

Access QI

Pathway Diagnostic Guidance

November 2019

Working draft (v0.5)

This is a working draft to support the work in the Access QI Accelerator Sites. We will develop it further on the basis of feedback from the sites as it is tested in practice over the coming months.

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Published Month Year

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Introducing pathway diagnostics

Pathway diagnostics is the first step in improving user experience and performance of a pathway. It enables staff and managers delivering care to gain a deeper understanding of the key issues and challenges that are having the greatest impact on performance, including user experience. This ensures improvement work is focused on the areas which will have the biggest impact.

Not all pathway changes require full pathway diagnostics. Small obvious improvements can be made without a diagnostic and there may also be areas for improvement highlighted early in the diagnostic process which are obvious quick wins. Accelerator sites are encouraged to progress with any quick wins parallel to completing the full diagnostic.

There are risks of wasting the time and good will of staff, reducing quality of care or worsening performance if larger changes are made to the pathway without a deeper understanding of the pathway and potential impact of change.

This guide outlines four key steps in carrying out a pathway diagnostics:

- Setting key principles to inform your pathway diagnostics,
- Understanding user experience of the pathway,
- Understanding service delivery of the pathway, and
- Prioritising areas for improvement.

Each section of this document contains description and links to tools and techniques that can be used to contribute towards pathway diagnostic.

There are many other approaches for pathway diagnostics used throughout Scotland and beyond that are not included in this document. If you use other approaches that you think should be included in this guide or you would like to share your experience of pathway diagnostics then please get in touch by emailing hcis.access-QI@nhs.net.

Key principles

Before starting on pathway diagnostics you should consider the following principles and adapt them to your local context.

Principle	Description
Define when your pathway starts and stops	<p>Services often define the start of the pathway when the referral is received to point of discharge. However from a user viewpoint their care experience starts when they first notice something is wrong.</p> <p>Where you start and finish will depend on the local context of your work. For access improvement work sites are encouraged to think beyond the acute to interface issues with primary and community services.</p>
Set a deadline	<p>Setting a deadline can help give pace to diagnostics works and prevent “analysis paralysis” by looking for more and more information about the pathway without ever moving to design or implement change ideas.</p> <p>How long it takes will depend on the resources you have available to do the diagnostic work. It is likely to take more than a month and if you are going beyond three months you are risking “analysis paralysis”.</p>
Use data and information you currently have available	<p>Look at information you already have before collecting new data from systems or starting manual data collection. This can save you considerable time and energy.</p>
Consider data sampling	<p>Where routine data is not available, effective sampling can give you really meaningful insights into the performance of your pathway.</p>
Understand demand and capacity	<p>Understanding demand and capacity are essential to informing change ideas that reduce demand, improve use of existing capacity and avoid unintentionally creating new bottlenecks and long queues.</p> <p>These two measures are fundamental for access improvement work.</p>
Involve others from the start	<p>People who are not part of your service but have an effect on the pathway should be involved in the pathway diagnostic. For example, senior managers or clinicians from services that refer people to your pathway. This will make it easier to engage with them later on if you identify change ideas that require their help to implement.</p> <p>Involvement can range from keeping them regularly informed about what you are learning through pathway diagnostics to being part of the team undertaking the diagnostic work.</p> <p>Stakeholder mapping can help identify who should be involved.</p>

The key principles should be used throughout the pathway diagnostic exercise to keep pathway diagnosis focused and manageable.

Understanding users experience

People who have experience of receiving care have invaluable insights into key opportunities for improvement. Understanding their needs and experiences will help you to design high quality and efficient services. It will also help you to reduce the workload related to doing things people don't want.

Below are a list of commonly used methods that can be used to capture user experience as part of pathway diagnostics.

Method	Time required	Description
Use existing user feedback	Low	<p>Take existing information from local complaints, surveys, Care Opinion and other existing sources.</p> <p>Theme and count the feedback. Identify which parts of the pathway is related to the feedback, please note, this may be more than one part of the pathway.</p>
Waiting room Questionnaires	Low	<p>Create questionnaire in Plain English and leave in the waiting room and at reception. You will also need to ensure it is easy for questionnaires to be anonymously returned.</p> <p>Theme and count the feedback. Identify which parts of the pathway are related to the feedback, please note, this may be more than one part of the pathway.</p> <p>The Scottish Health Council has a guide on questionnaires.</p>
Interviews	Medium	<p>Create a short series of open questions about experience of the pathway and ask people who while they are in the waiting area. The questions do not need to be asked by busy staff, they could also be asked by medical students or by patient representatives.</p> <p>Theme and count the feedback. Identify which parts of the pathway are related to the feedback, please note, this may be more than one part of the pathway.</p>



Method	Time required	Description
Focus groups	High	<p>Invite a small group of people to take part in a focus group and ask a series of questions. Key themes from complaints and surveys are often useful to identify questions to get more in-depth quantitative learning.</p> <p>Theme and count the feedback. Identify which parts of the pathway are related to the feedback, please note, this may be more than one part of the pathway.</p> <p>The Scottish Health Council has a guide on running Focus Groups.</p>
Emotional touchpoints	High	<p>Emotional Touchpoints is a powerful means of helping people to share the aspects of experiences that are important to them. These can be the 'big moments' that people return to when retelling their stories, or the 'hidden small acts' that have an impact despite seeming to pass unnoticed.</p> <p>The Scottish Health Council have produced a toolkit on Emotional Touchpoints.</p>
Real-time and Right-time Care Experience Improvement Models	High	<p>Both Real-time and Right-time care experience improvement models provide a framework that empowers care teams to effectively identify areas for improvement directly attributable to service user feedback.</p> <p>The evaluation of Real-time and Right Care Experience Improvement Model provides details of the model and how they have been used in NHS boards.</p>

The Scottish Health Council provides additional [toolkits](#) to effectively involve service users and cares in improvement.

Understanding user experience can take place at the same time as understanding service delivery.



Understanding service delivery

Understanding how the service is delivered normally starts by process mapping the pathway, but that is only the start of the diagnostics. Quantitative and qualitative data is required to gain a deeper understanding of the pathway.

Below are a list of commonly used methods used to capture how services are delivered as part of pathway diagnostics.

Method	Time required	Description
Process mapping	Medium	<p>This is an essential part of pathway diagnosis work.</p> <p>Process mapping is a visual way to map the pathway. Be careful to map how the pathway actually is, not what “you think” should happen.</p> <p>It can be as simple as post-notes showing the pathway. A true reflection of the pathway is more important than how it looks.</p> <p>NHS Education Scotland’s QI Zone has a guide on process mapping and the NHS East London Foundation Trust has a Flowcharting Guide.</p>
Date over time	Low	<p>Take existing data from patient management system, performance reporting and management information reports.</p> <p>Identify which measures will give you the best understanding of each step in the pathway. Use Statistical Process Control charts or Run Charts to understand variation in data over time. Understand current and desired process capability. Investigate reasons for any special cause variation using tools described below.</p>



Method	Time required	Description
Staff survey	Low	<p>Use existing staff surveys or reports or create an ad-hoc staff survey to gather staff experience of working in the pathway.</p> <p>Tools like Slido or SurveyMonkey allow free anonymous returns. Paper surveys can also work. Questions should be more specific about delivering the pathway.</p> <p>Theme and count the feedback. Identify which parts of the pathway is related to the feedback, please note, this may be more than one part of the pathway.</p>
5 Whys	Medium	<p>5 Whys can be used to investigate key issues, such as long waits or variation, to gain an understanding of the root cause and identify potential change ideas.</p> <p>NHS Education Scotland's QI Zone has a guide on 5 Whys.</p>
Demand, Capacity, Activity and Queue (DCAQ) analysis	High	<p>DCAQ is a data analysis method to understand the balance between demand and capacity/activity. When there is an imbalance it results in queues.</p> <p>Understanding the relationship between demand, capacity, activity and queues is an essential function to pathway diagnosis.</p> <p>NHS Improvement hosts a guide on understanding demand and capacity.</p>
Patient tracking	High	<p>An exercise when a sample of patients are tracked through the pathway. Staff will manually record the date of each interaction with a patient, when activity occurs related to their care and when they move to different stages of the pathway. Ideally process mapping of clinical pathways should always include some patient tracking.</p> <p>The timings are used to understand the time between each stage of the pathway to identify the rate limiting step. The data should be added to the process map.</p>

Understanding service delivery can take place at the same time as understanding user experience. When the system is sufficiently understood, it is time to take all the learning and begin to prioritise where to focus improvement.

Prioritising areas for improvement

Gathering information about the current pathway often identifies several areas for improvement and generates many change ideas. Too many change ideas can be overwhelming and can result in a lack of focus. A structured approach to prioritisation helps to prioritise improvement to the areas which will lead to the greatest impact.

Below are a list of commonly used methods for prioritising areas for improvement and provides a focus to your improvement activity.

Method	Time required	Description
Stakeholder workshop	High	A workshop involving senior managers, clinicians and support staff who deliver the pathway and clinicians who refer to the pathway. The group can have a facilitated discussion about what has been learned during the diagnostic work, prioritise areas for improvement and create an aim statement to drive the work forward.
Theory of constraints	Medium	Theory of constraints helps to identify the most important limiting factor that prevents a pathway from meeting its goals. It can provide focus to improvement activity. NHS Improvement have a guide on Theory of constraints .
Pareto charts	Low	Data from pathway diagnostic can be presented in a pareto chart to identify the factors that have the greatest impact. It also help communicate the rationale for focusing on certain areas. NHS Education Scotland's QI Zone has a guide on pareto charts .
Change idea prioritisation matrix	Low	A structured visual tool to help inform which improvement ideas to test first and how to focus your activity and energy. It works best in a collaborative environment and can help to build buy-in and communicate why you have chosen to test certain ideas before others. NHS Education Scotland's QI Zone has a guide to prioritisation matrix .



Method	Time required	Description
Driver Diagram	Medium	<p>Visually presents a team's theory of how an improvement goal will be achieved.</p> <p>NHS Education Scotland's QI Zone has a guide on driver diagrams.</p>
Aim statement	Medium	<p>Setting an aim statement for improvement work based on the understanding of the system helps provide focus for improvement activity.</p> <p>NHS Education Scotland's QI Zone has a guide to creating an aim statement.</p>
Queuing theory	Medium	<p>Queuing theory helps to understand how queue management impacts on waiting times and ultimately flow.</p> <p>Thought.co has an article introducing queuing theory and published articles are available for using queuing theory to improving waiting times in health.</p>
Force field analysis	Medium	<p>Force Field Analysis provides a structured approach to decision making which helps consider the forces that are driving the change and those that resist the change.</p> <p>NHS Education Scotland's QI Zone has a guide for force field analysis.</p>
High Impact Changes	Low	<p>Most national improvement programmes will have already undertaken work to assess what the high impact changes are that are relevant to the improvement programme. This will usually involve reference to the evidence base about what has been shown to work elsewhere. Care still needs to be taken to ensure the change is relevant to the issue you are seeking to address.</p> <p>The Scottish Access Collaborative has examples of high impact changes.</p>

Following the prioritisation of areas for improvement and creation of an aim and driver diagram, it is important that actions are taken and next steps planned to begin testing the selected change ideas. It is also important to ensure that measures are in place to assess whether the changes are leading to the anticipated improvement.

Published November 2019

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