

**PWYLLGOR CRONFA ELUSENNOL
CHARITABLE FUNDS COMMITTEE**

DYDDIAD Y CYFARFOD: DATE OF MEETING:	17 September 2024
TEITL YR ADRODDIAD: TITLE OF REPORT:	Demonstrating the impact of charitable-funded expenditure requests
CYFARWYDDWR ARWEINIOL: LEAD DIRECTOR:	Sharon Daniel, Interim Executive Director of Nursing, Quality & Patient Experience
SWYDDOG ADRODD: REPORTING OFFICER:	Nicola Llewelyn, Head of Hywel Dda Health Charities

Pwrpas yr Adroddiad (dewiswch fel yn addas)

Purpose of the Report (select as appropriate)

Ar Gyfer Trafodaeth/For Discussion

ADRODDIAD SCAA

SBAR REPORT

Sefyllfa / Situation

This report is presented to the Charitable Funds Committee (CFC) to demonstrate the impact of charitable funds expenditure requests approved by the CFC and/or Corporate Trustee, within the scheme of delegation for the authorisation of charitable expenditure.

Cefndir / Background

A key phase in the Hywel Dda Health Charities (HDdHC) 2024/2025 work plan is the implementation of the charity's Evaluation Framework that has been developed to:

- Demonstrate the positive impact the charity makes on the health, wellbeing and experience of NHS patients, service users and staff across Carmarthenshire, Ceredigion and Pembrokeshire.
- Share learning and best practice to further improve experiences and outcomes for NHS patients, service users and staff.
- Develop case studies for future marketing and fundraising campaigns, to tell the story of the positive difference we make.
- Inform the development of future grant-making priorities.
- Access additional data to support statutory reporting requirements on public benefit, demonstrating how we fulfil our charitable objectives.

The Evaluation Framework is comprised of the following data capture processes and reporting mechanisms that enables the charity to evidence the effectiveness and impact of our charitable expenditure:

Expenditure under £10,000	Expenditure between £10,000 and £50,000	Expenditure over £50,000
Short online questionnaire sent to applicants three	Evaluation Report template sent to all applicants six	Evaluation Report template sent to all applicants nine to twelve

months after approval of funding.	months after approval of funding.	months after approval of funding. Mid-term Evaluation Reports also required for project funding.
Applicants asked to rate and describe the positive difference the funding has made.	Applicants asked to discuss what has been achieved as a result of the funding awarded and the positive difference the funding has made.	Applicants asked to discuss what has been achieved as a result of the funding awarded and the positive difference the funding has made.
Applicants also asked to rate the application process and provide suggestions for future improvements.		
Quotes and images collected for publicity purposes and sharing of best practice.	Quotes and images collected for publicity purposes and sharing of best practice.	Quotes and images collected for publicity purposes and sharing of best practice.
Annual Report submitted to the Charitable Funds Committee (March).	Annual report submitted to the Charitable Funds Committee (March).	Reports submitted to the CFC on a quarterly basis, in line with the Evaluation Reporting schedule and CFC work plan. Where practical, opportunity to visit funded projects.

Asesiad / Assessment

The accompanying Evaluation Reports, attached at Annex 1-3, are intended to provide an overview of the impact and positive difference of the charitable funds expenditure requests listed below, approved by the CFC and/or Corporate Trustee within the scheme of delegation for the authorisation of charitable expenditure:

Annex	Application	Reporting officer	Funding approved	Value of funding approved	Reporting period
Annex 1	FibroScan machine for Bronglais General Hospital	Donna Blinston, Advanced Nurse Practitioner Hepatology	26 September 2023	£81,690.00	Final report
Annex 2	Neonatal ventilators for Bronglais and Glangwili General Hospitals	Nick Davies, Service Delivery Manager Acute Paediatric and Neonatal Services	28 November 2023	£120,727.72	Final report
Annex 3	Remote interprofessional simulation equipment for	Richard Kelly, Interprofessional Education and Simulation Coordinator	28 November 2023	£56,461.00	Final report

	clinical education				
<p>Summarised within the main body of the Evaluation Reports at Annex 1-3 are key considerations including:</p>					
<ol style="list-style-type: none"> 1. Key achievements: what has been achieved and to what extent have the intended aims and objectives been achieved. 2. Impact: the positive changes or effects that have taken place and to what extent the anticipated benefits have been achieved. 3. Beneficiaries: the number of people that have benefited. 4. Lessons learnt: what went well and not so well. 5. Exit strategy: how funded projects will continue beyond the time-limited period of funding or will be brought to a close. 6. Summary of expenditure: breakdown of expenditure associated with the funding requests. 					
<p><u>Argymhelliad / Recommendation</u></p>					
<p>The Charitable Funds Committee is requested to</p> <ul style="list-style-type: none"> • NOTE the content of the evaluation reports attached at Annex 1-3 and • DISCUSS the positive impact of the approved charitable funds expenditure requests. 					

Amcanion: (rhaid cwblhau) Objectives: (must be completed)	
Committee ToR Reference: Cyfeirnod Cylch Gorchwyl y Pwyllgor:	4.1 Within the budget, priorities and spending criteria determined by the Health Board as trustee, and consistent with the requirements of the Charities Act 2011 (or any modification of these acts), to apply the charitable funds in accordance with its respective governing documents. 4.8 Seek assurance on delivery against the strategic objectives aligned to the Committee, considering and scrutinising the programmes and processes that are developed and implemented, supporting and endorsing these as appropriate.
Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:	Not applicable
Parthau Ansawdd: Domains of Quality Quality and Engagement Act (sharepoint.com)	7. All apply
Galluogwyr Ansawdd: Enablers of Quality: Quality and Engagement Act (sharepoint.com)	6. All Apply

Amcanion Strategol y BIP: UHB Strategic Objectives:	All Strategic Objectives are applicable
Amcanion Cynllunio Planning Objectives	Not Applicable
Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Objectives Annual Report 2021-2022	10. Not Applicable

Gwybodaeth Ychwanegol: Further Information:	
Ar sail tystiolaeth: Evidence Base:	Financial reports Evaluation data gathered by applicants CFC Terms of Reference
Rhestr Termau: Glossary of Terms:	Included within the main body of the report
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Pwyllgor Cronfa Elusennol: Parties / Committees consulted prior to Charitable Funds Committee:	Finance Business Partner (Accounting & Statutory Reporting)

Effaith: (rhaid cwblhau) Impact: (must be completed)	
Ariannol / Gwerth am Arian: Financial / Service:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3
Ansawdd / Gofal Claf: Quality / Patient Care:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3
Gweithlu: Workforce:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3
Risg: Risk:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3
Cyfreithiol: Legal:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3
Enw Da: Reputational:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3
Gyfrinachedd: Privacy:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3
Cydraddoldeb: Equality:	Any issues and considerations are identified in the evaluation reports attached at Annex 1-3

Evaluation report for charitable-funded requests over £10,000

Please complete this form to tell us about the impact that your charitable funded application has had. We're keen to understand how this funding has made a difference to our patients and service users, their families, carers and Hywel Dda staff.

Please read the guidelines available at [Charities - Home \(sharepoint.com\)](https://sharepoint.com).

Please direct any questions to CharitableFundsFinance.HDd@wales.nhs.uk / 01267 283055 / 01827 1655.

Section 1: Applicant			
Lead applicant:			
Contact name:	Amanda Glanville	Liz Tooby	Richard Kelly
Job title:	Assistant Director of People Development	Clinical Programmes Manager	Interprofessional Education and Simulation Coordinator
Department/Service:	People Development		
Directorate:	Workforce and Organisational Development		
Lead director:			
Contact name:	Lisa Gosling		
Job title:	Director of Workforce and Organisational Development		
Section 2: Application summary			
2.1 Title of application:	Remote Interprofessional Simulation Equipment		
2.2 Application reference:	CFC SBAR 28 November 2023		
2.3 Date approved by CFSC/CFC:	28 November 2023		
2.4 Value of funding approved:	£56,461.00		
2.5 Project start date:	29 February 2024		
2.6 Project end date/estimated completion date:	Embedded change of practice in learning/education with purchased equipment, no planned end date		
Reporting period:			
2.7 Please indicate the period this evaluation report relates to?			
Mid-term:		End of funding:	Yes
2.8 Brief description of your application:			
In no more than 50 words please tell us what you received approval of charitable funds for.			
The Clinical Education department received funding to purchase a high-fidelity clinical simulation manikin, audio/visual recording equipment and simulation design software licences.			

This equipment was to be used to promote and facilitate interprofessional learning using a simulation-based education methodology.

Section 3: Evaluation report

3.1 Key achievements:

Please tell us about what has been achieved as a result of the funding awarded and to what extent the aims and objectives (as set out in the application form) have been achieved.

1. Purchase of Laerdal Nursing Anne Simulator Manikin (NA)

1.1 Manikin training day

On delivery of the simulation manikin, an educational study day was arranged to provide knowledge and practice in the use of the Nursing Anne (NA) Simulator Manikin. An interprofessional group of educators met to receive experiential training on the various uses of the simulation manikin. The day included discussion on the opportunities to utilise the manikin within an interprofessional teaching model. As part of their role as simulation champions, attendees were encouraged to publicise manikin availability in line with an equitable access policy. Aligning with Health Education and Improvement Wales (HEIW) commitment to a Healthier Wales (HEIW, 2020), the training day and discussion on subsequent usage of the manikin was driven by an agreement to move away from uni-professional education, towards identifying areas of common learning and development.

Healthcare professions attending:

- Clinical induction Nursing and Healthcare Support Workers (HCSW) educators and managers
- Community Professional Development Nurses (PDN)
- Community and Acute Physicians Associates
- International Nurse Support Team Educators
- Operating Theatre Practice Educators



1.2 Operating Theatre Major Hemorrhage Procedure (MHP) training

The MHP is a health board validated protocol, providing an algorithmic process for professionals to follow in the event of a patient experiencing a major bleed (Hywel Dda University Health Board (HDdUHB, Blood Transfusion/Hematology policy no. 503). MHP's are not a common procedure and thus staff are not often exposed to these events. As a result, a scenario has been designed to allow relevant health care workers to experience an MHP simulation, letting them learn and practice the various roles without risking patient safety. This simulation has been delivered multiple times across the four acute hospitals, in ward and operating theatre settings. Aligning with our commitment to Interprofessional Education (IPE), the simulation using the NA manikin includes all professions that would be involved in a real life MHP (HEIW, 2020).

The receipt of the NA manikin has enabled the realism of the MHP simulation to be increased significantly. Providing a high-fidelity experience to participants, the NA manikin allows for real time cardiovascular monitoring, including rapid deterioration due to blood loss. The NA manikin allows participants to practice realistic actions such as gaining intravenous (IV) access, administering blood products, and measuring blood loss during the procedure. Resulting in an experiential, realistic and real-time environment. The various facilities the NA manikin has inbuilt allows for interprofessional access from all attending professions, generating interest and engagement in the learning process for all participants.

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The MHP simulations are delivered by the Blood Transfusion Specialist Team who now have access to the NA manikin with support of the IPE/Simulation Co-ordinator for use throughout the Health Board as required.

MHP Participants:

- Consultant Clinicians
- Junior Clinicians
- Surgeons
- Nursing
- Operating Department Practitioners
- HCSW
- Ward Clerks
- Theatre Assistants
- Porters and Blood Bank staff



1.3 Intensive Therapy Unit (ITU) Intubation/Ventricular Fibrillation (VF) cardiac arrest scenarios

Invasive intubation (ETI) is a clinical procedure whereby the airway of a critically ill patient is failing and must be protected with an artificial device. This is an extremely high-risk procedure, requiring expert practitioners working together to avoid complications. Within Health Board ITU's, Intensivist clinicians, ITU Nurses and HCSW's engage in interprofessional learning and practice regarding ETI so that they can perform to a high standard in clinical practice. Usage of the NA manikin has increased the realism of this training simulation. Providing a high-fidelity experience to participants, the NA manikin allows for real time simulation and subsequent intubation, practicing potential side effects and adverse outcomes including VF cardiac arrest. All these incidents can be accurately simulated with the NA manikin, allowing the interprofessional team to react and deliver care as they would in real-life. tely simulated with the NA manikin, allowing the interprofessional team to react and deliver care as they would in real-life.



1.4 HDdUHB International Nurse Training Programme

As part of the Health Board International Nurse recruitment program, the health board has seen 296 nurses, in 13 cohorts, join us from overseas. Preparing all these new employees for their Nursing and Midwifery Council (NMC) registration examinations has been an enormous responsibility for the team of Nurse Educators. To assist in their Objective Structured Clinical Examination (OSCE) preparation, the international cohorts have begun using the NA manikin to help their holistic skills preparation. With the ability to talk through the NA manikin remotely, faculty can communicate real time with the students, allowing them to practice their communication skills. Whilst all the international nurses have passed English exams, this

facility allows them to develop knowledge and use of regional colloquialisms. The inbuilt technology of the NA manikin has also allowed the international nurses to practice several clinical skills requirements, using a highly realistic manikin. It technology of the NA manikin has also allowed the international nurses to practice several clinical skills requirements, using a highly realistic manikin.

1.5 Health Board local School engagement events

Part of the initial bid for access to charitable funding was an aim to engage with the Health Board potential future workforce, highlighting the potential careers available. Working alongside the Future Workforce Team, two school engagement events have been delivered, where the NA manikin has been used as an experiential learning tool for school students to engage in various clinical simulations. The engagement events have involved students learning how to care for patients with several illnesses, how to recognise patient deterioration and to use communication skills in providing appropriate care. The NA manikin has enabled highly realistic environments where the students have been able to talk to the manikin and take a series of measurements such as blood pressure, heart rate and breathing rate. Using an interprofessional model, the events have so far included ITU Consultants, Nurse Manager and Practice Educators demonstrating skills with the NA manikin and talking about their respective careers.

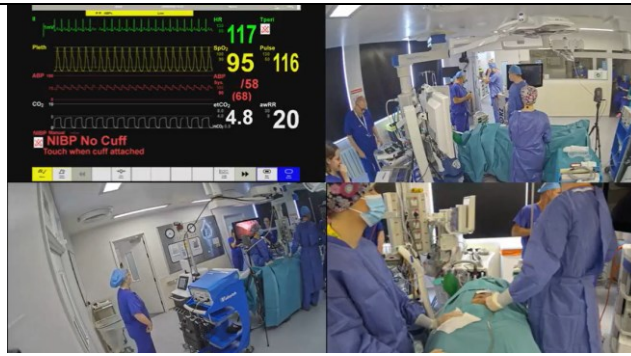


2. Purchase of Scotia Medical Observation and Teaching System (SMOTS) Audio/visual recording equipment

2.1 Operating Theatre Major Haemorrhage Procedure (MHP) training

The SMOTS audio/visual recording system allows for the recording of a simulation scenario in real time. It offers three different camera positions enabling the recording of all participants within the operating theatre MHP scenario. Following completion of the simulation scenario there is a debrief session. This session allows the participants to discuss what happened and as a team identify areas of performance that can be improved and is regarded as a critical part of the learning process in simulation (Diaz-Navarro et al., 2023). It is imperative that participants can locate areas of their own performance that they would like to improve, rather than an instructor telling them where they went wrong, a key factor in successful adult learning theory (Knowles, 1984). For these processes to work effectively, participants need to be able to rewatch the scenario, often moving backward and forward, analyzing events as they happened. This can help them to arrive at a point where they identify personal performance gaps and ways in which they can adjust their performance to close them. The SMOTS audio/visual system is a key facilitator of this process, particularly when there are multiple participants in the scenario.

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2.2 Intensive Therapy Unit (ITU) Intubation/Ventricular Fibrillation (VF) arrest scenario

The SMOTS audio/visual recording system allows for the recording of the Intubation/VF arrest scenario in real time. It offers three different camera positions enabling the recording of all participants within the scenario. As with the MHP procedure above, the recording and playback offers participants an opportunity to observe their own performance and highlight areas they identify as performance gaps. The benefit of recorded sessions is that with participant permissions they can be used as a visual learning tool, introducing Junior Nurses and HCSW's in ITU to invasive ventilation. This can be used as a method of de-mystifying critical events that some health care professionals have yet to participate in.

3. Purchase of iRIS simulation scenario design software (10 licenses for 3 years)

iRIS is a web-based simulation scenario design software which guides educators through the process of creating simulation scenarios that adhere to best practice guidelines. Simulation design and delivery is an effective teaching/learning methodology, only if certain best available evidence precepts are followed during the creation process (Diaz-Navarro et al., 2023). The interface allows easy creation of simulation scenarios by educators who are not experts in simulation by design theory. This is enabling Health Board educators to utilise simulation in their educational delivery.

Funding for the purchase of these ten licenses has so far allowed the following groups to receive training on iRIS usage, allowing them to practice in a safe environment, positively impacting patient safety. In addition, through effective debrief, this has provided reflection on communication, empathy, patient care, and dignity, having a positive impact on levels of patient care.

Services included:

- Blood Transfusion Specialist Team
- Operating Theatre Practice Educators
- ITU Practice Education Team
- Community Professional Development Nurses
- Community/Primary Care Academy Educators
- Clinical Skills Induction Program for HCSW's
- Clinical Teaching Fellows

These groups have been able to create best practice simulation scenarios around the following learning needs:

- Major Haemorrhage Procedure (ward and operating theatre).
- Multiple Intubation scenarios examining adverse events.
- A to E patient assessment.
- Dislodged/blocked tracheostomy emergencies.
- Conflict recognition and de-escalation.
- Difficult conversations around palliative care.

- Use of New Early Warning Score (NEWS) observation chart: calculation and recognition of deterioration

3.2 Impact:

Please focus on the positive changes or effects that have taken place as a result of the funding awarded and to what extent the anticipated benefits (as set out in the application form) have been achieved.

Simulation should adhere to best practice standards, when aiming to generate meaningful impact on professional practice (Diaz-Navarro et al., 2023). Standards involve smaller learner groups, allowing appropriate time and space to embrace effective adult learning theory. This approach initially generates localised or even individual impact, before, over time being rolled out at scale to generate wider impact. In March 2024, we began our drive to increase interprofessional education and simulation using equipment funded by our successful bid. We remain in the early stages of an educational project looking to change the culture of how healthcare professionals learn and develop. A consequence of the early stage and utilisation of educational quality over quantity (when considering participant attendance numbers) the impact is concentrated and smaller scale. There is however an established Health Board Working Group, tasked with overseeing rollout of the interprofessional education operational plan at scale. Part of this plan will involve continuing large scale data capture and analysis of the impact at scale.

1. Impact of Laerdal Nursing Anne Simulator Manikin (NA)

1.1 School Engagement

It was anticipated in the charitable fund's application form that the NA manikin would have the mobility to be transported to multiple school and further education sites. This aspect has proved to be a real success with school students and teachers. The students provided feedback that expressed their enjoyment and interest in having the opportunity to get involved, rather than sit and listen. They enjoyed practicing patient assessment and treatment techniques on the manikin and engaged in discussion about why we assess unwell patients and how we measure and react to patient deterioration.

Feedback statistics demonstrated that prior to engagement with the NA manikin and clinical experts, only 35% of students had considered a career within HDdUHB. Following the session that number had increased to 63%, with 100% of students enjoying the practical aspect of the session. 86% of students would want these events repeated, with 100% of teachers/facilitators wanting to repeat and expand the number of events they organise. It is important to acknowledge that engaging in practical work with the clinical experts there were discussions on gender equality and opportunity. It was a revelation to many of the students that the ITU Nurse was male and the ITU Consultant Doctor was female, this led to focussed discussion on consideration of career choice based on interest and motivation rather than gender.

1.2 Clinical Simulation Sessions

The ability to transport the NA manikin has enabled usage in multiple clinical scenario sessions. As mentioned in section 3.1, the manikin has been used to enhance the realism and fidelity of MHP and ITU Intubation scenarios. The impact benefits to simulation sessions that a high-fidelity manikin provides include:

- The impact of NA manikin on the realism of the training scenario.

- The impact of NA manikin on the ability to physically practice clinical tasks and procedures.
- The impact of NA manikin on the motivation of participants to engage fully in the scenario.
- The impact of NA manikin as a helpful resource in the adult learning process.

Impact data on these clinical simulations is collected using quantitative and qualitative questionnaires and a selection of the data relevant to the anticipated benefits is presented below.

- 100% of respondents agreed that the NA manikin added to the realism of the MHP scenarios.
- As part of the resources, 95% of participants in the ITU intubation scenarios felt that the manikin promoted their learning experience.
- With the NA manikin's ability to facilitate practical skills application, there were the following qualitative comments:
 - "The simulation helped apply the theoretical knowledge and helped identify mistakes/steps that can easily be missed."
 - "The practical element was very helpful."
- 92% of participants in the ITU intubation scenarios felt that the NA manikin was a resource that added to their motivation to immerse themselves in the learning experience.
- 89% of participants in the ITU intubation scenarios felt the NA manikin was a helpful resource in the practical/problem solving method that adult learners appreciate.

1.3 HDdUHB International Nurse Training Programme

The NA manikin has enabled our international cohort Nurses to practice their clinical and communication skills whilst preparing for their Nursing and Midwifery Council registration examinations. The cohort members have provided positive feedback on how realistic it is when they are communicating with the manikin and carrying out specific clinical skills that they will be required to be assessed on in their examinations. Participating in realistic practice is providing the cohort members with confidence on successfully completing the required examinations in order to gain NMC registration.

1.4 Impact of Scotia Medical Observation and Teaching System (SMOTS) Audio/visual recording equipment

Utilising the SMOTS system within MHP and ITU intubation simulations has allowed participants to engage in comprehensive evaluation of group and individual performance during a scenario. Having discussed earlier, the ethos behind simulation education is for learners to identify their own, and group performance gaps. Immersion within a simulation scenario can leave participants with reduced incident recall afterwards, as attention is focused in the moment rather than analysing actions. The SMOTS system replay of scenario visual and audio recording has generated the following impact on participant experience:

Utilising the SMOTS system replay of scenario visual and audio recording has generated the following impact on participant experience:

- The ability to review personal behavior, actions and choices during the scenario, utilising theoretical knowledge of the procedure to identify any performance gaps. Audio and video replay is allowing participants, through knowledge of the procedure, the steps involved and their roles and responsibilities within it to generate their own learning requirements. This impact has huge relevance to adult learning theory, it places learning and development in the hands of the participants, greatly increasing the odds of a decision to change clinical practice.

- dds of a decision to change clinical practice.
- The ability as a group to examine, review and discuss their performance as a team. SMOTS is allowing each participant to see how their communication skills and behavior affected the team performance as a whole.
- Participants have provided feedback on SMOTS in terms of the following comments:
 - "Showed the necessity of communication in an emergency situation"
 - "Knowing how much communication is needed with the blood bank"
 - "To see what role the different members play within the team."
 - "Identifying that communication and assigning designated roles are critical"
- Particularly with MHP scenarios, the SMOTS system allows participants to review any identified performance gaps, allowing for group discussion of how critical clear and consistent communication skills are during the procedure. participants can see where the communication breaks down and identify measures to close this performance gap. The SMOTS system is instrumental in providing participants with a clear audio/visual review of events to highlight gaps in team communication and performance.

2. Impact of iRIS simulation scenario design software (10 licenses for 3 years)

Access to iRIS has allowed multiple Health Board Educators to design simulation scenarios relevant to their scope of practice. The educators involved and scenarios designed so far were highlighted in section 3.1.

We know that curriculum design and its application to simulation-based education is a complex process, requiring knowledge of how simulation by design works; a skill many of our educators have not yet developed fully. The positive impact of access to iRIS is that Health Board Educators who are excited about the improvements in learning and development that simulation can bring, are able to confidently use the software to generate their own scenarios. The confidence arises from the way the software guides them through the design process, ensuring that the step-by-step creation adheres to simulation best practice. The software platform is endorsed by the Association for Simulated Practice in Healthcare (ASPiH) and International Nursing Association for Clinical Simulation and Learning (INACSL) as a means of ensuring high quality scenario design that will deliver opportunities for participants to improve their skills, along with increasing self-confidence in their ability to deliver high standards of patient care. As access to further simulation delivery courses is rolled out, usage of iRIS will be embedded as a core component, ensuring that scenario design remains at a consistently high standard.

ng (INACSL) as a means of ensuring high quality scenario design that will deliver opportunities for participants to improve their skills, along with increasing self-confidence in their ability to deliver high standards of patient care. As access to further simulation delivery courses is rolled out, usage of iRIS will be embedded as a core component, ensuring that scenario design remains at a consistently high standard.

3. Patient care and safety impact example:

The iRIS platform assisted in the creation of a scenario for Junior ITU Nurses to experience a simulated emergency whereby a tracheostomy (artificial airway) had become blocked. The nurses involved had never experienced this situation in clinical practice and had limited exposure to caring for patients with a tracheostomy in place.

Delivered in-situ within ITU in Glangwili Hospital and using a simulation manikin, the nurses practiced assessment of a patient in respiratory difficulty and how to deliver treatment based on the Emergency Tracheostomy Management Algorithm (National Tracheostomy Safety

Project, 2012). The structured scenario design allowed Junior ITU Nurses to participate in a safe learning environment, identify performance gaps and devise/practice ways in which to close those gaps.

Approximately two weeks after this session, one of the nurses involved was caring for their first patient with a tracheostomy in place. During the shift, the patient became distressed, showing signs of respiratory failure. The nurse, due to their simulation experience knew precisely how to assess the patient, commence the emergency algorithm, and call for urgent help. The patient in question had experienced a completely blocked airway which needed to be removed and a new artificial airway inserted to restore breathing. It is, by feedback from the nurse in question and the team of professionals involved, that knowledge and experience gained from simulated practice which contributed to the patient making a complete recovery from this life-threatening incident.

Conclusion

97% of simulation participants felt that the simulation scenario design, combined with access to high fidelity manikin and audio/visual review will improve their clinical practice performance skills and abilities.

3.3 Beneficiaries:

Please tell us how many people have benefited as a result of the funding awarded and how you have determined these numbers. Beneficiaries may include patients, service users, patient families/carers, and staff.

1. Health board staff beneficiaries: 165

Collating attendance registers for simulation delivery that is related to purchase of the NA manikin, SMOTS system and iRIS software, the following Health Board staff have benefitted from exposure to high-fidelity simulation sessions.

- Laerdal manikin training session: 20 Health Board Educators from multi-professional teams.
- MHP Simulation: Since introduction of iRIS and NA manikin to enhance fidelity, there have been 51 Health Board employees who have participated. There have been many more participants across the Health Board who have benefitted from a simulated MHP, but this was prior to the equipment introduction.
- ITU Nursing staff: Since the introduction of iRIS and occasional use of NA manikin to enhance fidelity, there have been approximately 70 ITU Nurses who have benefitted from simulation exposure. This number includes simulation sessions where either the NA manikin or iRIS scenario was utilised.
- Conflict Resolution Pilot Simulation Day. Since introduction of iRIS software 12 Health Board General Practice Receptionists have benefitted from participating in simulation session experience. Plans for roll out of this session to all appropriate staff are underway.
- Palliative Care: emotive conversations Pilot Simulation Day. Since introduction of iRIS software 12 Health Board District Nurses and HCSW's have benefitted from participating in simulation session experience. Plans for roll out of this session to all appropriate staff are underway.

Total Health Board staff who have benefitted from simulation equipment purchase comes to approximately 165.

2. Health board local school student beneficiaries: 152

There have been two school engagement events since delivery of the NA manikin:

Ysgol Coedcae School, 29 February 2024

32 school students across three sessions benefitted from practical engagement with the NA manikin, learning how to assess patient condition and utilise equipment to protect patient airway.

Ysgol Bryngwyn School, 8 July 2024

120 school students across eight sessions benefitted from practical engagement with the NA manikin, learning how to complete basic physiological observations, calculate NEWS score and recognise patient deterioration.

Total school students who have benefitted from simulation equipment purchase comes to 152.

3. Patients as beneficiaries:

Aim:

To generate positive impact on patient outcomes through developing a diverse multi-professional workforce that trains together as well as works together. Research evidence clearly demonstrates that a multi-professional workforce that understands each other and is aware of individual roles and responsibilities, works more efficiently in driving forward improvements in patient care (World Health Organisation (WHO, 2010).

As described in section 3.2 we remain in the early stages of an educational project, looking to change the culture of how healthcare professionals learn and develop. A consequence of this early stage of small-scale rollout, is that quantifiable data on how changes to educational delivery impact the quality of patient care and the patient journey are limited. Accurate and reliable data requires time to accumulate, analyse and present reliable evidence. As interprofessional education grows, usage of high-fidelity equipment to enhance simulation training will become more widespread throughout the Health Board. In line with the IPE operational plan, the impact of simulation-based education on improved delivery of patient care and subsequent outcomes will be measured and analysed to demonstrate proof of educational methodology alongside a return on investment. Whilst this project is not delivered at large scale yet, it is worth mentioning again how simulation-based education utilising purchased resources did provide enormous benefit to the ITU patient with a blocked airway.

3.4 Evaluation methods:

Please tell us what methods you have used to measure the effectiveness of the funding awarded.

As we are introducing a new concept of educational development, along with the equipment purchased we are attempting to evaluate the effectiveness of multiple variables at the same time. Given the early stage of our project, we are currently evaluating effectiveness through use of pre and post feedback questionnaires, utilising Microsoft Forms. This is providing effective data on individual simulation sessions, but we are aware that data capture on a Health Board wide scale will be required as the use of simulation and the equipment increases.

Preparation for large scale registration and data capture of all simulation based educational events is part of the IPE Operational Plan and comprises of the following elements:

- Scoping exercise of Health Board audits to identify areas with an unmet educational need that IPE and simulation can demonstrate efficacy of teaching methodology.
- Working with Learning and Development to upload all simulation events to the Health Board course catalogue.
- Working with Learning and Development to generate standardised QR codes for registration of course attendance.
- Developing standardised and validated pre and post feedback questionnaires that will provide robust, quantifiable data on a large scale.

3.5 Lessons learnt:

Please tell us what lessons have been learnt from the delivery of your funded project in terms of what went well and not so well. Did you have to adapt your delivery, or did you face any unforeseen challenges? If so, how did you adapt or overcome any challenges? Will any lessons be shared with colleagues across the organisation?

Standardisation of feedback questionnaires

As part of the project is to provide equitable access to the equipment purchased, we have been engaging with various healthcare professionals responsible for educational delivery in multiple departments. Many of these educators have their own feedback questionnaires in operation. As part of an approach to encourage a simulation-based education model, we have avoided causing resistance by requesting additions to their questionnaires that relate to the efficacy of simulation and equipment purchased.

Whilst this has generated positive and usable feedback, we recognise the importance of questionnaire design and testing how well the questions relate to the subject (content validity index) and how well the questions relate to each other (Cronbach's alpha scoring). For large scale data collection and analysis of impact, we will need to gain agreement with educators on the use of a standardised questionnaire that has been robustly tested for reliability.

Documentation of sessions in line with health board Learning & Development registration

We realise that at small scale some of our simulation sessions are not always widely publicised. This is due in part to the pilot rollout of the simulation-based education plan. As rollout to scale begins, the IPE/Simulation Operational Plan will be to ensure that all interprofessional education and simulation sessions will be uploaded to the Health Board course catalogue. This will allow for wider publicity, and equitable access to development opportunities. We will ensure all participants book onto the courses, providing us with usable data on all course usage, allowing for comprehensive data analytics on areas such as underrepresented groups.

Technology barrier for some Health Board Educators

The technological knowledge required to setup, monitor, adapt and troubleshoot has proved to be a challenge for some Health Board Educators. We have found that there are extremely experienced and competent educators in their field, who have found difficulties in the technical skills required to assemble and utilise technology that is entirely new to them. This has required the IPE/Simulation Coordinator to work more closely than anticipated, providing in person support in utilisation of the technology until the educators have gained sufficient experience.

3.6 Exit strategy (for revenue expenditure requests):

Please tell us if, and how, the funded project will continue or has continued beyond the end of the time-limited period of charitable funding. If this project will not continue, please tell us how the project will or has been brought to a close.

- **Laerdal NA Manikin:** This was a one-off purchase that has no subscription attached. Its equitable usage will continue to be expanded in line with the IPE/Simulation Operational Plan.
- **SMOTS Audio/Visual recording equipment:** This was also a one-off purchase that has no subscription attached. Its equitable usage will continue to be expanded in line with the IPE/Simulation Operational Plan.
- **iRIS simulation design software:** The 10 licenses were purchased for use over a three year period. In three years', time, an evaluation of usage will take place to determine whether continued licensing is required or not.

- Whilst funding for this project was based on a one-off purchase application, we would however, welcome the opportunity to apply for further IPE/Simulation funding in line with the Interprofessional Education Operational Plan for expansion of simulation opportunities within the Health Board, recognising the impact initial of the funding has had on patient safety and care.

3.7 Other:

Please provide any other relevant information about your funding award and its delivery that you would like to share with us.

References

Diaz-Navarro, C., Laws-Chapman, C., Money Penny, M., & Purva, M. (2023). The ASPiH Standards – 2023: Guiding simulation-based practice in health and care.

<https://aspih.org.uk>

Health Education and Improvement Wales. (HEIW). (2020). *A healthier Wales: Our workforce strategy for health and social care.*

[A healthier Wales \(socialcare.wales\)](http://socialcare.wales)

Hywel Dda University Health Board. (HDdUHB). (2024). Major Haemorrhage Policy: Policy number 503.

[503 - Major Haemorrhage Policy \(sharepoint.com\)](https://sharepoint.com)

Knowles, M. (1984). *Andragogy in action: Applying modern principles of adult learning.* Jossey-Bass.

National Tracheostomy Safety Project. (2012). *Emergency Tracheostomy Management: Patient Upper Airway.*

<https://tracheostomy.org.uk/healthcare-staff/emergency-care/emergency-algorithm-tracheostomy>

World Health Organisation. (WHO). (2010). *Framework for Action on Interprofessional Education and Collaborative Practice* (WHO/HRH/HPN/10.3).

<https://www.who.int/publications/i/item/framework-for-action-on-interprofessional-education-collaborative-practice>

Section 4: Expenditure

4.1 Expenditure breakdown:

Please provide a breakdown of all expenditure associated with the funding awarded that has been incurred to date.

Item/Category	Budget (£)	Actual (£)	% Variance <i>budget vs actual</i>
Laerdal Nursing Anne Simulator Manikin (VAT exempt)	24,471.00	22,486.70	-8%
SMOTS in-situ audio/visual recording system (VAT exempt)	22,428.00	22,428.00	0
RIS Simulation Software licences x10	9,562.00	9,562.50	0%
Totals	56,461.00	54,477.20	-8%

4.2 Outstanding expenditure:

For mid-term evaluation reports, please provide a summary of outstanding expenditure and discuss whether predicted future expenditure is on track:

Not applicable

Section 5: Authorisation

5.1 Evaluation report prepared by:

Contact name:	Job title:	Date:
Amanda Glanville	Assistant Director of People Development	30/08/24
Liz Tooby	Clinical Programmes Manager	
Richard Kelly	Interprofessional Education and Simulation Coordinator	

5.2 Evaluation report authorised by:

Contact name:	Job title:	Date authorised:
Lisa Gostling	Director of Workforce and Organisational Development	04/09/24

For Charitable Funds Finance Department

Finance review:

I confirm that I have reviewed this report and that the expenditure incurred to date is an accurate reflection of the project spend.

Contact name:	Job title:	Date reviewed:
Tracy Davies	Finance Business Partner	06/09/2024

Evaluation report for charitable-funded requests over £10,000

Please complete this form to tell us about the impact that your charitable funded application has had. We're keen to understand how this funding has made a difference to our patients and service users, their families, carers and Hywel Dda staff.

Please read the guidelines available at [Charities - Home \(sharepoint.com\)](https://sharepoint.com).

Please direct any questions to CharitableFundsFinance.HDd@wales.nhs.uk / 01267 283055 / 01827 1655.

Section 1: Applicant			
Lead applicant:			
Contact name:	Nick Williams-Davies		
Job title:	Service Delivery Manager		
Department/Service:	Paediatrics and Neonates		
Directorate:	Women and Children		
Lead director:			
Contact name:	Andrew Carruthers		
Job title:	Chief Operating Officer		
Section 2: Application summary			
2.1 Title of application:	Charitable funds request for replacement of Neonatal Ventilators		
2.2 Application reference:	CFC SBAR 28 November 2023		
2.3 Date approved by CFSC/CFC:	30 November 2023 (Corporate Trustee approval)		
2.4 Value of funding approved:	£120,727.72		
2.5 Project start date:	November 2023		
2.6 Project end date/estimated completion date:	n/a		
Reporting period:			
2.7 Please indicate the period this evaluation report relates to?			
Mid-term:	<input type="checkbox"/>	End of funding:	<input checked="" type="checkbox"/>
2.8 Brief description of your application:			
In no more than 50 words please tell us what you received approval of charitable funds for.			
This charitable fund request was presented to support the purchase of four respiratory ventilators to be utilised within the neonatology settings at Glangwili and Bronglais Hospitals.			

Section 3: Evaluation report

3.1 Key achievements:

Please tell us about what has been achieved as a result of the funding awarded and to what extent the aims and objectives (as set out in the application form) have been achieved.

Procurement of the new ventilators has enabled the Health Board to meet the outcome measures that have been identified as a part of the PERIpem Cymru Quality Improvement scheme, and to also comply with the British Association of Perinatal Medicine (BAPM) standards. The main area of improvement is the application of Volume Guarantee (also known as volume targeted) ventilation - it is known to be protective to the lungs of premature infants and lead to reduced rates of chronic lung disease, including the use of home oxygen. Additionally, the risk from the outdated (and unsupported) machinery has been removed.

3.2 Impact:

Please focus on the positive changes or effects that have taken place as a result of the funding awarded and to what extent the anticipated benefits (as set out in the application form) have been achieved.

All medical and nursing staff have now been trained in the use of the new ventilators. The equipment is seen to be much easier to use and risks in the delivery of patient care is now less complex. The most significant impact is the ability to escalate and downgrade care using one machine (previously two devices had been in use), meaning babies are not having to be changed from one breathing (tubing) circuit to another. Furthermore, there have been no untoward events or Datix reported since the new equipment has been brought online.

3.3 Beneficiaries:

Please tell us how many people have benefited as a result of the funding awarded and how you have determined these numbers. Beneficiaries may include patients, service users, patient families/carers, and staff.

Records of the levels of care/ interventions utilised in Special Care are kept for reporting etc. Analysis shows that since April 2024, 10 premature babies have been in receipt of volume guarantee ventilation. An additional 28 babies have received CPAP (Continuous Positive Airway Pressure) – a less invasive form of ventilation- the majority of whom were supported by the new ventilators.

When babies require repatriation to tertiary care, transport and medical escort is provided by the Cymru Inter-Hospital Acute Neonatal Transfer Service (CHANTS). Concerns have previously been raised by the CHANTS clinical team about the inability for Hywel Dda patients to be in receipt of safe/ accurate volume guaranteed ventilation. This investment has allayed their concerns and they are now satisfied by the level of intervention provided by the neonatal team in this context.

3.4 Evaluation methods:

Please tell us what methods you have used to measure the effectiveness of the funding awarded.

Statistical analysis of the utilisation of the new ventilators, combined with staff feedback and a review of Datix instances, along with case reviews and audit in line with National Quality Improvement monitoring/ standards.

3.5 Lessons learnt:

Please tell us what lessons have been learnt from the delivery of your funded project in terms of what went well and not so well. Did you have to adapt your delivery, or did you

face any unforeseen challenges? If so, how did you adapt or overcome any challenges? Will any lessons be shared with colleagues across the organisation?

Nil significant to report here. From approval to delivery, the procedures appear to have worked well – with good support and advice provided by the Charity, Procurement, Finance and Clinical Engineering Departments. The only slightly negative issue would be the extent of training that was required, with every clinical member of staff needed to be declared competent prior to roll out. This was managed incredibly well by the dedicated Practice Educator Team, but delayed utilisation of the new equipment by approximately six weeks. However, this was an essential element to improving the outcomes as per earlier reporting.

3.6 Exit strategy (for revenue expenditure requests):

Please tell us if, and how, the funded project will continue or has continued beyond the end of the time-limited period of charitable funding. If this project will not continue, please tell us how the project will or has been brought to a close.

Nil- already fully procured.

3.7 Other:

Please provide any other relevant information about your funding award and its delivery that you would like to share with us.

The team and Service Leads would like to sincerely thank the Charitable Funds Trustees for their support in this request, enabling the youngest and most vulnerable patients the Health Board cares for, to receive the latest, high-tech care available.

Section 4: Expenditure

4.1 Expenditure breakdown:

Please provide a breakdown of all expenditure associated with the funding awarded that has been incurred to date.

Item/Category	Budget (£)	Actual (£)	% Variance <i>budget vs actual</i>
4 x respiratory ventilators	£120,727.72	£120,727.72	Nil
Totals	£120,727.72	£120,727.72	

4.2 Outstanding expenditure:

For mid-term evaluation reports, please provide a summary of outstanding expenditure and discuss whether predicted future expenditure is on track:

Nil

Section 5: Authorisation

5.1 Evaluation report prepared by:

Contact name:	Job title:	Date:
Nick Williams-Davies	SDM	04/09/2024

5.2 Evaluation report authorised by:

Contact name:	Job title:	Date authorised:
Lisa Humphrey	General Manager W&C	04/09/2024

For Charitable Funds Finance Department

Finance review:

I confirm that I have reviewed this report and that the expenditure incurred to date is an accurate reflection of the project spend.

Contact name:

Tracy Davies

Job title:

**Finance Business
Partner**

Date reviewed:

05/09/2024

Please return completed form via email to:

CharitableFundsFinance.HDd@wales.nhs.uk

or via internal mail to:

Charitable Funds Support Officer

Finance Department

Ty Gorwel, Building 14

St David's Park, Job's Well Road

Carmarthen SA31 3BB

Evaluation report for charitable-funded requests over £10,000

Please complete this form to tell us about the impact that your charitable funded application has had. We're keen to understand how this funding has made a difference to our patients and service users, their families, carers and Hywel Dda staff.

Please read the guidelines available at [Charities - Home \(sharepoint.com\)](#).

Please direct any questions to CharitableFundsFinance.HDd@wales.nhs.uk / 01267 283055 / 01827 1655.

Section 1: Applicant			
Lead applicant:			
Contact name:	Donna Blinston		
Job title:	Hepatology Advanced Nurse Practitioner		
Department/Service:	Hepatology		
Directorate:	Unscheduled Care Bronglais General Hospital		
Lead director:			
Contact name:	Andrew Carruthers		
Job title:	Chief Operating Officer		
Section 2: Application summary			
2.1 Title of application:	Replacement of FibroScan for Ceredigion		
2.2 Application reference:	CFC SBAR 26 September 2023		
2.3 Date approved by CFSC/CFC:	26/09/2023		
2.4 Value of funding approved:	£81,690.00		
2.5 Project start date:	14/01/2024		
2.6 Project end date/estimated completion date:	Ongoing		
Reporting period:			
2.7 Please indicate the period this evaluation report relates to?			
Mid-term:		End of funding:	Yes
2.8 Brief description of your application:			
In no more than 50 words please tell us what you received approval of charitable funds for.			
Purchase of FibroScan® Mini+ 430, which is a non-invasive assessment of liver stiffness and steatosis, used to diagnose liver disease replacing the need for invasive liver biopsies as per national guidelines.			

Section 3: Evaluation report

3.1 Key achievements:

Please tell us about what has been achieved as a result of the funding awarded and to what extent the aims and objectives (as set out in the application form) have been achieved.

The new FibroScan is a lot more accurate than the old FibroScan, providing further diagnostics, which has improved patient care and management allowing access to treatment quicker.

The lightweight model has improved ability to provide scans in the community both in GP Practices and patients' homes.

3.2 Impact:

Please focus on the positive changes or effects that have taken place as a result of the funding awarded and to what extent the anticipated benefits (as set out in the application form) have been achieved.

The new FibroScan has enabled the delivery of an Acute Outreach Service; where the FibroScan is taken out into the community, to substance misuse clinics, GP clinics and patients' homes.

The newer model has more features and diagnostic tools, which will speed up the diagnosis of fatty liver disease and many other liver diseases.

The new FibroScan has also ensured equitable care across the Health Board and Wales and ensured the All-Wales Liver Delivery Plan can be delivered in Ceredigion.

3.3 Beneficiaries:

Please tell us how many people have benefited as a result of the funding awarded and how you have determined these numbers. Beneficiaries may include patients, service users, patient families/carers, and staff.

430 patients have been scanned since the new FibroScan has been purchased. This has been a direct benefit to the patient and their families and all members of the Multidisciplinary Team (MDT) involved in the patient's care.

3.4 Evaluation methods:

Please tell us what methods you have used to measure the effectiveness of the funding awarded.

The FibroScan is an ongoing diagnostic piece of equipment that will be used to stage liver disease, allowing the identification of patients that need further treatment, assessment and monitoring and to inform the GPs of which patients need to stay under the care of Secondary Care and which can be managed in Primary Care.

3.5 Lessons learnt:

Please tell us what lessons have been learnt from the delivery of your funded project in terms of what went well and not so well. Did you have to adapt your delivery, or did you face any unforeseen challenges? If so, how did you adapt or overcome any challenges? Will any lessons be shared with colleagues across the organisation?

The additional features provided by the new scanner, namely the Controlled Attenuation Parameter (CAP) measurements have informed patient shared care planning, a resource that would have benefited so many other patients previously.

3.6 Exit strategy (for revenue expenditure requests):

Please tell us if, and how, the funded project will continue or has continued beyond the end of the time-limited period of charitable funding. If this project will not continue, please tell us how the project will or has been brought to a close.

The FibroScan has been purchased and is now owned by Hywel Dda University

Health Board.			
3.7 Other:			
Please provide any other relevant information about your funding award and its delivery that you would like to share with us.			
Not applicable			
Section 4: Expenditure			
4.1 Expenditure breakdown:			
Please provide a breakdown of all expenditure associated with the funding awarded that has been incurred to date.			
Item/Category	Budget (£)	Actual (£)	% Variance <i>budget vs actual</i>
FibroScan® 430+ M and Travel Case	43,350.00	43,350.00	Nil
FibroScan Mini 430+ 1 Included	0.00	0.00	Nil
M+ Probe 1 Included	0.00	0.00	Nil
XL+ Probe 1	15,640.00	15,640.00	Nil
SmartExam ON/OFF with CAP 1	20,400.00	20,400.00	Nil
FS Installation 1	1,000.00	1,000.00	Nil
Basic training 3p max, 1/2day 1	1,300.00	1,300.00	Nil
Totals	81,690.00	81,690.00	Nil
4.2 Outstanding expenditure:			
For mid-term evaluation reports, please provide a summary of outstanding expenditure and discuss whether predicted future expenditure is on track:			
Not applicable			
Section 5: Authorisation			
5.1 Evaluation report prepared by:			
Contact name:	Job title:	Date:	
Donna Blinston	Hepatology Advanced Nurse Practitioner	03/09/2024	
5.2 Evaluation report authorised by:			
Contact name:	Job title:	Date authorised:	
Dawn Jones	Hospital Head of Nursing	04/09/2024	

For Charitable Funds Finance Department

Finance review:		
I confirm that I have reviewed this report and that the expenditure incurred to date is an accurate reflection of the project spend.		
Contact name:	Job title:	Date reviewed:
Tracy Davies	Finance Business Partner	05/09/2024