

A simple guide to demand analysis in the delivery of victim support services

Introduction

Managing victim support services can be full of challenges. Matching capacity with demand is a key approach to removing some of the visible and hidden backlogs along a victim support service pathway. In this article we show how to conduct demand and capacity analysis to improve victim support services.

What is gap analysis and how can it help me?

The number of victims seeking support following a crime varies with a variety of factors including seasonality, school holidays, geography and others. This results in the build up of waiting because demand for work often exceeds the capacity available to do that work

In addition, the amount of support required by victims of crime varies significantly depending upon factors such as; the nature of the crime, the support needed and the ability of the individual to help themselves and others.

Understandably then, the demand for victim support services fluctuates up and down significantly with different services experiencing their own peaks and troughs throughout the year.

At the same time, the capacity available to provide support services is fixed at a level that is usually established not by any link to demand but by the level of funding available to provide such services.

Consequently, service providers experience a continual mismatch between the demand for services and the capacity available to deal with it. Managing this can be challenging and difficult.

Accurate analysis of victim support processes and a clear understanding of demand and capacity are essential to achieve effective and sustainable service transformation.

How do we do it?

Process mapping underpins all service redesign, demand, capacity, activity and queue management, for victim support flow modelling and service planning.

Process mapping, along with measurement of demand, capacity, activity and backlog provides the evidence you need for service improvement. If you don't understand the processes, you risk changing parts of a process which will not improve the service from the client's perspective and may actually incur more waits and delays.

Analysis

Once the process map is complete, the next stage is analysing it by considering the following:

- Where are the delays, queues and waiting built into the process?
- Where are the bottlenecks?
- What are the longest delays?

When measuring victim services, you need to understand and reduce variation in order to improve patient flow. Variation can be seasonal, monthly, weekly, daily or hourly. Much of the variation in victim systems is controlled upon understanding of the patient flow.

Analysing and understanding current system variation is essential in order to reduce overall victim journey times. The variation between demand and capacity is one of the main reasons why queues occur, because every time demand exceeds capacity, a queue is formed showing itself as a waiting list or backlog.

Key measures

There are three key measures that impact service:

- Capacity
- Demand
- Backlog

They need to be understood if you are to manage queues, deliver effective service and make informed decisions. You should aim to measure these factors in the same units for the same period of time so that you can compare them on a single graph.

It is sensible to measure the capacity for all critical resources as these are most likely to constrain the available capacity. For example, in Domestic Violence Cases, the Independent Domestic Violence Advisor (IDVA) may offer advocacy services as part of a support program. As IDVAs are a critical resource, their availability is often constrains the entire process.

How to measure demand

Multiply the number of victims referred from all sources by the time it takes to support a victim. For example, an advocacy session may last one hour so 12 victims having advocacy support each day would take $60 \times 12 = 720$ minutes per day.

How to measure capacity

Multiply the number of critical resources available by the time in minutes available. For example, two IDVAs available for 240 minutes each day would create a capacity of 480 minutes per day.

How to measure backlog

This is normally shown in the number of minutes it will take the victims to be processed. Multiply the number of Victims waiting by the time in minutes it takes to process a victim. For example, 20 patients waiting for advocacy support \times 60 minute advocacy each session = 1,200 minutes backlog. On a daily basis, there may be additional demand arriving for a service which adds to the backlog.

Assessing results

The data used in the above example is plotted in Figure 1 showing the way that fluctuations in demand against a fixed capacity are causing backlog to increase over time.

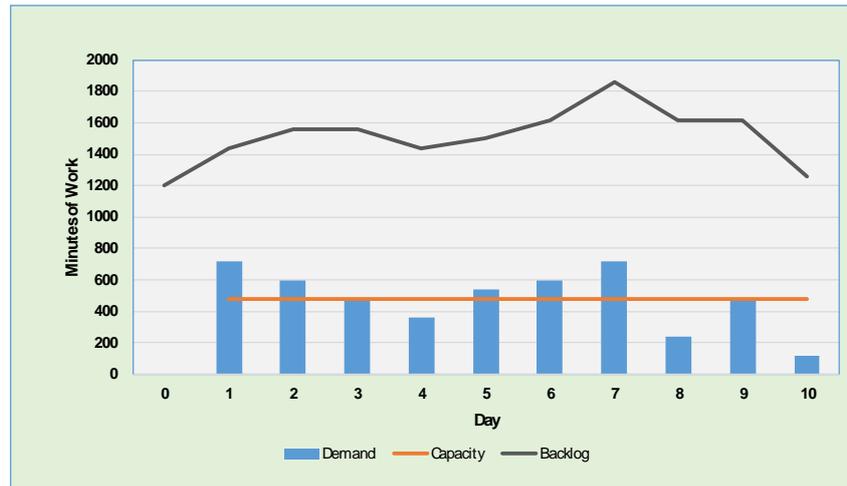


Figure 1 – Demand, capacity and backlog status of IDVAs over the last 10 working days

This quick introduction demonstrates the need to measure your demand, capacity, activity and backlog on a daily basis.

Handling variation

Collecting demand data over a longer period of time allows you to carry out statistical analysis of the demand. Although the analysis becomes more complicated, it allows you to build a richer picture of the process and enables you to make the best use of resources to cope with the challenges of the service. The statistics can then be used to identify the minimum level of capacity you need to ensure that the backlog doesn't spiral out of control.

The statistics can also be used in simulation models that will enable you to understand how likely problematic events are to occur. For example, if you know that once in every 100 working days you are likely to experience a demand level that is twice the available capacity, then you can make contingency plans to handle that situation as it occurs. This could involve for example, transferring staff from less critical areas of work or recruiting agency support to temporarily increase capacity. Using simulation will allow you to test out which of the solutions seems to offer the best and most cost effective result.

Conclusion

Matching capacity with demand is a vital tool in ensuring that victim support services are managed with optimum efficiency. Measuring the capacity, demand and backlog on a daily basis will show when problems are occurring and allow timely interventions. Using statistics to predict the likelihood that problems will occur is a good way to understand the issues BEFORE they happen and allow management plans to be developed ahead of time.

If you would like to find out more about our new demand and capacity planning service, then please click [HERE](#) to access the full case study and to download our service overview.

With further cuts on the horizon, as recently announced, there is no better time to ensure that you have an accurate picture of where your resources need to be allocated - call or email us now for an initial conversation!

Please do not hesitate to call or email frank.curran@redquadrant.com or **07515 875381** to find out more about our services.

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