

# Quality Improvement Skills Training (QIST) Annual Report

2021-22

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#### **QIST - An Introduction.**

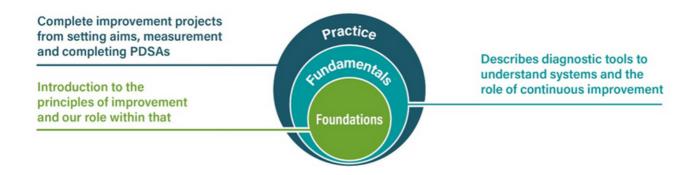
The HEIW Quality Improvement Skills Team (QIST) provides high-quality Quality Improvement (QI) training for healthcare professionals across Wales.

QIST works in partnership with Improvement Cymru to develop and deliver a unique Quality Improvement training programme for Wales. QI methodology equips healthcare professionals with the knowledge and skills that can be used to implement real time changes, to enhance health services and the learning environment in areas of patient safety, wellbeing and sustainability.

The QIST programme delivers the different requirements of postgraduate curricula and is aligned to specific programmes of assessment across different specialty areas. This reflects the increased emphasis on QI as part of postgraduate training and is an intrinsic component of the strategic objectives of the organisation as a whole. The QIST programme also works to the embed QI skills within the organisation and structure of HEIW.

The QIST programme content is mapped against the individual requirements of the relevant training curricula, to support successful progression through the stages of training. It supports a range of e-learning, virtual and face to face QI training opportunities and resources as part of a spiral QI curriculum for Wales.

A spiral QI curriculum developed in partnership with *Improvement Cymru* as part of an Improvement Series to support learning and development in Wales:



This unique spiral improvement training programme builds on improvement knowledge and understanding at each stage, to support individuals and the teams in which they work, to lead improvements in their chosen area of interest.

**Bronze IQT** is an open access e-learning module available to all members of the NHS Wales workforce. This component of the programme is being revised and updated to form the new 'Foundations in Improvement' module and will be launched by Improvement Cymru this autumn.

**Fundamentals of Improvement** builds on the principles of improvement in Bronze IQT and the new Foundations in Improvement, with a focus on tools and techniques to understand the system, use of data over time as part of a continuous approach to improvement and use of the Model for Improvement.

**Improvement in Practice** (formerly Silver IQT) supports individuals to lead a focused improvement project in an area of their own interest across the arenas of patient safety, wellbeing and environmental sustainability.

The spiral curriculum approach led by QIST integrates existing, highly regarded components including Improvement in Practice and builds on experience of trainers across Wales's different healthcare settings to encompass a comprehensive QI training programme for Wales.

#### The QIST Team.



The QIST team is a multi-professional group that work together to develop and deliver the HEIW QIST programme across areas of education, training, and improvement. QIST Tutors are all trained to an advanced Improvement Advisor (IA) level in improvement methodology.

#### **QIST Improvement Training in Action.**

2021/22 was a successful year for QIST with 459 people trained. This represents an increase of 38.25% from 2020/21 where 332 people were trained, and 85% since 2018/19, where 248 people were trained.

In 2021/22, QIST delivered 44 workshops, of which 25 were Fundamentals of Improvement and 19 were Improvement in Practice. Of the 459 people who completed QI training last year 308 completed the Fundamentals of Improvement course and 151 undertook training at Improvement in Practice level.

This is the highest number of people trained in a year since the inception of QIST in 2016, despite the COVID-19 pandemic. Training was delivered across a range of specialities, Foundation training, Dental, Pharmacy, HEIW and Welsh Clinical Leadership Training Fellows.

Workshops consistently receive outstanding feedback with 93.6% of all 2021/22 Improvement in Practice workshops receiving 'good/excellent' feedback and 89% of all 2021/22 Fundamentals of Improvement workshops receiving the same.

The projects that have been completed as part of the training have demonstrated real life improvements in the experience of patients in Wales and have, in some cases, led to spread of these improvements across the different regions of Wales.

Qualitative feedback includes:

Such an accessible team who go above and beyond the 2-day course. Very friendly environment to learn and develop skills and one of the best courses I have been on throughout my medical training

Well presented information that was relevant and useful to really structure future QI. Really appreciated the mentor follow-up. Passionate speakers with good interactivity 99

The course was an eye-opener into what most people would consider as a tick box for appraisal. It gave us an insight into how we can introduce change for the better which can be small, but in the long run, have a big impact on the service we provide

The teachers were really engaging and made the online style interactive and enjoyable. Knowing that I can refer for further help as I go forward with the project is very good

Well broken down into manageable chunks and interesting content. Clearly invested tutors – refreshing to see!

#### **Quality Improvement Projects.**

Below are some examples of standout projects that have been undertaken across primary and secondary care, dental and pharmacy.

#### **Secondary Care**

Winner of the LINCymru Improvement prize in 2020, was Dr Tom Rees, Anaesthetist and his project:

Improving Rib Fracture Management in Morriston Hospital; Using QI to Develop An Erector Spinae Plane Catheter Service.

This project was published in the BMJ in 2021, with the support of QIST. When asked about his experience of undertaking QIST training, Dr Rees said:

QIST training simplified the whole QI process and focussed on some basic fundamentals that I could understand.

In particular, the use of process mapping to rationalise steps in the patient pathway, and continuous data charts to analyse whether my interventions had any impact were significantly different to the traditional audit cycle strategy that I was familiar with.

I was well supported by the QIST team during the write up and was directed in order to get the most out of the project for my CV.

I am still using these principles taught during Silver IQT in ABUHB as part of the QI trauma team.

99

#### **Pharmacy**

A standout project for 2021/22 is that of Kelly Jones, Clinical Pharmacist for Swansea Bay UHB.

It was recommended that Kelly's project, *Improving the process of medicines* reconciliation in dementia patients at Neath Port Talbot Hospital, be shared widely across Wales due to the specific patient safety issues addressed.

> Kelly attributed QIST training to the success of her project, stating that the training was...



66 invaluable, demonstrated useful tools and methodologies, consolidated the importance of team work to improve patient-centred care and was the main driving force to see change occur.

#### **Dental**

A standout project for 2021/22 is that of Alexandra Rawlins, Dental Core Trainee – year 2 in Cwm Taf UHB.

Alexandra's project 'Improving Surgical Safety For Dental Extractions At Porth Dental Teaching Unit', should be shared widely across Wales due to the important patient safety issues addressed in the project.

> Alexandra reflected on the success of her project, stating that the Improvement in Practice project...



Addresses key safety issues in NHS dentistry and acknowledges that team involvement throughout project was crucial.

#### **Primary Care**

An excellent quality improvement project from primary care is that of Dr Joy McFadzean, GP and her project, Direct Oral anti-coagulant (DOAC) prescribing within Clydach Surgery, Swansea.

The project focuses on improving the monitoring, education, and multi-professional management of DOACs within the community primary care setting.



After enjoying carrying out quality improvement projects as a G.P trainee, I wanted to learn more about QI theory - and was thrilled to attend the 'IQT Silver' course with HEIW support.

The training was fantastic, and encouragement by an experienced QI mentor helped me to use those skills with a project monitoring anticoagulation medication in primary care. QIST helped me to plan, utilise QI tools and reminded me to document each step of the process to understand what was having the most impact.

The course inspired me to continue my QI journey and I now teach QI to medical students as a GP Lecturer. I would encourage everyone to attend QIST as it is invaluable, will help you in your roles and helps support improvements in patient safety.

# QIST Improvement Approach to Programme Evaluation.

QIST uses an improvement approach across all aspects of its education and training system to build capacity and capability in Improvement skills in Wales.

The QIST Team use a combination of quantitative and qualitative feedback to evaluate the QIST programme, test and implement future change ideas and inform future educational system strategy.

The team has developed and adopted a 'family of measures' in order to assess the impact of programme changes and inform future development and implementation. Our aim is "to train individuals in quality improvement to enable them, as team leaders, to lead a QI project that matters to patients and staff". The family of measures includes outcome, process, and balancing measures.

This approach allows us to evaluate the impact of changes to the programme and identify areas of innovation and improvement such as the updated spiral curriculum, as well as the introduction of new aspects of the programme, such as Fundamentals of Improvement and new approaches.

This unique approach to programme evaluation as part of a focus on improving education and training systems more widely, has been accepted for presentation at the Institute for Healthcare Improvement (IHI) International Forum meeting 2022/23 and will be the subject of a future publication and presentation.

This will allow the QIST team to share this approach with others who are also seeking to improve educational systems and align evaluation with their strategy for improvement.

#### **QIST Innovation in Practice.**

Examples of some of the areas of innovation and their impact on improvement training developed during the last year include:

- Introduction of Fundamentals of Improvement as part of an updated spiral improvement curriculum for Wales
- Use of Virtual Learning Environments for Training and Mentoring
- QIST Trainer Programme for Educational & Clinical Supervisors
- New QIST Programmes for HEIW Graduate Programme & Internship Programme 2022.

Further information on each of these innovations, the drivers behind the changes and their impact are detailed below.

#### Introduction of Fundamentals of Improvement, as part of an updated spiral improvement curriculum for Wales

#### **Driver for Change**

Feedback from delegates and trainers from across Wales had identified the opportunity to introduce a new component to the existing approach to QI training in Wales. This new component should expand on the initial introduction to improvement encountered in Bronze IQT, but focus on enhancing three aspects of improvement:



Tools and techniques to understand the systems in which we are working



Foster a deeper understanding of the Model for Improvement and its application in practice



Commitment to a continuous approach to improvement and use of data over time.

This new addition would also provide a more detailed grounding for individuals new to improvement, before moving to the next stage of leading an improvement project as part of the Improvement in Practice component.

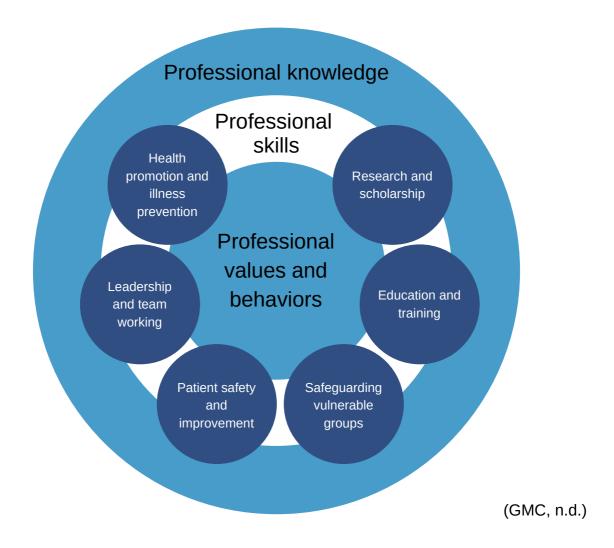
This represented the new **Fundamentals of Improvement** programme. As well as providing a good grounding for those who are new to improvement, Fundamentals of Improvement is mapped against the different curriculum requirements for QI across different specialties, including General Practice. The Fundamentals of Improvement programme was led by the HEIW QIST Team and co-designed with the Improvement Cymru Academy and has now been adopted as part of their national Improvement series of training.

This new approach is also mirrored in the GMC & AoMRC Generic Professional Capabilities Framework.

The GMC's Generic Professional Capabilities Framework sets out the essential generic capabilities needed for safe, effective and high-quality medical care in the UK. The GMC has translated the principles and professional responsibilities of doctors into educational outcomes so that they can be incorporated into curricula. These are reflected in updated Royal College curricula.

The framework is made up of nine domains, as shown via the diagram below.

To support doctors in training develop their capabilities in the below areas, HEIW launched the Generic Curriculum. The Generic Curriculum aims to provide access to personal and professional development to support and enhance good medical practice at various stages of the training programme. The topics have been mapped to the below domains, in line with curriculum requirements.



#### **Action**

The QIST team worked closely with the Deputy Director of Secondary Care to support the development and implementation of QI as part of the HEIW Generic Curriculum.

As of February 2022, the QIST Fundamentals of Improvement workshop is offered as a generic workshop and is open to all specialities (including Foundation training), as well as Pharmacy and HEIW staff.

Supporting the Generic Curriculum with QI provision links to domain 6 of the GMC's Generic and Professional Capabilities Framework - Capabilities in patient safety and quality improvement. Offering Fundamentals of Improvement in a generic format allows us to run more sessions, provides inclusivity, greater equity in access and gives doctors in training more flexibility and choice of when they attend.

#### **Evaluation**

Delegate feedback is collected via a standardised feedback form that is sent to individuals upon completion of a Fundamentals of Improvement workshop.

Fundamentals of Improvement workshops consistently receive positive feedback with 89% of all 2021/22 Fundamentals of Improvement workshops receiving 'good/excellent' feedback. QIST used an improvement approach to evaluation to tailor the adoption of Fundamentals of Improvement to a wider audience as part of the HEIW Generic Curriculum.

#### **Next steps**

The HEIW QIST Team are working in partnership with the Improvement Cymru Academy to support adoption of this new component of QI training as part of the updated national Improvement Series for Wales.

#### Use of Virtual Environments for Training and Mentoring in Improvement

#### **Driver for Change**

Onset of the Covid-19 pandemic triggered the cessation of face-to-face training. The need for a different model of training enabled a radical review of the QIST programme and how to build capacity and capability in a changing landscape.

The QIST Team applied QI methodology as part of the evolution in learning approaches, testing changes in use of virtual learning environment and training. This also provided opportunity to develop innovations in curriculum delivery, structure, and trainer mentor support. As a national programme, the quality, effectiveness and equity of access to training must be sufficient to embed QI capacity and capability in NHS Wales.

#### Action

The timeline of action was dictated by the pandemic, but we recognised the need to resume training, in a virtual setting. The QIST team rapidly adapted courses, refined the project-focused modular programme and tested interventions/breakout rooms to encourage interaction.

PDSA cycles were used to test different approaches, combined with qualitative feedback from faculty and delegates. Qualitative data was gathered from delegates using a standardised delegate feedback form, giving them the opportunity to offer change ideas for improving QI learning.

Improvements to courses and delivery are iterative; tutors discuss tests of change at each QIST team meeting.

#### **Evaluation**

To measure and assess the impact of programme changes, the QIST Team used outcome, process and balancing measures derived from the QIST Family of Measures. These measures are ongoing and continue to inform the programme as the programme continues to evolve with future use of both virtual and face to face delivery.

The QIST Team also continue to use qualitative data taken from the delegate feedback forms. This combined approach meant the team were able to maintain and develop capacity and capability in improvement methodology during the pandemic, including throughout lockdown episodes, even managing to increase our delegate numbers as described earlier.

During this time many QIST Tutors, along with colleagues, also maintained front line clinical roles across both Primary and Secondary Care.

Virtual course feedback has consistently been excellent: mean of 96.5-98.4% of delegates returning 'good'/'excellent'.

During a major pandemic, we:

Increased capacity and capability in QI in NHS Wales

Provided greater equity of access to QI training in Wales

#### **Next steps**

Future development of the QIST programme will look to support a hybrid training approach for workshop delivery. The move to the use of virtual training saw an improvement in the equity of access to training for delegates pan-Wales, which is reflected in attendance numbers.

Improvement in Practice will primarily be delivered in a face-to-face format, however based on the above feedback we will maintain the use of virtual learning environments where needed.

Fundamentals of Improvement will continue to be available as a virtual workshop.

The QIST Team will continue to monitor 'themes' arising from qualitative feedback to potentially inform further course developments. Many delegates attend the courses to reach mandatory training milestones.

The next step is for QIST to focus on this capability being translated into improvement projects after accreditation, – the impact on patients and families is to come once these doctors, dentists and pharmacists in training lead QI projects in their chosen field, some examples of such projects have been included earlier in the report.

## QIST Trainer Programme for Educational and Clinical Supervisors

#### **Driver for Change**

Many of the new educational curricula that have been approved by the GMC since 2020, require doctors in training to undertake a QI project in order to complete the learning outcomes of their respective curriculum. This reflects the greater emphasis on QI that is reflected in the GMC/AoMRC Generic Professional Capabilities Framework. Dentists in training have a similar requirement.

Feedback from trainers and educators across Wales suggested a need for Trainer specific QI resources to support educational supervision, local project and development and assessment.

#### Action

In Autumn 2021, following discussions with the Head of Specialty School for Paediatrics & Child Health, QIST piloted a trainer specific QI workshop for educational supervisors. This pilot built on earlier scoping work across other specialty schools examining the different requirements of trainers, as well as QI presentations that have been delivered by QIST Faculty to trainers across both primary and secondary care educational meetings

The new workshop proved to be incredibly popular, sold out in a short period of time and generated a waiting list of 29 individuals, cementing our suspicions that a QI offering for trainers should form part of the wider QIST programme.

#### **Evaluation**

Delegates of the pilot workshop were all asked to complete a feedback form, with 100% of feedback received categorised as 'excellent' or 'good'. All respondents would recommend the workshop to others and when asked about the most useful aspect of the workshop, feedback included:

"Understanding what the trainees need to achieve and what they need to do to access training etc."

"I have gained a greater understanding of both terminology and methodology in QI and can now see how I can use this in my clinical practice."

#### **Next steps**

Based on the positive feedback from the pilot workshop and other previous work with specialty schools, QIST developed a bespoke QI training offer for trainers.

The new QIST Trainer Programme will launch in Autumn 2022 and will be delivered in partnership with specialty schools, across primary and secondary care, dental and pharmacy. It is recognised that it is important to have a formalised, consistent approach that can be used across a range of specialties and settings.

The programme will include training on the Fundamentals of Improvement, combined with specialty specific guidance on QI curriculum and assessment requirements to support progression through training. QIST has followed best practice in developing this programme around the educational needs of the Educational Supervisors, and the workshop will also include an 'open session' on practical tips for supervising QI projects.

The workshops will support development of QI educator networks and will be supported by a library of QI resources to support educational supervisors with QI activities.

Trainers in Wales will continue to have access to the QIST Improvement in Practice workshops.

## New QIST Programmes for HEIW Graduate Programme & Internship Programme 2022

#### **HEIW Graduate Programme Pilot**

#### **Driver for Change**

The NHS Wales General Management Graduate Programme is a two-year programme that has been designed for aspiring future leaders of NHS Wales, gaining academic knowledge as well as hands-on learning experience, based in placements across Wales in primary care, secondary care and corporate divisions. Graduates undertake a fully funded Masters programme alongside work based learning. HEIW are developing leaders who can drive excellence through creative and innovative thinking to improve the experience and health for the people of Wales. As part of the programme, the graduates have access to a package of professional learning to support their development.

QIST were contacted by the Graduate Programme Lead to ascertain what we might be able to offer as part of the learning package as there is an appetite for QI training given that some of the graduates will be undertaking quality improvement work as part of their placements.

#### **Action**

The QIST team are delivering a bespoke Improvement in Practice workshop for those on the Graduate Management Programme, as well as offering ongoing, one-to-one project support with a QIST Tutor where required. The workshops will take place during Summer 2022.

#### **Evaluation**

As with all workshops, delegates will be asked to complete a feedback form which we will use to evaluate the success of and inform future workshop improvements.

QIST will continue to work closely with the Graduate Programme Lead to determine future programme requirements. The workshop this summer is a pilot, and if there is a requirement for this to form a regular part of the programme going forward, QIST will look to further develop the content to make it bespoke to the Graduate Programme (e.g., specific project examples).

#### **Next Steps**

Deliver workshop and assess feedback to help inform future requirements, and work with the Graduate Programme Lead to build the Graduate Programme offer into the QIST programme of training, where required.

#### **HEIW Summer Internship Programme**

#### **Driver for Change**

The HEIW Summer Internship is a 6–8-week programme where interns are placed in different departments of the organisation to develop a national/regional project. Many of the projects have an improvement element, and for the 2021/22 cohort, the Internship Lead approached the QIST team to arrange some QI support for the interns.

#### Action

To support the interns with their projects, QIST delivered a project support session. In their first week, interns were asked to present their project plans to a panel of QIST Tutors who gave advice, tips and guidance on how to best to undertake their assigned project, using improvement tools and methodology.

#### **Evaluation**

Feedback from the Internship Lead indicated that whilst the interns found the session incredibly useful, it was scheduled too early in the programme, and they hadn't had sufficient chance to think about how they wanted to undertake their project.

Interns would also have welcomed a QI workshop in order to better understand QI tools and methodology that could be applied to their projects. This is something that needs to be considered when planning for future cohorts.

#### **Next steps**

The 2022 HEIW Summer Internship commences in July. Based on the feedback from 2021 and detailed discussions with the Internship Lead, QIST will deliver a bespoke Fundamentals of Improvement workshop for the interns. This will take place in the first week of their placement with HEIW.

In their second week, the interns will be asked to present their project plans to a panel of QIST Tutors, for further advice and guidance. Having a workshop prior to the panel will give the interns a chance to apply their learning from the workshop to their project plans and will give them time to think about any specific project areas they may need support with.

# Supporting Improvement and Innovation across the wider Healthcare system in Wales.

# Improvement Cymru Academy *Scottish Improvement Leader* (ScIL) Programme 2021/22

As part of the ongoing development of the expert level of improvement training for NHS Wales, Improvement Cymru provided a second cohort of the Scottish Improvement Leader course (equivalent to IHI Improvement Advisor level) for the 2021/22 year.

Dr Gethin Pugh, Clinical Lead for QIST, Consultant Intensivist & Anaesthetist and HEIW Associate Dean, is undertaking the role of Lead Faculty for this expert level programme as part of his role as Improvement Cymru Academy Clinical Lead.

The programme commenced in November 2021 and is being delivered over a 10-month period, supporting more than 20 participants from across Wales to deepen their expertise in improvement and lead improvement across NHS Wales for the benefits of patients and staff.

Sue Stokes, HEIW QI Dental Educator & Training Programme Director for the Cardiff DCT1 Scheme has been a member of the latest Improvement Leader Programme working on improving dental health. As part of the programme, Sue is required to undertake a QI project and will be piloting a new QI project for the Foundation Dentists (FD) in Wales. This project will utilise the QI methodology sessions from the very successful D2S in practice, whilst focussing on groups of the population identified using the Assessment of Clinical Oral Risk and Needs (ACORN) toolkit. The new QI project for FDs is called "Supporting Better Oral Health" and focuses on metrics measured in the new NHS dental contract for adults.

#### **HEIW Improvement Prize**

The HEIW Improvement Prize is an opportunity for staff across NHS Wales to share the quality improvement work that they have undertaken. Entrants are required to submit a completed QI project for consideration by the prize panel, with the winners receiving support and funding for their work to be published in the relevant national journal.

There were 22 submissions this year, from a range of specialties and professions, and the prize was awarded to Dr Isobel Joy McFadzean, a GP who completed a project on 'Direct Oral anti-coagulant (DOAC) prescribing in Clydach Surgery, Swansea'. Further information on this project can be found under the Quality Improvement Project section of this report.

#### **Improving Quality Through Simulation**

QIST has worked in collaboration with the HEIW Simulation Team to develop 'Improving Quality Through Simulation'.

This document is the first of its kind internationally and will be published in Autumn 2022.

It introduces teams into how simulation-based education can be utilised as part of an improvement approach to enhance patient safety.

#### **QIST Sustainability Programme**

The HEIW Sustainability Healthcare Working Group have been working to identify useful resources to support sustainability work and the group are now exploring how this can move to the next phase of supporting individuals with application of the principles of sustainability, particularly in relation to QI work.

To support this important workstream, QIST have been working in partnership with the Centre for Sustainable Healthcare for some time and will be piloting a QIST Sustainability in Healthcare Workshop stream in the Autumn, to learn more about how the programme can best support individuals to undertake a QI project in the area of environmental sustainability.

Many QIST projects have been undertaken in this area already and this new workshop programme will be a useful in aligning our work in this area to support the development of skills in both QI and sustainability, for doctors, dentists, and pharmacists, as well as supporting other HEIW work streams.

As part of the sustainability agenda, QIST will also be mentoring a Sustainability Fellow as part of The Sustainable Healthcare Fellowship programme. The programme provides a unique opportunity for individuals with a passion for sustainability to hone their leadership skills and gain an unparalleled understanding of sustainability principles by

working alongside senior leaders in the NHS to help address the climate emergency and lead local, national and global change.

The Sustainability Fellow within QIST, will undertake a project on Sustainable Quality Improvement, working to integrate sustainability concepts into quality improvement projects and teaching.

#### **Advanced Clinical Leadership Programme**

The Advanced Clinical Leadership Programme has been developed by the Leadership Team at HEIW. The programme is aimed at senior clinical professionals in NHS Wales, with significant management and leadership responsibilities. The programme aims to create a cohort of multi-professional clinicians with knowledge, skills, confidence and ambition to take up formal, senior leadership roles in NHS Wales.

As part of the programme, delegates will be required to undertake an improvement, strategic or transformation project. To support this area of work and delegates' understanding of quality improvement and the associated tools and methodology, QIST will deliver an introduction to improvement at the start of the programme this autumn, to give delegates an overview of the use of improvement principles and examples of successful change management.

The QIST Team will also develop and deliver a bespoke Improvement workshop for the programme in early 2023.

#### **Further Information**

If you have any comments or questions in relation to the content of this report or the work of QIST, please contact the team at <a href="https://example.com/HEIW.QIST@wales.nhs.uk">HEIW.QIST@wales.nhs.uk</a>.

