The Model for Improvement

Introduction

Our environment is constantly changing. Some changes are imposed on us and we have to find a way to manage the impact. At other times, change is something we choose to make, motivated by the desire to make things better. It is obvious to say it, but whilst every improvement is certainly a change, every change is not always an improvement.

Making changes to the way that we do things can be time-consuming and can sometimes feel risky. The Model for Improvement (Langley et al.) is a tried and tested approach to achieving successful change\(^1\). Use of the model offers the following benefits:

- It is a simple approach that anyone can apply
- It reduces risk by starting small
- It can be used to help plan, develop and implement change
- It is highly effective

The Model for Improvement

The model for improvement was first published in 1992 by Langley, Nolan et al in ‘The Improvement Guide: A Practical Approach to Enhancing Organisational Performance’. The model provides a framework for developing, testing and implementing changes to the way that things are done that will lead to improvement.

The model consists of two parts that are of equal importance. The first, the ‘thinking part’, consists of three fundamental questions that are essential for guiding improvement work. The second part, the ‘doing part’, is made up of Plan, Do, Study, Act (PDSA) cycles that will help you make rapid change.
The three fundamental questions for achieving improvement

A planned approach to improving things will give you a better chance of being successful. The three fundamental questions for achieving improvement are a useful way of framing your work.

1. What are we trying to accomplish?

This question is intended to help you be clear about the improvements that you would like to make, what results you would like to get and how you would like things to be different. Having a clear vision of your aims is crucial.

2. How will we know that a change is an improvement?

Without measurement it is impossible to know whether you have improved. Think about how you want things to be different when you have implemented your change and agree what data you need to collect to measure it. You can do this in terms of the way in which your results or outcomes might be different, how the service that your patients receive will be better, or how your processes might change.

3. What changes can we make that can lead to an improvement?

Finally, you need to decide what changes you will try in order to achieve the results you are looking for. What evidence do you have from elsewhere about what is most likely to work? What you and your team think is a good idea? What have other people done that you could try? This is where you can adapt ideas or be completely creative. Remember that you know your own system best, so keep your objectives in mind and use your knowledge and experience to guide you.

Gather together as many ideas as you can. These will form the basis for the next step – your PDSA cycles.

PDSA Cycles

PDSA stands for ‘Plan, Do, Study, Act’. Once you have decided exactly what you want to achieve, you can use PDSA cycles to test out your ideas developed from the third question, ‘What changes can we make that will lead to an improvement?’

The key to PDSA cycles is to try out your change on a small scale to begin with and to rely on using many consecutive cycles to build up information about how effective your change is. This makes it easier to get started, gives results rapidly and reduces the risk of something going wrong and having a major impact. If what you try doesn’t work as well as you hoped, you can always go back to the way you did things before. When you have built up enough information to feel confident about your change, you can then implement it as part of your system.

Think of a ‘small’ PDSA cycle in terms of the scope of your test. You might, for example, like to run your
cycle over one day, with one person or in one clinic. You might wish to look at the last ten patients seen, the last twenty referrals made or the next dozen reports.

The ‘Study’ part of the cycle gives you the opportunity to reflect on what happened, think about what you have learnt and to build your knowledge for further improvement.

Finally, you can move on to your next steps – the ‘Act’ part of the cycle. Do you need to run the same cycle again, gathering more evidence or making some modifications based on what you learnt? Or do you need to develop further cycles to move your work forwards?

**Practicalities**

- Improvement is nearly always a team endeavour. Try to ensure that you involve the right people in your work.
- People have a tendency to jump straight to solutions rather than really work out what the root of the problem is. If you use the three fundamental questions, it will help you be sure that you are dealing with the issue that really needs to be addressed.
- When you plan your cycle, make sure you are clear about who is doing what, where and when. Your results are dependent on how good your plan is. We have developed a worksheet that you may find useful and included it within this document.
- Discuss what you think will happen when you try out your change. What is your hunch? When you have carried out the cycle, compare your expectations with what actually happened. You may learn something interesting about how things work.
- Record your PDSA as you go along: the plan, the results, what you learnt and what you are going to do next. Not only is it very motivating to see the results of what you have tried, it is also a great way of accumulating information about your systems and a good way of sharing your learning with other people.
- Use PDSAs consecutively to build up the information about your change and then use them to implement it systematically into your daily work. PDSA cycles generally do not operate in isolation – you should expect to have a series of them leading towards your goal.

There are lots of examples of and ideas for PDSAs at www.npdt.org

**And finally…**

- PDSAs cannot be too small
- One PDSA will almost always lead to one or more others
- You can achieve rapid results
- They help you to be thorough and systematic
- They help you learn from your work
- Anyone can use them in any area

---

The Improvement Model

1. Developing objectives for improvement work

You may find it useful to identify what you want to achieve from your improvement work. The Improvement Model's three fundamental questions for achieving improvement provide a useful framework for developing your objectives.

**Q1. What are we trying to accomplish?**

*What is the overall aim of what we are doing? What are we hoping to improve? e.g. increase the range of ways in which patients can access care, improve how we use skills of team members, use our appointment capacity better.*

**Q2. How will we know that a change is an improvement?**

*What will tell us that our changes make things better than they were before? What can we measure that will demonstrate that our changes are actually an improvement? What data (opinions, observation, process data and results) will be useful?*

**Q3. What changes can we make that will lead to an improvement?**

*Include all the ways that you can work towards your objective, so that you can develop plans for PDSA cycles. Think about what has worked for other people, what ideas you have yourself and innovative approaches.*
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall objective that this cycle links to</td>
<td></td>
</tr>
<tr>
<td>Specific objective for this cycle</td>
<td></td>
</tr>
<tr>
<td>What are you going to do?</td>
<td></td>
</tr>
<tr>
<td>Who will be involved?</td>
<td></td>
</tr>
<tr>
<td>Where will it take place?</td>
<td></td>
</tr>
<tr>
<td>When will it take place?</td>
<td></td>
</tr>
<tr>
<td>What do you predict will happen?</td>
<td></td>
</tr>
<tr>
<td>What are you going to measure in this cycle?</td>
<td></td>
</tr>
</tbody>
</table>
PDSA cycle progress sheet

Complete this part as you carry out your cycle. Keep notes on what happens.

Do

Complete this part when you have completed your cycle, having gathered your data and reflected on what happened. Include expected and unexpected results.

Study

Record what you will take forward from this cycle, or what you will do differently next time. What other tests or cycles will you do?

Act