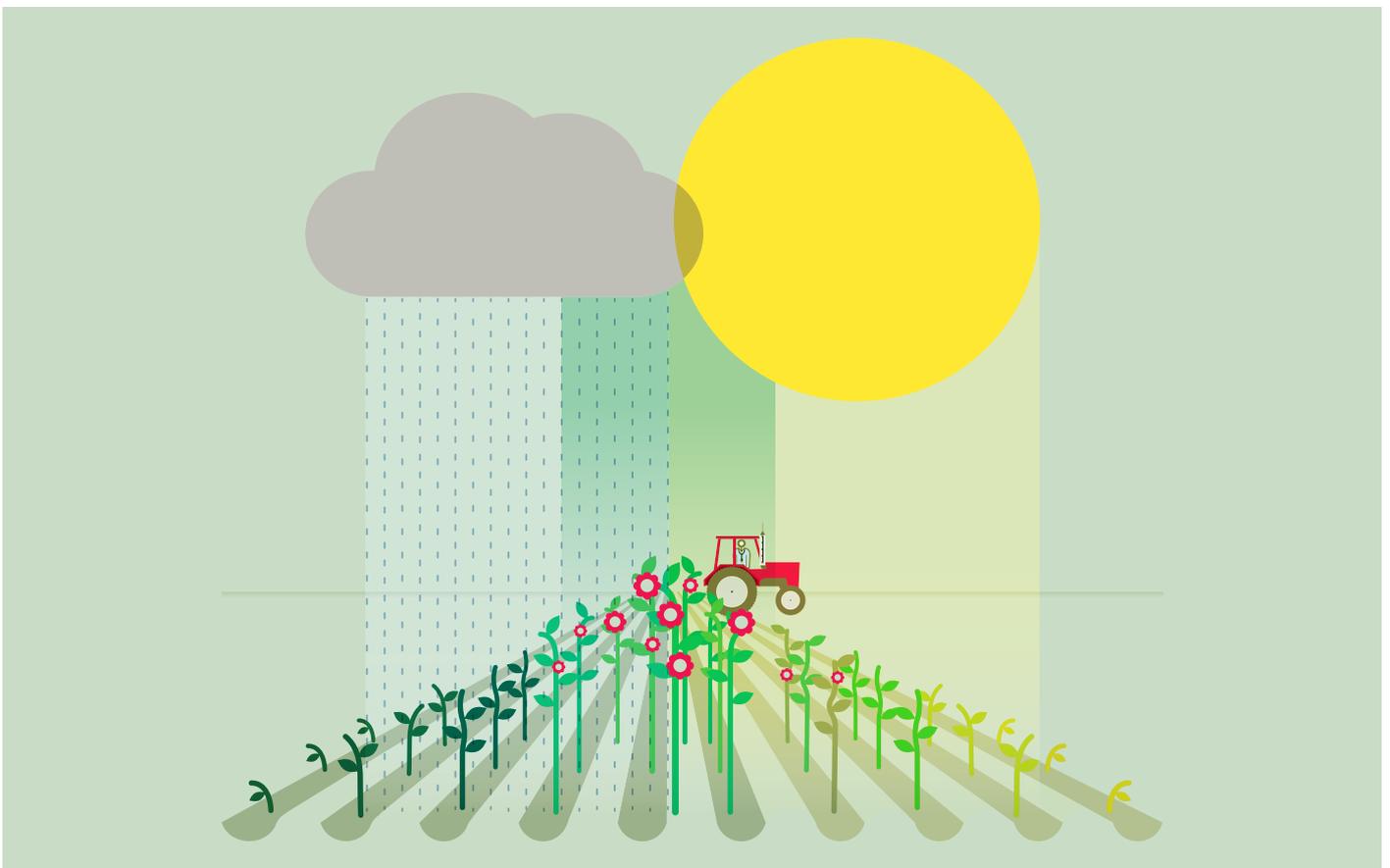


In brief

Perspectives on context

Health Foundation summary and analysis

March 2014



For more information and to download or order the full report, please visit:

www.health.org.uk/perspectivesoncontext

Need to speed up and spread quality improvement? Understand context

The challenge

For a service used to 3-5% real terms funding growth each year, the next ten years for the UK health service will be hard. Near-flat real growth (that is zero per cent) or even negative growth is likely until 2021-22. To keep pace with the increasing demand for care, at least 4% efficiency savings each year are needed – a figure never before sustained in the NHS. The picture is further complicated as – at the same time – more will be demanded of the quality of care.

How best to manage this daunting challenge? There will be some short-term and probably bold national decisions needed, for example, to enable major service changes, to manage pay awards, adjust workforce contracts, adjust prices for care and set priorities for investments where possible (such as in IT, the use of data and trialling of new technologies). Work will also be needed across the UK to make sure that the overall blend of national policies is designed to be helpful to health care providers trying to make improvements in quality and efficiency, while the climate set from the centre is demonstrably supportive and enabling.

But no one policy or initiative, certainly nationally, is going to be the answer. Rather, the progress will be made by the millions of staff making decisions every day, with patients, in a multitude of care settings. The key question is how to speed up innovation and improvement. To do this, those working to improve health care, both locally and nationally, need a much better understanding of how ‘context’ (or environment) can impact on the success of improvement initiatives.

The importance of context

Service innovations or quality improvement initiatives (service interventions) can be as seemingly straightforward as using a telehealth device, or as complex as developing integrated care for patients across a multiple set of health care providers. The interventions can intuitively seem to be a good thing to do. However, many have observed that, when evaluated, promising interventions are often not shown to work, or if they do in one setting, they don’t successfully spread to a new site. But why not? It could be because the interventions are just wrong or substandard – they will never work. Or that they were implemented at a suboptimal strength to get any observed impact and a bigger dose is needed. Or that the evaluation was somehow

faulty. Or it could be that the intervention design is good, the implementation and evaluation sound, but the context (or environment) in which they were supposed to operate was too hostile to allow any progress.

Many years ago, WE Deming, one of the pioneers of quality improvement approaches, observed that ‘*intervention + context = outcome*’. But look at evaluations of service innovations and quality improvement initiatives and what you find is practically no mention of context. Yet this critical ingredient, or set of ingredients, may be the most important factor in achieving change. Not understanding and taking into account context risks a huge waste of resources, money and effort.

For that reason, the Health Foundation wanted to shed light on the subject, particularly with respect to speeding up quality improvement. In 2011, we commissioned a series of essays from experts who have spent many years examining the context in which improvement efforts occurs in health care. The essays, published in the collection *Perspectives on context*, are:

- *Context is everything* – Professor Paul Bate
- *The role of context in successful improvement* – Professor Glenn Robert and Professor Naomi Fulop
- *How does context affect quality improvement?* – Professor John Øvretveit
- *The problem of context in quality improvement* – Professor Mary Dixon-Woods

In this *In brief* we highlight some of the main messages from the essays.

What is context?

Context is a slippery idea to define and, as Robert and Fulop describe, it is complex and multifaceted. One of the best definitions is that:

‘context refers to the why and when of change, and concerns itself both with influence from the context external to the provider (such as the prevailing economic, social, political environment) and influences internal to the organisation under study (for example its resources, capabilities, structure, culture and politics).’¹

1 Pettigrew A, Ferlie E, McKee L. Shaping Strategic Change – The Case of the NHS in the 1980s. *Public Money & Management* 1992;12(3):27- 31.

This definition usefully highlights that the wider environment in which changes happen is different to the internal environment of the organisation; however both are influential.

Some have found metaphors more appealing than definitions. If the intervention (service innovation) is a 'seed', then the context is the 'soil'. Some species of interventions are fairly robust and will thrive in a variety of environments, while others are very sensitive to the type of local 'soil'.

External context

External context includes the political and regulatory environments in which health care providers must operate. For example, the extent to which there is direction from the centre (and on what issues), the extent and type of regulation, the strength at which competition between providers is operating, the system of paying providers for services. A second group of factors includes the role and power of the workforce (in particular the professions), social and ideological movements (such as consumer rights) and health-related movements (for example campaigning by patient groups). A third group includes the technological environment, such as the availability of therapies, equipment and information technology. All these factors can shape the effectiveness of change initiatives.

Inadequate understanding of the external context can lead to unrealistic expectations when adopting a technology or intervention which prospered in a different environment. An example would be electronic prescribing in hospitals. In the early days, in most US hospitals drug prescriptions were written up among other orders on a blank 'doctor's orders' sheet; they had to be spotted and interpreted by other staff, such as ward clerks, and transmitted to the pharmacy. Electronic prescribing ensured for the first time that prescriptions included all relevant information, spelt the drug correctly, and there was no chance of transcription errors. In the UK, drug charts had already reduced many of these risks, so the initial impact of introducing e-prescribing was smaller than in the US.

Internal context

The context inside an organisation can also have a powerful effect on the germination of seedling interventions. The organisation's culture, leadership, size, scope, scale of activities, nature of ownership, stability, financial situation, economic incentives, standards of care and staff satisfaction can all be important. Depending on the nature of the intervention, these are just some of the factors which can affect successful development and adoption of interventions.

For example, when intensive care units in England attempted to 'match Michigan', following the successful US *Keystone* project to reduce infection rates from central venous catheters, the integrated suite of interventions showed no significant benefit when compared to the control group. Research funded by the Health Foundation found that a host of local factors – internal context – significantly altered the way in which what was assumed to be a standard intervention was enacted at each site.²

Types of knowledge

A significant (but hard to measure) aspect of internal context can be special types of knowledge held by key individuals. In her essay, Mary Dixon-Woods reminds us that these (first identified by Aristotle) include 'practical wisdom' and 'conjectural knowledge': cunning in ways of achieving one's purpose.

Practical wisdom comes from experience and social practice and grows over years of trial and error. It is needed to recognise and adapt to the institutional context – and to judge whether conditions are right for initiating an improvement intervention. Conjectural knowledge is intuitive and involves ruses and shortcuts that get results; it is a sort of ad hoc reasoning that is useful when there are many uncertainties and there is a need to 'feel' the way forward. It depends on knowing, for example, the characters of the local doctors and managers and hence who to approach (or avoid) to get what is needed for an intervention to move forward.

Both these forms of knowledge are complex and hard to share with others. However, they are crucial in making improvements work successfully; and are part of the reason why some aspects of quality improvement are seen more as art than science. People with these forms of knowledge are likely to be those who make improvement interventions work when they would have failed otherwise. Therefore, it is important that an improvement intervention should be led by people with these skills, or they should be in a position of significant influence on the project.

From theory to practice

Many academics have worked on grouping contextual factors, and have developed ways of assessing context to see how conducive to change it might be – for example, the PARIHS (Promoting Action on Research implementation in Health Services) framework and its related 'context assessment index'. Such assessment can be useful to do before an intervention is attempted in a particular health

² For more information about the Lining Up research project, see www.health.org.uk/liningup

care provider to see where support might be needed to ensure the intervention's success. However, only some aspects of context may affect the success of a quality improvement intervention and not enough is known about this complex area without further research.

When trying to manage the context, John Øvretveit writes there may be two broad choices: fit the quality improvement initiative to the context, or adapt the context. But he goes on to caution spending time and effort trying to change the context if we are not sure this will make quality improvement projects easier to implement. The key is a better understanding of the role the context plays in an initiative's success.

It is also undoubtedly true that there are some initiatives which are so powerful that they overcome context. Such 'context busting' initiatives, such as powerful financial incentives and top-down enforced rules (eg to reduce waiting times and health care acquired infections), are rare. However, while effective, they may also have unintended side effects, such as effort taken away from other aspects of care (eg safety).

How best to move forward?

The NHS is now in a situation where a fast pace of innovation and improvement is critical. Clearly the external policy ecosystem in which providers operate must be as enabling as possible to encourage change, and there is much work to be done on that.

But the direct changes will come from within health care providers. Here, the best leaders will be those that can manage a dynamic and complex environment with lots of unknowns to steer a course towards progress.

There needs to be much more permissive trialling of innovations and improvement projects over the next five years, prioritising those that are likely to have the biggest impact. This is linked to building capacity across the NHS in formal skills in designing and implementing improvement projects, particularly among clinicians.

On context, more research should steadily help clarify what context factors help in the success and spread of innovations and service improvements. As a starting point, the Health Foundation has commissioned Glenn Robert and Naomi Fulop to review the current evidence and identify aspects of context that are important for implementing quality improvement – and if and how they can be modified to increase the chance of success.³

While there are already several models that set out to explain the effect of context, what we lack is evidence of their effectiveness. As Paul Bate notes, we should first find out how well these existing models work before constructing new ones.

Use of current insights and models needs to be rapidly sped up and enhanced by near-real-time feedback to sites implementing change so that adaption and course correction can occur. This means real-time qualitative and quantitative investigation, with insights on context and impact fed back to the front line service improvers. The NHS does not yet have this facility either nationally or locally, but should build it – and fast.

³ Findings from this project are due to be published in late 2014. For more information, visit: www.health.org.uk/areas-of-work/research/context-for-successful-improvement

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