# Backlog Reduction Primer

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What Is Backlog?

The backlog of appointments consists of all future appointments on the schedule. The backlog can be measured indirectly by looking at the third next available appointment or directly by counting the total number of future scheduled appointments. Backlog is created by:

- environments where the appointment demand exceeds appointment supply
- variation in demand or supply
- scheduling systems that distinguish between appointment types (the "urgent" appointments are seen immediately while the "non-urgent" ones are pushed into the future)
- systems that believe the best way to guarantee a full day is to intentionally create a wait (warehouse of work) in front of that full day.

In all these environments, except in the case where the measured demand exceeds the supply, demand and supply are balanced, but we are just late.

Why Is Reduction of Backlog Important?

No flow system (one that matches demand and supply) can perform optimally if there is any backlog of work. The most efficient systems will match demand and supply with as short a delay as possible. This significantly reduces the re-work and redundancy, reduces the likelihood of no-shows, and, for the most part, eliminates the need to triage or sort the work. It is the saturation in the current schedules that prevents an organization from doing today’s work today and building a more optimally efficient system. Therefore, the reservoir of demand - the backlog - needs to be eliminated, and the system recalibrated before supply and demand can be matched on a daily basis or at any level we choose. Backlog reduction is not access improvement, however it is a necessary step in both primary and specialty care practices to eliminate work that has accumulated from the past.
Establishing a Backlog Reduction Plan

In the process of backlog reduction, a team stops shifting today’s demand to tomorrow or even further into the future. **Instead, they do increasingly more of today’s work today and begin to loosen the criteria for a “today” appointment.** This requires, of course, doing more work each day (activity) than the amount of demand generated each day. Activity must therefore exceed demand in order to reduce the backlog of work. Over time, as fewer patients are put to the end of the routine queue, and as the strategies listed below are fastidiously employed, holes start to open in the schedule. When this occurs, the team must continue to loosen the criteria for a same day appointment, ultimately reaching the point where any patient with any problem can be seen today.

When the third next available appointment consistently becomes “today” and all work is pulled to today, then a practice will see the that the future schedules have become 60-80% open, depending on the type of practice. Tomorrow’s schedule could be at least 50% open. The schedule did not become open by holding appointments, but by pulling the work to today. At this point, the task becomes maintenance of this significant achievement.

A conscientious and intentional **Backlog Reduction Plan** is essential to eliminate backlog. A plan settles questions early and sets goals in writing instead of having to debate issues later. It helps the staff by alleviating confusion, clarifying direction, and getting a commitment from leadership for sponsorship and support.
The plan should contain the following elements:

- Measure the extent of your backlog.
- Distinguish between “good” and “bad” backlog.
- Develop a plan to add extra supply.
- Develop a communication plan.
- Set begin and end dates.
- Plan to start demand reduction strategies. This will indirectly reduce backlog.
- Plan for staffing support.
- Develop a plan for any “needs” during backlog reduction.
- Display wait-time data.
- Protect the providers with short wait times from getting overflow from providers with longer wait times.
- Measure and create equitable panel sizes, so that all providers are put into a position for success.

Measure the Extent of Your Backlog

First, measure the number of days to the third next available routine appointment using the measurement tool we’ve provided to you. By entering the raw data into the data entry tab, you’ll be able to see auto-generated graphs for each provider, for all providers and for the practice average. This is an indirect measure of backlog: all visits scheduled between now and the third next available appointment are the backlogged appointments. Another more direct way to measure backlog is to actually count the number of future scheduled appointments.

Second, measure the demand for appointments and compare it to the supply of appointments. Again, the data collection tool we’ve provided you includes sections for these measurements. If, on a daily basis, capacity exceeds
demand, then reassure providers that they do have the capacity to meet daily demand, that this hard work is only temporary. They will eventually be able to do today’s work today. This reassurance gives the care teams the encouragement and confidence required to plunge into the difficult (but temporary) work.

With these measures, we can determine just how much work we need to add and how long this will take. For example, if there are 200 patients scheduled into the future and a provider commits to seeing four "extra" patients per day, backlog reduction will take 50 days. In most cases, though, due to no-shows, and because of the use of the "smart strategies", reducing the backlog rarely takes as long as the calculated number.

If the measure shows that demand far outstrips supply, try to bring these two components into balance by using the strategies for reducing demand and increasing supply before attempting the hard work of backlog reduction.

**Distinguish Between “Good” and “Bad” Backlog**

Not all backlog is "bad". Some backlog of appointment work (good backlog) is acceptable because it is requested either by the patient or physician. For example, the future appointments created for a chronically-ill patient, who needs to be seen at regular intervals, is an acceptable form of "good backlog". Other examples of "good" backlog are well-baby visits that need to be scheduled in advance.

Backlog that results in patients having to wait, when they do not wish to wait or do not have to wait, is undesirable. This bad backlog is not work that will go away, but instead makes the future system inflexible as well as adds work in the interim. Reducing this undesirable backlog is the key to being able to meet today’s demand today. Make a simple estimate of the amount of "good backlog". This will reduce the amount of work needed to eliminate the backlog.
3 Ways to Increase Supply

A transition to a model where we complete all today’s work today requires that the team **add a supply of appointments initially by adding it, finding it, or saving it.** Unify the approach as much as possible across all providers to make the transition less confusing for staff. In general, it is better to have a single practice plan for adding capacity: same number of backlog appointment times, at similar times and with the same “rules”.

**Add It**

The best way to eliminate backlog involves doing more work on a daily basis than is generated both internally and externally for that day. This extra work or "capacity" can be added by adding an extra day or by adding appointments to each day. This way, the backlog is gradually and simply reduced by not adding the future queue. This is why adding temporary capacity or doing more work is an essential component of backlog reduction. Keep in mind that at the end of the day, no matter what we call them or how we divide the work into appointment types, the amount of work done (activity), must be greater than the amount of work generated (demand). These appointments can be added at the same time for everybody in the practice or added in at different times. If the added appointments are at the same time for everybody, it’s easier on the staff. If the times are different, then it’s harder on the staff, but easier on the physicians because it’s customized to their needs. You have to make a choice about that.

**Add supply by:**

- adding appointments to the beginning of the day by starting earlier
- adding appointments to the end of the day by ending later
- shortening the “lunch hour”
- seeing patients during a regular day off
Find It

Sometimes capacity is hidden in the schedule:

- If you receive a cancellation, bring in patients from future or loosen the criteria for who gets in today to fill that newly found time.
- If a physical takes the provider thirty minutes but the appointment is scheduled for forty-five minutes, use the last fifteen minutes for another patient.
- Review today’s schedule for patients that may not keep appointments, such as patients seen in the emergency room the night before, or patients seen yesterday. Contact them and gain capacity for other patients.
- Manage “fail to keep” appointments. These are wasted capacity. Consider using a reminder system (phone call, letter) at least during the backlog reduction period.

Save It

A temporary carve-out system makes a good transitional strategy. However, use it carefully so as not to increase backlog:

- Carve out a percentage of future appointments and save them for same day demand so that an increasing amount of today’s work can be done today.
- When an increasing percentage of appointments are open today and in the future, stop saving appointments, except in special circumstances such as a planned provider absence.
- If a practice already uses a carve-out model, continue the carve-out, but add another set of "backlog reduction appointment times" that are carved out as well. Keep in mind that the total number of appointments on the schedule during backlog reduction must exceed the previous number of appointments on the schedule.

Determine how much capacity is needed by comparing the measures of true demand with capacity. In a system of providers, identify the number of providers needed to meet daily demand. Readjust provider staffing and hours to match the patterns of demand. Review these measures often to be sure that capacity is in balance with demand.
There are four Smart Strategies that you can use in addition to simply working harder:

1. **Look ahead** on the future schedule and see if there are patients who could be managed without a visit – a telephone call or some other means to resolve the problem.

2. **Maximize the efficiency of each visit.** Use a health prompt on the chart (a person or computer generated list of future appointments and preventive health care needs). If you find a patient who comes in today for an acute need and has future chronic need visit schedules, then address that need as well (this is an option, not a mandate) and re-set the future calendar. In addition, look for opportunities to proactively address the preventive needs today.

3. **Challenge visit intervals.** Consider extending these and eliminate unnecessary visits.

4. **Manage the follow up visits in a different way.** Can some of this be done by the nurse or MA who is no longer triaging in the old way?

**Develop a Communication Plan**

It is crucial to communicate the backlog reduction plan to the staff: why we are doing this, what is it, and when is it going to end. Help staff understand that there are three sets of rules: what we used to do, what we do during backlog reduction (add some capacity) and third, what we’ll do when the backlog is removed. Without explaining that backlog reduction is a temporary strategy, there is often confusion on the part of staff for what it is exactly that we are trying to do. Also, keep in mind that during backlog reduction, it’s crucial to protect the doctors so that they see their own patients and don’t have to see a disproportionate number of patients from absent providers simply because they have a shorter waiting time.

**The Evolution of the Rules**

Doing increasingly more of today’s work today reduces backlog simply by not increasing it. The team, however, must make a commitment to this basic principle. In the beginning of backlog reduction, it may not be possible to do all of today’s work today due to the degree of past work on today’s schedule. However, by gradually loosening the criteria for a “today” appointment, and by seeing more and more of today’s demand each day, the future will open as less and less work is postponed.
This process may require three sets of “rules” for the staff:

1) The rules for what we used to do: When the schedule is full, send patients away or try to convince the provider to “squeeze” them in.

2) The rules established during backlog reduction: During backlog reduction, there are essentially three appointment streams:
   a) The old urgent appointments
   b) The old routine appointment types
   c) A new component of appointments commonly called “backlog reduction appointments.” These are generally added on to the regular schedule and restricted to a provider’s own panel of patients. The backlog reduction appointments must be seen as part of a controlled process to gradually reduce waits.

3) The new rules for when we eliminate the urgent/routine dichotomy and do all of the work today.

Lastly, keeping in mind that as the backlog is being reduced, the nature of the visits put in backlog reduction slots will change. Initially, backlog reduction slots will be mostly "urgent", because the same day he urgent slots have already been taken. So instead of sending these overflow patients to Urgent Care, they will be seen in the backlog reduction slots, which have been established as additional daily capacity during the backlog reduction phase. And as we move forward, the urgent nature of these backlog reduction slots changes to more intermediate type of problems and, at the end a disproportionate amount of the backlog reduction slots is taken up by physicals or well checks, etc. There will be a great deal of consternation on the part of the provider at this point, since they think that this is how the world will always be. Explain that this is the work that is at the bottom of the backlog, and that it is necessary to get through it.

Set Beginning and End Dates
Commit to a start date where everybody agrees to see their patients and offer appointments today for any problem. Then, based on the comparison of capacity and demand data, and analysis of third available appointment data, estimate how long it will take to work down backlog. This date will most likely be beyond the current third available appointment measure because good backlog will continue to accumulate.
The purpose of setting the **end date** is to provide encouragement and a tangible goal for the team. Meet with each care team individually to review their data. Then meet with everyone to gain his or her commitment to the process.

**Reduce Demand for Visits**
Using demand reduction strategies during backlog reduction is an indirect way to get rid of backlog.

**Demand reduction strategies include:**

- Maximize visit efficiency by doing as much as you can within each visit. This is an option, not a mandate. Use a health prompt to facilitate this strategy.
- Review the schedule in advance, to see if any of the scheduled appointment work is likely not-to-show or if any of it can be managed in a "non-appointment" way.
- Eliminate any unnecessary visits.
- Increase return visit intervals.
- Improve continuity. This will reduce the number of patients asked to return by the colleague provider and reduce the number of patients who return on their own, just to "see my own doctor".
- Use the telephone as a "just in time" response to patient demand or in lieu of return visits.
- Develop group visits.
- Use e-mail.
- Use the Care Team to assist with any follow-up visits.
- Develop strategies to reduce the no-shows.

1. If a physician sees 20 patients a day for 20 days a month for 10 months a year and is able to maximize just one visit a day - do two things today that reduce a future visit just once - **then this decision has saved 200 visits and a year.** That's 10 physician days.
2. If a physician can extend the visit interval for 50 diabetics from three months to four months, **then 50 visits are saved in a year as well.** That's 2.5 physician days.
Consider This:

Plan for Staffing Support

When capacity is added during the regular work day, a change in the staff mix is often required. Or this may cause longer office wait times. Capacity added in off-hours may require overtime for providers and staff. Emphasize that these are temporary situations until backlog is reduced.

Develop a Plan for Any “Needs” During Backlog Reduction

The work of reducing backlog can uncover other system problems. The more these issues can be addressed in advance, the smoother the backlog reduction work will proceed. Often we will need to alert other ancillary services that the practice intends to work longer and see more patients. This extra work will affect areas like the Medical Records Department, the Laboratory and Pharmacy. Bringing those departments into the plan and inviting them to the meetings will help a great deal.

Display Wait-Time Data

A backlog of three days can feel the same as a backlog of three months. The daily schedule is still saturated and there is no room for patients calling or walking in with urgent needs. Displaying the wait time data as a run chart (third next available wait-time as the vertical axis and calendar time as the horizontal axis) often allows staff and providers to see progress. Without data demonstrating gradual improvement in wait times, we can get discouraged.

Protect the Providers with Short Wait Times

First, identify who is on the team. The whole team must commit to work backlog together. If only a portion of providers work down their backlog, they receive the negative reward of having patients added to their schedule because they have appointments sooner than the others.

In addition, each provider on the team must commit to see his or her patients and develop a process where each patient clearly designates a primary care provider.
This will improve continuity, meaning that providers use their capacity to see their patients rather than using their capacity to see their partner’s overflow. Increasing continuity with the provider is a very powerful backlog reduction (and maintenance) strategy. Be sure to measure continuity at baseline, and then monitor frequently. Protect the pilot providers who reduce backlog first by assuring them that they don’t get all the overflow and variation.

**Measure for Panel Size**

If any provider has a panel size greater than he or she can manage, given the number of appointments available for the day, the week or the year, the working down of backlog becomes futile. The personal demand is greater than the personal supply. So, just as the practice needs a balance between the demand for appointments and the supply of appointments, so do each of the individual providers. Thus, creating equitable panel sizes for all individuals and making these panel sizes proportionate to time in office, is crucial for the success of individuals and the team.

**The Final Deflection of Backlog**

Many groups will get to the point where they’ve reduced the backlog, and the waiting time is shorter than it’s ever been. The practice will hover at a two or three day wait, not able to get over the hump to same-day availability. This has been called the **Final Deflection of Backlog**, which occurs when everyone in the practice relaxes: the patients relax, the doctors relax, and the staff relaxes, saying, "This is the best access we’ve ever had and it’s good enough." As a result, everyone quits pulling all the work to today putting that off for a later day. Another cause of final deflection of backlog is continuity, where patients see other providers and return within a day or two to see their old provider. This occurs, quite commonly in shared practices, especially those that share at the end of the day. Other causes of final deflection of backlog include a script that is not strong and doesn’t explicitly pull the work towards today. Work gets pushed into the future in situations where: a provider either works a lot of mornings and no afternoons; part-time providers whose work is bunched up at the beginning of the week or at the end of the week; physicians who have repetitive time off for CME, vacation, other duties or who are not in the practice; and providers who tend to bring patients back with a greater frequency than is necessary.
In addition, new providers to the practice often develop relatively quickly because we fail to recognize that a new patient generally needs three to four visits in the first year. These visits tend to accumulate at about three-week and three-month intervals. So the strategy for bringing new patients into the new practice should actually include giving the new provider fewer new patients.