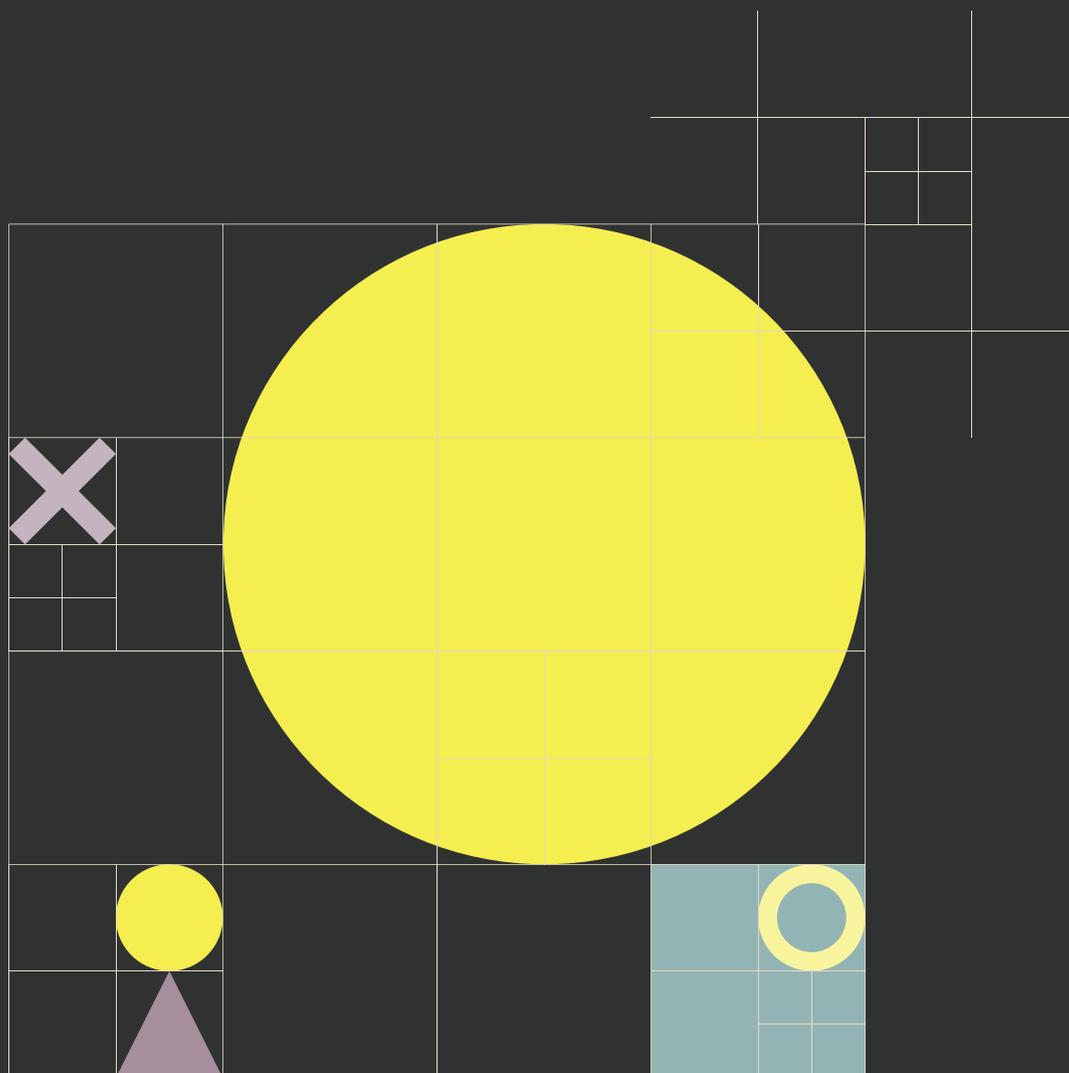


AGAINST THE ODDS:

Successfully scaling
innovation in the NHS



Authors:

David Albury, Innovation Unit

Tom Beresford, Innovation Unit

Sarah Dew, Innovation Unit

Tim Horton, The Health Foundation

John Illingworth, The Health Foundation

Katharine Langford, Innovation Unit

This report explores the findings of a research project by Innovation Unit and The Health Foundation.

Innovation Unit is a social enterprise that grows new solutions to complex social challenges. By making innovation happen we help create a world where more people belong and contribute to thriving societies. We build alliances with ambitious places, organisations and systems around the world to adapt, adopt and scale innovations that deliver lasting impact and reduce costs.

The Health Foundation is an independent charity committed to bringing about better health and healthcare for people in the UK. Our aim is a healthier population, supported by high quality healthcare that can be equitably accessed. We learn what works to make people's lives healthier and improve the healthcare system. From giving grants to those working at the front line to carrying out research and policy analysis, we shine a light on how to make successful change happen.

“ In this country, we have a proud record of invention, but we lag behind in systematic uptake even of our own inventions. ”

Darzi, A., 2008. High Quality Care for All: NHS Next Stage Review Final Report. Department of Health, London, UK, p. 55

Foreword

Will Warburton, Director of Improvement
The Health Foundation

The spread of innovation is a continuous quest. Whether under the guise of scaling up new products or practices, reducing variation or high-quality care for all, the pursuit of equitable access to optimal care has been a preoccupation of healthcare services in the UK since Aneurin Bevan spoke in the 1946 NHS Bill of the ‘contract with the British people...that we should universalise the best, that we shall promise every citizen in this country the same standard of service’.

This simple aim belies a complex reality. In a politicised, pressurised financial and operational context, it’s an understandable response for people leading healthcare systems to call for clinical teams or organisations to ‘just copy what works’ or ‘roll out best practices’. The problem, as neatly summarised in this report, and which we know from the experience and evidence of the frontline work the Health Foundation has funded in scaling and spreading improvement, is that encouraging the take-up of new ideas or ways of working is often much harder and that, even when it happens, what works for one service in one place at one time, often results in different outcomes in a different context.

An extensive body of academic literature has developed on the diffusion of innovation that can inform our understanding of these challenges. That evidence demands to be read, studied and acted on. This collaboration between the Innovation Unit and the Health Foundation seeks not to replicate that work, but to look at this challenge in an accessible way through telling the stories of ten innovations that have succeeded in spreading widely in the NHS.

Our aim in looking at what has spread successfully is to sound a note of ‘grounded optimism’ that, in spite

of the well-articulated challenges, success is possible, even if ‘against the odds’. We hope those who want to support the spread of innovation – innovators, system leaders, charities like the Health Foundation, and others – will find inspiration and learning from the experience of these examples as told by the people who led them, and that the perspectives offered in this report can help complement the usual conversation on spread, which is often framed by the useful if intimidatingly abstract language of challenges, incentives, levers, and barriers.

Conscious of Bevan’s warning in that same speech to ‘beware tidy schemes on paper...quite inoperable in practice’, the authors don’t offer prescriptive solutions, or new templates or frameworks. What these case studies show is that each innovation has taken its own path, speaking to a messier reality than the neat curves that classic graphs of diffusion of innovation suggest.

There are certainly themes and learning to draw out and share, some of which challenge conventional wisdom; not least the importance of winning hearts as well as minds, of working with the realities of power and politics, of deep engagement with users and adopters in the innovation process, of the central role of teams and organisations in the spread process as well as heroic individuals, of the iterative testing and development of ideas in different contexts, and of the patience, course-correction and sheer bloody-minded determination that can be required to succeed. In doing so, the report holds out a tantalizing glimpse of what improvements in patient experience and outcomes might be possible if we were to devote as much attention and resources to the process of adapting and applying what we already know as we do to the development of new ideas and technologies.

This report explores what it takes to scale innovation successfully in the NHS.

We look in depth at 10 innovations that have spread over the past 20 years. The case studies are rich in insight, and from them we have drawn a set of provocations (see *From insights to practice*) for the reader to consider how these insights build on, and challenge, existing wisdom on how to scale innovation in the NHS.

We begin by setting out what is known about the scale and spread of innovation in healthcare, and describe six common themes that have emerged in research and debate on this issue in the last decade. We then synthesise the insights from the case studies, linking and referencing them to the full case studies, and provide a set of considerations for thinking about how to scale healthcare innovations in the future. The full case studies follow this synthesis, and are highly recommended reading for understanding the nuance of what it takes to achieve impact at scale, “against the odds”.

Contents

Executive summary	p.1
Introduction	p.5
State of the debate	p.9
Methodology	p.13
Summary of the case studies	p.14
Against the odds: insights from the case studies	p.16
From insights to practice	p.34
The case studies	
1. Altogether Better Health Champions and Collaborative Practice	p.38
2. Dose Adjustment for Normal Eating (DAFNE)	p.42
3. Enhanced Recovery After Surgery (ERAS)	p.46
4. Florence (Flo)	p.50
5. High sensitivity troponin testing	p.54
6. Implantable Cardioverter-Defibrillators (ICDs)	p.58
7. Improving Access to Psychological Therapies (IAPT)	p.62
8. Macmillan Cancer Nurse Specialists	p.66
9. Rapid Assessment Intervention and Discharge (RAID)	p.70
10. Schwartz Rounds (UK)	p.74
References	p.80
Acknowledgements	p.90

Innovations ranging from checklists and care bundles to telehealth and patient self-management programmes have helped change the face of healthcare. Yet little is known about how and why such innovations have succeeded where others have failed.

Executive summary

There are numerous pockets of excellence across the NHS delivering fantastic care in new and different ways, and with better outcomes for patients, staff and the taxpayer alike. It is widely recognised that significant progress will be made in responding to the challenges facing the NHS *"simply"* by successfully diffusing these innovative practices, products and services to all that could benefit from them.

Yet, there is frustration across the healthcare system that this process is often slow and laborious, that too many innovations fail to spread beyond their site of origin, and that even when they do, many struggle to reproduce the original outcomes and impact. Recent debate and research have tended to focus on the barriers and obstacles to scaling, and while there is an increasingly sophisticated understanding of the problems, the solutions are often unclear.

However, some innovations do spread, going from the marginal and cutting edge to everyday routine practice. Innovations ranging from checklists and care bundles to telehealth and patient self-management programmes have helped change the face of healthcare. Yet little is known about how and why such innovations have succeeded where others have failed. This report explores why some innovations are not just scalable, but actually do go to scale.

Through a public crowdsourcing campaign and an expert working group, we identified a shortlist of 10 innovations that have spread in the NHS in recent years:

- Altogether Better Health Champions and Collaborative Practice
- Dose Adjustment for Normal Eating (DAFNE)
- Enhanced Recovery After Surgery (ERAS)
- Florence (Flo)
- High sensitivity troponin testing
- Implantable Cardioverter-Defibrillators (ICDs)
- Improving Access to Psychological Therapies (IAPT)
- Macmillan Cancer Nurse Specialists
- Rapid Assessment Intervention and Discharge (RAID)
- Schwartz Rounds (UK)

This report explores the stories behind the spread of these 10 innovations and draws out some insights and 'provocations' for thinking about how we might scale innovations in future. The case studies demonstrate that there is no *"right"* or *"wrong"* approach to spread; scaling successfully can be supported by a range of factors and is crucially dependent on the complex and dynamic interplay between the innovation, the specific context in which it is seeking to scale, and the wider policy landscape.

Key insights

In this report, we highlight some of the key enablers for the spread, both for those “*in pursuit of spread*” (innovators seeking to scale a particular innovation) and for those responsible for “*creating the conditions for spread*” (policymakers, system leaders and organisations in the wider innovation ecosystem):

In pursuit of spread

- 1. Building demand through existing networks and narratives** - experiential evidence and personal relationships are critical for finding early adopters, but reaching a bigger audience for scale requires aligning an innovation with existing priorities and engaging relevant professional and patient networks.
- 2. Using evidence to build demand** - producing evidence is not a scaling strategy in and of itself, but using evidence effectively can be an important factor in building demand. Qualitative as well as quantitative evidence is often necessary to build demand and capture the hearts and minds of stakeholders in addition to demonstrating efficacy.
- 3. Balancing fidelity, quality and adaptability** - as an innovation scales, it must be flexible enough to be adapted to new contexts while continuing to achieve the same impact. Here, adopters and evaluators are critical partners in identifying the core components of the innovation that must stay the same and those aspects that can be adapted to new settings.
- 4. Scaling vehicles rather than lone champions** - scaling an innovation is often a full-time job, and it is difficult for a single individual to do. Success is often reliant on an organisation or group that consciously and strategically drives the spread.

Creating the conditions for spread

- 5. Capitalising on national and local system priorities** - alignment with national policy priorities is often critical for spread: innovations that relate to high-profile challenges for the health service can tap into an existing case for change, so this must be an important consideration for those defining and articulating these priorities.
- 6. Using policy and financial levers to kick start momentum** - policy and financial levers can focus attention on an innovation at a moment in time, thereby encouraging adoption, but by themselves have limited scope for creating an intrinsic commitment to an innovation over a sustained period.
- 7. The importance of commissioning for sustainable spread** - the routes taken to commissioning an innovation can be influential in shaping the quality of the innovation and its impact as it scales.
- 8. The role of external funding to support spread** - external funding can be valuable for scaling and development - notably for independent evaluation, and especially if it helps develop intrinsic motivation for adoption. Whether and how such funding is used to create sustainability over the long-term is often key to the success of the scaling strategy.

There is no singular formula for successful spread. But shining a light on some of the factors that support it can help us think more deeply about the different possible approaches and the wider system conditions needed to ensure transformative change reaches more patients.

Considerations

The insights from the case studies both build on and challenge the conventional wisdom about how to scale innovation in the NHS. They suggest we need to think differently about how we approach scaling innovation. We offer the following ‘provocations’ to those involved in scaling innovation – both system leaders and funders and also innovators themselves – to help think about how we might scale innovations more effectively in future.

Considerations for system leaders and funders

- Create the space, time, resources and expert support needed for teams and organisations to adopt and adapt innovations, including funding time for the innovators to have meaningful interactions with these teams and organisations
- Whereas the current system primarily rewards innovation, there should be greater rewards and recognition for the spread and adoption of innovation.
- Encourage leaders of transformation and patient networks to articulate their needs for innovation and consider whether there is expressed demand for innovations before they are selected for scaling and diffusion.
- Give weight to qualitative evidence as well as quantitative evidence; stories about why and how an innovation has been implemented and the outcomes and benefits that have resulted can be powerful in making the case for change.
- Ensure that robust and proven approaches to scale and spread (including the engagement of relevant professional and patient networks) are built into the development of innovations from the outset.
- Make it easier for individuals and teams to spin-off and set up organisations to drive the scaling of an innovation.
- Be mindful that policies and initiatives not directly concerned with the diffusion of innovation can have beneficial or deleterious effects on diffusion, and build consideration of these effects into policymaking wherever possible.

Considerations for innovators

- Ensure that robust and proven approaches to scale and spread are built into the development of the innovation from the outset, rather than after the innovation’s core features have already been defined.
- Rather than focussing on traditional sales, marketing and dissemination techniques, it may be more fruitful to spend time engaging with and really understanding the needs, pressures and constraints of potential adopters.
- Identify and communicate the core aspects or principles of the innovation and then ensure that it has the flexibility beyond this to be adapted to differing local circumstances and contexts.
- See adopters as potential partners that are critical to helping enrich and develop your innovation, and ideally involve them in the codification of the innovation.
- Tap into relevant movements and networks, and encourage coalitions of patients and professionals to support the development and spread of the innovation.
- Collect qualitative evidence and stories of need, implementation and impact and turn them into a compelling set of materials for winning hearts as well as minds.

The NHS has moved to a position where there is less money to invest in, but greater need for, radical innovation.

Introduction

There is broad agreement that the pressures and challenges currently facing the NHS can only be addressed if cost-saving, outcome-improving, experience-enhancing innovations can diffuse and spread throughout the health service.

There has been a long history of innovation in the NHS, particularly in drugs, products, technologies and procedures. But the last two decades have witnessed the increasing importance of service, pathway, and care-model innovation as the health service has sought to respond to the challenge of increasing numbers of people living with long-term conditions and co-morbidities, and as system leaders look for innovations that can both improve outcomes and reduce costs. These innovations range from incremental to disruptive or systemic.¹

Relatedly, and just as profoundly, the financial context has dramatically altered in recent years. The NHS has moved to a position where there is less money to invest in, but greater need for, radical innovation. In the first years of this century much innovation was treated, to a large extent, as a “nice to have”. All this changed in the wake of the global financial crisis and the subsequent squeeze on public spending, including NHS funding.

However, it would be wrong to see this increased interest in innovation as just a consequence of the global financial crisis. As early as 2002, Derek Wanless’s review of NHS funding suggested that the current model of the NHS was unsustainable because of changing demographics, rising expectations and advances in medical technology.² Since then, the NHS has been facing unprecedented challenges: massive and growing financial constraints and intense operational pressures which act as a spur, but also

as a constraint, to innovation, significantly limiting the time and resources available for disciplined and methodical approaches to improving services. As the Five Year Forward View argued, a system created to respond to one set of demands and demographics is striving to address the needs of an increasingly elderly population, frequently living with long-term conditions and complex co-morbidities.³ At the same time, research, technology and innovation are pushing the boundaries and breaking the frontiers of knowledge and practice. Radical, perhaps even disruptive, innovation at scale has become a necessity, not a luxury.

Different types of innovation in healthcare:

- New drug (e.g. Novel anticoagulants)
- New medical device (e.g. Non-injectable arterial connector)
- New technology (e.g. e-Consult)
- New procedure (e.g. Laparoscopic colorectal surgery)
- New pathway (e.g. Hyper Acute Stroke Unit pathway)
- New service (e.g. Fracture Liaison Services)
- New model of care (e.g. Primary Care Home)

But proven innovations and best practice tend to spread slowly and unevenly in the NHS, often leading to unacceptable variations in quality, cost and patient experience. Scaling and spreading innovation within the NHS, public health and social care is a well-recognised and long-standing challenge. Too often promising innovations remain on the margins, benefiting the lucky few, but leaving the majority with poorer outcomes and experience.

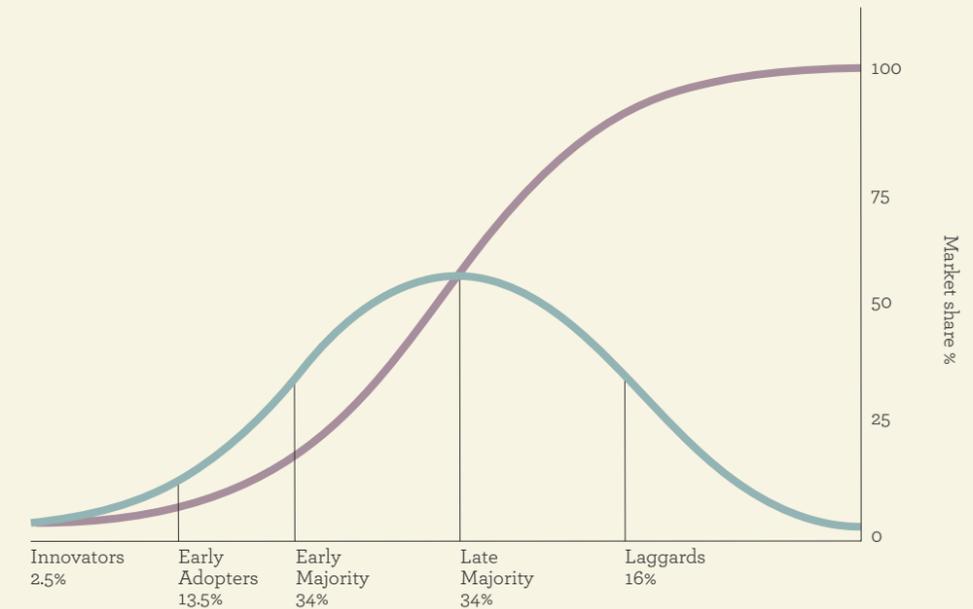
This problem is not new. For at least the last 15 years, sector and system leaders have bemoaned the slow rate of diffusion of healthcare innovations and asked why we as a nation are so good at invention but so poor at scaling and spreading innovation. It was in 2008 that Lord Darzi wrote, *“In this country, we have a proud record of invention, but we lag behind in systematic uptake even of our own inventions.”*

There have been numerous initiatives and programmes during this time attempting to increase the rate of diffusion: from the NHS Modernisation Agency, set up in 2001, to the establishment of the NHS Innovation Accelerator in 2015, as well as a range of reviews such as ‘Innovation, Health and Wealth’ in 2011 and the Accelerated Access Review in 2016.⁴ And these have certainly resulted in some specific innovations scaling or diffusing more rapidly, though the focus has often been more on innovative medicines and medical technologies than on the kind of service or social innovations that are arguably just as critical to the transformation of health and social care.

But despite some individual successes, a deeper understanding of what is required to consistently and systemically scale and spread innovations is still lacking, with too much of the debate focused on the barriers rather than the enablers. That is why we have chosen to focus this report on the stories of innovations that have successfully scaled or spread and, critically, to look at what enabled them to do so.

Definitions of key terms as used in this report:

- **Innovation:** a novel drug, device, app, model of care, set of behaviours or way of working that is directed at improving outcomes, efficiency or experience. These innovations can range from incremental to radical.
- **Scaling:** increasing the numbers or sector share of those using the innovation.
- **Spreading:** the innovation being adopted by others, often displacing existing practices, procedures or devices.
- **Diffusion:** the permeation of a sector or system by the innovation.
- **Integration:** combining an innovation with or embedding it within corresponding systems, infrastructures and other innovations.



Graph 1: Everett Rogers' Adoption/Innovation Curve

The evolution of scaling and diffusion research

For a sector that prides itself on evidence-based approaches, thinking about scaling and diffusion in the NHS has often failed to keep pace with over five decades of research on the issue. There is still over-reliance on traditional approaches which can be crudely summarised as:

- *“Prove it works”* - focus on building the evidence base for the innovation, and getting it into guidance and people will adopt it in time.
- *“Find a champion”* - find a well-respected, networked senior champion, and they will convince others.
- *“Focus on exemplars”* - fund and promote pilot or exemplary sites and publicise their achievements.
- *“Make them do it”* - when all else fails use directives, financial incentives or targets to make people adopt an innovation.

Elements of each of these strategies and approaches are important and can be effective in some circumstances, but in isolation they are often insufficient or even counterproductive.

Modern thinking about scale and spread stems from the seminal work of Everett Rogers *‘Diffusion of Innovations’*, first published in 1962.⁵ Rogers’s thesis built the foundations for much of the literature that followed, unpacking the process by which an innovation spreads into four key elements: the qualities of the innovation itself, communication channels, the social system, and time. He emphasised that while mass media channels are effective tools for spreading knowledge about innovations, crucially, interpersonal connections are often more effective in forming the necessary trust and reassurance to realise a critical mass for adoption.

In 2004, Trish Greenhalgh and colleagues published their extensive review of the literature on diffusion of innovation in service organisations that had grown up in the decades since Rogers published his work.⁶ This review highlighted the important roles played by the organisational conditions and capabilities of adopters; interactions between innovators and adopters; system and cultural readiness; quality and structure of social networks; opinion leaders; and champions.

There is a growing understanding that there is a dynamic relationship between the innovation, implementation, context and people involved. Context is not a static backdrop but an active part of the story.

The state of the debate

Since the publication of Greenhalgh et al.'s review, both the literature and the public debate have continued to explore the dynamics of spread. Below we outline six emerging narratives that have become prominent over the last decade. This is not intended to be exhaustive, but to highlight the latest thinking about scale and spread.

The importance of context and characteristics

Over the past decade, more of the research and literature has been looking to explain why new practices and pathways are adopted in some places and not others, and why innovations that work in one place often don't have the same impact when scaled up.

There has been a growing appreciation that successful scale and spread is not determined just by the qualities and effectiveness of the innovation or intervention itself, nor even by how it is implemented. Equally important, as the collection of essays *'Perspectives on Context'* highlights, is the context within which this takes place. This context has three dimensions:

- The context and perceived status of the originating organisation – innovations developed in settings which are highly regarded (whether that be a particular healthcare setting such as hospitals, or countries respected for their quality of care) are more likely to receive attention and be deemed worthy of consideration for adoption.

- The culture and circumstances of the specialities, departments and organisations that are potential adopters of the innovation – for example, do they have a learning culture and how hierarchical are the decision-making processes?
- The system within which all this is happening (discussed further in later sections).

There is a growing understanding that there is a dynamic relationship between the innovation, implementation, context and people involved. Context is not a static backdrop but an active part of the story. Hence great leadership for the adoption and spread of innovation includes being able to shape or reshape the culture and working practices in organisations and to navigate the system. As the authors of *'Perspectives on Context'* note, some of these factors are more or less easy to modify, and are more or less tractable.

What is clear in the NHS, as in other sectors, is that treating the adoption and spread of innovations as a purely technical matter, rather than as a social process, hinders effective diffusion, and that lack of attention to the necessary changes in working practices and power relationships, particularly for radical innovations, may prevent the full benefits being realised.

Increasing attention to the demand side

This focus on context is part of a more general concern that there has been an over-emphasis on the supply side – the generation of innovations – and insufficient attention to what encourages organisations, professionals and patients to adopt and adapt innovations. While supply-side initiatives can be crucial, arguably many of the innovations that are needed for the transformation of healthcare already exist and the focus now needs to be on stimulating demand and integrating what are currently discrete innovations into new models.^{8, 9, 10}

At the micro-level this has led to questions about the current incentives (financial, personal and professional) for adopting innovations, compared to generating innovations.¹¹ At the macro-level, there has been an increasing focus on how comparative, granular data on outcomes across organisations and geographies can mobilise professionals to look for new ways of working, and improve the quality of their services. For example, the World Innovation Summit in Health (WISH) highlighted the example of the 62-day target for cancer treatment acting as a catalyst for organisations to improve their processes.¹²

While the provision of information and the setting of targets can be helpful in scaling and spreading innovation, as Rogers, Greenhalgh and much subsequent research has shown, on their own they are insufficient. Meaningful interactions between innovators and adopters are crucial and have maximum impact when they take place as early as possible in the development of innovations, not waiting until there is a finished or proven product.¹³ All too often, innovation and diffusion are seen as linear and sequential processes – “pilots” and “roll-out” – rather than being attentive to the interactions and adaptations that are necessary for innovations to spread from one setting or locality to another.

Approaches to engaging with and activating this demand side have been recommended in the literature. It is increasingly seen to be worth investing in early adopters, making early adopter activity visible, trusting reinvention (recognising that what works in one place or organisation frequently requires adaptation to work in another), and creating space, time, support and resources for change (an increasing challenge given the operational and financial

pressures in the NHS).¹⁴ Innovation Scouts¹⁵ and “*Intrapreneur Programmes*” aimed at supporting provider organisations to be more functional are cited as potentially useful agents when it comes to embracing innovations.¹⁶

The value of networks and coalition building

Most of the insights and findings in the above sections emerge from the innovation, organisational and systems change literature, substantially enriched in recent years by anthropological perspectives. There has also been increasing interest in more organic, grassroots social movements as a mechanism for change and improvement, including those that exist on the margins of the health service.¹⁷ The rapid growth and near ubiquity of social media has contributed to this growing emphasis on social networks and coalition building, and significantly facilitated their development.¹⁸

Hence another body of work that has garnered increasing attention is that concerned with social movement building. The idea that innovations spread through relationships and networks was well-established by both Rogers and Greenhalgh et al. These networks may be existing networks like Royal Colleges or other professional bodies or be built around a specific innovation.¹⁹

The study and experience of social movements, for example in the work of Marshall Ganz and others,²⁰ identifies four characteristics of such movements which foster innovation and support scale and spread:

- A compelling case for change that creates passion and urgency; that appeals to hearts and minds; that is rational and emotional; that has stories as well as statistics.
- An inspiring and guiding vision that provides ambition and direction, not a detailed blueprint for the future, but a set of signposts or principles.
- Strengthening and building coalitions between professional and public networks; such coalitions are not just multi-professional but involve users and citizens.

- Offering a variety of ways in which individuals and organisations can engage: ladders of participation, not just “in or out” or “with us or against us” options.

This last characteristic embraces, though is by no means limited to, the co-design of innovations. There is widespread recognition that the impact and acceptability of innovations are enhanced when they are co-designed by professionals, patients and carers. But engaging committed individuals is insufficient. Reaching out to, and creating meaningful interactions with, relevant networks is crucial for mobilising demand and building receptivity for innovations. So, engaging the public and patient networks can be an effective tool in creating social demand for innovations.²¹

Charities and foundations can play a key and active role in creating, sustaining and developing such coalitions as they are less constrained by political and operational pressures; are independent of specific professions and interest groups; often have a greater appetite for risk and controlled experimentation; and are able to take a long-term view.

Engaging with the private and third sectors

While there has always been an understanding that not all ideas come from within the NHS, there is an increasing appreciation that supporting spread and scale may itself require a different relationship with private and third sector partners. This appreciation has manifested itself in a number of programmes and initiatives, including the Department of Health’s Innovation Health and Wealth;²² the establishment of Academic Health Science Centres and Networks; the Office for Life Sciences’ Accelerated Access Review;²³ the NHS Innovation Accelerator; and Test Bed sites.

Private sector organisations are commonly geared towards growth, identifying and realising opportunities for new offers, products and services. Hence, they can have expertise in scaling and extensive networks and user groups that can reach out to clinicians, managers and patients. Innovations

born within the health service can sometimes be more effectively and rapidly taken to scale by such organisations – though, of course, this requires careful consideration of intellectual property and revenue sharing, as well as judicious management of risks.

The private and third sector also provide a different route to scale and spread. Some of the constraints of operating within the NHS can be avoided or at least mitigated by radical or disruptive innovations being spun out into start-ups. Indeed, the work of Clayton Christensen and colleagues on the spread of disruptive innovation in a number of sectors identifies this as the primary route.²⁴

There is widespread recognition that the impact and acceptability of innovations are enhanced when they are co-designed by professionals, patients and carers. But engaging committed individuals is insufficient.

Increasing attention to system conditions

Broader system conditions significantly affect the rate of diffusion of innovations. Forthcoming research for the World Innovation Summit for Health (WISH) demonstrates this using a cross-country comparison to identify the conditions which enhance or impede scale and spread.²⁵

These conditions include:

- incentives and payment mechanisms,
- tariffs and budgeting cycles,
- the freedom, or lack of it, to create chains of organisations (David Dalton’s review is instructive here)²⁶,
- choice and competition, and
- the decommissioning of failing or under-performing services and organisations.²⁷

Much of the focus on these conditions has been through the lens of economic theory and market failure.²⁸ But as the WISH and other research,²⁹ has evidenced, system leadership is also important in articulating the vision for the health service, providing a roadmap to the realisation of that vision and creating a culture which supports the scaling and spreading of innovations that will make the vision a reality.

Often the policies that significantly shape the landscape in which innovations might spread are not designed with scale as their primary purpose, and therefore their impact on spread is not duly considered. For example, the NHS Confederation has argued that over the last decade, policies such as the Foundation Trust model have deliberately encouraged differentiation between local areas, but an unintended consequence of this has been the diversity in local solutions and the “*not invented here*” challenge.³⁰

Moving from barriers to enablers

Despite this large and ever-expanding evidence base, the majority of the writing and thinking about spread still focuses on the barriers that currently exist. The public discourse also focuses on the collective failure of the system to make the most of new models, processes, products and devices.

This focus, and frustration at the patchiness and slow pace of spread, has sometimes encouraged system leaders to revert to more top-down approaches. These seek to direct organisations and areas to adopt specific innovations and new models, despite experience showing that such approaches can fail to realise or sustain the full benefits of the innovations, rather than attending to the enabling conditions that promote more effective diffusion and commitment to adoption.

Hence the research for this report has explored a set of innovations which “*against the odds*” have, at least to a considerable extent, spread successfully, and asked why they were able to do so.

Methodology

This research aims to understand why and how specific innovations spread by looking in-depth at 10 case studies of innovations that have successfully spread in the NHS.

These case studies are not necessarily intended to be representative, but to complement existing studies which have taken a more systems-based approach to understanding the spread of innovations, for example Greenhalgh et al’s review. By gathering rich insights from a range of perspectives, we hope to tell real stories of spread and scale.

To identify these 10 case studies, the project team collated a long list of over 70 innovations. These were gathered through public crowdsourcing, desk-based research and expert interviews.

The inclusion criteria for this shortlisting were that the innovation had to:

- be a definable process, product, pathway, device, service or new model of care,³¹
- have spread beyond its original locality,
- have spread in the past two decades, and
- have been implemented in the NHS in the UK.

With the help of an expert working group, 10 of these case studies were shortlisted to ensure a cross-section of the following characteristics:

- Type of innovation
- Setting:
 - Sector or speciality
 - Target professional group
- Scaling mechanism:
 - Organic growth
 - Government mandated
 - Private investment or foundation funded
 - Spinoff or new venture

Essentially, the foundational question for this study was: *what was it about these innovations and the approaches to scaling and spreading that allowed them, despite the barriers, to succeed where others have failed?*

For each case study the project team conducted a mixture of desk research and interviews. A total of 45 interviews were conducted. The interviewees included innovators, adopters, system leaders, professional bodies, and patient and charity representatives. Semi-structured interviews were conducted either in person or over the phone and lasted between 30 minutes and 2 hours. Interviewees were encouraged to tell the story of spread and adoption from their perspective, and asked questions drawn from the literature. As such, these case studies are not intended to be an objective story of how these innovations spread, but to tell the story from the perspectives of the key people involved.

Summary of the case studies

Below is a summary of each of the case studies included in this report, including a description of the innovation and the extent of its spread. The full case studies can be found from page 37.

	What is the innovation?	To what extent has it scaled?
1. Altogether Better Health Champions and Collaborative Practice	A health champion model that started in the community and is now based in GP practices. Health champions are volunteers that help to run activities for their community and offer peer support. Their work in GP practices helps to improve the health of their community, builds capacity of the GP practice and transforms the nature of doctor-patient relationships.	Altogether Better's community model engaged 18,000 Community Health Champions who, in turn, reached over 105,000 people. Altogether Better has now introduced their Collaborative Practice model into over 90 GP practices across 18 CCG areas.
2. Dose Adjustment For Normal Eating (DAFNE)	An education course to give people with Type 1 diabetes skills and tools to manage their diabetes themselves.	Today there are 71 centres across the UK delivering DAFNE courses.
3. Enhanced Recovery After Surgery (ERAS)	A surgery pathway that prepares patients for surgery and encourages them to be independent soon after surgery to accelerate their recovery and help them to get home faster.	There is little continued tracking and management of the ERAS pathway, but in 2011 it was estimated that the enhanced recovery pathway was in place in 86% of provider organisations in at least one speciality.
4. Florence (Flo)	A telehealth platform to allow patients and their doctors to manage long-term health conditions effectively. Florence is a virtual persona that sends text messages to patients reminding them to adhere to healthcare plans, and asking for health monitoring measurements. Doctors can adapt Florence to the healthcare plan of the individual.	Florence has been used by nearly 50,000 people in over 70 health and social care organisations, and continues to grow.

	What is the innovation?	To what extent has it scaled?
5. High sensitivity troponin testing	Troponin is a protein that can be found in the blood of someone with cardiac injury. High sensitivity troponin assays allow detection of much lower concentrations of troponin within the blood sooner after the presentation of symptoms.	A survey published in 2015 found that 60% (n=94) of lead laboratory consultants who responded had implemented a high-sensitivity troponin assay. ³²
6. Implantable cardioverter-defibrillators (ICDs)	Small devices that are implanted under a patient's collarbone to prevent sudden cardiac death from ventricular arrhythmias. If the heart beats irregularly, the ICD is triggered to deliver an electric shock to the patient and correct the heart rhythm.	The current UK implant rate is 615 implants per million of the population, compared to 10 implants per million in 1996.
7. Improving Access to Psychological Therapies (IAPT)	A service that provides evidence-based treatments for anxiety and depression, including talking therapies.	Over 900,000 people now access IAPT services each year. ³³
8. Macmillan Cancer Nurse Specialists	Macmillan Cancer Nurse Specialists provide expert care and support to patients with cancer. They help to take care of a cancer patients' holistic needs and coordinate their care.	There are now almost 3,500 Macmillan nurses that support over 550,000 patients.
9. Rapid Assessment Interface and Discharge (RAID)	A mental health liaison service in hospitals for patients over 16 years of age. A multidisciplinary specialist RAID team ensures that every patient who comes into the hospital and is suspected of having a mental health issue is assessed, diagnosed and has their care managed by the RAID team.	RAID has now been implemented in 25 organisations across the country.
10. Schwartz Rounds (UK)	A Schwartz Round is a structured forum that brings together staff from across an organisation to share and reflect on the experience of providing care.	97 NHS trusts and 34 hospices have now signed up to run Schwartz Rounds across the UK. ³⁴

Against the odds: insights from the case studies

The 10 innovations showcased in the case studies shed light on the real stories behind what it took to successfully spread these innovations in the NHS. As we have already acknowledged, this is no mean feat. The innovations themselves have improved outcomes, efficiency and experience, and the route they have taken to do so offers insight into how we can approach scaling the impact of other promising innovations.

Each of these innovations, and the people that have driven their scaling, have taken different journeys. They demonstrate that there is no singular “right” or “wrong” approach to spread: scaling successfully is dependent on the complex, dynamic interplay between the innovation, the specific context in which it is seeking to scale, and the wider policy landscape.

It is a testament to the time it takes to scale innovation that to focus on those that have been successful in scaling means, in many cases, looking at innovations that started to spread in the first decade of the 2000s. As set out earlier, this was a time of growth in the NHS when there was increasing financial investment and more staff time to innovate. The NHS today feels very different for many of those that work within it. The case studies do show, however, how a complex and changing context can be navigated and embraced in order to achieve scale. The case studies hint at how innovations might be scaled, rather than offering a specific formula for doing so.

As described earlier, in this report we focus on the **enablers** to scale, rather than the **barriers**, the debate around which feels well-rehearsed and, too often, unproductive. Firstly, we explore the features of different approaches taken in pursuit of spread:

the way in which individuals, organisations or movements have gone about scaling an innovation.

We then look at the wider system context: the conditions that have enabled the spread of these innovations. These insights are drawn from the case studies and build on the themes from the literature explored earlier. They are not intended to offer a comprehensive list of all the enablers; they have been selected to challenge as well as build on existing understanding so that we might think differently about how best to scale promising innovation in the future.

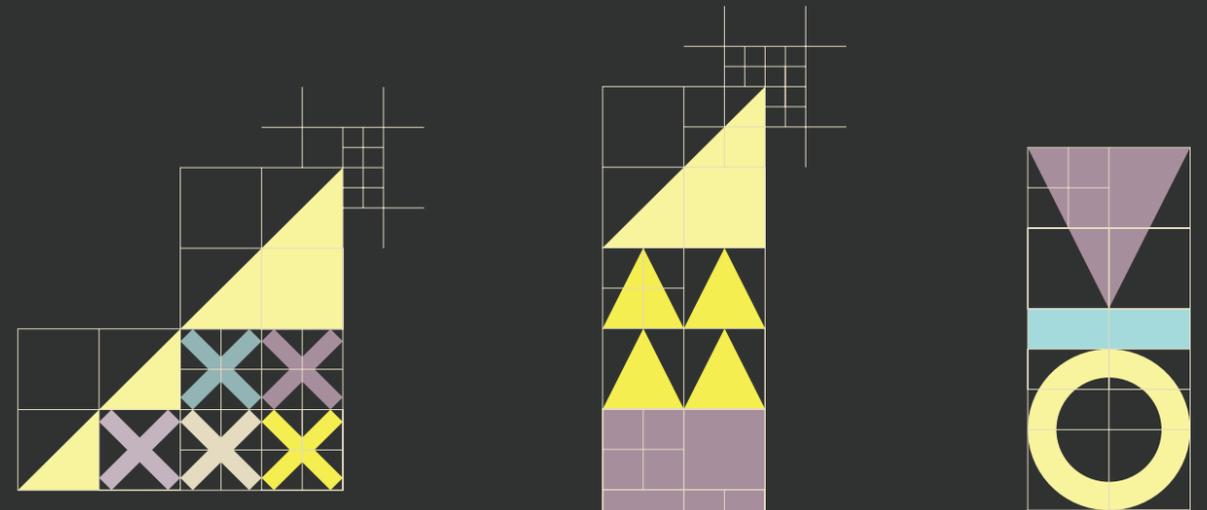
Key enablers

In pursuit of spread:

1. Building demand through existing networks and narratives
2. Using evidence to build demand
3. Balancing fidelity, quality and adaptability
4. Scaling vehicles rather than lone champions

Creating the conditions for spread:

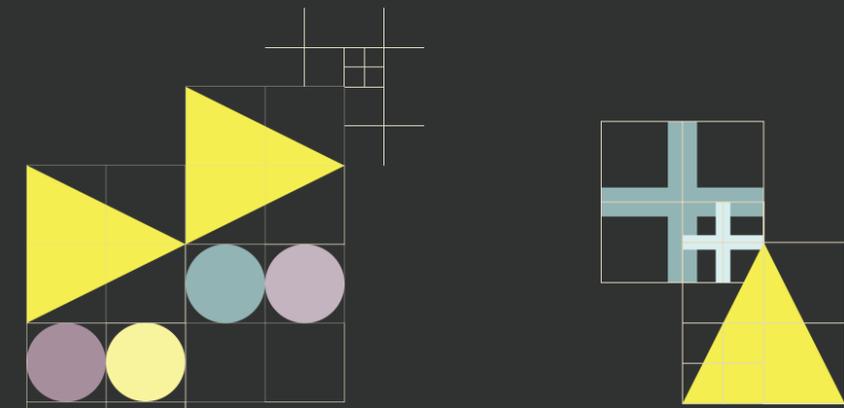
5. Capitalising on national and local system priorities
6. Using policy and financial levers to kick start momentum
7. Commissioning for sustainable spread
8. External funding to support spread



1.

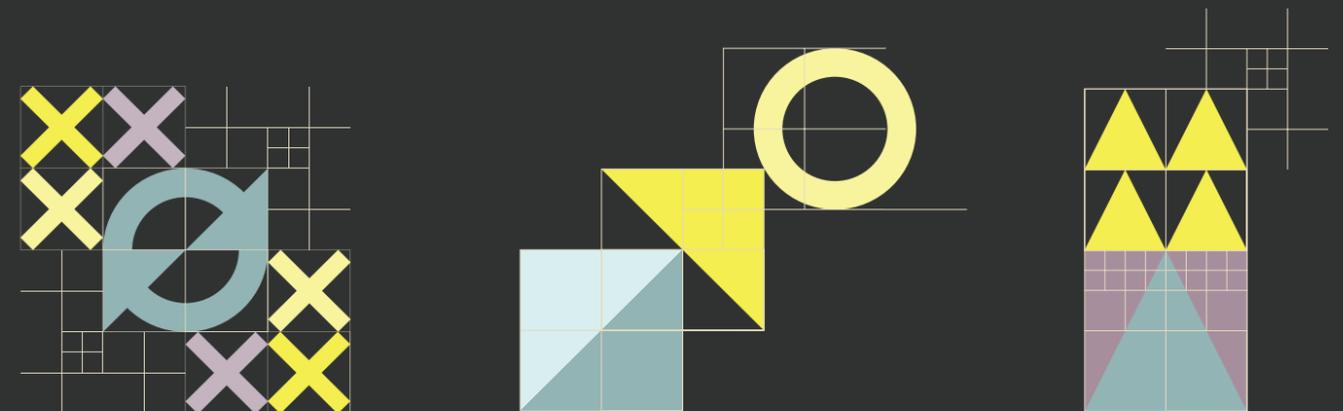
2.

3.



4.

5.



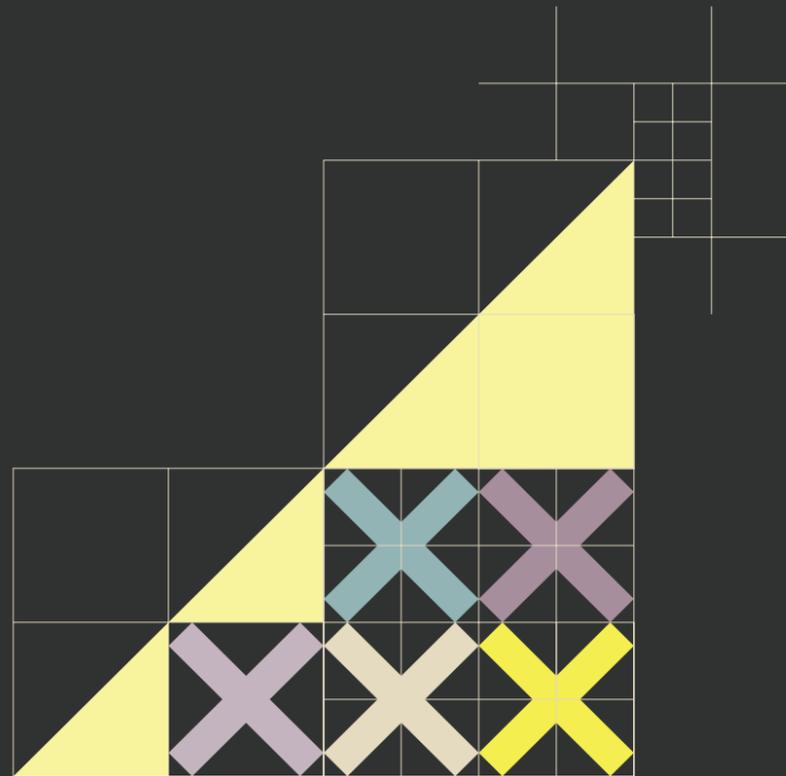
6.

7.

8.

In pursuit of spread

1. Building demand through existing networks and narratives



Over the past decade there has been a growing appreciation that focusing on the supply of innovation by supporting innovators is not enough to spread innovations in the NHS (see *State of the debate*, page 10). Careful attention must also be paid to the demand side, that is the people and organisations who will adopt and adapt an innovation and enable it to scale. The critical importance of this is reaffirmed by the stories of the 10 innovations that this report focuses on. The case studies demonstrate that creating demand is a continuous priority. It goes beyond celebrating early adopters (page 10) and requires building demand in new and different ways, as the target audience changes.

The seminal work on the diffusion of innovation by Everett Rogers argues that interpersonal connections are critical for sharing information and creating the necessary trust to build a critical mass of adopters.³⁵ The case studies add to this argument, highlighting that early on in an innovation's scaling journey it is often building demand specifically from *local* stakeholders that is important, and that this often happens through face to face discussions. Practical demonstrations or seeing an innovation in action help to demonstrate its benefit and bring early adopters on board. For example, early on in the adoption of the Enhanced Recovery After Surgery (ERAS) pathway, the lead surgeon, Robin Kennedy, took his nurses over to Denmark to see the model in practice. He believed it was only by seeing it in action that they would become as passionate about it as he was (see page 46).

As an innovation spreads, however, tactics for building demand need to develop too. Building demand across a fragmented system can be challenging, and for those trying to spread something new, frustrating. For most innovators it is impossible to convince people one by one through individual conversations: there are too many people, and not enough time. These case studies show how you can build demand across wider audiences and geographies by tapping into existing networks and narratives that share common interests in order to reach more people.

Different kinds of networks play important roles along the scaling journey. In the early stages, personal and professional networks can help find and connect to potential early adopters. In the case of ERAS, the professional surgical networks were a venue for discussion of, and challenge to, the ERAS approach (see page 47). It was in the highly connected professional networks of liaison psychiatry that the refined model for

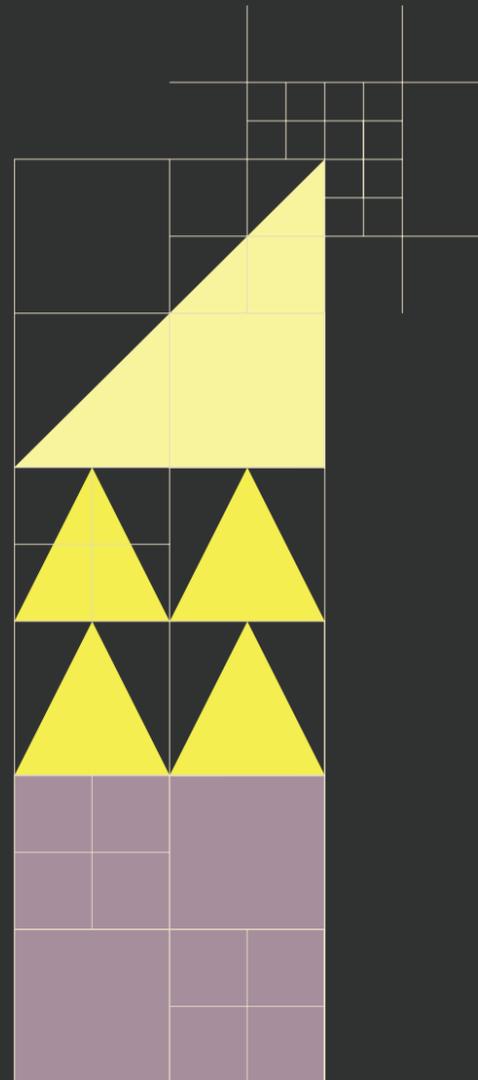
liaison psychiatry in hospitals, Rapid Assessment and Interface and Discharge service (RAID), first circulated (see page 72).

Tapping into existing networks often meant establishing an inclusive shared vision, that was greater than the innovation itself, to gain buy-in from professionals with a wide variety of perspectives - similar to the characteristics of social movements defined by Marshall Ganz (see page 10). For example, Schwartz Rounds (UK), an intervention focussed on supporting clinical teams to reflect on the experience of giving care, positioned themselves as part of a wider movement around compassionate care and staff wellbeing (see page 74).

In later stages, networks that develop around innovations can become communities that support adoption. The RAID network, for example, creates a space for adopters to share practice and support (see page 72). Building coalitions across existing influential professional and patient networks with complementary goals can also support scaling. This has been evident for ICDs, with the collaborative work of the Heart Rhythm Society and Arrhythmia Alliance helping to develop the professional community around Implantable Cardioverter-Defibrillators (ICDs) and the patient case for change (see page 59). Furthermore, these networks do not exist in isolation: they both shape and are shaped by national policy.

Whilst much has been written about tapping directly into demand from patients, only a couple of these case studies demonstrated this in action. These tended to be innovations that either addressed an issue that had a significant public profile, such as Macmillan Cancer Nurse Specialists, or required patient demand for uptake, such as Implantable Cardioverter-Defibrillators and Dose Adjustment for Normal Eating (DAFNE). Patient demand and direct donations from the public have been a critical part of both the spread of Macmillan nurses and the pressure to *sustain* these posts (see page 68). Macmillan's brand is very strong thanks to decades of highly effective fundraising campaigns focusing on the personal stories of patients. The brand has become so recognisable and trusted for professionals and patients alike that there is significant demand from both groups for the kind of support that Macmillan can offer. In the case of ICDs, demand was developed from both patients and professionals in tandem through work across both communities (Heart Rhythm Society and Arrhythmia Alliance) (see page 59).

2. Using evidence to build demand



Gathering evidence of an innovation's impact on both outcomes and cost is often seen as the most important part of the scaling journey, prompted by the belief that *“if you prove it, they will come”*. Rigorous quantitative evaluation is essential if an innovation is to make it into the National Institute for Health and Care Excellence (NICE) guidelines, a perceived enabler of scale, or gain research funding from the National Institute for Health Research (NIHR), one of the most common funding sources for research and innovation. However, quantitative evidence is too often seen as all that matters. In these case studies, quantitative evidence was necessary but, alone, insufficient for scaling. Robust, quantitative evidence is better understood in this context as one possible factor driving demand, rather than a scaling strategy in and of itself.

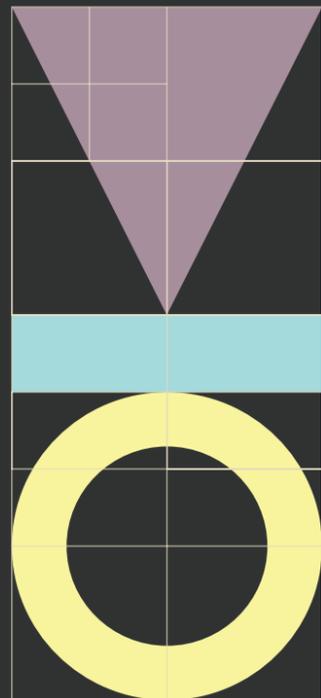
Evidence is often assumed to be objective, in that it can tell a single, rigorous story about an innovation in order to mobilise support and adoption from a wide variety of stakeholders. In fact, an evidence base is most effective in scaling an innovation when it captures the hearts and minds of stakeholders in addition to demonstrating efficacy, and creates a case for acting differently that is compelling to the audience in question. This not only requires understanding the context in which a decision maker is working, and the risks and opportunities associated with change in their work. It also requires the skilful development and deployment of different types of evidence to respond to the stakeholders' needs and motivations at a given moment in time. Evidence can be anecdotal as well as academic, and include a combination of quantitative and qualitative material – both statistics and stories. The team behind Macmillan Nurses, for example, have created tailored, local health-economics cases alongside staff and human stories to connect with potential adopters (see page 67).

The power of the stories of beneficiaries of, and converted sceptics to, an innovation should not be underestimated. Many of the case studies, including the education programme for people with Type 1 diabetes (DAFNE – see page 42), Macmillan Nurses (see page 66) and Altogether Better (a model for community Health Champions – see page 38), demonstrate the impact personal testimony can have in inspiring decision makers to adopt change.

It is also worth noting that the body of evidence that supports the innovations to scale in these case studies is about implementation as well as impact. Altogether Better, for example, has evaluated how the behaviour change needed to realise the potential impact of Health Champions is created in successful GP practices (see page 41). This evidence supports the scaling of the model by demonstrating not just why the innovation should be adopted but also how to adopt it.

The power of the stories of beneficiaries of, and converted sceptics to, an innovation should not be underestimated

3. Balancing fidelity, quality and adaptability



It is a common myth that innovations stay the same as they spread. These case studies demonstrate how almost all innovations are continually developing. This might be deliberate, for example in the case of ICDs, where manufacturers are continually developing the product to ensure their competitive edge (see page 58), but it can also be an unintended, but necessary, consequence of being adapted to different contexts. This type of continual development posed a significant challenge for some of the innovations in the case studies. How do you strike the balance between ensuring fidelity to the original innovation (and its impact) and allowing adaptation to different contexts?

The powerful influence of context on innovation, as explored in *Perspectives on Context* (see page 9), means innovations need to be adapted for different settings, especially innovations that have multiple components and relational elements. For example, Florence (a telehealth platform – see page 50), and the ERAS surgical pathway (see page 46), have adaptability built into their design and consist of key components rather than a fixed and defined model. Critically, their adaptability is designed to facilitate impact in different contexts. The teams behind these innovations focus on *outcomes*, rather than process measures, to ensure fidelity in the face of adaptation.

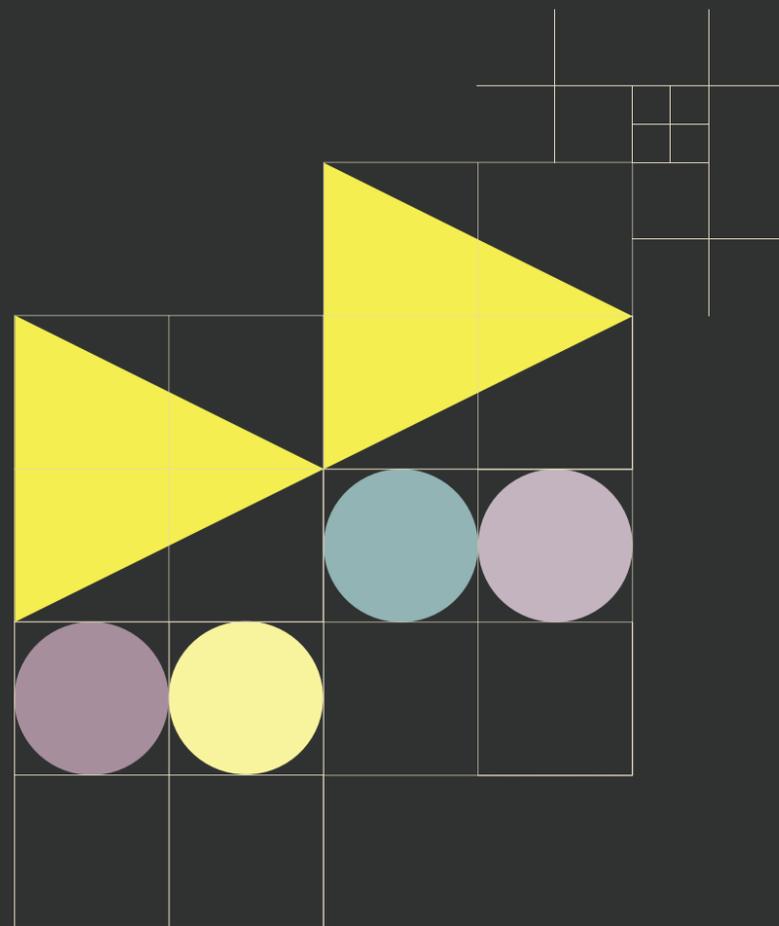
Balancing a focus on fidelity, to ensure quality, with the flexibility to allow the innovation to spread into new contexts is a delicate art. In many of the case studies, capturing the core components of what makes an innovation work did support adoption at scale. For example, the team behind the patient education programme DAFNE have developed everything from template job specifications to a full curriculum to support their patient education

programme (see page 43). Where these written materials and tools work best, they are combined with real-life opportunities to learn from other adopters. For example, local networks of Schwartz Rounds enthusiasts help each other to learn about how to effectively implement the Rounds in their organisation (see page 74).

However, codifying an innovation is not always straightforward, and it often requires collaboration beyond the innovator or original team. Innovators often struggle to see clearly the key components of their innovation or the culture and the context that make it work, as the literature on context has recognised (see page 61).³⁶ This means that codification is often best done with adopters and evaluators, not solely by the original innovator.

Furthermore, attempting to codify an innovation too early can risk making it more difficult for people to adapt it to their local context, and reduce opportunities for the innovation to be improved. If the innovation has only been implemented in a small number of settings, there will be limited reference points on which to base codification, making it hard to identify the generalisable or transferable elements of the innovation. A level of maturing is therefore necessary to ensure the codification has a robust evidence base. For example, the testing of RAID in multiple settings has led to the development of a range of specifications for acute liaison psychiatry services known as CORE 24, which make it easier for these services to be implemented in any hospital setting (see page 73).

4. Scaling vehicles rather than lone champions



There are two common caricatures of how innovation spreads. One is that spread is a passive process: that new ideas will diffuse if they have value for the system; the other is that a charismatic innovator or individual is the driving force behind the spread. These ideas of how to spread innovation can lead to investment in pilot programmes, where the innovation is then expected to spread through demonstration of the innovation's value and dissemination of information, or support programmes for individual innovators or entrepreneurs.

In these case studies we have seen that rarely is either of these two routes the whole story. Spreading an innovation is often a full-time job and it is difficult for a single individual to do this alongside frontline delivery. There is little in the way of incentives for people to do this, either. Where innovations have successfully spread, and as international research confirms, there has been an organisation or group that has consciously and strategically driven the spread.³⁷ These organisations or vehicles differ greatly in their business model and organisational structure. There is some evidence from these case studies that the private or third sectors can sometimes play an important role in spread by offering a space free from the constraints of operating within an NHS trust or other NHS organisation (see *State of debate*, page 11). For example, the team behind Florence found that they needed to operate outside of the NHS to have the necessary freedoms and agility, so they founded Simple Shared Healthcare (see page 53). This model also helped to 'deterritorialise' the innovation from seemingly being owned by one geographical area or trust, and so having to overcome the "not made here" hostility when spreading to new areas. However, for DAFNE, being hosted by part of the NHS -

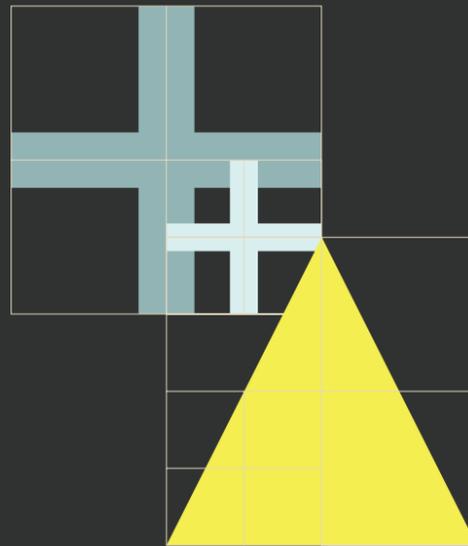
Northumbria Healthcare NHS Trust - and being an NHS branded innovation was an important part of their identity and values (see page 42).

The makeup of these 'driving organisations' has a significant impact on their success. Many rely on a mix of clinical insight and expertise, alongside business skills and expertise. These organisations often evolve over time, actively recruiting into the team those with the skills they are lacking or those who can drive the innovation forward. For example, Martin Fischer, an expert in healthcare systems, linguistics, service improvement and patient experience, joined the Altogether Better team and was influential in shaping their revised approach to partnering with GP practices and ensuring the longer-term sustainability of the model (see page 39).

So it is important to distinguish between those that drive an innovation's creation and the organisation that drives its spread: they are not always the same. In other systems, like Kaiser Permanente, a separate change management organisation takes on the spread and implementation of innovations.³⁸ This is clearly evident in the case of imported innovations, such as Schwartz Rounds, when the idea was originally developed in the USA but was adapted for the UK and spread by the Point of Care Foundation, an organisation set up to scale the innovation (see page 74). Those innovations, developed and tested in the NHS in some cases, needed a scaling vehicle for the innovation to spread beyond its early adopters. For example, for ERAS, the creation of the Enhanced Recovery Partnership Programme by the Department of Health brought together a coalition that had the profile, reach and geographical coverage to take a pathway that had previously been developed and championed by a few key clinicians to a national audience (see page 47).

Creating the conditions for scale and spread

5. Capitalising on national and local system priorities



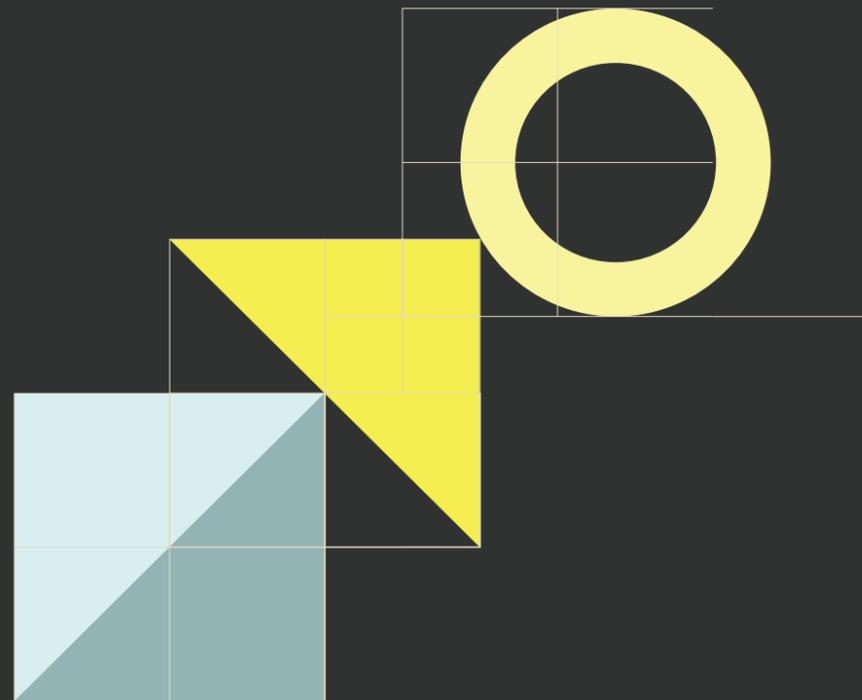
The system conditions in which innovations scale, which include policy drivers and the availability of supporting funding, are well established as critical factors in spread (see page 12). What the case studies clearly demonstrate is how critical timing and alignment with national policy can be to a successful scaling strategy. It is the fit between the innovation and the systemic context which often determines whether something goes to scale. This does not mean that everything is down to chance, but it does mean that innovators need to be alert and responsive to the environment they are operating in, and look for opportunities to align their innovation to existing priorities. It also means that the people who shape the policy context (system leaders and, to some extent, funders) need to look for and actively create opportunities for new priorities to emerge that will realise transformative change for patients.

At any one time there are certain challenges for health services that become visible and high profile. An innovation that responds to these can tap into an existing case for change, supporting it to spread. For example, the team behind Schwartz Rounds understood the need for interventions which promoted compassionate care following the Mid Staffordshire NHS Foundation Trust Public Inquiry (see page 76). The programme of Macmillan nurses has responded to the high level of public attention on cancer, and Macmillan has helped to sustain and grow this public attention through their wider campaigns and advocacy work (see page 68). The development of the Improving Access to Psychological Therapies (IAPT) programme to scale up talking therapies across the country came at a critical moment in the political cycle, at a time when New Labour was looking for ideas for their election manifesto (see page 62).

When timing is so important, being agile enough to take advantage of opportunities when they arise is key. If there aren't broader narratives to tap into, those driving forward an innovation can also work to create the demand for their innovation through campaigning, lobbying and awareness raising, as the Arrhythmia Alliance and British Heart Rhythm Society have done for ICDs (see page 59). Innovations themselves can also shape the public debate. For example, the spread of IAPT talking therapies has contributed to the rising attention on mental health as well as benefitting from it (see page 64).

It is the fit between the innovation and the systemic context which often determines whether something goes to scale.

6. Using policy and financial levers to kick start momentum



Policy and financial levers, such as performance targets and financial incentives, are often seen by innovators and system leaders alike as the *"magic bullet"* for taking a successful innovation to scale. Within a fragmented system these system-wide interventions can seem like the shortcut to achieving rapid spread.

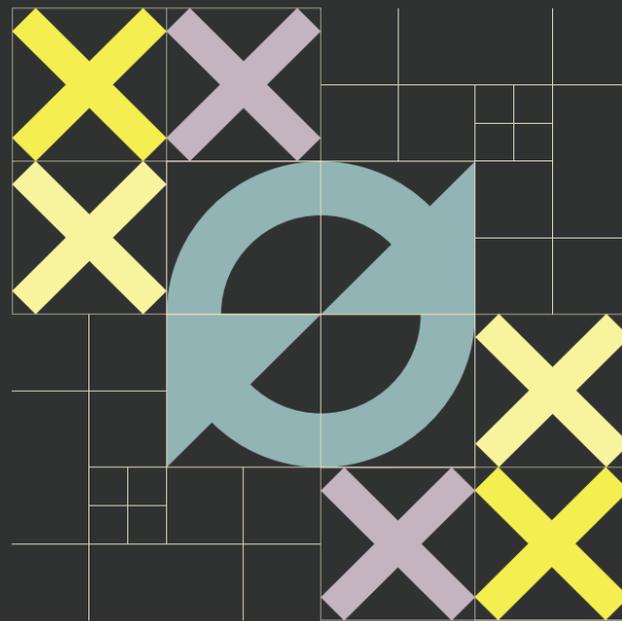
These types of levers play an important role in any healthcare system. The introduction of waiting time targets for routine surgery was seen by some as a key driver of uptake of the ERAS pathway in the mid-2000s as they encouraged hospitals and clinicians to look for ways to reduce the length of stay (see page 47). However, in some of these case studies, imperatives and directives seem to have had a distorting effect. They have created a requirement to adopt the innovation, without necessarily a conviction of the need to, thus leading on occasion to surface compliance without correspondingly improved outcomes. With the introduction of the national IAPT programme, the rapid expansion of the service through a national policy directive has led to wide variations in quality in provision and varying commitment to realising the innovation's early goals (see page 64). For the patient education programme DAFNE, the introduction of QOF payments for referring patients with diabetes to education programmes resulted in a rapid rise of recorded referrals, but only a minor rise in people attending patient education (see page 45).

Imperatives and directives have limited scope for *"changing hearts and minds"* over a sustained period for those involved in implementing and delivering an innovation. But they can be effective at focusing minds and catalysing people around an innovation at a moment in time. For Schwartz Rounds,

being included in Commissioning for Quality and Innovation (CQUIN) was a signal of legitimacy, which focused the attention of decision-makers on the potential of the innovation, and mobilised them to adopt the innovation and realise the CQUIN opportunity (see page 77). A more sophisticated view of imperatives and directives could therefore be to see them as a mechanism for kick-starting momentum for change, with a complementing set of activities building local commitment and buy-in for sustainable implementation and spread.

Imperatives and directives have limited scope for *"changing hearts and minds"* over a sustained period for those involved in implementing and delivering an innovation.

7. Commissioning for sustainable spread



The commissioning, re-commissioning and decommissioning of services are not just a mechanism to buy services, but to actively shape and transform services to ensure that they meet the needs of the population. New approaches to commissioning, like outcomes-based commissioning, and financial levers, such as CQUINs, are intended to help commissioners shape the services that are provided. Despite this, the role of commissioners in supporting innovations to scale and spread is highly variable, and sometimes strikingly passive and marginal.

The case studies in this report show where there are opportunities for commissioners and commissioning to support and create the conditions for spread. In some of the case studies it was the combination of driven and passionate clinicians alongside commissioners that led to widespread adoption. Each alone was not enough. For example, the cost-effectiveness analysis of RAID, combined with widespread support from the NHS Confederation, piqued the interest of commissioners across the country. RAID effectively tapped into current debates about both mental health and the pressures on accident and emergency services, and as such could appeal to both clinicians who were primarily concerned about quality, and commissioners who were also keen to reduce costs (see page 70). Commissioners are critical for gaining access to services, but it is primarily professionals and providers who determine the specifics of the care that is delivered.

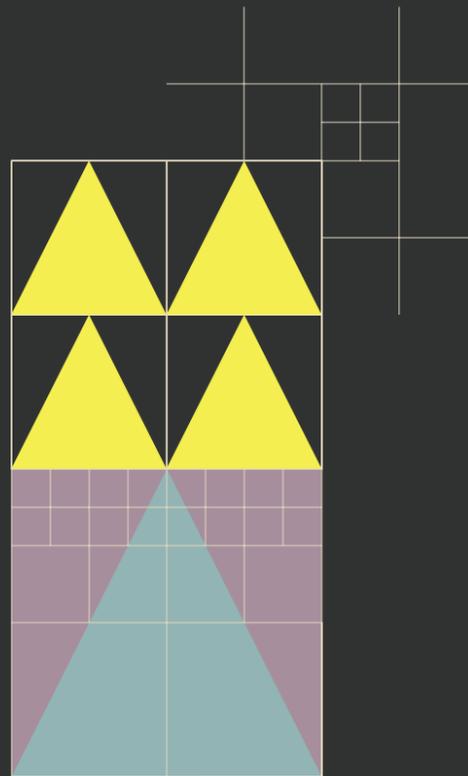
Commissioning did seem to have a more active role in ensuring the quality of an innovation once it is commissioned, in particular through the commissioning framework developed for the innovation. For example, different localities have

adopted different commissioning models for IAPT, and the use of Any Qualified Provider has been criticised in this context for eroding the quality of the service delivered, due to shorter treatment and poorly coordinated care amongst some providers (see page 64). Commissioners can thus be influential in creating a set of incentive structures that prioritise fidelity to outcomes, not just process, which is clearly of great benefit to the system and patients alike.

Commissioners can also play an important role in shaping the context in which innovation can be fostered and spread. In the case of ICDs, the current specialised commissioning model has given clinicians the opportunity to work closely with industry to advance the technology and adopt it in the manner that suits the hospital (for example, with supporting funding for training and education), and there is a concern that a change in this commissioning model may threaten these current benefits which may affect the ongoing development of the innovation (see page 61).

Commissioning did seem to have a more active role in ensuring the quality of an innovation once it is commissioned, in particular through the commissioning framework developed for the innovation.

8. External funding to support spread



The literature clearly shows that innovations, and the organisations that drive their spread, often need financial resource to dedicate to scaling and development.³⁹ There will always be some costs associated with scaling, and upfront investment is often needed. Commercial organisations can raise funds through sales of an innovation, and those in the public sector may secure the time and space to dedicate to scaling from senior management. Often, however, external funding in the form of grants will be part of the funding that innovators and driving organisations will use to support spread, whether this is from the Department of Health, AHSNs or charitable organisations.

External funding has been critical to most of these case studies - for example Altogether Better and Flo both secured funding, from The Big Lottery Fund and The Health Foundation respectively. The conditions and purpose of this external funding shape innovators' and organisations' scaling strategies, so clarity and purpose for funding is especially important in making sure the money can be used most effectively. Altogether Better have consciously framed their second round of funding from the Big Lottery Fund to be about active learning through evaluation - rather than a more traditional, formal evaluation process (see page 41). One valuable focus for external funding is independent evaluation, which can be essential for building a credible evidence base, as the telehealth platform Flo found (see page 51).

External funding to support the spread and adoption of innovation also needs to be used carefully to ensure that it builds intrinsic, as well as extrinsic, motivation. Financial incentives can encourage people to adopt innovations on the surface without really buying into them.

Time-limited funding sources can risk unsustainable development if they are not used wisely. So external funding must be used to help build long-term, sustainable finance streams and delivery models.

Financial incentives can encourage people to adopt innovations on the surface without really buying into them.

From insights to practice

Improving healthcare and transforming services to meet changing healthcare needs in a financially sustainable way are fundamentally dependent on our ability to spread successful ideas and approaches at scale. Yet we know that scaling innovation is often a challenge in the NHS, and in healthcare more generally; many new ideas don't spread but remain isolated pockets of improvement, and often when new ideas are taken up elsewhere, the initial impact isn't replicated.

In this report, we have offered a set of insights, drawn from 10 case studies of successful spread, on how to pursue scale and how to create the conditions in which scaling efforts can succeed. We highly recommend looking at the full case studies, which follow this section of the report. They tell the real-life stories of a set of innovations that have spread within the NHS in recent years and ask what it was about these innovations and the approaches taken to scaling that allowed them, despite the barriers, to succeed where others have failed. As well as offering a granular perspective on the issues involved, we hope these case studies can inject a much-needed note of optimism into the current discourse on scaling and spread, which is too often downbeat – focussed on barriers and problems rather than enablers and successes.

The insights from the case studies, together with the evidence on barriers and enablers, summarised in the 'State of the debate' section of this report, show where we should question aspects of the conventional or mainstream approach to supporting spread and diffusion in the NHS. This does not mean, of course, that there aren't some successful programmes and work being done by national and regional bodies to support spread, but rather that there might be a wider range of opportunities and perspectives to consider.

We hope that readers will draw their own conclusions, but opposite we offer some suggestions and thoughts to consider – a set of 'provocations' about what might be done differently – for those involved in scaling innovation, both system leaders and funders, and also innovators themselves.

Ultimately, there is no singular formula, no right or wrong approach, for scaling innovation. The case studies show that a mix of factors can support successful spread. But shining a light on some of these factors, which we hope to have done in this report, can help us think more deeply about the different possible approaches and the wider system conditions needed to ensure transformative change reaches more patients.

Considerations for system leaders and funders

- Scaling innovation takes space, time, and resources. Expert support is needed for teams and organisations to adopt and adapt innovations, including funding time for the innovators to have meaningful interactions with these teams and organisations.
- The current system primarily rewards innovation. There should be greater recognition and rewards for the spread and adoption of innovation to both acknowledge and mitigate the risks associated with adoption.
- Encourage leaders of transformation and patient networks to articulate their needs for innovation, and consider whether there is expressed demand for innovations before they are selected for scaling and diffusion.
- Give weight to qualitative evidence as well as to quantitative evidence; stories about why and how an innovation has been implemented and the outcomes and benefits that have resulted can be powerful in making the case for change.
- Encourage robust and proven approaches to scale and spread (including the engagement of relevant professional and patient networks) to be incorporated into the development of innovations from the outset.
- Make it easier for individuals and teams to spin-off and set up organisations to drive the scaling of an innovation, given that this can offer valuable agility and flexibility in particular cases.
- Be mindful that policies and initiatives not directly concerned with the diffusion of innovation can have beneficial or deleterious effects on diffusion; build consideration of these effects into policymaking wherever possible.

Considerations for innovators

- Too often the spread of innovation is an afterthought. Robust and proven approaches to scale and spread (including the engagement of relevant professional and patient networks where possible) should be incorporated into the development of the innovation from the outset, rather than after the innovation's core features have already been defined.
- In many cases, rather than focussing on traditional sales, marketing and dissemination techniques, it may be more fruitful to spend time engaging with and really understanding the needs, pressures and constraints of potential adopters.
- Identify and communicate the core aspects or principles of the innovation that are critical for impact, and then ensure that it has the flexibility beyond this to be adapted to differing local circumstances and contexts.
- Rather than thinking you need to present adopters with a finished product, see them as potential partners that are critical to helping enrich and develop your innovation, and ideally involve them in the codification of the innovation.
- Tap into relevant movements and networks, and encourage coalitions of patients and professionals to support the development and spread of the innovation.
- Don't focus exclusively on quantitative evidence; where possible, collect qualitative evidence and stories of need, implementation and impact and turn them into a compelling set of materials for winning hearts as well as minds.

The case studies

1. **Altogether Better Health Champions and Collaborative Practice** - Volunteer Practice Health Champions who, with training and support, organise and run community health projects making best use of their interests and skills p.38
2. **Dose Adjustment for Normal Eating (DAFNE)** - A model of patient education and training for people with Type 1 diabetes p.42
3. **Enhanced Recovery After Surgery (ERAS)** - A redesigned multi-component pathway of care to improve recovery after surgery p.46
4. **Florence (Flo)** - A telehealth system that uses SMS text messaging to collect patient observational data and offer real-time advice or guidance to patients p.50
5. **High sensitivity troponin testing** - A test for certain protein levels in the blood to detect heart muscle damage, and therefore help in the diagnosis of a heart attack p.54
6. **Implantable Cardioverter-Defibrillators (ICDs)** - Small devices implanted under a patient's collarbone to prevent sudden cardiac death by correcting irregular heart rhythms p.58
7. **Improving Access to Psychological Therapies (IAPT)** - A model of cognitive behavioural therapy for people with depression and anxiety p.62
8. **Macmillan Cancer Nurse Specialists** - Clinical specialist nurses who provide holistic care and support for people with cancer p.66
9. **Rapid Assessment Intervention and Discharge (RAID)** - A psychiatry-led multi-disciplinary liaison team that provides comprehensive assessment of a person's physical and psychological well-being in a general hospital setting p.70
10. **Schwartz Rounds (UK)** - A structured forum where all staff, clinical and non-clinical, come together regularly to discuss the emotional and social aspects of working in healthcare to improve the quality of patient care p.74

1. The spread of Altogether Better Health Champions and Collaborative Practice

What is the innovation?

Altogether Better is a 'health champion' programme that started in the community and is now based in GP practices. Health champions are volunteers that help to run activities for their community and offer peer support. Their work in GP practices helps to improve the health of their community, builds the capacity of GP practices and transforms the nature of doctor-patient relationships.

When was it established?

Altogether Better began in 2008.

To what extent has it scaled?

Altogether Better's community model engaged 18,000 Community Health Champions, who in turn reached over 105,000 people. Altogether Better has introduced their Collaborative Practice model into over 90 GP practices across 18 CCG areas.

Key insights

- Altogether Better's sustainability strategy rests on being integrated into existing mainstream services such as GP practices.
- The team makes strong use of storytelling and qualitative evidence to make the case for Altogether Better.
- They have focused on continual learning as the innovation has scaled, being flexible and open-minded about adjusting the innovation in response to what they learn.

Origins

Altogether Better first began in 2008 in response to a call from the Big Lottery Fund (BLF) for regional community wellbeing and mental health projects. Mark Gamsu, who was Assistant Director for Yorkshire and Humber's Regional Public Health Group at the time, secured a £6.8 million grant for a five-year programme that sought to reduce health inequalities through sixteen flagship community projects.

All of the projects had volunteer Community Health Champions at their heart. Community Health Champions supported people in their local community to lead happier and healthier lives, through peer support and peer-led activities. Health Champions were free to choose how they wanted to contribute, whether that be running a Tai Chi workshop or leading a community walk, thereby harnessing the skills and passions of volunteers and helping them to develop new ones. Health Champions were recruited and supported by the community organisations that Altogether Better had partnered with for the projects, for example the 'Health Means Business' scheme supported by Royds Community Association. Recruiting volunteers was never a challenge: Altogether Better found that people value being given the opportunity and freedom to help others, and of course volunteering also brings benefits to the volunteers themselves.

Champions benefit from volunteering as their social network and self-esteem increases, and with it their confidence and sense of wellbeing. In turn, the peer support they provide to those they meet and talk with can be transformative, particularly for those with conditions that clinical intervention cannot fully address. This can reduce the need for clinical appointments, thereby reducing demand on GPs.⁴⁰

Within the first year of launching the Altogether Better Community Health Champion programme, 1,000 Community Health Champions were recruited across the sixteen projects. By 2012, there were 18,000 Community Health Champions across Yorkshire and Humber, reaching over 105,000 people.⁴¹ The work and achievements of these Health Champions were recognised with a Big Society Award from Prime Minister David Cameron in 2010.⁴²

Spreading

Although there was enthusiasm in communities about the Health Champion model, the first five-year programme of Community Health Champions surfaced a number of fundamental challenges that the model would face in the longer term. The programme was distant from the NHS, based in communities rather than in health services, and it was challenging to find funding for the community organisations that supported Health Champions during a time of substantial pressure on NHS resources. Health Champions across the different projects were supported and organised by coordinators who were paid for by the BLF, which was a finite pot of funding. Once this funding ran out, it was not clear how the Altogether Better programme would be sustained.

A new approach was needed. Critical in evolving the health champion model into what is now called Collaborative Practice was a new partnership between Alyson McGregor, Director of Altogether Better, and Martin Fischer, an independent consultant specialising in health and social care systems. Martin was leading a project called Right Conversation at the Right Time,⁴³ a pilot scheme across three GP surgeries that aimed to improve the quality of patient-doctor interactions.⁴⁴ Martin realised that the management of long-term conditions was dictated by what happened *after* the GP consultation, and that there was a limit to what clinical interactions in the GP surgery could do to fundamentally transform the problems patients were facing around social isolation and long-term conditions. "*Bowled over*" by a visit to one of Altogether Better's community health projects, he invited Alyson to talk about how they could work together to respond to the challenges each was facing.

A relationship based on curiosity, mutual respect and a desire to learn served as the foundation for this new partnership. Testing and exploration moved Altogether Better into a new phase: taking the Health Champion model into GP practices. This unleashed new opportunities for both Alyson and Martin. For Alyson, working within established institutions brought sustainability by embedding the champions in a relationship with the practice. For Martin, the new 'liminal space' in which Health Champion work takes place (the boundary between the formal world of the NHS and the informal lived experience of Health Champions), changed the mental model of the patient and the fundamental ideology of general practice.

The Altogether Better team saw strong, reciprocal relationships between their team and adopters as the key to establishing the model in new practices. The team's previous credentials helped to open up conversations with GPs to introduce the approach. They told stories with "*genuine integrity*" about how the champion model worked in Collaborative Practice, alongside Altogether Better's theory of change, which clearly laid out the changes required for the work to have impact.⁴⁵ The aim was not to convince GPs, but to "*invite them in*" and be open to their scepticism; the team knew that a co-production approach built on genuine, frank conversation was critical for the successful adoption of the model.⁴⁶ A second round of Big Lottery funding for 2013-15 supported the team to develop Collaborative Practice.⁴⁷ It also funded research that sought to learn more about the context in which Health Champions could be successfully made part of a new extended practice team and the catalyst for a new model of care.⁴⁸

The Altogether Better team has learned that finding and developing GP practices with certain characteristics, in which to establish community-centred practice, is essential. In order that volunteer health champions and practices have a positive experience, it is critical that the practice is enthusiastic about designing a new model of care and way of working, as well as getting the benefits of a new business model. Critically, the whole team must be involved - not just GPs or managers, but receptionists and nurses too. It requires a 'whole systems change' approach.

Adoption in new areas has primarily been led by enthusiastic GPs and practice managers hearing about the work of Altogether Better from colleagues, and contacting Altogether Better to get support from them to develop Collaborative Practice in their own practice. Some CCGs and Local Health Authorities, attracted by the potential for improved outcomes for patients with long-term conditions through a model of volunteering, have also commissioned the team to introduce the model to some practices. Whilst this has helped GP practices to find out about Altogether Better, Alyson emphasises that it was not enough for the CCG to be enthusiastic; success was contingent on the commitment of the GP practices themselves.



Chart 1: Altogether Better’s approach for embedding a community-centred general practice model in a new practice

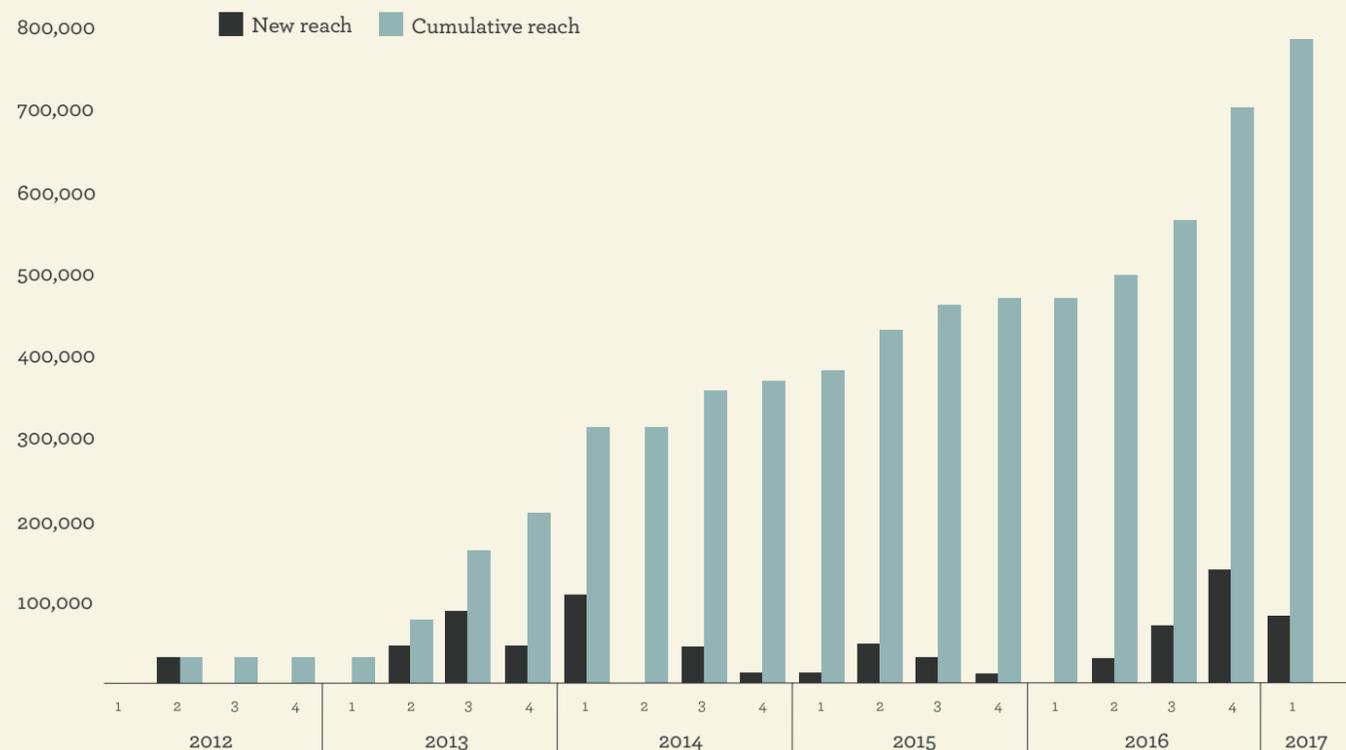
Sheinaz Stansfield, Practice Manager at Oxford Terrace and Rawling Road Medical Group, was put forward by her CCG to be one of three GP practices to work with Altogether Better and embed the collaborative approach. Sheinaz heard of the opportunity to work with Altogether Better through her CCG, but, critically, had been galvanised by her own experience of a hospital stay at Christmas time. She left hospital determined that no-one in her practice would spend their next Christmas alone in hospital.⁴⁹ Her vision of her practice playing a social as well as clinical role in the community was shared with the Altogether Better team.⁵⁰ Together, they found and supported champions at the practice. Sheinaz believes the Health Champions have fundamentally changed the culture and mission of the practice, away from a provider of 10-minute consultations and towards a hub for health and wellbeing in the community.

Sustaining

Altogether Better has now introduced their Collaborative Practice model into over 90 GP practices across 18 CCG areas.⁵¹ Alyson describes the enthusiasm of community members to become Champions at their GP practice as “phenomenal”. Champions say they are motivated to volunteer “to make a difference” in their communities, a “joint purpose” shared with the health practitioners in practices, which Sheinaz says has “helped to break down the Berlin Wall between GPs and patients”. This collaboration between the community and ‘the system’ underpins all of Altogether Better’s work, “Working with people in communities, ‘with’ is the important word, so not doing things to or for people, but with people.” (Alyson McGregor)

Recognising that people are at the heart of the Altogether Better story, the case for the Health Champion model has been made powerfully through testimony and storytelling. For example, *Amazing Stories* showcased the experience of Community Health Champions and the work they have done in their community.⁵² Alyson believes that it is the qualitative evidence that is most compelling, and it forms a key component of Altogether Better’s evaluations and reports.⁵³ The work is “something you feel”, argues Alyson, which is powerful beyond what can be captured in statistics or even on paper. Supporting these stories, quantitative data has also shown the overall impact on the daily lives of participants: 94% of patients in clinics with Health Champions report an increase in levels of confidence and well-being, and acquisition of new knowledge related to health and wellbeing, and 99% have increased involvement in social activities and social groups.⁵⁴

Today, Altogether Better is focused on long-term sustainability. The team is introducing the model into new contexts such as mental health trusts and care homes.⁵⁵ Above all, they are explicit that the Altogether Better model is not a ‘project’, ‘programme’ or ‘pilot’. Alyson talks of “projectitis”, alluding to the way in which ‘a project’ suggests time-bounded activity rather than a commitment to sustainability. In light of this, rather than relying on volunteer co-ordinators, the Altogether Better team now models itself as a facilitator - the “invisible glue” that brings people together - but which can then retreat to leave behind strong, reciprocal, self-sustaining relationships.



Graph 2: The growth of the Altogether Better model by practice population size, 2012-2017

2. The spread of Dose Adjustment for Normal Eating (DAFNE)

What is the innovation?

Dose Adjustment for Normal Eating (DAFNE) is an education course to give people with Type 1 diabetes the skills and tools to manage their diabetes themselves.

When was it established?

The first results of the DAFNE pilot were published in 2002, after learning from and adapting a German programme developed in the 1980s.

To what extent has it scaled?

Today there are 71 centres across the UK delivering DAFNE courses.

Key insights

- The DAFNE team has introduced rigorous quality assurance processes, sometimes prioritising fidelity over the spread of the innovation.
- Policy levers like NICE guidelines or the Quality and Outcomes Framework have increased interest in DAFNE, but have not been a ‘magic bullet’ for driving take-up.
- The team have harnessed the enthusiasm and passion of clinicians to drive change.

Origins

In 1997, Dr Simon Heller, a clinician and researcher from Sheffield, and Dr Sue Roberts, a consultant physician from North Tyneside, attended a lecture by Dr Michael Berger at a conference in Helsinki. Michael was explaining his Diabetes Teaching and Treatment Programme (DTTP) for people with Type 1 diabetes. The DTTP was developed in the 1980s by a group of German clinicians.⁵⁶ It was an intensive, five-day inpatient course for people with Type 1 diabetes, teaching patients how to manage their condition by developing their knowledge and skills, rather than by imposing strict rules. This approach appeared to support patients both to lower their HbA_{1c}, a measure of glycated haemoglobin that helps clinicians to understand a patient’s average blood sugar levels, and to reduce the risk of severe hypoglycaemia.⁵⁷ Dissatisfied with the outcomes they were seeing in their own clinics compared to those in Europe, Simon and Sue approached Michael to find out more.⁵⁸

Along with Professor Stephanie Amiel, they considered how to apply the model to the UK. Together they represented three trusts: Sheffield Teaching Hospitals, Northumbria Healthcare Trust and King’s College Hospital, London. They were awarded a travel grant from Novo Nordisk, a pharmaceutical company, to see Michael’s DTTP in practice. They each sent two or three staff from different clinical backgrounds to investigate the course, and all returned convinced that this would improve population outcomes for people with Type 1 diabetes. They decided to test the model across three sites and successfully applied to the British Diabetic Association (now Diabetes UK) for £200,000 to undertake a feasibility study. They named the programme Dose Adjustment for Normal Eating (DAFNE).⁵⁹

Overcoming initial scepticism that patients might not be interested, the team recruited over 140 people to the study. The trial showed a statistically significant improvement in glycaemic control, quality of life and patient satisfaction.⁶⁰ One patient described DAFNE as like “*being in a dark room for 15 years and suddenly someone turned on a light*” (David, user).⁶¹ Others felt that the course gave them the confidence to finally take control of their condition. In 2002, the trial results were published in the British Medical Journal (BMJ) and made headlines, “*It must have been a slow news day because suddenly we were on national news, and nurse educators were being interviewed by the BBC.*” (Dr Simon Heller)

Diabetes UK also shared the results widely with its networks and members. Dr Helen Hopkinson, a consultant physician, remembers hearing about the work during her registrar training in Nottingham and feeling disappointed that she wasn’t part of it. She wrote a business case for DAFNE and convinced a diabetes nurse and dietician to get involved; they were now ready and waiting for the opportunity to set it up in Glasgow.⁶²

Spreading

“We did the original trial, and then there was nothing. It was so frustrating.”

— Gillian Thompson

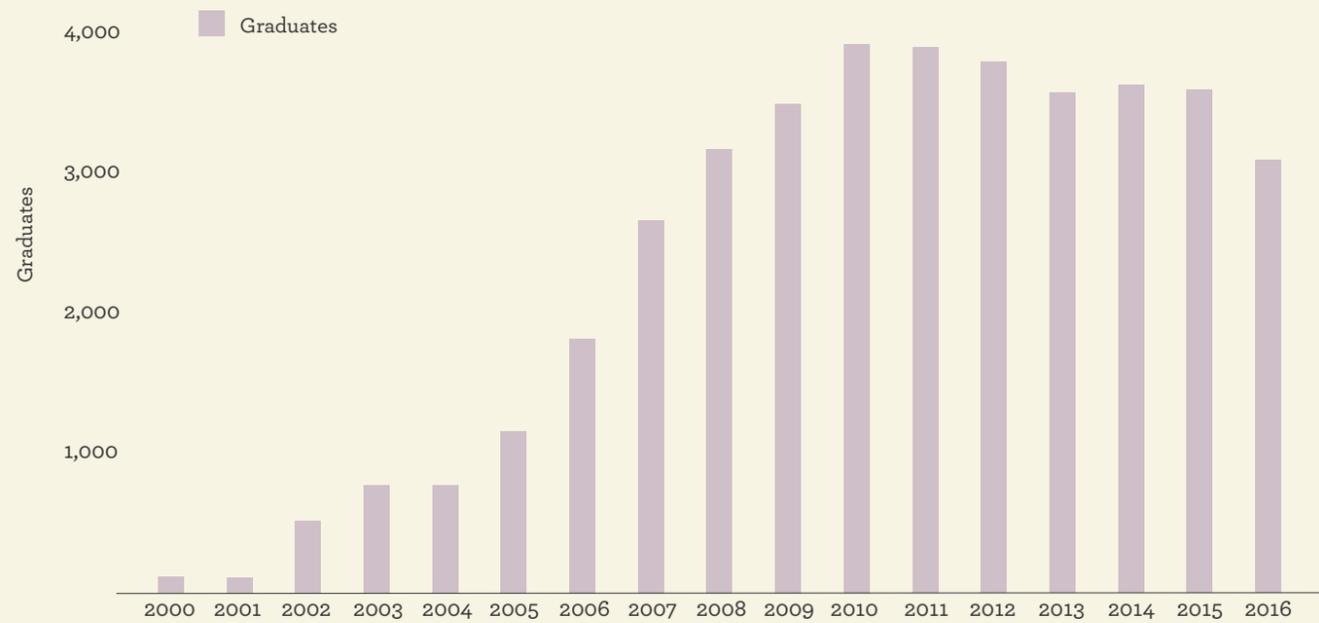
Despite the media coverage, uptake over the next couple of years was much slower than the initial interest and media profile had led them to expect. A small number of consultants showed interest and the number of DAFNE graduates slowly increased, but the team felt that most were waiting to see if the programme was just another passing fad.

For early enthusiast Helen and her team, the opportunity came in 2007.⁶³ They applied successfully for Scottish government funding, intended to promote structured diabetes education. She describes how it took a lot of dedication from the team, and resilience in the face of scepticism from other consultants. But the feedback from their first course was “*tear-jerking*”: it had been life-changing for their patients. It was this that finally won over the other consultants, whose own patients started to ask for DAFNE training.⁶⁴

Wider uptake of DAFNE was also challenging. In 2003, Sue became the National Clinical Director for diabetes. Her high-profile sponsorship of DAFNE helped to secure funding for another 10 centres as part of the Expert Patient Programme. Novo Nordisk then gave the team ‘pump prime’ funding, which helped to increase the spread of the programme rapidly to 30 centres.

A central team at Northumbria Healthcare NHS Foundation Trust was formed to support the spread of DAFNE nationally. It is a not-for-profit collaborative, supporting 71 local, specialist centres to deliver DAFNE courses by providing up-to-date resources, organising peer learning and auditing centres every three years. The central team ensures the quality of DAFNE courses nationwide by auditing each centre every three years. They also run rigorous training of educators through observation, workshops and peer review. The team does not receive any central funding. Core costs are divided between the participating centres, typically £3,000-5,000 per centre per annum. Despite the low cost, there is no NHS mechanism for securing the money recurrently either at a local or national level. As a result, each local centre funds the DAFNE courses in different ways: through commissioning or including it in core running costs, or even raising charitable funds. However, many find it challenging to raise the resources required.

There are concerns that this unique model of training and assessment may be unsustainable. To address this, the DAFNE team are looking at models such as e-learning. Despite the team’s best efforts to encourage spread, they still believe that adoption is largely driven by clinical leadership, “*Consultants have a huge power in a region or city to decide how the money is spent. If they don’t market it to patients and if they don’t fight for resources, it won’t work.*” (Dr Simon Heller)



Graph 3: The number of DAFNE graduates (people who have completed a DAFNE training course) by year

Sustaining

In 2013, the introduction of Quality and Outcomes Framework (QOF) points for offering structured education rapidly increased the proportion of patients being offered courses, from less than 5% in 2012 to around 30% in 2013 (see Graph 4). However, the total number attending remains low. In 2015 a quarter of CCGs did not commission education courses for Type 1 diabetes. Furthermore, even when patients were offered the course, there was a host of cultural and behavioural issues which prevented people from taking the offer - for example the location and timing of the courses, and differing perceptions of the benefits.⁶⁵ Increasing the number of patients participating in DAFNE courses is contingent on high-quality referrals by clinicians who understand and can clearly explain the benefits of the training to their patients.

In 2015, NICE guidance tightened the definition of what constitutes well-structured education, and

specifically named DAFNE as an example of best practice.⁶⁶ Whilst this resulted in an upturn in enquiries about DAFNE, provision of structured education programmes like DAFNE is still decided by local commissioners and providers. Because only 10% of diabetes is Type 1, the condition receives less attention from commissioners. The DAFNE team do not know how many centres there are for Type 1 diabetes care, and report that NHS England does not have data on this either.

The financial cost of DAFNE to providers continues to make potential adopters wary. Some clinicians believe they can develop their own interventions and avoid the membership costs, "People develop their own intervention and call it a 'DAFNE-like intervention.'" (Dr Helen Hopkinson)

DAFNE materials are protected by copyright to ensure consistency and fidelity to the model, with its evidenced effectiveness. DAFNE lookalike programmes can be written, but the DAFNE team believe it is the review process and quality assurance of delivery that provides value.⁶⁷ For the DAFNE team, part of the problem is that commissioners tend to be interested in "the here and now", and immediate savings, whereas diabetes is costly in the long term due to complications that develop over many years, and which are preventable if people have the right skills to self-manage their condition. In order to realise the savings DAFNE can offer, upfront and sustained investment is required first.^{68, 69}

Today there are 71 centres across the UK delivering DAFNE, covering approximately 147 localities. For the DAFNE team, their work is not complete until people with Type 1 diabetes have clinical and quality of life outcomes that rival or are better than leading European countries. This mission drives their work to continually improve on the model. The next phase is a five-year National Institute for Health Research grant to incorporate new theories of behaviour change and technology into DAFNE to ensure that it helps people to make long-term changes to their lives. National funding has also been allocated to increase the uptake of structured education like DAFNE, as part of the Diabetes Transformation Fund 2017-2019.⁷⁰ Alongside this, Diabetes UK is running the Taking Control campaign⁷¹ to increase the offer and take up of diabetes education courses such as DAFNE.



Graph 4: The percentage of newly diagnosed diabetes patients who were offered and attended a structured education programme by year

3. The spread of Enhanced Recovery After Surgery (ERAS)

What is the innovation?

Enhanced Recovery After Surgery (ERAS) is a surgery pathway that prepares patients for surgery and encourages them to be independent soon after surgery in order to accelerate their recovery and help them to get home faster.

When was it established?

The first version of the pathway was developed in Denmark and published in 2000. It was first introduced to the UK in 2001.

To what extent has it scaled?

There is little continued tracking and management of the ERAS pathway, but in 2011 it was estimated that the enhanced recovery pathway was in place in 86% of provider organisations in at least one speciality.

Key insights

- ERAS can mean different things to different people; the intervention is not clearly defined and it is therefore difficult to monitor spread.
- ERAS implementation requires change across different professional groups: nurses, anaesthetists, surgeons and managers, which can be a challenge.
- 18-week targets, and other external incentives, have inadvertently encouraged the spread of ERAS.

Origins

Almost a third of hospital admissions in England are for a surgical procedure, resulting in 4.27 million admissions in 2013/14.⁷² Improving recovery and reducing the risk of complications can be beneficial to patients and hospitals alike.

The ‘enhanced recovery after surgery’ pathway originates in Denmark. In 2000, surgeon Professor Henrik Kehlet published a seminal paper showcasing a redesigned pathway for sixty patients undergoing elective open colon resection.⁷³ The patients received a series of interventions both during and after surgery to reduce morbidity and mortality, including returning to food soon after the operation and encouraging mobilisation early in the recovery period. The median length of hospital stay for patients in Henrik’s study was two days, compared to a typical post-operative hospital stay of six to twelve days.⁷⁴ Though many individual elements of Henrik’s intervention had been tested by surgeons in the 1990s, he was the first to bring these together into a single cohesive plan or pathway.

Professor Robin Kennedy, a Consultant Surgeon then at Yeovil District Hospital, Somerset, followed these latest developments in improving patient recovery. Robin was impressed, but initially sceptical of Henrik’s reported reduction in his patients’ length of stay, having seen many similar kinds of claims in medical papers by commercial organisations presenting their marketing as research. Curious to find out more and validate Henrik’s research, Robin flew out to Denmark to meet Henrik and his nursing team in 2001. He was impressed and inspired by what he saw. He returned to Yeovil Hospital wanting to implement an Enhanced Recovery programme for his own patients and test whether the pathway would work in an NHS context.

However, Robin also knew that the success of the programme would rely on a team equally committed to enhanced recovery techniques. His strong relationship with the hospital CEO secured him the time and financial resources he needed to get the project off the ground. Since nurses would provide many of the elements of enhanced recovery, securing their buy-in was critical. He used his own money to fly nurses out to Copenhagen to see the model working in practice, knowing that they would be best convinced “*by their own tribe.*”⁷⁵

Robin was keen to collect data that would validate the model’s efficacy in Yeovil and demonstrate that enhanced recovery would work in the UK. An Enhanced Recovery Nurse Facilitator was appointed and tasked with collecting the data, such as for length of stay and readmission rates. Because of efforts to equip people to be ready to implement the new model and engage all the necessary stakeholders - what Robin describes “*planning for success*” - Yeovil’s Enhanced Recovery programme was set up and running within six months.

Spreading

Following the publication of Robin’s research, Enhanced Recovery After Surgery techniques began to spread through enthusiasts in the NHS’s surgical networks in the early 2000s. Early adopters and pioneers discussed the latest research and best practice with their peers, both informally and in professional networks. The results of Robin’s randomised controlled trial at Yeovil were published in 2006, adding to a growing body of literature that demonstrated the impact of Enhanced Recovery After Surgery on length of stay and, crucially, showing that it worked within the NHS.⁷⁶ Invitations from surgical societies to speak at their conferences and meetings soon followed, creating a wider platform for conversation around the new model.

Due to the growing interest in the approach, Robin started to run courses that trained teams across the NHS in how to introduce enhanced recovery. He was keen to talk not only with surgeons or clinical leads, but also with the nurses and anaesthetists he knew were crucial to delivering the change. He believes the involvement of whole teams, and not simply individuals, was critical. The courses encouraged discussion and debate, so that all team members could consider the benefits of enhanced recovery and raise any concerns. In total, over 2,000 people from across the country were trained on the courses run by Robin and his team at Yeovil Hospital, and later at St Mark’s Hospital.

In 2008, the Labour government introduced an 18-week target for elective surgery. Length of stay and waiting times were now a national issue.⁷⁷ Robin and

his clinical colleagues pitched to Janine Roberts, then Head of Transformation and Sustainability for the 18-week programme at the Department of Health.

“They said that if we were serious about improving quality and reducing waiting times, here is a model of care that will help you do that.”

— Janine Roberts

Janine and her team had also heard about ERAS from the Chief Executive of Brighton & Sussex University Hospitals NHS Trust, Matthew Kershaw. Both clinical and managerial staff were advocating for ERAS, and the Department of Health sat up and listened.

The Department of Health team recognised that their primary role was to advise on policy, and that this type of work would have been more in the remit of the NHS Institute for Innovation and Improvement (subsequently NHS Improvement). However, the Department wanted to make things happen quickly and accelerate the implementation of this model of care. They recognised the potential for scale and impact of ERAS, and that there was already a growing evidence base demonstrating its benefits. It was therefore all about accelerating its spread through the system.⁷⁸ The spread up to this point had been predominantly led by clinicians and the Department of Health believed a multidisciplinary approach was now needed to really go to scale. Janine became the programme’s National Lead. They also brought in change-management expertise to complement the clinical and research expertise that already existed within the enhanced recovery community.⁷⁹

The Department of Health created the Enhanced Recovery Partnership Programme (ERPP) in 2009, bringing together a coalition of interested parties to spread ERAS. One of these was the National Cancer Action Team, led by Professor Sir Mike Richards, who went on to chair the ERPP. He became, as Janine describes him, the “*key figurehead*” who pulled the rest of the key stakeholders in the ERPP together.⁸⁰ Mike had been convinced of the benefits of ERAS by Robin on a previous laparoscopy project they had worked on together.

Year 1 of the ERPP focussed on identifying ERAS best practice, learning from pioneers and developing resources to support implementation. In April 2009 they selected 15 “innovation sites”,⁸¹ in partnership with the Strategic Health Authorities, in order to “better understand the critical success factors for adoption, spread and sustainability.”⁸² Janine said “we called them innovation sites because we wanted it to be engaging, and the focus was on innovation in implementing it.” A large number of the ERPP’s aims were focused on learning how to scale and spread ERAS,⁸³ and these “innovation sites” provided the evidence on how to do this.

In Year 2, the Department of Health significantly reduced their involvement in the programme and returned to their primary role as policy advisor. The project was mostly devolved to NHS Improvement and Strategic Health Authorities (SHAs). Each SHA received £70,000 to fund local spread through networking, events and clinical leadership. Three national events were held and attended by 515 delegates in total, raising awareness of enhanced recovery beyond those involved in the innovation sites and improving multidisciplinary team engagement.⁸⁴ There was also ongoing support and networking for the remaining 14 innovation sites to share their implementation experiences and to support their SHA with spread and adoption in the area.

But while the case for ERAS was clear and enthusiasm existed, it was also clear that leadership was essential to the successful implementation of this approach. It required substantial change to clinical procedures, and was a multidisciplinary, multi-component and multi-professional intervention that lay outside the control or talents of any one individual.

“If you look at the common elements of enhanced recovery, no one individual owns it. There are so many variables - implementation is reliant on whole system change. Anaesthetists, surgeons, pre-op nurses, post-op nurses, therapists, and allied health professionals - they all need to work together.”

— Tom Wainwright

The Department of Health’s 2011 evaluation of the ERPP emphasised that senior clinical leadership was critical.⁸⁵ The programme developed supporting

materials, including guidelines and toolkits, to simplify implementation. Yet it still required leadership to work across multiple professions and microsystems within and outside a hospital. Tom Wainwright, whose PhD research at Bournemouth University focused on how to implement ERAS in orthopaedics, saw it as critical that ERAS was led by both a surgeon as clinical lead and a managerial lead. Given that the programme works across directorates, departments and even organisations, where no one person manages all of the people involved, leadership with a broad outlook and authority was critical. Whilst a clinical lead may be the initiator of ERAS, they may not be the person best placed to lead the change more widely.⁸⁶

Despite the high profile nature of the ERAS programme, some felt that progress was slower than they expected, “It did surprise me how much effort it needed to get change to happen across the country and across specialities. I was frustrated that the change didn’t happen faster. It felt like a trickle.” (Professor Sir Mike Richards)

There were some examples of faster uptake, driven by the use of policy levers. In London, an enhanced recovery CQUIN (Commissioning for Quality and Innovation) scheme was introduced in 2011 by Martin Kuper, giving a financial incentive for providers to follow enhanced recovery as recognised best practice. The CQUIN required providers to submit data on performance, perform surgery on the day a patient was admitted, use goal directed fluid therapy for colorectal procedures and achieve an overall reduction in length of stay.⁸⁷ Of the 20 providers who participated, 12 (60%) received the full CQUIN payment. In addition, ERAS was cited in the best practice tariff guidelines and given an independent “Right Care” workstream within the Quality, Innovation, Productivity and Prevention (QIPP) programme recommending ERAS as a high-impact change.⁸⁸ These policy levers did, however, have limitations. The CQUIN scheme only lasted for a year, raising concern that this was not long enough to embed the complex system change required for ERAS, and instead led to participants only “dabbling their toes” in enhanced recovery.⁸⁹

There is little reliable data on the uptake and implementation of enhanced recovery. In particular, there is a difference between an enhanced recovery pathway in name and in practice, making it difficult to understand the scale of impact on patient outcomes.⁹⁰

Evidence from academic evaluations indicates that, in the areas where it has been implemented, there has been large variation in the numbers and combinations of elements that are implemented.⁹¹ There are many elements to enhanced recovery, with little evidence of their relative importance, which often leads to cherry picking by implementers.

Nevertheless, the following data gives a sense of the spread of the ERAS approach:

- April 2009: The best guess of the ERPP team was that in 2009 some 40-50 providers were using Enhanced Recovery in one specialty.⁹²
- May 2010 - Feb 2011: In innovation sites “the number of teams reporting full implementation has increased from 147 consultant teams to 178 (representing 56% of teams reviewed), giving clear evidence of progress. Additional teams report progression from planning to testing/partial implementation. There remain, however, 6% of teams that have no plans to implement enhanced recovery and some anecdotal evidence of their lack of belief in the benefits of enhanced recovery.”⁹³
- 2011: Enhanced recovery pathway estimated to be in 86% of provider organisations in at least one speciality. An ERPP report stated that enhanced recovery pathways have been established in the vast majority of NHS hospitals in England.⁹⁴

Sustaining

Many of those involved in the ERPP feel there has been a slow-down in the adoption of enhanced recovery techniques since the end of the national programme in 2011.⁹⁵

“Many people fed back that the scale and spread could have been greater if the national drive and presence had remained for longer.”

— Janine Roberts

For others, however, enhanced recovery has become so embedded in day-to-day practice that it is hard to identify; now doctors simply see it as best practice, “I’ve not heard anyone talk about ER recently: it’s just how things are.” (Mr Andrew Nordin, Gynaecologist

and leader of the East Kent Gynaecological Oncology Centre multidisciplinary team)

The space previously occupied by the programme has been partially filled by a new organisation. The ERAS Society works to share learning and raise the profile of enhanced recovery. The Society has over 600 members and held its sixth conference in November 2016.

There is a divergence in opinion of those involved in the ERPP about the extent to which the lack of data on ERAS has been problematic, “A criticism of the Enhanced Recovery Partnership Programme was that it didn’t incorporate enough data to demonstrate its impact versus the organic spread that preceded it.” (Professor Robin Kennedy)

For some, the failure of the programme to invest in a national database made monitoring uptake impossible. For others it was a conscious choice not to “make an industry of measurement”.⁹⁶ Measuring uptake was never going to be simple, since “how you do it” is just as critical as the more easily measured “what you do.” Despite the undoubted spread of this approach, the confusion over the data makes it difficult to know with confidence the true extent to which enhanced recovery principles have been embedded in the NHS and have led to improved outcomes for patients.

4. The spread of Florence (Flo)

What is the innovation?

Florence is a telehealth platform to allow patients and their doctors to manage long-term health conditions effectively. Florence is a virtual persona that sends text messages to patients, reminding them to adhere to healthcare plans and asking for health monitoring measurements. Doctors can adapt Florence to the healthcare plan of the individual.

When was it established?

The Florence idea was first developed in 2010.

To what extent has it scaled?

Florence has been used by nearly 50,000 people in over 70 health and social care organisations, and continues to grow.

Key insights

- The input of clinical perspectives has been a cornerstone of the design and development process of Florence.
- Florence's social enterprise spin-out was a vehicle for a more sustained spread of the innovation compared to the funded "roll-out" method.
- The flexibility of the platform and capability-support model enables adoption in a wide variety of contexts, as well as co-production of the way in which Florence is adopted in each site with clinicians and patients.

Origins

Over the past few years, a top NHS priority has been reducing admissions to acute care. Investment in telehealth systems to provide care remotely has been one strategy to achieve this. In 2010/11, Stoke-on-Trent Primary Care Trust (PCT) was trialling telehealth systems for Chronic Obstructive Pulmonary Disease (COPD) patients, using dedicated hardware that was installed in patients' homes. As Chair of a Practice-based Commissioning Locality Group in Stoke-on-Trent, Dr Ruth Chambers OBE ran a pilot to test the use of £50,000 worth of telehealth equipment. The pilot saw a number of unintended consequences such as higher rates of call-out for clinical staff like community matrons, and an increase in the number of false alarms for general practices. Commissioners and managers saw telehealth as a 'quick fix' solution to the challenge of high admissions to acute care, but clinicians felt that telehealth was also, in some cases, having an adverse effect on clinical adherence, and consequently undermining clinical outcomes.

During the same period, Phil O'Connell, a Chartered IT professional who was working on a project at Stoke-on-Trent Council, was promoting his early ideas for Florence - a virtual persona operated through text message technology that encourages patients to engage with, and adhere to, their healthcare plans. Observing the many problems with existing high-tech systems, he started to do his own independent research, talking to clinicians about the challenges of the telehealth systems that were being used at the time.

Phil approached Terry Hawkins, a Director at Stoke-on-Trent PCT, with a "vision for the future" and a compelling case for a system that would help the Trust and its clinicians to reduce acute admissions in an efficient and cost-effective way. His idea essentially involved simplifying telehealth. Rather than purchase and rely on specialist telehealth hardware, Phil's intervention would ask patients to text their vital statistics using their own mobile phones. He wanted to create a system flexible enough to send reminders and health tips that are personalised for each individual patient, as well as enabling them to report their own measurements from home. He believed these functions would encourage patients to take a more active role in their own healthcare, as well as supporting clinicians to deliver tailored care for each individual patient.

"It's not about telling the clinicians "here's a solution, use it", but rather about understanding the challenges they have in getting patients to participate, and demonstrating to them how the system can engage patients more, and in more of an interactive way."

— Phil O'Connell

Terry and the PCT were able to give Phil time and space to develop Florence, and provide some initial innovation funding for prototyping and testing. Terry created what Phil called "a sandpit to play in".⁹⁷ With this initial funding, Phil and his team drew on the technical world beyond healthcare, and began working in collaboration with Ruth to develop a simple simulation that would help to demonstrate the ways in which this system would be both different and beneficial. Critically, Florence's strength lies as much in its content as in its technology: Florence is a persona - it simulates an interaction with a person or clinician - and the clinicians that adopt the system edit the content to be right for them and their patients.

The technology was designed in a way that deliberately sought to overcome the barriers to adoption and sustainability that were identified in the development phase. Adaptability (the ability to meet the different objectives of its potential adopters) was a key design feature from the outset, marking a deliberate departure from the standardisation that dominated the telehealth landscape. In particular, Phil wanted to challenge the "not invented here" syndrome that is often a barrier to scaling within the NHS. Florence was also designed to empower patients to be the holders of their own data - independent of any organisation - to ensure that they could share data across institutional boundaries.

Phil's technical background and Ruth's clinical expertise formed a powerful combination. As Clinical Lead, Ruth provided knowledge of the healthcare landscape and support in developing a strong evidence base. She knew what clinicians needed to know in order to fully buy into the concept and its practical application. She was also instrumental in getting clinical leaders involved in Florence, either directly or as champions. Both Phil and Ruth emphasise the importance of mutual trust and respect in their success.

Spreading

In 2011, the Florence team received a £75,000 grant from The Health Foundation's Shine Programme.⁹⁸ The funds provided the resources to develop the methodology further and evaluate the ability of the system to support patients with chronic kidney disease or hypertension to manage their own condition, and to reduce referrals to the renal service and unplanned hospital admissions. Florence was trialled locally with 110 patients. Ruth brought in a GP and researcher to lead on the evaluation, ensuring a level of rigour that would meet the standards of clinicians. In addition, a new role of Clinical Telehealth Facilitator was created; these facilitators supported general practices to adopt and trial the system, and collect the necessary data.

The results of the evaluation led to a pivotal peer-reviewed publication in the BMJ, which demonstrated Florence's effectiveness in helping reduce patient blood pressure.⁹⁹ The publication gave significant clinical credibility to Florence and helped to overcome the perception that it was just another technical innovation with a commercial objective.

"All of a sudden, some of the barriers weren't there. It was no longer someone who's not a clinician trying to get people to buy technology. The story was changing - it was now more about what the product does, and then here's the evidence published in the BMJ."

— Phil O'Connell

In parallel to the Shine Programme, the local Strategic Health Authority (SHA) had seen the potential of Florence and provided some innovation funding to support its adoption in a number of PCTs in the West Midlands. The success of this expansion was, however, questionable. The funding explicitly aimed to "roll out" Florence, and was dependent on adopters following a prescribed model. However, Phil felt that the funding model in some cases actively deterred sustainable adoption. As he saw it, organisations that are funded to do something, and put under pressure by those providing the funding, might participate in the short-term, but will lose interest once the funding has come to an end. In this kind of context, it can be hard work and resource intensive to embed and ensure sustainable implementation.

In a similar vein to the SHA’s efforts, the Department of Health (DH) provided funding to roll Florence out to CCGs across England through the Advice and Interactive Messaging (AIM) programme.¹⁰⁰ The DH had seen that Florence was gaining popularity amongst clinicians as well as credibility from clinical leaders such as Sir John Oldham. It was also beginning to produce clear positive changes in clinical outcomes for patients using Florence. The AIM programme therefore had two main objectives: to support broader efforts to evaluate Florence and to spread it further. The programme was successful in gathering quality data, but it didn’t prove particularly effective in sustaining the use of Florence across the CCGs that were involved, with a noticeable drop-off in the use of the system after the programme ended.

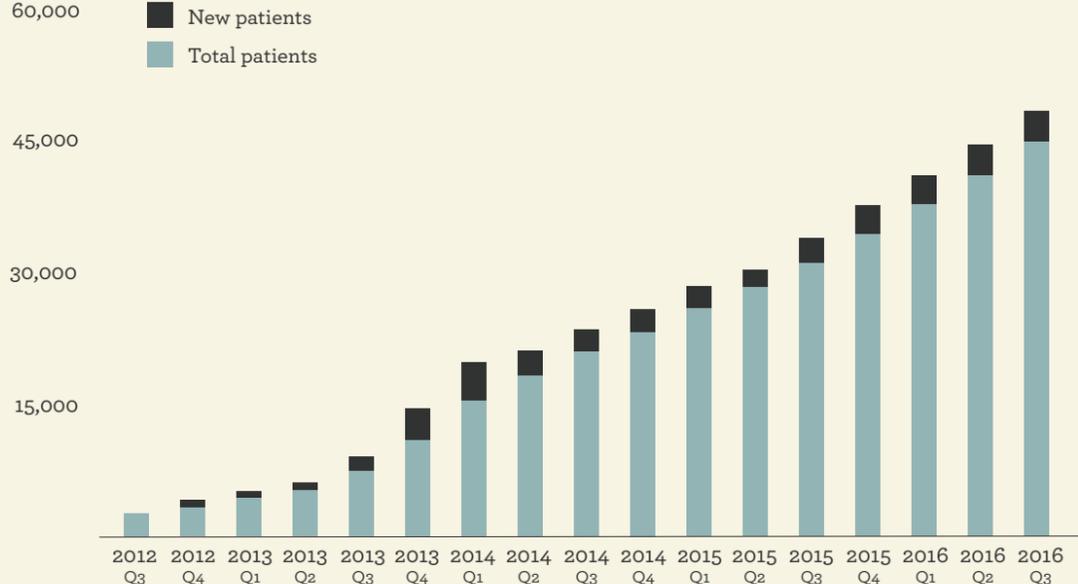
In Stafford and Surrounds CCG, Florence was introduced across all 14 General Practices. The board had been looking at what role assistive technology could play in their practices, and Florence was offering a two-year free service to pump-prime their telehealth system. Managers from 12 of the 14 practices attended a workshop in Stoke-on-Trent, where a live demonstration of the system “*caught [their] imagination*”.¹⁰¹ With the help of the Florence Clinical Telehealth Facilitator Chris Chambers, and the Innovation Lead for the CCG Paul Meredith, they built a team of Practice Leads who were responsible for facilitating the adoption of Florence. They started with hypertension, and then expanded to asthma

and COPD. Each facilitator gathered data on the use of Florence, which was then used to make a strong business case to justify the future costs of the service.¹⁰²

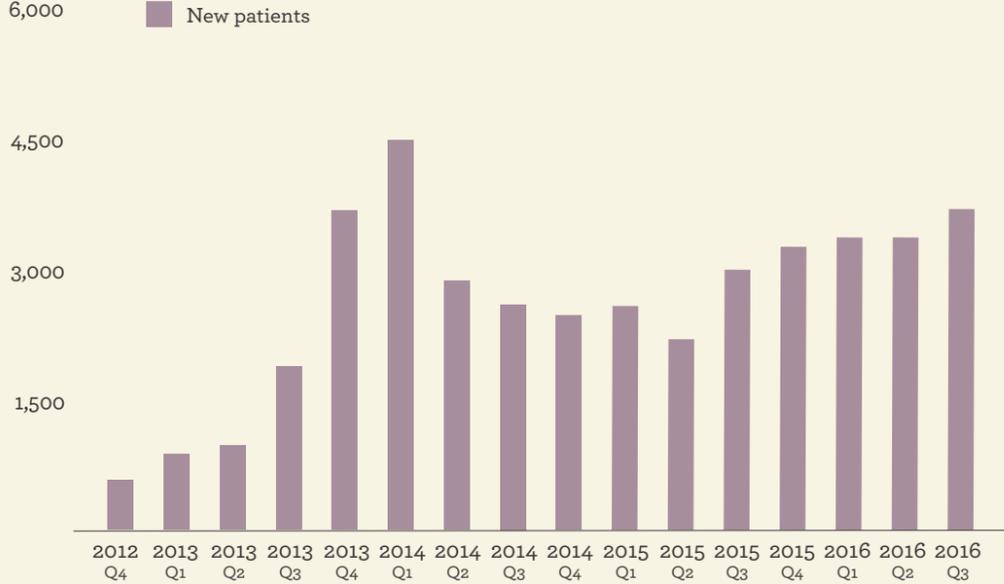
Florence has now been used by nearly 50,000 people in over 70 health and social care organisations and the number is increasing. It is used in general practice, acute hospitals, and community and mental health settings, as well as by social care professionals, in education and in public health.

Sustaining

To help organisations maximise benefits and ensure the introduction of Florence was sustainable, the Florence team developed a “*capability maturity model*”. Through a membership subscription model, Florence’s central team invest in organisations for the long term, supporting them to implement the system by providing unlimited support to build protocols and adapt the structure and messaging of Florence to fit their specific clinical focus areas. They work under the assumption that the level of support needed will diminish over time. Part of the capability maturity model is about upskilling local teams to be able to do this personalisation themselves. In some cases, patient groups have designed their own protocols with clinician oversight. Capturing their experiences and evidence as case studies and sharing them



Graph 5: The total number of patients using Florence over time



Graph 6: The number of new patients using Florence over time

in their own teams is also a crucial element of the capability maturity model, supporting adopters to make a local case for the continued use of Florence. The Florence team highlight the importance of gathering evidence on how Florence is used in a particular context, or with a focus on a particular cohort and their clinical outcomes.

The membership model was used to avoid having to give people “*a business quote*” for the support that would help clinicians adopt Florence. Rather than asking for big fees upfront, adopters are given a “*menu*” of small services and activities. The business model is explicitly not-for-profit, and has a strong narrative that focuses on a desire to satisfy the goals that clinicians are passionate about: better patient outcomes and effective use of NHS resources. Alongside the capability maturity model, a crucial part of the Florence sustainability strategy is a Community of Practice to encourage every adopter to become part of the broader community of clinical users. The team share knowledge about the intellectual property, methodology and different techniques adopters can use, and everyone else is encouraged to share their work with other users.

When Phil and his team were working with the PCT (and then CCG) in Stoke-on-Trent, they created

a virtual social enterprise: an incubator for the membership business model, located within the NHS. Phil felt this was initially successful in supporting Florence to spread, but that financial governance structures made it difficult for CCGs to invest in something like it. Consequently, Phil moved on, with the agreement of Stoke-on-Trent CCG, to continue to incubate this virtual social enterprise outside of the NHS. His aim was to set up a proper incorporated organisation with the objective of further expanding the Florence telehealth approach. With a license from the CCG, Simple Shared Healthcare was born. The social enterprise model allows Phil more flexibility to develop Florence and the methodology in different directions. For example the team were able to work with the Veterans Health Administration, adapting the system to be used as part of a healthcare programme for veterans in the USA, using a sister persona called ‘Annie’,¹⁰³ and are now also working with healthcare organisations in Australia, further building the case for Simple Telehealth.

Since Simple Shared Healthcare was founded as a social enterprise in the 3rd quarter of 2015, the adoption rate of Florence has been consistently higher than before, except for the initial spike during the AIM programme in 2013-14.

5. The spread of high sensitivity troponin testing

What is the innovation?

Troponin is a protein that can be found in the blood of someone with cardiac injury. High-sensitivity troponin assays allow detection of much lower concentrations of troponin in the blood sooner after the presentation of symptoms.

When was it established?

Assays for detecting troponin levels have been evolving over time. In 2014, two high sensitivity assays were included in NICE guidelines for the first time.

To what extent has it scaled?

A survey published in 2015 found that 60% (n=94) of lead laboratory consultants who responded had implemented a high-sensitivity troponin assay.¹⁰⁴

Key insights

- A technical innovation (the higher sensitivity assays) has triggered a variety of service innovations in order to implement and capitalise on it.
- The teams involved in developing, adopting and implementing the innovation are not joined up; at each stage it is a different organisation or team leading the work.
- The innovation is not 'static', but part of an evolving research agenda.

Origins

Chest pain is a common presenting symptom at emergency departments across the country. In 2012-13 it accounted for 237,832 emergency admissions, approximately 4.5% of all emergency admissions.¹⁰⁵ However, one study has suggested that only 25% of patients admitted for chest pain are diagnosed with a myocardial infarction (heart attack).¹⁰⁶ For doctors working in emergency departments, and patients, the ability to rapidly identify and treat patients with myocardial infarction is critical.

In 1963 the Japanese physiologist, Setsuro Ebashi, published a paper on a newly discovered protein called troponin.¹⁰⁷ This seminal work showed that troponin was a complex combination of three different proteins, troponin C, I and T. In subsequent years it was shown that when the heart is damaged this protein is released, and that troponin I and T could be used as biomarkers for cardiac injury.

Clinical demand for more accurate, quicker tests that would support the prompt treatment of patients with a myocardial infarction led to the continual improvement of troponin tests. Thanks to this continual improvement, and the advent of high-sensitivity troponin assays, in the year 2000, troponin levels were included in the essential criteria defining acute myocardial infarction by the Joint European Society for Cardiology.¹⁰⁸ These newer, high-sensitivity troponin assays can detect much lower troponin concentrations within the blood sooner after the presentation of symptoms than earlier versions of the tests: typically, in 3 hours rather than 12 hours. As Dr Anoop Shah, Clinical Lecturer in Cardiology at the University of Edinburgh describes it, *"Troponin is not a new test; they've been using the molecule for a long time. It's the assay we are using - the blood test in the lab - that's changing."* (Dr Anoop Shah)

NICE guidance published in 2014 recommended two of these assays, the Elecsys Troponin T high-sensitive and ARCHITECT STAT High Sensitive Troponin-I assays, alongside other clinical investigations.¹⁰⁹

As these new high-sensitivity assays have spread, diagnostic pathways have also had to change. As a recent audit explained, the introduction of high-sensitivity assays, *"was a step change almost as significant as the original introduction of troponin [tests] more than two decades earlier, necessitating*

*a re-engineering of our investigative strategies that would take time to bed in."*¹¹⁰ (GC McKeeman and PW Auld)

Some experts we interviewed felt that the assays only improve patient care when the test is considered as *"part of a sophisticated diagnostic pathway"* (Dr Clare Ford, Consultant Clinical Specialist at Royal Wolverhampton NHS Trust). It is this combination of the new assays and a new diagnostic pathway that has spread in subsequent years, and while the development of the assays has been led by manufacturers, the development of these new pathways has primarily been led by clinicians.

Spreading

While uptake data has not been regularly collected, a survey published in 2015 found that 60% (n=94) of lead laboratory consultants who responded had implemented a high-sensitivity troponin assay.¹¹¹ Of these, the most common was the Roche Elecsys Troponin T assay. However, both this audit,¹¹² and key academics interviewed, suggest that there has been wide variation in how these assays have been adopted by clinicians.

One area where there has been greatest variation is the time between the baseline sample and subsequent test. The old troponin tests required the second sample to be taken 12 hours after the baseline sample, while for the new assays, three hours is enough,¹¹³ and some suggest that this time could be cut even further.¹¹⁴ However, the national audit showed that the majority of services were still waiting between 6 and 12 hours before resampling.¹¹⁵ Clinicians and academics across the country have been looking at pathways that support early ruling out of myocardial infarction and streamlining these pathways as much as possible.

For example, Dr Anoop Shah, from the University of Edinburgh, has been pioneering research around the question: how safe is it to rule out heart attacks in the emergency department using one troponin test? Using the new sensitivity afforded by equipment produced by manufacturers Abbott and Roche, Anoop has conducted research in all 12 hospitals across Edinburgh and Glasgow to create a new pathway that uses a single test to diagnose myocardial infarction.

"In the past, the patient with a suspected heart attack would have two tests with a 12- hour gap in between. Now it takes 40 minutes."

— Dr Anoop Shah

In Wolverhampton, Dr Kate Willmer has led the design of a new chest pain pathway that uses an initial, high-sensitivity test in A&E to determine a patient's risk of cardiac arrest. They use a *"rule out"* figure on the test results to send some patients they are confident are not experiencing cardiac arrest straight home and others, deemed low risk, to a clinical decision unit for a second troponin test after 3 hours. Patients that need further follow up, but whose chest pain is unlikely to be cardiac in origin, are sent to a new clinic for further assessment. Anoop and Kate are by no means the only clinicians working in this space, but both exemplify how clinicians are using the new capabilities of the high-sensitivity troponin assay to better triage and discharge patients with chest pain.

Kate was encouraged to lead on the development of a new chest pain pathway by her divisional manager at a time of huge pressure on the hospital's A&E department, in part caused by the Royal Wolverhampton Hospital having to serve a larger local population.¹¹⁶ High patient volumes meant that the emergency department (ED) was regularly breaching 4-hour wait times (and being penalised for doing so). The new pathway was designed to reduce admissions and improve efficiency. However, Kate highlights how the pathway is actually saving money for the whole health economy, rather than the Trust. The Trust gets a lot of money for an overnight admission, particularly compared to a 4-hour admission, so reducing the length of stay actually reduces the hospital's tariff payments. But in winter months when patient volumes are high, the pressure on A&E also reduces the hospital's capacity to deliver elective surgery and keep to scheduled admissions, so the Trust still experiences immediate benefits from reducing the flow of patients from the ED into surgical wards.¹¹⁷

This promise of savings and improved patient flow made senior managers in Wolverhampton receptive to the idea of adopting a new pathway.¹¹⁸ Clinical leaders that develop new pathways typically do so with the

primary intention of addressing challenges within their own health locality; wider spread is not necessarily their principal priority, even though many localities are likely facing similar challenges. In this case, sharing new applications of high sensitivity troponin testing is typically led by manufacturers. For example, Dr Clare Ford, Consultant Clinical Specialist at Royal Wolverhampton NHS Trust, who worked with Kate on developing their new pathway, has been invited to present Wolverhampton’s application of their Abbott ARCHITECT STAT High Sensitivity troponin assay at conferences, both in the UK and around the world; she feels that “*the sharing has been done by Abbott.*”¹¹⁹

This role taken by manufacturers is in part due to the fact that there is no identifiable hospital trust or professional body that is driving changes in practice around high-sensitivity troponin testing and that, in this context, manufacturers have the most to gain from encouraging others to adopt their equipment. The troponin assay is just one small component of a piece of equipment that performs many other tests and functions. This equipment is acquired by the hospital’s clinical laboratory, on long cycles of replacement (in Wolverhampton, for example, new equipment is purchased every 7 years).¹²⁰ Decisions around which equipment to buy is based on a long specification list and a myriad of factors, one of which may include high-sensitivity troponin testing, but this requirement will be prioritised against a long list of other needs. Decisions around equipment procurement are made virtually independently from the cardiology teams who will develop the new pathways. Cardiologists, excited about the potential of high-sensitivity troponin testing, are therefore often at the mercy of procurement cycles and laboratory decision making to turn this ambition into reality in their hospital. The most common reason given in the national audit for not using these tests was that the assays were not an option under their current managed service contract.¹²¹ So, to date, there has been a powerful element of “*serendipity*”¹²² in these factors aligning which determines when high-sensitivity troponin testing is adopted in a new locality.

Sustaining

As high-sensitivity troponin assays become more routinely part of laboratory equipment, it is the changes to diagnostic pathways that will need to be made if healthcare systems are to realise the impact.

Since publishing their guidance on high-sensitivity troponin testing, NICE have produced clinical protocols and adoption guides to help clinicians and managers implement early ‘rule out’ diagnostic pathways.¹²³ These include guidance on collaborative working, costs, education and quality control. An example protocol is shown below. The impact of guidance such as this is difficult to determine without regularly collected data on adoption not only of high sensitivity assays, but also of the new pathways that they sit within.

Another challenge facing the adoption of these assays and pathways is clinical interpretation and education. With more sensitive tests and a far greater range of results, it’s much harder than before to ascertain what the test results show. In the past the test was less sensitive, and would only detect highly elevated troponin levels, a clear indication that there was a serious problem and high likelihood of cardiac arrest. As Professor Michael Marber, Professor of Cardiology at King’s College London, puts it, “*as sensitivity increases, specificity decreases*”. Clinicians such as Anoop and Kate feel that NICE guidelines have not kept up to date with the changes in sensitivity, and that it is largely up to forward-thinking clinicians to decide alongside manufacturers how test results are interpreted in clinical practice. This can then lead to the test being applied in different ways at a local level, and is a potential barrier to adoption for those clinicians who expect a test to deliver a binary result with a clear recommendation for action.

A key driver going forward is likely to be emergency department waiting-time targets. As the NICE guidance recommends, if conducted promptly, the 3-hour tests can support the earlier discharge of low-risk patients within the 4-hour target for emergency departments. This is contingent both on laboratories meeting turnaround times, and on clinicians being available to make the decision. The clinicians interviewed had seen the impact of these improvements on their hospitals. Anoop’s pathway has seen a 10-20% reduction in hospital admissions.¹²⁴ In Wolverhampton, the average time from arriving at

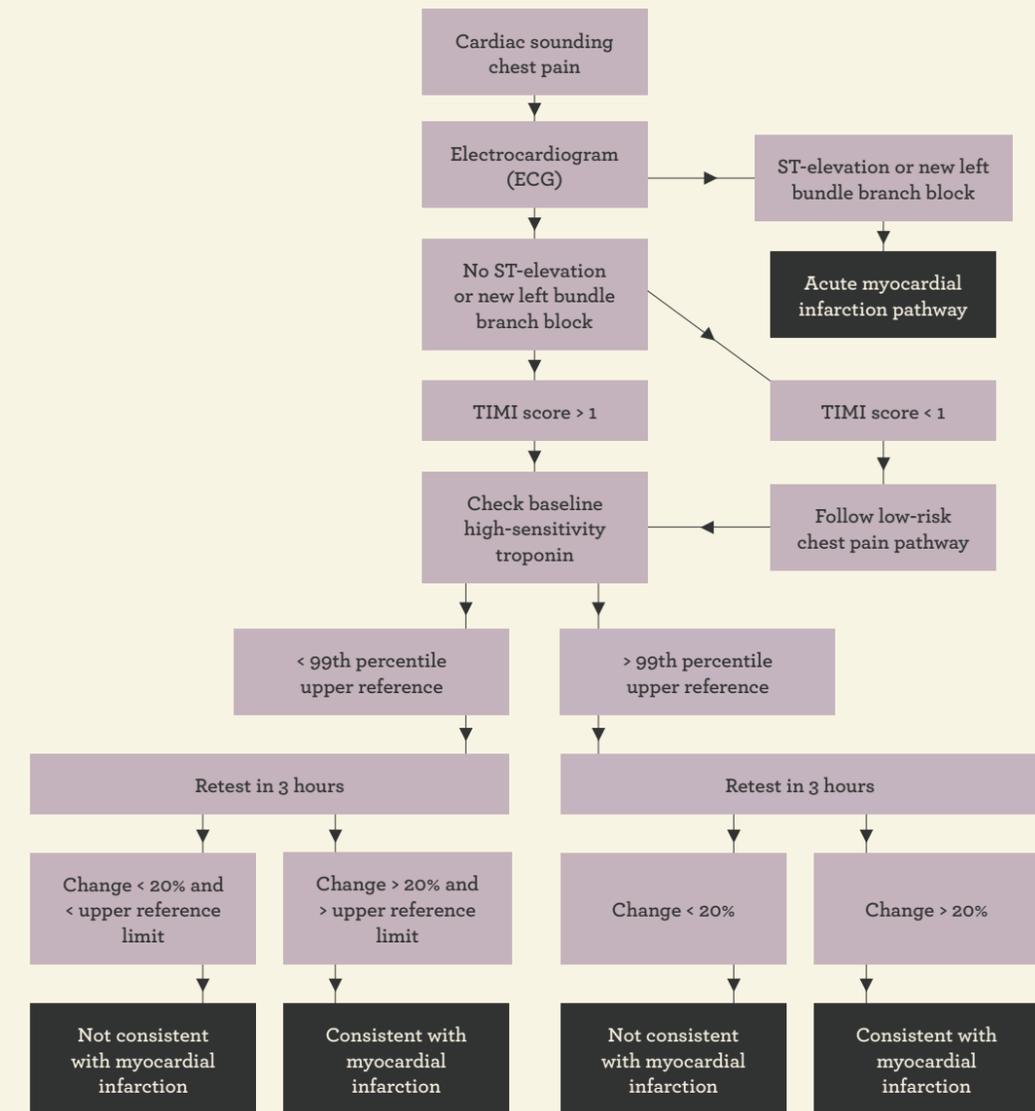


Chart 2: Diagnosis pathways using high sensitivity troponin tests

A&E to discharge on the new chest pain pathway has reduced from 23 hours to 9 hours.¹²⁵

Research into troponin testing and its application continues, alongside research into new biomarkers for detecting heart damage, such as that led by Michael. The purpose of this research remains that of trying to diagnose the cause of chest pain faster - quickly ruling heart damage in or out, in order to better triage or discharge patients. Much of the research in this space has and is being supported by organisations such as

the British Heart Foundation. They view their role as to fund research into better treatments and ensure that this research is read and cited. When it comes to troponin, they now view it as NICE’s role to evaluate the evidence and give cardiologists clear guidelines to further the use of high-sensitivity assays in clinical practice.¹²⁶

6. The spread of Implantable Cardioverter-Defibrillators (ICDs)

What is the innovation?

Implantable Cardioverter-Defibrillators (ICDs) are small devices that are implanted under a patient's collarbone to prevent sudden cardiac death from ventricular arrhythmias. If the heart beats irregularly, the ICD is triggered to deliver an electric shock to the patient and correct the heart rhythm.

When was it established?

ICDs were first developed in the 1970s, but have advanced considerably in form and function since then. The first device was implanted in 1980.

To what extent has it scaled?

The current UK implant rate is 615 implants per million of the population, compared to 10 implants per million in 1996.

Key insights

- Manufacturers have played a key role in creating demand and growing the market.
- The spread of the devices has accompanied, and required, the parallel development of a new specialist medical field.
- The Arrhythmia Alliance, as an advocacy body, has been influential in shaping the national agenda around ICDs.

Origins

Implantable Cardioverter-Defibrillators (ICDs) are small devices that are implanted under a patient's collarbone to prevent sudden cardiac death from ventricular arrhythmias. If the heart beats irregularly, the ICD is triggered to deliver an electric shock to the patient and correct the heart rhythm. 90% of ICDs are never activated, but in the cases where they are activated there is a significantly higher survival rate (ICDs have been shown to terminate 98% of potentially life-threatening arrhythmias).¹²⁷

“It's like buying insurance. Very few will use it, but you need it when you need it.”

— Dr Francis Murgatroyd,
Consultant Cardiologist

ICDs were first developed in the 1970s in Baltimore by Dr Michael Mirowski.¹²⁸ The initial reception by the professional community was extreme scepticism, who largely believed that the best treatment for patients with ventricular fibrillation was support in a coronary care unit - established practice at the time. However, early innovators and champions of ICDs persisted, and in February 1980 the first device was implanted at Johns Hopkins Hospital.

The devices have evolved significantly since their first use. They began as the size of a person's hand, and 5-10% of patients died during the procedure to implant them.¹²⁹ Devices were therefore first used for patients who had repeated cardiac arrest, and for whom an ICD was seen as a last resort. Large-scale trials of the devices properly began in the mid-1990s, with trials primarily looking at outcomes for patients with ICDs compared to conventional medical therapy.¹³⁰ The *Antiarrhythmics Versus Implantable Defibrillators* trial published in 1999, for example, found that the mortality rate for patients treated with ICDs was lower than those receiving Anti-Arrhythmic drugs (AADs), with an 84% survival rate at three years for ICD treated patients compared with 76% for those treated with AADs.¹³¹ The growing evidence base on improved life expectancy has led to ICDs becoming “the treatment of choice for life-threatening arrhythmias.”¹³²

On the back of a growing body of research, the first set of NICE guidelines on ICDs were published in 2000. They recommended the use of ICDs in certain circumstances which included:

- Secondary prevention for patients with cardiac arrest due to either ventricular tachycardia or ventricular fibrillation; and,
- Primary prevention for patients with a history of previous myocardial infarction (along with other presenting conditions), or a familial cardiac condition with a high risk of sudden cardiac death.

Spreading

In 1996, it was estimated that 10 patients per million received an ICD in the UK, half the average for Western Europe and less than 10% of the 162 patients per million implantation rate in the USA.¹³³ The inclusion of the technology in NICE guidelines was expected by some to trigger “an explosion” in use of the devices, says Dr Francis Murgatroyd, consultant cardiologist and chair of The British Heart Rhythm Society's Registry and Audit Committee. The growth has been slower than hoped for, and considerably slower than elsewhere in the world. Francis attributes this to the need for patients eligible for ICD treatment to be referred by non-specialists, which relies on awareness and behavioural change amongst clinicians, things NICE guidelines alone cannot affect. As a result, the spread of ICDs has been characterised by significant regional variation: a 2006 survey demonstrated “a nearly three-fold difference in new implantation rates between the lowest (26 per million) and highest (73 per million) implanting regions.”¹³⁴ Investigations to explain the exact cause of this variation have been inconclusive, but attributed to “[the spread of ICDs having] developed in a haphazard way, probably by local enthusiasts, without systematic planning.”¹³⁵

The Arrhythmia Alliance, launched in 2004, has played a central role in creating a national, rather than local or regional, impetus for the spread of ICDs. The Arrhythmia Alliance is an umbrella organisation that brings together charities, clinicians, researchers, patients, manufacturers and policymakers in order to

achieve their mission that “every person affected by an arrhythmia will receive information, support and rapid access to appropriate treatment.”¹³⁶ One of their core objectives is to “promote the value and need for cardiac pacing, implantable defibrillators, catheter ablation and other treatments for arrhythmias.”¹³⁷ Since they were founded, they have worked to overcome what they believe to be the biggest barriers to the use of ICDs: lack of education and knowledge amongst professionals and the public on the risks and treatment options associated with atrial fibrillation.¹³⁸ They do this by publishing information for patients and clinicians, running public awareness campaigns and lobbying the government to make devices more accessible for patients.

Alongside the Arrhythmia Alliance, the British Heart Rhythm Society (BHRS) has established implantable devices as an important practice area in the field of cardiology. Formed in 2005 through the amalgamation of the British Pacing and Electrophysiology Group, the British Association of Arrhythmia Nurses and the UK Interventional Electrophysiology Society, BHRS brings together professionals through guidelines, training and a BHRS certification programme. The BHRS also completes an annual *National Audit of Cardiac Rhythm Management Devices* which monitors implantation rates and practice across UK centres. Together, the BHRS and the Arrhythmia Alliance hold an annual Heart Rhythm Congress. Since the first Congress in 2006 with 800 members, the event has grown to be attended by over 3,000 delegates, including patients, industry leaders and a range of allied healthcare professionals. As such, it's a “unique meeting in terms of disseminating knowledge” about arrhythmia treatment.¹³⁹

As Trudie Lobban MBE, founder and CEO of the Arrhythmia Alliance, describes it, “my job is to influence people - working with doctors, healthcare professionals, ministers etc.”¹⁴⁰ She believes lobbying the government and NHS England has been fundamental in leading to significant policy change through the inclusion of a new Chapter on Arrhythmias and Sudden Cardiac Death in the National Service Framework, giving clear guidance on diagnosis and treatment for those with heart rhythm disorders.¹⁴¹ The Arrhythmia Alliance use patient stories to great effect in building a case

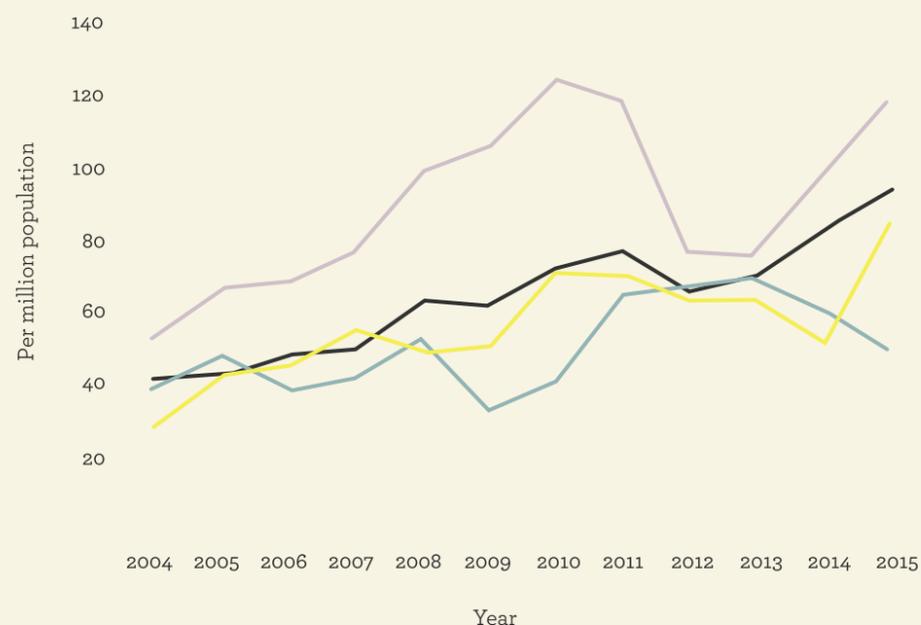
for change. They emphasise how “the end user is the patient, not the doctor.”¹⁴² This is particularly important given that specialists are often seen as the “user” of an ICD, as they implant them, and given that there is little organic demand from patients unaware of the technology and its benefits, “Patients never ask for them and often my job is to persuade them that they’re a good thing.” (Dr Francis Murgatroyd)

The spread and development of ICDs is also being driven by the market and ICD manufacturers. Under the current commissioning model, it’s not uncommon for hospitals to buy from multiple suppliers “so we don’t put all our eggs in one basket.”¹⁴³ A critical factor in deciding between suppliers is the quality of support the manufacturer provides: training for technicians is important, especially in smaller hospitals where there is less technical support.¹⁴⁴ It’s also common for manufacturers to bundle additional products in with large orders, such as free pacemakers. Manufacturers are not only trying to grow their market share, but also demand, and with it, the market size across the UK.

The relationship between manufacturers and clinicians is described by those involved as highly collaborative, characterised by the “free flow of

ideas.”¹⁴⁵ Francis feels that “representatives from manufacturers are colleagues as much as anything else” and that this close working relationship facilitates good feedback channels around the devices, helping to push forward the technology. The small size and competitive nature of the market mean that technological improvements are quickly adopted across the board, “They need to listen to their customers and develop new gadgets. One manufacturer designed an MRI proof device and a few years later they all had that feature.” (Dr Francis Murgatroyd)

Despite the fact that the three main manufacturers of ICDs are based in America, Professor Nick Linker, President of the British Heart Rhythm Society, views Europe as the “prime area where innovation and research thrive,”¹⁴⁶ which he attributes to the Conformité Européenne (CE) and Medicines and Healthcare products Regulatory Agency (MRHA) approval process being simpler than the Food and Drug Administration’s (FDA) equivalent process. As he sees it, the former requires a demonstration that devices are safe, whereas the FDA also requires evidence that devices achieve their purpose over a sustained period of time, thus making the approval process longer and more expensive for manufacturers.¹⁴⁷



Graph 7: The UK implant rate of ICDs over time ¹⁴⁸

Sustaining

Despite these efforts to raise the profile of ICDs, and the steady increase in uptake of ICDs, the implant rate in the UK still lags behind European neighbours, at 615 implants per million population compared to the Western European average of 739 implants per million.¹⁴⁹ Trudie has focused much of her energy on educating the practitioners who are “upstream” of the specialist, as a patient’s access to an ICD is dependent on the referral to a specialist by clinicians who are typically less aware of the technology and its benefits. Nick believes the British “gatekeeper” model to specialists inhibits uptake of the devices. GPs work across a wide portfolio of health needs and there’s a feeling by some that they “don’t have the time or resource” to invest in identifying everyone that may benefit from a preventative ICD,¹⁵⁰ and that other clinicians who are likely to meet patients before they are referred to a specialist do not refer all those who might benefit. In order to ensure all patients at risk of sudden cardiac death get access to the specialists who can treat them, awareness of risk and treatment options is critical.

“Here we have an enlightened heart failure team, they will look at the guidance if someone might need treatment and refer on. This isn’t always the case.”

— Dr Francis Murgatroyd

Nick also believes that “further advances [in the spread of ICDs] are inextricably linked with money.” Clinicians and groups such as the BHRS are concerned that the rate of ICD development, both in terms of uptake and the technology itself, will be constrained by upcoming commissioning changes. ICDs are specially commissioned, and each hospital claims back the cost of the device from NHS England. Each hospital has its own business deal with manufacturers, and hospitals will typically pass a cost back to NHS England that is higher than the cost price of the device in order to support education and training.¹⁵¹ NHS England has proposed changes to the current model, with NHS England going out to tender for ICDs themselves, buying directly from manufacturers and passing on the devices to hospitals at zero cost.¹⁵² The hope is that this will enable devices to be purchased at a

lower cost, though many in the medical community are sceptical about the impact this will have on quality. It is feared that hospitals will lose the extra money that is currently used to develop services, and that NHS England will buy the simplest devices from the cheapest companies, reducing access to the best new devices that are developed.¹⁵³ As the landscape within which ICDs are procured changes, it will be interesting to see how uptake, and variation in uptake, develops.

7. The spread of Improving Access to Psychological Therapies (IAPT)

What is the innovation?

Improving Access to Psychological Therapies (IAPT) is a service that provides evidence-based treatments for anxiety and depression, including talking therapies.

When was it established?

The IAPT model started its pilot phase in 2006, but the programme is considered to have launched officially in 2008.

To what extent has it scaled?

Over 900,000 people now access IAPT services each year.¹⁵⁴

Key insights

- IAPT was developed both alongside and outside of mainstream services.
- The scaling strategy intentionally allowed for organic growth and adaptability to local contexts and target populations.
- Scaling was incentivised both through top-down pressures and an opt-in philosophy.

Origins

In 1998 Professor David Clark,¹⁵⁵ experimental psychologist and leading practitioner of cognitive behavioural therapy (CBT), helped train a team to provide CBT for post-traumatic stress disorder arising from the conflict in Northern Ireland. In 2003, he was at a British Academy party where, by chance, he met Lord Richard Layard, labour economist and Director of the Centre for Economic Performance at the London School of Economics (LSE).¹⁵⁶ Richard, partly as a result of seeing his father's depression, had been researching how to measure individual happiness and use the data to guide public policy.¹⁵⁷

David and Richard worked together to make a powerful economic case to the Government for spending more on CBT with the aim of improving health and well-being and helping people to either stay in or return to work. Depression and anxiety affect one in six people in the UK, at an estimated total economic cost of £25 billion/year.¹⁵⁸ Despite NICE recommending CBT as the best treatment for anxiety and depression, only £80 million was spent annually on talking therapies. Richard and David recommended doubling the budget in order to reach 15% of all adults affected by anxiety and depression.¹⁵⁹

In January 2005 they presented their case to Prime Minister Tony Blair and David was then invited to design the service.¹⁶⁰ Key features included:

- There should be outcome monitoring at each CBT session, given that transparent data helps break down barriers between professional groups and persuades commissioners and ministers to support the continued expansion of the programme.
- The IAPT service should not seek to transform existing services, but sit alongside and separate from them.
- A new workforce should be recruited and trained.¹⁶¹

David and Richard had argued for a national roll-out but it was agreed that a small number of pilots should first provide proof that it could work in practice. In 2006 the IAPT programme started in two demonstration sites: Doncaster and Newham.¹⁶² Each site tailored the service in response to local needs and resources.

In Doncaster, Professor David Richards, who was running a research programme on low-intensity mental health interventions at the nearby University of York, designed Doncaster's IAPT programme to focus on low-intensity CBT interventions in response to local needs. Doncaster's interest in collaborative care and a shortage of psychologists led to David Richards' choice to use junior mental health workers to deliver stepped, low-intensity interventions. Patients would receive an initial face-to-face consultation, then 12 weeks of low-intensity CBT and medication management advice via telephone. In its pilot phase, the IAPT service provided care to over 4,500 people. Most referrals came from GPs, with a few from employers and Jobcentre Plus. Remission rates at the end of treatment were 77% compared to 17% before treatment for depression, and 78% compared to 21% before treatment for anxiety.¹⁶³

Newham placed greater emphasis on high-intensity interventions in their first iteration of IAPT. Newham had comparable outcomes to Doncaster; but Doncaster's low-intensity model meant they treated four times as many patients in their first year. The efficiency of the Doncaster model made the case for thinking differently about the provision of CBT, both in terms of method and workforce needs.

As well as demonstrating effectiveness and practicality, the pilots showed the value of real-time outcome monitoring to sceptical clinicians, and the importance of a supportive IT system. Conscious that IAPT's success relied on a new cadre of mental health professionals, David Richards created a comprehensive training programme for training junior mental health workers to deliver low-intensity CBT, with manuals for practitioners, educators and supervisors. David Clark did the same for professionals delivering high-intensity treatments.

Spreading

In 2007/8 IAPT entered its 'Pathfinder' phase. One of the key aims of the Pathfinder sites was to define how the IAPT service should be provided. Three-quarters of all PCTs wanted to take part and half sent in a fully completed bid. Eleven were chosen to take part. Sites were given an access and outcome standards framework and general service specification, developed from the demonstration sites, within which to design their services.¹⁶⁴ They used service redesign techniques to develop a defined care pathway, along with a service specification, a service framework and routine outcome monitoring. Each site was tasked with investigating the specific barriers to, and impact of, delivering CBT to particular groups, such as black and minority ethnic communities and perinatal women. Each pathfinder site received up to £200,000.¹⁶⁵

Based on continuing evidence of effectiveness emerging from the evaluation of the Pathfinder sites (published in October 2008), the 2007 Comprehensive Spending Review allocated £173 million over the period 2008-11 for spreading IAPT further; £33 million was assigned to up to 40 PCTs to introduce the model within the first year (2008/9). PCTs received funding in a phased model in order to train the new workforce needed to deliver the expanding service.¹⁶⁶

By March 2011, 142 of the 151 PCTs in England had IAPT in at least part of their area. 3,660 new low- and high-intensity cognitive behavioural therapy workers had been trained, and over 600,000 people had started treatment, of which over 350,000 had completed treatment, over 120,000 had moved to recovery and over 23,000 came off sick pay or benefits.¹⁶⁷ The 2010 Spending Review allocated a further £400 million to support the maintenance and growth of IAPT.¹⁶⁸

The strong economic case for IAPT has been powerful in encouraging adoption by CCG leaders. Whilst some mental health professionals and caseworkers have been concerned that putting too much emphasis on the economic rationale will erode the quality of services experienced by patients, others have welcomed it due to the outcomes it can lead to for patients. Seeing patients improve and engaging with society has been encouraging for professionals who have previously seen their patients struggling to make similar progress with other services.

As IAPT has grown, central control over the way in which it has been implemented has been diluted (in part due to a political preference towards devolving power locally). IAPT's implementation is subject to CCG interpretation of national clinical guidelines and as a result, Sarah Boul, Quality Improvement Lead for Mental Health for the Yorkshire and Humber Clinical Network, feels that *“there's not a single IAPT service.”*¹⁶⁹ Services vary in the weighting given to different levels of therapy and styles of treatment. This gives CCGs the flexibility to tailor the approach they take in meeting standardised targets according to the needs of their population. Sarah feels, however, that in this case *“variety compromises quality.”*¹⁷⁰

The quality of the service and treatment is in part dictated by those who deliver it. As more professionals have been trained, it has been harder to ensure the quality of teaching, with some training programmes resembling more familiar counselling training programmes than the IAPT-specific curriculums put together by David Clark and David Richards. Accreditation visits by the British Association for Behavioural and Cognitive Psychotherapies (BABCP) to IAPT training centres aim to maintain quality, but it is much harder to do so at scale.

Fidelity has also been challenged by the commissioning models that different localities have chosen for IAPT. The “Any Qualified Provider” (AQP) model has been criticised for eroding quality, as competition in pricing can lead to shorter treatment length in AQP services compared to those provided through bulk commissioning, and with this the benefit to the patient declines. Furthermore, AQP commissioning tends to lead to an IAPT service being delivered by a group of different providers, which can risk poor coordination.

Sustaining

Since 2013, IAPT is being extended to children and young people (CYP). The core principles of IAPT have been maintained but, because of the different context of children's services (for example, a greater reluctance to medicate and therefore a greater predisposition to talking therapies), there are some significant differences in the scaling strategy. In particular, CYP IAPT is part of a transformation of existing CAMHS services and there is less of a focus on new roles.

IAPT has begun to be part of *“business as usual”* for mental health services. Now other mental health services are trying to emulate this success, undergoing *“IAPT-isation”* to create clear guidelines, standards and economic arguments for talking therapies, for example, for Early Intervention in Psychosis.¹⁷¹

Whilst normalising the expectation for CBT services to be provided on the NHS for anxiety and depression is a huge achievement for the IAPT programme, it poses its own challenges. Funds given for IAPT have become included in an organisation's 'baseline' budgets. This makes it easier for the money to be diverted elsewhere, detracting from the purpose of IAPT to provide dedicated care to patients with anxiety and depression. There are concerns that some people may be funnelled into IAPT by default, rather than towards specific services for more specialised needs, creating a feeling that *“every road leads to IAPT.”*¹⁷² Even though additional money is being provided to expand the service to support people with conditions other than depression and anxiety, experienced staff are sometimes being moved into new roles in order to deliver the expanding remit of the service, thus depleting the ability of IAPT to maintain its performance against its original goals.

Despite IAPT having achieved impressive feats in providing CBT treatment to significant sections of the population for whom it was previously largely inaccessible, legitimate questions are still raised as to whether IAPT has successfully achieved its intended ambitions at scale. The *‘We Still Need To Talk’* report, published in 2013 by the *We Need To Talk* coalition, a group of mental health charities, professional organisations, the Royal College and service providers, argues that: “Although the Government has made good progress with its Improving Access to Psychological Therapies (IAPT) programme, there is still much to do before people with mental health problems receive the crucial help and support they need.”¹⁷³ (We Need To Talk Coalition in ‘We Still Need To Talk’ report)

They found that over half of patients eligible for treatment under IAPT were waiting more than three months to receive treatment, with one in 10 people waiting for more than a year. Concerns about waiting times, choice and equality of access demonstrate that there is still work to be done in achieving the quality of care that IAPT aspires to at scale.

8. The spread of Macmillan Cancer Nurse Specialists

What is the innovation?

Macmillan Cancer Nurse Specialists provide expert care and support to patients with cancer, helping take care of patients' holistic needs and coordinating their care.

When was it established?

The first Cancer Nurse specialist was appointed in 1975. Since then, the remit of the role (and Macmillan's other specialist allied health professional roles) has developed considerably.

To what extent has it scaled?

There are now almost 3,500 Macmillan nurses that support over 550,000 patients. In total, there are 8,000 Macmillan professionals, 5,000 of which are in healthcare positions.

Key insights

- Quality assurance and powerful branding have helped build a movement for change.
- Macmillan have explicitly balanced the national and the local in their approach.
- As they've scaled the original innovation, Macmillan have broadened their work into roles across the cancer pathway.

Origins

In 1975, Macmillan Cancer Support (then the 'Society for the Prevention and Relief of Cancer') funded the first advanced nursing role to care for people with cancer, which would later become the 'Macmillan Cancer Nurse' role.¹⁷⁴ Cancer Nurses started in their extensive hospice network as part of an effort to expand and improve domiciliary care: ¹⁷⁵ it was recognised that good end-of-life care had to cross the hospital-community boundary, and required nurses to visit people in their homes.

Ronnie Albert Fisher, a pioneer of the domiciliary service at Christchurch Hospital, Dorset, set up a palliative care centre based on the community diabetes nurse model - the Society's first Cancer Care Unit. He was given a grant by the Society to start the work, and a further grant was made for two years to add a night-time version of the service to complement the daytime service which had been positively received.¹⁷⁶ This model inspired others to take similar approaches, for instance, St Joseph's Hospice in Hackney, which requested funds from the Society to appoint additional nurses to be part of a team to expand their home care service, under the leadership of Richard Lamerton.¹⁷⁷

Dorothy House Foundation in Bath also played a key role in developing home-based care. The Foundation covered a large geographical area with a significant rural population, making home care very important to patients. The Society made a contribution of £50,000 over three years for the Foundation to launch and test a home care service. Leading this development was the Chair Prue Clench, a nurse who became an adviser to the Society, taking a key role in the development of their services. In 1981 she had discussions with 73 NHS health authorities about introducing Cancer Nurse services.¹⁷⁸

Over time, the cancer landscape changed, along with the organisation's name. In 1971-72, the five-year, age-standardised net survival for all cancers combined in England and Wales amongst men, was 25%. By 2010-2011, the survival rate had increased to 49%.¹⁷⁹ During this time Macmillan changed its focus, offering its support to those receiving treatment. They began to focus on hospital-based services, led by pioneers such as Dr Thelma Bates at St Thomas's Hospital, London. By the end of the 1980s, Macmillan Cancer Nurse Specialists were working in 20 hospitals.

The spread in hospitals was supported by Macmillan's investment in professional groups. They developed a Macmillan education programme, starting at the Royal London Hospital, to train professionals in cancer care. From 1985, they started supporting lectureships at medical and nursing schools across the UK, further building Macmillan's brand authority and increasing understanding of cancer care in the NHS. They simultaneously ran a series of large fundraising campaigns which both raised money and strengthened Macmillan's public profile; for example, in 1991 they launched a campaign which raised £20 million within two years, and between 1990 and 1995 Macmillan's income grew on average by nearly 25% each year.

Today, Macmillan nurses all have at least five years' experience, with at least two in cancer or palliative care.¹⁸⁰ They have extra training in pain relief and psychological support in order to help support patients and their families through diagnosis and treatment.

Spreading

Macmillan's success in spreading their advanced nursing role throughout the system has been attributed to their offer and also to the impact of Cancer Nurse Specialists on improving patient care: Macmillan Cancer Nurse Specialists have been found to "improve quality and experience of care for patients, reinforce patient safety, demonstrate leadership and increase productivity and efficiency."¹⁸¹

Macmillan offers up to three years of funding to partner organisations (anyone providing cancer or palliative care services) as a way to catalyse change, through pump priming the new service, creating time to build it and developing the case for integrating it into funding models and commissioning cycles.¹⁸² To reduce time and effort for adopters, Macmillan often develops the job descriptions and service specifications, and recruit nurses themselves. However, partner organisations remain legally responsible for the post-holder's employment.

Organisations that are interested in adopting the Macmillan Cancer Nurse role are required to start by putting a business case to Macmillan. In most

cases, adopters have a strong case for long-term funding by the end of Macmillan's initial funding period, based on patient outcomes and experience. In order to maintain the service in cases where adopters have reservations after the initial funding period, Macmillan can offer a flexible model of tapered funding to give organisations more time to adapt to the new service and gather more evidence. Macmillan's flexibility means they also consider co-branding strategies if they have the evidence to suggest it is of value to patients.

Macmillan Cancer Nurse Specialists are part of a broader strategy to offer support to people living with cancer. At a national level, Macmillan actively lobbies government and looks to influence the broader cancer strategy at a system level.¹⁸³ This includes providing opportunities for government representatives to see Macmillan's work at a local level, and conducting situational analyses to identify cancer incidence and service gaps. Macmillan uses this information to target where they allocate their resources, and tap into existing strong relationships within localities, as well as local Cancer Alliances and clinical networks.

"We invest a lot of time and resource looking at the hard data from National Cancer Databases, right down to ward-level data, and the voice of people who experience cancer. We have that local voice about what they need."

— Fay Scullion, Director of England, Macmillan Cancer Support

Improving patient experience was the original motivation for creating the Clinical Nurse Specialist role, and the proof of its value. The patient case for Macmillan nurses was seemingly self-evident in the experience and care that patients received in the new services. But as the demands of evidence and evaluation have intensified in recent decades, there has been a need for a robust, broad and ever-evolving evidence base to demonstrate not just patient satisfaction but also the model's scalability - across different contexts and through different applications of the role. They encourage their Cancer Nurse Specialists to collate different types of evidence of impact, including data on cost-effectiveness and

patient testimonies, as well as developing local case studies. For both Macmillan nurses, and Cancer Nurse Specialists more broadly, collecting and communicating evidence of impact is critical and is something that the Royal College of Nursing has also been supporting.¹⁸⁴

Patient voices play a pivotal role in generating demand, with local patient surveys used to make the case for specialist nursing roles, reinforced by Macmillan's Cancer Voices initiative.¹⁸⁵ Cancer Voices also helps to mobilise and energise demand for new services that are needed in a particular locality. In a similar vein, Macmillan's Opportunities Exchange¹⁸⁶ links those affected by cancer to national networks and local geographic teams, providing them with the opportunity to actively lobby the government around issues that they are passionate about.

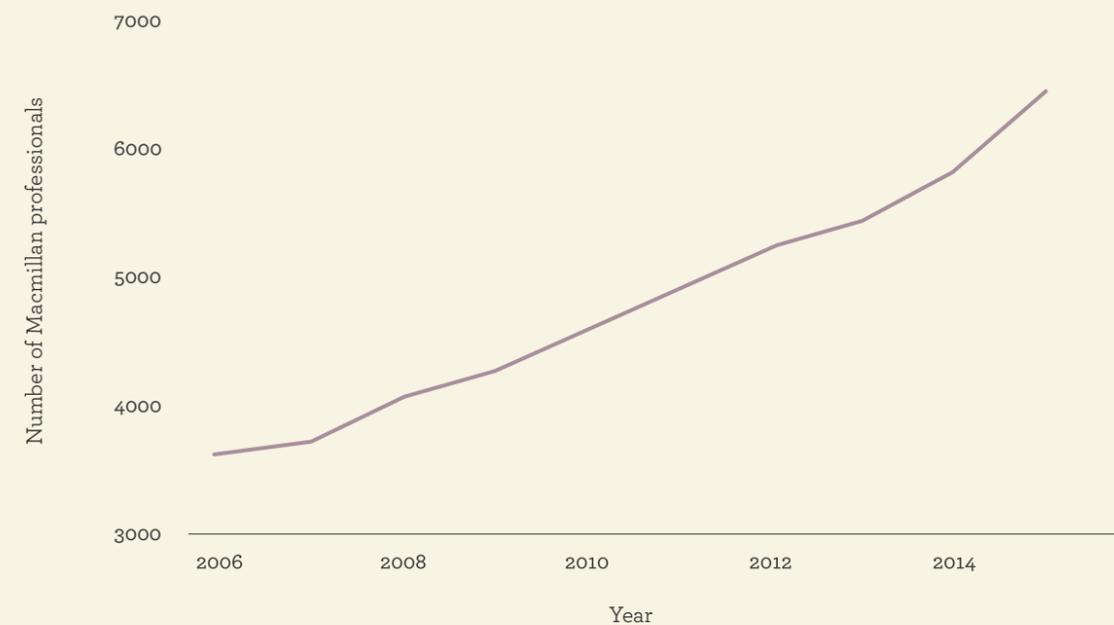
Sustaining

Crucial to the growth in numbers of Macmillan Cancer Nurse Specialists have been opportunities to build the quality reputation of their brand: Macmillan has been consistently recognised as a charity that champions patients and plays an active role in ensuring high-quality services. In 2013, its brand was voted number one on the Charity Brand Index, followed in 2014 by being named the Marketing Society's Brand of the Year.¹⁸⁷

Each organisation that adopts a Macmillan nurse is allocated a Partnership Quality Lead, who works with both the post-holder and the partner organisation to drive quality improvement. For post-holders, the Quality Lead connects them to learning and development opportunities, to ensure their position as experts in their respective fields, and to build their capacity for system leadership and ability to become key influencing players in their organisation and the wider system.

Post-holders can access an education grant of up to £1,000 a year, and £5,000 if they want to deliver education to a workforce cohort within their organisation. Macmillan also offers fellowships, opportunities to pursue overseas learning projects and leadership opportunities to support these roles; for example, Katy Horton-Fawkes, a Macmillan Gynaecological Clinical Nurse Specialist at University Hospitals Bristol NHS Foundation Trust, says *"Macmillan are the only reason I'm still a specialist nurse"*, thanks to the support they have given her.¹⁸⁸

Macmillan emphasises that cancer support is not just about specialist nursing; people with cancer report unmet needs in physical health, mental health, and informational and emotional support, and therefore there are lots of other valuable roles that are essential to supporting people living and dying with cancer. These range from social workers and welfare professionals to occupational therapists and physiotherapists.¹⁸⁹ Consequently, Macmillan have actively diversified the support they provide by adding a variety of roles to the team that support cancer patients. There are now over 8,000 Macmillan professionals, 5,000 of which are healthcare posts, with almost 3,500 Macmillan nurses reaching over 550,000 patients, alongside a range of others in health, social care, information and advice roles.¹⁹⁰ Macmillan see these professionals as part of a broader movement. Like their advanced nursing role, Macmillan ensures that all their professionals are trained as cancer specialists in their respective fields and are skilled in both empathy and leadership.



Graph 8: The growing number of Macmillan professionals over time

"A number of Macmillan post-holders have progressed to influential roles - Chief Executives of charities, and Clinical Directors in NHS England. They're encouraged, motivated and supported to be a leader."

— Adrienne Betteley, Interim Head of Health and Social Care, Macmillan Cancer Support

9. The spread of Rapid Assessment Interface and Discharge (RAID)

What is the innovation?

Rapid Assessment Interface and Discharge (RAID) is a mental health liaison service in hospitals for patients over 16 years of age. A multidisciplinary specialist RAID team ensures that every patient who comes into the hospital and is suspected to have a mental health problem is assessed and diagnosed and has their care managed by the RAID team.

When was it established?

RAID was first launched as a pilot project in December 2009.

To what extent has it scaled?

According to the RAID Network, RAID has now been implemented in 25 organisations across the country.

Key insights

- The team behind RAID has intentionally pursued “organic growth” and adaptability to local contexts and target populations has been key.
- The economic evaluation of RAID provided compelling evidence for commissioners.
- RAID has spread through the highly-networked liaison psychiatry community.

Origins

Historically, the treatment of the body and the mind have evolved as two different disciplines, and services have tended to be delivered separately. However, liaison psychiatry is a branch of psychiatry that sits at the interface between mental and physical health, supporting the mental health of people in general hospitals and other acute settings.

Liaison psychiatry came to prominence in the UK in the 1980s and 1990s.¹⁹¹ Given a growing understanding of the pressure that mental ill-health puts on hospitals, organisations such as the Royal College of Psychiatrists made a strong economic and moral case for addressing the mental health of people with physical health problems. Research published in 1996 demonstrated that 27% of patients admitted to medical wards have a mental illness fulfilling DSM-IV criteria,¹⁹² one of the psychiatric disorder classification schemes recommended by the British Psychological Society for use by clinicians.¹⁹³ Despite this, the 1999 National Service Framework for Mental Health in 1999, which defined a national approach to mental health, did not include liaison psychiatry.¹⁹⁴ Additionally, despite an increasing number of liaison psychiatrists, provision remained patchy across the country, “*There was no national vision for liaison psychiatry - the faculty was only founded in 1997, so people were just doing their own thing.*” (Dr William Lee)

For Professor George Tadros, a widely respected liaison psychiatrist working at City Hospital in Birmingham, there was a real need to act. He and his team were aware of the need to improve patient care, as well as the threat of nationwide redundancies facing their speciality. He sat down with the Chief Executive of City Hospital and made a deal, “*If you can give us a chance to implement liaison psychiatry in a new and innovative way, we’ll be able to save you beds.*” (Professor George Tadros)

George and his team worked alongside a small group of like-minded liaison psychiatrists to develop a new pathway that could demonstrate the benefits of liaison psychiatry. Dr Peter Aitken, now Chair of the Faculty of Liaison Psychiatry at the Royal College of Psychiatrists, was involved and knew that evidence alone would not suffice, “*I came back to medicine in 2003, having worked in marketing and large pharmaceutical companies. They know and*

understand that evidence and research alone is not enough - you need to influence the influencers and work out how to persuade others.” (Dr Peter Aitken) The team’s aim was not just to design a new liaison psychiatry service, but to make a strong case for investment in liaison psychiatry more broadly.

The RAID model was developed by Birmingham and Solihull Mental Health NHS Foundation Trust and officially launched in December 2009 as a pilot project. The West Midlands Academic Health Science Network (WMAHSN) funded it with an investment of £800,000 per year, and RAID was accredited by the Psychiatric Liaison Accreditation Network (PLAN) of the Royal College of Psychiatrists.

RAID is a mental health liaison service in hospitals for patients who are aged 16 years or older. It is available 24/7 and offered to all people with a suspected mental health problem, who will be assessed and diagnosed and have their care managed by a specialist RAID team. The RAID team is a multidisciplinary one, made up of nurses, psychiatrists, psychologists and physician assistants. The team support the patient while they are in hospital and can help them to access further mental health support after discharge, for example informing their GP that the mental health team was involved in their hospital care. The RAID model requires that a referral made in A&E is responded to within an hour, and within 24 hours in other parts of the hospital.

The model represented a significant change for the team at the time. For George, the principal difference lay in the way in which they related to other colleagues, “*Usually, psychiatrists will go around non-psychiatrist places, saying they are the experts and know what people need. That doesn’t work. On this occasion, we did it the other way round. They went to the acute hospitals, and went to the key figures and asked them “what do you want?”* (Professor George Tadros)

To evidence their work, the team gathered data from three distinct groups:

- A pre-RAID group, used as the control;
- A RAID ‘influence’ group - patients whose care was influenced by training and support from the RAID team, but who were not seen by the RAID team;

- The RAID intervention group, who were seen when the full RAID service was in operation.

The results of this evaluation were captured in two papers: an evaluation by George and his team,¹⁹⁵ and an independent economic evaluation from the London School of Economics (LSE).¹⁹⁶ These evaluations suggested that RAID in Birmingham reduced readmission rates and length of stay, especially in geriatric wards.

Spreading

The publication of the LSE evaluation in 2011 was a critical moment in the spread of RAID.¹⁹⁷ The evaluation suggested that the RAID service introduced at City Hospital could bring about savings of between £3.4 million and £9.5 million per year for the local health economy by reducing the length of hospital stay and by preventing admissions and readmissions to hospital wards. This, in turn, suggested that £4 of savings could be made for every £1 invested in RAID. Such evidence came at a time when commissioners and acute hospitals were looking for ways to save money and to improve flow within hospitals. It was supported by high-profile features such as the NHS Confederation’s briefing “*With Money in Mind*”¹⁹⁸ in 2011, which outlined the financial benefits of RAID.

“*They said “we can help you find a way to improve patient care, and it can save you money”, and suddenly everyone started listening.*”

— Dr Marc Mandell

The service was expanded from one hospital to five acute hospitals across Birmingham. The AHSN supported the “roll-out” with workshops, data analysis, sharing service descriptions and job descriptions, and evaluation.¹⁹⁹ Dr Marc Mandell, liaison psychiatrist at Watford General Hospital, remembers that one of the hospital directors, a manager and a couple of clinicians attended a conference held by the Birmingham team and returned convinced RAID was something they should pursue. However, some felt

that the support was insufficient, and that the speed of the roll-out put too much pressure on the system to introduce the service and build relationships.²⁰⁰ It was also expected that the outcomes seen in City Hospital would be replicated quickly, and there was some disappointment when the hospitals involved in the roll-out didn't rapidly realise City Hospital's success.

RAID spread organically through word of mouth. It was championed by a number of high-profile organisations and people, including Steve Shrubbs, Director of NHS Confederation's Mental Health Network, and Dr Geraldine Strathdee, National Clinical Director for Mental Health. There was also a tight-knit community of liaison psychiatrists who believed that care could and should be delivered differently. A study that looked at adoption of RAID in six services found that all of the service leaders understood that the status quo was not good enough.²⁰¹

"We had almost a decade of market conditioning. There were almost 40-50 thought leaders, with a substantial dose of passion, that were ready and senior enough to lead [the change] - and with RAID we had a model that was proven to work."

— Dr Peter Aitken

For George Tadros, a key turning point in RAID's spread came when London hospitals began adopting the model, *"London was pivotal in getting greater exposure nationally - its prestige was important."* (Professor George Tadros) This nationwide traction was supported by the inclusion of RAID in toolkits for commissioners, and a 2010 Health Service Journal award for innovation in mental health.

In December 2014, Birmingham and Solihull Mental Health NHS Foundation Trust launched the National RAID Network, with support from the AHSN. The network was designed to improve understanding of the RAID model and provide support for those adopting it. The RAID Network also extended the reach of the programme. The first event that it ran was attended by 61 delegates from 24 organisations across the UK. The second event was attended by a further 17 organisations.

Sustaining

RAID has now been implemented in 25 organisations across the country, according to the RAID Network website.²⁰² Many of these adopter sites have also been evaluated. This has included an evaluation by UCLPartners, which looked at RAID's implementation across four hospitals in North East London. Elsewhere, the impact of RAID has been positive. For example, at the end of the year-long pilot in Watford, the director of unscheduled care at the acute trust said *"this hospital wouldn't function without the RAID team"*; it has had a big impact on hospital flow and delayed transfers of care due to mental health issues.²⁰³ However, the results seen in Birmingham have yet to be fully replicated on a wider scale.

"There is relatively little data about the spread of RAID and other models of liaison psychiatry. Understanding the trajectory of liaison psychiatry, broadly, has been difficult because no one's been monitoring it and we missed the pick-up."

— Dr Allan House

Gathering data has been further challenged by the substantial variation in how RAID has been implemented; for example, some hospitals have only focussed on its use in A&E.²⁰⁴ At Watford General Hospital, for example, the initial year-long pilot for RAID started as a 12-hour service, rather than the 24-hour service offered in the original study.²⁰⁵ Another related issue is resources. In a study of the uptake of RAID in six different sites, it was generally recognised as an expensive service to implement, but one which had the potential to produce savings; however, some sites interviewed found that it was not feasible to invest this amount of money.²⁰⁶ A rapid survey of acute trusts in 2015 found that 21 services were named RAID or had RAID in their name - but many did not have the same staff mix, response times or service offer as the original RAID service.²⁰⁷ This survey did show, however, that between 2014 and 2015, there was a reduction in the number of emergency departments reporting no liaison psychiatry service at all, and most services report being better resourced than a year previously.

Staff training has been another important aspect of the spread of RAID. For example, Marc argues that this has underpinned Watford's success. They ran a three-day training course for the team, piecing together training that colleagues in other hospitals had delivered, such as the training given at Leeds regarding length of stay. They tried to cover a wide range of topics - comorbidity, drugs and alcohol, older adults, perinatal mental health - so the team would have a broad understanding of mental health issues. 'Train the Trainer' courses have also helped equip the team to be ready to train others. He sees training as the *"unsung hero"*: it has created more empathy and better understanding.²⁰⁸

What has clearly emerged from RAID has been a renewed interest in liaison psychiatry and a drive to define and codify different models, *"It's not RAID itself - but it's turbocharged the system. There are more liaison services than there are liaison psychiatrists. Old age liaison until two years didn't exist - now it is a speciality."* (Dr Marc Mandell)

In response, the Faculty of Liaison Psychiatrists has now defined four models for liaison psychiatry in hospitals:

- Core liaison psychiatry - normal working or extended hours
- Core 24 - liaison available 24/7
- Enhanced 24 - as above, but with some capacity for outpatient appointments (similar to RAID)
- Comprehensive - as above but with outpatient services for specialities in major settings

There is a concern for some that RAID and Core 24 have redefined liaison psychiatry as acute, and that this shift will result in other parts of the system being underfunded, notably chronic and outpatient services.²⁰⁹ It does seem, however, that there is an agreed need for services such as RAID: in November 2016, NHS England Chief Executive Simon Stevens set out a new recommended standard that anyone who walks into A&E or a hospital ward in a mental health crisis should be seen by a specialist mental health professional within an hour, and within four hours should be properly assessed and a care plan agreed.²¹⁰

One of the greatest challenges associated with this renewed interest in, and growth of, liaison psychiatry is understanding what works and ensuring that the benefits are consistently maintained. The need for quality assurance also sometimes sits in tension with the need for an adaptable model. Some argue that a flexible approach avoids the risk of 'ossification' of the RAID model.²¹¹ The Faculty is now investing in guidance and frameworks that will help people to implement these models robustly, and demonstrate their value.

The team at Birmingham is now thinking about the future of RAID. They have received a grant of £1.8 million from NHS England as part of the Test Beds programme to develop 'RAID+'. It will take a preventative approach, utilising technology and patient platforms to try to avoid admissions to hospital.

"The logic is that this is a better use of resources: matching demand and capacity by collecting information from the patients."

— Professor George Tadros

It will be interesting to see what impact this preventative angle has on scaling the RAID model, and on the case for adoption.

10. The spread of Schwartz Rounds (UK)

What is the innovation?

A Schwartz Round is a structured forum that brings together staff from across an organisation to share and reflect on the experience of providing care.

When was it established?

The Schwartz Center for Compassionate Healthcare was founded in 1995 and developed the Schwartz Rounds model. Schwartz Rounds were first piloted in the UK in 2007.

To what extent has it scaled?

97 NHS trusts and 34 hospices have now signed up to run Schwartz Rounds across the UK.²¹²

Key insights

- Schwartz Rounds were piloted in the UK for cultural fit, not proof of impact.
- A diverse evidence base and broad literature were used to make the case for the innovation without “gold standard” evidence.
- The work tapped into a broader narrative of the need for compassionate care, including the focus on this issue following the Mid Staffordshire NHS Foundation Trust Public Inquiry.

Origins

Schwartz Rounds were first developed in the US by the Schwartz Center for Compassionate Healthcare. The patient for whom the organisation is named, Ken Schwartz, was diagnosed with terminal lung cancer in 1994 and realised that what mattered to him most in his medical care were simple acts of kindness from those caring for him, acts that made “*the unbearable bearable.*”²¹³ He founded the Schwartz Center for Compassionate Healthcare²¹⁴ in 1995, just days before his death, to champion the importance of compassionate and humane care.

Schwartz Rounds were developed to create the space for health professionals and caregivers to reflect, with the view that this can in turn help them to provide compassionate care. Clinicians, social workers and other staff members who were linked to Ken Schwartz’s care were involved in the programme’s development. The Rounds are discussions led by a trained facilitator and clinical leader focusing on a particular case, with a mixed panel of staff sharing the experience of their involvement, how it made them feel, and the challenges it raised. The Rounds provide a structured forum in a safe, confidential environment for all staff, clinical and non-clinical, to share their experiences, with a particular focus on the emotional and social aspects of working in healthcare. The purpose of Schwartz Rounds is to understand the challenges and rewards that are intrinsic to providing care, not to solve problems or to focus on medical issues.

Over 21 years, the Schwartz Center has helped to spread the Rounds to more than 400 sites in the US.²¹⁵ In 2006 they published research into the positive impact of the Rounds on staff, demonstrating Rounds made staff more likely to deliver compassionate care and that they decreased levels of staff stress.²¹⁶

Back in the UK, The King’s Fund launched The Point of Care Programme in 2007, with a similar narrative and set of objectives to the Schwartz Center.²¹⁷ The programme’s aim was to improve patients’ and families’ experience of care. The programme was looking for promising interventions from across the globe which aimed to see “*the person in the patient.*”²¹⁸ During this exploration, an Advisory Board member of the Point of Care Programme recommended that Joanna Goodrich, at the time a senior researcher on Point of Care at The King’s Fund, read a blog that told the story of staff in one hospital, in Boston in the US,

writing poetry as part of their Schwartz Rounds.²¹⁹ Having read further, and curious to find out more, she visited the Schwartz Center in Boston to see if the programme could be brought to the UK. The following year, members of the Point of Care team and NHS representatives from two hospitals, who acted as “*intelligent judges*”, visited the Schwartz Center in Boston to experience a Round in person. They were bowled over by what they saw.

In 2009, the Point of Care Programme officially brought Schwartz Rounds to the UK through a license agreement with the Schwartz Center. Between October 2009 and October 2010, they ran a pilot of the Schwartz Rounds in The Royal Free Hospital in Hampstead and Cheltenham Hospital in Gloucestershire.²²⁰ There were some concerns that the American origins were a potential obstacle. The work in the US had already produced evidence of the benefits of the Rounds,²²¹ but there was concern that the perceived difference in American and British attitudes towards discussing the emotional aspects of caring could make the Rounds less successful in the UK.

“*Perhaps us Brits were too buttoned up; perhaps our culture was too different.*”

— Jocelyn Cornwell,
CEO, Point of Care Foundation

The purpose of the pilots was to test whether the Rounds were transferable or not. Evaluation of both UK pilots suggested that the success the Rounds had had in the US (that they improved participants’ ability to provide compassionate care) could indeed be replicated in the UK.²²² Using the same evaluation tools as the Schwartz Center, the evaluation team drew together feedback from participants after each Round, a pre- and post-pilot survey completed by participants, and qualitative interviews with key members of staff in both trusts. Results showed that the Rounds were firmly established and sustained, with support from the top of the organisations; that there was a demonstrable need for them; and that they were greatly valued by the staff who participated (Rounds were given a mean rating of excellent/exceptional by 70 percent of all participants).²²³

Spreading

The pilot could not directly attribute better patient outcomes to the Rounds, so the Point of Care team decided to place Schwartz Rounds into a broader narrative about staff wellbeing, supported by a breadth of literature that links staff wellbeing with various dimensions of patient care and patient experience. The literature includes Jill Maben’s systematic, mixed-methodology review²²⁴ and the Boorman Report in 2010.²²⁵ This helped to form a compelling enough initial case for Rounds in the absence of robust evidence of impact on patient outcomes - a level of evidence that the health community and NHS often demands.

Post-pilot, the Point of Care programme began to enrol early adopters in what was essentially an apprenticeship programme. It involved facilitators from the pilot sites mentoring new sites one-by-one. Within two years, there were roughly 20-25 organisations adopting the Rounds in this way. Staff come to the Rounds voluntarily and from all different disciplines, as and when they like. There’s no predictable cohort of practitioners, nor a defined patient group to collect patient-related data. In the main, Rounds continue to focus on a particular patient case or care theme.

The Point of Care team followed the precedent set by the Schwartz Center in using fairly rigid terms of adoption. Organisations were required to:

- write a letter of support from the Chief Executive
- acquire board support to implement Rounds
- identify a steering group of 8-12 members from across the organisation
- appoint a clinical lead, one or two facilitators, and an administrator
- attend observations of sites that were conducting the Rounds already
- participate in official leaders training²²⁶

These prerequisites were designed to ensure fidelity of purpose and build the necessary culture and commitment up and down the organisation to sustain the Rounds in the longer term. The Point of Care Programme began to charge a nominal fee of £2,000 to help increase the level of accountability of the

programme. However, this was less than the actual cost and The King's Fund effectively subsidised new adopters.

It was clear that Schwartz Rounds were filling a significant gap in existing practice. But having a strong case for an innovation was not alone sufficient: the exposure The Rounds gained from reports and publications was also crucial. The Rounds were held up as an exemplar for fostering compassionate care in a number of different settings, for instance in the care of older people.²²⁷ Dr Gita Bhutani, Associate Director for Psychological Professions, set up Schwartz Rounds in Lancashire NHS Foundation Trust after they were showcased at a Health Education North West event (now Health Education England in the North West) focused on staff compassion.²²⁸ Perhaps most significant was the exposure the Rounds gained in the context of the Francis Inquiry,²²⁹ and the Government's response.²³⁰ In examining the causes of the failings in care at Mid Staffordshire NHS Foundation Trust between 2005 and 2009, the Inquiry brought the issue of improving support for compassionate caring to the fore.

“Schwartz Rounds were swept along by the tide after the Francis Inquiry. There was a general mood within the NHS that aligned with what we were trying to do.”

— Joanna Goodrich, Head of Evidence and Learning,
The Point of Care Foundation

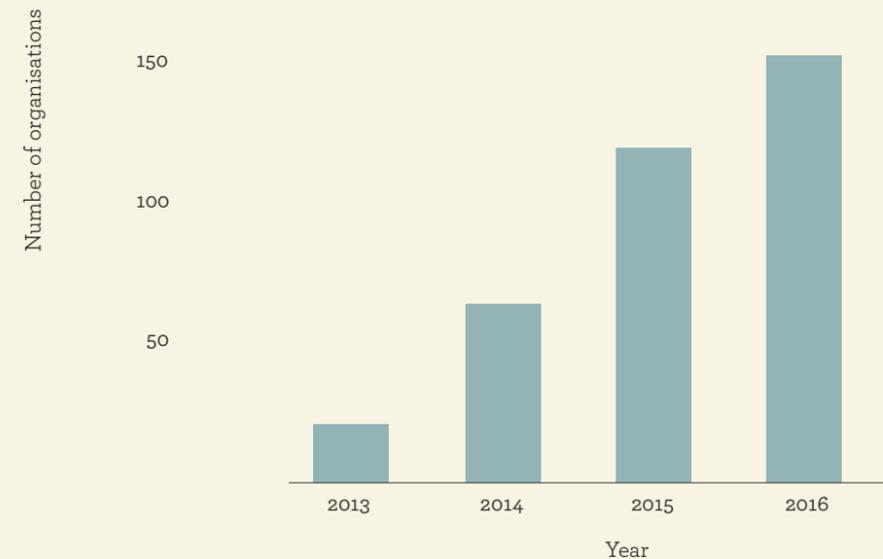
Consequently, the Department of Health was interested in what it would take to support more organisations to adopt Schwartz Rounds, building on the 15 NHS Trusts in which the Rounds were already established. Having discussed the challenges of scale with those leading the Point of Care programme, they agreed £650,000 worth of funding over a two-year period to support them to spread the Rounds.²³¹ The funding enabled them to set up the Point of Care Foundation²³² (PoCF), independent of The King's Fund, and design the necessary architecture for scaling.

The PoCF designed a group training scheme based on their learning from previous experience of training facilitators, and also developed a handbook with training materials. The team wanted to provide high-

quality 'batch training' for facilitators that would equip them to ensure staff, especially clinicians, did not slip into problem-solving mode, rather than focussing on reflection. Mentors were also offered to sites for additional support. These approaches to scaling were shared with, and consequently some adopted by, the Schwartz Center for Compassionate Healthcare in the US, which is emblematic of the reciprocal relationship that the two organisations have preserved and benefited from over the years.²³³

The Foundation designed a model in which adopters purchased a contract (initially for two years) to run Schwartz Rounds in their organisation. They received training for facilitators, mentoring, conference places and access to ongoing support. At the time of writing it costs £15,960 for the initial contract for larger organisations and £4,500 for smaller organisations (with fewer than 1,000 staff).²³⁴

The PoCF has also built relationships with Hospice UK and Macmillan Cancer Support that have resulted in access to different care settings, and even targeted funding to support the adoption of the Rounds in 24 cancer services sites nationally.²³⁵



Graph 9: The growth in the number of organisations running Schwartz Rounds over time

Sustaining

Rounds have been easily sustained in some organisations but not in others. Often it has been a matter of commitment to the required investment of time and infrastructure. To encourage organisations to focus on what they are trying to achieve the PoCF has created the Schwartz Community.²³⁶ For a small membership fee, participants are provided with two places at an annual conference, the opportunity to participate in webinars, on-going mentorship, and additional training for more facilitators, if they need them.²³⁷ Smaller organisations, such as hospices, can also join a cohort to train together and support each other.

In the North West, a more organic and amorphous community of practice has emerged with similar intentions, but specifically to suit their local needs. Many in the region are using the Rounds in different

care settings like specialised cancer services, Community Mental Health Trusts and the North West Ambulance Service. Each entails different challenges to the typical acute care setting that Schwartz Rounds have traditionally been associated with. Funded by Health Education England, this local community has the specific objective of helping to sustain the Rounds locally, rather than relying on the PoCF in London for support.

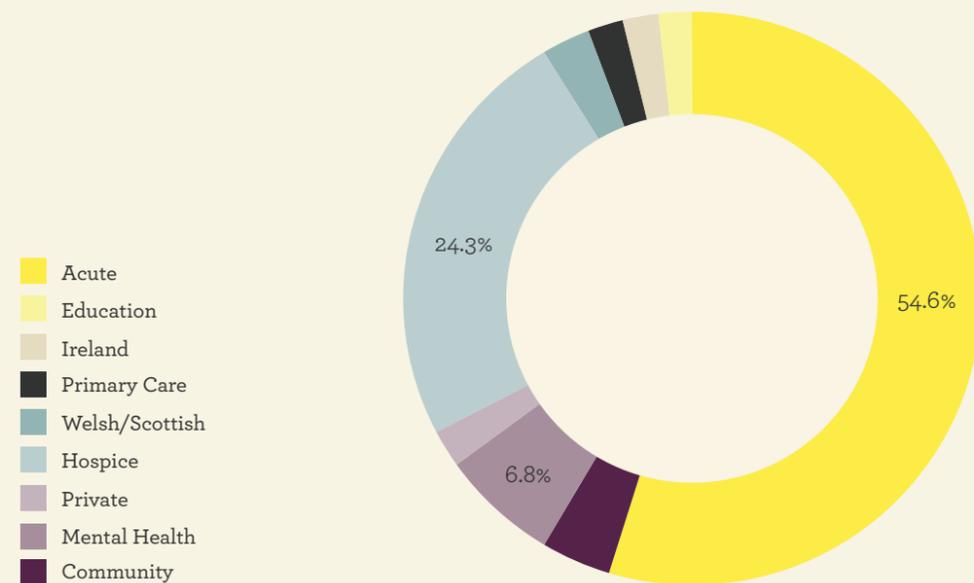
Schwartz Rounds in Lancashire Care NHS Foundation Trust were set up in 2014, with funding from Health Education North West (now Health Education England in the North West). In 2015, using the CQUIN framework, commissioners prioritised staff health and wellbeing as an area for development, with a total value of approximately £400,000. Spreading Schwartz Rounds in the Trust became a key CQUIN initiative.

The CQUINs really helped us. Being part of the commissioning helped to focus many minds on sustaining the Rounds.”

— Gita Bhutani

The broader narrative around the importance of compassion has been critical in continuously building and refining the case for compassionate care and, by association, the Schwartz Rounds. The experience of the PoCF is that different clients respond to different types of evidence, so the Foundation is constantly looking for opportunities to accumulate a diverse evidence base, including local case studies and qualitative data.

In response to a growing movement to create a new culture in the medical community, the PoCF is looking at how they might build the style of conversations involved in Schwartz Rounds into medical schools and universities so that future clinicians can become acclimatised to them. There’s also a demand from adopters for more flexibility in the approach; the Foundation is responding to this by exploring ways to diversify how the Rounds might be adapted to different settings, working at a smaller scale and in different contexts. This diversification of the Schwartz Rounds models illustrates how the Foundation is trying to remain nimble as they continue to work at a larger scale.



Graph 10: The types of organisations running Schwartz Rounds

References

1. NHS Confederation (2015) 'Cracking the innovation nut: diffusing healthcare innovation at pace and scale.' London: NHS Confederation. <http://imperialcollegehealthpartners.com/wp-content/uploads/2015/06/Cracking-the-innovation-nut-briefing-5-June-2015.pdf>
2. Wanless D. (2002) 'Securing our Future Health: Taking a Long-Term View'. London: HM Treasury Health Trends Review team. <http://www.yearofcare.co.uk/sites/default/files/images/Wanless.pdf>
3. NHS England, Public Health England, Health Education England, Monitor, Care Quality Commission, NHS Trust Development Authority (2014). 'Five Year Forward View'. London: NHS England <http://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>
4. Department of Health (2016) Accelerated Access: review of innovative medicines and medical technologies London: Department of Health. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/471562/AAR_Interim_Report_acc.pdf
5. Rogers E.M. (2010) 'Diffusion of innovations'. Simon and Schuster
6. Greenhalgh T., Robert G., Macfarlane F, Bate P., Kyriakidou O. (2004) Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations. 'Milbank Quarterly' 82, 581-629
7. Bate P., Robert G., Fulop N., Ovretveit J., Dixon-Woods M. (2014) 'Perspectives on context: a selection of essays considering the role of context in successful quality improvement'. London: Health Foundation. <http://www.health.org.uk/publication/perspectives-context>
8. NHS Confederation (2015) 'Cracking the innovation nut: diffusing healthcare innovation at pace and scale.' London: NHS Confederation
9. Heitmueller A., Bull A., Oh S. (2016) Looking in the wrong places: why traditional solutions to the diffusion of innovation will not work. 'BMJ Innovations' 2, 41-47
10. Quilter-Pinner H., Muir R. (2015) 'Improved circulation: Unleashing innovation across the NHS' London: Institute for Public Policy Research. http://www.ippr.org/files/publications/pdf/improved-circulation-NHS_June2015.pdf?noredirect=1
11. Parris S., Cochrane G., Marjanovic S., Ling T., Chataway J. (2016) 'Galvanising the NHS to adopt innovation: the feasibility and practicality of recommendations from the interim report of the Accelerated Access Review.' Cambridge: RAND Europe. http://www.rand.org/content/dam/rand/pubs/research_reports/RR1400/RR1484/RAND_RR1484.pdf
12. Darzi A., Parston G., McQueen J. (2015) 'Global diffusion of healthcare innovation: accelerating the journey'. Qatar: World Innovation Summit for Health. <http://www.wish-qatar.org/app/media/1744>
13. Albury D. (2015) 'Myths and Mechanisms: a brief note on findings from research on scaling and diffusion.' London: Innovation Unit. <http://www.innovationunit.org/wp-content/uploads/2017/04/MYTHS-AND-MECHANISMS-1.pdf>
14. Berwick, D. (2006) Disseminating Innovations in Health Care. 'The Journal of the American Medical Association' 289, 1969-1975. http://www.mc.uky.edu/equip-4-pcps/documents/Berwick_dissem_innov.pdf
15. Parris S., Cochrane G., Marjanovic S., Ling T., Chataway J. (2016) 'Galvanising the NHS to adopt innovation: the feasibility and practicality of recommendations from the interim report of the Accelerated Access Review.' Cambridge: RAND Europe. http://www.rand.org/content/dam/rand/pubs/research_reports/RR1400/RR1484/RAND_RR1484.pdf
16. Heitmueller A., Bull A., Oh S. (2016) Looking in the wrong places: why traditional solutions to the diffusion of innovation will not work. 'BMJ Innovations' 2, 41-47
17. Del Castillo J., Khan H., Nicholas L., Finnis A. (2016) 'Health as a Social Movement - The Power of People in Movements'. London: Nesta. <http://www.nesta.org.uk/publications/health-social-movement-power-people-movements>

18. Such as Jo Bibby et al (2009). 'The Power of One, The Power of Many'. NHS Institute for Innovation and Improvement. Available from <https://www.slideshare.net/NHSIOlegacy/the-power-of-one-the-power-of-many-33550524>
19. De Silva D. (2014). 'Spreading improvement ideas: Tips from empirical research (Evidence scan No. 20)'. London: The Health Foundation. <http://www.health.org.uk/publication/spreading-improvement-ideas-tips-empirical-research>
20. <https://mobilizingideas.wordpress.com/2017/06/23/the-practice-of-social-movement-leadership/>
21. Darzi A., Parston G., McQueen J. (2015) 'Global diffusion of healthcare innovation: accelerating the journey'. Qatar: World Innovation Summit for Health. <http://www.wish-qatar.org/app/media/1744>
22. Department of Health (2011). 'Innovation, Health and Wealth: Accelerating Adoption and Diffusion in the NHS'. Leeds: Department of Health. http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_134597.pdf
23. Department of Health (2016) 'Accelerated Access Review: Final Report'. London: Department of Health. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/565072/AAR_final.pdf
24. Christensen, C. The Innovator's Dilemma. Harvard Business Review Press, 1997
25. Darzi A., Parston G., McQueen J. (2015) 'Global diffusion of healthcare innovation: accelerating the journey'. Qatar: World Innovation Summit for Health. <http://www.wish-qatar.org/app/media/1744>
26. Dalton, D. Examining new options and opportunities for providers of NHS care. Department of Health, December 2014
27. Malerba F. (2002) Sectoral systems of innovation and production. 'Research Policy' 31(2), 247-464. <http://www.sciencedirect.com/science/article/pii/S0048733301001391>
28. Quilter-Pinner H., Muir R. (2015) 'Improved circulation: Unleashing innovation across the NHS' London: Institute for Public Policy Research. http://www.ippr.org/files/publications/pdf/improved-circulation-NHS_June2015.pdf?noredirect=1
29. Albury, D. (2011) Creating the conditions for radical public service innovation. 'Australian Journal of Public Administration' 70(3), 227-235
30. NHS Confederation (2015) 'Cracking the innovation nut: diffusing healthcare innovation at pace and scale.' London: NHS Confederation. <http://imperialcollegehealthpartners.com/wp-content/uploads/2015/06/Cracking-the-innovation-nut-briefing-5-June-2015.pdf>
31. The route to market for new pharmaceutical drugs is better documented therefore we chose not to include them in this piece of work
32. McKeeman G., Auld P. (2015) A national survey of troponin testing and recommendations for improved practice. 'Annals of Clinical Biochemistry' 52, 527-42. <https://www.ncbi.nlm.nih.gov/pubmed/25568139>
33. Adult Improving Access to Psychological Therapies programme. Available from <https://www.england.nhs.uk/mental-health/adults/iapt/>
34. The Point of Care Foundation. List of Schwartz Rounds sites. Available from <https://www.pointofcarefoundation.org.uk/our-work/schwartz-rounds/list-of-sites/#tab-3>
35. Rogers E. (2010). Diffusion of innovations. Simon and Schuster
36. Dixon-Woods M., Leslie M., Tarrant C., Bion J. (2013) Explaining Matching Michigan: an ethnographic study of a patient safety program. 'Implementation Science' 8, 70
37. Darzi A., Parston G., McQueen J. (2015) 'Global diffusion of healthcare innovation: accelerating the journey'. Qatar: World Innovation Summit for Health. <http://www.wish-qatar.org/app/media/1744>
38. Read more about Kaiser Permanente's approach to innovation in McCreary L. (2010) 'Kaiser Permanente's Innovation on the Front Lines'. Harvard Business Review. <https://hbr.org/2010/09/kaiser-permanentes-innovation-on-the-front-lines>
39. Darzi A., Parston G., McQueen J. (2015) 'Global diffusion of healthcare innovation: accelerating the journey'. Qatar: World Innovation Summit for Health. <http://www.wish-qatar.org/app/media/1744>
40. Interviews with Alyson McGregor and Martin Fischer
41. Altogether Better (2015) 'Altogether Better - Working Together to Create Healthier People and Communities'. Wakefield: Altogether Better. <http://www.altogetherbetter.org.uk/Data/Sites/1/--altogether-better-evaluation-report--working-together-to-create-healthier-people-and-communities-2015.pdf>
42. South J., Davies R. (2012) They are the champions: volunteers in the community. 'Health Services Journal'. <https://www.hsj.co.uk/topics/patient-involvement/they-are-the-champions-volunteers-in-the-community/5050168.fullarticle>
43. 'Right Conversation at the Right Time'. <http://www.rightconversation.org/>
44. Fischer M., Ereaut E. (2012) 'When doctors and patients talk: making sense of the consultation'. London: The Health Foundation. <http://www.health.org.uk/sites/health/files/WhenDoctorsAndPatientsTalkMakingSenseOfTheConsultation.pdf>

45. Interview with Martin Fischer
46. Interview with Martin Fischer
47. Altogether Better (2015) 'Altogether Better - Working Together to Create Healthier People and Communities'. Wakefield: Altogether Better. <http://www.altogetherbetter.org.uk/Data/Sites/1/-altogether-better-evaluation-report--working-together-to-create-healthier-people-and-communities-2015.pdf>
48. Interviews with Alyson McGregor and Martin Fischer
49. Interview with Sheinaz Stansfield
50. See references to Oxford Terrace practice in Altogether Better, Altogether Better Working Together to Create Healthier People and Communities
51. Altogether Better. 'Reducing the pressure in General Practice: a new model of care'. Wakefield: Altogether Better. <http://www.altogetherbetter.org.uk/SharedFiles/Download.aspx?pageid=4&mid=112&fileid=127>
52. Altogether Better Amazing Stories collection available from <http://www.altogetherbetter.org.uk/amazing-stories-collection>
53. Such as Altogether Better, Altogether Better Working Together to Create Healthier People and Communities. Available from <http://www.altogetherbetter.org.uk/Data/Sites/1/-altogether-better-evaluation-report--working-together-to-create-healthier-people-and-communities-2015.pdf>
54. Altogether Better (2015) 'Altogether Better - Working Together to Create Healthier People and Communities'. Wakefield: Altogether Better. <http://www.altogetherbetter.org.uk/Data/Sites/1/-altogether-better-evaluation-report--working-together-to-create-healthier-people-and-communities-2015.pdf>
55. Interview with Alyson McGregor. Altogether Better will be developing the health champion model for care homes as part of the Health Foundation's Innovating for Improvement Programme (See <http://www.health.org.uk/news/twenty-two-new-innovative-projects-selected-improve-quality-health-care-o?platform=hootsuite>)
56. Mühlhauser I, Jorgens V, Berger M, Graninger W, Gurtler W, Hornke L. et al. (1983) Bicentric evaluation of a teaching and treatment programme for type 1 (insulin-dependent) diabetic patients: improvement of metabolic control and other measures of diabetes care for up to 22 months. 'Diabetologia' 25,470-6
57. Amiel S., Lawton J., Heller S. (2011) Taking the benefits of DAFNE to the UK and beyond. 'Diabetes Voice' 46,19-21. https://www.idf.org/sites/default/files/attachments/DV_56-SI2_Amiel-Lawton-Heller.pdf
58. Interview with Simon Heller
59. DAFNE Study Group. (2002) Training in flexible, intensive insulin management to enable dietary freedom in people with Type 1 diabetes: dose adjustment for normal eating (DAFNE) randomised controlled trial. 'British Medical Journal' 325, 746. <http://www.bmj.com/content/325/7387/746>
60. Ibid
61. Interview with David Fairbairn
62. Interview with Helen Hopkinson
63. Helen Hopkinson profile on Diabetes UK. Available from <https://www.diabetes.org.uk/Diabetes-UK-Professional-Conference/Programme/Speaker-biographies/Helen-Hopkinson1/>
64. Interview with Helen Hopkinson
65. Diabetes UK. (2016) 'State of the Nation 2016: Time to take control of diabetes'. London: Diabetes UK. <https://www.diabetes.org.uk/Professionals/Position-statements-reports/Statistics/State-of-the-Nation-2016-Time-to-take-control-of-diabetes/>
66. NICE guidelines (2016). 'Type 1 diabetes in adults: diagnosis and management' Available from <https://www.nice.org.uk/guidance/ng17/chapter/1-Recommendations#education-and-information-2>
67. Interview with Gillian Thompson
68. Interview with Gillian Thompson
69. Shearer A., Bagust A., Sanderson D., Heller S., Roberts S. (2004) Cost-effectiveness of flexible intensive insulin management to enable dietary freedom in people with Type 1 diabetes in the UK. 'Diabetic Medicine' 21 (5), 460-67
70. Diabetes Transformation Fund, NHS England. Available from <https://www.england.nhs.uk/diabetes/diabetes-prevention/diabetes-transformation-fund/>
71. Taking Control Campaign, Diabetes UK. Available from https://www.diabetes.org.uk/Get_involved/Campaigning/Taking-Control/
72. Royal College of Surgeons. 'Surgery and the NHS in numbers'. Available from <https://www.rcseng.ac.uk/news-and-events/media-centre/media-background-briefings-and-statistics/surgery-and-the-nhs-in-numbers/>
73. Basse L., Jakobsen, Billesbolle P., Werner M., Kehlet H. (2000) A Clinical Pathway to Accelerate Recovery After Colonic Resection. 'Annals of Surgery' 232, 51-57
74. Ibid
75. Interview with Robin Kennedy
76. King P, Blazeby J, Ewings P, Franks P, Longman R, Kendrick A, Kipling R, Kennedy R. (2006) Randomized clinical trial comparing laparoscopic and open surgery for colorectal cancer within an enhanced recovery programme. 'British Journal of Surgery'. 93, 300-308.
77. Interview with Andrew Nordin
78. Interview with Janine Roberts
79. Interview with Janine Roberts
80. Interview with Janine Roberts
81. One innovation site withdrew during the first year, leaving 14
82. Department of Health (2011), 'Enhanced Recovery Partnership Programme Report.' London: Department of Health. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215511/dh_128707.pdf
83. Ibid
84. Ibid
85. Ibid
86. Interview with Tom Wainwright
87. Meer K, NHS London. 'Using CQUINs to support implementation of Enhanced Recovery in London'. http://www.erasuk.net/uploads/2/6/4/0/26401678/cquins_k_meer.pdf
88. Department of Health (2011), 'Enhanced Recovery Partnership Programme Report.' London: Department of Health https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215511/dh_128707.pdf
89. Moore A. (2014) HSJ Roundtable: An enhanced perspective on surgical recovery. 'Health Services Journal' <https://www.hsj.co.uk/hsj-knowledge/downloads/hsj-roundtable-an-enhanced-perspective-on-surgical-recovery/5071145.article>
90. Interview with Robin Kennedy
91. Paton F, Chambers D, Wilson P, Eastwood A., Craig D, Fox D, Jayne D, McGinnes E. (2014) Effectiveness and implementation of enhanced recovery after surgery programmes: a rapid evidence synthesis. 'BMJ Open' 4(7)
92. Department of Health (2011), 'Enhanced Recovery Partnership Programme Report.' London: Department of Health https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/215511/dh_128707.pdf
93. Ibid
94. NHS Enhanced Recovery Partnership. (2012) 'Fulfilling the Potential: A Better Journey for Patients and a Better Deal for the NHS' Leicester: NHS Improvement. <http://www.deltexmedical.com/downloads/enhancedrecovery.pdf>
95. Moore A. (2014) HSJ Roundtable: An enhanced perspective on surgical recovery. 'Health Services Journal' <https://www.hsj.co.uk/hsj-knowledge/downloads/hsj-roundtable-an-enhanced-perspective-on-surgical-recovery/5071145.article>
96. Interview with Janine Roberts
97. Interview with Phil O'Connell
98. The Health Foundation (2011). 'Text-based management of hypertension'. London: The Health Foundation. <http://www.health.org.uk/programmes/shine-2011/projects/text-based-management-hypertension>
99. Cottrell E., Chambers R., O'Connell P. (2012). Using simple telehealth in primary care to reduce blood pressure: a service evaluation. 'BMJ Open' 2, 6
100. NHS networks, 'AIM network'. <https://www.networks.nhs.uk/nhs-networks/aim/about-us>
101. Interview with Paul Meredith
102. Interview with Paul Meredith
103. The Health Foundation. 'From Flo to Annie: How Flo is being used in the USA'. <http://www.health.org.uk/content/flo-annie-how-flo-being-used-usa>
104. McKeeman G., Auld P. (2015) A national survey of troponin testing and recommendations for improved practice. 'Annals of Clinical Biochemistry' 52, 527-42 <https://www.ncbi.nlm.nih.gov/pubmed/25568139>
105. Bidmead T., Goodacre S., Maheswaran R., O'Cathain A. (2015) Factors influencing unspecified chest pain admission rates in England. 'Emergency Medicine Journal' 32, 439-443

106. Body R., Carley S., McDowell G., Jaffe A., France M., Cruickshank K., Wibberley C., Nuttall M., Mackway-Jones K. (2011). Rapid exclusion of acute myocardial infarction in patients with undetectable troponin using a high-sensitivity assay. 'Journal of the American College of Cardiology' 58, 1332-9
107. Perry S. (2008). Background to the discovery of troponin and Setsuro Ebashi's contribution to our knowledge of the mechanism of relaxation in striated muscle. 'Biochemical and Biophysical Research Communications' 25, 369(1), 43-8
108. Alpert J., Thygesen K., Antman E., Bassand J. (2000) Myocardial infarction redefined—a consensus document of The Joint European Society of Cardiology/American College of Cardiology Committee for the redefinition of myocardial infarction. 'Journal of the American College of Cardiology' 36(3), 959-69
109. NICE guidance (2014). Myocardial infarction (acute): Early rule out using high-sensitivity troponin tests (Elecsys Troponin T high-sensitive, ARCHITECT STAT High Sensitive Troponin-I and AccuTnI+3 assays). London: NICE. <https://www.nice.org.uk/guidance/dg15/chapter/6-Considerations>
110. McKeeman G., Auld P. (2015) A national survey of troponin testing and recommendations for improved practice. 'Annals of Clinical Biochemistry' 52, 527-42. <https://www.ncbi.nlm.nih.gov/pubmed/25568139>
111. McKeeman G., Auld P. (2015) A national survey of troponin testing and recommendations for improved practice. 'Annals of Clinical Biochemistry' 52, 527-42. <https://www.ncbi.nlm.nih.gov/pubmed/25568139>
112. McKeeman G., Auld P. (2015) A national survey of troponin testing and recommendations for improved practice. 'Annals of Clinical Biochemistry' 52, 527-42. <https://www.ncbi.nlm.nih.gov/pubmed/25568139>
113. Thygesen K. (2007). 'Study Group on Biomarkers in Cardiology'. <https://www.escardio.org/Working-groups/News/Study-Group-on-Biomarkers-in-Cardiology-Title-Study-Group-on-Biomarkers-in-Ca>
114. Rubini Gimenez M., Twerenbold R., Jaeger C. et al. One-hour rule-in and rule-out of acute myocardial infarction using high-sensitivity cardiac troponin I. 'The American Journal of Medicine' 128, 861-870. [http://www.amjmed.com/article/S0002-9343\(15\)00256-9/pdf](http://www.amjmed.com/article/S0002-9343(15)00256-9/pdf)
115. McKeeman G., Auld P. (2015) A national survey of troponin testing and recommendations for improved practice. 'Annals of Clinical Biochemistry' 52, 527-42. <https://www.ncbi.nlm.nih.gov/pubmed/25568139>
116. Interview with Clare Ford
117. Interview with Kate Willmer
118. Interview with Kate Willmer
119. Interview with Clare Ford
120. Interview with Clare Ford
121. McKeeman G., Auld P. (2015) A national survey of troponin testing and recommendations for improved practice. 'Annals of Clinical Biochemistry' 52, 527-42. <https://www.ncbi.nlm.nih.gov/pubmed/25568139>
122. Interview with Clare Ford
123. Nice Guidance. (2014) Example early rule out-protocols. Available from <https://www.nice.org.uk/guidance/dg15/resources/example-highsensitivity-early-ruleout-protocols-101054>; NICE guidance. 'How to implement NICE's guidance on high-sensitivity troponin testing' in Myocardial infarction (acute): Early rule out using high-sensitivity troponin tests (Elecsys Troponin T high-sensitive, ARCHITECT STAT High Sensitive Troponin-I and AccuTnI+3 assays). Available from <https://www.nice.org.uk/guidance/dg15/chapter/6-Considerations>
124. Interview with Anoop Shah
125. Ford C. High sensitivity cardiac troponin I at presentation enables early safe discharge. Available from <http://www.clma.org/d/doi/2661>
126. Interview with Dr Mike Knapton
127. Ask the ICD. 'What is the survival rate for ICD patients who have had a sudden cardiac arrest?'. <http://asktheicd.com/tile/623/english-sudden-cardiac-arrest/what-is-the-survival-rate-for-icd-patients-who-have-had-a-sudden-cardiac-arrest/>
128. Mirowski M., Mower M., Staewen W., et al. (1970) Standby automatic defibrillator: An approach to prevention of sudden coronary death. 'Archives of Internal Medicine' 126, 158-161
129. Interview with Dr Francis Murgatroyd
130. Medtronic. 'The Clinical Evidence: An Overview of ICD Studies in Primary Prevention Patients.' <http://www.medtronic.com/downloadablefiles/SCD-HeFT%20-%20Primary%20Prevention%20Trials.pdf>
131. The AVID Investigators. (1999) Causes of death in the Antiarrhythmics Versus Implantable Defibrillators (AVID) Trial. 'Journal of the American College of Cardiology' 34(5), 1552-9
132. Sears S., Conti J. (2002) Quality of Life and Psychological Functioning of ICD patients. 'Education in Heart' 87(5), 488-493.
133. NICE (2014). 'Implantable cardioverter defibrillators and cardiac resynchronisation therapy for arrhythmias and heart failure: technology appraisal guidance'. London: NICE. <https://www.nice.org.uk/guidance/ta11/resources/hta-report-for-implantable-cardioverter-defibrillators2>
134. Scott P., Turner N., Chung A., Morgan J., Roberts P. (2009) Varying implantable cardioverter defibrillator referral patterns from implanting and non-implanting hospitals. 'Europace' 11(8), 1048-1051
135. McComb J., Plummer C., Cunningham M. (2009) Inequity of access to implantable cardioverter defibrillator therapy in England: possible causes of geographical variation in implantation rates. 'Europace' 11(10)
136. Heart Rhythm Alliance. 'History' <http://www.heartrhythmalliance.org/aa/uk/history>
137. Heart Rhythm Alliance. 'About' <http://www.heartrhythmalliance.org/aa/uk/about>
138. Interview with Trudie Lobban
139. Interview with Trudie Lobban
140. Interview with Trudie Lobban
141. Heart Rhythm Alliance. 'History' <http://www.heartrhythmalliance.org/aa/uk/history>
142. Interview with Trudie Lobban
143. Interview with Francis Murgatroyd
144. Interview with Francis Murgatroyd
145. Interview with Nick Linker
146. Interview with Nick Linker
147. Interview with Nick Linker
148. NICOR HQIP and BHRS. (2016) 'National Audit of Cardiac Rhythm Management Devices April 2015-March 2016'. <http://www.bhrs.com/files/files/Audit%20Reports/CRM%20Devices%20National%20Audit%20Report%202015-16.pdf>
149. NICOR HQIP and BHRS. (2016) 'National Audit of Cardiac Rhythm Management Devices April 2015-March 2016'. <http://www.bhrs.com/files/files/Audit%20Reports/CRM%20Devices%20National%20Audit%20Report%202015-16.pdf>
150. Interview with Nick Linker
151. Interview with Nick Linker
152. Interview with Nick Linker
153. Interview with Nick Linker
154. Adult Improving Access to Psychological Therapies programme. Available from <https://www.england.nhs.uk/mental-health/adults/iapt/>
155. Now Professor of Experimental Psychology, University of Oxford
156. Evans J. 'David Clark on Improving Access for Psychological Therapy (IAPT)'. <http://www.philosophyforlife.org/david-clark-on-improving-access-for-psychological-therapy-iapt/>
157. Evans J. (2013) 'A brief history of IAPT: the mass provision of CBT in the NHS'. The History of Emotions Blog <https://emotionsblog.history.qmul.ac.uk/2013/05/a-brief-history-of-iapt-the-mass-provision-of-cbt-in-the-nhs>
158. Layard R. (2005) 'Mental Health: Britain's biggest social problem?' LSE Research Online. http://eprints.lse.ac.uk/47428/1/Libfile_repository_Content_Layard_Mental%20health%20Britain%E2%80%99s%20biggest%20social%20problem%28sero%29_Mental%20health%28sero%29.pdf
159. Evans J. (2013) 'A brief history of IAPT: the mass provision of CBT in the NHS'. The History of Emotions Blog <https://emotionsblog.history.qmul.ac.uk/2013/05/a-brief-history-of-iapt-the-mass-provision-of-cbt-in-the-nhs>
160. Evans J. (2013) 'A brief history of IAPT: the mass provision of CBT in the NHS'. The History of Emotions Blog <https://emotionsblog.history.qmul.ac.uk/2013/05/a-brief-history-of-iapt-the-mass-provision-of-cbt-in-the-nhs>
161. Up until recently DWP did not provide sufficient funding to reach this ratio. Interview with Professor David Clark
162. IAPT. 'About US' <http://www.iapt.nhs.uk/silo/files/the-iapt-pathfinders-achievements-and-challenges.pdf>
163. Richards D., Suckling R., Hennessy S. (2007) 'Doncaster Improving Access to Psychological Therapies Demonstration Site: Annual Report'. <http://webarchive.nationalarchives.gov.uk/20160302154833/http://www.iapt.nhs.uk/silo/files/doncaster-improving-access-to-psychological-therapies-demonstration-site.doc>

164. National Institute for Mental Health in England. 'IAPT Outline Service Specification'. <https://www.uea.ac.uk/documents/246046/11919343/iapt-pathfinder-outline-service-specification.pdf/9afe15b3-8541-4fde-99b6-9280e403b2c6>
165. IAPT. 'About US'. <http://www.iapt.nhs.uk/silo/files/the-iapt-pathfinders-achievements-and-challenges.pdf>
166. Department of Health. (2008). 'Improving Access to Psychological Therapies (IAPT) Commissioning Toolkit'. London: Department of Health. <https://www.uea.ac.uk/documents/246046/11919343/IAPT+Commissioning+Toolkit+2008+.pdf/a04e5a6a-b9ec-4b82-88e2-f8b50b3613e8>
167. IAPT. 'About US'. <http://www.iapt.nhs.uk/silo/files/the-iapt-pathfinders-achievements-and-challenges.pdf>
168. Department of Health. (2011) 'Talking therapies: A four-year plan of action'. London: Department of Health. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213765/dh_123985.pdf
169. Interview with Sarah Boul
170. Interview with Sarah Boul
171. Interview with Sarah Boul
172. Interview with Sarah Boul
173. We Need To Talk Coalition. (2013) 'We Still Need To Talk: A report on access to talking therapies'. London: Mind. http://www.mind.org.uk/media/494424/we-still-need-to-talk_report.pdf
174. Macmillan. 'Macmillan Nurses'. <http://www.macmillan.org.uk/information-and-support/coping/getting-support/macmillan-nurses/index.html#46702>
175. Rossi P. (2009) 'Fighting Cancer with more than medicine: a history of Macmillan cancer support'. The History Press
176. Fisher T. (2007) Ronald Albert Fisher. 'British Medical Journal' 8:335
177. Rossi P. (2009) 'Fighting Cancer with more than medicine: a history of Macmillan cancer support'. The History Press
178. Rossi P. (2009) 'Fighting Cancer with more than medicine: a history of Macmillan cancer support'. The History Press
179. Cancer Research UK. 'Cancer survival statistics for all cancers combined'. <http://www.cancerresearchuk.org/health-professional/cancer-statistics/survival/all-cancers-combined#heading-One>
180. Macmillan. 'Macmillan Nurses'. <http://www.macmillan.org.uk/information-and-support/coping/getting-support/macmillan-nurses/index.html#46702>
181. Macmillan. 'Impact Briefs: Cancer Clinical Nurse Specialists'. <http://www.macmillan.org.uk/documents/aboutus/research/impactbriefs/impactbriefs-clinicalnursespecialists2014.pdf>
182. Interview with Adrienne Betteley
183. Interview with Adrienne Betteley
184. Royal College of Nursing. 'Building nursing capability an economic assessment'. <https://www.rcn.org.uk/professional-development/research-and-innovation/innovation-in-nursing/building-nursing-capability-in-economic-assessment>
185. Macmillan. 'Cancer Voices'. <http://www.macmillan.org.uk/get-involved/volunteering/share-your-experience/cancer-voices>
186. Macmillan. 'Macmillan Volunteering'. <https://volunteering.macmillan.org.uk/>
187. Marketing Society. "The Clubroom", Brand of the Year 2014: Congratulations to Macmillan. <https://www.marketingsociety.com/the-clubroom/brand-year-2014-congratulations-macmillan-cancer-support-0>
188. Interview with Katy Horton-Fawke
189. Interview with Adrienne Betteley
190. Interview with Adrienne Betteley
191. Aitken P., Lloyd G., Mayou R., Bass C., Sharpe M. (2016) A history of liaison psychiatry in the UK. 'BJPsych Bull' Jun 2016
192. Silverstone P. (1996) Prevalence of psychiatric disorders in medical inpatients. 'Journal of Nervous and Mental Disease' 184, 43-51. <https://www.ncbi.nlm.nih.gov/pubmed/8551289>
193. The British Psychological Society. 'Diagnosis - Policy and Guidance'. <http://www.bps.org.uk/system/files/documents/diagnosis-policyguidance.pdf>
194. NHS Modern Standards and Service Models. (1999) 'Mental Health: National Service Frameworks'. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/198051/National_Service_Framework_for_Mental_Health.pdf
195. Tadros G., Salama R., Kingston P., Mustafa N., Johnson E., Pannell R., Hashmi M. (2013). Impact of an integrated rapid response psychiatric liaison team on quality improvement and cost savings: the Birmingham RAID model. 'The Psychiatrist Online' 37(1), 4-10
196. Parsonage M., Fossey M. (2011). Economic evaluation of a liaison psychiatry service. London: Centre for Mental Health. <https://www.centreformentalhealth.org.uk/evaluation-liaison-psychiatry>
197. Parsonage M., Fossey M. (2011). Economic evaluation of a liaison psychiatry service. London: Centre for Mental Health. <https://www.centreformentalhealth.org.uk/evaluation-liaison-psychiatry>
198. Mental Health Network NHS Confederation. (2011) 'With money in mind: the benefits of liaison psychiatry. Briefing Issue 228'. London: NHS Confederation. http://www.nhsconfed.org/~media/Confederation/Files/Publications/Documents/With_money_in_mind_161111.pdf
199. Interview with Lawrence Moulin
200. Interview with George Tadros
201. Griffith L., Glasby J. (2015). 'Mental health matters: improving mental health services in acute settings and understanding how innovation spreads'. University of Birmingham Health Services Management Centre. <http://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/HSMC/publications/PolicyPapers/policy-paper-20.pdf>
202. National RAID Network. 'History of RAID'. <http://www.raidnetwork.org/content/history-raid>
203. Interview with Dr Marc Mandell
204. Griffith L., Glasby J. (2015). 'Mental health matters: improving mental health services in acute settings and understanding how innovation spreads'. University of Birmingham Health Services Management Centre. <http://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/HSMC/publications/PolicyPapers/policy-paper-20.pdf>
205. Interview with Dr Marc Mandell
206. Griffith L., Glasby J. (2015). 'Mental health matters: improving mental health services in acute settings and understanding how innovation spreads'. University of Birmingham Health Services Management Centre. <http://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/HSMC/publications/PolicyPapers/policy-paper-20.pdf>
207. Baret J., Aitken P., Lee W. (2015) 'Report of the 2nd Annual Survey of Liaison Psychiatry in England'. <http://www.crisiscareconcordat.org.uk/wp-content/uploads/2015/10/2a-Report-of-the-2nd-Annual-Survey-of-Liaison-Psychiatry-in-England-20.pdf>
208. Interview with Dr Marc Mandell
209. Interview with Allan House
210. NHS England (2016). 'NHS England sets out steps to improve mental healthcare for pregnant women and new mums and help those attending A&E in crisis'. <https://www.england.nhs.uk/mentalhealth/2016/11/26/improving-mh/>
211. Interview with Lawrence Moulin
212. The Point of Care Foundation. List of Schwartz Rounds sites. Available from <https://www.pointofcarefoundation.org.uk/our-work/schwartz-rounds/list-of-sites/#tab-3>
213. The Schwartz Center. 'Our Story and Mission'. <http://www.theschwartzcenter.org/about-us/story-mission/>
214. The Schwartz Center. <http://www.theschwartzcenter.org/>
215. Goodrich J. (2011). 'Schwartz Centre Rounds: Evaluation of the UK pilots'. London: The King's Fund. https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/schwartz-center-rounds-pilot-evaluation-jun11.pdf
216. Lown B., Manning C. (2010). The Schwartz Center Rounds: Evaluation of an Interdisciplinary Approach to Enhancing Patient-Centered Communication, Teamwork and Provider Support. 'Academic Medicine: Journal of the Association of American Medical Colleges' 85, 1073-81
217. The Point of Care Foundation. 'Vision, mission and values'. <https://www.pointofcarefoundation.org.uk/about-us/vision-mission-values/>
218. Goodrich J., Cornwell J. (2008). 'Seeing the Person in the Patient'. London: The King's Fund <https://www.kingsfund.org.uk/sites/files/kf/Seeing-the-person-in-the-patient-The-Point-of-Care-review-paper-Goodrich-Cornwell-Kings-Fund-December-2008.pdf>
219. Levy P. (2010) 'Poetry at the hospital.' Not Running a Hospital. <http://runningahospital.blogspot.co.uk/2010/06/poetry-at-hospital.html>
220. Goodrich J. (2011). 'Schwartz Centre Rounds: Evaluation of the UK pilots'. London: The King's Fund. https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/schwartz-center-rounds-pilot-evaluation-jun11.pdf
221. Lown B., Manning C. (2010). The Schwartz Center Rounds: Evaluation of an Interdisciplinary Approach to Enhancing Patient-Centered Communication, Teamwork and Provider Support. 'Academic Medicine: Journal of the Association of American Medical Colleges' 85, 1073-81
222. Goodrich J. (2011). 'Schwartz Centre Rounds: Evaluation of the UK pilots'. London: The King's Fund. https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/schwartz-center-rounds-pilot-evaluation-jun11.pdf

223. Goodrich J. (2011). 'Schwartz Centre Rounds: Evaluation of the UK pilots'. London: The King's Fund. https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/schwartz-center-rounds-pilot-evaluation-jun11.pdf
224. Maben J., Peccei R., Adams M., Robert G., Richardson A., Murrells T., Morrow E. (2012) Exploring the relationship between patients' experiences of care and the influence of staff motivation, affect and wellbeing. London: National Institute for Health Research. http://www.netscc.ac.uk/hsdr/files/project/SDO_FR_08-1819-213_V01.pdf
225. Robertson I., Cooper C. (2010) 'The Boorman Report on the Health and Well-Being of NHS Staff: Practical advice for implementing its recommendations'. http://www.robertsoncooper.com/files/boorman_download.pdf
226. The Point of Care Foundation. 'What's involved in starting rounds'. <https://www.pointofcarefoundation.org.uk/our-work/schwartz-rounds/whats-involved-starting-rounds/>
227. Commission on Dignity in Care for Older People. (2012) 'Delivering Dignity: Securing dignity in care for older people in hospitals and care homes'. London: Commission on Dignity in Care for Older People. <http://www.nhsconfed.org/~media/Confederation/Files/public%20access/dignity.pdf>
228. Interview with Gita Bhutani
229. The Mid Staffordshire NHS Foundation Trust Public Inquiry (2013). <http://webarchive.nationalarchives.gov.uk/20150407084003/http://www.midstaffspublicinquiry.com/report>
230. Department of Health (2013). 'Hard Truths: The Journey to Putting Patients First. Volume One of the Government Response to the Mid Staffordshire NHS Foundation Trust Public Inquiry'. London: Department of Health. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/270368/34658_Cm_8777_Vol_1_accessible.pdf
231. Department of Health (2013). 'Press release: expansion of groundbreaking scheme to support NHS staff'. <https://www.gov.uk/government/news/expansion-of-groundbreaking-scheme-to-support-nhs-staff>
232. The Point of Care Foundation. <https://www.pointofcarefoundation.org.uk/>
233. Interview with Jocelyn Cornwell
234. The Point of Care Foundation. 'Pricing and contracts for Schwartz Rounds'. <https://www.pointofcarefoundation.org.uk/our-work/schwartz-rounds/pricing-and-contract/>
235. Macmillan. 'Improving people's experience of care: top tips guide for people affected by cancer'. Available from [http://www.macmillan.org.uk/documents/aboutus/commissioners/mac13749_07_13_patientexperience_toptipsguide_full_lo-res\(2\).pdf](http://www.macmillan.org.uk/documents/aboutus/commissioners/mac13749_07_13_patientexperience_toptipsguide_full_lo-res(2).pdf)
236. Point of Care Foundation. 'Schwarz Community Conferences'. <https://www.pointofcarefoundation.org.uk/our-work/schwartz-rounds/schwartz-community-conferences-schwartz-awards/>
237. Prices are subject to change

Acknowledgements

We would like to thank all the interviewees who gave up their time to talk to us about the spread of these innovations, including:

Altogether Better Health Champions

Alyson McGregor, Director, Altogether Better

Mark Gamsu, Former Assistant Director, Yorkshire and Humber's Regional Public Health Group

Sheinaz Stansfield, GP Practice Manager, Oxford Terrace and Rawling Road Medical Group

Martin Fischer, Director, NMK Partners

DAFNE

Gillian Thompson, National Director, DAFNE Programme

Carolyn Taylor, Clinical Educator

Simon Heller, Professor of Clinical diabetes, University of Sheffield

Helen Hopkinson, Chair of the DAFNE Board

Peter Rogers, Chair, User Action Group

David Fairbairn, DAFNE recipient

ERAS

Professor Sir Mike Richards, Former Chair, Enhanced Recovery Partnership Programme

Janine Roberts, National Programme Lead, Department of Health

Mr Andrew Nordin, Gynaecologist and Leader, East Kent Gynaecological Oncology Centre Multidisciplinary Team

Tom Wainwright, Associate Professor in Orthopaedics and Deputy Head, Orthopaedic Research Institute at Bournemouth University

Professor Robin Kennedy, Surgeon, St Mark's Hospital and advisor and Clinical lead, Department of Health (2007-2011) on enhanced recovery care

Florence

Phil O'Connell, Chair, NHS Simple, Creator of Florence

Dr Ruth Chambers OBE, Clinical Telehealth Lead, NHS Stoke-on-Trent Clinical Commissioning Group

Chris Chambers, Clinical Telehealth Facilitator, NHS Stoke-on-Trent Clinical Commissioning Group

Paul Meredith, Innovations Lead, NHS Stafford and Surrounds Clinical Commissioning Group

High sensitivity troponin testing

Dr Anoop Shah, Clinical Lecturer in Cardiology, University of Edinburgh

Dr Kate Willmer, Acute Medical Unit, New Cross Hospital

Dr Mike Knapton, Associate Medical Director, British Heart Foundation

Dr Clare Ford, Consultant Clinical Scientist, Royal Wolverhampton NHS Trust

Professor Marber, Professor of Cardiology, King's College Hospital London

ICDs

Dr Francis Murgatroyd, Consultant Cardiologist, King's College Hospital London

Trudie Lobban MBE, Founder and CEO at Arrhythmia Alliance

Professor Nick Linker, Consultant Cardiologist and President, British Heart Rhythm Society

IAPT

Rupert Suckling, Director of Public Health, Doncaster Council

Professor David Clark, Professor and Chair of Experimental Psychology, University of Oxford

Professor Peter Fonagy, Professor of Contemporary Psychoanalysis and Developmental Science, University College London

Professor David Richards, Professor of Mental Health Services Research and NIHR Senior Investigator, University of Exeter Medical School

Sarah Boul, Quality Improvement Lead (Mental Health), Clinical networks (Yorkshire and the Humber), NHS England - North (Yorkshire and the Humber)

Macmillan

Adrienne Betteley, Interim Head of Health and Social Care, Macmillan Cancer Support

Fay Scullion, Director of England, Macmillan Cancer Support

Katy Horton-Fawkes, Macmillan Gynae Clinical Nurse Specialist, University Hospitals Bristol NHS Foundation Trust

RAID

Professor George Tadros, Lead Consultant for the Psychiatry Liaison Team at Birmingham City hospital

Dr Marc Mandell, Liaison Psychiatrist, Watford General Hospital

Dr Peter Aitken, Chair of the Faculty of Liaison Psychiatry at the Royal College of Psychiatrists

Dr Allan House, Professor of Liaison Psychiatry at Leeds Institute of Health Sciences

Dr William Lee, Clinical Associate Professor in Psychiatry, Plymouth University

Dr Lawrence Moulin, Clinical Psychologist at Moulin Consulting, previously West Midlands Lead for Mental Health and Learning Disabilities

Schwartz Rounds

Jocelyn Cornwell, Chief Executive, The Point of Care Foundation

Pamela Mann, Director of Pprograms and Rounds Training, Schwartz Center, USA

Dr Gita Bhutani, Associate Director for Psychological Professions, Lancashire Care NHS Foundation Trust

Joanna Goodrich, Head of Evidence and Learning, The Point of Care Foundation

We are grateful to the following people who attended our expert working group:

Dr Mahiben Maruthappu, Co-Founder, NHS Innovation Accelerator

Dr Amanda Begley, Director of Innovation and Implementation, UCLPartners

Oliver Smith, Strategy Director, Health Moonshot, Telefónica Innovation Alpha

Dr Axel Heitmüller, managing Director, Imperial College Health Partners

Dr Penny Dash, Senior Partner (Director), McKinsey & Company

Greg Parston, Executive Advisor to the Director, Institute of Global Health Innovation, Imperial College

Pam Garside, Partner, Newhealth and Fellow, Judge Business School, University of Cambridge

Helen Bevan, Chief Transformation Officer - Horizons Group, NHS England

Dr Steve Feast, Managing Director, Eastern Academic Health Science Network

Professor Gillian Leng, Deputy Chief Executive and Director of Health and Social Care, NICE

Dr Mike Smith, Chief Executive, Haverstock Healthcare

Quirine Van Voorst, Associate Director, Social Finance

Thanks to **Caireen Goddard**, **Leonie Shanks** and **Emily Spragg** who edited and reviewed this report.

Report design by **Eliz Underhill**.

Improving healthcare and transforming services in a financially sustainable way is fundamentally dependent on our ability to spread successful ideas and new approaches at scale. Yet we know that scaling innovation is often a challenge in the NHS, and in healthcare more generally: many new ideas remain as isolated pockets of improvement, and often when they are taken up elsewhere, the initial impact isn't replicated.

This report offers a set of insights, drawn from 10 case studies, on how to pursue scale and how to create the conditions in which scaling efforts can succeed.