Archwilio Cymru
Audit Wales

Orthopaedic Services in Wales – Tackling the Waiting List Backlog

A comparative picture for Hywel Dda University Health Board

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Contents

Summary

Introduction

1 This report supplements our national report on orthopaedics services and provides additional analysis of the orthopaedic waiting list position at Hywel Dda University Health Board (the Health Board). The report presents a range of data to inform discussion and oversight of the current challenges associated with the recovery of orthopaedic services at the Health Board. It includes several prompts and questions for board members to inform debate and obtain assurance that improvement actions are having the desired effect.

2 **A note on the data**: In some instances, the most up to date data available is prior to the pandemic. In others, the data available since the onset of the pandemic is not comparable because of service changes over this period. Therefore, we have:

- selected data and indicators to help stimulate board member and senior manager discussion and scrutiny on specific aspects of orthopaedic service delivery.
- used long-term trends and calculations to help present a perspective on orthopaedic services both in relation to the current position and taking a more strategic longer-term outlook.

3 In May 2022, the Getting It Right First-Time (GIRFT) team[1] issued its national report on orthopaedic services in Wales and provided additional local feedback to each health board. The local report for the Health Board was finalised in May 2022. The findings presented here seek to complement rather than duplicate the GIRFT reviews. We have recommended that relevant health board committees receive a progress update against the GIRFT recommendations alongside the Audit Wales national report and the locally tailored data briefing.

4 We have presented the findings in this report under the following headings:

- The scale of the waiting list
- Referrals and demand
- Resources and capacity
- Outpatient models

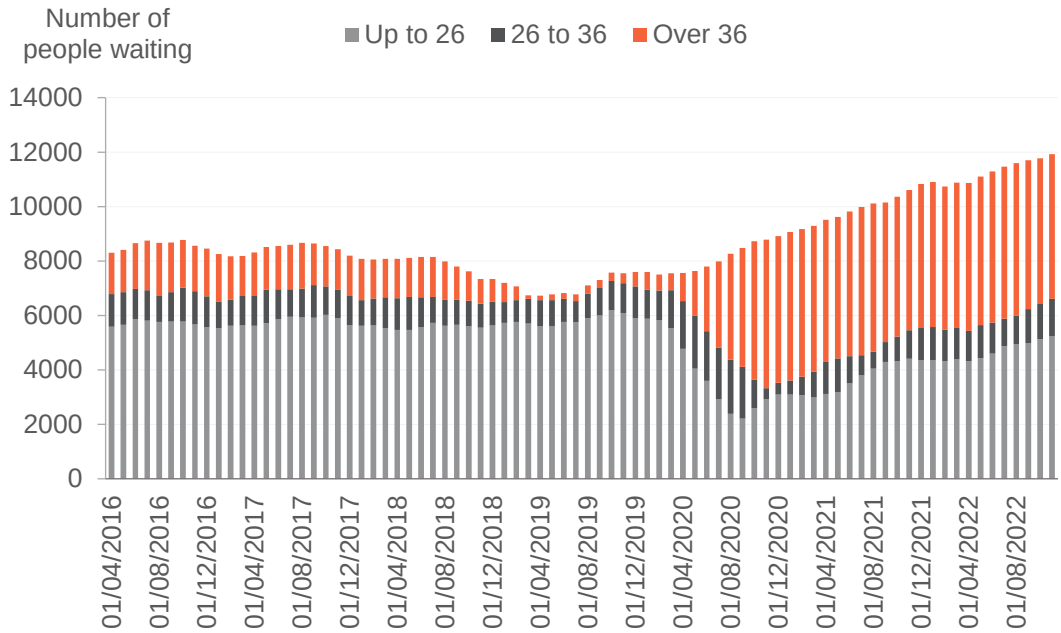
[1] Getting It Right First-Time is a national programme designed to improve the treatment and care of patients through review and benchmarking.

Detailed report

The scale of the waiting list

5 **Exhibit 1** shows the overall trend in orthopaedic waits at the Health Board since 2016. It shows a picture common to most health boards with a sharp increase in the numbers waiting since the start of the pandemic and within those figures, a significant increase in the numbers facing longer waits.

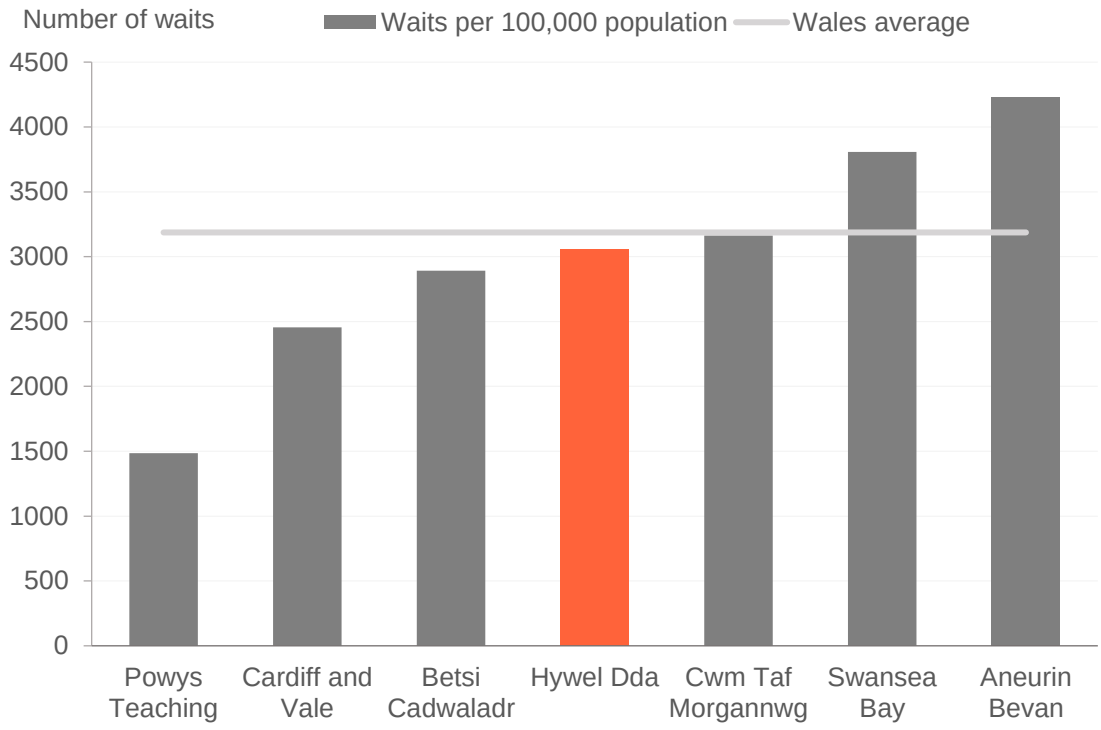
Exhibit 1: Total orthopaedic waits, by weeks waiting – Hywel Dda University Health Board (April 2016 – November 2022)



Source: Audit Wales analysis of Stats Wales

6 Comparatively the number of patients on orthopaedic waiting lists relative to population varies across Wales. **Exhibit 2** shows the number of orthopaedic open pathways (waits) per 100,000 population as of November 2022, with the Health Board figure below the Wales average. This variance may occur because of demographic differences, such as age and deprivation, different primary care referral approaches, different community-based approaches for prevention, treatment, and onward referral. But it is also likely to show that some health boards have been able to a secure a better match between capacity and demand than others.

Exhibit 2: Total number of orthopaedic waits per 100,000 population, November 2022



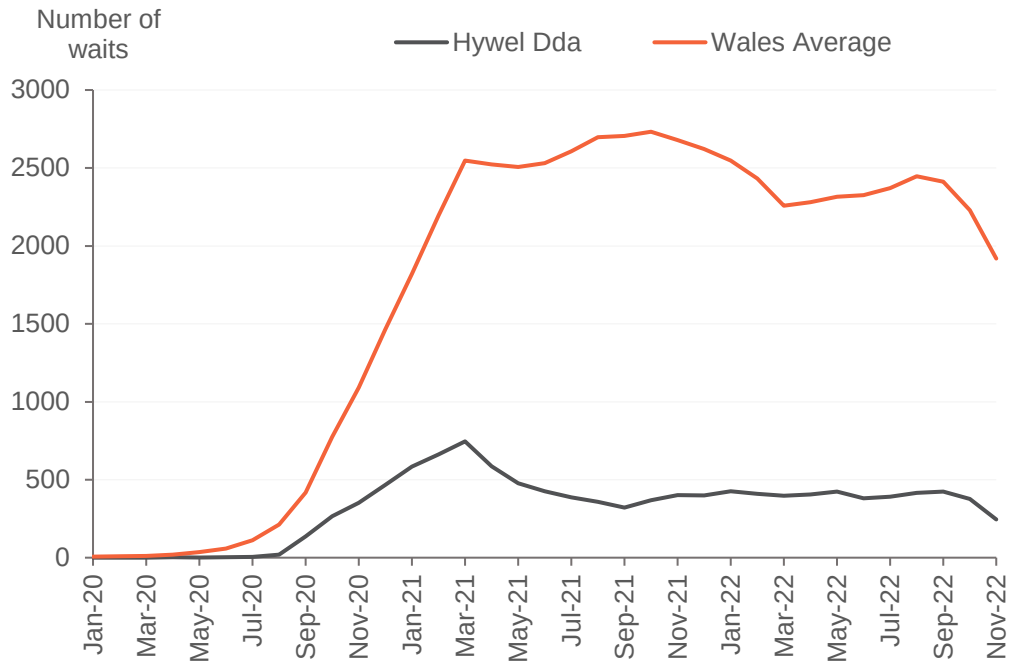
Source: Audit Wales analysis of Stats Wales

Suggested board member questions

- What factors are contributing to the Health Board's comparative performance on overall orthopaedic waits relative to population?

7 In April 2022, Welsh Government published its programme for transforming and modernising planned care and reducing waiting lists in Wales. This sets out five ambitions to reduce waiting times in Wales. The first one being 'No one should be waiting longer than a year for their first outpatient appointment by the end of 2022'. **Exhibit 3** shows the number of orthopaedic waits for first outpatient appointment longer than a year. As of November 2022, there were 245 patient pathways in the Health Board which were waiting longer than a year. This is the second lowest level in Wales.

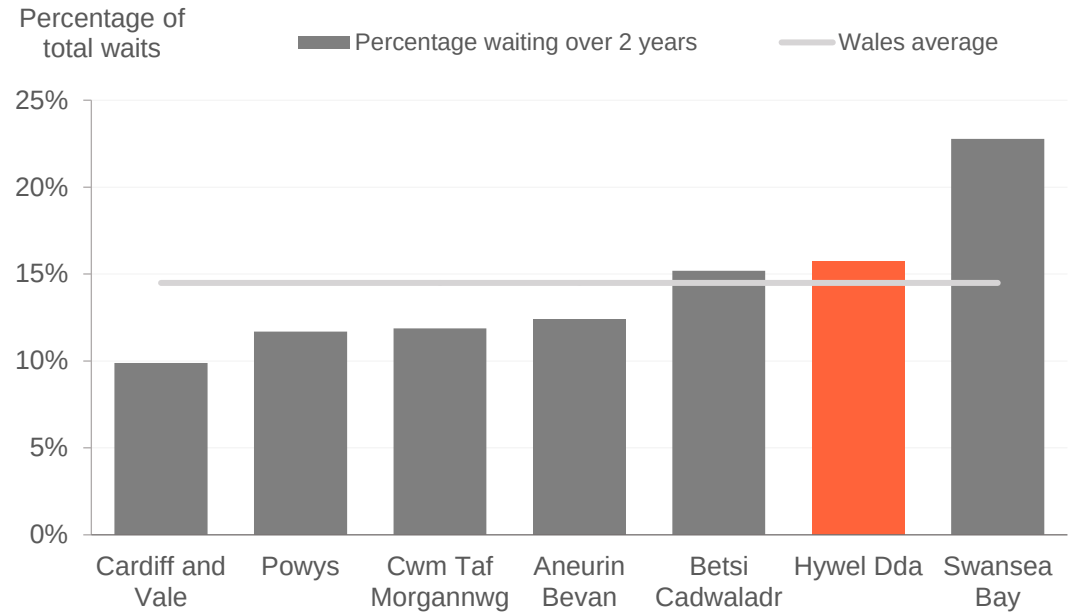
Exhibit 3: Total number of orthopaedic waits over a year, waiting for a first outpatient appointment – Hywel Dda University Health Board



Source: Audit Wales analysis of Stats Wales

8 The second key ambition set out in the Welsh Government's planned care programme is to eliminate the number of people waiting longer than two years in most specialities by March 2023. As at the end of November 2022, there were around 1,872 patient pathways waiting over two years for orthopaedic services in the Health Board. This number is the fourth highest in Wales. From our wider analysis, the trends across Wales indicate that health boards are now starting to focus on the growth in extremely long waits. But there is clearly more to do and a finite capacity. **Exhibit 4** shows a comparative picture of long waits. As a proportion of total waits, the proportion waiting over two years in the Health Board is in line with the Wales average. Exhibit 4 indicates that there is inequality for long waits depending on where people live.

Exhibit 4: Percentage of orthopaedic waits over 2 years, by residence, November 2022



Source: Audit Wales analysis of Stats Wales

Suggested board member questions

- Is the Health Board likely to meet the targets set out in the Welsh Government's national recovery plan for planned care? If not, when does it anticipate achieving the key milestones set out in the plan?
- How is the Health Board communicating with patients to tell them how long their wait is likely to be and what to do if their condition deteriorates?
- What is the Health Board doing to prioritise those most at risk of coming to harm because of a delay?
- Does the Health Board have information to indicate whether orthopaedic patients are coming to harm because of delays in their diagnosis and treatment? If so, what does this show and what action is being done to minimise the harm?

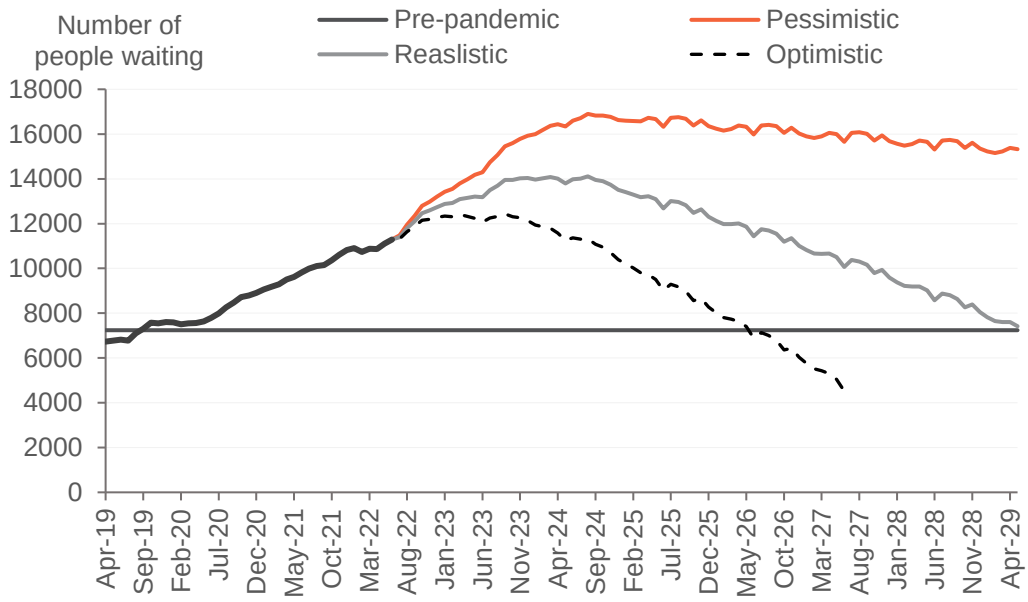
9 **Exhibit 5** provides an illustrative scenario (optimistic, realistic, and pessimistic) for the possible length of time that it could take to return orthopaedic waits to pre-

pandemic levels[2]. Our scenario model is based on pre-pandemic levels of capacity, new demand (additions) and activity (removals), future growth in referral demand, and future growth in capacity and/or activity levels.

10 The scenario model also assumes the levels of pent-up demand hitting the system. Pent-up demand being caused by lower-than-expected referrals since the onset of the pandemic. The model does not assume growth in referral demand due to population changes. The scenarios we have presented are based on assumptions which may alter over the coming years.

11 In the most optimistic model scenario, the Health Board's orthopaedic waits would not return to pre-pandemic levels until the middle of 2026. This is based on a move towards a 5% increase in orthopaedic surgical capacity and activity compared to pre-pandemic levels. Clearly the timeframe for recovery will reduce if the pent-up demand does not materialise, demand does not grow year-on-year, the Health Board increases internal capacity or productivity, or if there are opportunities for outsourcing. The realistic and more pessimistic modelling scenarios would not see waiting list number return to pre-pandemic for many years, if at all.

Exhibit 5: Illustrative scenarios of orthopaedic waiting list numbers – Hywel Dda University Health Board



Source: Audit Wales analysis of Stats Wales data

[2] **Appendix 1** sets out how we modelled the scenarios.

12 **Exhibit 6** shows the extent of the variation in waits for hip and knee replacement surgery across Wales prior to the pandemic when this data was last available in 2020. At that time, waits for knee and hip replacements in the Health Board were mixed. Variation shows differences between service capacity and waiting list management. As health boards across Wales try to reduce waiting lists through outsourcing, there is potential for further widening of inequalities of access to care.

Exhibit 6: Mean waiting times (in days) for knee and hip replacement and revision surgery, 2019-20[3]

Health Board	County	Knee	Hip
Betsi Cadwaladr	Isle of Anglesey	609.5	363.9
	Gwynedd	604.4	568.9
	Conwy	409.3	344.3
	Denbighshire	266	212.7
	Flintshire	232.4	221
	Wrexham	236.1	226.6
Hywel Dda	Ceredigion	252.4	213.1
	Pembrokeshire	246.4	238
	Carmarthenshire	221.1	180.9
Swansea Bay	Swansea	362.7	373.2
	Neath Port Talbot	323.1	331.8
Cardiff and Vale	Vale of Glamorgan	229	216.3
	Cardiff	241.9	210.1
Powys	Powys	154.2	147.9
Aneurin Bevan	Caerphilly	185.8	165.2
	Blaenau Gwent	200.2	157.1
	Torfaen	182.1	164.7
	Monmouthshire	180.2	160.2
	Newport	196.6	164.1
Cwm Taf Morgannwg	Rhondda Cynon Taf	177.8	150.8
	Bridgend	317.6	294.9
	Merthyr Tydfil	175.3	161.1

Source: Audit Wales analysis of Health Maps Wales

[3] Table Key: Under 36 weeks 26-36 weeks Over 36 weeks

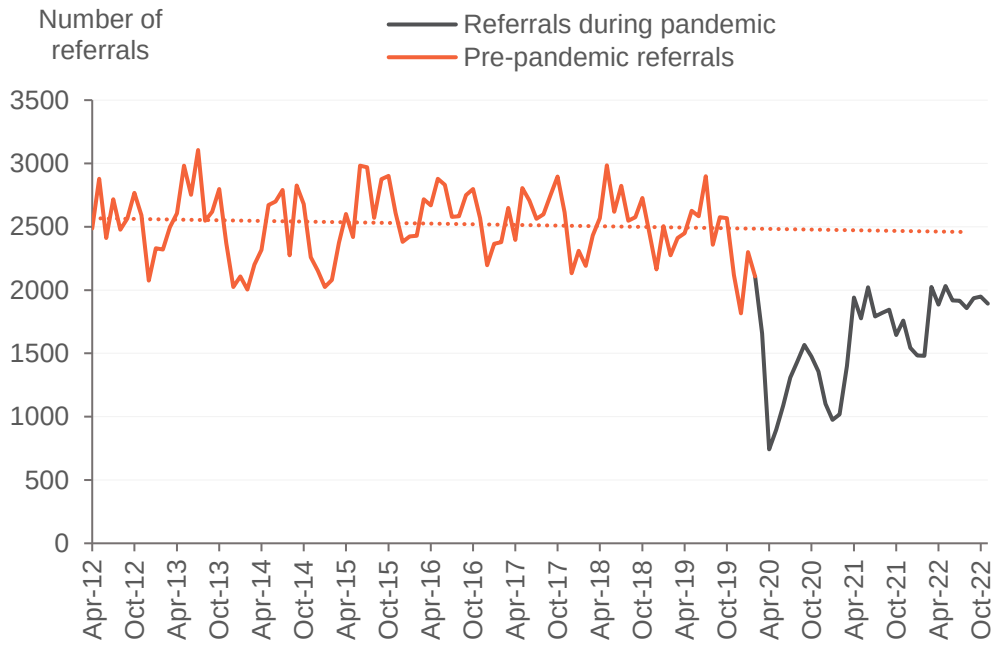
Suggested board member questions

- Has the Health Board undertaken any recent analysis of variation in waiting times by type of surgery and hospital site? If so, what does the analysis show?
- What action is the Health Board taking to reduce variations in lengths of wait for the same treatment across different hospital sites?

Referrals and demand

13 **Exhibit 7** shows the trend in the Health Board's orthopaedic referrals over time and the significant reduction in referrals during the pandemic. The volume of the Health Board's orthopaedic referrals continues to remain below pre-pandemic average referral levels[4].

Exhibit 7: Trend in referrals to the orthopaedic waiting list, April 2012 to November 2022 – Hywel Dda University Health Board



Source: Audit Wales analysis of Stats Wales data

[4] Based on average referral rates for 2019-20

14 The extent of the lower levels of referrals during the last couple of years suggests that patients who would have normally been referred potentially still have a need for treatment. Our calculations suggest around 135,000 orthopaedics latent or 'lost' referrals across Wales. The numbers vary quite significantly by health board with the Health Board having the second highest proportion (**Exhibit 8**). The effect of this latent demand returning to the system and referral demand returning to pre-pandemic levels more generally, will be to make an already challenging waiting list recovery position even more daunting.

Exhibit 8: Number of potentially latent 'lost patients' between March 2020 and March 2022

Health Board	Latent 'lost' referrals	Percentage of all-Wales total
Aneurin Bevan	42,438	32%
Hywel Dda	22,860	17%
Cwm Taf Morgannwg	18,294	14%
Cardiff and Vale	17,576	13%
Betsi Cadwaladr	15,987	12%
Swansea Bay	13,046	10%
Powys	4,204	3%
Total	**134,406**	

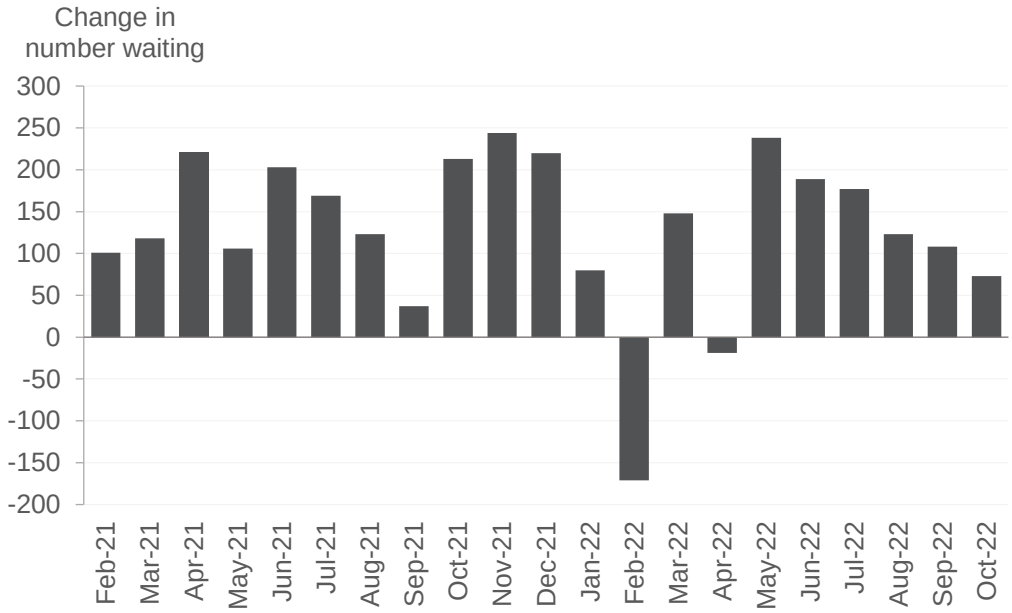
Source: Audit Wales analysis of Stats Wales

Suggested board member questions

- To what extent is the Health Board seeing, or expecting to see, the latent demand return? If not expected to return, does the Health Board know where the demand has gone?
- Does the Health Board have a good understanding of the current and future demand for orthopaedic services?
- How is the Health Board ensuring that only appropriate referrals are made into secondary care services?
- Are community-based prevention and treatment approaches such as Clinical Musculoskeletal Assessment and Treatment Services operating effectively, and are there opportunities to exploit community-based services further?

15 **Exhibit 9** shows a month-on-month trend of orthopaedic waits, i.e., whether and by how much each month the waiting list has increased or decreased. Across Wales, some health boards have recently managed to stem the growth in waits in some months, either using short-term additional capacity to meet demand or through validation exercises to cleanse waiting lists. But these reductions have not been sustained. With referrals starting to return to pre-pandemic levels, it illustrates the difficulty health boards are having balancing capacity to meet levels of demand.

Exhibit 9: Month-on-month change in numbers of orthopaedic waits – Hywel Dda University Health Board



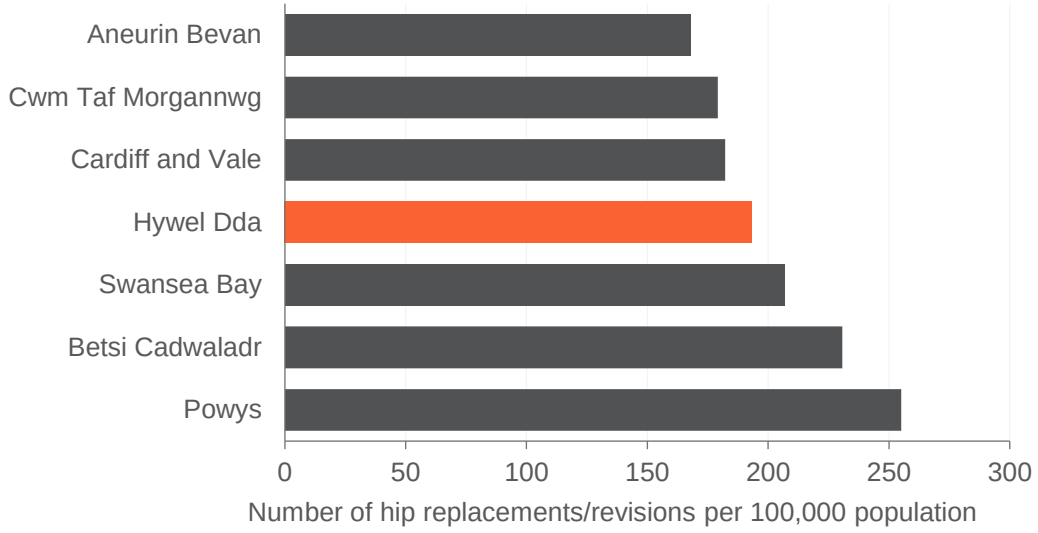
Source: Audit Wales analysis of Stats Wales

Suggested board member questions

- What is the Health Board doing to stem the growth in the numbers of people waiting?
- To what extent has list validation been the main factor in reducing waiting lists? To what extent are removals because of validation due to administrative issues? If so, what lessons are being learnt?
- How is the Health Board ensuring the elective orthopaedic capacity is protected from unscheduled care and wider pressures?

16 **Exhibit 10** provides a comparative historical average trend in the rate of hip revisions or replacements over three years from 2017 to 2020 per 100,000 population. While there are demographic differences in each health board, the exhibit shows quite wide variation which is unlikely due to demographics alone.

Exhibit 10: Admission rates for hip replacements/revisions per 100,000 population based on a three-year average, 2017-18 to 2019-20



Source: Audit Wales analysis of Health Maps Wales

Board member questions

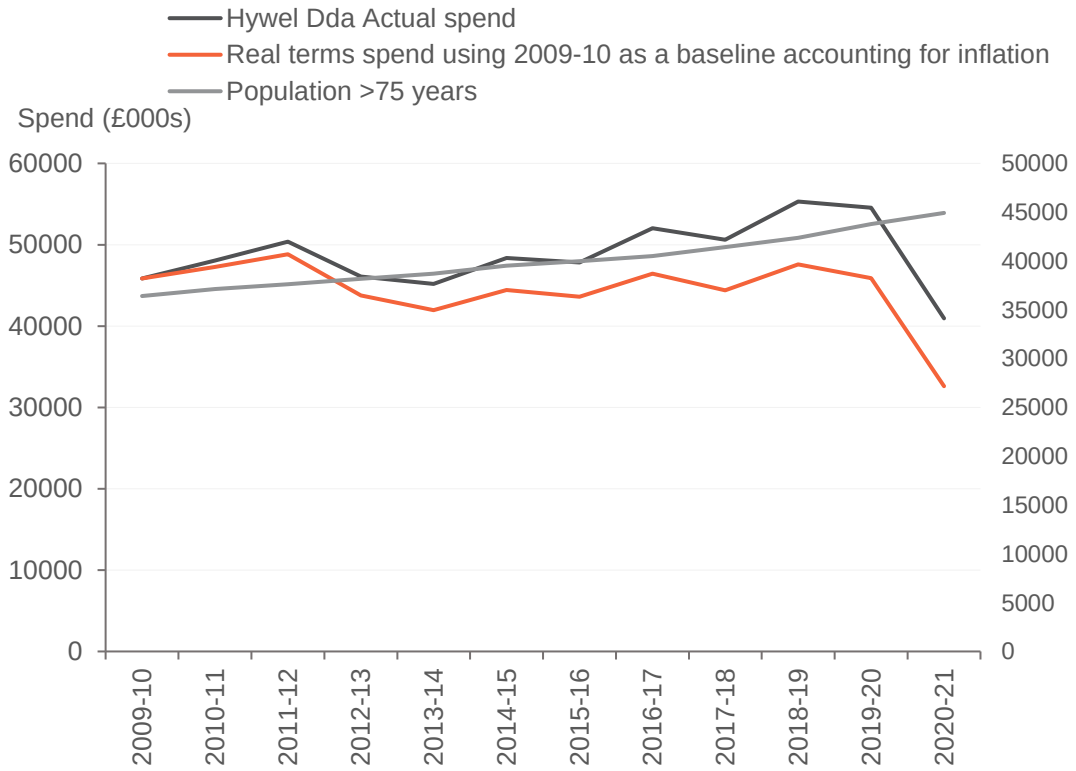
- Has the Health Board undertaken any analysis to understand whether there is a higher or lower rate of procedures, such as hip and knee replacements, than would be expected for the local population? If so, what does it show and are there opportunities for improving productivity and efficiency?
- Does the Health Board understand whether the procedures are delivering positive outcomes for patients?

Resources and capacity

17 **Exhibit 11** provides a long-term perspective on actual spend[5] on orthopaedic services in the Health Board, and the spend adjusted for inflation (i.e., real terms). In general, and across Wales, the pre-pandemic 'real terms' spend on orthopaedics has remained largely static up until the impact of the pandemic.

18 Service demand is linked to an aging population, with the number of people aged 75 and over increasing by around 19% between 2009 and 2020. This trend is expected to continue. Between 2020 and 2032 across Wales the number of people aged 75 and over is forecast to grow by a further 27%, which could create additional strain on orthopaedic services already struggling to recover.

Exhibit 11: Actual spend and real terms spend on orthopaedics vs aging population profile – Hywel Dda University Health Board



Source: Audit Wales analysis of Stats Wales - Health programme budget and population mid-year estimates

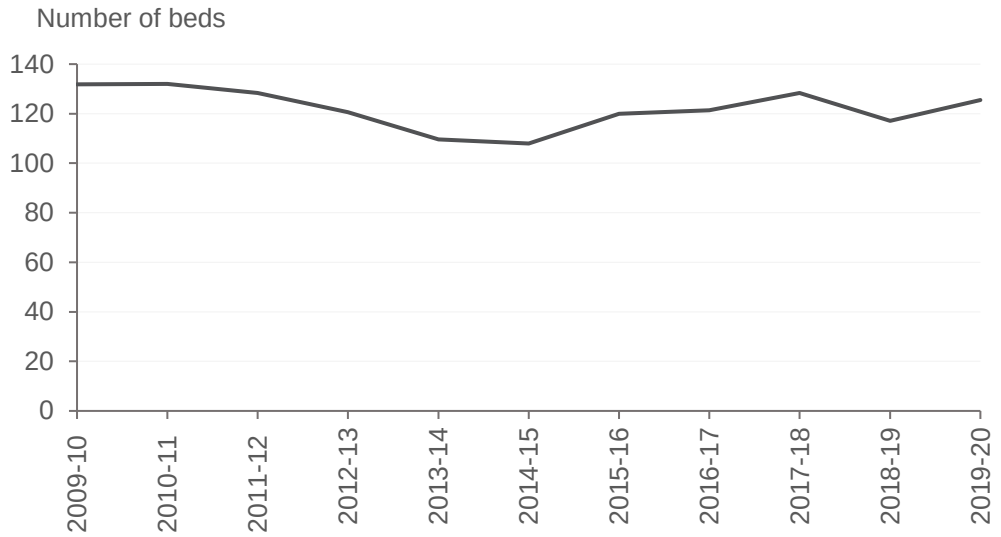
[5] Based on NHS Programme Budget spend for musculoskeletal system problems (excluding trauma)

Suggested board member questions

- If the older population continues to grow, but real terms spend on orthopaedics does not keep pace, can the Health Board ensure that future service models will be sustainable?

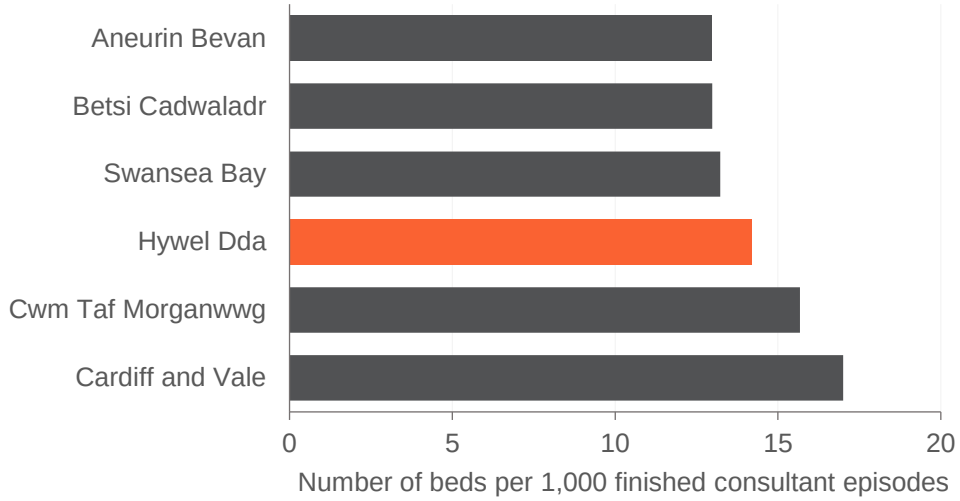
19 **Exhibit 12** and **Exhibit 13** provide trend and comparative data on the number of available orthopaedic beds. The Health Board has one of the highest level of beds per 1,000 finished consultant episodes. Given the potential increase in orthopaedic demand due to a growing elderly population, health boards will need to assess whether they can meet demand within existing bed capacity. The extent that efficiencies in bed utilisation can be made and the extent that elective orthopaedic beds can be protected from wider unscheduled care pressures will determine whether current and future demand can be met with the current bed capacity.

Exhibit 12: Trauma and orthopaedic bed availability - Hywel Dda University Health Board



Source: Audit Wales analysis of Stats Wales

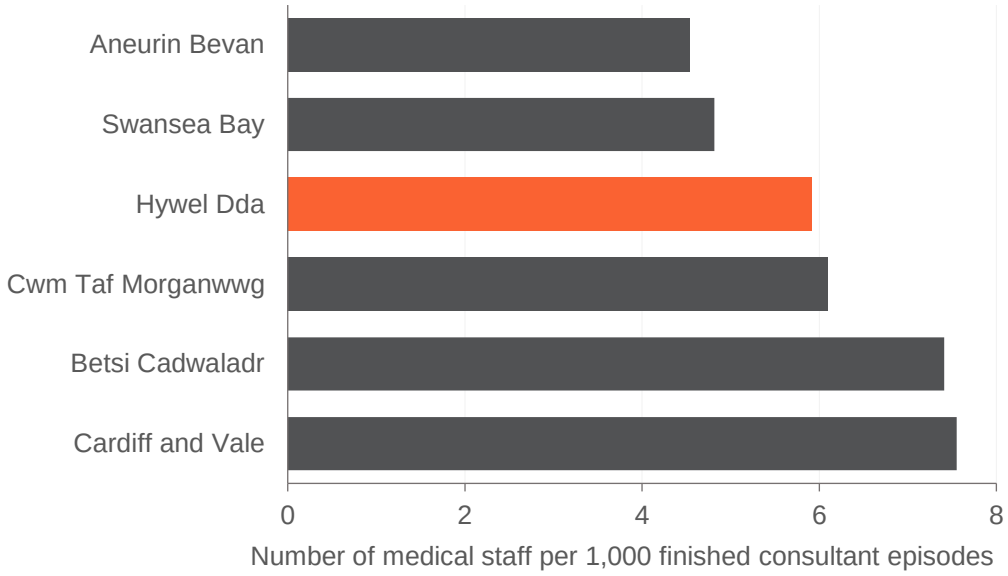
Exhibit 13: Comparison of trauma and orthopaedic beds per 1,000 finished consultant episodes 2019-20



Source: Audit Wales analysis of Stats Wales and PEDW data

20 **Exhibit 14** provides a comparative perspective of the medical workforce. The Health Board has the third lowest level of medical staff per 1,000 finished consultant episodes. The variation visible across Wales may be due to operational differences in ways of working. However, there is a need to consider optimal staffing levels, efficiencies, productivity, and different pathway models that maximise prudent healthcare principles. As part of this we would expect to see health boards planning on a regional footing to develop high-volume low complexity regional capacity to improve productivity and reviewing consultant job plans as part of pathway redesign.

Exhibit 14: Comparison of trauma and orthopaedic medical workforce (WTE) per 1,000 finished consultant episodes 2019-20



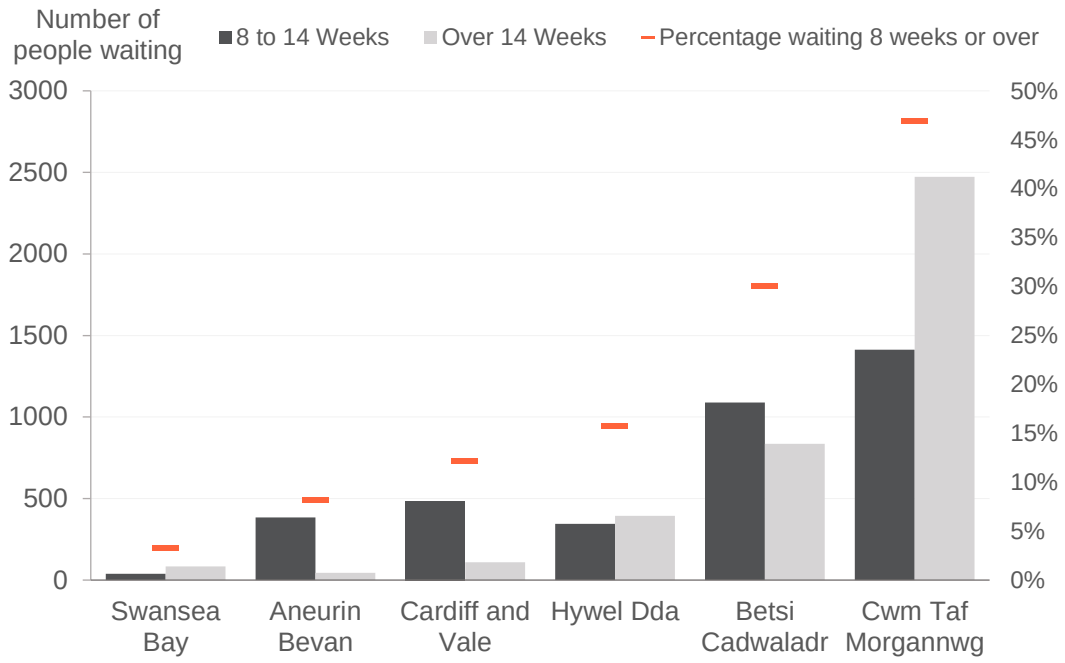
Source: Audit Wales analysis of Stats Wales and PEDW data

Board member questions

- To what extent does the Health Board currently have the capacity to meet orthopaedic service demand? Where are there capacity gaps?
- What are the workforce risks and challenges?
- How is the Health Board working regionally to create high volume low complexity capacity?
- What is the Health Board doing to create greater levels of efficiency in orthopaedic pathways?

21 People with musculoskeletal conditions often need diagnostic tests to provide clarity on the cause and extent of their problems. The Welsh Government targets say that patients should wait no longer than eight weeks for diagnostic tests. The Health Board has comparative longer waits for diagnostic tests. Delays in diagnostic tests are likely to impact on the overall timeliness of orthopaedic treatment. At present there is wide variation in the number and proportion of delays in access to radiology services across Wales (**Exhibits 15 and 16**).

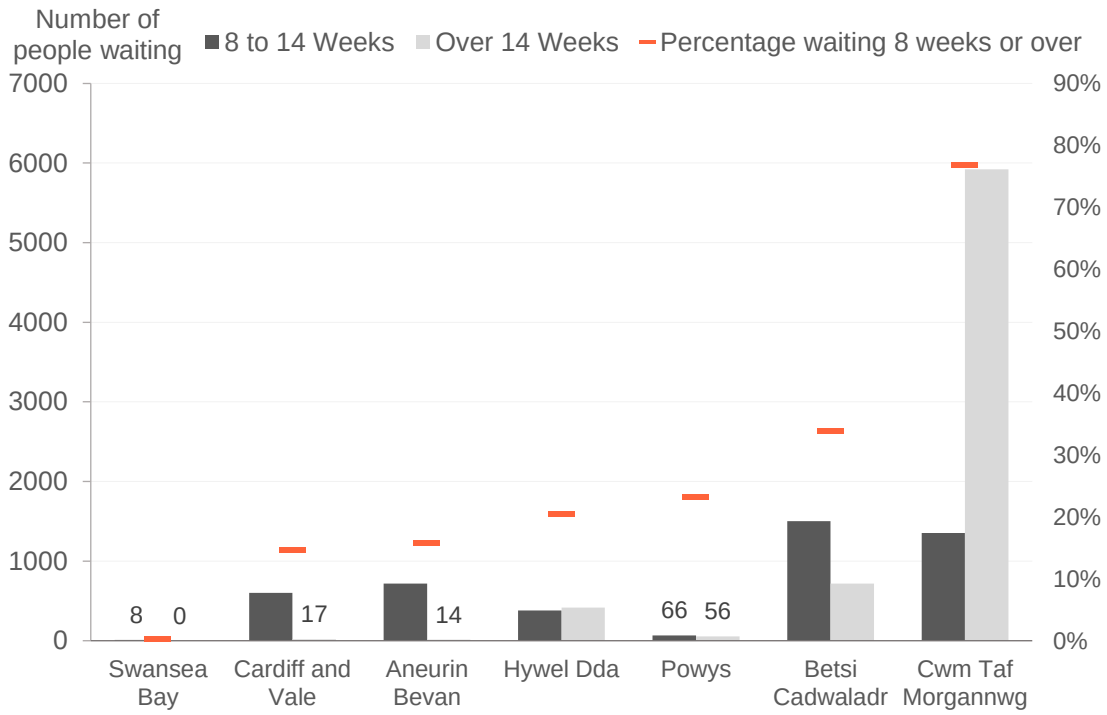
Exhibit 15: Number and percentage of waits for consultant referred radiology waiting eight weeks or over, November 2022



Source: Audit Wales analysis of Stats Wales

Note: Powys consultant referred radiology requests are too low to be visible in the chart.

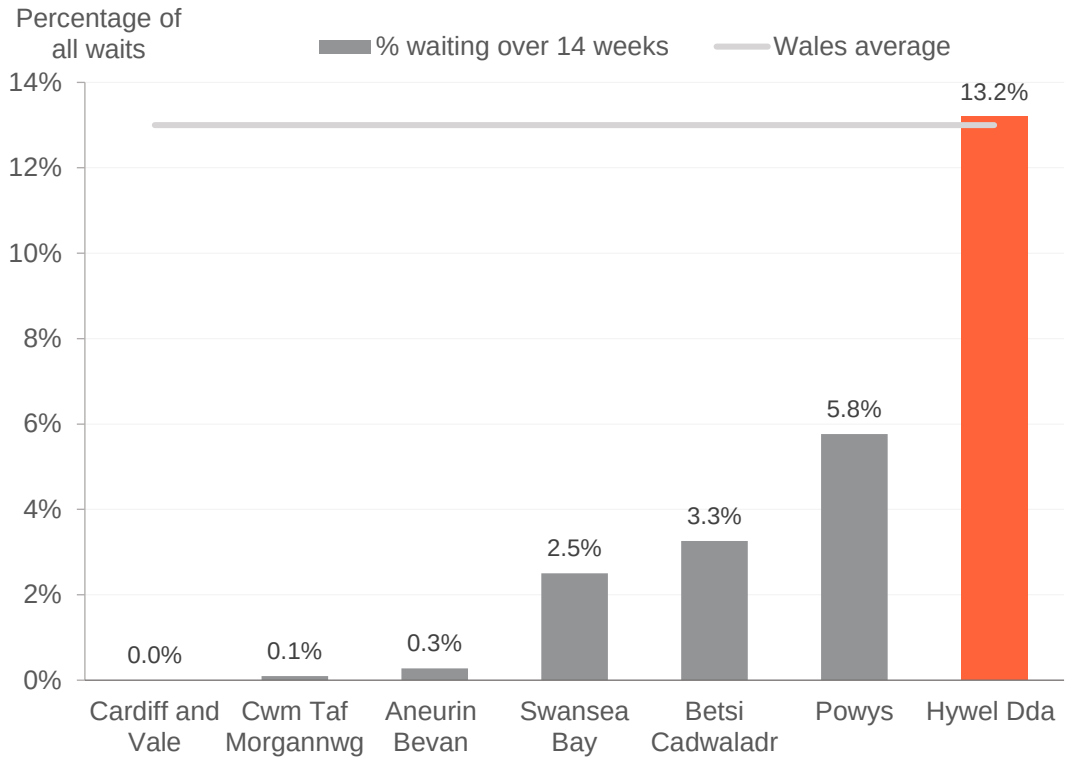
Exhibit 16: Number and percentage of waits for GP referred radiology waiting eight weeks or over, November 2022



Source: Audit Wales analysis of Stats Wales

22 People with musculoskeletal conditions also often require physiotherapy. **Exhibit 17** shows the proportion of people waiting for physiotherapy who are waiting over the Welsh Government target of 14 weeks. The Health Board has the highest level of patients waiting over 14 weeks.

Exhibit 17: Percentage of waits over 14 weeks for physiotherapy, November 2022



Source: Audit Wales analysis of Stats Wales

Board member questions

- To what extent is radiology or physiotherapy capacity having an impact on the timeliness of the overall orthopaedic pathway?
- Are there costed plans to match demand and capacity in those areas if required?

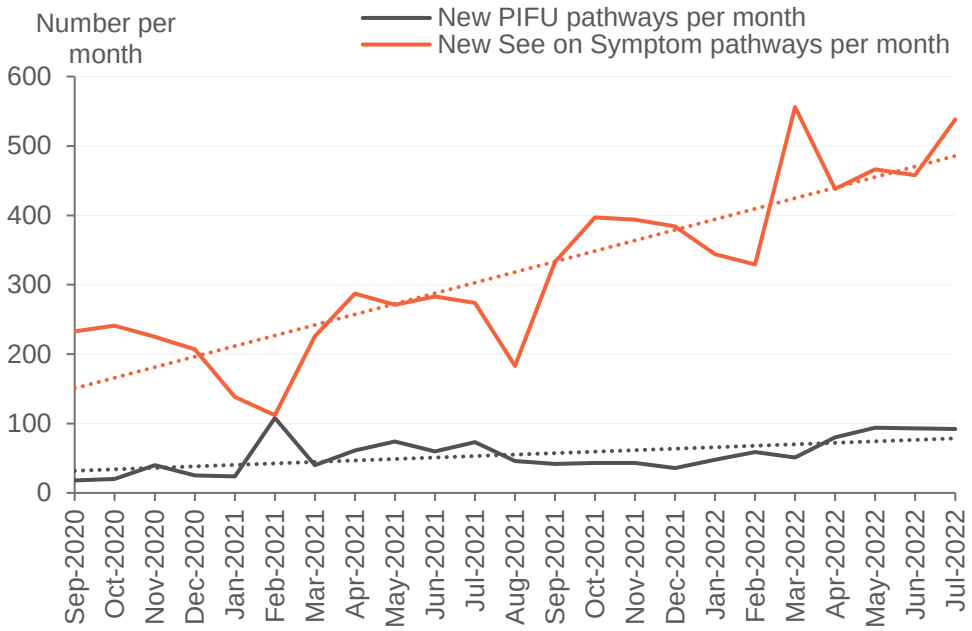
Outpatient models

23 Health boards are implementing new ways of working. The pandemic resulted in a greater extent of 'digitally enabled' working. This helped enable continuation of some services at times where face-to-face appointments were not available. Health boards are also on a journey of implementing new outpatient pathways known as 'see on symptom (SOS)' and 'patient initiated follow up (PIFU).' These approaches are designed to reduce unnecessary follow up outpatient appointments. The aim is

to improve efficiency, reduce unnecessary patient journeys, empower patients to manage their own condition and provide access when they need it.

24 **Exhibit 18 and 19** show the trend in the uptake of new 'see on symptom' and 'patient initiated follow up' pathways. In most health boards in Wales, we are seeing growth in the use of these new pathways but compared to overall numbers of follow up outpatient appointments, these new approaches remain in the minority. For the Health Board, positive progress has been made adopting both initiatives, particularly with SOS pathways. The extent to which PIFU pathways have been adopted is the highest in Wales, albeit that numbers remain relatively low.

Exhibit 18: Trend in adoption of new Patient Initiated Follow Up and See on Symptom pathways per month – Hywel Dda University Health Board (September 2020 - July 2022)



Source: Audit Wales analysis of Welsh Government provided data

Exhibit 19: Average number of Patient Initiated Follow Up and See on Symptom pathways per month compared to average number of follow up outpatient appointments (based on 2018-19 activity levels)[6]

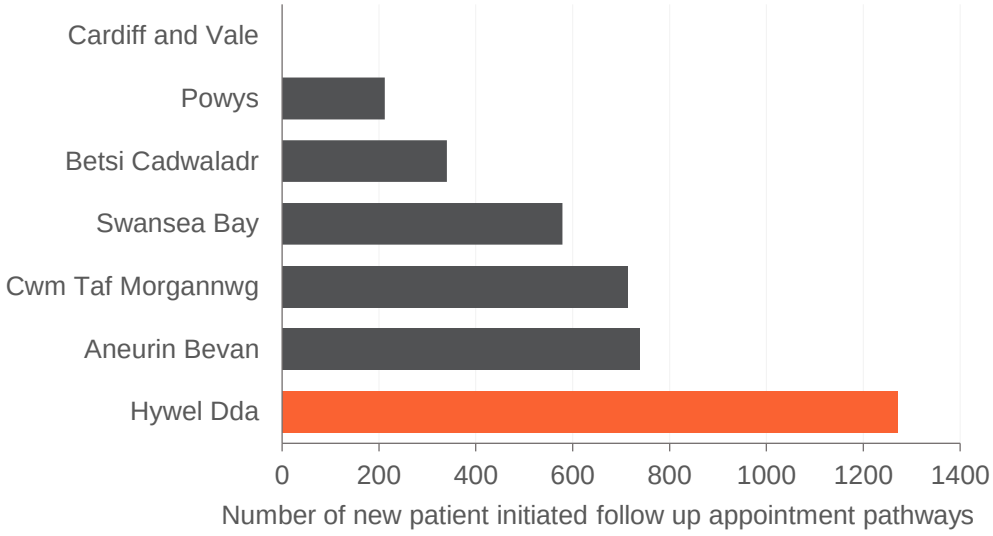
Health Board	Follow up outpatient appointments per month (18/19) average	'Patient Initiated Follow up' pathways per month (21/22)	'See on symptoms' pathways per month (21/22 average)
Abertawe Bro Morgannwg	5283	N/A	N/A
Aneurin Bevan	5840	31	607
Betsi Cadwaladr	4352	15	128
Cardiff and Vale	4317	0	1275
Cwm Taf	2529	N/A	N/A
Cwm Taf Morgannwg	N/A	3	15
Hywel Dda	3428	53	336
Powys	98	11	259
Swansea Bay	N/A	38	507

Source: Audit Wales analysis of Welsh Government provided data

25 **Exhibits 20 and 21** provide a comparison of the numbers of new 'see on symptom' and 'patient initiated follow up' pathways. These are actual numbers and have not been adjusted or weighted for organisational size.

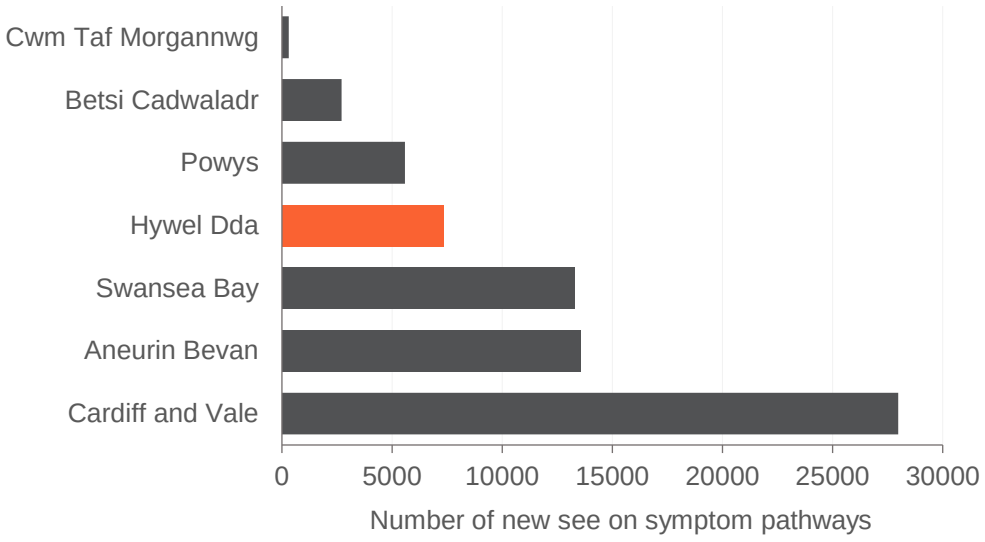
[6] Total follow up outpatient activity levels have not been publicly reported on StatsWales since 2018-19

Exhibit 20: Comparison of total new Trauma and Orthopaedic patient initiated follow up appointment pathways by Health Board, most recent 12-month period (August 2021 to July 2022)



Source: Audit Wales analysis of Welsh Government provided data

Exhibit 21: Comparison of total new Trauma and Orthopaedic See on Symptom Pathways by Health Board, most recent 12-month period (August 2021 to July 2022)



Source: Audit Wales analysis of Welsh Government provided data

Board member questions

- Is the Health Board adopting Patient Initiated Follow Ups and See on Symptoms pathways at sufficient pace? If not, what are the barriers?
- Are consultant job plans being reviewed to adapt to new outpatient models and maximise use of their time?
- To what extent are digital/virtual outpatient appointments being used? Is this delivering a better and more efficient service?

Appendix 1

Scenario modelling

Our scenario modelling in **Exhibit 5** draws on some initial modelling work conducted by the NHS Delivery Unit. The calculation we used, following the work of the Delivery Unit, was:

- Removals are calculated by taking the number of patients waiting over 4 weeks (i.e., they are not new patients that month) and subtracting that from the total waiting list in the previous month. This gives a proxy for the numbers of patients removed from one month to the next.
- Additions are the people reported in the monthly figures who have been waiting less than 4 weeks – indicating they have been added to the waiting list in the last month. Whilst monthly additions give a reasonable measure of additions, some of those included may have already been waiting but had their 'clock' reset for some reason, for example not turning up for multiple appointments. It is also possible that some people may not be counted if they were added and removed before the data was captured at the end of each month.

Our modelling provides scenarios for the length of time it could take NHS Wales to bring orthopaedic waiting lists back to March 2020 levels using three scenarios: reasonable, pessimistic, and optimistic (**Exhibit 5**). We accounted for the possible pent-up demand (**see Exhibit 8**) by evenly spreading differing proportions of the potential missing 135,000 referrals over 2022 to 2024. Those proportions varied depending on a reasonable, pessimistic, or optimistic scenario. **Exhibit 22** sets out our modelling assumptions.

Exhibit 22: Waiting list modelling assumptions

Assumptions	Reasonable	Pessimistic	Optimistic
Additions 2022-2025 compared to 2019-20	87.5%	90%	85%
Annual increase in additions 2025 onwards	99%	100%	98%
Latent 'missing' referral demand presenting	5%	10%	0%
Activity/removals compared to 2019-20 levels during:			
2022-23	80%	80%	80%
2023-24	90%	85%	95%
2024-25	100%	95%	105%
2025 onwards	102.5%	100%	105%

Source: Audit Wales

Our analysis highlights the scale of the possible challenge and the length of time it could take to clear the backlog of people waiting for treatment. The scenarios we have presented in the report are based on assumptions which may alter over the coming years.

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We welcome correspondence and telephone calls in Welsh and English. Rydym yn croesawu gohebiaeth a galwadau ffôn yn Gymraeg a Saesneg.