



## Measuring Delay for Group Visits and “Classes”

In order to assess system performance, we measure delay. Delay is measured as the “third next available appointment” (TNA). This is not a measure of actual delay but a measure of system capacity: if demand appears, can the supply meet it? This measure works quite well in primary care and modified as “TNA for any provider” works well in specialty care to assess system performance. At the same time, how do we gauge system performance in a setting where a practice utilizes group visits? Can TNA be used a successful measure in that setting?

In a group visit or even “class” setting, demand is gathered into a bundle of components and matched with supply or capacity. Supply is fixed, that is, it is pre-scheduled and has a pre-determined capacity limit - there is capacity for 20 patients within this group, scheduled Wednesday at noon, for example. Demand is variable but demand can have a range- the group could contain a demand of any number from 16 up to the capacity limit at 20.

There will be a delay for a group or class for a few reasons:

1. Patients need think time.
2. We need time to gather enough “demands” to fill the supply.
3. The supply has to be pre-scheduled. All scheduled work will have a delay, even if the matching is instantaneous.

Supply is a big bucket with many compartments. The supply matches to the demand as long as the demand has the same or less compartments. If the demand compartments exceed the supply compartments, then demand is greater than supply, and a delay will ensue. The group or class will over-fill and spill into the next scheduled group or class.

So set the delay - the desired gap between declared demand and the delivery of supply, and then see whether the group or class fills just up to the limit and does not spill over the capacity. We could determine, for example that we always want to have one group filled while we work on filling the second group. In that case the focus is on the fill rate of the second scheduled group. If, for example, the group is held each week, we might set the delay goal at two weeks. We always have next week filled and work toward filling the following week. If we overspill that scheduled group or class, then there will be a delay. That delay implies that demand is greater than supply, and we have to be concerned that if that is the case, we will never catch up.

Can we use TNA as a measure of system performance in this setting? How would we measure system performance in a group setting? Can TNA be useful to determine whether we can keep up with demand?

TNA is useful in this setting. Measure TNA for the supply compartment within the group or class supply bucket (measure TNA for the slots or “places” within the group or class).

Using the example above, measure the TNA for slots within the 20-seat group. As the space within the group or class diminishes, the TNA extends past the limit of that group or class and into the next group or class. We could use the first next available appointment as well. This measure accomplishes the same thing. The TNA though gives us an early warning about when we are approaching the capacity limit of the group and allows opportunity for flexibility and adjustment. If we measure first next available appointment, we have to get to 21 demand requests before we realize we have a capacity problem. If we use TNA once we get to 18 we get an early warning since the TNA in that instance is number 21 and 21 is the first slot in the next group or class. So we have some room for adjustments.