

NHS Intensive Support Team Information Sheet (I-04)

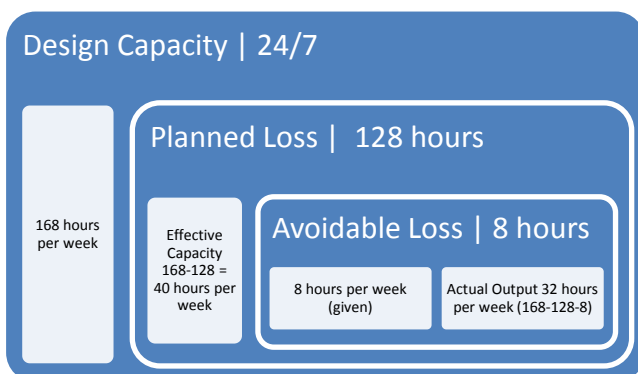
CAPACITY MANAGEMENT AND UTILISATION

Overview

An understanding of the demand and capacity requirements of services, including an understanding of demand uncertainty, enables services to judge the risks to service provision. In order to ensure effective service provision, management of capacity, and more specifically, the utilisation of resources (including staff, facilities and equipment) is essential.

Measuring Capacity

There are two key aspects to measuring capacity, which are utilisation and efficiency. In considering what capacity is available, it is important to consider the designed capacity, the planned capacity and avoidable loss. In the example below, the designed capacity of a clinic room is 24 hours 7 days a week, there is a planned loss of 128 hours, as other resources are only allocated to the room 40 hours per week, and there is a further avoidable loss of 8 hours, if the capacity is only used efficiently 80% of the time, which might be due to DNA's and cancellations.



Capacity Utilisation

Capacity utilisation is an important measure of actual output in comparison to the designed capacity. In the example above, utilisation is equal to actual output (32 hours) divided by the designed capacity (168 hours), which equals 0.19 or 19%.

Capacity Efficiency

Capacity efficiency is a measure of actual output derived from the effective capacity. In the example above, the capacity efficiency is equal to the actual output (32 hours) divided by the effective capacity (40 hours) which equals 0.80 or 80%.

Optimising Capacity

In the example, we can see there is a considerable difference between the capacity utilisation and the capacity efficiency obtained. This provides two opportunities, firstly, to reduce the avoidable loss by reviewing processes and systems, and secondly to identify opportunities to use more of the designed capacity throughout the week whilst maintaining or reducing avoidable loss of capacity. Examples include extended work sessions, 3 session days, and 7 day working. If we use the example of 7 day working, capacity utilisation will increase to 0.267 or 27%, as actual output is increased from 32 hours to 45 hours per week, with designed capacity remaining constant. Capacity efficiency remains at 0.80 or 80% with hours of actual output increasing from 32 to 45 hours, and effective capacity increasing from 40 to 56 hours.

Opportunities to Improve Capacity

Capacity effectiveness is influenced by three key factors, the availability of resources, the performance of the resources, and the quality of the service provided. Opportunities to enhance capacity may include a combination of these, for example reviewing work roles; reallocating tasks between team members; support staff through training and development to enhance skills; review of equipment performance; and upgrading where new equipment will provide increased capacity.

Trusts will benefit from monitoring capacity utilisation and effective utilisation rates, and ensuring these are considered as part of evaluating alternatives to address capacity issues.