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Service Improvement
and Redesign tools

Glenday sieve



Glenday sieve

What is it?

The Glenday Sieve is an approach to identifying common groups of procedures, conditions or activities in healthcare. These processes are grouped by volume of activity in the first instance, helping you to identify specific areas that could be the focus of improvement efforts. Focusing improvement on a few, high volume activities can deliver significant gains for the organisation.

The approach has its origins in the [Pareto](#) principle, but has a stronger operational focus.

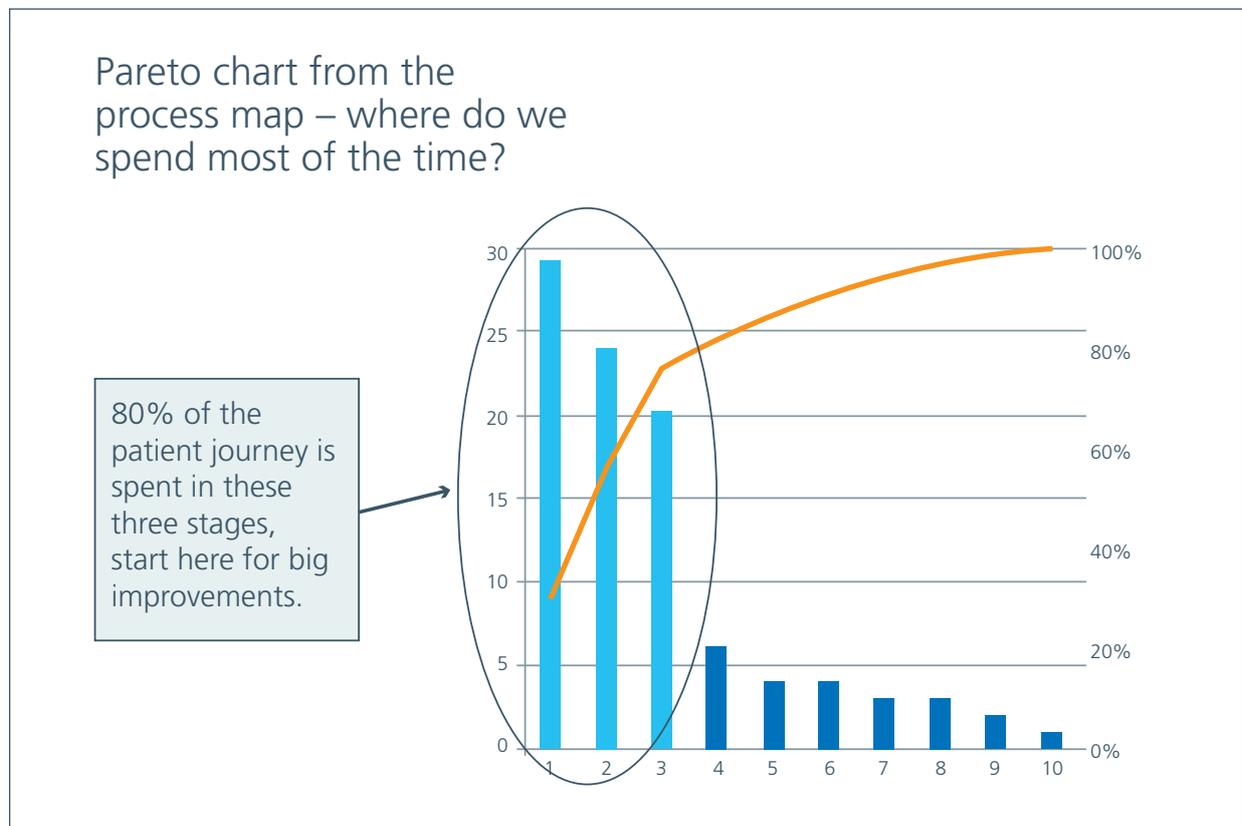
When to use it

The Glenday Sieve gives you a practical starting point to focus your improvement efforts. It helps to ensure that the gains from improvement are maximised.

How to use it

The Glenday Sieve separates procedures, conditions or activities, initially through the Pareto analysis of current volumes.

Figure 1: Glenday Sieve



You can apply this approach to organisations, departments or wards, to enable you to identify those few procedures that make up the greatest volume of activity. The results shown in the table below are typical.

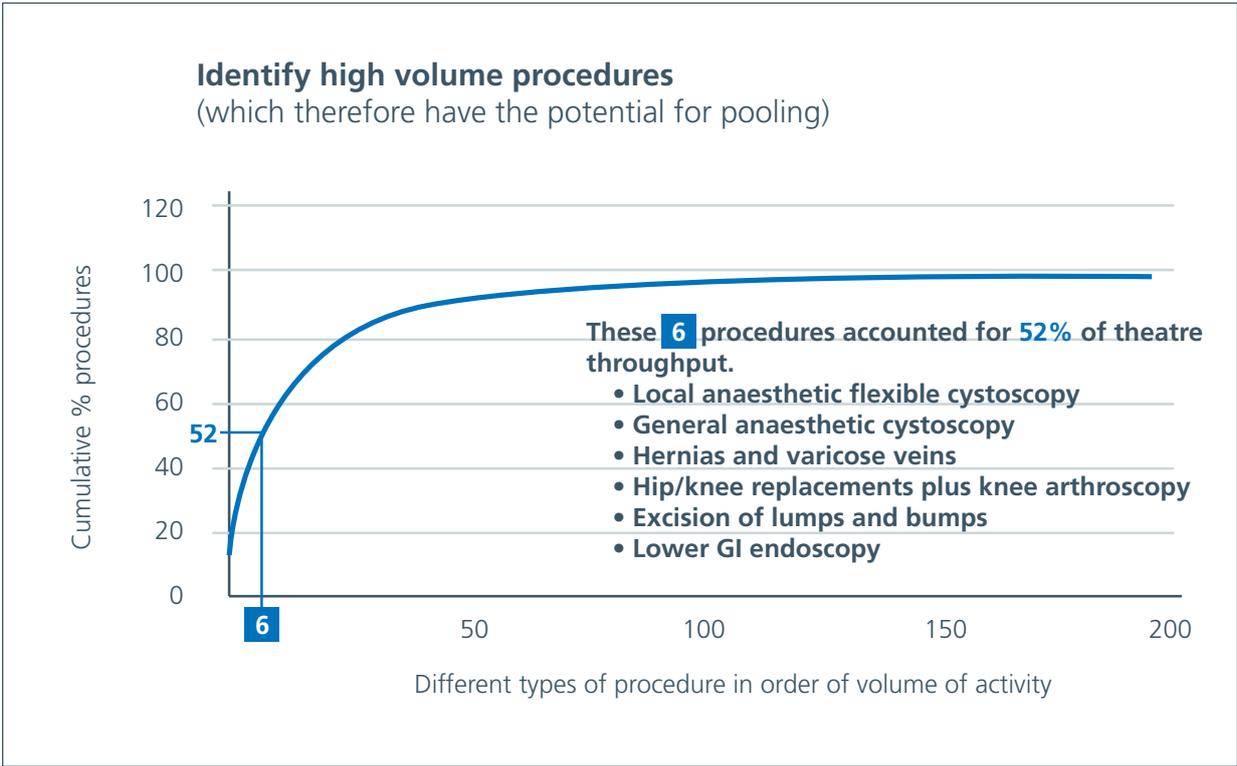
Figure 2

Cumulative % of volume	% of product or services	Cumulative % of product or services	Colour
50%	6%	6%	Green
95%	44%	50%	Yellow
99%	20%	70%	Blue
Last 1%	30%	100%	Red

The results of this process can be quite surprising, as many people insist it is impossible for such a small percentage of procedures to account for 50% of the volume in their organisations.

Green procedures tend to be a few high volume procedures that are predictable in terms of how long they take and overall levels of demand. They are not necessarily short and simple procedures. For example, Wirral Hospital looked at the number of procedures carried out through a surgical ward.

Figure 3: Surgical procedures



When examined, the six highest volume procedures were found to be generally predictable in terms of how long they take, the sequence of activities required for them to take place and the volume of week in and week out demand.

Experience from this example suggests that these procedures are a good place to start when implementing service improvement, improving patient flow and enhancing quality.

The next 45% (by volume) are described as the **yellow** procedures. These are fairly high volume procedures, which are more diverse in range than those in the **green** group. When combined with the **green** procedures, they account for 95% of the total volume of activity.

It is useful to group similar procedures that may have separate clinical codes ie identify any procedures that come in to the **yellow group** that are similar to those in the **green group** from a practical perspective. For example, Wirral Hospital grouped together hips and knees (although these obviously have separate clinical codes) as from an operational perspective, they were viewed as being similar. Your aim at this stage is to group those procedures that logically fit together.

Both the **blue** and **red** streams describe much less commonly performed procedures. Again, it is helpful to identify those procedures that are similar to any in the **yellow** and **green** streams from a clinical procedures perspective. For the other procedures there is an opportunity to challenge whether given the low levels of activity, how clinical quality can be ensured.

What next?

Examine those procedures in the **green group** to understand how much improvement activity has taken place involving those procedures. Consider what the potential is to further improve the processes around the highest volume procedures. Because the procedures in the **green group** are all high volume, even small improvements can lead to significant benefits.

Once potential areas for improvement have been identified, use other tools to help make the improvements. For example:

- **Value stream mapping/process mapping** to identify flows
- Identify different patterns of working between consultants. You may use a **tracer study** for this
- **Process templates** will help you to identify all the steps required around a particular procedure and to identify bottlenecks. This can help you to ensure that patients are booked in at the right time with the necessary resources available along all the steps of a procedure
- **Demand and capacity management** will help you to look in more detail at the demand and capacity profiles related to the procedures.

Additional resources

Glenday, IF (2005) *Breaking Through to Flow: Banish Fire Fighting and Produce to Customer Demand: 1*, Lean Enterprise Academy Ltd, 1st edition

Background

This approach was originally developed by Ian Glenday in the manufacturing industry as an alternative to traditional 'campaign' scheduling. It helped the industry to adopt Lean thinking and has been applied successfully in many different environments, including healthcare.