

Health Technology Wales: Report of 5 Year Progress Review

**Mark Campbell, independent healthtech consultant
November 2022**

Executive summary

- **This report reviews the progress of Health Technology Wales (HTW) after 5 years of operation, using a specification based on the 2014 Access to Medical Technologies in Wales report recommendations, and in follow-up to a similar report at the 3-year stage.**
- **Based on a rapid review, comprising documentary evidence, stakeholder feedback and direct observation, HTW strongly and demonstrably fulfil its core functions, and has made good progress on the improvement suggestions in the 3-year review. Stakeholders within and outside Wales who work with HTW recognise and value its expertise in the identification, appraisal and adoption of health technologies. Stakeholders also see HTW as a well-governed organisation.**
- **HTW has grown since 2020 and remains a high-functioning unit and has continued to publish an impressive range of high-quality HTA outputs. Notable developments since 2020 include a significant contribution to the COVID-19 response in Wales, the development of a strong strategic plan, completion of a pilot adoption audit and innovative work on evaluating social care technologies.**
- **The impact of HTA organisations, including their value for money, is challenging to measure because of a lack of benchmarking information. The topic identification and adoption functions of HTW are significant challenges for all HTA organisations because effective solutions, such as innovation policy to mandate uptake, or health system capacity for local adoption, are outside their control. However, HTW has worked hard to make its topic identification processes as efficient as possible, and the adoption audit findings are encouraging about the uptake of technologies recommended in its guidance.**
- **In summary, HTW is a distinct, trusted and valued part of the innovation landscape in Wales and its strategic plan provides an excellent foundation for future development. As in the 3-year progress review, this report includes suggestions for improvement for each of the review questions.**

Background

1. This report is in response to a specification (appendix 1) developed in September 2022 by the Director and Chair of Health Technology Wales (HTW). It describes the origins and functions of HTW and explains the background to the review. In summary, the review is designed to help critical reflection on the organisation's activities and future direction after 5 years of operation, and is in follow up [to a similar 3-year review in 2020.](#) Table 1 below lists the review questions in the specification, cross-referenced to the 3-year review specification.

Table 1: questions in the HTW 3- and 5-year progress review specifications

Q	Review questions for 5-year progress review	Q number in 3-yr review# (or most closely-related question[s] if not also present in both specifications)
1	HTWs general progress against the recommendations underpinning its establishment in the 2014 Welsh Government inquiry into 'Access to Medical Technologies in Wales'.	1
2	HTW's progress against the objectives set out in the HTW Strategic Plan	New (1)
3a	Ongoing progress, building on HTW's 3-year independent review report, updating it to the 5-year period; focusing on years 3-5 and incorporating this into an overall summary of progress (years 0-5).	New (1)
3b	To assess HTW progress against the improvement suggestions outlined in the 3-year review.	New (NA)
4	The quality of HTWs appraisal function, its evidence review and Guidance outputs and their concordance with good practice in undertaking HTAs.	2
5	To assess progress in the development of the HTA adoption audit function, based on the pilot adoption audit report (draft).	New (1)
6	Assessment of HTWs contribution to the COVID-19 response in Wales.	New (6)
7	Consider key contributions that HTW can offer to support the Welsh Government Innovation Strategy for Wales.	New (6)
8	Assessment of the impact of HTWs contributions and the return on the investment and value for money of HTW	4 (3,5,7)
9	HTWs capacity and capability, both in terms of staffing and leadership, to respond effectively to future demands and the changing environment.	6
10	Suggested areas for development, based on a gap analysis against the Inquiry recommendations, to ensure that HTW remains at the forefront of HTA practice and maintains rigour and trust in its appraisals and guidance	8
#	Additional questions specified in the 3 year review, but not here, were: 3. The efficiency and productivity of HTWs rapid review model, benchmarked against national and international peer organisations (eg, other HTA bodies); 5 - The merit of building additional HTA capacity in Wales, through increased investment in HTW, compared with buying this capacity from external providers of analytical services (e.g. academic centres, consultants etc.); 7 - Balance between HTW's identification, appraisal and adoption functions and whether current funding levels and allocations reflect the balance of functions and priorities.	

Methods

2. The review took place in October and November 2022 with a total allocated working time of 7.5 days. A mixed methods approach was used drawing mainly on readily-available information which was collected in three ways:
 - a. Documentary information comprising published information available from the HTW website or social media channels, and internal material supplied by the HTW team. An evidence collection plan was developed incorporating generic document descriptors for the type of information which was expected to be available and could inform commentary on the review questions. The descriptors were matched by the HTW team to available documentation. Further written evidence was gathered as issues emerged, supplemented by email clarifications and questions;
 - b. Informal, semi-structured interview with staff and stakeholders chosen to reflect relevant perspectives on HTW's work: experience of direct working with the organisation; health and care system; life sciences industry; and partner health technology assessment (HTA) agencies. Question themes were designed to cover written evidence gaps and corroborate impressions gained from other evidence. Interviews were conducted in confidence, and on the basis that responses would not be attributed to individuals;
 - c. Observing key HTW decision-making groups to assess process efficiency and quality, and methods of decision-making.
3. The initial planned report structure was to separately analyse and summarise the collected evidence for each of the 10 questions but this - because of overlap in the questions and in the evidence collected - would have resulted in repetition and a lack of clarity. Instead, the narrative is presented by grouping the 10 review questions in 4 themes, onto which the improvement suggestions from the 3-year review were mapped (Table 2).

Table 2. Theming and aggregation of review questions and suggestions for improvement from the 3-year progress review

Theme	Review Q(s)	5-year review questions and related improvement suggestions from the 3-year progress review report (with relevant paragraph number[s] from that report)
A Incremental and overall progress	1	HTW's general progress against the recommendations underpinning its establishment in the 2014 Welsh Government inquiry into 'Access to Medical Technologies in Wales'.
	2	HTW's progress against the objectives set out in the HTW Strategic Plan
	3a	Ongoing progress, building on HTW's 3-year independent review report, updating it to the 5-year period; focusing on years 3-5 and incorporating this into an overall summary of progress (years 0-5).
	5	To assess progress in the development of the HTA adoption audit function, based on the pilot adoption audit report (draft).
B. Quality of appraisal output	4	The quality of HTW's appraisal function, its evidence review and Guidance outputs and their concordance with good practice in undertaking HTAs. S1 Induction and away time for committees (paragraph 22) S2 Enhance the arrangements for QA of HTW's evidence assessment work (23) S3 Develop and publish processes and methods of guidance development (24)
C. Impact and return on investment	8	Assessment of the impact of HTW's contributions and the return on the investment and value for money of HTW S4 Monitor commitments in MoUs and HTA agency collaborations (33, 34) S6 Ensure balance between signposting and guidance development activities to allow future judgments on VFM (36) S7 Explore options for collaborative provision/commissioning of evidence assessment services (41) S10 Resource use analysis of technical time to ensure prioritization on core HTW guidance function (53) S11 Monitor and improve efficiency of topic identification and work-up processes including joint work with other HTA agencies (54) S12 Options to increase the throughput of guidance topics, including earlier decisions on whether and how to progress topics, adapting other guidance and limiting the number of resource-intensive multiple technology appraisals (55)
D. Capacity and capability	9	HTW's capacity and capability, both in terms of staffing and leadership, to respond effectively to future demands and the changing environment. S5 Ensure fair market price for Scientific Advice (35) S8 Develop leadership and management skills in senior staff and consider programme management role (46) S9 Sustain and further develop business planning and reporting framework, including risk monitoring (47)
	6	Assessment of HTW's contribution to the COVID-19 response in Wales.
	7	Consider key contributions that HTW can offer to support the Welsh Government Innovation Strategy for Wales.
#	3b	To assess HTW progress against the improvement suggestions outlined in the 3-year review.
#	10	Suggested areas for development, based on a gap analysis against the Inquiry recommendations, to ensure that HTW remains at the forefront of HTA practice and maintains rigour and trust in its appraisals and guidance
#		Included at the end of each theme section

Evidence

Documentary

4. In total, over 130 pieces of documentary evidence were reviewed. The evidence collection plan and a summary listing of documents by review question is at appendix 2. Much of the documentary evidence was relevant to more than 1 question; each source is listed against the first question to which it applied.

Stakeholder interviews

5. Telephone interviews lasting up to 30 minutes were held with 6 members of staff, including the HTW Chair, and with 16 external stakeholders; a further 3 external stakeholders answered specific questions by email (appendix 3). Questions were based on the review specification, adapted for the interviewee's perspective. Four of the external stakeholders (2 from HTA agencies, 1 industry association lead and 1 from the Welsh health and care system) also provided input to the 3-year review.

Observation of key meetings

6. Three HTW meetings were observed:
 - a. Appraisal Panel (AP) on 25 October at which guidance was developed on 1 topic;
 - b. Assessment Group (AG) on 1 November which reviewed 1 Evidence Assessment Review (EAR) planned for presentation to the Appraisal Panel, and 1 EAR not progressing prior to publication;
 - c. Assessment Group (15 November) which considered about 60 topics (the majority of which were identified between June and September 2022) of which 3 were presented for a decision to progress to guidance development. In addition, the need to update two existing guidance topics was discussed and agreed.

Although not observed, recent examples of the agenda, papers and terms of reference for the Industry User Group, Patient and Public Involvement (PPI) Standing Group and Signposting Group were reviewed as part the provided evidence.

Theme A - Review question 1 – incremental and overall progress against the Access to Medical Technologies in Wales (AMTW) recommendations

7. This theme covers the following review questions, in the order shown.

Theme	Number	Review question
[A. Incremental and overall progress	1	HTW's general progress against the recommendations underpinning its establishment in the 2014 Welsh Government inquiry into 'Access to Medical Technologies in Wales'.
	3a	Ongoing progress, building on HTW's 3-year independent review report, updating it to the 5-year period; focusing on years 3-5 and incorporating this into an overall summary of progress (years 0-5).
	2	HTW's progress against the objectives set out in the HTW Strategic Plan
	5	To assess progress in the development of the HTA adoption audit function, based on the pilot adoption audit report (draft).

8. The Health and Care Committee made 13 recommendations all of which were [accepted in principle by the Welsh Government](#). All recommendations have a bearing on the work of HTW, with numbers 3 and 5 being particularly relevant to its establishment:

- a. 3. That the Minister for Health and Social Services, within 12 months of the publication of this report, should develop options for an all-Wales medical technologies appraisal mechanism, to undertake a similar function in respect of medical technologies as the All Wales Medicines Strategy Group (AWMSG) does for medicines.
- b. 5. That the Minister for Health and Social Services should ensure that the uptake of recommended medical technologies across Wales, including those recommended by NICE, is measured as part of a formal audit process.

Main findings

9. After five years of operation, HTW convincingly fulfils recommendations 3 and 5, which is a significant achievement because of the multiple challenges of health technology assessment (HTA) of non-drug products, and because of the need to respond to, and return to business as usual after, the COVID-19 pandemic (see theme D for more information on HTW's contribution).
10. HTW has continued, as concluded in the 3-year review report, to be recognised as a respected centre of expertise for the identification, appraisal and audit of health technologies, drawing on international best practice and collaboration but with a strong Welsh perspective to its work. Notable achievements since the 3-year review include:
 - a. Development of the 5-year strategic plan, through careful stakeholder engagement, to provide the foundation for annual business objectives, and to enable a longer-term vision to be articulated;
 - b. Further engagement with key health and care system networks and the creation and maintenance of partnership agreements with other organisations in the innovation ecosystem. This was confirmed by

- external stakeholders who, when asked for general impressions, consistently described HTW as collaborative;
- c. Publication of the first of several planned pieces of social care guidance, following a structured and successful engagement programme;
 - d. Completion of the pilot adoption audit.
11. The Strategic Plan, published in July 2021, sets 4 goals for the period 2021-25 covering HTW's core functions of identification, appraisal and adoption, with a cross-cutting goal on engagement. The 2021 Annual Report clearly and comprehensively describes the extensive activities and outputs supporting each goal. The Strategic Plan goals are also used to set appropriate milestones, outputs and performance indicators, which are agreed with Welsh Government. Based on the Q4 report for 2021/22, HTW achieved or exceeded almost all targets and there is a clear commentary on variance and lessons learned.
12. HTW has sustained its early commitment to system engagement and the developmental work on the Stakeholder Forum, including the leadership activities of its chair, should result in an effective sounding board.
13. The 3-year review concluded that any judgements on Health and Care Committee recommendation 5 would be premature because - although excellent groundwork had been laid - the pandemic had delayed the planned adoption audit. The pilot audit report, published in October 2022, has been welcomed by Welsh Government and, notably, has been commended to the health and care system by the Director General for Health and NHS Wales Chief Executive. The report demonstrates that the methodology, which included the development of a bespoke data collection tool and practical and financial support for responders, is capable of eliciting meaningful responses. A literature review to determine whether any comparable work exists is outside the scope of this report but it is, by any standard, a significant achievement made possible by a carefully planned and sensitive approach, and the closeness of HTW to its target audiences.
14. The adoption audit findings are inevitably mixed, reflecting the challenges in adopting health technologies, but provide overall positive messages for the recognition of HTW's guidance and its impact on adoption decision-making. These are empiric judgements because of the rarity of similar work by HTA agencies in other health and care systems, which reflects the well-recognised challenges of measuring uptake of health technology adoption. Overall, the pilot report provides an excellent foundation for development including – as specified in Recommendation 5 of the Access to Medical Technologies in Wales inquiry - the planned inclusion of relevant NICE recommendations.

External stakeholder feedback

15. Feedback from external stakeholders who work with HTW strongly confirms the overall picture of an established HTA agency which is highly expert, well-governed, collaborative, and occupies a distinct and valued place in the Welsh innovation ecosystem. A theme recurrent from the 3-year review was the poor capacity and capability for innovation adoption at scale in a pressurised health

and care system, notwithstanding the quality and credibility of HTW's outputs. Several stakeholders noted the need to further develop national innovation policy, including building on learning from other health systems, such as the English Accelerated Access Collaborative. When asked how HTW's work could be more impactful, a recurring theme in stakeholder feedback was for further and more obvious alignment of its work programme to system priorities including COVID recovery.

16. There was a minority view among stakeholders over whether a separate HTA agency is needed for Wales. A much more prevalent view was support for a Welsh focus but improved clarity over the respective roles of HTW and NICE. Stakeholders reported confusion and a risk of duplication and would welcome more coordinated promotion and explanation of the respective outputs, enabling more evidence-proven technologies to be available to the health and care system.
17. Stakeholders with direct experience of HTW commented that it was characterised by strong and effective engagement including its work with the social care community. However, stakeholders also noted the challenge, as a disproportionately small part of the Welsh health and care system, of increasing HTW's profile among a wider population of health and care professionals and managers. This challenge is also highlighted in HTW's recent stakeholder survey which, although it is not explained how the sample of 300 stakeholders was identified, showed that recognition and understanding among the 60 respondents was mixed. A majority of the respondents were already engaged with HTW so these results may even overestimate HTW's profile.
18. There was universal support from external stakeholders for the adoption audit work and for the approach used which had balanced the need to understand the impact from a quality improvement perspective with compliance with the 'adopt-or-justify' guidance status. In welcoming further development of the work to understand adoption in more detail, stakeholder views included:
 - a. Support for the inclusion of relevant NICE guidance;
 - b. The need to take into account local service availability, capacity, infrastructure and configuration in making judgements on adoption.

Suggestions for further improvement

19. There were no specific suggestions for improvement for this theme in the 3-year review, mainly because there are no progress reports or updates on 2014 inquiry which led to HTW's establishment.
20. Based on stakeholder feedback, and to further support its strategic goal on engagement:
 - a. HTW should consider how to further increase its profile beyond its directly-engaged audience. The HTW team has already worked hard on outreach activities, and the input of professional external relations expertise, with direct experience of engaging front-line health and care staff, may be helpful in developing further options for this;

- b. HTW should also consider how to improve the understanding of how its and NICE's outputs co-exist to further exploit the unique benefits of its Welsh focus with as wide a range of HTA guidance as possible (see Theme C for further consideration of joint working with other HTA agencies). The Welsh Health Health Network, in which HTW is effectively engaged, offers an existing forum to explore this.
21. Future adoption audit work should include NICE medical technology and diagnostic guidance recommendations and, where relevant, take account of NICE guideline updates where these have direct impact on innovative technologies. This would reflect NICE's transformation programmes which include the ambition for dynamic guidelines and where future incremental updates seem increasingly likely to reflect new evidence on health technologies. This will also achieve full compliance with recommendation 5 of the Health and Care Committee report.
 22. In future audit work, HTW should also consider seeking feedback from companies whose products are appraised. HTW has good links to obtain purchase data from procurement organisations so the commercial sensitivities which prevent the sharing of sales data would be avoided but qualitative feedback from companies may help build a fuller picture of the guidance impact. HTW's Industry User Group would be well-placed to advise on this although wider company representation may be needed, depending on industry's interest in participating.
 23. Based on stakeholder feedback, and to further support its strategic goal on identification, it would be worth considering a future topic call specifically themed on system priorities, particularly on COVID recovery. Topics with significant system impact can be elusive because wider pathway change, which may be enabled by technology, relies mainly on people and processes and is often driven by clinical guidelines such as those from NICE. However, HTW has shown in its previous topic calls, including the recent digital theme, an enviable ability to elicit a strong response from the health and care system. External stakeholders welcomed this idea and were supportive of it spanning all sectors, including secondary care elective recovery and primary and community care. Stakeholders also recommended using all available clinical networks including those for therapies and nursing, as well as medical groups with which HTW is already strongly connected. Stakeholders identified cancer and remote diagnosis and monitoring (which are already represented in HTW's work programme) as areas of particularly high interest.

THEME B. Quality of appraisal output

24. This theme covers the following review questions and improvement suggestions, in the order shown. For suggestions made about questions at the 3-year stage, but not included in the 5-year review specification, a brief account of progress is given.

Theme	Review Q	Review questions and relevant improvement suggestions S1 to S3 (and paragraph numbers) from the 3-year progress review report)
B. Quality of appraisal output	4	The quality of HTW's appraisal function, its evidence review and guidance outputs and their concordance with good practice in undertaking HTAs. S1 Induction and away time for committees (paragraph 22) S3 Develop and publish processes and methods of guidance development (24) S2 Enhance the arrangements for QA of HTW's evidence assessment work (23)

Main findings

25. At the 3-year review, HTW had published 18 pieces of guidance; the resumption of topics paused when capacity was diverted to COVID-19 work has resulted in a further 13 pieces of guidance including updates of 2 early topics (appendix 4) and the supporting topic exploration reports (TER) and evidence appraisal reports (EAR). Compared with the period 2018 to 2020, there was a higher proportion of positive recommendations in guidance published in 2021 and 2022 (appendix 5).
26. Guidance recommendations and considerations are presented concisely in a short, logically-structured document, and the Appraisal Panel's considerations during its decision-making are fully explained.
27. HTW has made, and continues to make, an important contribution to evidence assessments both in Wales, and through international collaborations, on technologies used in the management of COVID-19 (see Theme D for further consideration of this).
28. The recruitment, retention, supervision and professional development of appropriately skilled researchers is critical to maintaining the quality of HTA output, especially when new staff come into post as has been the case during HTW's expansion. The organisation has been successful, notwithstanding the relatively small pool of candidates in Wales, in both recruiting and retaining high-quality staff and there is a policy, based on the staff appraisal and development review process, for accessing relevant training and development. The HTW team recognises that further work is needed in supplementing the standard induction process for researchers (see theme D for further consideration of staff development). This should ensure that, for example, high-quality professional development and training in the core HTA skills of systematic reviewing and economic modelling are available to researchers. Such training, especially with direct relevance to health technologies, can be difficult to source so HTW should continue to work with organisations with similar needs.

Feedback from external stakeholders

29. Advisory group members described their experience as satisfying and worthwhile, promoted confidence in evidence-driven care, and that the

documentation and support from the HTW team was of high-quality. A large majority, including those who had prior experience of face-to-face meetings, also said that the virtual meeting arrangements worked well and did not inhibit the quality of the discussion. Some stakeholders said that they would not otherwise be able to commit the time to attend were there to be a return to in-person meetings. The appraisal process was judged as thorough but fair by all stakeholders, and that the team is open to discussion when concerns are expressed about the process or its outcomes.

Progress on suggestions for improvement in the 3-year review

30.S1 - A system of induction and ongoing development for decision-making groups has been introduced and, although the HTW team is keen to develop this further, there was positive feedback from members.

31.S3 – an appraisal manual is at a good stage of development supported by effective project management and although a draft was shared for this review, it is at too early a stage to form detailed conclusions about its completeness or usefulness. The following considerations may be helpful in its future development:

- a. Consider including a section dedicated to identifying the primary audience(s) for the manual and for the language and content to reflect that;
- b. Only high-level timescales and milestones for guidance development steps should be described to leave flexibility for future adaptation;
- c. Decide on the balance between describing processes (what steps are followed) and methods (how the evidence is assessed and appraised) and that the level of detail on methods is similar between determination of clinical effectiveness and economic impact;
- d. Consider including decision-making considerations on when a single or multiple technology appraisal will be carried out and, for the latter, what approach is taken when a procedure is appraised where multiple similar technologies are available to effect it;
- e. Consider including signposting of the need for new processes and methods in response to emerging best practice in HTA, and adaptations needed for different technology types such as social care interventions. It would be particularly timely to include methods for the structured quality assessment of real-world evidence, given the methodological developments in this area;
- f. Consider using the planned consultation period on the appraisal manual to seek targeted feedback from industry stakeholders.

32.S2 – the Assessment Group (AG) has been strengthened by the addition of 2 systematic reviewers and a second health economist. HTW is also currently tendering for external quality assurance services for its appraisal manual, evidence assessment work and the creation of a technical manual for

researchers. Taken together, these initiatives should provide appropriate quality assurance provided that:

- a. The tender is successful;
- b. The expectations of the external Assessment Group HTA experts are clear, their QA contributions are part of the AG workplan, and the workload is acceptable;
- c. Subject to confirming that HTW's work is in scope, the overall quality assurance arrangements for economic modelling comply with the [UK government's review of quality assurance of economic models](#) (the Macpherson recommendations).

Further suggestions for improvement

33. The format of HTW guidance is largely unchanged since early topics and, although the adoption audit asked whether the recommendations were clear, it was not designed to test which sections of the guidance were most useful, or its readability. Input from a professional medical editor to review a sample of guidance output may provide a helpful analysis of directness, brevity, plain English and clarity, and may identify any accessibility issues with HTW's outputs. Future options may include promoting the use of existing resources such as a style guide and an updated guidance template. It may also be worth, perhaps as part of a future adoption audit, including questions designed to test the use of, and usefulness, of sections of the guidance and supporting documentation.
34. Observation of the advisory groups involved in guidance development confirmed the conclusions of the 3-year review that the appraisal process is supported by high-quality documentation, and the presentation of summary findings from the evidence identified is clear and comprehensive. HTW should also consider adding explicit considerations on the quality of the evidence, taking account of internal (using appropriate quality checklists for the technology and evidence types) and external (its generalisability to a UK/Welsh pathway) validity.
35. The 3-year review concluded that arrangements for PPI were notable, and this continues to be the case. However, neither the EAR or guidance documents have a dedicated section on equality and diversity considerations, including the impact of adopting the technology on groups with protected characteristics under the Equality Act 2010. The PPI Standing Group would be well placed to consider options for this, using the equity assessment done during the topic prioritisation process.
36. HTW monitors the attendance of advisory group members and there is a pre-defined quorum. To enable the best possible decision-making, it should also consider:
 - a. Setting a minimum expected attendance rate (eg, 75% of meetings in each 18-month membership term) for continued membership;
 - b. Further defining the mix of members required to fulfil a quorum, in addition to an arithmetic majority.

THEME C. Impact and return on investment

37. This theme covers the review questions and improvement suggestion below, in the order shown. For suggestions made about questions at the 3-year stage, but not included in the 5-year review specification, a brief account of progress is given.

Theme	Review question	Review questions and relevant improvement suggestions S5 to S7, S10-S12 (and paragraph numbers) from the 3-year progress review report)
C. Impact and return on investment	8	<p>Assessment of the impact of HTWs contributions and the return on the investment and value for money of HTW</p> <p>S4 Monitor commitments in MoUs and HTA agency collaborations (33, 34)</p> <p>S10 Resource use analysis of technical time to ensure prioritization on core HTW guidance function (53)</p> <p>S11 Monitor and improve efficiency of topic identification and work-up processes including joint work with other HTA agencies (54)</p> <p>S6 Ensure balance between signposting and guidance development activities to allow future judgments on VFM (36)</p> <p>S12 Options to increase the throughput of guidance topics, including earlier decisions on whether and how to progress topics, adapting other guidance and limiting the number of resource-intensive multiple technology appraisals (55)</p> <p>S7 Explore options for collaborative provision/commissioning of evidence assessment services (41)</p>

Main findings

38. The 3-year concluded that documentary evidence showed a strategic approach for HTW to measure its efficiency and productivity, including annual impact statements which now also cover COVID-19 outputs, continued use of the organisation evaluation framework, and cost impact analysis of its guidance. This area therefore remains a strength.

39. The 3-year review also concluded that there is insufficient information to make a definitive judgement on overall value for money. This remains the case and the limitations (a lack of benchmarking information and incomplete data on adoption impact) are outside HTW's direct control. Instead, this theme considers some areas where HTW is already increasing its impact and/or efficiency, and/or there are further potential opportunities.

40. HTW has worked hard to sustain and develop the national and international collaborations described in detail in the 3-year review report, both to refresh existing partnership agreements and to form new alliances. Meeting papers and notes show evidence of strong collaborations based on mutual trust and recognition. While it is justifiably proud of the quality and independence of its guidance and other outputs, there is notable work behind the scenes to share data and technical evidence assessments, particularly through the Celtic Alliance.

Feedback from external stakeholders

41. Stakeholders noted that topic handling had improved since 2020; those with experience of notifying topics gave positive feedback, would do so again and would encourage colleagues to do likewise. Stakeholders reported that positive guidance was helpful in building a business case for adoption and securing additional investment but noted that guidance from NICE may carry more weight.

42. There was warm feedback on the impact of HTW's collaborative work within the Welsh innovation ecosystem, including for its joint working with the Welsh Health Specialised Services Committee (WHSSC).
43. Stakeholders judged that most of the topics selected for appraisal by HTW are worthwhile in terms of their potential patient and system benefits. There was a minority view that topic progression decisions were too risk-averse and that topics with more uncertainty could be appraised, with the potential to make recommendations with prospective data collection to close the evidence gaps identified.
44. Stakeholders from all sectors noted the need for further work on topic coordination with other HTA agencies, particularly NICE, and this is recognised by the HTW team. There are established groups at strategic and operational level but there is universal agreement that more work is needed on a clearer framework for deciding which agency will appraise an identified topic, and on the reciprocal status of the resulting guidance. The current arrangements on topic coordination are judged to need further development to avoid the risk of work being duplicated on the same topic, with examples of this in recent HTW TER/SHTG IMTO/NICE MIB outputs, and in HTW and NICE IPG/MTG guidance. Stakeholders noted the challenge of resolving these issues and noted some key considerations, including:
- a. No HTA body should start a topic without telling the other agencies and that information should be centrally stored;
 - b. If a lead agency is decided for any identified topic, whether the resulting appraisal will be mutually recognised and how any resulting guidance would be branded;
 - c. Adaption is an attractive option to re-use existing appraisals to promote the adoption of a wider group of evidence-proven technologies, and thus have greater impact. However, care is needed to ensure that the decision problem used reflects the local pathway, and that any differences in the judgements reached on the same evidence assessment are fully justified.
45. These are challenging issues but stakeholders agreed that, HTW is strongly-placed as a focus for adoption of proven technologies in Wales, whatever the origin of the evaluation.

Progress on suggestions for improvement from 3-year review

46. Suggestions S4, S6, S10, S11 and S12 covered the potential for improving the efficiency of HTW's work in areas including topic identification and work-up, options for increasing the throughput of guidance topics, and on inter-agency collaborations. Since the 3-year report, there is clear evidence of enhanced workflow planning including troubleshooting of, and creative approaches to resolving, process 'bottlenecks'. For topic development, there are indicative timescales for each team member's involvement and although there have been efficiency gains from this, the team recognises that more work is needed,

especially to reduce the time taken at early topic stages, including TER development.

47. The 3-year review noted the need to monitor HTW's involvement in international collaborations such as INAHTA to ensure that HTW derives benefit from its contribution, and that the staff time committed does not impact on its core functions. Continued monitoring of this is needed despite the well-managed exit by HTW from involvement in the EUNetHTA collaboration, a consequence of the UK leaving the European Union.
48. Suggestion S12 included consideration of limiting the number of appraisals including multiple technologies, which are usually more resource-intensive. Since the start of 2021, 8 of the 13 guidance topics have included multiple technologies, usually where there are available alternatives to effect the procedure which is the focus of the appraisal. It is likely that this is a simple reflection of topic areas identified by proposers, and which scored highly on HTW's progression criteria.
49. Suggestion S7 covered options for collaborative provision/commissioning of evidence assessment services. HTW continues to explore these options and is well-placed, including through its work as an evidence service provider for the Wales COVID-19 Evidence Centre, to exploit future opportunities.

Further suggestions for improvement

50. In its Strategic Plan goal on topic identification, HTW articulated the need to agree mechanisms between UK HTA bodies. Such mechanisms exist but agencies and stakeholders agree that a transformative change is needed, both to improve the efficiency of topic handling, and to resolve the issues described in paragraph 44. A full exploration and options appraisal for this and related issues, such as the reciprocal status of guidance, is outside the scope of this report but potential short-term solutions include:
 - a. A move away from the current system of sharing topic workplan spreadsheets and ad hoc email exchanges. The Innovation Service could provide a platform for this and HTW is engaged at both strategic and operational levels of the service user community;
 - b. The recent international collaboration between Australian, Canadian and UK HTA agencies offers the opportunity, under Priority 4, to test efficiency arrangements for joint assessment, including work-sharing. This has strong potential for a single technical evidence assessment to be translated into recommendations which take into account the local health system impact, for which HTW is ideally placed. HTW is also well-placed to take advantage of a collaborative assessment process because its discrete outputs – TER, EAR and guidance – provide a logical basis for any future work-sharing framework.
 - c. An overlap analysis, conducted jointly with NICE and other agencies, would be helpful in quantifying the extent of the challenges in topic coordination;

- d. A focus on topics which are particularly relevant for Wales and may not be prioritised by other agencies; HTW is also well-placed for this because of its strong engagement with programmes such as the Welsh Value in Health centre, which has previously publicised its topic calls.
51. To enhance further its working with innovation organisations in Wales, HTW should consider developing a partnership agreement with TriTech (and any other similar initiatives in Health Boards or elsewhere) with which, based on its 5-year strategic plan, there appear to be shared ambitions. As with other such agreements, this should clarify respective roles and identify opportunities for collaborative workstreams which have the potential to generate, or support, guidance topics.
 52. To further reduce the time spent on topic processing which doesn't lead to guidance output, HTW should consider whether the Signposting Group's functions could be equally effectively handled by another organisation, such as the Life Sciences Hub (LSH). Stakeholders described the LSH as having a similar function to an AHSN in England, the innovation workstreams of which fulfil a similar signposting purpose.
 53. To further increase its potential impact, HTW should consider exploiting its strong link with procurement organisations to explore stakeholder views and options for appraising disinvestment opportunities on health technologies.

THEME D. Capacity and capability

54. This theme covers the review questions and improvement suggestions below, in the following order. For suggestions made about questions at the 3-year stage, but not included in the 5-year review specification, a brief account of progress is given.

Theme	Review questions	Review questions and relevant improvement suggestions S8, S9 and S5 (and paragraph numbers) from the 3-year progress review report)
D. Capacity and capability	9	HTW's capacity and capability, both in terms of staffing and leadership, to respond effectively to future demands and the changing environment. S8 Develop leadership and management skills in senior staff and consider programme management role (46) S9 Sustain and further develop business planning and reporting framework, including risk monitoring (47) S5 Ensure fair market price for Scientific Advice (35)
	6	Assessment of HTW's contribution to the COVID-19 response in Wales.
	7	Consider key contributions that HTW can offer to support the Welsh Government Innovation Strategy for Wales.

Main findings

55. The 3-year review concluded that HTW was well-governed, with strong leadership and a positive organisational culture, and this continues to be the case. Since 2020, it is justifiably proud of a managed return to business as usual and, as noted earlier, this is particularly evident in the increase in guidance output, with 13 published since the start of 2021 compared with 18 from inception to the end of 2020.
56. The HTW team reports recruitment and retention as its biggest operational challenge but has nevertheless been successful in recruiting to new posts and has explored novel ways of developing new researchers with limited HTA experience.
57. HTW has repeatedly shown – particularly, but not exclusively in its work on COVID-19 – the ability to respond to new challenges, to work flexibly and effectively with a wide range of stakeholders.
58. Between July and September 2022, the Welsh Government consulted on its Innovation Wales strategy. HTW's response was shared as part of this review and demonstrates a perceptive understanding of the innovation landscape in general and of the challenges and needs for organisations, like it, whose responsibility is promoting the adoption of innovative technologies.

Feedback from external stakeholders

59. There was praise from external stakeholders for the speed and quality of HTW's COVID-19 work, and on the ease of working with HTW team. Several stakeholders commented that the COVID-19 work had helped HTW to broaden its reach. It is perceived as a strong partner in the Wales COVID-19 Evidence Centre network of organisations.
60. In the context of the Innovation Wales strategy, stakeholders identified HTW as the 'natural home' in Wales for assessment of clinical and cost effectiveness and reflected disappointment that there was insufficient capacity in the health and

care system to adopt its guidance. They also judged that future innovation policy should be based on learning from other parts of the UK, for example so that guidance was subject to accelerated or enhanced adoption initiatives to strengthen the current 'adopt or justify' status, which is not universally understood.

Progress on suggestions for improvement from the 3-year review

61. S8 - A senior programme manager has been in place since December 2021 and is highly effective in leading a programme office whose wide-ranging responsibilities include planning and reporting, project management and operational support functions. In addition to the existing dedicated project management expertise for topic and committee work, a business and operations manager is responsible for essential support functions including finance, procurement, human resources and organisational development.
62. S8 - The 3-year review also suggested that, as HTW expands, senior staff would need additional leadership and management development. This is part-complete and a wider management development scheme has been introduced for all line managers.
63. S9 – the development of the Strategic Plan, and the additional capacity in the programme office, has enabled a significantly enhanced annual business planning and reporting framework. This receives regular, effective scrutiny through the Executive Group of which HTW's Welsh Government sponsor and its host Chief Executive are members.
64. S5 – there have been fewer Scientific Advice projects than expected so it would be premature to judge progress on this suggestion. Further considerations on the service are in paragraph 68.

Further suggestions for improvement

65. As for any high-achieving organisation, and after five years of successful operation, HTW should ensure there is effective succession planning, particular for the Director and Chair; this need was reflected by several external stakeholders. It has begun this process through recruitment for a Deputy Chair for the Appraisal Panel which, although delayed, is complete and will begin in early 2023.
66. Priority should be given to developing, implementing and monitoring the action plan based on the recent staff survey, particularly but not exclusively in relation to: the transition to hybrid working; organisational culture and development; and the development of structured professional development in HTA skills for researchers.
67. After five years of operation, HTW should review the impact of and need for its evaluation framework and the associated software platform. Although these provided a valuable guide in its formative years, HTW should ensure that it is not constraining its work or reducing its agility. The evaluation framework has also informed the development of annual reports which have hitherto been comprehensive and professionally produced. It may now be possible to re-use

content from routine business plan monitoring reports to compile a shorter, simpler, annual report without reducing its value to target audiences.

68. The Innovation Wales strategy recognises HTW's core evaluation function as part of the life sciences product lifecycle. There are opportunities for HTW at other stages of the lifecycle and it should be selective in targeting these. Its Scientific Advice Service (SAS) already supports value proposition building and primary evidence design and development and there is support from stakeholders for it to be expanded. In the context of the strategy, HTW would be well-placed to increase the provision of such expertise to product developers. This includes projects seeking translational research funding from Health and Care Research Wales and other grant funders, where – for example - early economic modelling is often needed but absent. Expanding Scientific Advice in this way would involve operating commercially as a notionally separate activity from guidance development, but would have the dual advantages of recovering costs expended, and should increase the number of technologies coming forward with a well-designed evidence base.

Acknowledgements

I thank the Health Technology Wales team for dedicated and committed support for the review which they did in a friendly and highly efficient way. I also thank them for their openness in the various discussions. I am also grateful to external stakeholders who gave their views freely and enthusiastically.

The views expressed in the report are mine alone. This was a high-level review with wide-ranging objectives and where there was a large amount of documentary evidence on which to draw. A rapid review of the evidence informed the commentary and recommendations in the report but a detailed summary of all of the evidence gathered was outside the scope of the review. Any resulting errors or omissions as a result are my responsibility.

Declaration of interests

I provide paid consultancy services to health technology companies but have no current projects on technologies under active consideration by HTW. In a previous role as a NICE senior manager, I took part in early stakeholder discussions with Welsh Government representatives on the options appraisal arising from the Access to Medical Technologies in Wales report.

**Mark Campbell, independent healthtech consultant
November 2022**

Appendix 1: HTW 5 year progress review specification



20220825_HTW 5
Year Review_Specifica

Appendix 2: Summary of evidence retrieved and reviewed

(Note: much of the evidence informed the report in more than 1 review question; each item is listed in the first question to which it is relevant)

	Review question	Summary description of evidence reviewed
1	HTWs general progress against the recommendations underpinning its establishment in the 2014 Welsh Government inquiry into 'Access to Medical Technologies in Wales'.	<p>Publicly-available Annual reports Impact reports</p> <p>Provided Report to key Welsh peer groups e.g. Chief Executives Examples of recent minutes (where available) of: Executive Group; Industry User Group; Signposting Group; PPI Standing Group; Stakeholder Forum Group; Appraisal Panel Assessment Group</p> <p>HTW-Social Care Wales-Workshop-Report June 21 HTW Social Care Action Plan January 2022</p>
2	HTW's progress against the objectives set out in the HTW Strategic Plan Strategic Plan	<p>Publicly available Strategic Plan</p> <p>Provided Business Plan 2022/23</p>
3a	Ongoing progress, building on HTW's 3-year independent review report, updating it to the 5 year period; focusing on years 3-5 and incorporating this into an overall summary of progress (years 0-5).	<p>Publicly available</p> <p>Provided Director's Reports/Quarterly Reports to Welsh Government 2022 Stakeholder Survey Report</p>
3b	To assess HTW progress against the improvement suggestions outlined in the 3-year review.	<p>Publicly available Health Technology Wales: Report of 3 Year Progress Review, November 2020</p>
4	The quality of HTWs appraisal function, its evidence review and Guidance outputs and their concordance with good practice in undertaking HTAs.	<p>Publicly available Guidance documents Evidence Assessment Reports Topic Exploration Reports</p> <p>Provided Assessment group (AG) papers Appraisal Panel (AP) papers</p>

	Review question	Summary description of evidence reviewed
		Induction arrangements and awayday programmes for AG/AP members Draft Appraisal Manual Specification for External Quality Assurance
5	To assess progress in the development of the HTA adoption audit function, based on the pilot adoption audit report (draft).	Publicly available Developing the HTW Audit Function to assess the adoption of HTW and NICE guidance on non-medicine technologies across Wales: Report & Recommendations 2020 Health Technology Wales Adoption Audit Pilot Report 2021/2022
6	Assessment of HTWs contribution to the COVID-19 response in Wales.	Publicly available COVID-related outputs from HTW website including 2020 Impact Statement
7	Consider key contributions that HTW can offer to support the Welsh Government Innovation Strategy for Wales.	Publicly available Innovation Wales consultation document July 2022 Digital Strategy for Wales 2021 TriTech Institute Business Plan Provided HTW consultation response to Innovation Strategy
8	Assessment of the impact of HTWs contributions and the return on the investment and value for money of HTW	Publicly available Impact Statements Provided Impact strategy Stakeholder survey Memorandum of agreement and meetings notes with other agencies
9*	HTWs capacity and capability, both in terms of staffing and leadership, to respond effectively to future demands and the changing environment.	Provided Standard Operating Procedures HTWs work programme tracker, detailing volume of requests and outputs Organogram Vacancy and staff turnover information HTW Business plan
10	Suggested areas for development, based on a gap analysis against the Inquiry recommendations, to ensure that HTW remains at the forefront of HTA practice and maintains rigour and trust in its appraisals and guidance	NA
*	carried over or adapted from 3-year progress review areas	

Appendix 3: telephone interviewees

Name	Position	Perspective
Staff		
Susan Myles	HTW Director	
Peter Groves	HTW Chair	
June Price	Business Manager	
Katie McDermott	Project Manager	
Lisa King	Senior Programme Manager	
Matthew Prettyjohns	Principal Researcher	
David Jarrom	Principal Researcher	
External stakeholders		
Luella Trickett*	Director Value and Access, ABHI *unavailable during interview period, responded to questions by email	Industry Appraisal panel member
Alex Zervakis	General Manager – Health Economics & Market Access, Olympus UK	Industry
Ifan Evans	Executive Director - Digital Strategy, Digital Health & Care Wales	National strategy and policy
Tom James	Head of Innovation, Welsh Government	National strategy and policy Welsh Government sponsor
Rhodri Huw Davies	Consultant Cardiologist, C&VUHB	Clinician Appraisal panel member
Andrew Champion	Assistant Director, Evidence Evaluation and Effectiveness, WHSSC	Health and care system Appraisal panel member
Melanie Wilkie	Head of Outcomes Based Commissioning, C&VUHB	Health and care system Appraisal panel member
Sarah McCarty	Director of Improvement and Development, Social Care Wales	Health and care system Stakeholder Forum Chair
Raj Krishnan	Associate Medical Director/ Consultant Paediatric Nephrologist, C&VUHB	Health and care system Stakeholder Forum member
Thomas Rackley	Consultant Oncologist, Velindre UHB	Clinician

Name	Position	Perspective
		Topic expert adviser
Lisa Davies	Head of Effective Clinical Practice and Quality Improvement, Hywel Dda HB	Health and care system
Andrew Smallwood	Assistant Director of Procurement (Transformation), NHS Wales Shared Services Partnership	National strategy and policy Appraisal panel member
Mark Briggs	Assistant Director of Innovation and Implementation Cardiff and Vale UHB	Health and care system Assessment group member
Ed Clifton	Head of Scottish Health Technologies Group	HTA
Adrian Edwards	Director of COVID-19 Evidence Centre and Professor of General Practice	Health and care system
Rhys Morris	Director of CEDAR Health Technology Research Centre, Cardiff	HTA Assessment group member
Mark Chapman	Interim director of medical technology and digital evaluation, NICE	HTA
Zoe Garrett	Senior Technical Adviser – Scientific Affairs, NICE	HTA
Paul Dimmock/Liz Islam*	Senior Technical Adviser/Project Manager, NICE *responded to specific questions by email	HTA

