Yorkshire & Humber HIEC

Turning best practice into common practice

2010 -2013

Final Report

January 2013

www.yhhiec.org.uk

Contents

Foreword

I am delighted to write this foreward as Board Chair and it is with great pleasure that I reflect on the achievements of the Yorkshire & Humber Health Innovation & Education Cluster (Y&H HIEC) over the last two and a half years. First of all I must thank Miles Scott, former Chief Executive of the Bradford Teaching Hospitals NHS Foundation Trust (BTHfT). Miles drove the set-up period of the Y&H HIEC and BTHfT have been an excellent host organisation. I must also thank Alan Wittrick, who was the Chair of the Y&H HIEC Board during its first year of operation.

Since becoming Chair, I have observed the enthusiasm with which the Y&H HIEC Team have addressed multifarious challenges and overcome barriers to 'turning best practice into common practice'. The Y&H HIEC has been a well-defined and managed programme that has worked systematically to spread innovation. This final report is an important opportunity to celebrate some significant achievements; these are tangible improvements in the care that is provided to patients.

The Y&H HIEC has taught us of the importance of collaboration, be it between organisations and institutions, across sectors or across professional boundaries. Developing a genuine sense of collaboration takes time, integrity and real commitment; you will see how this has paid off in what we have been able to achieve.

Another factor that is critical in shifting clinical practice is empowering staff, when staff are supported to make changes within their own environments the affect is transformational. We will explain how we did this and the changes in practice this achieved.

The focus of Y&H HIEC was on finding solutions and making tangible differences. We were not about asking more questions. We also describe some independent analysis which identifies the 'value' the Y&H HIEC has added, compared with "business as usual".

Innovation has never been more important to the NHS, nor had the profile that it has had now. We need to understand how we can more effectively and more quickly spread innovation at scale in the NHS.

The legacy of the Y&H HIEC includes experience, wisdom and resources about how to drive the adoption and spread of innovation, we must not lose this; we cannot afford to.

We end this report with a sustainability plan that we hope assures a legacy for the Y&H HIEC learning and resources.

Chris Butler

Chair: Yorkshire & Humber HIEC Board

NHS Chief Executive Officer

Leeds York Partnership Foundation NHS Trust

Executive Summary

I am genuinely proud to welcome you to our Final Report in which we share details of our impressive achievements and the impact of our work.

Our work was about driving innovation through education, our model of working blended research evidence, innovation and education to deliver tangible improvements for patients. Our overall aim was to 'turn best practice into common practice'.

We have worked in a collaborative way which means that we have engaged extensively with a large range of colleagues and stakeholders both to shape and define our work, and to deliver it. We have developed networks of champions and communities of practice through which to share and spread innovation at scale. We have empowered individuals and teams to identify areas of their service that need to be improved, helped them to understand the potential solutions and supported them to design and implement a solution. We have supported them to evaluate the impact of their solution and monitored the impact over time.

We have worked across the health economy – we have worked across sectors, disciplines and settings engaging commissioners and staff at all levels. This has not been easy, we have often found ourselves challenging 'the system' in order to achieve our goals. It has been difficult, time consuming and even fraught at times, working across sectors means wrestling with the constraints of each. We have experienced several challenges along the way, we describe these and how we overcame them.

Driving innovation through education was important to achieve spread at pace and scale, it brought about changes in behaviours and attitudes and mobilised individuals and teams to implement innovation in their practice. Using education as a tool to develop the workforce maximised the benefits from integrating evidence and research findings. Our education work was grounded in educational theory to help to promote knowledge and understanding and to develop sustainable change.

I would like to thank the Y&H HIEC Board who have remained engaged throughout our work and have offered both constructive challenge and solution focussed support to help us develop our thinking and deliver our work. We are grateful to colleagues at the Y & H SHA for supplementing our funding with Regional Innovation Funding (RIF) which has enabled us to expand our programmes of work.

We look forward to working with the forthcoming Yorkshire & Humber Academic Health Science Network to sustain and build on our innovative work and achievements.

Dawn Lawson

Managing Director, HIEC

Achievements and impacts

The Y&H HIEC programme has used research evidence, innovation and education to deliver tangible improvements for patients. The emphasis of the programme was solution driven; shifting outcomes for patients by making sustainable change.

We will outline our achievements in the following chapters, but here is a summary of what our programmes have delivered in the NHS in Yorkshire and the Humber:

Table 1: Achievements & Impacts

THEME	TOPIC	ACHIEVEMENT
Maternal & Infant Health & Care	**Regional and national collaborations and joint working**	MIHC has developed an online community with around 1600 practitioners registered. MIHC theme staff have engaged in many collaborations and partnerships to spread best practice regionally and nationally. Members of the MIHC team have spoken at more than 125 conferences, events and workshops regionally, nationally and internationally over the project's lifetime.
	Online Infant Feeding programme	This online course is linked with regional education and national learning programmes. 3 units are currently available at the Department of Health Sciences, University of York.
	Evidence Into Practice consultation and report	A region-wide consultation took place with around 600 colleagues and advocacy groups, identifying those evidence based actions which would be both 'high impact' and 'high feasibility'. The consultation also resulted in an 'evidence into practice' online toolkit which is freely available through the Yorkshire and Humber HIEC website.
	'Getting it Right from the Start'	The programme engaged 91 champions and enablers across the region and supported units to make significant changes to practice. 6 development days were run for champions and enablers, with over 100 attendees.
	Getting it Right from the Start: Neonatal Theme	The proportion of babies getting 'kangaroo' skin to skin care has increased by 20% across the region, from 20% to 40%. Some units made greater improvements, with over 50% of clinically stable babies receiving kangaroo care.
	Getting it Right from the Start: Normal Births	Early routine amniotomies are now at a negligible level. Mobility of women in labour and the variety of positions for birth have increased, with a greater number of women giving birth 'off the bed'.
	Getting it Right from the Start Prisons Report	A research and consultation exercise leading to a report setting out recommendations for the care of childbearing women in prisons, freely available on the HIEC website.
	Getting it Right from the Start Vulnerable Women's consultation	Work to understand and improve the care of vulnerable women on admission in labour, a consultation and report produced and available on the HIEC website

THEME	TOPIC	ACHIEVEMENT
Patient Safety	**Training and Action for Patient Safety (TAPS) Programme** **Patient safety training for the whole multi-professional team – to learn with, from and about each other.** **PLUS** **Learning from other teams from the health economy – to provide extra support and motivation.**	TAPS programme has been delivered in 8 health communities in Yorkshire and Humber to 70 cross-professional teams working in Hospitals, GP Practices, Care Homes and Mental Health services. A peer reviewed paper describing the TAPS model and evaluation published in 2012: Slater B, Lawton R, Armitage G, Bibby J, Wright J (2012) Training and Action for Patient Safety: embedding education for patient safety within an improvement methodology. Journal of Continuing Education in the Healthcare Professions, 32(2):80-89. TAPS was shortlisted for the HSJ Awards Patient Safety Awards 2012 (Education and Training category) As a result of TAPS success in engaging multiprofessional groups, the Y&H HIEC Patient safety theme has been commissioned by a hospital Trust to develop a tailored programme (LASQ) based on the TAPS model.
	Situational Awareness Vital Insights (SAVI) **Filmed scenarios providing training in situational awareness and patient safety**	Short films using local actors focusing on five high risk areas of patient safety: • Deteriorating Patients • Prescribing High Risk Medicine • Handover/Safety Briefing • Misdiagnosis • Allergies to medicine
	Supporting NHS organisations to implement patient safety (NPSA) Alerts **A behaviour change approach, informed by psychological and implementation literature**	This approach has been used in 4 local hospital trusts (6 hospitals) who have each addressed 2 different guidelines based on their own priorities for implementation. **Results achieved:** • Reducing the risk of feeding through misplaced nasogastric tubes • Promoting safer use of injectable medicines – specific focus on Gentamicin. • Midazolam (reducing risk of overdose). • Medicines Reconciliation. A poster displayed at the Patient Safety Congress in May 2012 won the 'best poster' award. Work was promoted regionally at the patient safety conference hosted by the Yorkshire Quality and Safety Research Group on 20th November 'Balancing creativity and evidence for patient safety' held at the National Media Museum, Bradford.

THEME	TOPIC	ACHIEVEMENT
Long Term Conditions	**Introducing Telehealth at Scale and Pace – The "Telehealth Toolkit"**	Over a 1000 of these resources were disseminated across Yorkshire and the wider NHS and have received positive acclaim from colleagues using the toolkit at home and overseas.
	Teleconsultation for Healthcare Services – A workbook for implementing new service models	In excess of 2,000 of these resources have been distributed in hard copy and large numbers downloaded from the Y&H HIEC website.
	Telemonitoring for Long Term Conditions – A workbook for implementing new service models	In excess of 2,000 of these resources have been distributed in hard copy and large numbers downloaded from the Y&H HIEC website.
	Rapid Implementation Site (1) Scarborough – heart failure care pathway	Over 100 patients in Scarborough and the East Riding of Yorkshire were able to benefit from a new service model that introduced remote telemonitoring into the heart failure care pathway.
	Rapid Implementation Site (2) Humber Mental Health Trust – co-morbidities care pathway	15 patients in Hull and the East Riding of Yorkshire were able to benefit from a new service model that introduced remote telemonitoring into a multi-morbidity care pathway.
	Intro to Telehealth and Telecare – an e-learning module	Over 1000 unique learners have now completed the course.
	Intro to Behavioural Change Techniques – an e-learning module	An introductory e-learning resource was developed to enable learners to achieve basic skills in behavioural change.
	What is Telehealth – a guide for users and carers	In collaboration with Involve Yorkshire and the Humber the theme produced a plain language guide to the various technologies and service models referred to collectively as Telehealth.
	A range of collaborative and bespoke activities to enable individuals and organisations locally, nationally and internationally to share good practice and experience on all aspects of the emergence of new service models utilising assistive technology and Telehealth	From discussions with individual clinicians and executive teams to emergent communities of practice, national and international knowledge exchanges the theme has actively participated in development sessions, workshops, seminars and conferences as well as programme and project specific steering groups to increase awareness, knowledge and understanding of the role of assistive technology in new service models.

The Y&H HIEC – A Collaborative Approach

Core purpose of the Y&H HIEC

The Yorkshire and Humber Health Innovation and Education Cluster (Y&H HIEC) has worked across the region to drive innovation through education, to improve services and outcomes for patients, to "turn best practice into common practice".

We collaboratively identified priorities for the NHS in Yorkshire and Humber which have an existing evidence base in terms of research or implementation, and which increase adoption and spread primarily through the education and training of the NHS workforce. Please see appendix 1 for more details of our objectives.

We focussed our work around three priorities identified by key stakeholders in early 2010 these were Patient Safety, Maternal and Infant Health and Care and Long Term Conditions (focussing on telehealth and telecare). In addition we have taken the learning from across these themes to pull together generic lessons which can be applied to the implementation of future priorities. http://yhhiec.org.uk/wp-content/uploads/2012/01/HIEC-Approach.pdf

Collaboration and engagement

We engaged staff and service users extensively throughout our work.

We found that equipping individuals and teams to make changes in their own environment, and supporting them to do so was the best way to achieve sustainable change at pace and scale across the NHS.

We worked with multi-disciplinary teams and across different sectors and tailored our resources and support for specific settings. This programme was tailored to project manage and change techniques to adapt different situations ranging from GP practices to acute trusts.

We collaborated with our members through every stage of the journey to identify our priorities, gain support from clinicians, practitioners and senior managers and have worked in partnership with the Universities in designing our resources. Please see figure 4 for more details of our members and governance model.

We worked in partnership with the commercial sector to develop education tools, which has enabled us to develop the resource quickly, without any upfront funding and the resource remains free to colleagues in Yorkshire and Humber.

We worked across the health economy – we worked across sectors, disciplines and settings engaging commissioners and staff at all levels. We focussed on the issue not the discipline so that the innovative approaches and ways of working could be transferred to different issues and embedded as common practice.

No other organisation has worked in this way, at the pace or scale of the Y&H HIEC to deliver tangible improvements in patient care and outcomes.

Evidence based approach

In order to drive adoption and spread of innovation our approach was both systematic and synchronised. Individuals, teams and organisations were at different stages of implementing innovations. In order to be successful, initiatives and resources needed to be designed and delivered in a way that recognises and responds to this.

In order to increase adoption and spread a combination of influencing, support and resources needed to be delivered at the same time within all aspects of the related system, including recognition of the problem, evidence to inform interventions, engagement of leaders, staff and service users' education to sustain change, and on-going support for change.

We have used an inclusive approach to our board and our membership, which strengthened our governance, but also meant we had, and retained sign up from, senior leaders in health and education across the region (please see appendices 3 and 4 for further details). Working in partnership helped to smooth the road to implementing our programmes and continues to be a good opportunity to learn from other sectors and organisations.

When looking to increase spread and adoption at scale and pace across a region what was clear from our work was that individuals, teams and organisations have different challenges and expertise to address them. We found that in order to be successful, our programmes and resources needed to be designed and delivered in a way that recognised and responded to this and could be flexible to individual circumstances.

In order to sustain the adoption and spread of existing work, and encourage shared learning and transferability, we worked across organisations to create communities of practice which will remain when the Y&H HIEC programmes and specific interventions end. The "Safety in Numbers" network aims to connect practitioners, researchers and patients and to be a focus for patient safety innovation. Safety in Numbers has 1100 registered members and the associated twitter account is gaining followers at 30 per month.

Quality Improvement

We were not looking to deliver one off interventions that only had an impact for a short time and then ended. Our approach was about being adaptable to suit the situation or organisation. We also supported staff to develop skills which can be used in other situations. For example staff learned: how to identify problems and work to find solutions – how to own both the problem and the solution and to understand how to overcome barriers to change and how to use tools with their own experiences.

All our work and our approach was based on evidence at every stage, we used evidence to help identify an area as a priority or a challenge, we used evidence to identify potential solutions and how we might best implement our work. This evidence comes from a range of sources including good quality research, as well as input from government, individual organisations, charities etc., regionally, locally, nationally and in some cases internationally.

Building on this robust evidence base also required a high degree of pragmatism, especially in areas where the lessons and learning are emergent. Part of the strength of the Y&H HIEC approach was sharing what actually works from the lived experience of clinicians and practitioners, reviewing the existing evidence and refining, developing and evaluating our intervention as part of the process.

We gathered evidence regarding our impact and effectiveness as a core part of our work. We gathered evidence to understand where we have been successful and to understand any challenges that we have had. We sought to create a continuous feedback loop in order to refine the practices and further build on existing evidence. We commissioned SY CLAHRC to help describe any added value gained from the work of the Y&H HIEC compared to business as usual.

What was unique about our approach

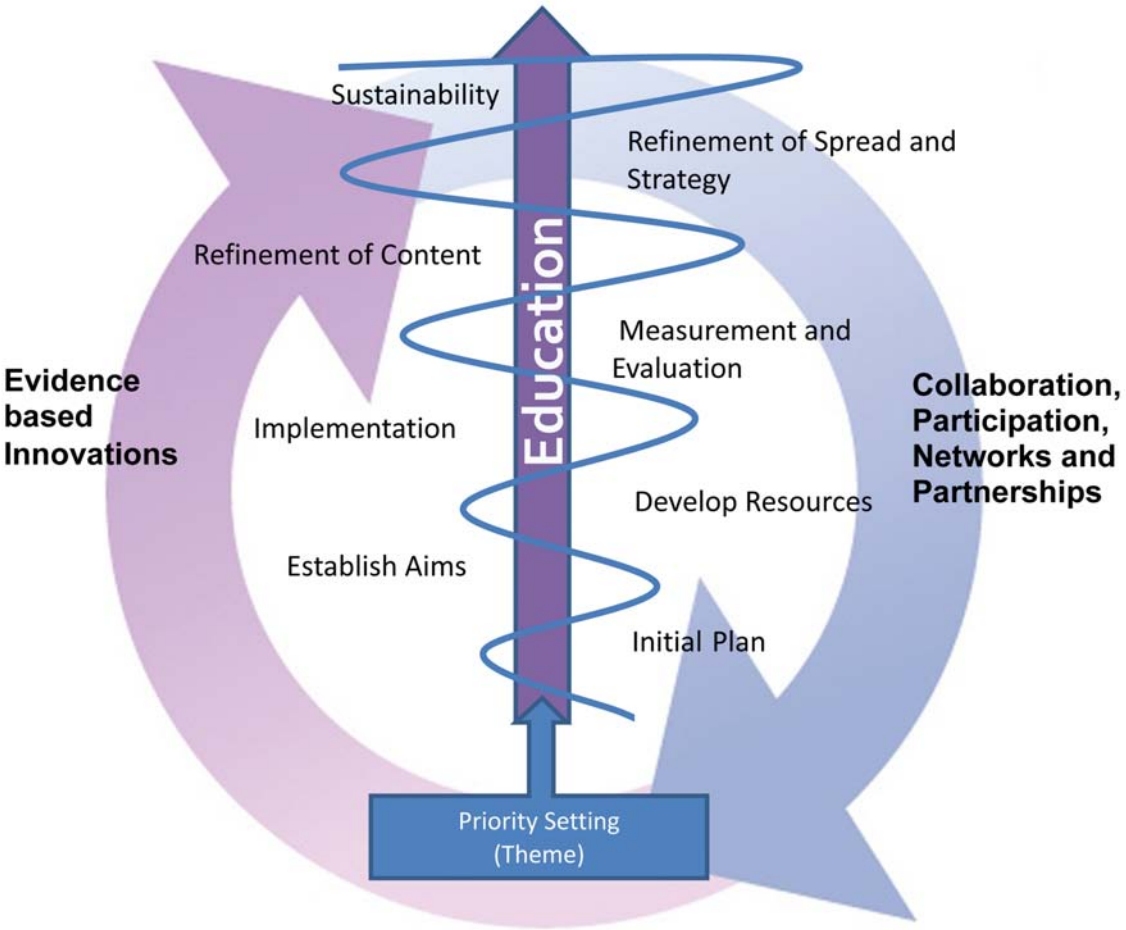
What was unique about our approach was that we worked collaboratively across sectors and disciplines and used education resources to create real and sustainable change, that made a difference to the quality and outcomes of services for patients. We did not create new innovations per se, rather we created new ways of ensuring that the innovation was used in practice across the region.

When we co-designed interventions to enable teams to identify their challenges, they were far more willing to engage with the work. We found it is possible to move further faster when the teams were supported to develop their own solutions, drawing upon the available evidence. Using this approach we were able to overcome barriers to increase the target behaviour from 16% to 67% as the first line pH testing for Nasogastric tubes rather than x ray following NPSA alert for example.

Driving innovation through education was important to achieve spread at pace and scale, it brought about changes in behaviours and attitudes and mobilised individuals and teams to implement innovation in their practice. Using education as a tool to develop the workforce maximised the benefits from integrating evidence and research findings. Our education work was grounded in educational theory to help to promote knowledge and understanding and to develop sustainable change.

The value of the Y&H HIEC as a model was that it blends research evidence, innovation and education to deliver tangible improvements for patients, please see this summarised in figure 1.

Figure 1: Y&H HIEC – A Collaborative Approach



Maternal & Infant Health & Care: Y&H HIEC Final Report

Aim of the Maternal & Infant Health & Care Theme

The Maternal and Infant Health and Care theme (MIHC) aimed to promote adoption and diffusion of evidence based best practice across the region, and to address inequalities in health and care through innovation, education and collaborative working.

The theme's work was based on an agreed framework, grounded in innovation science and based on previous work developing practice in infant feeding. At the start of the process it was agreed that the work would:

- Be evidence based, based on a rigorous assessment of literature and incorporating practitioner and user views of that evidence base
- Involve multi-sectoral and multi-disciplinary working, with input from health and associated professionals, community and lay workers, women and their families
- Use mainstream, sustainable systems, building into the relevant work programmes of other organisations and using existing networks and resources
- Use a participatory approach to consultation and communication, tailoring approaches to the needs of local organisations and communities.
- Embed evaluation and on-going feedback and dissemination.

The first year of the work included the development of extensive region-wide multidisciplinary and multi-sectoral networks, involving over 1300 colleagues. A Steering Group and Working Groups were established, involving over 60 colleagues. Support was established for region-wide groups such as the Infant Feeding and Labour Ward Coordinators Groups, and the Maternity Forum. A major part of the work programme in Year 1 was an assessment of the evidence base in regard to two priority topics; feeding and bonding and attachment in neonatal units, and care at admission in labour. Following identification of evidence-based actions, a region-wide consultation took place with around 600 colleagues and advocacy groups.

A report entitled 'Improving Maternal and Infant Health and Care: at admission in labour and promoting bonding and attachment and breastfeeding in neonatal units. Evidence into Practice (EiP) consultations' were developed and published on this work, forming a blueprint for units to develop change and acting as a foundation for the work conducted in Year 2.

http://yhhiec.org.uk/wp-content/uploads/2011/06/11060109_Master_EiP_Report.pdf

The theme's work was further extended in Year 2 when funding was obtained to support a programme of change at scale across the region, based on the 'Evidence Into Practice' consultation. The programme, 'Getting It Right from the Start' focused on the improvement of care at admission in labour, and the promotion of breastfeeding, use of breastmilk and attachment in neonatal units.

http://yhhiec.org.uk/themes/maternal-infant-health-care/useful-resources/resources-for-bonding-attachment-and-breastfeeding-in-neonatal-units/

The theme's ambition to address inequalities found expression a) in its ambition to 'turn best practice into common practice' for all through the 'Getting it right from the Start' project, b) in a research and consultation exercise leading to a report setting out recommendations for the care of childbearing women in prisons, and c) in work to understand and improve the care of vulnerable women on admission in labour.

Highlights of the impact of the work

The theme conducted a multifaceted evaluation involving quantitative and qualitative elements, and an economics evaluation. Most of the evaluation work was conducted by colleagues who were independent of the change programme.

Skin to skin care has increased across the region by 20%, with a number of individual neonatal units showing much larger increases. This is the equivalent of 800 additional babies and families receiving skin to skin care over the project's lifetime. If this increase is maintained, approximately 1,500 additional babies admitted to neonatal units in Yorkshire and Humber per year will benefit from skin to skin contact.

There is an apparent increase of around 20% in the proportion of babies receiving breastmilk at discharge from neonatal units in the Yorkshire Network (although this cannot be fully quantified because of issues of data completeness at baseline).

Some individual units have shown large increases in breastmilk feeding at discharge. For example, Sheffield Teaching Hospitals Foundation Trust has raised the proportion of babies receiving at least some breastmilk at discharge to over 70%.

There have been significant achievements in improving data quality. Pre-project almost 20% of data items on breastmilk/breastfeeding at discharge were missing. Post project the same dataset had very few missing items.

In addition MIHC staff have worked with Clevermed to add an extra field to the clinical system (Badgernet) nationally, so that whether babies have skin to skin care will be routinely recorded.

Routine early amniotomies have been reduced to a negligible level, and there is early evidence of some reduction in admission CTG for avoidable reasons.

Mobility in the second stage of labour and the proportion of women 'off the bed' when giving birth has increased.

Qualitative feedback from staff has been strongly supportive of the programme's approach and has identified numerous changes in practice.

For example, one maternity unit has reconfigured its rooms to provide specific 'low risk' rooms. Another is adding stickers to its CTG machines asking staff if they really need to use it. Others are developing guidelines for managing the 'latent phase' of labour.

Swatches from the RCM's 'Getting Off the Bed' campaign, illustrating different positions for labour and birth, have been widely distributed and used across the region.

Neonatal clinical skills workshops have increased the knowledge and confidence of staff in the region around breastfeeding and skin to skin care.

Over 300 students have enrolled on the 'Challenge of Infant Feeding' online course, and the first unit is being offered to all pre-registration midwifery students at the University of York.

MIHC project staff have engaged in many successful collaborations with external partners to spread innovation and best practice both regionally and nationally. This includes:

- The delivery and evaluation of neonatal clinical skills workshops in Liverpool and London neonatal and maternity services
- Collaboration with the University of Coventry on piloting the NUCAT tool in 3 tertiary neonatal units
- Collaboration with West Midlands HIEC to share learning with maternity services and cascade neonatal clinical skills workshops
- Collaboration with West Midlands HIEC, allowing Yorkshire and Humber units to be pilot sites for "Back to Basics" midwifery training. All participating units were then able to continue the training if they wished
- A regional development day on emotional intelligence. "Turning Into Mothers and Midwives", involving participants from across the region and contributions from national experts in the field.
- Collaboration with Best Beginnings on the development of their DVD about neonatal care, entitled 'Small Wonders'; a national resource.
- A cascade of "Small Wonders" DVDs has been distributed by HIEC Champions and Heads of Midwifery to maternity and neonatal units across the region.

Economic analysis commissioned by the MIHC team suggests substantial cost savings associated with the improvements achieved in skin to skin care and breastfeeding at discharge. While the picture is complex and not easily translatable into cash-releasing savings, different economic benefits likely to be realised in the region if the present increase is sustained include:

- Savings of between £500,000 and £1m per annum from reduced length of stay associated with skin to skin care
- Savings in the region of £100-£200k per annum from a reduction in infections and serious illness, associated with skin to skin care
- Savings of between £100k and £500k associated with an increase in breastmilk feeding at discharge (based on reduced length of stay and a reduction in major and minor infections)

What worked and why

Engagement, ownership and a 'bottom up' approach

One of the most successful aspects of the theme's work has been the level of engagement in and perceived ownership of the work, as identified by staff in interviews and qualitative feedback. The theme managed to engage the vast majority of the 42 maternity and neonatal units in the region in a meaningful way, in that most took part in the audits, nominated HIEC 'champions' and 'enablers' and engaged in work relating to the theme, subsequently identifying changes in practice.

A key theme in feedback from staff, reflecting the success of the theme's founding principles, was that the project had taken a 'bottom up' approach, not imposing a predetermined model but giving them ownership of the changes and allowing them to tailor an approach that was appropriate to their unit's needs and resources. Staff comments in interview included:

> *The change is organic from within the unit. The staff have embraced and taken ownership and I think that's half the battle. (Neonatal champion)*

> *'It's handed to practitioners a way of analysing their own provision and saying where they need to make improvements …Although there have been some really excellent documents … HIEC actually gave people the tools to start moving forward (Baby Friendly regional representative)*

The creation of regional networks and working relationships

Feedback from interviewees indicates that the theme's work in creating networks and 'communities of practice' was much valued. Again this maps back to the framework of principles at the project's inception. This aspect of the project was, of course, strongly supported by the ambitious decision to work at scale across the region and to engage all 42 maternity and neonatal units.

Networks and networking events supported included:

- Developmental days for HIEC MIHC champions and enablers across the region, which were well attended and for which feedback was very positive;
- Support and strengthening of existing regional networks including the Maternity Forum and the Infant Feeding Co-ordinators' network;

- Establishment of new networks such as the Labour Ward co-ordinators' network;
- Close working with the existing neonatal networks.
- Development and delivery of clinical skills workshops for neonatal units across the region and nationally (London, Liverpool and West Midlands);
- Celebration event in June 2012 for all units involved in the programme, to celebrate and share best practice and consider sustainability.

Interviewees emphasised that the creation of networks had a very significant impact, both between units and across disciplines. Many interviewees mentioned the importance of joint working between maternity and neonatal units, another area where partnerships often fall through.

A HIEC MIHC champion commented:

> *I've made some really good contacts through HIEC … people I can email and say 'what do you think about this?*
>
> *… You're part of a bigger picture, it's not just you trying to swim against the tide. … I'd just like to say a big thank you really … It's given me a lot of support I feel … it's just enabled me to form that network, which is so valuable.*

Use of films, photographs and visual material

The theme's partnership with Magneto Films has been a huge success. Films and visual materials have been produced for use in units, on development days and as part of skills workshops and presentations.

The visual material and photographs produced have been identified as important agents of change in units. In particular, staff have noted that the posters of parents enjoying kangaroo care are a powerful way of letting parents know that skin to skin care is available, and encouraging them to ask for it:

> *… as soon as they come onto the unit, the first thing they see is a big poster with lots of images that were taken on the unit … of parents and babies who have enjoyed kangaroo care …*
>
> *… often the parents will see the photographs, and then they'll come and ask us about kangaroo care, or if we mention it to a parent, they know what we're talking about straight away, so they're on board right from the start. (HIEC MIHC Neonatal champion, tertiary unit).*

Staff also identified the value of the photographs and films in that they featured a diverse range of parents and babies, rather than the traditional 'white, middle class, highly motivated' women who tend to feature in promotional materials about breastfeeding.

The resources and films have been made available through the Y&H HIEC website and will constitute a valuable future resource which will increase the sustainability of the theme's achievements.

Furthermore, to ensure there are no potential problems with longevity and access to the films, we have developed a **HIEC MIHC Film Channel:** This will be launched in December 2012 and the link circulated to all our Champions, partners and networks.

Challenges

Data quality

The quality and completeness of data in maternity and neonatal clinical systems was poor, and the data proved complex to obtain. For the majority of the interventions that the team sought to influence – admission CTG, early amniotomy and skin to skin care – data were not routinely collected. This made it challenging to obtain a reliable baseline and then to measure quantifiable impact.

This challenge has been addressed by the implementation of maternity and neonatal audits at local level in all participating Trusts. The maternity audits provided a more robust baseline for interventions in labour and birth, including admission CTG and early amniotomy. They also made it possible to measure changes in mobility during labour. Units found it helpful to receive feedback on these factors and many staff remarked that it had led to changes in practice.

Data quality issues in neonatal care have also been addressed through work with the units. At baseline (2010-11) 20% of data on breastfeeding at discharge from neonatal units in the Yorkshire Network was missing. MIHC staff worked with regional units to increase the recording of breastfeeding data on clinical systems. Post project, the same dataset had very few missing items.

In addition, the implementation of the skin to skin audit has led to lasting improvements in data quality. The local audit proved that it was feasible and useful to collect this data, and as a result MIHC staff have worked with Clevermed to add a field to the clinical system (Badgernet) nationally. This data will now be routinely recorded as part of babies' care.

Complexity of some interventions, and short timescale for evaluation

Some of the interventions which MIHC sought to reduce were complex, multifaceted and resistant to change in the short term. For example, responses to a web survey made it clear that the necessary decision about whether to perform an admission CTG was very much affected by defensive practice and the fear of litigation and adverse outcomes if a CTG was not performed.

The complexity of the maternal case mix was also seen to be increasing, making staff less confident about achieving normal births. Against this background it was more difficult to reduce admission CTG rates despite the strong research evidence for the potential harm caused by inappropriate use.

It has been very difficult to demonstrate changes in the normal birth rate and to link these to MIHC interventions, because of the multiple factors affecting birth rates (for example, an increasing complexity of case mix and more defensive practice). In addition, data on normal birth rates is generally available one or two years behind, making it challenging to assess impact over a short time scale. Change is more likely to be seen incrementally and over a longer time span than the lifetime of the Y&H HIEC project.

Nevertheless, there is abundant evidence that as a result of MIHC's activity, Trusts have been implementing a variety of initiatives all aimed at supporting normal birth and reducing interventions. All of this work is highly valuable and will have a long term impact even if it is difficult to measure an exact outcome in the very short span of the Y&H HIEC MIHC project.

Implications

Working at scale is a challenging option compared to implementing change at a few picked pilot sites. However, it is an essential factor in spreading innovation through regional networks, local connections and communities of practice.

A 'bottom up' approach, where staff own the initiatives and design interventions appropriate to their own needs, is highly successful in implementing lasting and sustainable change.

The quality of data in maternity and neonatal services is still very challenging. In particular there is a lack of specific data on low-risk/ midwife led women in maternity care. Despite the successes of the MIHC team in improving data quality, much work remains to do on improving data collection systems and obtaining robust baseline data on specific interventions in labour and birth.

Plans for sustainability

Staff's sense of ownership and the bottom up approach that has characterised MIHC's work should help to embed sustainable change. One head of midwifery expressed the view that they could now carry on 'under their own steam'.

There are plans to extend the theme's work for a further three months. There is on-going work to meet new BFI standards and to become a Beacon Site for new neonatal standards.

The training of champions and enablers has resulted in a group of senior and multi-disciplinary staff in key roles who are now knowledgeable and experienced in creating change, and who will be able to use those skills in other topic areas over time.

Workshops and work with individual units have been taking place since the late summer with a view to helping units make plans for sustaining change.

An electronic network has been established via the Y&H HIEC MIHC website with over 1600 members of staff signed up.

The regional forums and networks that the MIHC supported, contributed to and in some cases established – for example the IFC forum, the Maternity Network and the Labour Ward co-ordinators network – will be key elements of sustainable change.

Resources from units' projects and centrally produced by the team are available through the Y&H HIEC website: Y&H HIEC MIHC Theme. These include all the films and visual resources produced by Magneto, and specific resources such as guidelines for latent stage management and a telephone triage form used by Harrogate Trust.

Papers for publication and wider dissemination and website development and maintenance

The Y&H HIEC MIHC film channel is under development and should be available by December 2012. Providing sustainable access to all films and photos made as part of the project via a web link.

The online Infant Feeding Programme , "The Challenge of Infant Feeding" is hosted by the University of York Business Development Programming Cycle in Health Sciences. This means that it will be available to future students (Cpd and APEL). The module is to be accredited at levels 5 and 6.

The resources produced as part of the programme will be widely disseminated. There are plans to publish papers based on findings and achievements of the project over the next year.

More specific details regarding the sustainability of the MIHC theme resources can be found on page 44-45.

Maternal & Infant Health & Care Team

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Patient Safety: Y&H HIEC Final Report

Aim of the Patient Safety Theme

The Patient Safety theme's headline aim was to translate patient safety innovation into routine practice. In particular, we aimed to provide a multi-disciplinary workforce with the knowledge, tools, skills and motivation to invent, adopt and spread safer ways of working in the Yorkshire and Humber region.

Our objectives:

- To use evidence from theories of behaviour change, adoption and diffusion of innovations and systems safety to support the implementation of patient safety alerts and guidelines
- To enhance the knowledge, skills and tools of the clinical staff in primary, secondary and mental health care across the region
- To support multidisciplinary teams to identify local patient safety problems and implement appropriate system and process changes as well as measure these changes
- To support the spread of innovative patient safety ideas and solutions by informal networking across the region.

Highlights of the impact of the work

1. A new behaviour change method for implementing patient safety guidance

Evidence of impact:

We focused on the following NPSA alerts:

- Reducing the risk of feeding through misplaced nasogastric (NG) tubes
  - *Bradford Teaching Hospitals Foundation Trust (BTHFT)*
  - *York Hospital Foundation Trust (YHFT)*
  - *Leeds Teaching Hospitals (LTHs)*
- Promoting safer use of injectable medicines (Gentamicin)
  - *YHFT*
- Reducing the risk of midazolam injection overdose in adults
  - *North Lincolnshire and Goole Trust (NLAG), BTHFT*
- Medicines Reconciliation
  - *NLAG*

The results indicate a significant impact on target behaviours in all audits undertaken so far:

- NG tubes: In all three Trusts, the results show between baseline and post-intervention implementation, there were statistically significant increases (BTHFT = 20%-63%; Trust 2 = 14-32%; Trust 3 = 11%-72%) in using pH as the first line method for checking tube position. Significant decreases were found in BTHFT (51%-23%) and LTHs (74%-9%) in the use of x-ray, but not in YTHFT (40%-39%); however, YTHFT did see a significant decrease in the number of times the tube was initially placed in radiology (43%-10%).
- Gentamicin: In YTHFT, the results show between baseline and post-intervention implementation, there were statistically significant increases (55%-95%; $p < .05$) in the number of blood levels taken between 6-14 hours of a patient receiving the first dose of gentamicin.
- Midazolam: Interventions have been implemented in BTHFT to address key barriers and results of the final audit will be available in 2013. Intervention implementation is currently underway in NLAG, but has been subject to delays as a result of engaging with two geographically separate sites.
- Medicines Reconciliation: In NLAG, results show a significant reduction in the mean number of discrepancies found (pre = 3.5, post = 2.5, $p < .01$) and number of drugs omitted (pre = 3, post = 2.4, $p < .01$), a reduction in the number of spelling errors on prescriptions (pre = 31%, post = 3%, $p < .05$), and an increase in the number of discrepancies/ errors communicated to clinical staff by pharmacy (pre = 48%, post = 83%, $p < .001$).

How have these results been achieved?

- A framework for eliciting behaviour change was established, which incorporates a six step process of implementation based on the theoretical domains framework (TDF) of behaviour change (Michie et al., 2005), and principles of implementation science:
  - ***Step 1:*** *Forming a steering group of multidisciplinary staff*
  - ***Step 2:*** *Identifying the target behaviour(s)*

- ***Step 3:*** *Identifying local barriers to performing the target behaviour*
- ***Step 4:*** *Co-developing evidence based strategies with staff to address local barriers*
- ***Step 5:*** *Implementing interventions*
- ***Step 6:*** *Evaluation*

- We recruited over 80 healthcare professionals to our steering groups.
- The target behaviours for each alert were identified via audit and discussion, and were as follows:
  - ***NG tubes:*** *use pH as the first line method to check tube position*
  - ***Gentamicin:*** *take blood levels between 6-14 hours of a patient receiving the first dose of gentamicin*
  - ***Midazolam:*** *1) titrate doses according to individual patient needs (doctors), and 2) ensure observations of patients are taken every 5 minutes and up to at least 30 minutes after the last dose (nurses)*
  - ***Medicines reconciliation:*** *1) collate a complete and accurate record of patient medications on admission to hospital (doctors), and 2) communicate issues identified during medicines reconciliation in a manner that ensures the responsible doctors will appropriately amend the prescription*
- The top barriers for each target behaviour, and examples of some of the interventions implemented are presented in Table 3.
- Summary: Development and use of the framework for implementation has been challenging and time consuming. However, results indicate a significant impact on target behaviours in all audits undertaken so far.

Next steps and sustainability

Now that the framework has been established and used in five hospitals for four different alerts, we have a range of resources (see below) developed to enable organisations to navigate themselves through the process of implementing a new guideline.

Resources to support organisations to use this new model

- A framework for implementation
- Audit tools to identify the relevant target behaviour for change
- Validated questionnaires to identify barriers to behaviour change
- Discussion schedules to use with front line staff to elicit additional information about barriers to behaviour change, and to generate ideas for interventions to overcome key barriers

The next phase of this work will be to train quality improvement professionals in the use of this process for the implementation of quality and safety guidance; such an approach might increase the generalisability and transferability of this model across other Trusts, and for the implementation of a wide range of quality and safety guidelines.

Table 3. Top barriers and examples of matched interventions for each target behaviour

ALERT	KEY BARRIERS	IMPLEMENTED INTERVENTIONS BASED ON REPORT
NG tubes	**Social influences**	• Screensaver implemented with key messages targeting social influences • Awareness day and awareness week
	Emotion	• Screensaver implemented with key messages targeting emotion • Posters implemented with key messages targeting emotion
	Environmental context and resources	• New documentation released (care pathway for NG tubes) • Radiology and wards systems change initiated • Enteral feeding nurse employed
	Knowledge and skills	• Faculty, nurse, and FY1 training with practical elements • E-learning package with video modelling procedure • Awareness week (also covers social influences)
Injectable medicines	**Beliefs about capabilities**	• Stickers were confusing staff so no longer in use. Charts tested and implemented • Training for pharmacy staff and junior doctor designed and delivered (also targeted skills) • Weekly gentamicin audits and reports to highlight areas for improvement
	Environmental context and resources	• Amended documentation to incorporate steps/roles through the process (also targeted action planning) • Staff provided with list of FAQs around gentamicin processes, specific roles and responsibilities • System changed so pharmacy obtain gentamicin levels to ensure doctors prescribe correct dose on time
	Emotion	• Staff briefed on information about barriers found
Midazolam	**Social influences**	• Screensaver implementation to raise awareness and have a social influence impact on staff members regarding best practice
	Environmental context and resources	• New documentation (care pathway) designed for trust and made bespoke for A&E • re-locating DC cardioversions to Theatres from the Cardiology Dept in order to ensure this procedure is undertaken using the safest possible practice • Re-design of A&E documentation for the use of conscious sedatives when undertaking joint reductions,
	Knowledge and skills	• Development and release of the first Trust Sedation Policy • E-learning package being developed based on a package shared by Scarborough
Medicines reconciliation	**Social influences**	• Screensaver with key messages targeting social influences
	Environmental context and resources	• Meetings held to discuss medicines reconciliation form completion instructions changes • Screensaver released with messages about using clearly printed writing, telephoning wards to communicate discrepancies, reminding to ask patients about specific medicines

2. New e-Learning resources on Patient Safety

i) SAVI (Situational Awareness – Vital Insights)

The SAVI resources have been developed by a team of clinicians and human factors experts. We have produced five short films showing scenarios of high risk situations in which errors are common and where good situational awareness is central to patient safety.

The films are aimed at healthcare staff who have direct patient contact, and can be used either by an individual or group, as part of undergraduate or post-graduate training and development.

The learning objectives for the resource are:

- Gain an understanding of situational awareness
- Be aware of the importance of situational awareness for patient safety
- Understand the value of the team in sharing information to ensure good situational awareness
- Be aware of some of the factors that can reduce situational awareness e.g. lack of clinical knowledge, high workload, poor teamwork, poor communication, information overload, problems with supervision, negative emotions.

Evidence of impact: reflection and learning

The SAVI resource has been accessed and used within a range of settings, including:

- GP tutors have used the films with their GP registrars (approximately 20)
- Medical undergraduates at Sheffield University and Leeds University
- Individual access online (48 people viewing at least one scenario)
- You Tube (medication error scenario - 74 views)

Feedback on the resource to date suggests evidence of reflection and learning as illustrated by the following feedback comments received:

Online User (viewed 4 films)

- I will be more careful when prescribing insulin as it is can have devastating consequences if done wrong.
- I will listen to patient's relatives if they have concerns as often their perspective can highlight issues that we could otherwise miss.
- When taking a history I will try not to assume the diagnosis. I need to keep my mind open to alternative explanations for symptoms and ask further questions and do investigations to ensure the correct diagnosis is achieved.

Online User (viewed 4 films)

- Ensure thorough assessment of patients and if not possible at all times come back to fill in any gaps
- Gain as much information as possible regarding patient's insulin regimen from patient, GP, and medical notes.
- No interruptions during handover

GP Trainer (used 4 films in training with a GP trainee)

- My trainee was aware of early warning systems, but was new to the concept of diagnostic overshadowing and was enlightened by the use of SBAR during communications.

Improving access to SAVI

- Use in undergraduate settings: The SAVI resources are being integrated into undergraduate curriculums to varying degrees. For example, at the University of Leeds, the Medical School are using the SAVI scenarios in Year 2 safety workshops, as part of the curriculum for patient safety, whilst the School of Healthcare Studies have requested use of SAVI as part of their teaching portfolio. Similarly, the resources have been tested at the University of Sheffield Medical School and there are plans to integrate them into the curriculum. The University of Bradford are also discussing integrating SAVI into shared learning as part of the undergraduate curricula on patient safety. In addition a number of GP tutors in the region have used the SAVI resources with GP trainees.
- Access via Safety in Numbers network: All existing members of the Safety in Numbers network (more than 1,100 people) have been given online access to the SAVI resources and all new members are given access on joining the network.
- Access via the NHS LMS: We are working with the Yorkshire & Humber e-learning hub to provide online access to the SAVI resources for all NHS staff in the region via the national learning management system.
- Dissemination via NHS organisations and Higher Education Institutions: We are raising awareness of the resources and making them available to undergraduate and post-graduate course leaders in HEI's, and cascading awareness of the resources through clinical and patient safety leads in NHS organisations.

ii) Introduction to Patient Safety – online module

This module, originally part of the TAPS programme but now a stand-alone resource, is available free of charge for anyone in Yorkshire and the Humber. The online patient safety training module involves the completion of 5 online units. A certificate is available to download on completion of the module.

Contents of the Introduction to Patient Safety e-Learning Module

Unit 1: Basic concepts in patient safety. (Time: approx. 30 minutes)

Unit 2: The inevitability of human error. (Time: approx. 15 minutes)

Unit 3: Case studies - select 3 or more. (Time: approx. 45 minutes)

Unit 4: Reflection (Time: approx. 30 minutes)

Unit 5: Patient safety multiple choice questionnaire. (Time: approx. 15 minutes)

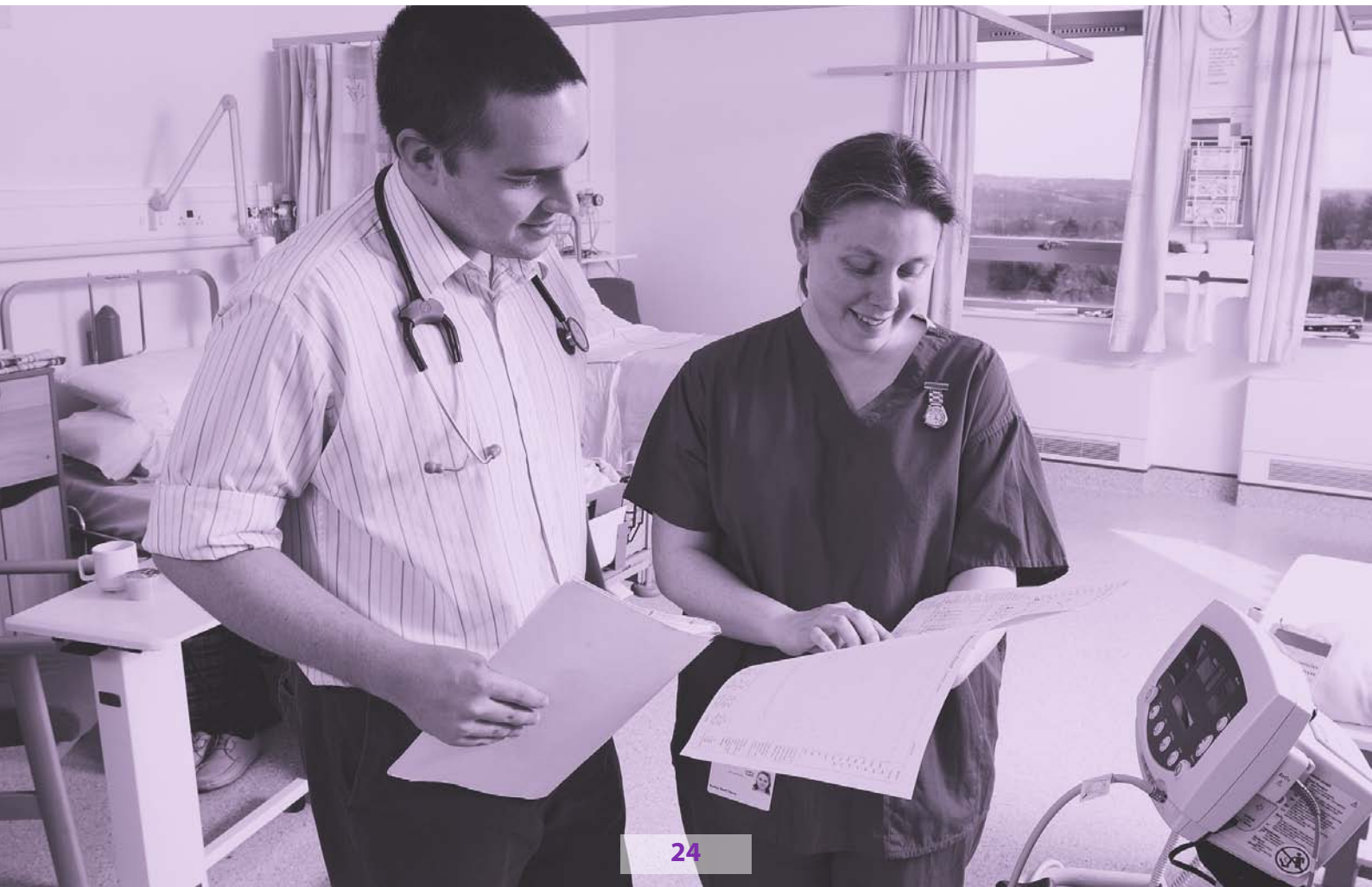
Members of the Safety in Numbers network and TAPS programmes are provided with a password to access the module. To date 210 people have accessed this resource. It is hoped that this will also be available through the regional e-learning hub in the future (see above).

3. A new multiprofessional patient safety training programme

Evidence of impact:

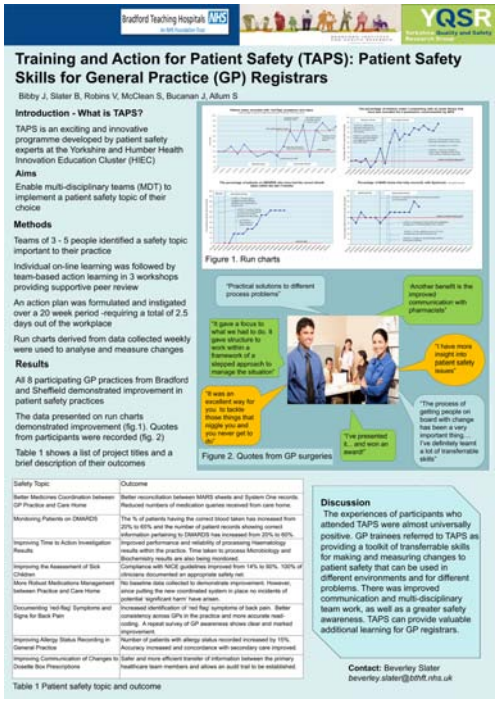
- Eight TAPS programmes have been delivered across Yorkshire and the Humber. These are, Bradford, North Lincolnshire, Doncaster, Sheffield, York/Scarborough, Leeds, Hull and Airedale.
- A total of 70 multi-professional teams (approximately 300 participants) have taken part; half of these have been based in acute trusts and half in other organisations including, mental health trusts (9 teams), GP practices (12 teams) and care homes (14 teams)
- Evaluation of the pilot programme showed 8 out of 11 teams demonstrated improvements in patient safety practices or outcomes. Further analysis of the subsequent programmes showed similar improvements out of 70 teams.
- An analysis of a patient safety culture questionnaire that was repeated at the beginning and end of each TAPS programme shows statistically significant improvements in 4 domains (using matched pairs t tests):
  - *Organisational learning/continuous improvement (p=0.03)*
  - *Feedback and communication about error (p=0.05)*
  - *Frequency of events reported (p=0.01)*
  - *Patient safety grade (p=0.001)*

As no controls were available, these results need to be interpreted in conjunction with qualitative data on the impact of the programme.



TAPS results for individual teams have been showcased locally at the end of each programme. Examples from different sectors:

- **GP Practice team:** *Feverish Illness in Children Compliance with NICE Guidelines for clinicians increased from 14% to 90%.*
- **Hospital team:** *Correct dosage of VTE Prophylaxis Improving and maintaining compliance of 95-98%*
- **Mental Health team:** *Reduction in episodes of Self Harm on Mental Health Ward Reduction in cases from 3.5 per week to average 1.2 per week*
- **Care Home team:** *Commode cleaning to prevent UTIs Improved cleaning of commodes in nursing home from 28/100 average cleanliness score to 75/100*



4. A new informal patient safety network for Yorkshire and the Humber

Evidence of impact:

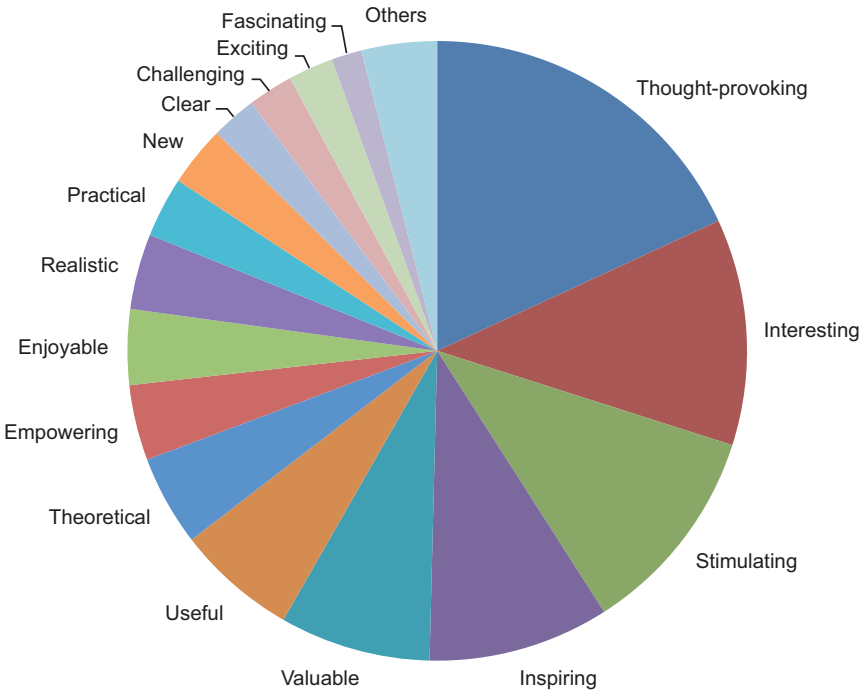
- 1100 'signed-up' members with access to SAVI and Introduction to Patient Safety online module
- 260 followers @safetyinumbers
- 500 tweets; 120 retweets and mentions
- Klout score = 41 (measure of influence across social networks)
- Two network events have been organised by Y&H HIEC in conjunction with the Yorkshire Quality and Safety Research Group.

Regional (TAPS) Sharing Event – 15 May 2012

75 people, a mix of managers and clinicians, attended this TAPS sharing event in May 2012. This event included a Sarah Fraser Masterclass and the official launch of the "Safety In Numbers" patient safety Network. Excellent evaluation is reflected in the feedback shown in the figures below.

- 83% completely or well satisfied with Sarah Fraser Masterclass on networking
- 95% completely or well satisfied with parallel presentations
- 86% completely or well satisfied with opportunities for networking
- 70% completely or well satisfied with launch of Safety in Numbers network
- 56% completely or well satisfied with Innovation Marketplace
- 85% would recommend event to someone in similar role

What words were chosen by participants to sum up their experience?



National conference - "Balancing Creativity and Evidence for Patient Safety"

130 people from around the region (and beyond) attended this conference at the National Media Museum in Bradford in November 2012. The keynote speakers were Suzette Woodward, Director – National Commissioning Board, Daniel Cohen, International Medical Director, Datix Ltd, and Rebecca Lawton, Professor, Psychology of Healthcare, University of Leeds. The feedback from participants was extremely positive and is reflected in the quotations below and in the words chosen by participants to describe their conference experience in Figure N2.

> *I just wanted to say how much I enjoyed yesterday, and how useful it was for me! So much great work being done in this field, it was really inspiring. Now contemplating the incorporation of my new insights into my work with the GPStRs here... – GP Tutor*

I've been enthusing about the animation workshop today and the scope for doing something similar as a 'team building' activity! – University Lecturer

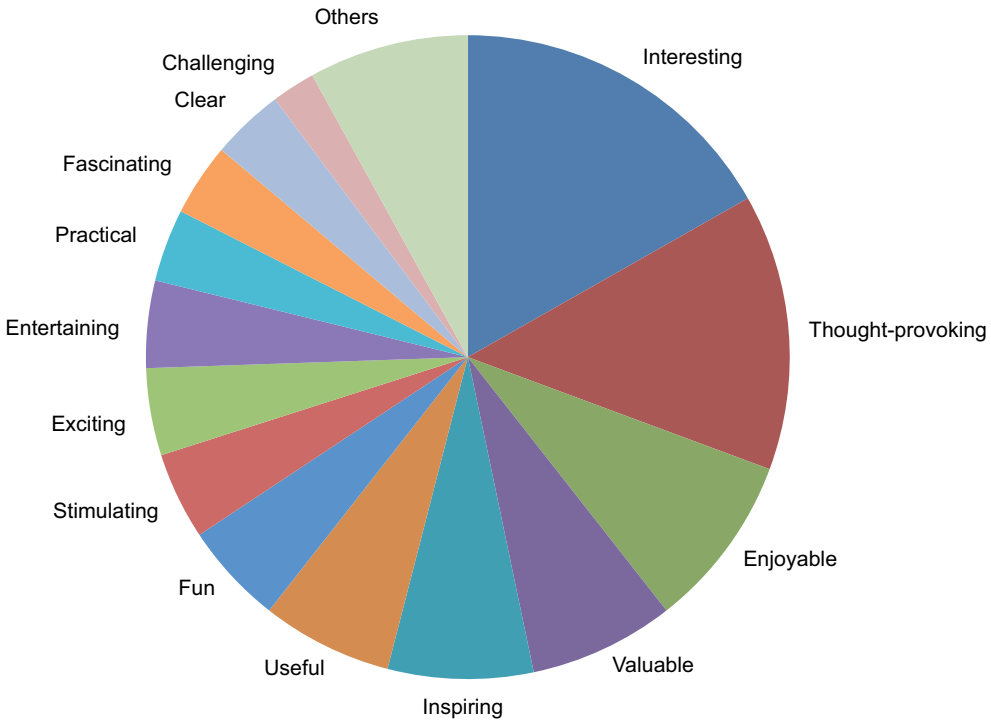
It was very useful to hear about such huge research and their methodologies. PHD Student

"I enjoyed the variety of research and then bringing this into the clinical setting. This is very valuable to me as a clinician." – Health service professional

"Congratulations to all concerned. Brilliant. It was interesting and enjoyable and a great opportunity to meet up with friends old and new, along with great speakers." – Patient panel member

- 100% completely or well satisfied with keynote speakers
- 87% completely or well satisfied with themed presentations
- 82% completely or well satisfied with the animation workshop
- 77% completely or well satisfied with poster presentations
- 74% completely or well satisfied with opportunities for networking
- 60% completely or well satisfied with how twitter was incorporated into the conference

What words were chosen by participants to sum up their experience?



What worked and why

All three projects (NPSA alerts, TAPS and SAVI) involved the multi-professional team in the design of the training and educational resources and these groups were then the targets of the intervention. Given the importance of effective communication and teamwork, these educational and change programmes have provided a forum in which teams can come together to address a common patient safety problem. Feedback from participants is that this opportunity to work together towards a goal in a multi-professional team has helped to build positive working relationships, which have an impact beyond the specific focus of the patient safety problem being addressed.

Junior doctors have been a particular focus of the TAPS and NPSA projects and they have responded enthusiastically to the challenge. They have often led teams and been the drivers for improvement. Many have gone on to present their work at conferences, share ideas with colleagues and, in one case, develop a commercial product (an NG tube pack). These FY1s and FY2s have received prizes and recognition for their efforts (e.g. one FY2 won the poster prize at the annual patient safety congress conference based on her NPSA work). This engagement, together with the changes in the curriculum at undergraduate and postgraduate level, means that junior doctors in the Yorkshire and Humber Region are exposed to the theory, policy and practice of patient safety and improvement early in their careers. Our own learning in this area has led to the publication of a book 'Innovating for Patient Safety' targeted at undergraduate medical students.

Many patient safety initiatives fail to engage with staff on the ground even when their intention is to do so.

Benning et al., (2011) in their evaluation of the Safer Patient Initiative write:

> *'Although SPI1 was designed to engage staff from the bottom up, it did not usually feel like this to those working on the wards, and questions about legitimacy of some aspects of SPI1 were raised'.*

This lack of engagement with staff may be because in large scale change initiatives the problems and solutions are usually pre-defined. Here, we specified the method for change (using PDSA in TAPS and behaviour change theory in the NPSA work) but the problems were identified and solutions developed by the staff on the ground. This means that the problems and solutions took into account contextual factors and staff felt that they owned the problem and were responsible for delivering the change. It was not something imposed on them. This approach was important to the success of the projects in delivering change. Also important was the responsiveness of the senior management to the interventions suggested by teams. Sometimes resources would be required to deliver on these, for example, release for training, IT input, a new piece of equipment). The involvement and support of senior managers within organisations was therefore vital for success.

Challenges

The challenges of delivering on these projects at a time of huge flux in the system, where resources were stretched were many. The evaluation of the training we delivered and the spread events we hosted was consistently positive. However, teams were frequently short of one or two members who were not able to be released from their duties to attend the training session. This had implications for being able to deliver on our mission to bring together a multi-professional team to engage in improvement activities for patient safety.

The multi-professional teams (for both TAPS and NPSA projects) were supported by external facilitators (the Y&H HIEC team) throughout their work. These people, with specific expertise in improvement and behaviour change respectively, and strong organisational skills supported teams in two ways. First, they provided the knowledge, skills and tools to do the work. Second, they motivated the teams, reminding them of deadlines, organising meetings, supporting the collection of improvement data etc. The success achieved by these teams, therefore, is likely to be at least in part due to the efforts of the very skilled external facilitators. Other models of delivery are necessary, however, if this work is to be sustainable. One model, we are currently exploring is whether improvement service, sitting within hospital trusts might be able to support teams in this way.

We developed two e-learning packages (An Introduction to Patient Safety and SAVI) within the patient safety theme. Feedback about these resources has been good, but uptake is still relatively low. The number of e-learning packages is increasing rapidly and there is a perception amongst those responsible for postgraduate training that the induction for junior doctors in trusts is now so comprehensive and somewhat overwhelming, that new materials are superfluous. There have also been challenges in understanding where best to host e-learning materials so as to balance the ease of access of the resources with a more formal need to certify that particular training has been undertaken (e.g. the provision of a certificate requires trainees to access a website with login details). Moreover, developing high quality interactive e-learning materials is not always possible with the constraints of existing learning management systems and so quality may be compromised for the sake of ease of circulation. We are still grappling with these issues as we strive to promote our e-learning packages.

Our bottom-up approach has been extremely successful in engaging with staff and supporting local improvements. We have actively encouraged spread of the knowledge and methods for improvement through workshops, conferences and our safetyinumbers network. However, many of the benefits of this type of programme are difficult to capture and quantify. Staff learn new skills and they report more positive interactions with other members of their team, they develop a new understanding about the factors that contribute to safety and understand more about the problems faced by other teams. This means that evaluation of the impact of this kind of transformation activity is challenging. We are currently attempting to capture some of these benefits by conducting follow-up interviews with members of our teams.

Implications for health service organisations in Yorkshire and the Humber

We have demonstrated through our different work-streams that it is possible to engage frontline practitioners at every level of seniority (from undergraduate to senior clinical leader) and across professional groups (including 'non-qualified' staff) with a range of different materials and opportunities to improve safety for patients. The safety improvements have been tangible and relevant, ranging from a wholesale improvement in a specific safety-related behaviour across a whole hospital (use of pH as first line method to check position of NG tube) to small-scale improvements in the way of working within one team (for example physical checks for newly admitted mental health patients).

These demonstrations provide organisations with models and a range of resources for integrating patient safety into on-going professional development and improved ways of working. There needs to be serious consideration by healthcare organisations, higher education institutions and the future Academic Health Sciences Network about how the challenges outlined above can be addressed in a cost-effective fashion to sustain the progress already made, and to further integrate the work on patient safety across all sectors.

If improving patient safety is about changing the safety culture then one key to being able to do that is to continue to find ways to excite staff about the possibilities for providing safer care for their patients.

Plans for sustainability

The TAPS programme was featured in the AHSN application document. This approach has wide applicability across quality and safety (as demonstrated by the Leeds adaptation) and this is one model that can be employed to deliver improvement objectives set within the AHSN. It is hoped that patient safety will be one of the focuses of the AHSN integrating work across sectors.

Planned further evaluation of the workstreams described above will provide additional evidence that will be valuable in adopting and adapting these models in the future, including,

- Further exploration of the statistically significant improvement demonstrated in certain dimensions of patient safety culture across all TAPS programmes.
- A planned evaluation of the LASQ programme is intended to provide further proof of concept for a sustainable organisational model beyond the life of the funded TAPS programme.
- The impact of the behaviour change workstream on more than 80 people who have been involved to date will be investigated systematically through qualitative interviews.
- The final audits will demonstrate the organisation-wide impact of the interventions on the specific behaviour identified.

Specific plans for developing certain aspects of the existing work, includes:

- Continued work, through the Yorkshire Quality and Safety Research Group, to develop and integrate the patient safety elements of curricula within health professional training in local universities.
- It is intended that SAVI and the Introduction to Patient safety e-learning module will be incorporated into work-based and e-learning programmes to increase access across the region, including making available in other formats if appropriate.
- A "Train the trainers" workshop is planned for 2013 to help NHS organisations to implement the behaviour change approach to patient safety guidelines themselves.

The "Safety In Numbers" virtual network has functioned as a vehicle for connecting people who have participated in TAPS or other patient safety initiatives in Yorkshire and the Humber. There are over 1000 members of the network and the twitter account @safetyinumbers has 235 followers. It is hoped that this network can be continued through the Yorkshire Quality and Safety Research Group as a resource to people living and working in the region.

Further details regarding the sustainability of the Patient Safety theme (resources can be found on pages 45-56.

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Long Term Conditions: Y&H HIEC Final Report

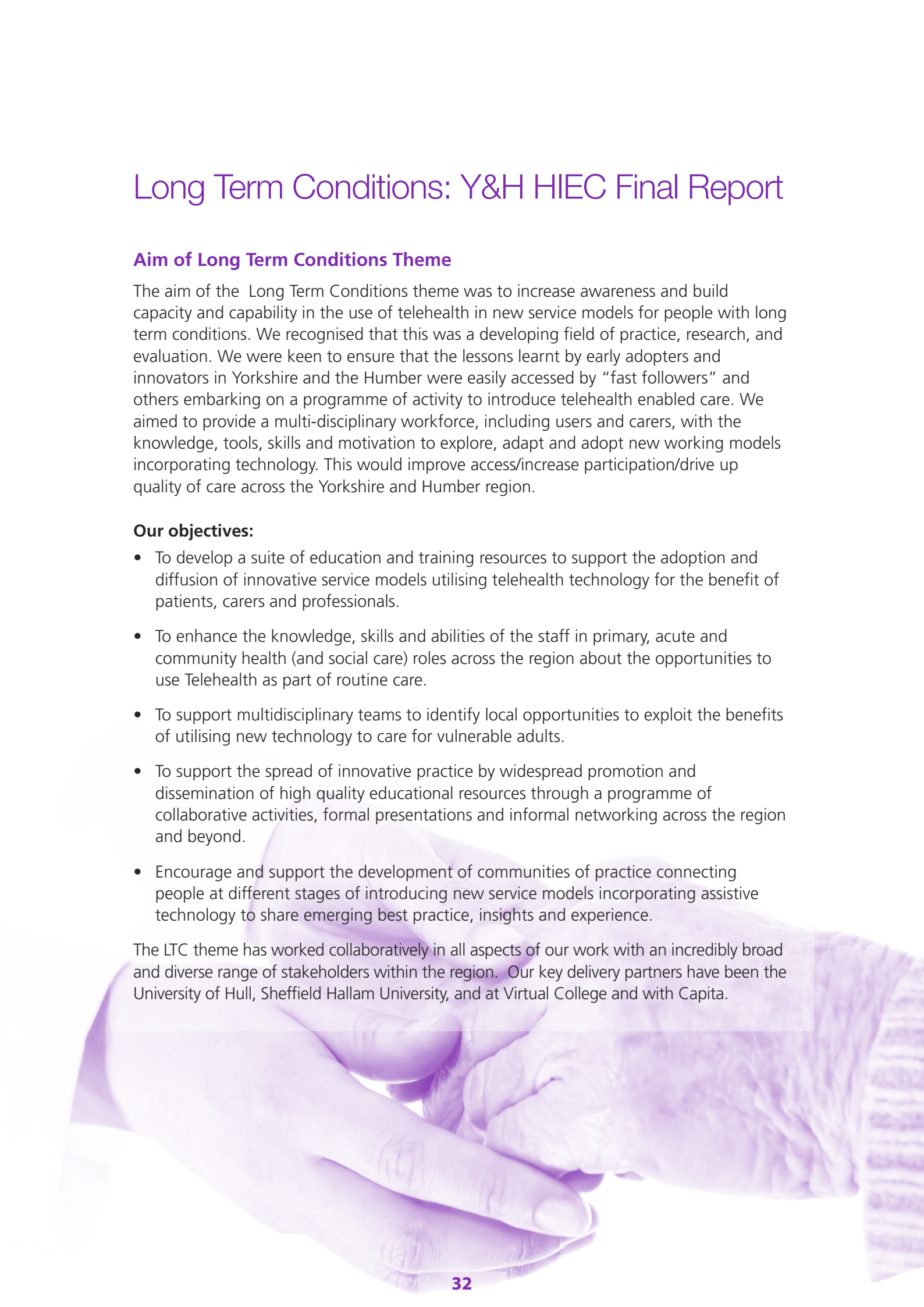
Aim of Long Term Conditions Theme

The aim of the Long Term Conditions theme was to increase awareness and build capacity and capability in the use of telehealth in new service models for people with long term conditions. We recognised that this was a developing field of practice, research, and evaluation. We were keen to ensure that the lessons learnt by early adopters and innovators in Yorkshire and the Humber were easily accessed by "fast followers" and others embarking on a programme of activity to introduce telehealth enabled care. We aimed to provide a multi-disciplinary workforce, including users and carers, with the knowledge, tools, skills and motivation to explore, adapt and adopt new working models incorporating technology. This would improve access/increase participation/drive up quality of care across the Yorkshire and Humber region.

Our objectives:

- To develop a suite of education and training resources to support the adoption and diffusion of innovative service models utilising telehealth technology for the benefit of patients, carers and professionals.
- To enhance the knowledge, skills and abilities of the staff in primary, acute and community health (and social care) roles across the region about the opportunities to use Telehealth as part of routine care.
- To support multidisciplinary teams to identify local opportunities to exploit the benefits of utilising new technology to care for vulnerable adults.
- To support the spread of innovative practice by widespread promotion and dissemination of high quality educational resources through a programme of collaborative activities, formal presentations and informal networking across the region and beyond.
- Encourage and support the development of communities of practice connecting people at different stages of introducing new service models incorporating assistive technology to share emerging best practice, insights and experience.

The LTC theme has worked collaboratively in all aspects of our work with an incredibly broad and diverse range of stakeholders within the region. Our key delivery partners have been the University of Hull, Sheffield Hallam University, and at Virtual College and with Capita.



We have worked on dedicated rapid implementation sites with colleagues in Scarborough and East Riding/Hull PCT and drawn insights from and provided bespoke consultancy support to teams in organisations across the entire region. We have delivered and created best practice activities and resources in conjunction with a host of partners over the duration of the life of the programme. This work has included collaborations with the Yorkshire and Humber Programme for Information Technology, the National Long Term Conditions QIPP Programme, the Department of Health 3million lives programme and the National Technology Adoption Centre.

We were a key development partner in the delivery of the Regional Telehealth HUB project – in collaboration with Airedale NHS Foundation Trust, Barnsley PCT and University of Hull/Hull and East Yorkshire Hospitals NHS Trust. This unique Regional Innovation Fund supported project attempted to deliver a telecoaching, telemonitoring and teleconsultation enabled clinical service model for the population in Yorkshire and Humber with patients moving as required between the different service elements in line with their changing clinical needs. An independent evaluation of this project that positively recognises the contribution that the Y&H HIEC made to its delivery produced by consultants 2020 health is due to be published in the coming weeks.

Highlights of the impact of the work

Individual organisations (to differing degrees across the NHS and social care) in Yorkshire and the Humber have been in the vanguard of adopting new service models utilising Telehealth. However, there has been little systematic effort to draw together the lessons and learning from this experience and make the insights of pioneers – both positive and negative – available in easy to access formats for a wide variety of audiences.

This ranges from the routine management and support of people with long term conditions through to ensuring more rapid access to the best clinical expert opinion remotely where patient and clinician are not in the same physical location. The Long Term Conditions theme has learnt from and provided informed learning materials and resources to the health and social care community regionally and nationally over the course of this period. It has combined the delivery of bespoke individual expertise and advice with the production of entry level "mass market" awareness and development tools for clinical, managerial, user and carer communities across the patch and beyond. It has in conjunction with the Yorkshire and Humber Strategic Health Authority and others contributed to the step increase in awareness and utilisation of assistive technology and telehealth in new service models.

It has not only created novel resources but made them available to potential learners in novel and interesting formats – e-learning, video case study content – to engage learners, ensure easy access to the resources, and to enable relatively rapid refresh of these resources in an area of service development and evaluation that is moving rapidly. In this sense the theme has addressed the twin aims of the Y&H HIEC regarding promoting scale and pace adoption of innovation by constantly refreshing and applying its own knowledge base in a fast moving discipline and responding to the need to deliver new insights and information in novel ways. To date over 1000 unique learners have completed the introduction to Telecare and Telehealth course, spanning those taking undergraduate clinical qualifications and those in current clinical practice, healthcare professionals, managers and academics.

The two focused rapid implementation sites enabled the theme to delve more deeply into the practical operational and cultural challenges of introducing new service models incorporating Telehealth. In addition to delivering direct patient benefit to the participants these projects – introducing remote monitoring into the heart failure care pathway in Scarborough and introducing remote monitoring into the care and treatment of people with dementia and related physical co-morbidities in the East Riding of Yorkshire – generated additional specific learning as to how a new service can be extended and enhanced by the use of remote telemonitoring.

"One big bonus of Telehealth has been its effectiveness in integrating the team and how this has allowed us to develop new ways of working to deliver a more integrated service for patients"

Community Heart Failure Nurse (Scarborough)

In the East Riding project in particular the project addressed the fundamental question as to whether people with diagnosed dementia and additional co-morbidities could successfully utilise the equipment and benefit from a care pathway enhanced with remote telemonitoring. As the following quotation from the independent evaluation conducted by the University of Hull substantiates, with the relevant support patients can positively use the technology and certainly the existence of cognitive impairment should not automatically exclude a patient from consideration for remote telemonitoring;

"Comprehensive consideration of older people with cognitive issues and associated relevant co-morbidities is necessary to ensure appropriate cases are referred." David Barrett and Dr Clare Whitfield Telehealth for People with Dementia Evaluation report March 2011-March 2012 available via http://yhhiec.org.uk/

The theme has actively participated in development sessions, workshops, seminars and conferences as well as programme and project specific steering groups to increase awareness, knowledge and understanding of the role of assistive technology in new service models. This has included discussions with individual clinicians and executive teams to emergent communities of practice, regionally and nationally.

What worked and why

The theme consistently worked with early adopters and subject matter experts to develop real insights into the challenges of delivering new service models incorporating telehealth. This understanding was reproduced in accessible, meaningful and novel ways for clinical and managerial, lay and professional audiences. It used a collaborative methodology and sought to exploit the common ground between the range of internal and external partners involved in the Long Terms Conditions and Telehealth agenda within the region and the long term conditions agenda more widely.

Whilst the theme created dedicated resources and delivered specific educational events, we also strategically and operationally engaged with existing work streams – the Telehealth HUB project, the QIPP long term conditions programme, the DALLAS project. It exploited the functionality of the website and new media – dedicated toolkits and e-learning resources – whilst also producing and disseminating widely large quantities of accessible easy read written materials in the form of workbooks. It exploited existing links with local authority social care colleagues and forged new ones with the emerging health and wellbeing collaborative or complementary policy initiatives such as personal health budgets or the "digital first" agenda.

Local organisations in Yorkshire and Humber were aware that subject matter expertise was available "on tap" and called upon the theme Director in particular to identify and explore in detail the potential options to match the benefits and functionality of new technology with the business requirements of the specific organisation.

The work programme has consistently used a range of interventions to support different learning styles and preferences and worked in conjunction with those with authoritative performance management or performance development roles – Strategic Health Authority, Department of Health, National QIPP Programme. The theme has encouraged NHS organisations in particular to describe what went less well as much as what was successful on the way to refining best practice in an area which continues to be emergent and where there is not yet a definitive assured way to guarantee success. Details can be found at: www.yhhiec.org.uk.

Challenges

One of the strengths of the theme was its ability to constructively critique the role of assistive technology in new service models and to reflect the NHS emergent best practice. This has also been one of our greatest challenges, because the evidence base is emerging, and contested.

Identifying the key priorities in an arena which is moving incredibly quickly and has local, regional, national and international dimensions is a particular challenge. The potential exists by working at all of these levels in each of these arenas simultaneously, to ensure best practice is identified and adopted. Whilst partnership working was key, moving forward on multiple fronts simultaneously did place a strain on a small team.

Working in a changing NHS environment has meant that staying engaged with fledgling communities of practice has been challenging. These areas that the theme has been involved include education, training and development, service re-design, change management, interoperability, procurement and evaluation. Working on multiple fronts simultaneously has been important because technology is only a small part of a service solution. The theme has also distinguished itself by the level of engagement it has established with academia – Kings Fund, Royal Society of Medicine; Industry and industry representative bodies (TSA, intellect, ABHI); other government departments – Technology Strategy Board as part of UK Trade and Industry and Business Innovation and Skills – other jurisdictions – Scotland, Wales and Northern Ireland – and European partners and institutions – NHS Confederation (European Office) European Connected Health Alliance and European Commission.

Implications

There is a huge amount of learning along with resources to support implementation which will be of value to the NHS and senior care providers in the future. CCGs, health and wellbeing boards and provider organisations must be supported to ensure that technology can support new service models.

The scope of the work of the theme could and should extend beyond long term conditions as the opportunities and benefits of technology enabled care models are available to client groups and contexts that are beyond this specific focus. The resources developed by the theme are transferable across clinical areas, patient groups and organisations by virtue of how they have been developed, designed and delivered.

Plans for sustainability

The resources developed by the Long Term Conditions theme are highly transferable, and are very relevant in addressing the challenge the NHS faces. As the AHSN develops, these resources will remain available to support future work shaping and progress, contributing to the national work streams on telehealth and will ensure our resources continue to be used where appropriate e.g. 3million lives and digital first work streams.

As the AHSN develops, the Y&H HIEC resources will be available to underpin these projects.

Further details regarding the sustainability of the Long Term Conditions theme (resources can be found on pages 46-47.

Long Term Conditions Team

Dr Paul Rice,
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Independent evaluation of the YH HIEC Programme – what worked and why?

The CLAHRCs were introduced in response to recognised gaps in the translation of health research into new products and treatment approaches, and in the implementation of new approaches to clinical practice (Cooksey Review 2006). They are designed to develop mutually beneficial partnerships between higher education institutions and NHS organisations to improve patient outcomes through applied health research and local implementation of the results. The three primary functions of the CLAHRCs are:

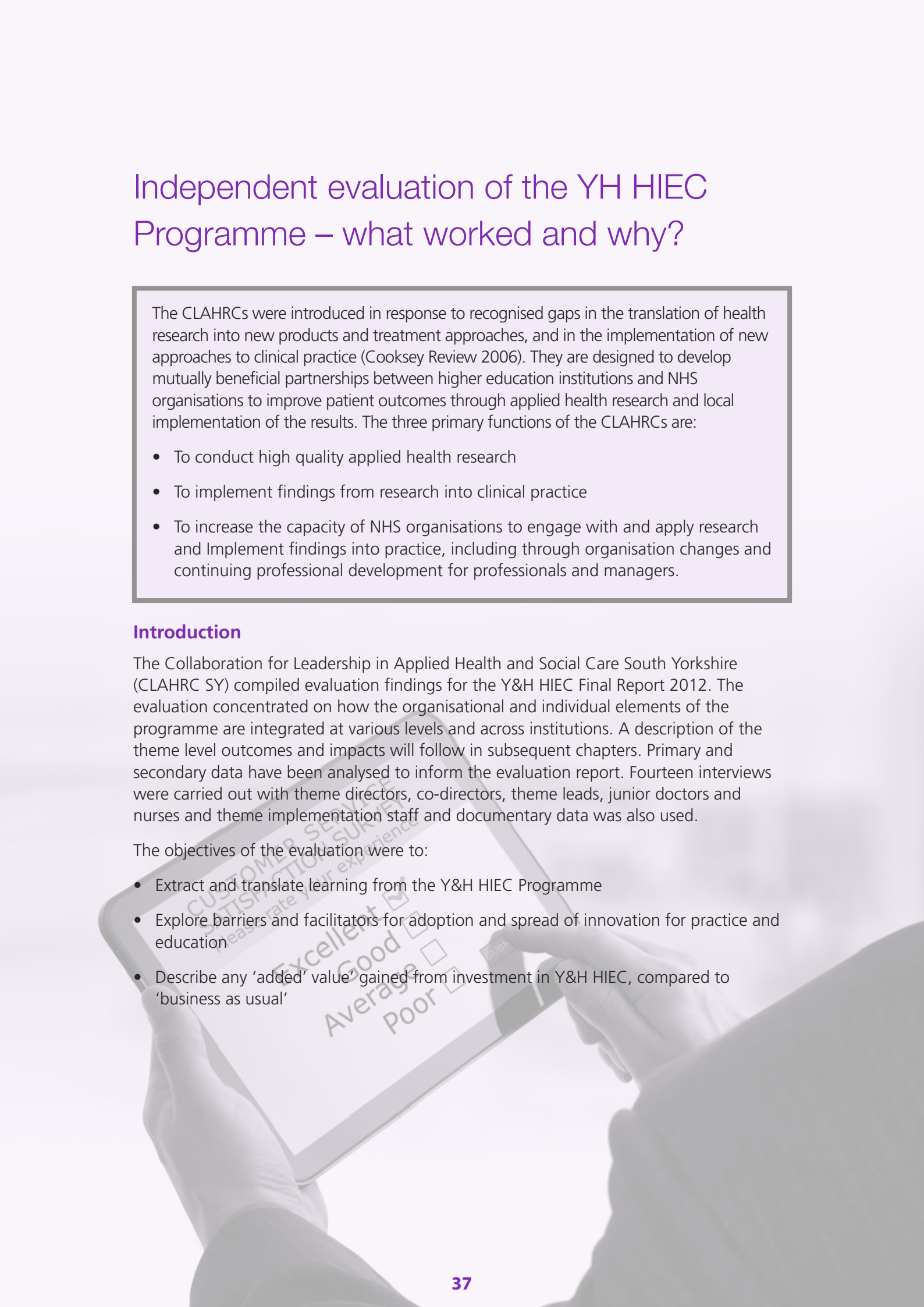
- To conduct high quality applied health research
- To implement findings from research into clinical practice
- To increase the capacity of NHS organisations to engage with and apply research and Implement findings into practice, including through organisation changes and continuing professional development for professionals and managers.

Introduction

The Collaboration for Leadership in Applied Health and Social Care South Yorkshire (CLAHRC SY) compiled evaluation findings for the Y&H HIEC Final Report 2012. The evaluation concentrated on how the organisational and individual elements of the programme are integrated at various levels and across institutions. A description of the theme level outcomes and impacts will follow in subsequent chapters. Primary and secondary data have been analysed to inform the evaluation report. Fourteen interviews were carried out with theme directors, co-directors, theme leads, junior doctors and nurses and theme implementation staff and documentary data was also used.

The objectives of the evaluation were to:

- Extract and translate learning from the Y&H HIEC Programme
- Explore barriers and facilitators for adoption and spread of innovation for practice and education
- Describe any 'added' value' gained from investment in Y&H HIEC, compared to 'business as usual'



The Y&H HIEC Evaluation summary report is available at: www.yhhiec.org.uk. For the purposes of this final report we have taken key findings and learning from the evaluation and summarised these below. The evaluation work encompassed 7 topics:

- Programme set-up
- Priority-setting and decision-making
- Communication (outward and inward facing)
- Adoption and spread
- Inter-organisational working
- Engagement and involvement
- Sustainability

A summary of 3 key points for each topic follows, that includes learning on: 'what worked and why?', 'considerations/opportunities', 'Implications'.

Programme set-up

What worked and why?

- The Y&H HIEC programme was associated with an ethos of getting things done in a timely way to positive effect, there was also a sense of being energised by this approach.
- The development of goodwill contributed to the efficiency of projects, and engendering enthusiasm was a particular success of various aspects of the programme
- Mixed staffing models were successful in developing large capacity with few resources, particularly regarding the use of 'champions' at implementation sites

Considerations/opportunities?

- The late establishment of the Y&H HIEC central infrastructure meant that Y&H HIEC central staffing and activities were in place significantly later than the themes and projects.
- Time constraints would prevent the undertaking of a full needs analysis that could have been beneficial especially when a project is new.
- A longer programme may have encouraged more cross theme learning.

Implications

- The coordination of set-up and ensuring that different aspects of the programme are developed in an ordered and rational fashion is critical in determining the culture and practice of the venture.
- It is important that set-up is not rushed.
- Once appropriately set-up, tight timescales can engender a sense of urgency and ensure a lot of progress is made in a short time. However, this can impact on rigour and the fitting of activities to established local or national needs.

Priority-setting and decision-making

What worked and why?

- The adoption of high impact, ready to go, autonomous themes meant that theme level priorities were already partially set.
- A tiered approach with more stable priorities at a strategic level with increasing flexibility at programme level and an extremely flexible, bottom-up approach, using knowledge of front-line staff at project level.
- The priorities were seen as management, enduring, high feasibility and high impact. They also had to be materially practical and pragmatic.

Considerations/opportunities?

- Where there was a lack of engagement and consultation with front-line staff members, difficulties were encountered.
- The speed of set-up, in particular the lag between theme set-up and getting the central team established, also limited the prioritisation of programme development and cross-theme learning. From an early stage, theme staff members were focused on theme level, rather than programme level priorities.
- Whether or not the three, rather pragmatically chosen, work strands were regional priorities is unclear.

Implications

- A flexible approach incorporating local priorities helps involvement and ownership, promoting goodwill and enthusiasm. This is particularly important when resources are scarce.
- Central teams and programme priorities should be established early on so that theme and project staff members feel as though they are joining something that is established, with a definite culture, priorities and purpose. This will ensure that the benefits of coherent innovation programmes are realised, rather than simply providing a home for a group of disparate projects.

Communication (outward and inward facing)

What worked and why?

- The communications role of the 'central team' worked well and was appreciated by theme staff members. However, this took some time to become established. The central team also effectively communicated externally at a strategic and organizational level (e.g. face to face and attending meetings), largely to secure and maintain buy-in
- Theme level external communication was supported by the central team regarding managing the website and producing printed materials. These had a strong corporate image
- The Y&H HIEC was perceived as a mark of quality in some quarters, and consistency across the region was a key contributing factor

Considerations/opportunities?

- The rather disparate nature of the activities of the three themes was also cited as a barrier to communication and cross-theme learning: it was difficult to establish common ground
- The internal message of what the central team did to add value to the programme was not well communicated. Possibly this was due to the overriding focus on theme activity which was established early on
- There were significant discrepancies between how Y&H HIEC was perceived from the outside and how it was perceived by theme members. From the outside there was an impression of a large cohesive organisation. However, for those closer to the programme it was viewed as three separate themes with a very small amount of central infrastructure

Implications

- The role of the central team regarding communications support was acknowledged as a key function, and something that future innovation infrastructure should prioritise.
- Creating a coherent identity in an organising network such as the Y&H HIEC requires a lot of focused effort, which can be viewed as a diversion from what is often seen as the primary task of creating change at a project level. It should therefore be a strategic decision, whether coherence is required or desired, and to what extent. Sufficient resources should then be allocated for this purpose and programme members suitably informed that creating a collective identity is a priority
- A publication strategy agreed between themes/projects and the core team would possibly help to align outputs and coordinate programme promotion

Adoption and spread

What worked and why?

- The structure of the programme enabled implementation in areas that are rarely involved in this type of innovation
- Integration with the everyday business of organisations promoted adoption and spread
- Securing engagement from key people was a particularly commonly described facilitator for adoption and spread. More generally people with capacity, enthusiasm, commitment and contacts, boundary spanning between higher theme and central level and practitioners were considered essential

Considerations/opportunities?

- Programmes need to be at a large enough scale for the areas covered, otherwise momentum might be hard to maintain
- Lots of people are needed to drive change on the ground and strategies to recruit and incentivise them should be established
- High level sponsorship does not necessarily equate to practical assistance

Implications

- There is a tension between developing site-specific products or approaches, which engender a sense of ownership, and subsequent spread of more established products or approaches (unique or off-the-shelf)

- Competitive organisations are a barrier; they can prefer to use in-house resources

Inter-organisational working

What worked and why?

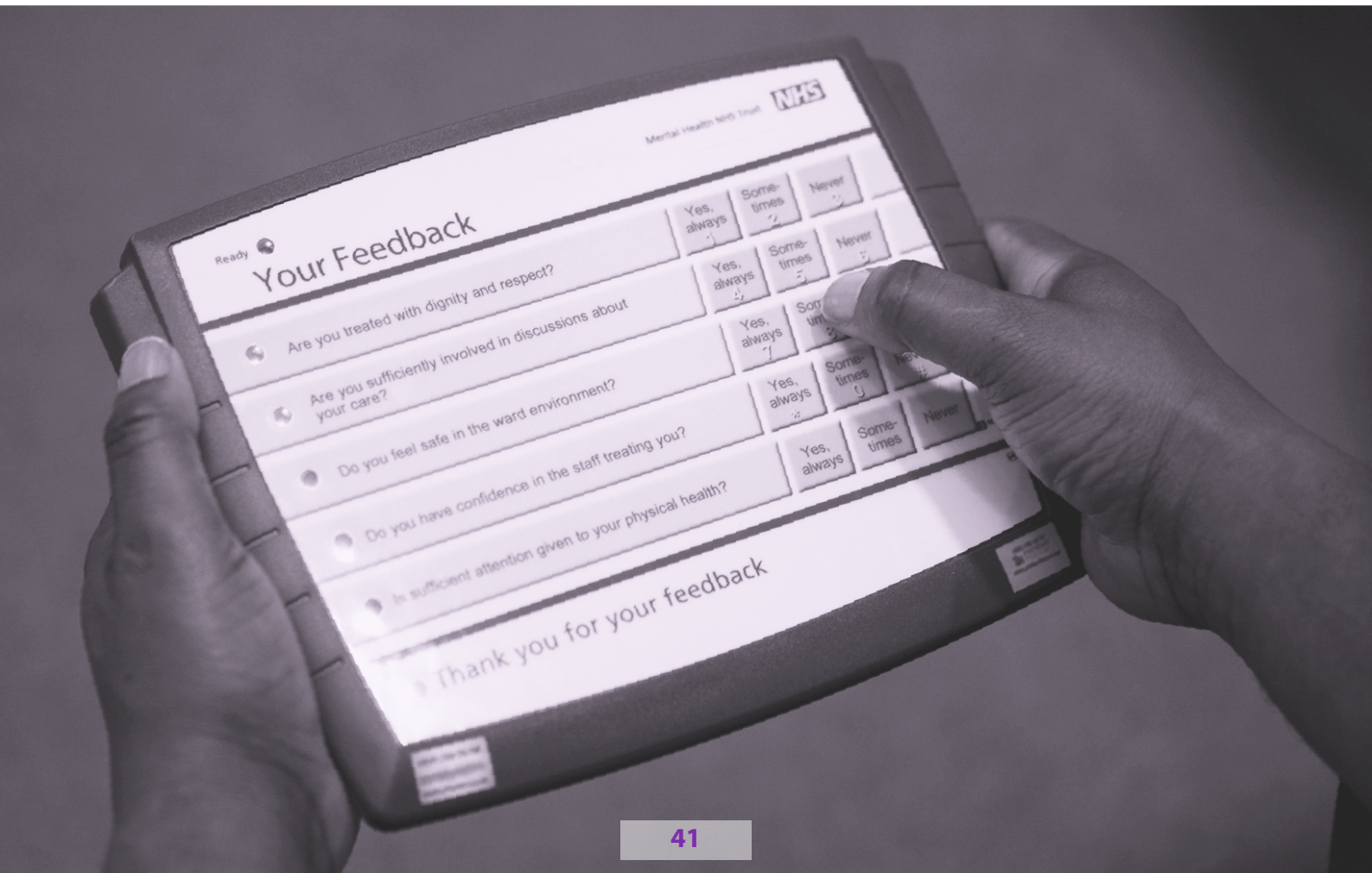
- Heightened levels of trust and a less possessive approach to intellectual property have been important for sharing resources
- The incompatibility of traditionally longer timescales for research and development and shorter timescales for implementation were addressed, by working in innovative ways
- Specific individuals in key organizations were important to sponsor the programme and provide practical leverage

Considerations/opportunities?

- Y&H HIEC had a variable profile and lack of knowledge was a barrier to engagement in some areas
- Lack of continuity of organisations and people in certain roles was a barrier to engagement
- Levels of engagement were variable across all themes. In particular, certain Trusts and Universities were hard to engage

Implications

- At a project or theme level, organisational priorities need to be aligned, and this is particularly context-dependent. The need to be flexible to achieve expansion and taking opportunities for timely alignment across organisations was recognised.



Engagement and involvement

What worked and why?

- Prior relationships and knowledge of the priorities of pre-existing networks aided buy-in and assisted with project development, adoption and spread. Boundary spanning roles also helped to connect with a wide variety of networks.
- Y&H HIEC programme relied on a lot of good-will, particularly in terms of unpaid work by busy people. Being able to engender this enthusiasm in a lot of the right people was a key mechanism, and something that the programme had a great deal of success in.
- There is a role for theme staff members and project teams to create an amenable climate to encourage good-will and enthusiasm. This is one aspect where the programme has been described as having an appreciable influence on culture change.

Considerations/opportunities?

- Sometimes there was difficulty translating high level buy-in into practical involvement.
- The benefits of protected time of some individuals 'on-the-ground' to drive projects forwards was also recognised. Sustainability of these communities is likely to depend on continued effort and organisation, which requires resources and people with dedicated time.
- Some respondents had difficulties differentiating Y&H HIEC work from their day-to-day jobs. They felt a greater sense of belonging to their employing organisation and had to make conscious effort to relate parts of what they were doing back to Y&H HIEC initiatives.

Implications

- It can be difficult to repair relationships and engender commitment if appropriate front-line staff members are not involved early enough.
- The allocation of definite roles can help to create a sense of belonging. This is particularly so if it is seen to be influential or somehow provide a privileged position for an individual in their own organisation.
- Early consultation with front-line staff members can also result in significant efficiency savings.

Sustainability

What worked and why?

- In several areas, the Y&H HIEC provided the catalyst for culture change and provided opportunities for reflective practice to an extent that had not been achieved through existing routes.
- The Y&H HIEC programme has resulted in the development of capacity among individuals and groups to undertake adoption and spread activities which may also transfer to other areas of the NHS.
- The extension of funding towards the end of the programme was seen as a positive investment to assist in sustainability activities.

Considerations/opportunities?

- The criteria for or measures of success were unclear for the programme as a whole
- There was a divide, from the perspective of theme members, as to what the themes were trying to achieve and what might be the value of the whole programme
- A perceived lack of focus on internal self promotion is not surprising, given other more pressing priorities of the programme

Implications

- The Y&H HIEC was born into a landscape littered with similar short-lived historical innovations, so was not considered particularly unique in some regards. It is important for such initiatives to find a niche
- A 'critical mass' of core personnel and easy access to additional appropriately trained and experienced potential employees is important for sustainability. A capacity building agenda is therefore an important element
- Long-term commissioning was problematic. The Y&H HIEC did not have a commissioning role and it proved difficult to have products and processes adopted by commissioners. A structured relationship is therefore required between such innovations and commissioners with a determined remit for improvement and innovation. Disinvestment strategies could be part of this process

Summary

- The set-up of the programme was considered to be rushed and suffered from a lack of time for sufficient planning. There was a mismatch between the readiness of the themes, which were chosen on the basis of being ready for expansion, and the readiness of the programme infrastructure, which necessarily lagged behind. This factor and the short timescales and lack of resources determined the culture of the programme, which tended to be focused more on theme level deliverables rather than programme development and cohesion. However, despite these ingrained difficulties, from the outside the programme became viewed as a cohesive organisation, with a strong corporate identity.
- Priorities were set at various levels and by appropriate methods. These consisted of static strategic priorities at an organisational level, more flexible priorities at programme level, and very flexible locally determined priorities at theme and project level. This meant that the programme had sponsorship at a high level, and could also engender a sense of belonging for people working on specific projects.
- Being able to engage with and involve partners at all levels has been critical for the successes and achievements of the Y&H HIEC, specifically regarding the adoption and spread of innovation and education. This has happened at a programme level, particularly regarding securing organisational buy-in for strategic alignment. At a theme level this has meant creating links and relationships with specific services, teams and units, various Trusts and private and 3rd sector organisations for particular projects. The identity of Y&H HIEC and how the potential value of being involved with the programme was perceived were key factors determining engagement and involvement of individuals. Additionally, the Y&H HIEC programme relied on developing innovative ways of working across organisations at all levels.

Plan for Y&H HIEC learning and resources

The Y&H HIEC funding and work programmes will end by March 2013, but we have designed elements of our work to be sustainable following the Y&H HIEC.

Table 2: The approach to sustainability for Y&H HIEC Resources

Theme	Resource	Sustainability
Y&H HIEC Collective Resources	**Y&H HIEC Website**	The domain name has been secured until December 2013, which means the website will remain in place until then. Some of the theme's work has be hosted by alternative website (e.g. YQSR group or University of York) to mitigate for the uncertainty regarding the Y&H HIEC site. The Y&H HIEC site does hosts online forums for MIHC and PS themes, the extension allows consideration of further options.
	Y&H HIEC e-learning modules and resources	The e-learning resources for all the themes are hosted on alternative sites. In addition, the Yorkshire & Humber e-learning platform are hopeful they can host (or at least advertise) the Y&H HIEC online resources on their regional platform, and on the national platform shared by all SHAs. Conversations regarding technical issues are on-going.
	The Clinical Leaders Network	The CLN have engaged with the Y&H HIECs nationally regarding work on adoption and spread. The CLN are a stable organisation who has offered to host Y&H HIEC resources on their website, discussion is on-going.
	Y&H HIEC Evaluation findings	Whilst the evaluation work was to inform the impact judgement regarding the value of the Y&H HIEC and the impact of the work, it is important that the lessons learned from our work are formally disseminated and reported so that the learning can inform the development of other networks such as the AHSN. To co-fund this piece of work with SY CLAHRC focussing around the AHSN themes, incorporating the learning from the SY CLAHRC evaluation and the Y&H HIEC evaluation. The outputs would be formal briefings, journal articles etc.
	Supporting the development of the Y & H AHSN	Elements of the Y&H HIEC work are directly relevant to the AHSN, it is important that there is a Y&H HIEC link as part of the AHSN Executive team. Direct and regular engagement with the development of the AHSN will ensure all opportunities for sustainability are explored.
Maternal & Infant Health & Care	**Online Infant Feeding programme**	Hosted by University of York Business Development Programming Cycle in Health Sciences - available to future students (Cpd and APEL) The module to be accredited at levels 5 and 6.

Theme	Resource	Sustainability
Maternal & Infant Health & Care	**Getting it Right from the Start**	Embed and continue to share practice across neonatal and maternity units. UNICEF to signpost to MIHC website. Work to meet new BFI standards and become Beacon Site for new neonatal standards. On-going work with Best Beginnings and Small wonders DVD and national change programme. Papers for publication and wider dissemination and Website development and maintenance. Development of Y&H HIEC MIHC film channel. This will be available in December 2012 and provide sustainable access to all films and photos made as part of the project via a web link.
	Getting it Right from the Start: Neonatal Theme	Dissemination of resources. Papers to be produced. Cascade of small wonders DVD distributed by Champions/HOM to neonatal and maternity units across Yorkshire and Humber Region. Review data field on Badgernet (neonatal clinical system) to routinely collect information about skin to skin care.
	Getting it Right from the Start Normal Births	Dissemination and embedding of resources. Papers to be produced. Work with LSA and Neonatal networks to consider hosting websites and managing online learning forum. Potential for NHS Intranet to signpost to/host some elements. Continue to work with RCM and promoting normal birth – sharing our learning.
	Getting it Right from the Start Prisons Report	Revision of application of proposal to NIHR RfPB. Report produced in conjunction with workshop attendee consultation.
	Getting it Right from the Start Vulnerable Women's consultation	Report to be produced in conjunction with workshop attendee consultation. Work with City of Sanctuary and Women's Refugee Asylum to embed shared learning and develop films to support.
Patient Safety	**Training and Action for Patient Safety (TAPS) Programme** **Patient safety training for the whole multi-professional team – to learn with, from and about each other.** **PLUS** **Learning from other teams from the health economy – to provide extra support and motivation**	The TAPS programme was featured in the AHSN application document. Further evaluation of the significant improvement in certain dimensions of patient safety culture will be explored across all the TAPS programmes. The planned evaluation of the LASQ programme is intended to provide further proof of concept for a sustainable organisational model beyond the life of the funded TAPS programme. The "Safety In Numbers" network is intended to be a vehicle for connecting people who have participated in TAPS or other patient safety initiatives in Yorkshire and the Humber. "Safety in Numbers" was launched through a spread event place on 15th May 2012 in Sheffield, where TAPS teams shared their learning. 75 participants from a mix of NHS clinical and NHS managerial roles attended. There are over 1000 members of the safety in Numbers network and the twitter account @safetyinumbers has 260 followers. All network members are able to access to SAVI and Introduction to Patient safety eModule. It is hoped that this network can be continued through the Yorkshire Quality and Safety Research Group as a regional resource.

Theme	Resource	Sustainability
Patient Safety	**Situational Awareness Vital Insights (SAVI)** **Filmed scenarios providing training in situational awareness and patient safety**	It is intended that SAVI will; be incorporated into work-based and e-learning programmes to increase access across the region, including making available in other formats if appropriate.
	Supporting NHS organisations to implement patient safety (NPSA) Alerts **A behaviour change approach, informed by psychological and implementation literature**	The impact of this workstream on more than 80 people who have been involved to date will be investigated systematically towards the end of the project (already strong anecdotal evidence of positive impact). The final audits will demonstrate the organisation-wide impact of the interventions on the specific behaviour identified. Further evidence of the organisational impacts from other workstreams, together with an evaluation of the impact of this project on the 80+ people who have been involved will be included in a summary report which will be produced for the conclusion of the Y&H HIEC programme. A "Train the trainers" workshop is planned for 2013 to help NHS organisations to implement this approach themselves.
Long Term Conditions	**Teleconsultation for Healthcare Services** **(A workbook for implementing new service models)** **Telemonitoring for Long Term Conditions (A workbook for implementing new service models)**	Development of appropriate formats and wrap around educational materials, including making available via the AHSN website
	Introduction to Telehealth and Telecare – e-learning module	Additional promotional and marketing activity. Increased collaboration with the emerging LETB to encourage promotion and adoption of the resource in undergraduate education and continuing professional development. Increased collaboration with the Voluntary Church and Faith sectors to promote awareness and completion of the course by users and carers.
	Introduction to Behavioural Change – e-learning module	Additional promotional and marketing activity. Increased collaboration with the emerging LETB to encourage promotion and adoption of the resource in undergraduate education and continuing professional development. Increased collaboration with the Voluntary Church and Faith sectors to promote awareness and completion of the course by users and carers.

Theme	Resource	Sustainability
Long Term Conditions	**Lessons from Rapid Implementation Sites** **Scarborough** **East Riding of Yorkshire**	Representation at key network meetings and innovation events.
	Collaboration with Involve Yorks and Humber – co-developed user resource – What is Telehealth and Telecare?	Marketing, promotional and dissemination activities
	HITAP/SHA/HIEC **3 million lives Community of Practice**	Proactive management using social media and creative use of content.
	Internal Consultancy Capacity	Continued support on an ad hoc basis to projects across the region at the incubation and delivery stage
	Range of Activities, International, National and Regional levels	In addition to the physical products and learning/development activities that the LTC theme has produced over the lifecycle of the Y&H HIEC the theme Director has been intensively involved in a range of activities at international, national, regional and local level to further identify "best practice", and to support innovation scale and spread in this emerging field. This work has included participation in the European Innovation Partnership for Active and Healthy Ageing (EIP), and activities of the Ambient Assisted Living Joint Programme and European Connected Health Alliance. In addition on a national basis the Director is the Vice Chair of the NHS/Social Care 3million lives task group, actively involved in the 3million lives Pathfinder Programme, actively involved with Skills for Care in producing educational training and development resources on Assistive Living. He represents the Y&H HIEC on the Mainstreaming Assistive Living Technologies Programme (funded by the Technology Strategy Board), maintains extensive links with the scale deployment activities in Telehealth undertaken across the home nations – Northern Ireland, Scotland, Wales, maintains links to the Technology Strategy Board funded Delivering Assistive Living Lifestyles at Scale (DALLAS) programme, as well as across Industry (Telehealth/Care Providers, Communications and Multimedia Vendors, Pharma) and Academia (Institute of Digital Healthcare, Kings Fund). All of these activities and relationships have potential benefit moving forward for the Academic Health Science Network in its triple aim strategic goals – (1) Improve health (2) Transform the quality and efficiency of health services (3) Generate wealth.

Appendix 1: Y&H HIEC Core Objectives

Y&H HIEC collective core objectives

The Y&H HIEC developed an ambitious plan of work to deliver the transformation of services to drive the increases in quality and productivity that are so important to the NHS at the current time. In achieving this we worked in different ways than traditionally done, formed new partnerships and involved a greater number of stakeholders in times of unprecedented change. We were keen to ensure we derived maximum learning and benefit from the Y&H HIEC funding and agreed 10 objectives to measure the impact of our work across the region. We summarise the objectives and progress below.

To ensure that the Y&H HIEC successfully harnessed the synergies between research, education and patient care, 10 core objectives were agreed. Details of the objectives, a brief note on progress made is provided in Appendix 1.

Figure 2 - 10 Core Objectives, progress and plans

Core Objective		Deliverable/Outcome/Achievements
1.	To create a 'spearhead' of organisations from the NHS, higher education and other sectors committed to 'turning best practice into common practice'	Y&H HIEC Board functioning and steering groups at theme level established and central focus on external engagement and profile building (e.g. evaluation results). Multidisciplinary working and cross sector audience involving industry and voluntary sectors. Hosting of conferences to ensure adoption and spread.
2.	To forge new relationships with and learn from commercial and not-for-profit organisations regarding the adoption and diffusion of innovation.	Working with industry such as Medipex on commercialising products. Virtual College collaboration - an example of external working for the long term conditions theme. Submission of bids as co-applicants. Events held with organisations such as INVOLVE, UNICEF and the Kings Fund, **Website information:** Amount of Visitors to site - 12,430 Organic Traffic/Organic Keywords used – 5,484 Unique Visitors to site – 7,415 Referrals by Source – 1,697 Page Views – 44,914
3.	To identify, develop, test and prove methodologies which rapidly spread effective new practices to all parts of the NHS and healthcare education, and which support the development of organisational cultures in which innovation is adopted with commitment and enthusiasm	Briefing produced on behavioural change, modules developed incorporating theme resources and Y&H HIEC Central support. Y&H HIEC Patient Safety conference held in May 2010 to develop awareness and launch Y&H HIEC. 91 Champions and enablers embedded into existing networks and meetings within the MIHC theme.

Core Objective		Deliverable/Outcome/Achievements
4.	To mobilise key 'influencers' in the NHS and higher education in Yorkshire & the Humber to support and drive the adoption and spread of innovation locally.	Attended key regional leadership events. Key senior multidisciplinary partners were involved in our Board and theme-level work, from a range of sectors. Patient safety networks established with followers and tweets. Y&H HIEC stands held at local, national and international events along with various presentations. Engagement of Chief Executives and their organisations with their work. Evaluation results showed a strong profile. Multi-professional team based training (TAPS) undertaken by more than 70 teams from different health organisations. Worked with multidisciplinary teams across the region. Used remaining resources to maximise the spread and impact of Y&H HIEC products, materials and resources.
5.	To focus particularly on how education and training can change culture and practice in the NHS with regard to adopting effective innovation	**Long Term Conditions educational resources include:** • Telehealth toolkit • National LTC QIPP and Regional HITAP supported • Voluntary Sector Engagement – co produced product "What is Telehealth?"– plain language resource • (Introduction to Telehealth and Telecare module and Behaviour Change module) delivered by Virtual College **Maternal & Infant Health & Care educational resources include:** • Online infant feeding and education programme, hosted by University of York. • Getting It Right from the Start – Sharing best practice through champions and enablers. • Online forum. • EiP Report available as an online toolkit. • Ongoing work with national charities and international organisations on neonatal programme. • Savings of between £100k and £500k associated with an increase in breastmilk feeding at discharge (based on reduced length of stay and a reduction in major and minor infections). **Patient Safety educational resources include:** • SAVI – available online and in DVD format • TAPS – Online module, http://www.nhstaps.org/course-units/login/ **A range of resources developed to enable organisations to navigate themselves through the process of implementing a new guideline, including:** • A framework for implementation • Audit tools to identify the relevant target behaviour for change • Validated questionnaires to identify barriers to behaviour change • Discussion schedules to use with front line staff to elicit additional information about barriers to behaviour change, and to generate ideas for interventions to overcome key barriers • A range of adaptable intervention resources that can be tailored to specific types of barriers All resources are offered for free.

Core Objective		Deliverable/Outcome/Achievements
6.	To focus on the adoption and diffusion of new practices which increase the quality and productivity of the NHS.	Increase of quality and productivity of the NHS through DVD's online resources, films and evaluative reports. Examples of these include: The design of 2 easy to use "how to guides" for health care managers and clinicians to increase understanding, set out benefits and lead step by step implementation of new service models were developed to potentially reduce length of stay in hospitals for long term conditions that patients suffer. Flexible and adaptable development resources designed to support service development from inception to delivery via 4 video case studies sharing experiences Developed in 2 specialties: Heart Failure 80 patients recruited to model Scarborough North East Yorkshire NHS North Yorkshire York Living Independently Complex physical healthcare needs and cognitive impairment 13 patients recruited to model NHS East Riding of Yorkshire East Riding of Yorkshire Council Humber NHS Foundation Trust Patient Safety Reduction of misplaced naso gastric tubes in patients. PH first line method increase from 20% to 63% and use of X Rays decreased from 51% to 23% New Care pathway reduced omission of documentation which has decreased from 25% to 14% Achieved through the implementation of change in behaviours, through effective screensavers and posters Maternal & Infant Health & Care Getting it Right from the Start Normal Births Film produced on staff and patient experiences (EIP) Online toolkit Getting it Right from the Start neonatal Theme films produced on staff and families experiences. Savings of between £500,000 and £1m per annum from reduced length of stay associated with skin to skin care. Network development enhanced the uptake and spread of knowledge and of multidisciplinary, cross-sectoral ways of working
7.	To concentrate initially on 3 themes: Long Term Conditions, Maternal & Infant Health & Care, Patient Safety; with other themes being added from year 3, so as eventually to cover the full spectrum of the SHA Strategic Plan, Healthy Ambitions.	3 themes were established with all key staff appointed.

Core Objective		Deliverable/Outcome/Achievements
8.	To access Regional Innovation Funding to support theme level projects.	Completed projects on time and target and reported back to RIF (Regional Innovation Funding) Panel on progress.
9.	To disseminate lessons learnt – regionally, nationally, and internationally.	**Maternal & Infant Health & Care – Meetings & Conferences contributed to:** • Expo Conference – London • Cross SHA Leadership Workshop • National Community Midwives Conference, Doncaster • Yorkshire Neonatal Forum • International Maternal and Infant Nutrition and Nurture Conference • International Normal Labour & Birth Conference • Australian Breastfeeding Association Conference, Canberra • ICM Conference, Durban, South Africa • Celebrating Best Practice Conference • Bliss Development Care Special Interests Group • RCM Annual Conference • Unicef Baby Friendly Initiative Conference • RCM Conference (2 x presentations) • AIMH presentation & poster display • Best Beginnings conference 2 x presentations • Transforming Public Sector Services – National conference: key note speaker • Clinical Leaders Network (2 x presentations) **Maternal & Infant Health & Care Events and Workshops** • MIHC Intervention Programme Days (Nov-Jan 2012) • HIEC Stakeholder Day, Workshops 31st Jan - 2012 • Neonatal Clinical Workshops across the region (x 4 Jan-April) - 2012 • Normal Birth Workshop, 26th March Doncaster – 2012 • Neonatal clinical workshops (nationally) x 6 HIEC Celebrating Success Event, 27th June – 2012 • Westminster Forum – Early Interventions & Inequalities (J Watson) • Abstracts submitted at various conferences and events. **Long Term Conditions** Paul Rice has presented at regional, national and international events including: • Telehealth Master Class – December 2010 • Toolkit Launch at Kings Fund Congress on Telehealth – March 2011 • Toolkit and E-Learning Module disseminated at NHS Expo – March 2011 • Mainstreaming Event with Whole System Demonstrator Action Network (WSDAN) – June 2011 • Presentation at European Connected Health Campus Event (Brussels) – July 2011 • Presentation at Scottish National Telehealth Event – September 2011 • TSA National Conference Event – November 2011 • RSM Masterclass – November 2011 • Manchester Masterclass for Adult Social Services/Advancing Quality Alliance – June 2012 • Kings Fund 2nd International Congress Royal Society of Medicine – February 2012

Core Objective		Deliverable/Outcome/Achievements
9.		• European Connected health Alliance (Barcelona) – May 2012 • Tackling Long Term Conditions – (London) – May 2012 • Westminster Forum - (London) – July 2012 • HIEC West Midlands (Birmingham) – July 2012 • North West Respiratory Network (N West) – September 2012 • Mobile Healthcare Industry Summit (London) – September 2012 • Naidex Conference – (London) – Oct 2012 • HSJ/RCH Conference on Telehealth – (London) – October 2012 • NHS 24 Scottish Centre for Telehealth – Oct 2012 • Royal Society of Medicine – November 2012 • Event to promote awareness of telehealth for service users with Long Term Neurological Conditions for carers and NHS staff (in conjunction with Y&H Association of Neurological Organisations - YHANO) – September 2011 **Patient Safety** • HIEC Patient safety Events and Workshops: • HIEC Patient Safety Conference – May 2010 • TAPS – Spread Event and Launch of "Safety in Numbers" network – May 2012 • Mentoring Workshop – (Leeds) - 14th September 2012 • Patient Safety Conference –(Bradford) - November 2012 **TAPS Programme dates (3 workshops):** • North Lincolnshire (Aug 10 – Jan 11) • Bradford (Feb – May 2010) • Doncaster (Aug 10 – Jan 11) • Sheffield (Dec 10 – May 11) • York/Scarborough (Jun – Dec 11) • Leeds (May – Nov 11) • Hull (Nov 11 – Mar 12) • Airedale (Sep 12 – Feb 13) **Meetings and Events contributed to:** • 2012 European Health Psychology Conference (oral presentation) August 2012 • National Patient safety Congress (Poster presentation) May 2011. • National Patient safety Congress (Oral presentation) May 2012. • Leeds Patient safety Matters Conference (Oral presentation) Sept 2012 • Clinical Human Factors Seminar, Nottingham, March 2012 • Clinical Human factors Seminar, Cambridge Sept 2012 • RCGP conference Oct 11 Poster presentation • Making Healthcare Safer: organisational aspects, St Andrews, June 2012 Poster presentation x 2
10.	To link and collaborate effectively with other initiatives and networks (e.g. both CLAHRCs) so as to support the dissemination and spread across the region of the learning and benefits which they generate.	• Reciprocal membership of SY CLAHRC HIEC Board. Y&H HIEC presented at the international SY CLAHRC conference. • Shared staff between long-term condition theme and SY CLAHRC. • Developed joint publications and lessons learnt. NHS Confederation for National Briefing and presentation at National Conference. • Engaged with the development of the AHSN initiative both regionally and nationally.

Appendix 2: Introducing the Y&H HIEC

Our vision

The vision for the Yorkshire & Humber HIEC was to make the NHS in Y&H a national and international leader in the rapid and universal introduction of proven innovative best practices and technologies in healthcare delivery, education, training and development – turning best practice into common practice.

The HIEC was the Y&H focus for the systematic and managed adoption and diffusion of proven innovative practices and technologies in healthcare delivery, education and training - across the region and beyond. Its emphasis was focussed on using education, training and development to accelerate and consolidate adoption and diffusion. In addition, it forged new - and developed existing – relationships between the NHS and higher education, and with commercial and not-for-profit organisations. In line with the SHA QIPP plans, the Y&H HIEC did not exploit and roll out innovations developed by others, although this involved testing innovations before their adoption.

Our themes

The Y&H HIEC continues to be unique in the organisational landscape of healthcare and higher education as its sole purpose was to drive the Adoption & Diffusion (rather than the 'Invention' or Generation) of Innovation in the Region. Our theme based approach enabled us to focus on the delivery of clinical benefit for patients across a large number of very diverse organisations. The Y&H HIEC focused around 3 themes: Long Term Conditions (led by Sheffield Teaching Hospitals NHS Trust), Maternal & Infant Health & Care (led by University of York) and Patient Safety (led by Bradford Teaching Hospitals NHS Foundation Trust). The Y&H HIEC sought to create a more dynamic relationship between education, research evidence and innovation and the NHS and as such had twin targets for its activity: Health Services; Healthcare Education.

Our aims

The Y&H HIEC developed an ambitious plan of work to deliver the transformation of services to drive increases in quality and productivity that are so important to the NHS at the current time. The Y&H HIEC delivered the 'difficult bit' of innovation – adoption and spread. We achieved this by working with and through commissioners of service and of education. We completed this properly – in a systematic, managed way, always driven by evidence.

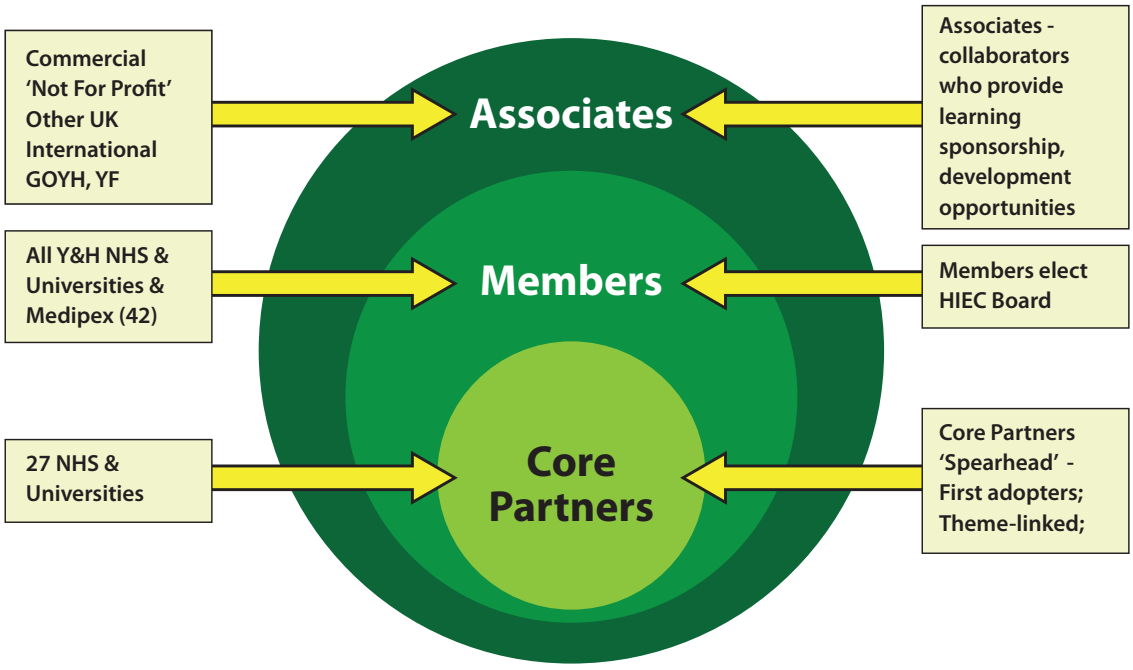
The Y&H HIEC was an exciting yet challenging opportunity to build on the significant research strengths across Yorkshire & Humber, by turning the products of research and innovation into common practice in the NHS. We developed a better understanding of the behaviour changes required to implement large scale change in the NHS and used this learning and experience to enable generic lessons to be derived.

Our members

The Y&H HIEC was a single region-wide Y&H HIEC that included all 35 NHS organisations and 8 'health-related' universities in Yorkshire & Humber (please see Appendix 3 for a full list). The regional intellectual property hub and the South Yorkshire Collaboration for Leadership in Applied Health & Social Care (CLAHRC) were also members of the Y&H HIEC Board. The Y&H HIEC was the only membership organisation that included all organisations across the SHA area – this was a unique feature and a key strength in the challenging times faced.

To ensure that we effectively engaged with and were accountable to our members we developed a 3 ring membership model (see figure 3). The aim of this model was to enable the Y&H HIEC to achieve focussed leadership and engagement with a smaller number of organisations at theme level (core partners) and collaborated effectively with a multiplicity of commercial, third sector, regional, national and international organisations without diluting accountability and leadership effectiveness.

Figure 3: Y&H HIEC 3 ring membership model



Our members became core partners with an active role in developing one or more of the themes. The Y&H HIEC was constructed specifically to ensure that the benefits it offered were available to and adopted by all relevant members at the earliest practice opportunity, although the initial beneficiaries were the core partners – by virtue of them having contributed most.

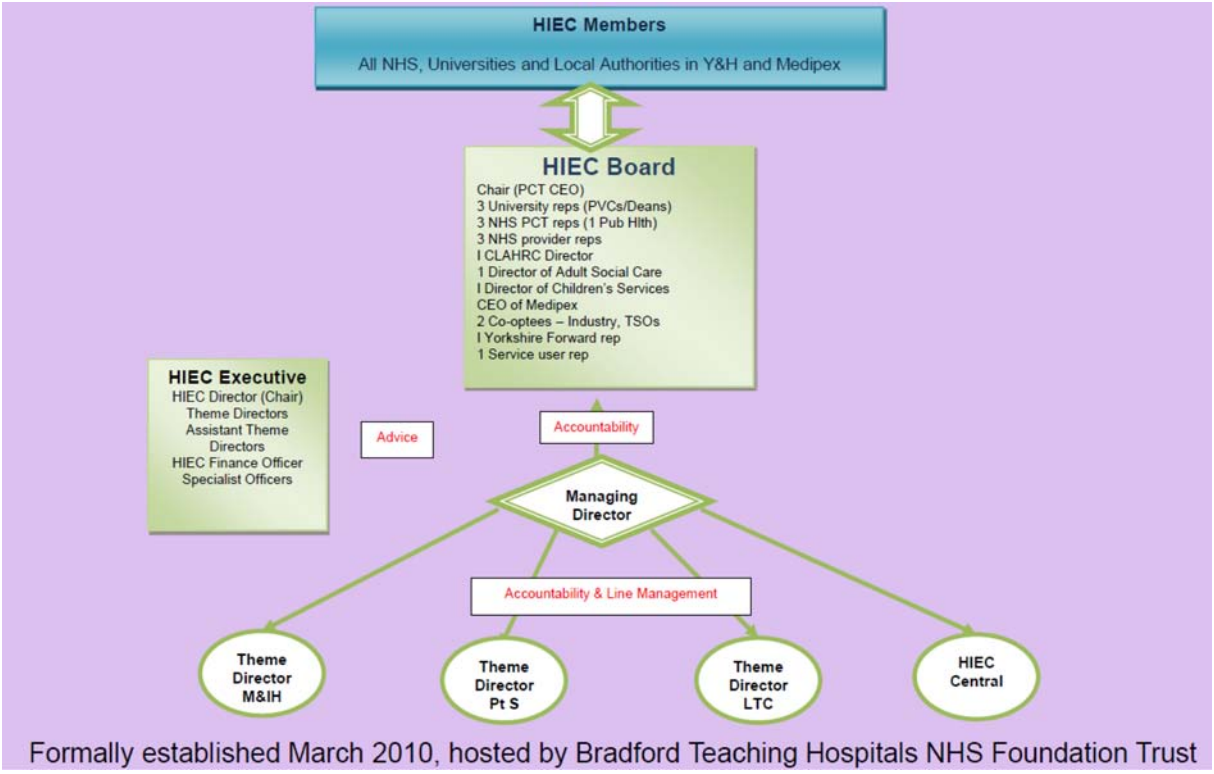
Our governance arrangements

The Y&H HIEC was governed by robust yet streamlined arrangements as detailed in figure 4. The Y&H HIEC functioned as an unincorporated association (governed by a Summary Constitution and united through Memoranda of Understanding with each member), with no powers to employ staff, own assets or resources or enter into contracts. These Memoranda of Understanding were not legally binding.

The main financial and contractual accountability for the Y&H HIEC was through the main host organisation, Bradford Teaching Hospitals NHS Foundation Trust (BTHfT) which entered into external contracts on behalf of the Y&H HIEC (e.g. with the SHA for DH set-up funds). The Y&H HIEC had quarterly review arrangements in place with the Y & H SHA. The Director of Workforce & Education sat on the Y&H HIEC Board.

BTHfT had sub-ordinate contracts in place with the theme host organisations and managed particular themes within the Y&H HIEC and delivered agreed outputs and outcomes. Financial resources flowed through the BTHfT as host organisation and primary accountability for these rested with their Board of Directors, CEO and Director of Finance. Whilst BTHfT was the host organisation, it was not the 'lead; organisation for the Y&H HIEC. To ensure transparency in the respect (and to emphasise the importance of PCT commissioners to the work of the Y&H HIEC), the Chair of the Y&H HIEC was always a PCT CEO. The CEO of BTHfT was a member of the Board.

Figure 4: The Y&H HIEC Governance and Reporting Structures



Appendix 3: List of Y&H HIEC members as at 1st April 2010

Airedale NHS Trust
Barnsley Hospital NHS Foundation Trust
Bradford District Care Trust
Bradford Teaching Hospitals NHS Foundation Trust
Calderdale and Huddersfield NHS Foundation Trust
Doncaster and Bassetlaw Hospitals NHS Foundation Trust
Harrogate and District NHS Foundation Trust
Hull and East Yorkshire Hospitals NHS Trust
Humber Mental Health Teaching NHS Trust
Leeds Metropolitan University
Leeds Partnerships NHS Foundation Trust
Leeds Teaching Hospitals NHS Trust
Medipex Ltd
Mid Yorkshire Hospitals NHS Trust
NHS Barnsley
NHS Bradford and Airedale Teaching Primary Care Trust
NHS Calderdale
NHS Doncaster
NHS Hull
NHS Kirklees
NHS Leeds
NHS North Lincolnshire
NHS Rotherham
NHS Sheffield
NHS Wakefield District NHS Primary Care Trust
NHS North Yorkshire and York
North East Lincolnshire Care Trust Plus
Northern Lincolnshire and Goole Hospitals NHS Foundation Trust
Rotherham Doncaster and South Humber Mental Health NHS Foundation Trust
Rotherham NHS Foundation Trust
Scarborough and North East Yorkshire Healthcare NHS Trust
Sheffield Children's NHS Foundation Trust
Sheffield Hallam University
Sheffield Health and Social Care NHS Foundation Trust
Sheffield Teaching Hospitals NHS Foundation Trust
South West Yorkshire Partnership NHS Foundation Trust
University of Bradford
University of Hull (including Hull York Medical School)
University of Leeds
University of Sheffield
University of York (including Hull York Medical School)
York Teaching Hospital NHS Foundation Trust
York St John University

Appendix 4: Y&H HIEC Board members as at 1st April 2010

Chair:	Chris Butler, CEO, Leeds and York Partnership Foundation Trust
Andy Buck,	CEO, NHS Rotherham
Sir Andrew Cash,	CEO, Sheffield Teaching Hospitals NHS Foundation Trust
Richard Clark,	CEO, Medipex Ltd
Professor David Cottrell,	Dean, University of Leeds Medical School, University of Leeds
Dr Dawn Lawson,	Y&H HIEC Managing Director
Professor Rebecca Lawton,	Senior Lecturer in Health Psychology, Institute of Psychological Sciences, University of Leeds
Chris Long,	CEO, NHS Hull
Professor Bill McGuire,	Hull York Medical School and Co-Director Y&H HIEC Maternal & Infant Theme
Professor Sue Mawson,	Director, South Yorkshire CLAHRC
Professor Mary Renfrew,	University of York and Co-Director Y&H HIEC Maternal & Infant Theme
Miles Scott, CEO,	Bradford Teaching Hospitals NHS Foundation Trust
Sue White,	Sheffield Teaching Hospitals NHS Foundation Trust and Director Y&H HIEC Long Term Conditions Theme
Professor John Wright,	Bradford Teaching Hospitals NHS Foundation Trust
Professor Rhiannon Billingsley,	Pro-Vice Chancellor, Sheffield Hallam University
Professor Trevor Sheldon,	Deputy Vice-Chancellor, University of York

Appendix 5: Y&H HIEC Budget

Overall Financial Summary From 1st April 2010 to the 31st March 2013

Sustainability Funding (Jan to Mar 2013)	**£**
BTHFT - Patient Safety	32,409
Sheffield TH - LTC	31,000
University of York - Maternal	41,914
YH HIEC Central Costs	29,834
Total	**135,157**

RIF Allocation		
RIF Project	Sheffield TH - LTC	330,000
RIF Project	Uni of York - Maternal	332,611
RIF Project	BTHFT - Patient Safety	330,000
Total		**992,611**

Summary of Funding Received;		
	Year 1 Y&H HIEC Funding	993,000
	Year 2 Y&H HIEC Funding	1,000,000
	RIF Funding	990,000
	Total Funding	**2,983,000**

Summary Split by Organisation;			
	Central Team	577,808	19%
	Theme - LTC	757,353	25%
	Theme - Maternal	805,663	27%
	Theme - Patient Safety	758,762	25%
	Host	62,970	2%
	Total Allocation	**2,962,556**	

Uncommitted Funds	**20,444**	**1%**

Glossary Of Abbreviations

Abbreviation	Meaning
AHSN	Academic Health Science Network
APEL	Accreditation of Prior Experiential Learning
BFI	Baby Friendly Initiative
BTHfT	Bradford Teaching Hospitals NHS Foundation Trust
CCG	Clinical Commissioning Group
CEO	Chief Executive Officer
CLAHRC SY	Collaboration for Leadership in Applied Health and Social Care South Yorkshire
CLRN	Comprehensive Local Research Network
Cpd	Continuing Professional Development
CTG	Cardiotocograph
DALLAS	Delivering Assistive Living Lifestyles at Scale
DH	Department of Health
DOPS-Q	Determinants of Patient Safety Questionnaire
EIP	Evidence In Practice
GIRFS	Getting It Right From the Start
GP	General Practitioner
HITAP	High Impact Technology Adoption Programme
HOM	Head of Midwifery
ICM	International Confederation of Midwives
IFC	International Finance Corporation
LASQ	Leeds Action for Safety and Quality
LSA	Local Supervising Authority
LTC	Long Term Conditions
MIHC	Maternal & Infant Health & Care
MIRU	Mother & Infant Research Unit (University of York)
NHS	National Health Service
NICE	National Institute for Health and Clinical Excellence
NIHR RfPB	National Institute for Health Research Research for Patient Benefit
NOMS	National Offender Management Service
NPSA	National Patient Safety Alert
NUCAT	Neonatal Unit Clinician Assessment Tool
PCT	Primary Care Trust
PS	Patient Safety
QIPP	Quality Innovation Productivity Prevention
RCM	Royal College of Midwives
RIF	Regional Innovation Funding
SAVI	Situational Awareness Vital Insights
TAPS	Training and Action for Patient Safety
UNICEF UK	United Nations International Children's Emergency Fund
Y&H SHA	Yorkshire & Humber Strategic Health Authority
YHANO	Yorkshire & Humber Association of Neurological Organisations
Y&H HIEC	Yorkshire & Humber Health Innovation & Education Cluster
YQSR	Yorkshire Quality and Safety Research

Turning best practice into common practice

MID Ref: 12120503