5) Documentation, support, and an explanation of the calculations

If you are new to Gooroo Planner it can be a bit daunting because there is quite a lot to get used to. You are unlikely to have had access to a system that can plan the whole hospital in one go before.

Don't worry – there is plenty of help and support available to you.

Your first port of call will be the Planner documentation. When you have logged in, you can find it here in the Publications section of our website. It does change from time to time so it's worth checking back every now and again to see if there is a new version.

You have already found these videos in the Video section. Then there is the Support section which contains a Knowledgebase of questions.

But as a Gooroo Planner licence holder, you are always welcome simply to ask us when you have any questions. You can email support@gooroo.co.uk with any questions, and we will be happy to respond, including a phone call or web conference if that helps to explain things better. We find that web conferencing is particularly helpful for people who are starting out with Gooroo Planner.

If what you are after is an explanation of how the calculations work, then a good approach is to try the report style which explains them in more detail. You can take a report, change the report style to ExpandCalculations, and then when you open the report it will show you a lot more detail than you have seen with the other report styles.

Let's go through the first few sections now. If you don't want an explanation of how the calculations work then you can stop this video now, because there is nothing else after this explanation.

The foundation of any demand and capacity model is to calculate demand. Gooroo Planner does this by measuring demand in the past period, and then inflating it to suit the future period. The amount of inflation is calculated in the first section which is entitled "Growth in demand from past to future period".

The calculation needs to take account of three things: trend growth in demand, seasonality, and the future period being a different length to the past period.

The way it does this is to start with seasonality. When you uploaded data into Gooroo Planner you set up weighting factors describing how demand varies through the calendar weeks of the year. So it starts at the beginning of the past period, and lays out all of those seasonal weighting factors week by week, one after another, until it gets to the end of the future period. That is the seasonality taken care of.

Then it goes along those seasonal weighting factors, and inflates them according to the trend growth in demand. That is the trend growth taken care of, and you can see the growth figure in the table.

Finally, it adds up all those numbers within the past period, and all the numbers within the future period, and both of those totals are in the table too. The ratio between them is how much the past demand needs to be inflated to

turn it into future demand, and this also takes into account the different lengths of those periods.

In fact, if the past and future periods are different lengths, this is probably going to contribute the lion's share of the change. In this example, if we go to the Calc Settings tab, we can see that the past period is 12 months long, but the future period is only 8.5 months. That is why the total demand growth (shown in bold) is so strongly negative.

That all applies very nicely to services that are at the start of a clinical pathway, but something else needs to be done for services that are further along the pathway. Here the logic is that, for instance, if outpatient activity goes up by 5%, then elective demand goes up by 5%, which is equivalent to using the same conversion rate for the extra patients.

In this particular example, for the new outpatient service, total activity in the past period was 5,104, and in the future period it will be 4,170. So activity in the future period will be 18.3% less than in the past period, and again this is mostly because the future period is shorter. So when you look at the downstream services that are driven by new outpatient activity - the elective inpatients and daycases - their demand growth is -18.3%. Meaning that demand in the future period is 18.3% smaller than demand in the past period.

(This calculation of total growth is also explained in the documentation section on results and calculation methods.)

I am conscious that this sounds quite complicated, but unfortunately that is the nature of demand and capacity planning. It's easy to get it wrong, and these calculations have been refined and honed over decades of working with literally hundreds of NHS organisations all over the country.

OK, so we have worked out how to turn past demand into future demand. That is probably the trickiest bit. Moving on to the demand section, we need to start by measuring demand in the past period so that we can apply the inflation that we just calculated.

Measuring demand is not quite as straightforward as it might sound. For non-elective services it is easy because demand is the same as activity, so you can just apply the overall growth to past activity.

But for a waiting list service you have to be a bit more careful. You could measure demand based on the number of patients being added to the waiting list, allowing for removals. But unfortunately this number tends to be rather unreliable.

So although Gooroo Planner does allow you to use that method, by default we prefer to do it in a more reliable way, which in summary is 'activity plus the growth in the waiting list'. Activity is usually the most reliable data available, and although the waiting list is not necessarily very accurate, changes in the waiting list usually are. So activity plus growth in waiting list is usually the better basis for measuring demand.

Again, there is a full explanation of both methods in the Planner documentation, in the section called "Alternative methods for measuring demand".

Having calculated demand, things get more straightforward in the calculations. If future activity is bigger than future demand then there is activity left over for a waiting list reduction, and then the waiting list can be expected to shrink (with a small adjustment for removals).

The best way to confirm the waiting time calculation is to use the simulator, as we did at the end of the previous video. And the formulae for converting activity into beds, theatres and clinics are in the documentation and were also covered in the previous video.

If you are trying to understand the calculations in detail and these explanations aren't quite getting you there, then remember that your Gooroo Planner licence does include support and we will be happy to help you.

That brings us to the end of this video, and in the next video we will look at creating a customised report style.