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Review of Eye Care Services – Betsi Cadwaladr University Health Board

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Summary report

Introduction and background context

1 Ophthalmology is a branch of medicine dealing with the diagnosis, treatment, and prevention of diseases of the visual system. Eye health services are becoming more and more important as the UK population ages. An ageing population means there are more incidences of age-related eye conditions, such as cataracts, age-related macular degeneration and glaucoma. Many of these eye diseases can be successfully treated if caught early and can often be managed effectively with existing treatments and medicines. But delays can also result in increased risk of harm and irreversible sight loss.

2 In March 2021, Welsh Government published NHS Wales Eye Health Care - Future Approach for Optometry Services. The plan forecasts a long-term growth in the prevalence of major eye conditions over the next 20 years including:

- 47% increase in the numbers of people with age-related macular degeneration;
- 50% increase in the numbers of people having Cataracts;
- 44% increase in the numbers of people living with glaucoma; and
- between 20% and 80% growth in diabetic retinopathy, a complication of diabetes.

3 The pandemic has significantly impact on waiting lists across Wales and across many specialties, but this is particularly notable in ophthalmology. Ophthalmology referral to treatment waiting lists have increased by around 50% since the start of the pandemic. This significant growth in the numbers of patients waiting alongside forecasted increased demand presents strategic and operational challenges across Wales which will affect many service users.

4 Betsi Cadwaladr University Health Board (the Health Board) has three main acute sites providing specialist eye care services with four dedicated operating theatres. Two operating theatres are situated in Abergele Hospital's Stanley Eye Unit, and there is one operating theatre in both Ysbyty Wrexham Maelor and Ysbyty Gwynedd. Of the Health Board's 38 current ophthalmology medical staff, 15 are consultants, with the remainder from other grades. The Health Board's annual programme cost budgetary spend for 'Eye/vision problems' is £45.1 million of which £32.5 million is spent in secondary care and the remainder in primary and community services.

5 There are 73 privately owned and managed accredited Eye Health Examination Wales providers in North Wales. 6 primary care Ophthalmic Diagnostic Treatment Centres provide additional services, for example reviewing patients after cataract surgery and monitoring patients with glaucoma.

6 Demand for specialist eye care services is growing in Betsi Cadwaladr University Health Board (the Health Board). In the last 8 years, average number of ophthalmology referrals into the Health Board have increased from around 1,600

per month in 2013 to over 2,200 per month in early 2020. While this substantially reduced at the onset of the pandemic, it is now starting to return to pre-pandemic levels.

7 Our work sought to answer the question: 'Are eye care services in the Health Board delivered efficiently, effectively and economically, with clear plans to meet current and future population needs?'

Key messages

8 Overall, we found **that there has been a substantial deterioration in eye care service performance because of the pandemic. The Health Board is keen to improve and is adopting what is understandably a reactive response to waiting list growth caused by the pandemic alongside building on its more proactive plans that it had started to develop in 2018 and 2019. Significant challenges remain, particularly because demand is expected to be greater in future than has been seen in the past**.

9 Throughout this review we have seen the direct and indirect impact of the pandemic on services, staff, and patients. Services are stretched and service users face long delays. Whilst the Health Board is not in a unique position with the growth of the numbers of patients on ophthalmology waiting lists, it does have a particularly high proportion waiting a very long time. Whilst many of those patients with long waits may be lower risk, this is an issue that the Health Board is committed to resolving. Referral demand is now increasing at a higher rate than service capacity is recovering leading to waiting list growth. Sub-regional variation in waiting times may present a challenge and there needs to be a clearer understanding of the drivers of this variation, and measures put in place to address it.

10 Service efficiency is sub-optimal. This is notable in relation to theatre session productivity and aspects of outpatient management. Inefficiencies have been exacerbated by the pandemic, but there were clear opportunities for greater efficiencies beforehand. Adoption of the new all-Wales cataract pathway and productivity targets would help drive efficiencies. Improvements in acute service efficiency can't be 'switched on'. It will take a concerted effort which is focused on value and outcome, supported through stronger clinical leadership, engagement, stronger accountability, capital investment and cultural change.

11 The Health Board is strengthening its approach for eye care service change through its eye care business case. It has built stronger relationships with primary care services, expanding community services, and is exploring further ways to provide care closer to home. The Health Board is also seeking to develop regional treatment centres which are likely to include eye care services. That additional local capacity will take time to develop, and the Health Board has taken a logical approach by agreeing a major new contract with an external provider. This should start to recover waiting lists while sustainable acute models are developed.

12 Longer term models for acute care will require a strong workforce and an estate that supports efficient and good quality care. However:

- workforce risks within the service are significant, and the Health Board needs to ensure it has good workforce plans which are fit for the future. Vacancies in the clinical leadership structure need to be filled, and there is opportunity to consider how Ophthalmology and Optometry clinical leadership come together in a more integrated structure.
- the Health Board also needs to better consider the changes it needs to make to its estate to build capacity that is both fit for the future and supports improvements in efficiency. We heard of concerns about the estate at all three North Wales sites.

13 There are reasonable arrangements for monitoring eye care service performance. However, lines of accountability for eye care services are fragmented across hospital sites and this allows too greater variation in efficiency, productivity, adoption of new services and disparities in waits. Current operational accountabilities do not link well to the wider accountabilities for the eye care improvement programme. Financial management of 'eye care services' is also distributed making it difficult to compare and contrast financial efficiency. At present the accountability model could limit traction when it is needed most. Monitoring of the eye care business case implementation is taking place within the Health Board's Eye Care Coordination Group sufficient for it to be able to track progress. However, there needs to be stronger links into the Health Board's wider corporate programme governance structures.

14 Despite an incredibly challenging 18 months during the pandemic, the staff we met with during this review demonstrated a pride in their work and were committed to securing the further service improvement. This review highlights a need for several improvements including some associated with aspects of internal efficiency and productivity, which must be addressed. We have made 12 recommendations arising from this review. The Health Board should aim to deliver improvements within an ambitious but achievable timeframe, and include periodic progress reporting against these into the new corporate programme and transformation structure.

Recommendations

The Health Board's management response to our recommendations is set out in **Appendix 1**.

Recommendations
Subregional variation of patient waits
R1 Improve quality of referral to treatment data to ensure that the Health Board can undertake analysis of sub-regional variation in waits.
R2 Undertake analysis on sub-regional variation in waits, either by the Health Board's three main locality areas or by county of residence.
R3 For as long as variation exists, include performance data on sub-regional variation in waiting times within existing performance reports to the Executive team and to Performance Finance and Information Governance Committee.
Efficiencies
R4 **Implementation of the all-Wales cataract pathway** – ensure that the all-Wales cataract pathway is effectively implemented and then routinely adhered to. As this will take time, the Health Board should set clear milestones and intermediate targets.
R5 **Service efficiencies** – develop a clear plan to improve service eye care service efficiency and productivity. Where relevant, this should be linked to wider service change/modernisation plans.
Financial monitoring
R6 Improve financial reporting to all those accountable for eye care services in the Health Board. This should include variance to budget and support value-based healthcare through a better understanding of cost, outcomes, and expenditure on its improvement plans.

Recommendations

Accountability for eye care services

R7 Undertake a review of the accountability arrangements for eye care services with the aim of:

- ensuring effective integration of services across acute sites;
- achieving better integration of services with community optometry; and
- eliminating inappropriate sub-regional variation of service delivery and improving service efficiency.

Eye care clinical leadership

R8 Strengthen the clinical leadership structure, with a specific focus on responsibilities, and accountabilities for eye care services. As part of this, ensure that the optometry clinical leadership integrates into the existing clinical leadership structure.

R9 Appoint to the clinical leadership structure.

Workforce planning for eye care services

R10 Develop a single medium-term workforce plan for eye care services (acute and NHS funded community services) that:

- links to the future intended models of care;
- builds further opportunities for working with training providers;
- includes succession planning; and
- develops a more strategic approach to recruitment.

Estate

R11 Ensure estate improvements and wider capital needs are included within Eye care business cases and plans. This should include investment to support improved efficiency and use of existing estate as well as any additional estate capacity to support the longer-term sustainability of services.

Reporting and monitoring

R12 Strengthen formal reporting into the corporate programme management structures on eye care business case milestones and impact of investment in eye-care services.

Detailed report

Waiting times

15 As highlighted in the introduction of this report, there is a clear link between long waiting times and risk of harm for some eye conditions. NHS Wales has two waiting list approaches to help manage and control these risks at a Health Board level:

- Eye Care Measure (a recently introduced 'risk-based measure' to help manage overall risk of harm as a result of a delay).
- Referral to Treatment waiting list (used for most elective/planned care).

16 We found that **while not in a unique position, the Health Board has a large and growing number of people waiting long times for eye care treatment. While risk-based prioritisation is used, the extent of waits is a significant concern**.

Eye Care Measure

A basic introduction to the eye care measure[1]

Ophthalmology patients are risk assessed based on their condition and then given a target date to be seen. If a patient who is categorised as the highest risk[2] waits 25% longer than the clinically assessed target date, then it counts as a breach.

Example: Mrs Jones has wet AMD and has been clinically assessed as needing to be seen in 4 weeks. Mrs Jones waits just over 6 weeks – therefore the target has been breached. Within 5 weeks, this would not have been a breach.

The eye care measure is the overall proportion of people on the Health Board's waiting list waiting within target date or for R1 patients, within 25% beyond their target date. The national target is for 95% of all patients on the Eye care measure waiting list to be seen by their target date or within 25% beyond their target date.

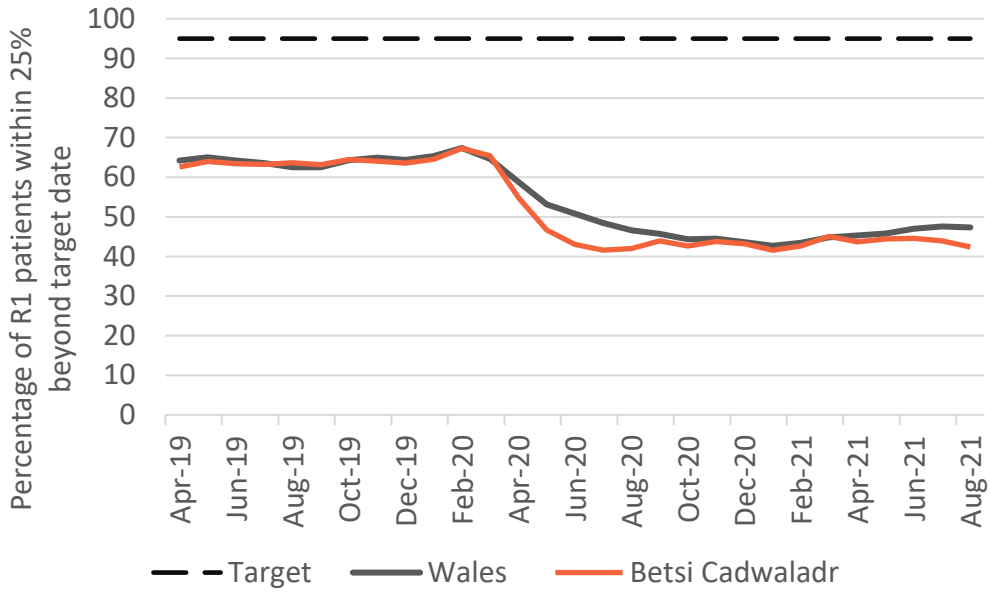
17 **Exhibit 1** on the following page shows the performance on the eye care measure, since the measure was introduced and published. It shows Betsi Cadwaladr University Health Board performance broadly aligns with the all-Wales average. Across Wales performance was stable during 2019-20 but was not meeting the national target during 2019-20. This has deteriorated because of the pandemic. But irrespective of the pandemic eye care demand is also expected to increase.

[1] Welsh Government introduced the eye care measure to help prioritise those most at risk of harm as a result of a delay in accessing services.

[2] The highest risk is known as Risk Factor 1 or **R1**.

The Health Board not only needs to recover services but develop but adapt services to ensure they can sustainably meet this growth in demand.

Exhibit 1: eye care measure waits – percentage of patient pathways, which have a target date allocated and are assessed as Health Risk Factor R1, waiting within target date or within 25% beyond target date for an outpatient appointment. (Higher is better – target is 95%)



Source: Stats Wales Eye care measure – Patients waiting to start treatment by month

18 A very high proportion of patients on the waiting list (99.5%) are risk assessed which is helping to prioritise those at most need and enables performance monitoring. Given the extent of patient waits and considering wider pressures on the health system, it is a major challenge to ensure those higher risk patients are seen and treated. 18,765 of the 32,531 patient pathways classified Risk Factor 1 were breaching the target as of August 2021.

Referral to treatment

19 Some acute eye care patients who are waiting a long time may not be at a significant risk of irreversible harm as a result of a delay. But they may be living with a condition that impedes their quality of life. Referral to treatment waiting list trends provide an indicator of the balance of service capacity and demand. It shows the extent of those waiting longest and reflects an aspect of patient experience.

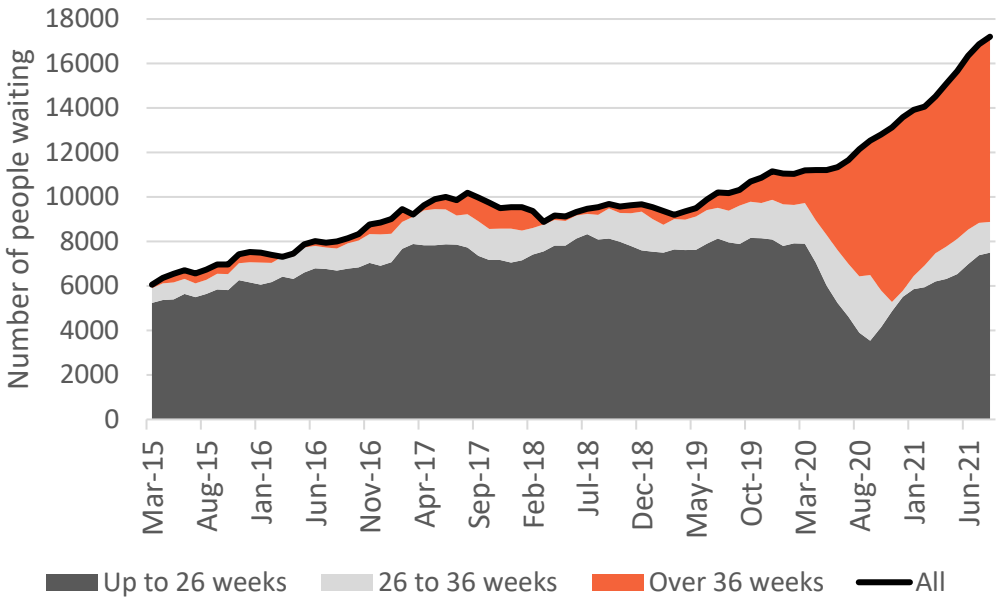
What is referral to treatment (RTT)?

RTT performance relates to the time taken from referral into the service to the point where they receive treatment. Prior to the pandemic 95% of patients should have been treated within 26 weeks and all patients within 36 weeks. RTT waiting lists do not take into consideration clinical risk in the way that they are recorded and are a simple time-based measure.

20 **Exhibit 2** below shows the number of patients waiting on the referral to treatment waiting list, grouped by weeks waiting. It shows:

- a growth in total numbers of people waiting between 2015 to March 2020, ie a notable growth prior to the pandemic;
- that overall, there are over twice as many ophthalmology patients currently waiting for treatment as there were in 2015;
- that prior to the pandemic there have been periods where the Health Board struggled to deliver services within 36 weeks; and
- that the last 24 months has had a major impact on length of waits.

Exhibit 2: number of patients waiting on the referral to treatment waiting list in North Wales, grouped by length of wait



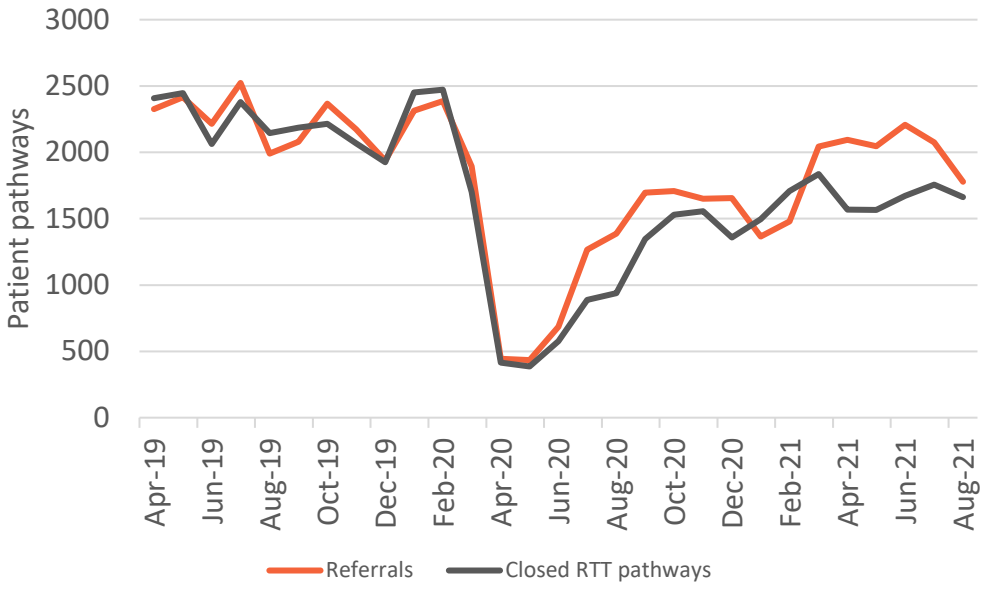
Source: Stats Wales – Patients waiting to start treatment by month

21 Staff who spoke to us also described inequity of waits across North Wales. In particular, people living in the West (Gwynedd and Anglesey) may be waiting longer than people living in other counties in North Wales. We have not undertaken analysis of this because of clinical coding issues on the waiting list[3] (**Recommendation 1**).

22 The Health Board has some extremely long waits. We looked at the proportions of ophthalmology patients waiting more than 73 weeks on the RTT waiting list (ie, waiting over twice the 36-week wait target). As of August 2021, there were 17,205 patients on the ophthalmology RTT waiting list. Of these, 5,158 were waiting 73 weeks or longer, equating to just under 30% of all patients waiting.

23 The number of closed pathways gives an indication of patients treated, comparing this to monthly referrals gives an indication of how well capacity is meeting demand. The mismatch between referral demand and productive capacity is the main contributing factor to the growth in waits. **Exhibit 3** shows that this was reasonably balanced prior to the pandemic, but there is now a clear gap as referral demand increases.

Exhibit 3: Betsi Cadwaladr – ophthalmology referrals (GP and non-GP) and closed RTT pathways



Source: Stats Wales

[3] Clinical coding enables categorisation of the waits by clinical condition. Currently, the data is not fully reliable. This means we cannot reliably compare, for example, the variation in waits for people waiting for cataract surgery.

Efficiency and productivity

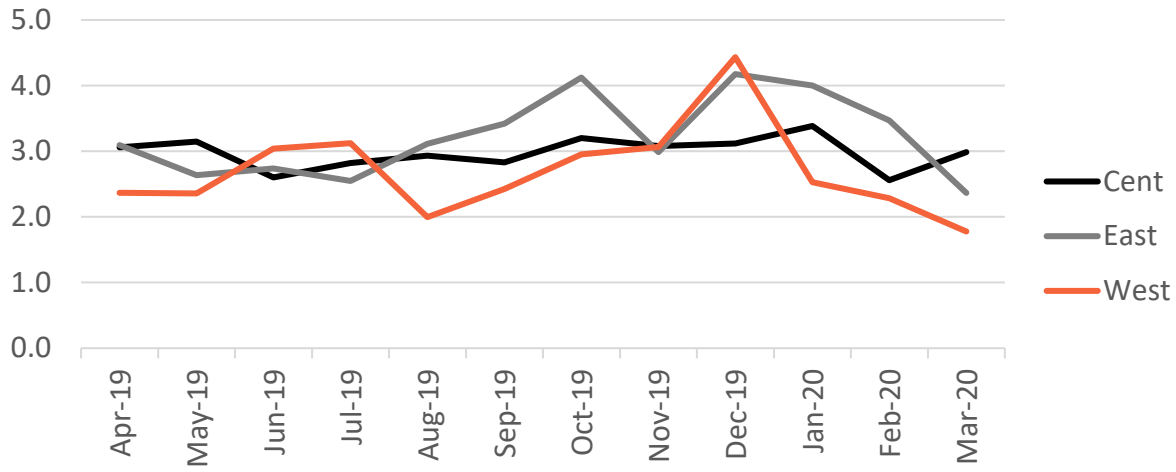
24 Productive and efficient services help to maximise the clinical benefit for those who need them. This section considers some key efficiency indicators, arrangements to support efficiency and it describes the challenges and barriers faced. This focuses particularly on acute ophthalmology services.

25 We found that **for a variety of reasons, including different working practices, booking processes, culture and estate issues, service efficiency is sub-optimal. There is a real need to drive improvement in acute service efficiency, but this can't be 'switched on'. It will take time. It will take a concerted effort supported through leadership, engagement, stronger accountability, capital investment and cultural change**.

Ophthalmology outpatients

26 Outpatient services are core to efficient ophthalmology pathways. Prior to the pandemic, the Health Board was providing around 80,000 face-to-face ophthalmology outpatient appointments each year of which around 70,000 were consultant led. The following chart shows the ratio of review (or follow up) to new outpatient appointments (**Exhibit 4**). It shows around 3 review appointments for every new outpatient appointment. New care pathway models promote the reduction of consultant-led review appointments where not clinically necessary. This could release substantial capacity to treat more of those patients who are waiting a long time.

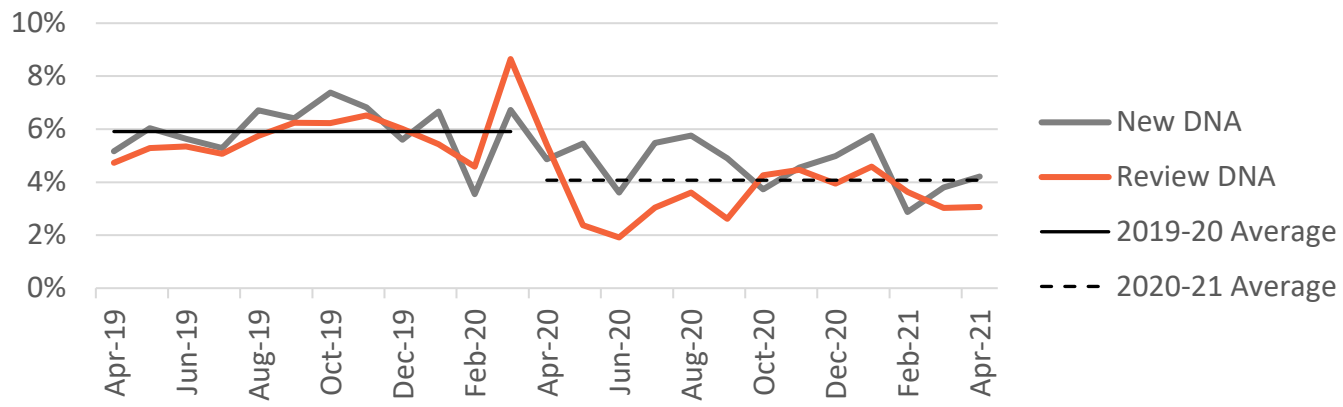
Exhibit 4: review to new ratio (all ophthalmology patients). Number of review appointments for each new appointment



Source: Health Board data

27 **Exhibit 5** shows the proportion of patients that were booked into an ophthalmology outpatient appointment slot but did not attend (DNA). Around 6% of patients (equating to around 5,000 patients) did not attend their appointment prior to the pandemic and this reduced to around 4% (around 2,400 patients[4]) in 2020-21. DNAs can waste valuable NHS resources and result in lost clinic slots that would otherwise be used by other patients. This results in patients spending longer on the waiting list. Small changes in the percentage of DNAs make a reasonable overall difference to available capacity each year, and efforts should continue to prevent the numbers of 'Did Not Attends' from returning to the previously higher levels.

Exhibit 5: ophthalmology outpatient 'did not attend' rates



Source: Health Board data

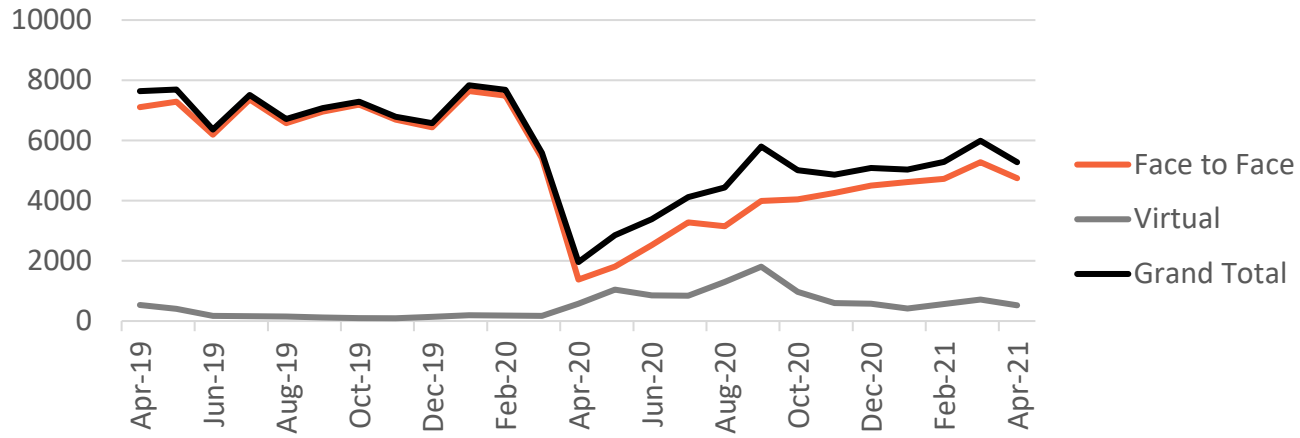
28 The pandemic has seen some outpatient services move to virtual (video or telephone) consultation appointments. The uptake of virtual appointments, while suitable for some specialties, may be less suitable for others. **Exhibit 6** shows the trend in the uptake of virtual compared to face-to-face appointments.

29 We spoke to teams across sites who indicated the need for medical staff to clinically assess in a face-to-face setting to determine the condition, clinical risk, and course of treatment. They highlighted greater opportunity to use virtual 'technology' based approaches for review than for new appointments, but also raised concerns about inefficiency caused by limited technical literacy for many patients who are more elderly or frail. Maximum benefits are likely to occur with careful selection of suitable candidates for video consultation[5]. The Health Board should explore these opportunities further.

[4] There were around 25,000 fewer ophthalmology outpatient appointments during 2020-21 than in the previous year as a result of the pandemic.

[5] Safety of video-based telemedicine compared to in-person triage in emergency ophthalmology during COVID-19 – the Lancet

Exhibit 6: number of face-to-face ophthalmology appointments versus virtual outpatient appointments

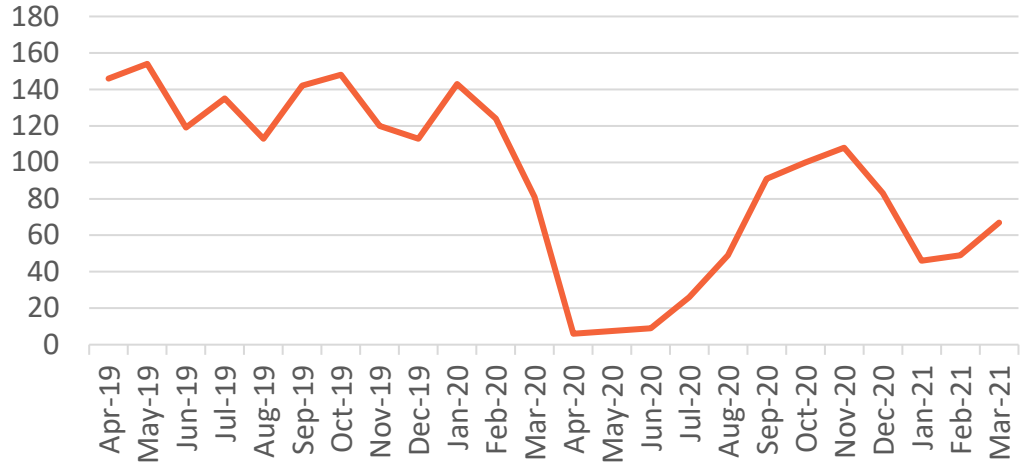


Source: Health Board data

Operating theatre efficiency

30 The pandemic reduced the number of operating theatre sessions each month (**Exhibit 7**). When sessions resumed after the first wave of COVID-19, redeployment of the workforce, staff shielding and, staff isolating because of COVID and turnover, had and may continue to have a major impact on the number of available operating theatre sessions and wider efficiency.

Exhibit 7: number of operating theatre sessions – April 2019 to March 2021 (Planned, Waiting List Initiative and Insourcing)



Source: Health Board data

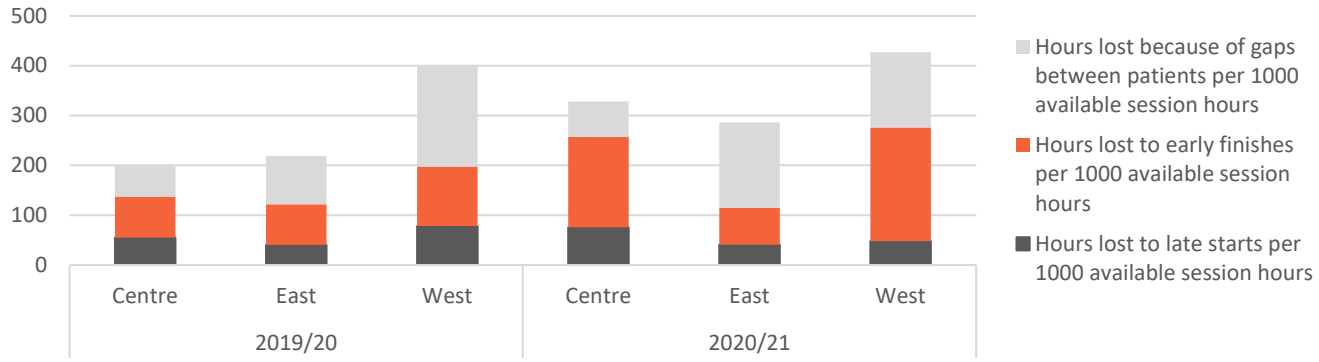
31 Another factor affecting productivity is the impact of 'on the day' cancellations of patients scheduled for surgery. On the day cancellations are routinely recorded. For 2019-2021, the overall percentage of cancellations and top four cancellation reasons are as follows:

- Wrexham Maelor (10.64%) – unfit for surgery, change of plan by surgeon, equipment failure, list overrun
- Abergele (6.03%) – illness/unfit for surgery, op not necessary, pre-existing medical condition
- Ysbyty Gwynedd (8.02%) – occurrence recorded but reason not recorded, surgeon unavailable, unfit for surgery, theatre staff not available.

32 There is some opportunity to step up proactive measures to reduce the occurrence of on the day cancellations. This could include strengthening pre-operative assessment and ensuring that all patients notify the Health Board if they are unwell at the earliest opportunity. This particularly important as it is currently more difficult to backfill short notice cancellations because of the need to ensure COVID-19 safety precautions are followed.

33 Surgical productivity is typically a challenging area to improve, but the extent of the backlog means that this must be addressed. While **Exhibit 7** shows lower numbers of theatre sessions undertaken since the onset of the pandemic, our data analysis also shows that this is compounded by sub-optimal use of theatre sessions. **Exhibit 8** shows that overall, theatre sessions are underutilised with opportunities to improve on late starts and early finishes. There was also a notable but understandable reduction in session utilisation in 2020-21 because of COVID-19, but this must be addressed to reduce long waits and ensure sustainable services.

Exhibit 8: theatre session utilisation (planned core – excluding IVT[6], Emergency, Waiting List Initiative and Insource), Betsi Cadwaladr University Health Board.



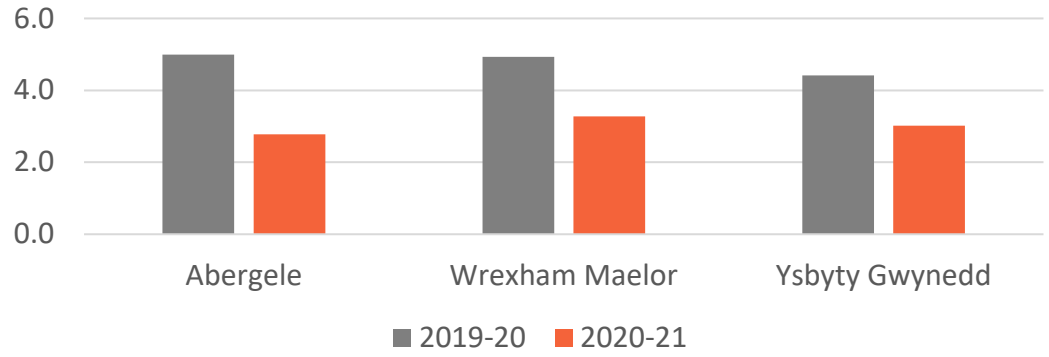
Source: Health Board data

[6] IVT (Intravitreal Treatment) – a common method for treating conditions such as age-related macular degeneration.

34 Cataract surgery represents around half of all planned ophthalmology surgery in the Health Board[7]. There are clear efficiencies that can be achieved both across the full cataract (end-to-end) treatment pathway and specifically within operating theatre productivity. The National Get it Right First Time ophthalmology review recommended that cataract operations should take a maximum of 30 minutes, and that providers develop high volume lists to increase productivity, with no fewer than 8 patients per session. That report identified specialist eye units in England that were providing between 8 and 14 cataract operations per high volume list. Its subsequent publication on resumption of Cataract Services after Covid-19 recognised that COVID-19 safety measures would impact on productivity. It suggests options to help mitigate some of this including clinical assessment, biometry[8] and surgery in one visit and bilateral simultaneous cataract surgery if clinically required and safe to do so.

35 **Exhibit 9** shows the average level of cataract productivity in the Health Board. We have analysed data for only the core planned cataract only sessions to ensure data is comparable. For cataract patients, the new all-Wales pathway includes a one stop clinic at the outset and post-surgical follow up in the community and sets expectations for surgical productivity. The new guidance indicates that Health Boards should be aiming to deliver 9 procedures per list for fully trained clinicians in a high-volume session and 6 procedures per training list. Requirements for COVID-19 infection prevention measures may mean that this is not currently achievable. Nevertheless, the analysis below indicates an average overall of under 5 cataract procedures per session in the year prior to the pandemic and around 3 procedures per session in 2020-21.

Exhibit 9: average cataract procedures per session by year and site



Source: Health Board data

[7] In 2019-20 there were 9,880 procedures of which 5,090 were prosthesis of lens operations (PEDW data sets 2019-20 by provider).

[8] A biometry is an imaging technique that involves taking measurements of the eye.

36 Constraints, such as social distancing, COVID-19 safety measures and current estate, are likely to inhibit the Health Board achieving Welsh Cataract standard of 9 procedures per list on average. COVID constraints notwithstanding, if the Health Board could increase from 5 to an average of 7 per list, then this could mean that the Health Board could deliver around 2,000 extra cataract procedures per year. Service redesign such as introduction of high flow low complexity regional hubs[9] could enable even greater efficiency. The Health Board is developing options for regional treatment centres, which may provide a platform for efficiency improvement.
The Health board should fully adopt the all-Wales cataracts pathway guidance and set an ambitious but achievable efficiency aims (**Recommendations 4 and 5**). This would make a great deal of difference for people currently waiting long times for surgery.

Managing performance, accountability, and leadership of change

Manging performance

37 We met with representatives from acute ophthalmology services at each site. We found they have a good understanding of performance, extent of waiting lists, efficiencies, and adoption of new pathways. Good performance information is routinely available and ad hoc information requests are effectively supported by the informatics team. IT dashboards provide good management information and there is further opportunity to develop these to better support day to day operational management of eye care services.

38 However, we didn't find a strong enough focus on the finances. Cost information is used when the service is seeking approval of additional expenditure but is not routinely used for operational management of eye-care services as a whole. This makes is more difficult to assess the value and financial efficiency at a site level and understand the overall financial plans for eye care services. With an overall eye care expenditure of around £45 million, there is a need for a better understanding of cost and value (**Recommendation 6**).

Operational accountability

39 At present the formal lines of accountability for eye care services are split across each hospital's management structure for acute services and the 3 geographic areas for community-based services. The Health Board also has an Eye Care Coordination Group which is responsible for eye care service development across North Wales. This group has also adopted aspects of performance monitoring, but

[9] Cataract Hubs and High Flow Cataract Lists – The Royal College of Ophthalmologists and GIRFT.

it is not its core role, nor does it have any formal accountability to challenge performance and relies instead on trying to influence improvement.

40 Ultimately this fragmented accountability allows too much variation – for theatre scheduling, different length of waits in different sites and varying adoption of new community care pathways, in particular. Our view is that the current performance accountability model for eye care services is too fragmented and is not sufficiently helping the Health Board achieve performance improvement (**Recommendation 7**). The Health Board's Annual plan for 2021-22 seeks a 'once for North Wales' approach. A collective 'once for North Wales' accountability structure could better enable the Health Board to:

- manage performance as a single service, resolving inappropriate variance;
- coordinate its existing capacity, talent, and wider resource;
- achieve economies of scale;
- ensure consistent processes, pathways, waiting list management, allowing it to balance patient risk and prioritisation fairly, and
- coordinate specialised workforce training, recruitment, multidisciplinary team development, and succession planning.

Programme management and leadership

41 The Health Board's eye care coordination group is responsible for driving service modernisation. The group has built some momentum, particularly over the last 6 months, and has a good focus on progress of specific workstreams, even though uptake of new community pathways has been slow. The group is well represented, it has a rounded agenda and has good ambition. We have noted a strengthening of leadership within the group, but also that it has little authority to ensure changes are embedded (this issue links to **Recommendation 6**). We have also identified opportunities to improve reporting progress of this group. We discuss this further in the final section of this report (**paragraph 57**).

42 Delivery of the eye care business case will require strong clinical leadership. There is a North Wales clinical lead structure but only one out of three clinical lead posts are currently filled. Given the need for eye care service recovery and sustainable services models, this clinical structure needs to provide unifying leadership across North Wales (**Recommendations 8 and 9**). We have heard that there is too much variation in adoption of new pathways and improvements that are driven by enthusiastic consultants, but when they leave the momentum goes. This points toward a need for greater continuity of clinical leadership with clinical accountability linked to this.

Service modernisation

43 Demand for eye care services is expected to increase. If pre-pandemic referral trends continue, the Health Board could find referrals increasing from around 2,200 per month to around 2,800 per month by 2026[10]. The service struggled to meet the pre-pandemic demand and, irrespective of the need for recovery of waiting lists, needs to build eye care services that can manage service demand in the future.

44 We found **the Health Board is strengthening its approach for eye care service change and improvement, but also a need for greater attention to sustainable workforce and estate planning.**

Eye care business case

45 All of those that we spoke to have a good understanding of the current demand for services and a detailed knowledge of the extent of the waiting list backlog. The Health Board is using this information to inform the development of eye care plans, building upon previous plan development through the development of an eye care business case.

46 The eye care business case includes a high-level population assessment, forecasts growth in older population and applies prudent healthcare principles[11]. It sets out anticipated key benefits including:

- maximising eye health and sight retention for the North Wales population.
- achievement of eye care measure and referral to treatment national standards including elimination of the existing waiting list backlog.
- improved patient experience and outcomes.
- improved operational efficiency and productivity.

47 The eye care business case seeks to better integrate acute and community services. This approach includes the development of new pathways with community optometry services including post-surgery cataract review, glaucoma and diabetic retinopathy monitoring, referral refinement and is working on other opportunities. Changes to glaucoma, age related macular degeneration, cataract pathways and e-referrals are expected to cost around £1.43 million in 2021-22 increasing to £2.77 million per year thereafter. The approach, however, should help to reduce demand on acute services and help manage patients' conditions in the community.

48 The Health Board currently commissions 6 Ophthalmic Diagnostic Treatment Centres (ODTCs) and is looking to expand the range of community services they provide although we understand uptake of pathways currently in place is far lower than originally expected. We were told that this was a result of issues administering patient referrals and resistance to adopt new pathways by some clinicians. We also

[10] We used a basic linear projection utilising referral data from 2012 through to March 2020 to forecast a referral trend to 2026.

[11] Prudent Healthcare are a set of principles for good value and effective care

heard of delays in payment for ODTC services which have an impact on the future engagement of optometry practices. We understand that Health Board is actively seeking to address this issue.

49 As identified earlier, there are twice as many patients waiting for treatment currently as there were in 2016. The Health Board recognises that internal capacity will not be sufficient to enable recovery of acute ophthalmology services. It is seeking additional acute capacity through insourcing, outsourcing and managed services[12] as part of wider regional treatment centre proposals to recover waiting lists. The intention is that regional treatment centres will provide services across a range of specialties including ophthalmology and in particular cataract surgery.

50 Plans for regional treatment centres are not yet agreed and will take time to implement. To meet the significant immediate need of large numbers of patients waiting, the Health Board started work on developing a specification for outsourced services in May 2021. This included setting the criteria for quality and cost. The Health Board went out to tender in September and after receiving a bid from one supplier, has entered into an agreement for the supply of eye care services with an external provider located in the North West of England. This 1-year £6 million contract can be extended for a further year. This will enable waiting list improvement while new options for local sustainable services are developed.

Workforce

51 Workforce planning is fundamental for the future sustainability of services. For many years, recruiting into North Wales has been a challenge, often leaving unfilled vacancies or use of locum and agency staff. The Health Board's eye care services are increasingly multi-disciplinary with already good use of advanced practitioner nurses providing intravitreal sessions. There is also good engagement with representatives of the optometry profession to explore advanced training opportunities. The Health Board is supporting opticians wanting to undertake additional advanced practice training. We heard that opticians are enthusiastic to support this but there is limited availability of local placements in North Wales. Some opticians have relied on finding practical work-based training placements in acute sites in England so they can fulfil their training obligation.

52 The Health Board currently has just under 15 'whole time equivalent' (wte) Consultant Ophthalmologists in post, equating to just over 2 wte per 100,000 population[13]. In 2018, the Royal College of Ophthalmologists[14] identified that 2 wte per 100,000 is average but indicated an ideal of around 3 to 3.5 wte per 100,000 population. With the waiting list backlog growing across the United Kingdom, this suggests competition for consultant resource is likely to be exacerbated. The

[12] Fully managed services relate to a complete package where an external provider may develop new temporary facilities within the Health Board area but fully providing additional theatre capacity and the necessary workforce to deliver services.

[13] Consultant data – Stat Wales, March 2021

[14] Workforce census, 2018 – Royal College of Ophthalmologists

Health Board has indicated that some consultants are nearing retirement, and while some may choose to 'retire and return', this is a particular risk area. Nursing staffing is both an area of concern and opportunity. The Health Board has indicated that it is carrying vacancies which is increasing pressure on the workforce and that recruitment is challenging. There is opportunity for greater development of specialist ophthalmologist nurses and wider specialist multidisciplinary team members. Given the time needed to train and build specialist expertise, there is a need for a robust eye care service workforce plan that aligns to new service models, maximises new training opportunities in partnership with higher education institutions and builds a talent 'pipeline' (**Recommendation 10)**.

Estate

53 Good quality estate is needed to provide efficient, productive services. Our review of the eye care business case indicated that there needed to be greater consideration of the changes needed to existing ophthalmology estate as well as new estate requirements.

54 Each team that we met with identified a need to adapt estates for differing reasons, be it to improve outpatient flow, facilities to undertake intravitreal treatment, ability to support social distancing across for outpatients and preoperative assessment or overall estate to support required surgical capacity. Across Wales, there are competing demands for capital funding. Smaller short-term capital estate investment to fix problems may not provide good value if longer-term more substantial estate solutions for eye care services are required. We didn't find a shared understanding of what 21st century ophthalmic centres would look like in North Wales. This needs to be strengthened in the business case (**Recommendation 11**).

Digital eye services

55 Digital eye care services provide options to manage patient pathways, support effective communications, see patients, and evaluate the effectiveness of treatment. The Health Board currently has three different patient administration systems, one for each acute site, which are not yet joined up. The systems enable patient booking and waiting list management, but the lack of integration makes movement to a once for North Wales approach more challenging. The Health Board is now working toward a single patient administration system, with the business case reviewed at the Performance, Finance and Information Governance Committee in October. The time required to implement the system may constrain the ability to join-up ophthalmology services, in the near future.

56 The Health Board has also committed to implementing the national OpenEyes[15] system. The system will give acute and community services access to shared clinical information to enabling closer integrated working. We are not yet clear of

[15] Welsh Government Announcement of investment in OpenEyes

the implementation date, and we understand that OpenEyes will need to link to the Health Board's patient administration system. The implementation of the system is likely to be more straightforward if integrating to a single patient administration system, once that is progressed.

Reporting on progress of the eye care business case and wider plans

57 The eye care coordination group has a good understanding of progress, risks and challenges but reporting lines into 'parent' Health Board-wide programme management structures need strengthening. There needs to be formal reporting against milestones, impacts and return of investment, and where relevant escalation of key risks and challenges (**Recommendation 12**). The Health Board has recently approved a new governance structure that includes Executive Delivery Groups and new corporate change and programme resource.
Some attention is also now needed on the connectivity between specialty level improvement groups and overall Health Board level programme management. This would also help to provide assurance to board members on the progress and impact of improvement plans.

Appendix 1

Management response

Exhibit 10: management response

Recommendation	Management response	Completion date	Responsible officer
Subregional variation of patient waits			
R1 Improve quality of referral to treatment data to ensure that the Health Board can undertake analysis of sub-regional variation in waits.	Data quality key to ensuring business analysis can support decision making.	End of Quarter 4 2021-22	Gill Harris
R2 Undertake analysis on sub-regional variation in waits, either by the Health Board's three main locality areas or by county of residence.	This links to recommendation 7 so that a North Wales view can provide overview, guidance and management utilising the patient treatment list wait information that is already available supported by the dashboards that are in progress.	End of Quarter 4 2021-22	Gill Harris
R3 For as long as variation exists, include performance data on sub-regional variation in waiting times within existing performance reports to the Executive team and to Performance Finance and Information Governance Committee.	The Health Board will consider long-term performance data for as long as there is provision on more than 1 site to ensure not only equity but also optimisation of resources. Performance already provided through Secondary Care Accountability meetings, although very high level due to the required reporting criteria, which the provision of dashboards will simplify.	End of Quarter 3 2021-22	Gill Harris

Recommendation	Management response	Completion date	Responsible officer
Efficiencies			
R4 Implementation of the all-Wales cataract pathway – ensure that the all-Wales cataract pathway is effectively implemented and then routinely adhered to. As this will take time, the Health Board should set clear milestones and intermediate targets.	All Wales cataract pathway is a shared objective across all three sites. Whilst sign up to RTC is an enabler and being clinically driven, further review to agree the incremental steps over the next 18 months is required due to the many compounding challenges identified in this report.	End of Quarter 3 2022-23	Chris Stockport
R5 Service efficiencies – develop a clear plan to improve service eye care service efficiency and productivity. Where relevant, this should be linked to wider service change/modernisation plans.	Transformation needs to be supported by continuous improvement. There are already key enablers identified with each of the sites / localities developing and agreeing key service productivity improvements pulled together from a pan North Wales to ensure standards are improved and across the Health Board.	End of Quarter 4 2022-23 (part of planned care 90-day cycle of improvement work)	Chris Stockport
Financial monitoring			
R6 Improve financial reporting to all those accountable for eye care services in the Health Board. This should include variance to budget and support value-based healthcare through a better understanding of cost, outcomes, and expenditure on its improvement plans.	Good financial management is important to both excellent clinical and operational management. Provision of key data within Eye Care sections across the Health Board but also a North Wales view supported by the appropriate responsibility and accountability (R7) to enable change.	End of Quarter 4 2021-22	Sue Hill

Recommendation	Management response	Completion date	Responsible officer
Accountability for eye care services			
R7 Undertake a review of the accountability arrangements for eye care services with the aim of: • ensuring effective integration of services across acute sites; • achieving better integration of services with community optometry; and • eliminating inappropriate sub-regional variation of service delivery and improving service efficiency.	This will be encompassed within the stronger together work which will require the local integration of acute and primary care services with regards to the vertical pathways and processes whilst there is a North Wales responsibility and accountability for services and decision making to eliminate inappropriate sub-regional variation. It is anticipated that the introduction of a new Optometry reform contract will support change, strengthening relationships but also the opportunity to provide better accountability if delegated to the Health Board.	End of Quarter 4 2021-22	Gill Harris
Eye care clinical leadership R8 Strengthen the clinical leadership structure, with a specific focus on responsibilities, and accountabilities for eye care services. As part of this, ensure that the optometry clinical leadership integrates into the existing clinical leadership structure.	Both North Wales Ophthalmology and Optometry Clinical leads are vital to developing and driving improvement. Recently these posts have become vacant and it is key to replace not only these posts but clinical leadership across sites and across the major sub-specialties; this matrix can be reviewed and tested. Vertical leadership creates potential silos whilst a more recent view of pan North Wales pathway leadership could be explored.	End of Quarter 4 2021-22	Nick Lyons and Gill Harris

Recommendation	Management response	Completion date	Responsible officer
R9 Appoint to the clinical leadership structure.	Health Board support appointment to the clinical leadership structure.	End of Quarter 4 2021-22	Nick Lyons and Gill Harris
Workforce planning for eye care services R10 Develop a single medium-term workforce plan for eye care services (acute and NHS funded community services) that: • links to the future intended models of care; • builds further opportunities for working with training providers; • includes succession planning; and • develops a more strategic approach to recruitment.	Workforce planning needs to be strengthened and will include opportunities for new roles across the whole system. As part of the RTC models of care work, which will include all elements, opportunities for retention and recruitment will support succession planning as well as current recruitment issues which need to be tackled through a North Wales approach.	End of Quarter 4 2021-22	Sue Green
Estate R11 Ensure estate improvements and wider capital needs are included within Eye care business cases and plans. This should include investment to support improved efficiency and use of existing estate as well as any additional estate	The longer-term strategy for Eye Care in terms of secondary care estate is to have re-provision within the RTC(s); this needs to progress at pace which is supported by both Welsh Government and the Health Board.	End of Quarter 4 2021-22	Sue Hill

Recommendation	Management response	Completion date	Responsible officer
capacity to support the longer-term sustainability of services.	The Eye Care Coordination Group has already identified that there is a need to review, post approval in July 2021 of the recently prioritised business case, the services and future needs. The capital plans are owned by the accountable parts of the organisation as it is important to ensure that the whole of site or community plans are understood. However, smaller short-term requirements should be identified and reported through to the formal process for capital requirements to ensure maximum resources / assets are enabled across North Wales.		
Reporting and monitoring R12 Strengthen formal reporting into the corporate programme management structures on eye care business case milestones and impact of investment in eye-care services.	Formal reporting takes place through the secondary care accountability governance structure whilst updates are provided to the Planned Care Transformation group, which is not a formal approval / decision making group. The Health Board governance structure has been reviewed and it is expected that Executive Delivery Groups, once implemented, will have oversight of major projects / programmes such as the work undertaken by the Eye Care Collaborative Group and the Business Cases produced following this audit, further reviews and planning work.	End of Quarter 3 2021-22	Chris Stockport

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