. DRAFT South West Wales Glaucoma Service Delivery Plan 202123– DRAFT

Appendix 13

13. South West Wales Glaucoma Service Risk Register

Appendix 14

14. ARCH Governance Structure