Cadence Operational Strategy Handbook

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Introduction to Cadence Operational Tasks

This handbook guides operational staff, such as department and clinic managers, through four key performance indicators for scheduling. Under each topic are more specific subtopics that cover a specific challenge or piece of the performance indicator. Each subtopic includes information on why that challenge or piece is important for the key performance indicator, ideas on how to report on or investigate the information at your organization, and ways to improve that piece so as to improve your performance indicators overall.

Major Players

You'll want to include the following people in the planning and investigation for these topics:

- Organization application analysts or project team members
- Department managers, clinic managers, and other operational staff

Timelines

The timeline for each of the topics and subtopics depends on current initiatives and priorities at your organization. As you take on projects to improve each of these areas, make sure to set goals and timelines for milestones in the project, such as:

- Investigation and analysis
- Goals and project planning
- System build
- Testing
- Training
- Validation of outcomes

Provider Accessibility

Provider accessibility is the measure of how open schedules are to patients or how soon patients can be seen by a provider. This is an important indicator for staffing as well as schedule management. If providers aren't accessible enough, they can't see patients in a timely manner. This can reduce patient happiness or cause new patients to seek treatment elsewhere.

Three major components of provider accessibility are:

- How open schedules are to new patients
- How open schedules are to sick patients
- Whether schedules account for seasonal trends

Measuring and Improving New Patient Access

New patient appointment volumes and accessibility are key to patient satisfaction and revenue. In order to build provider templates that are efficient, departments must first set goals for how many new patients they need to see a day, based on expectations of new patient lead times and patient turnover. Once these goals are established, you can use the tools listed to build departments to effectively meet those goals. In the long term you should use the monitoring reports described later to react to changes in your departments. When competition in the community changes or your new patient referral volume fluctuates, you can use these tools to adjust the provider templates as appropriate. This process should be an ongoing practice of managing new patient volumes.

This purpose of this chapter is to provide guidance for department managers to reach specific goals for new patient visit volume. The end product of following these instructions should be provider schedules that allow for sufficient new patient visits for healthy business and consistent appointment volumes throughout the year.

Throughout this section, we use the term lead time to refer to the number of days between the date an appointment was made and the date of the appointment itself. The lead time shows how accessible certain departments, providers, and block types are to patients.

Understanding New Patient Visits Monitoring

Why Monitor New Patient Visits

Patient Satisfaction: When patients schedule an appointment with a new provider, they have expectations of how soon they should be seen. If they can't be seen in a timely manner, they might go elsewhere for their healthcare. In a competitive market, patients choose to receive care where they can be seen the soonest. Departments should monitor accessibility for these new patients to help reduce lead times for the department.

Revenue: New patient visits are pivotal to the revenue flow in a department. These visits ensure a steady stream of follow up appointments. If there is a drop in new patient visits due to long wait times, revenue can suffer more in the following months when return patient visits decrease. Departments seeking to increase revenue should monitor how many new patient appointments they are filling.

Regulatory or Grant Requirements: Your organization might need to report your accessibility metrics to state or federal agencies. For example, one of the core features of the Patient-Centered Medical Home (PCMH) model is promoting accessibility for urgent care services in primary care settings. If you are unsure if your organization participates in any regulatory or grant programs, talk with your regulatory team to see if accessibility is factored in to any programs.

What it Means to Monitor New Patient Visits

You can monitor new patient visits in two ways:

- Volume of new patient visits
- Lead times until the next available new patient appointment

A department can monitor either of these metrics to understand what is happening in their department. Departments choose what they wish to monitor based on their goals.

Department Goals for New Patients

In order to create provider templates that are optimal for your department, you must first set goals for new patient visits.

You should start with finding answers to these three questions:

1. What volume do you need to keep new and return visits consistent?
   - On average, how many return visits does each patient have? The more average return visits, the

lower the new patient volume should be. For example, if patients generally come back two times after an initial visit, then you would want one out of every three appointments to be new patients. This means that 33% of your schedule would be new patients.

- If your clinic is already live on Epic, you can use the reports in the Monitor New Patient Visits section below to see the current distribution of new patients and return patients.

2. How many days do you think a new patient should wait to get an appointment?

- Consider how competitive your clinic needs to be and how long you want return patients to wait.

- In general, the more quickly new patients can be seen, the longer return patients have to wait. This lead time can be mitigated by using wait list work flows.

3. How many return patients do you usually have on the wait list?

- If this number is high, you can still block new patient slots and then release blocks for the unused slots a few dates out, so return patients on the wait list can then be seen.

After answering these questions, use this information to decide the percentage of new patients you want to see per day. You can use different pieces of Cadence technology to ensure you're seeing the appropriate mix of new patients in your schedule. Finally, decide how many days out to release the slots to allow for other return patient bookings.

Let's look at some examples of this methodology:

Example 1: The EMC allergy clinic sees patients who on average return five times to receive allergy treatment and follow up. Thus, they want about 1 out of 6 or 17% of their schedule blocked for new patient visits. EMC allergy clinic is in competition with a neighboring practice and can afford to have new patients wait only one week for their appointments. Because of this competition they decide to err on the safe side and block more time for new patients. They settle on blocking 25% of their schedule slots for new patients. The clinic keeps a long wait list for return patients who are willing to come in on short notice if they can get an earlier appointment. Since the clinic does not want to leave spots empty, they unblock new patient slots four days out to give schedulers time to call return patients to fill the slots.

Example 2: The EMC cardiology practice sees patients who on average return for consistent six-month checkups after their first visit. Patients come to the practice for years and they only see about a 10% turnover rate for patients. Given this situation, EMC cardiology starts with 10% slots blocked for new patients. This percentage will keep their clinic functioning at a constant capacity. EMC cardiology does not use a wait list for return patients because their return patients are fine with waiting a few more weeks to get an appointment and they schedule these appointments months out. Since this department cannot consistently fill last-minute slots, they opt to only block 8% of the schedule for new patients and they release these blocks three days in advance to allow slots to be filled.

Improving New Patient Metrics
Creating Templates that are Accessible to New Patients

You can block slots on a provider's schedule to hold time for new patients. Blocks can be adjusted based on new patient volumes.

You should block time on the schedule with the assumption that new patients can also be seen at unblocked times as well. If this is a concern, refer to the session limits topic below.

For information on adding blocks at certain times of day that are reserved for new patients, refer to the following topics:

- The Add blocks section in the Template Builder - Build Templates quick start guide.

- The Reserving and Restricting Time in a Provider's Schedule for Specific Appointments Using Blocks topic.

For more information on template build during the implementation process, refer to the Provider Schedules Strategy topic.

If a new patient block goes unused, you should automatically release it in order to allow access to other patients. This automatic release prevents unfilled slots in the provider's schedule which could potentially lead to loss of revenue.

- Decide how many days before an appointment you would like a block to automatically disappear or change. You can opt to have a block disappear, which means the slot becomes unblocked, or you can change the block. For example, a block can change from a new patient block to a same day block.
- Depending on your organization you may or may not have the security to release blocks. If you do not have the security to release blocks yourself, you'll need to talk to a member of the project team to help you set up your blocks.
- Refer to the Open Schedules by Automatically Changing Blocked Time topic for more information on how to release blocks.

Session limits can work with new patient blocks to limit the maximum number of new patients a provider can see per day. If you are scheduling new patients into blocked and unblocked slots, it is possible to see more new patients per day than a provider wants to see. To prevent this issue, you can use session limits.

- Your provider must first decide how many new patients per day she's willing to see.
- You will need to work with your analysts to set up a session definition and a limit. Refer to the Limit the Number of Visit Types for a Given Time Period with Session Limits topic for more information.

Monitor New Patient Appointment Availability

Configure the ES Provider Accessibility or ES Department Accessibility components to look at accessibility for new patients based on blocked and unblocked time.

A later section goes over the uses of these reports in detail.

Centralized Scheduling Tasks for New Patient Access

Build a decision tree to prevent incorrect identification of new patients: You can use a questionnaire to make sure that patients that are scheduled into new patient blocks are truly new patients. Decision trees are especially effective in areas where the policy might not be clear such as a centralized call center.

- You can decide what an effective format for a decision tree would be. Work with your Epic representative to build out the decision tree. Refer to the Decision Trees Setup and Support Guide for information about building decision trees.
- After your decision tree is built, attach the decision tree to the return patient visit. Work with your training team to train schedulers to always start with a return patient visit so that they encounter the decision tree every time.

Control and monitor overrule of new patient block warnings:

- If you monitor your overrule of block warnings and notice that schedulers are overruling the warnings too frequently. You can restrict their security so they may not overrule any blocks. Work with your Epic representative or project team to change the security of your users to not allow block overrule.
- Using the ES Appt Search report template, you can configure a report to monitor overruled warnings. This report can be configured to tell managers which users are overruling block warnings. This is important to monitor if your department is using blocks to reserve time for new patients. If other types of appointments

are scheduled into these blocks then new patients might have longer lead times to see a provider. The report indicates which user is bypassing the warning so that managers can follow up on the behavior of specific users.

MyChart Scheduling Implications

Epic recommends setting up MyChart direct scheduling for existing patients right away when you implement MyChart.

When determining when to set up direct scheduling for patients new to your departments, Epic first recommends that you implement the schedules described above and monitor their effectiveness. Once your department is meeting new patient accessibility goals, we recommend that you set up MyChart for direct scheduling of new patients. This benefits MyChart users who have already been seen elsewhere in your organization but are new to your department.

Once you decide to allow direct scheduling for new patients, consider whether you want MyChart to only allow scheduling of new patients into blocks. The other option is to allow scheduling into both blocked and unblocked times. We recommend the latter approach. It's consistent with what schedulers do and it prevents MyChart users from being restricted by the blocks on the patient schedule. This makes scheduling these appointments more convenient for end users.

The last consideration is what time period you want MyChart end users to be able to schedule into. We recommend that you set up the search to start at least three days out. This prevents patients from scheduling themselves sooner. You can also set an end date that patients cannot schedule beyond.

Refer to the MyChart Scheduling Setup: Essentials topic for more information on setting up direct scheduling.

MyChart Open Scheduling

Open Scheduling allows prospective patients who don't have a patient record in your system to schedule appointments with providers in your organization. They can do this by visiting your organization's website, and complete steps to both schedule an appointment and create a shell patient record in your system.

Self-service options are expected in healthcare, and allowing prospective patients to schedule their own appointments online is one of the many tools that will improve patient satisfaction and engagement in their healthcare. Open Scheduling is very convenient and easy for the patient to use, and can be the first of many pleasant experiences they have with your organization.

For more details on Open Scheduling, as well as a guide on how to set it up, refer to the Open Scheduling Setup and Support Guide.

Monitor New Patient Visits

The following reporting tools allow you to monitor new patient visits. Some of these tools show similar data but deliver that data in different ways.

New Patient Lead Time Metrics

There are several metrics that can track new patient statistics across provider, department, location, specialty, service area, and facility.

- ES Average Lead Time for Provider New Patients
- ES Average Lead Time for Department New Patients
- ES Average Lead Time for Location New Patients
- ES Average Lead Time for Specialty New Patients

- ES Average Lead Time for Service Area New Patients
- ES Average Lead Time for Facility New Patients

These can be used to compare volume over time and across clinics.

You can use these metrics to compare new patient and existing patient lead times, as seen above. This component also highlights the lead days for both return and new patients.

Accessibility Reporting

ES Provider Accessibility and ES Department Accessibility can be used to measure how accessible your schedules are for new patient appointments. This information can help managers determine if additional staff are needed in certain areas or if you need to increase openings for certain visits.

The components parameters allow you to select the accessibility configurations to show in the component, as well as the departments to show from the results and the summary level for the results. If you leave the department parameter blank, the component shows departments based on the selected configuration records. To view results from a configuration for a particular department, you need to do more than just select the department in the parameters. You must also make sure the selected configuration record searches the department and you must have Cadence security to view that department.

Accessibility configurations are run as batch processes through Cadence and you must build the accessibility records before you can use this component. We recommend that you set the refresh rate for the component to match the frequency of the accessibility configurations batch run. For more information on accessibility configurations, refer to the Measure Schedule Accessibility topic.

SlicerDicer Data Model: Visits

SlicerDicer is Epic's self-service reporting tool that allows users the ability to investigate past data to summarize trends in a visually appealing format. The Visits data model contains outpatient encounter records that clinicians and scheduling managers can use to spot trends or search for visits that meet specified criteria. Users can use the Visits data model to drill down on New Patient Lead time on a location, department, or provider basis.

To learn more about SlicerDicer, refer to the SlicerDicer Setup and Support Guide.

Measuring and Improving Sick Patient Access

This chapter provides information about optimizing urgent access to care for sick patients while maximizing provider utilization. These can lead to happier patients and providers, as well as increased revenue for departments.

Understanding Urgent Access to Care

Cadence allows you to analyze daily trends in order to prepare schedules for same day appointment demands. Patients who are sick expect to be seen the same day they call, often within an hour or two of making the call. You want to allow prompt access for these patients, to ensure patient satisfaction as well as patient health, while making sure you don't overwork or underuse your providers. Patients who can't be seen within a reasonable amount of time often become dissatisfied and look for treatment from another healthcare organization, which means a loss of revenue for your department.

By monitoring your clinic's demand for sick day appointments and your provider's schedule utilization, you can properly adjust your provider's schedules to ensure satisfied patients and providers.

Gather Information

For accurate analysis, you need to be able to identify and analyze the appointments that were scheduled as same

day appointments as well as report on provider accessibility. Gather as much of the following information as possible for your analysis:

- Visit Types: Which visit types do you use for same day or urgent care appointments? Same Day Visit Types? Sick Patient Visit Types?
- Blocks: Do you use specific scheduled blocks to reserve time slots for same day appointments?
- Visit volume: What is the demand for same day appointments day-to-day?
    - Refer to the Monitoring Visit Volume topic for more information on visit volume.
- Seasonal trends: Does your clinic experience seasonal variation in same day appointment demand?
    - Refer to the Optimize Provider Schedules for Seasonal Availability Demands topic for more information on adjusting schedules for seasonal trends.
- Expectations: Determine within your organization how long it is acceptable to have a sick patient wait for an appointment.
    - How does this decision impact the wait time for other patients?
    - Does your healthcare organization have an urgent care facility? Are you comfortable with patients seeking care there if they can't see their primary care provider?
- Regulatory or Grant Requirements: Determine if you organization participates in any regulatory or grant programs that require a certain measure of accessibility for sick patients.
    - One example is the Patient-Centered Medical Home (PCMH) program that requires primary care clinics to have available a set number of openings for urgent same day patients.
    - If you're unsure if your organization participates in any regulatory or grant programs, talk with your compliance team to confirm.

## Report on Appointment Volumes
Build Reporting Workbench Reports

Create reports based on the ES Appt Search Report Template to determine the demand in your clinic for same day appointments. Keep in mind that if your department uses a nurse triage process to determine patient acuity, appointments scheduled for same day urgent care might be less than the actual demand. Based on the data you gather, you can configure the right number of same day blocks for your provider's schedule as well as determine the appropriate schedule utilization to maintain for each provider in your department.

Here is an example of how to configure the report to collect data on same day appointment demand:

1. Configure the report criteria to include only your departments and providers, and only the visit types your department uses for same day appointments.
2. Run the report over a date range of a month. It's important to monitor this each month, as the demand for same day appointments can fluctuate based on cold/flu season and/or allergy season.
    - The default search range for the report template is 31 days, unless otherwise specified in your Cadence System Definitions (Reports > General) in the Maximum allowed days for Appointment Search reports (I SDF 3011) item.
3. Configure the summary of your report to be a line graph or bar graph grouped by report column 1020-Appt Date. Include a Total Count function on report column 1259-Appt CSN. This setup allows you to analyze trends over several weeks as well as analyze if there is a higher demand on certain days of the week in your department.
    - It is common to see a greater demand for urgent care appointments on Monday mornings and

Friday afternoons as patients who get sick over the weekend often wait until Monday to see their primary care physician or try to get in on Friday before the clinic closes for the weekend.

The following images show how to set up the report summary for a bar graph and what the graph looks like.
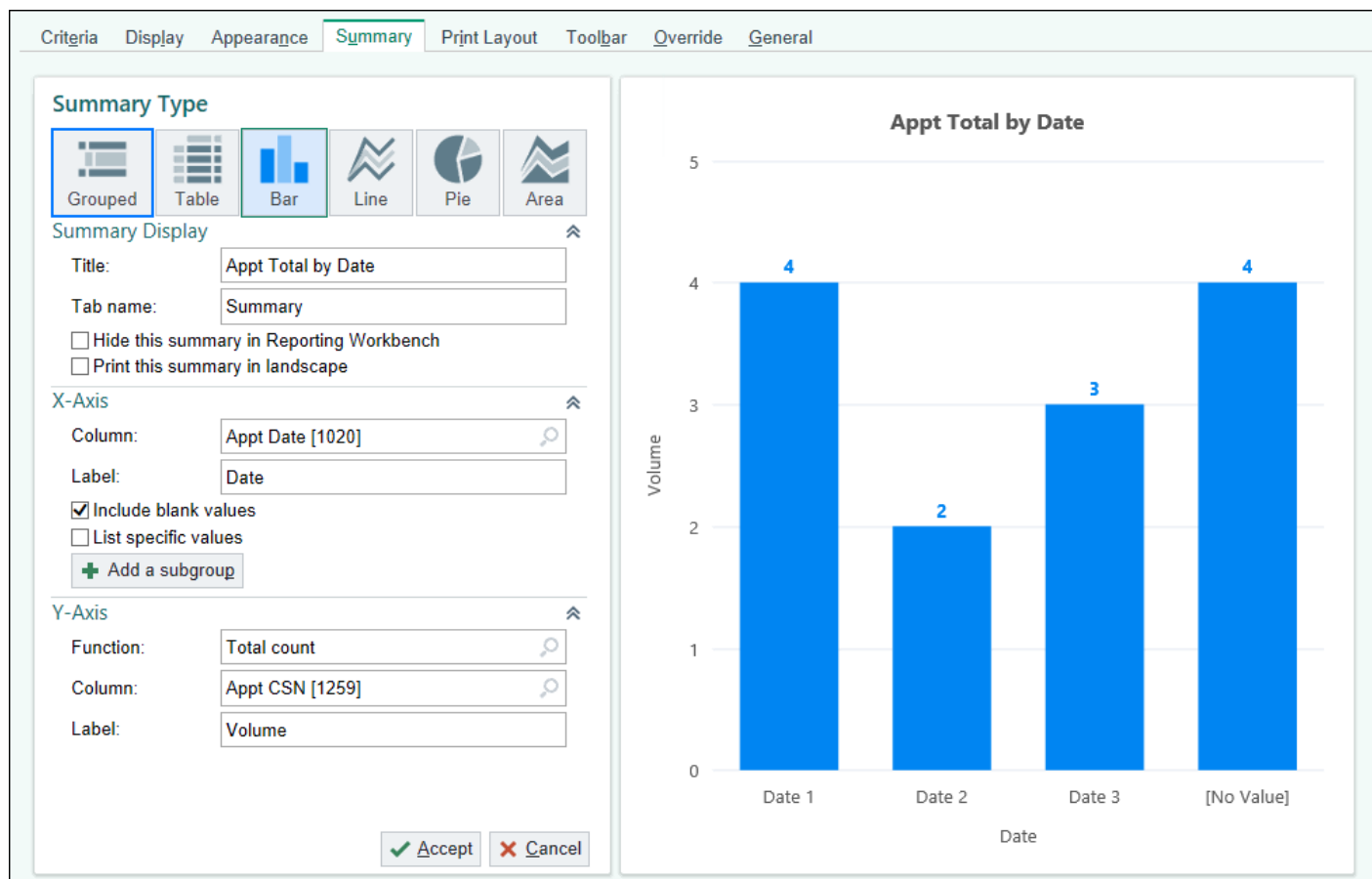
In order to analyze same day appointment demand from week to week, it is possible to group the report summary by each week instead of by day. The following image shows how to set up that graph.
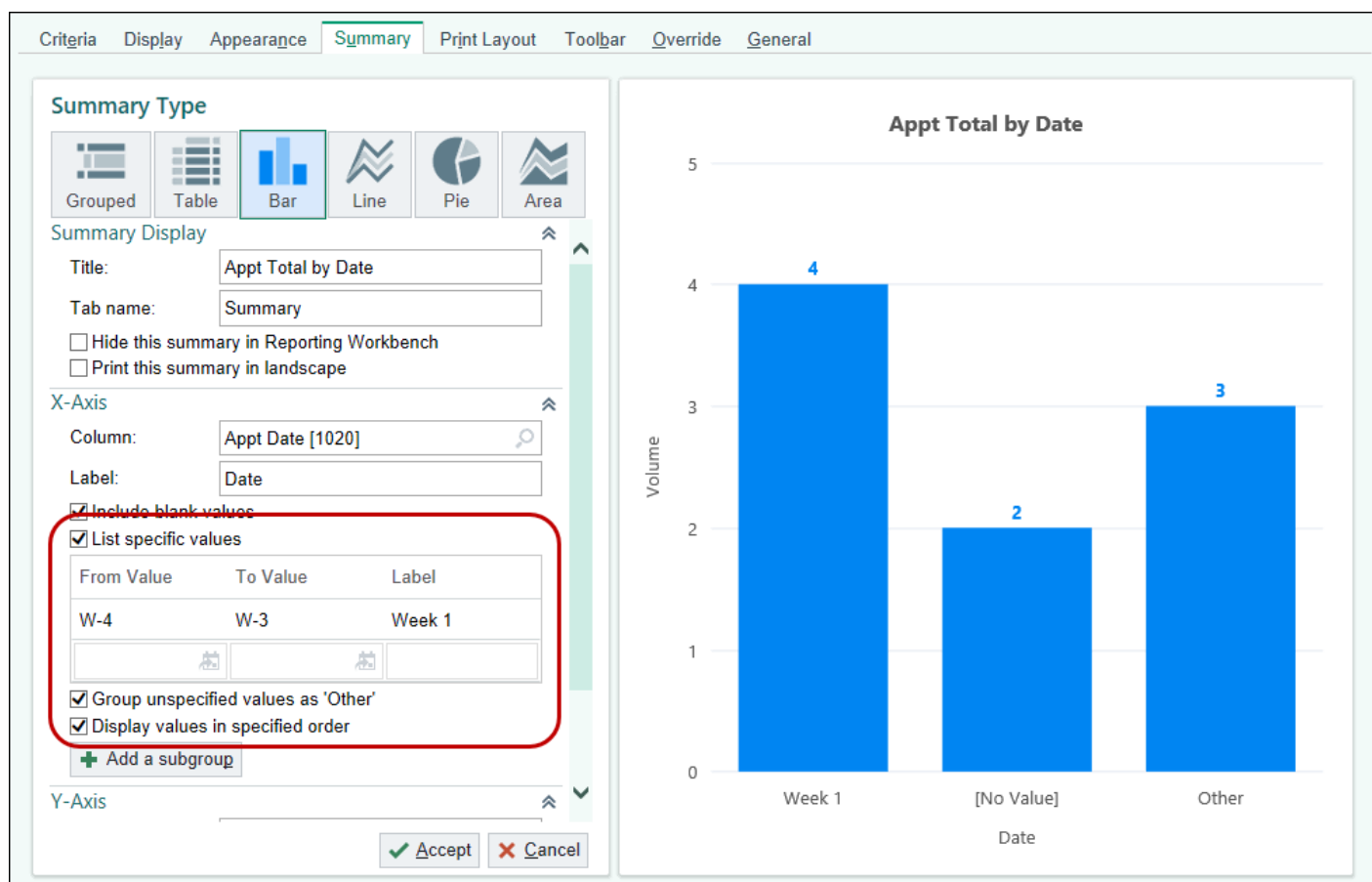
Review Schedule Utilization

Once you've determined the demand for same day appointments, you should monitor your provider's schedule utilization to make adjustments for future days/weeks. Underutilized providers can lead to loss of revenue from unused slots, whereas overutilized providers can lead to long wait times, unhappy patients, and overworked providers.

Determining the appropriate schedule utilization rate for your providers can greatly affect your department's revenue and should depend on several factors, including the following:

- Day of the Week: If you typically see a higher same day appointment volume on Mondays than on Wednesdays, consider maintaining a 70% utilization rate for your providers on Mondays compared with an 80% or higher utilization rate on Wednesdays.

- Overall department volume: If your department typically has a low same day appointment demand compared with other departments, you might want a higher utilization rate in your department in order to prevent a loss of revenue from open, unused slots.

- Urgent care departments: If your organization has an urgent care department, consider erring on the side of higher utilization of your primary care providers to maximize revenue, with the understanding that patients who can't get an appointment within their primary care department will seek care at the urgent care department and the revenue still stays within your organization.

Provider Utilization Health Report

Reports built from the ES Provider Utilization Health Report Template allow you to perform check-ups on your provider schedule templates on a regular basis. Using the results of the report, you can:

- Assess how well providers' schedule templates are utilized.

- Understand if patients are being scheduled in a timely manner for the various visit types scheduled in the department.
- See how well different slot types are being utilized in the template.
- Determine how no-show and late cancel appointments are impacting utilization.

Utilization - Total Available Openings

The ES Utilization - Total Available Openings metric is a count of the available open regular and overbook slots on a provider's schedule. Use this information to determine whether a provider's schedule has enough appointments scheduled in it. It is a compound metric based off 42051-ES Unbooked Regular Openings and 42055-ES Unbooked Overbook Openings, which are automatically populated with your organization's data and can be used on a Radar dashboard.

Radar Dashboard Components

There are several utilization components that show clinic managers how busy their providers are so they determine whether additional resources are needed to free up space in a provider's schedule to see same day visits. By default, the components show the utilization rate for providers and resource in your login department for the specified time period. However, the component parameters allow you to adjust the number of days as well as the departments and providers to include.

Refer to the following topics for more information about the components:

- ES Utilization Next 7 Days
- ES Utilization Next 5 Weeks
- ES Utilization Next 4 Months

Schedule Scanner

The Schedule Scanner can be a quick tool to evaluate how full a provider's schedule is in real time. You can teach schedulers to use this tool to identify providers with lower utilization rates and prioritize scheduling appointments with those providers. The colors for different utilizations can be configured in the Cadence System Definitions to better alert schedulers when a provider is getting overbooked.

Schedule Scanner:	Fri 10/4	Sat 10/5	Sun 10/6	Mon 10/7	Tue 10/8	Wed 10/9	Thu 10/10
Provider/resource							
CARE MANAGER, NURSE [E400404]	0%	No Sch	No Sch	0%	No Sch	0%	No Sch
GENERIC FAM MED SCHEDULE [E600020]	0%	No Sch	No Sch	0%	0%	0%	0%
FAMILY MEDICINE, PHYSICIAN [E1000]	15%	No Sch	No Sch	6%	6%	9%	0%
FLU SHOT CLINIC SCHEDULE [E600037]	No Sch	No Sch	No Sch	No Sch	0%	No Sch	0%
WILLIAMS, RICK [11]	Unrlsd	Unrlsd	Unrlsd	Unrlsd	Unrlsd	Unrlsd	Unrlsd

Refer to the Help Schedulers Evaluate Provider Availability with the Schedule Scanner topic for more information on configuring the Schedule Scanner.

Provider Utilization Toolkit

The Provider Utilization Toolkit is a search that your Epic representative can run after you are live on Epic. The toolkit offers managers insight into a specific provider's utilization, which the manager can use to adjust provider

template build or submit enhancement requests to the Cadence team. Reach out to your Cadence Epic representative to have this toolkit run, and to set up some time to review the findings from this toolkit.

Monitoring Lead Time and Schedule Accessibility

Lead Time Reporting

Lead time reporting can provide a good indication of how well your department is doing at getting sick patients same day appointments with their providers. The lead time can sometimes be deceiving as patients can choose appointment dates and times later than the next available time. However, in the case of urgent care appointments, patients are most likely to choose the first available appointments, so the lead time can be a useful tool to indicate the average wait time for sick patients.

Set up lead time goals for specific visit types or visit type groups and report on those goals in a report built from the ES Provider Utilization Health Report Template. The LT Goals Met column shows the percentage of appointments scheduled with the provider that met all applicable lead time goals. The Lead Time Goals Met print group at the bottom of the report shows details of how the selected provider is meeting the lead time goals you set up.

Configure a report based on the ES Appt Search Report Template to filter by your department, providers and the same day visit type. You can use report column 1602-Appt Lead Days to report on lead time within an ES Appt Search report.

Use the ES Average Lead Time metric and filter or group by your department and providers.

Schedule Accessibility Reporting

Used to compliment utilization reporting, accessibility reports can be helpful to examine if your schedules are open enough for certain types of appointments. In the case of sick patients, you can setup an accessibility search to run via a daily batch job and return the "nth" next available opening that could be used for sick patients. Results can be returned by provider and department.

As an example, many organizations configure their accessibility searches to return the third next available opening that matches certain parameters. In this scenario if your sick patient accessibility results show that the third next available appointment is not a same day appointment, then your schedules might not be reserving enough same day openings and your schedulers will be forced to do more overbooking.

To setup an accessibility record for this reporting:

1. Configure an accessibility configuration to search by the same day/sick patient visit type on the Search Criteria and Search Restrictions screen of the accessibility record. If your organization or department doesn't use specific visit types for sick patients, you can have the accessibility configuration search by same day block. If you don't have a same day block, you can search unblocked openings.

2. Set up the record to search for the third next available appointment.

3. Confirm that the rest of the settings in the configuration build for blocks, overbooks, and private slots matches the security of the schedulers who actually schedule these appointments, so the report provides an accurate representation of the wait time for a sick patient.

The images below show an accessibility configuration record that is set to look at the next 180 days for the third available appointment over all departments.

```
EPIC HEALTH SYSTEMS          Edit Accessibility Config          Date: 10/07/13
WI HBN FAMILY PRACTICE                                          Time: 2:07
Configuration: EPIC HEALTH CONFIG                    ID: 25
─────────────────────────── Search Targets ───────────────────────
            Display Name: Sick Patient 3rd Available by Block
  Search All Departments: Yes
      Search Departments:



Find Occurrence For:
          All Departments: Yes
         Each Department: Yes
           Each Provider: Yes

      Search How Many Days: 180
               Search By: Search by Slot

               Occurrence: 3
        Start Date Offset:
─────────────────────────────────────────────────────────────────
```

The record looks for slots with the same day block and includes overbook slots, but doesn't look at weekends or unavailable time.

```
EPIC HEALTH SYSTEMS          Edit Accessibility Config          Date: 10/07/13
WI HBN FAMILY PRACTICE                                          Time: 2:09
Configuration: EPIC HEALTH CONFIG                    ID: 25
─────────────────────────── Search Criteria ──────────────────────
        Minimum Length: 15              Use Slot Mult Times:
       Include Saturday: No              Include Sunday: No
      VT For Adj Min Len:               Include Holidays: No
    VT For Session Limits:             Include Resources: No
─────────────────────────── Slot Restrictions ────────────────────
    Include Overbook Slots: Yes
  Include Unavailable Time: No
        Include Held Time: Yes
     Public/Private Slots: Both Public and Private Slots

Minimum Slot Length: 15              Maximum Slot Length:
Ignore Slots Before:                 Ignore Slots After:

  Include Unblocked Slots: Yes
        Block Restrictions: Include Listed Blocks Only
               Block List:  1. Same Day

─────────────────────────────────────────────────────────────────
```

Refer to the Measure Schedule Accessibility topic for more information on configuring accessibility records for reporting.

There are several reports and metrics you can use to report on accessibility.

1. Start with ES Department Accessibility to see how long it would take a sick patient to be seen for the next available appointment.

2. Next use ES Provider Accessibility to drill down to your clinic's providers. This report allows clinic managers to compare how accessible providers are in a given department and adjust schedules accordingly by adding slots to individual schedules or hiring additional providers. The graph for Provider Access by department can be a useful tool to monitor how the changes you've implemented have affected the provider's availability.

You can also use the ES Provider Accessibility or ES Department Accessibility Radar components to monitor accessibility by adding it to the scheduler's and manager's dashboards. These components show how quickly a sick patient can get the "nth" next available appointment with a specific provider by display accessibility search

results.

Creating Accessible Provider Schedules

To create an optimal provider schedule for urgent access for sick patients, consider implementing a pilot program at one or two primary care clinics and closely monitoring the reports mentioned above to find the "sweet spot" between schedule availability and utilization before rolling it out to other departments.

For a broader understanding of template build during the implementation process, refer to the Provider Schedules Strategy topic.

Visit Types

Same day visit types should be available for open slots as well as same day blocks.

Blocks

- Use block restrictions to restrict scheduling in same day blocks within two days of the current date.
- Based on your findings from ES Appt Search, vary the number of same day blocks per day of the week in a provider's template based on the demand for same day appointments.
  - Make sure to reevaluate these blocks using the tools mentioned above to see if the blocks are being used.
- Configure unused new patient and physical blocks to release 24- 48 hours before the day of the appointment. These times then become open slots that can then be used for same day visits.
  - Refer to the Open Schedules by Automatically Changing Blocked Time topic for more information on releasing blocks.
- Consider deferring non-urgent blocks to days that have lower demand for same day appointments, typically Tuesday through Thursday, and leaving more time on Monday and Friday for same day visits.

Overrule Security

- Give a couple of users in every department overrule security. This allows them to make an appointment into blocked slots, regardless of the visit type. Because this can lead to longer wait times for other patients, it is generally only appropriate for patients who need to be seen immediately.
- If you give overrule security to multiple users, monitor these actions with the ES Appt Search Report Template. This report template allows you to follow up on specific users and restrict their security if they are overusing the block overrule.

Optimize Provider Schedules for Seasonal Availability Demands

Cadence helps you to analyze past seasonal trends and prepare future schedules to account for seasonal demand. You want to allow prompt access for patients to ensure the greatest patient satisfaction, however you don't want to overwork or underutilize your staff. By monitoring your clinic's specific trends you can better predict the variations you'll face and adjust your provider's schedules to account for these variations.

Gather Information

For accurate analysis, you need to be able to identify the appointments that are used for the specific trend you're looking for. Gather as much of the following information as you can:

Information Within the System

- Visit Types: Which visit types do you use for these specific appointments ("Flu" or "Physical")? Which do

you not?

- Blocks: Which schedule blocks do you use for these specific appointments? Which do you not?
- Diagnoses: Is there a "flu" diagnosis (EDG) or diagnosis grouper (VCG) reliably assigned to the patient during the clinical encounter? Is the diagnosis Z00.00 specific enough for your yearly physicals?

Information Outside the System

- CDC data: The CDC provides important resources such as weekly flu reports here: http://www.cdc.gov/flu/index.htm. Archived reports from past flu seasons are here: http://www.cdc.gov/flu/pastseasons/index.htm. You can see interesting trending of "flu" related internet searches in your region by using Google Trends.
- Local School Websites: By determining the date on which your local schools will begin you'll be able to adjust your provider's schedule based on your previous recorded trends. For example, if you found that you get a high volume of sports physicals or immunizations 5 weeks prior to school beginning, you can adjust your schedule to accommodate this next year based on the new school start date.
- Weather Forecasts: Although it is not as far into the future as other sites, Weather.com has "PollenCasts" that predict pollen counts for the next 4 days. You can monitor this and be better prepared for days with high pollen counts. You can also utilize their previous pollen counts to see the correlation between pollen counts visit volume spikes.

Report on Appointment Volumes for Previous Seasonal Variability

Report on Appointment Volume by Visit Type with Reporting Workbench

Create reports based on the ES Appt Search Report Template to show appointment volumes from past seasons. Based on the data, you can adjust schedules to have the right number and the right kind of openings during the seasonal peak. The ES Appt Search template is very flexible. Here is an example of how to configure the report for a particular season:

1. Configure the report criteria to include only your departments and providers and only the visit types used for the trend you're analyzing (Physical, Flu, or any others).

2. Specify the date range of last year's season you're reporting on. You should be sure to select a date range that will encompass the total season. For example, the flu season most often peaks in February, but you will likely report on December through March.

   - Note that the search range for ES Appt Search reports is limited by the Maximum allowed days for Appointment Search reports item (I SDF 3011) in Cadence System Definitions (Reports > General). If this setting is blank, the default maximum number of days is 31 days. You can temporarily set the system setting to a larger number each time you need to create your seasonal variation report. You should not run into performance problems when you run a report for four months for a couple departments. However, if you need more data than can be processed by Reporting Workbench, refer to the next section of this document regarding reporting on appointment volumes with Clarity reporting.

3. Configure the summary of your report to be a line graph or bar graph grouped by report column 1020-Appt Date, with a grouping for each week. Include a Total Count function on report column 1259-Appt CSN. The following images show how to setup the report summary for a bar graph and what the bar graph looks like.
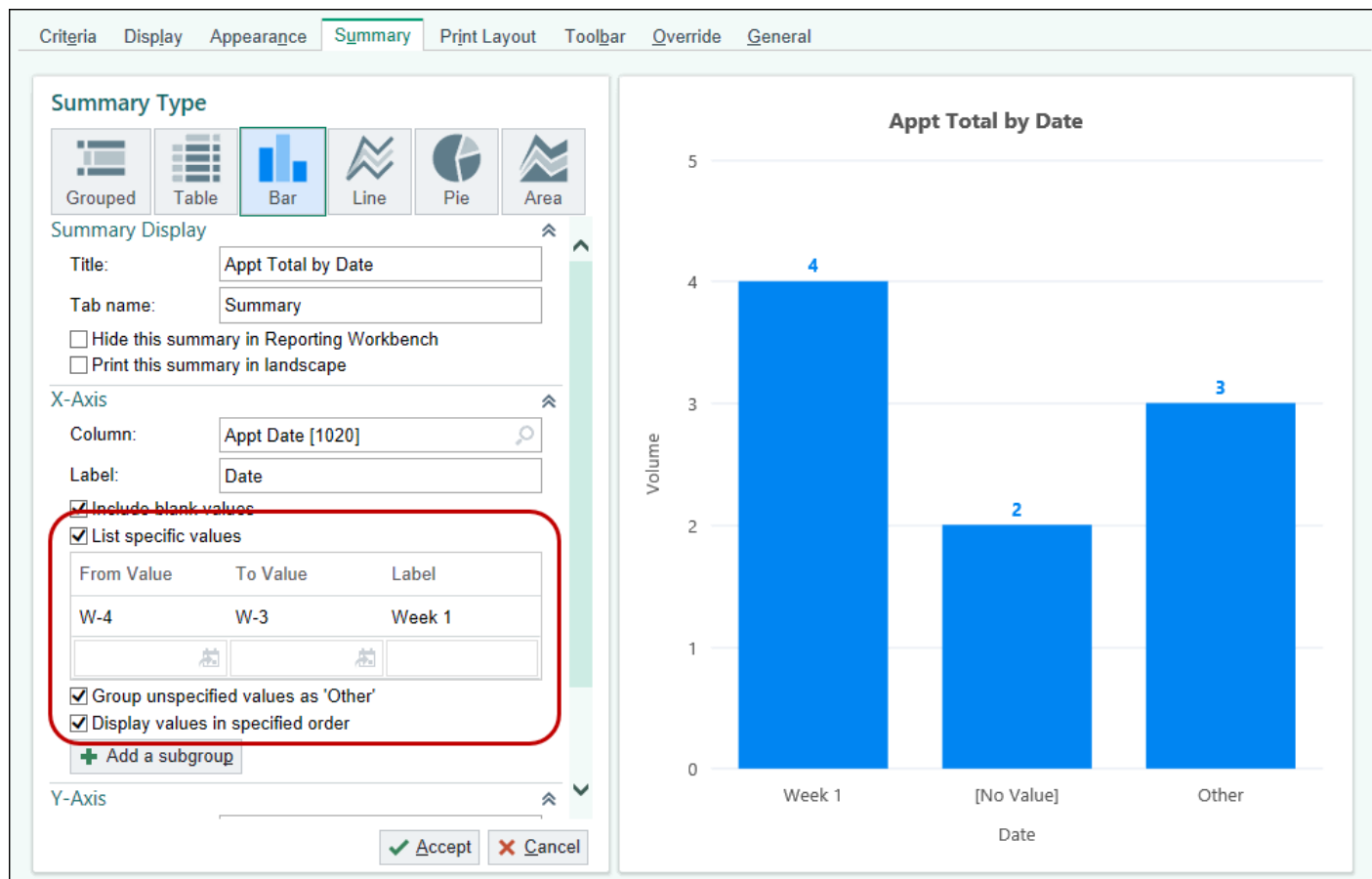
Additional Options for Reporting Workbench Reports

- If your report contains the Details tab, you can click Options > Export to file and work in Microsoft Excel.

- You can add a search criterion to look at the Diagnoses This Visit (I EPT 18400) item to include only appointments that have a particular diagnosis. Refer to the Add Parameters to a Template topic for more information on adding search criteria to reports.

- If there are too many diagnoses to search by diagnosis record, add a search criterion using rule property 71492-Encounter Diagnosis Groupers (refer to the Add Parameters to a Template topic for more information). This property returns appointments matching any encounter diagnosis in a particular diagnosis grouper.

  - Be sure to check the "Date/Time sensitive criterion" checkbox when adding the property parameter.

  - In the User Interface parameter settings, set the Operator options to "Don't show operator field [2]."

SlicerDicer Visits Model

SlicerDicer is Epic's self-service reporting tool. Use the Visits data model to investigate appointment volumes based on patient location, appointment dates, or clinical diagnoses based on your own observations in the day to day clinic. Refer to the SlicerDicer Setup and Support Guide for additional information.

Report on Appointment Volume by Diagnosis in Clarity

If you need to report on more data than you can process with Reporting Workbench, you can report on appointment volume filtered by visit diagnoses and diagnosis groupers in Clarity by linking appointment tables with diagnoses data using Clarity column PAT_ENC_DX.PAT_ENC_CSN_ID. For additional information, refer to the Point-in-Time Conditions chapter in the COG240 Clinical Data Model training companion.

Review Schedule Utilization

Use utilization reports to analyze how well you designed your schedules for the most recent season. If you find that certain types of openings were overbooked or underutilized, you can adjust your schedules accordingly for the future. Refer to the Reporting on Provider Schedule Availability white paper for additional information on availability reporting.

- Start with the ES Provider Utilization Health Report Template.
- The report template includes provider and schedule utilization calculations.
- Filter the report to include only your departments and providers. Drill down into each provider to see weekly utilization stats during a specific busy season. Look for overbooked or underutilized types of openings.

Analyze Accessibility of Schedules

Use accessibility reports to analyze how easily your patients can schedule appointments during the identified season versus the rest of the year. If you find that patients are waiting too long to see the doctor during the given period, you can adjust the number of openings in your schedules to improve accessibility. For example, some customers have significantly reduced the number of low urgency preventative visits during flu season and increased the openings available for urgent illness.

Accessibility reporting requires application configuration prior to running the Clarity reports. Refer to the Measure Schedule Accessibility topic for information on configuring accessibility records for reporting.

Use Radar Dashboards

You can show the results of your ES Appt Search reports in Radar dashboard components. You need to create a Graph type dashboard component that pulls from a Reporting Workbench report. The Reporting Workbench report must have a grouped summary. You can even add several components next to each other on the same dashboard for a year to year comparison of seasons. The following images show an example component and report settings. Refer to the Add a Graph to the Report and Create a Component to Show a Report Summary topics for additional information.

Optimize Your System Based off of the Information Collected

There are many ways to utilize the information that you've obtained to better serve your patients and utilize your providers. Below are a few suggestions to optimize your system.

Template Modifications

Based on what you've found in your reports, you may need to adjust some of your template build. You can place additional blocks on the schedule to reserve more time for a specific visit that you know is coming up soon, or you may need to reserve time on the schedule to allow for patients that need to be seen soon. For example, some clinics may want to increase the number of blocks for "Same Day" visits during flu season to restrict schedulers from taking up too much time for well patient visits. Your organization can also consider extending provider hours or bringing in additional staff for particular seasons to accommodate the increase in patient volumes.

Recalls

For seasonal variation that people can plan in advance for (such as yearly physicals) it may make sense to create recalls for patients. This can help to even out any spikes in scheduling requests during a peak season. Evening out these requests can help ensure patients are seen in a timely fashion while still keeping a provider from being overutilized. You can use the recall report to view recalls for future dates and set up recall letters to send to patients.

Refer to the Recalls Setup and Support Guide for more information about implementing recalls.

Health Maintenance

Similar to Recalls, Health Maintenance Reminders can help patients remember to request a visit for preventative care, such as an influenza vaccination. You can send out a MyChart message to the patient for anything overdue and they can appear to clinicians in the patient SnapShot, OurPractice Advisories, the patient's appointment desk, and other areas of Hyperspace.

Refer to the Health Maintenance Setup and Support Guide for more information.

Welcome

At your Welcome kiosk, a patient can fill out questionnaires to collect information about her visit, including whether she's a potential flu patient. This way you can take the appropriate precautions to stop the spread of influenza within the waiting room. You can also flash helpful reminders to patients via the attraction loops to remind patients to make appointments for upcoming seasonal events.

MyChart

To help clinicians assess why your patients are requesting appointments you can use a "Reason for Visit" questionnaire. Patients can answer these questions via MyChart and answers can populate the chart. This way physicians can monitor patient reported trends in why patients need to be seen. MyChart also has the ability to collect patient-reported history of present illness (HPI) questionnaires for already scheduled visits that can be pulled into notes for physicians. Physicians are able to review this information prior to the patient presenting so they can best be prepared for the upcoming visit.

Refer to the Patient-Entered HPI and ROS Setup and Support Guide for more information.

Provider Utilization

Provider or schedule utilization refers to how full your schedules are or how well provider and resource time is used. A low utilization rate means that providers have empty time in their schedules which can cause provider unhappiness and lost revenue. A high utilization rate means that providers might be seeing more patients than their schedule accounts for, which can be an indicator that the department needs additional staff or additional analysis into why the provider is scheduled so often.

To improve utilization rates, there are three main areas you can focus on:

- Reduce no-show appointments
- Optimize schedules for maximum resource utilization
- Reduce unused openings

Reducing No-Show Appointments

This section focuses on tracking and preventing no-show appointments. Tracking tools include Radar, Reporting Workbench, Clarity reports, and work lists. Prevention tools include appointment reminders and appointment confirmations.

What is a No-Show Appointment?

A scheduled appointment can become a no-show appointment through End of Day processing (EOD) or someone manually marking it as a no-show. It is worth mentioning that canceled appointments are not considered as no-show appointments by default, but our reporting often offers the option to consider late cancellations as no-shows in the no-show rate. The no-show rate by default is the percentage of non-canceled appointments where

the patient didn't show for their visit.

Why Report on No-Show Appointments?

There are a number of reasons to track and prevent no-show appointments.

Maximizing Schedule Utilization: Understanding no-show appointment patterns allows you to prevent unused template openings by preventing no-show appointments. In an era of staffing shortages and tight resources, understanding data about no-show appointments helps best allocate resources to ultimately deliver better access to care. Identifying patients who might be at risk for not showing up to appointments or other no-show patterns can allow organizations to better schedule their staff, and to implement outreach programs such as providing access to transportation.

Increasing Revenue: When patients are seen, they are prompted to pay their copays, deductibles, and outstanding balances. For example, according to the Journal of the American Board of Family Practice's research, automated appointment reminders decrease no-show rates by approximately 7 to 9 percent. Each averted no-show appointment saves an organization about $100.

Tracking No-Show Appointments

Epic has a number of tracking tools for no-show appointments. The sections below outline individual reports and their uses.

No-Show Rate Reporting

The Clarity No-Show Rate metric can be used with the No-Show Rate Past 6 Weeks and No-Show Rate Past 6 Months components to show a comparison of patient no-show rates over time. The components allow flexible grouping and shows the number of total appointments, the number of no-show appointments, the no-show rate, and appointment confirmation statistics. Clinic managers and scheduling supervisors can use these to find out if new appointment confirmation processes reduce no-show rates for appointment types or departments. These components can also help identify areas that might benefit from appointment confirmation to reduce the negative effect no-shows have on your schedules, staff productivity, and profits.

Reporting Workbench

Clinic and department managers as well as the project team can use reports built from the ES Appt Search Report Template for short-term, ad hoc monitoring of appointments that meet specific criteria. Reports built from this template can be used to meet a variety of business needs. The Foundation System has a report built from this template for no-show appointments: No Shows - Past Month Report.

Managers can see more information about a specific appointment on a report by selecting the appointment and clicking Expand. They can also open the patient's Appointment Desk directly from the report by clicking Appts. Managers can save report results (Options > Save Results) or export results to a file for further analysis (Options > Export to File).

In addition, you can show the results of your ES Appt Search reports in Radar dashboard components. Reporting Workbench reports that contain a grouped summary can be used as the data source for Radar components to show tables or graphs. You can even add several components next to each other on the same dashboard for a department to department comparison of no-shows. Refer to the Add a Graph to a Component topic for more information on listing report results in Radar dashboards.

Radar Dashboards

Radar components appear in dashboards that allow end users to find all of their most important reports in one place. Cadence end users have increased flexibility with this tool when dynamic departments are used.

ES Department Appointment Volume: This component breaks down the appointments by status, allowing clinic managers to monitor how busy their department is so they can shift resources as needed. Breaking down by appointment status allows you to focus on no-shows. The graph shows the number of appointments for a selected department over a selected date range.

By default, the component shows all appointment statuses except Canceled for the past eight days. The component parameters allow you to adjust the appointment statuses to include, the number of days, and the department to search.

This component is available with a single department or with multiple departments. Check out the Report Repository for more detail about available components.

Risk of Patient No-Show Predictive Model

If patient no-shows are a consistent problem for your organization, consider implementing the Risk of Patient No-Show predictive model. The predictive model helps identify patients who are more likely to no-show a given appointment based on a variety of factors. Scheduling managers and front desk users can then take this information to perform a variety of different actions to increase the frequency of reminder calls to patients or implement other patient outreach programs, such as offering transportation to increase access to care.

Preventing No-Show Appointments

The use of appointment confirmation workflows can significantly decrease your no-show rate.

Appointment Reminders and Confirmation

Appointment confirmation workflow options can be manual or automated. Many organizations have found that patients who confirm their appointments beforehand are more likely to show for their appointment.

Manual Appointment Confirmation:

- In the scheduling workflow on the Appointment Review form, users can select the Confirm Now option to confirm an appointment right after scheduling. This method is most appropriate for same day appointments.

- If a patient's appointment is being scheduled a month or more in advance, the Confirm Appointments Work List Report is another tool schedulers can use. Schedulers use the work list to track appointments within a certain time period that need confirmation. Using the work list to call patients to confirm their appointments, schedulers can confirm, cancel, or reschedule the appointment as necessary. Schedulers who are unsuccessful in contacting a patient can record the call attempt for other users to see.

- Patients can also manually confirm their own appointments from MyChart.

- Another tool for manually confirming is sending appointment reminder letters. It is possible to print reminder letters automatically in batch at a customer-defined number of days ahead of the appointment date.

Automated Appointment Confirmation:

- Many customers choose to use automated appointment confirmations because of the volume their organization sees. While a phone call from a real person is ideal, it's often unrealistic.

- Automated appointment confirmation workflows require the use of Hello World or a third-party vendor. Refer to the Automated Appointment Confirmation topic for information about sending appointment confirmation text messages with Hello World. Refer to the Automated Appointment Calling topic for information about working with a third-party vendor to set up automated appointment calling.

Text messaging, MyChart, and email messaging:

- Patients can set preferences in MyChart to receive appointment reminder messages via text or email. These messages prompt them to log in into their MyChart account for more information on their upcoming appointment. Patients can set these preferences on the Notification Settings page in MyChart.

- Refer to the Appointment Reminders topic for more information.

Same Day Scheduling

Some organizations use same-day appointments or low lead days, also called next day appointments. Adding same-day slots can improve no-show rate and adds more flexibility to the schedule. You might consider adding same day slots, but only if your utilization rate is high. If schedules aren't well utilized, then you might end up with those slots not being used. Any attempt to add more same day slots should be done incrementally. Be sure to carefully monitor schedule utilization as you incrementally reserve more and more slots for same day scheduling to be sure that schedules remain fully utilized and accessibility for non-same day appointments remains within your organizations goals.

Lastly, minimal usage of blocks and standardized slot lengths might also help you improve your no-show rate.

Following Up on No-Show Appointments

Once a patient misses an appointment, we have several tools to follow up with them. Schedulers and front desk staff can use the Follow-Up Work List Report to resolve past appointments that were canceled or for which patients failed to present. For example, in an MRI department, schedulers can use the report to follow up on no-show and canceled appointments from the past week to help ensure that patients get the tests their physicians ordered.

The work list shows the status of incomplete appointments, how many calls have been made to the patient about the appointment, and the appointment cancellation reason (only if the appointment was canceled). Using this information, schedulers and front desk staff can reschedule appointments or remove them from the work list as needed.

Note that the Follow-up work list is used for no-show appointments and patient-initiated cancellations.

If your organization chooses to send appointment reminder letters, no-show letters would also be beneficial.

If your organization is using a third-party vendor for automated appointment calls, you can also utilize that tool for automated follow-up calls for no-shows.

Scheduling for Maximum Resource Utilization

When someone schedules an appointment, they don't schedule everything involved in that appointment. They usually only schedule limiting resources, or things without which the appointment can't be completed. Depending on how many limiting resources your organization normally deals with, one of two scheduling models might work better for you:

- Open access scheduling. Any visit type can be scheduled at any time. Patients like this one more because it generally results in shorter wait times. However, it's hard to manage three or more limiting resources.

- Cascade scheduling. Each visit type has a specific time that someone can schedule it for. This is ideal for scheduling multiple limiting resources, but is less flexible for the patient and takes a significant amount of time to plan out.

Some organizations institute a hybrid of these models. We recommend trying to build the open access model first, but some departments might end up needing the more complex cascade scheduling approach.

Cadence can accommodate each of these models. With each model, you need to keep in mind some build

requirements.

First Things First: What is Scheduling?

To schedule something is to create an agreed-upon time where two or more people, places, or things will meet. For a doctor's appointment, these include not only the patient and physician, but also one or more of an exam room, a nurse, a technologist, and pieces of medical equipment.

Of course, nobody actually schedules all of those things, because that would be too time-consuming and difficult. Instead, we schedule limiting resources.

For example, if a patient's PCP is busy at a certain time, the patient wouldn't be able to schedule an appointment with their PCP for that time. The PCP is a limiting resource in this case. Now, suppose that one of the nurses in the clinic had something come up, and is unable to take the patient's vitals during that time. Likely, the clinic would simply assign a different nurse to this visit. Therefore, the nurse is not a limiting resource, since her absence wouldn't prevent the appointment from taking place.

If there is more than one limiting resource, you have two options:

- Schedule all limiting resources as a joint appointment.
- Represent all limiting resources on one schedule with template and visit type build.

Cadence has functionality to handle both of these options. Joint appointment scheduling is a feasible solution if you want to keep the department exclusively on the open access model. Having a blocked, representative schedule is more conducive to cascade-based scheduling. Let's take a closer look at the differences between open access and cascade scheduling.

Approach One: Open Access Scheduling

In open access scheduling, users can schedule any visit type for any time. This gives them greater flexibility to meet the patient's needs. Patients like it because they can generally be seen sooner. An important thing to note about the Open Access model is that the length of visit types drives provider utilization.

Even though open access means any visit type can be scheduled for any time, providers can still have control over their schedules. For example, if a provider never wants to see more than three physicals in a given day or only wants physicals at a certain time, you can set up blocks or session limits in Epic to respect that provider's preferences. This model usually also holds slots each day to accommodate urgently sick patients.

If there is more than one limiting resource, you need to schedule a joint appointment. Scheduling joint appointments works well if there are only a couple limiting resources, but if that number gets to be too large (three or more), it can become difficult for the scheduling staff to manage.

Open Access Scheduling Tools

There are some tools that you'll commonly employ when building for an open access department.

Same Day Blocks

Providers often insist that there be time in their schedule for urgently sick patients. To accommodate this need, build a block called Same Day that no visit types are attached to. This block makes it impossible to schedule into without override security. Set up the Same Day block to release the night before. The result is a clear period of time in the schedule for that day when the provider can see walk-in patients.

Session Limits

Keep the visual appearance of the schedule clean and uncluttered by using session limits instead of blocks when possible. For example, if a provider wants to see physicals only in the morning, set up a session limit to limit the

physical visit type to that time period, instead of blocking off time.

Patient-Based Visit Modifiers

Control the length of the appointment based on the patient's characteristics (age or sex, for example), not those of the visit type. This strategy leads to more efficient use of a provider's time. For example, a physical typically takes around 30 minutes for a normal adult, but 45 minutes for an elderly patient. Instead of defining the physical visit type to be 45 minutes long, you can set up a modifier to adjust the length of the visit to meet the needs of the patient you're scheduling.

Rules-Based Pools

Use qualities about the patient, visit type, or department to add or remove resources from a given pool before you search for opening times. For instance, if the patient speaks only Spanish, remove providers who don't speak Spanish from your pool. You can also set up conditional rules between pools. For instance, if the equipment selected from the first pool is state-of-the-art and does not require a technologist, remove the technologist pool.

Diagnosis Scheduling

Diagnosis scheduling is when schedulers use decision trees to select the proper visit type for an appointment. For example, in a radiology department a scheduler might ask the patient why they're being seen. If the patient says he has a broken arm, the scheduler might follow up by asking if the injury prevents him from playing sports. Depending on the answer, the visit type will change to an x-ray that is scheduled in sports therapy or the normal x-ray department. Prior to Epic 2017, you can also use questionnaires.

Open Access Rules of Thumb

1. All providers within a department should share the lowest common denominator of slot lengths. For example, imagine that the normal slot length in your department is fifteen minutes. But if one provider insists that one of his visit types be precisely ten or twenty minutes long, the only way to accommodate that is if everyone else has their schedule divided into slots of five minutes.

2. Because open access doesn't dictate when particular visit types can be scheduled, you should expect that there will be residual pockets of time in the provider's schedule that are unusable. For instance, if your visits are 30 or 45 minutes long, a template with 15 minute slots occasionally produces 15 minute openings that can't be used.

3. Open access scheduling in Epic works well when only booking normal appointments, or joint appointments with a maximum of two providers. If you frequently need to book joint appointments with more than two providers, cascade scheduling might be a better option.

Approach Two: Cascade Scheduling

Cascade scheduling specifies exactly which visit types can be scheduled at which times. This method works by putting every limiting resource on one schedule, and then offsetting the patient start time enough so that the rate of patient flow through the department is just right.

This type of scheduling is ideal for managing large numbers of limiting resources. However, it takes an extensive amount of planning to properly execute, and designing templates takes much longer.

Cascade scheduling is less flexible than open access scheduling. If you need to accommodate a change on demand, it requires an intense amount of template maintenance. For example, imagine that you've seen a large number of claustrophobic patients recently, so you want to offer more open MRIs. To do this, you'll need to update blocks on all schedules that are affected by open MRIs. Open access wouldn't require block or slot editing.

Cascade scheduling is also rigid in how often the clinic offers a given visit type, which can result in longer wait times for patients.

Cascade Scheduling Tools

After you've gathered all of the scheduling information from the department, you need to map out a prototype of the departments schedules on paper or in Microsoft Excel, and use some of the following tools to build a cascade scheduling department.

Representative Scheduling

You can represent multiple limiting resources in a representative schedule where nurses, techs, rooms work off of only the doctor's schedule. This image is an example of a customer mapping out when certain visit types need to be blocked on the providers' schedules in order to fit in the most complex and NST visit types. After going through this exercise, the customer determined the nurses did not need their own schedules. Rather, they would follow the doctors' schedules. Doctor A, Doctor B, the ultrasound machine, and NST schedules are blocked as you see below.

	Doc A	Doc B	US	NST	Nurse	Nurse	Nurse
740					Consult A	C / U	
8	Consult A		C / U		C / NST	Consult B	US
820	C / U	Consult B	US	C / NST	Complex	Consult B	
840	US	Consult B	complex	C / NST	C/U	Consult B	
9	C / NST	Consult B	C/U	complex	Consult A	complex	
920	Consult A	C/U	complex	complex	C/U	Consult B	
940	Complex	Consult B	C/U	complex	C / U		
10	Complex	C/U	C / U	complex	C / NST	C / U	
1020	C / U	Complex	C / U	C / NST		C / U	
1040	C / U	Complex	C / U	C / NST	C/U	NST	
11	C / U	C / NST	C/U	NST	C/U	Consult A	
1120	Consult A	C/U	C/U	NST	Consult A		
1140	Consult A	C/U					
12							

You could also schedule all of those resources individually by setting up multiple pools, although this level of complexity isn't recommended if you can avoid it. Try to reduce the number of resources you actually schedule if you can. This makes finding a potential solution and changing appointment times easier.

Once you are comfortable with your build approach, you can start plugging in the blocks to your provider's schedule in Epic. Be sure to test your build. Obtain sign-off on the manner in which the system finds the next available appointment time, not just the existence of build in the system. The following images show the difference between a cascade-based schedule in the View Schedules activity and that schedule as it appears when searching for an appointment, in this case an NST visit.

This image shows the schedule in the View Schedules activity.

CASCADESLOT, [1788]			
1	7:20a		Ultra(1)
1	7:40a		NST(1)
0	8:00a		
2	8:20a		Con(1),Ultra(1)
0	8:40a		
2	9:00a		Con(1),NST(1)
1	9:20a		Both(1)
1	9:40a		Con(1)
1	10:00a		NST(1)
1	10:20a		Ultra(1)
0	10:40a		
1	11:00a		Con(1)
1	11:20a		Con(1)
	11:40a		END

This image shows the schedule as it appears when searching for an NST visit.

CASCADESLOT, [1788]			
			SOSC
1	7:40a		NST(1)
	8:00a		END
2	9:00a		Con(1),NST(1)
	9:20a		END
1	10:00a		NST(1)
	10:20a		END

Blocks

Use blocks to virtually link a visit type to an appropriate time slot. To do this, link the block to a visit type (ultrasound, for example,) then place a block on the schedule. You can get by with only blocking the first slot. Look at the Overrule for first slot and Overrule for secondary slots fields in the visit type record.

You can still retain a certain amount of freedom when associating blocks with visit types. Block to visit type linking can be one to many, many to many, or many to one. In addition, you can make the system return both blocked and unblocked slot solutions. In the Visit Type (PRC) master file, set the Overrule for first slot setting to Unblocked Always Allowed.

Overrule for first slot:	Unblocked Always Allowed [4]

Never use visual blocks with cascade scheduling. These are blocks that someone places on a schedule, but are not linked to a visit type. If you're going to block the template, it makes sense to link the blocks to visit types. If you don't, the system doesn't look for the block when you schedule manually either when using the Open Times by Provider search or using the Auto Scheduler.

Refer to the Reserving and Restricting Time in a Provider's Schedule for Specific Appointments Using Blocks topic for more information on how to configure blocks.

Cascade Scheduling Rules of Thumb

1. Use this model when there are multiple limiting resources per visit type and those limiting resources can be represented on another schedule.

2. To set when particular visit types should happen, you should use blocks to join the visit type and the time on the schedule. To do this, place the block on the schedule and link the block to a visit type.

3. Do not use visual blocks (putting a block on a provider's schedule that is not linked to a visit type.)

Balanced Scheduling

In addition to the open access and cascade scheduling models, some organizations attempt a third approach that combines both. This usually means some of the visit types are linked to blocks while others are not. Or, only some providers have blocked schedules.

Balanced Scheduling Build Concept: Time

The biggest challenge of the Balanced Scheduling model is determining how to measure time. There are two measurements you can use for this:

1. How long the limiting resource takes in the visit. We'll call this slot duration.

2. How long the patient is actually expected to be in the department. We'll call this patient duration.

Generally, if there is only one limiting resource, you should go by how long the limiting resource takes in the visit.

After you determine how you will measure the length of appointments, the challenge then becomes using the number of openings in the provider's schedule to control the number of patients coming in at any one time.

Let's go back to the example we looked at earlier. This time you are looking at two versions of the same schedule. The first image is the schedules in the View Schedules activity and the second image is the schedules that appear when scheduling an appointment, in this case an NST visit.

1. The provider on the left's visit length is how long the limiting resource takes in the visit.

2. The provider on the right is how long the patient is expected to be in the department.

CASCADESLOT, [1788]			CASCADEPAT, [1789]		
1	7:20a	Ultra(1)	1	7:20a	NST(1)
1	7:40a	NST(1)	1	7:40a	
0	8:00a		3	8:00a	Con(1),Ultra(1)
2	8:20a	Con(1),Ultra(1)	2	8:20a	
0	8:40a		3	8:40a	Con(1),NST(1)
2	9:00a	Con(1),NST(1)	3	9:00a	Ultra(1)
1	9:20a	Both(1)	3	9:20a	NST(1)
1	9:40a	Con(1)	2	9:40a	
1	10:00a	NST(1)	3	10:00a	Con(1),Both(1)
1	10:20a	Ultra(1)	3	10:20a	Con(1)
0	10:40a		2	10:40a	
1	11:00a	Con(1)	3	11:00a	Con(1),Ultra(1)
1	11:20a	Con(1)	2	11:20a	
	11:40a	END	1	11:40a	
				12:00p	END

CASCADESLOT, [1788]			CASCADEPAT, [1789]		
					SOSC
			1	7:20a	NST(1)
		SOSC			
1	7:40a	NST(1)	1	7:40a	
	8:00a	END	3	8:00a	Con(1),Ultra(1)
			2	8:20a	
			3	8:40a	Con(1),NST(1)
2	9:00a	Con(1),NST(1)	3	9:00a	Ultra(1)
	9:20a	END	3	9:20a	NST(1)
			2	9:40a	
1	10:00a	NST(1)	3	10:00a	Con(1),Both(1)
	10:20a	END	3	10:20a	Con(1)
			2	10:40a	
			3	11:00a	Con(1),Ultra(1)

◄ Day ▷ ◄ Week ▷ ✚ More Providers   ☑ Restrictions ☐ Skip full day 3 5 7 10 15 20

Balanced Scheduling Build Concept: Build to Support Patient Duration

The slot duration build and scheduling is less complex than patient duration. Notice the NST is only blocked periodically throughout the day on both providers. When using the patient duration approach, the visit type is set up to match on the first slot only versus matching on all slots. This allows for fewer blocks on the schedule and a representation of how long the patient will be in the department.

Note that you need to adjust the number of openings to allow for the patient to spill over consecutive slots. In the example above, the 8:00 time slot has three openings. Three openings accounts for the 7:20 NST patient, the 8:00 Consult, and the 8:00 Ultrasound.

The advantage to patient duration build is more life-like resource utilization report data. You should weight the value of the information you glean from utilization reports against the ease and accuracy of slot duration build.

Balanced Scheduling Rules of Thumb

1. Build slot lengths with the lowest common denominator between resources.
2. Adjust the visit length using visit type modifiers, or adjust the overall default length.
3. Use a consistent approach in measuring appointment time within a department. In other words, one provider should not determine length based on the limiting resource while another measures length

according to the patient.

4. Sketch out your solutions in Microsoft Excel or on paper before building them in the system

Visit Volume

Visit volume refers to the outpatient portion of total patient volume. Patient volume refers to the frequency and number of patients receiving care from your organization, and can include a number of different metrics, such as appointments, inpatient days, emergency department visits, and surgery cases.

This section focuses on visit volume, which primarily consists of appointments and hospital outpatient visits.

Monitoring Visit Volume

What is Visit Volume?

At Epic, we define a single unit of outpatient volume as an appointment contact in the system. For example, each discrete clinic visit, lab draw, and imaging appointment counts as a separate unit of volume. There might be other definitions of volume that your organization wants to use in reporting, such as:

- Unscheduled hospital outpatient visits (outpatient visits created in Grand Central)
- Non-appointment visits such as telephone encounters and in-home visits
- Inpatient rounding by physicians
- Counting visits based on billing accounts, rather than individual patient contacts
- Counting visits based on the presence of a professional charge linked to the visit
- Counting patient exposures, or the number of patients seen in a certain time period

When trying to count non-appointment volume, you should work with your Epic technical representative to pick the right reporting tool.

Why Report on Patient Volume

Revenue: Visit volume has a strong correlation with the amount of revenue your organization is receiving. Since patients are the driving force behind both metrics, strong revenue numbers typically require strong volume numbers. If your organization sees unusually low revenue numbers for a certain period of time, lower visit volume may be the culprit. Comparing the trends in revenue to trends in visit volume will help determine if lower volume is contributing to the revenue shortfall, and help identify follow-up steps to address the problem.

Staffing: Knowing annual trends in visit volume for past years can help you predict trends in the future, and allows for adjusting staffing accordingly. For example, there might be certain months of the year where your organization normally sees more patients than the yearly average. During those months, you can plan on having more staff working in the clinics or hospitals, so that patients are not waiting longer to be seen and are more satisfied with the care they receive.

Tools for Reporting on Volume

This section covers the tools available to report on outpatient volume. It is broken up into three sections; analytical reporting, operational reporting, and dashboards.

Analytical Reporting Tools

Analytical reporting tools typically run for longer periods of time, and are intended for use in analysis and evaluation of past data. These tools typically utilize data from your Clarity database.

The Visit Volume dashboard shows executive-level visit volume metrics for hospital, ambulatory, and home health visits.

The Visits SlicerDicer Data Model can use the data set to help spot trends and search for visits that meet specified criteria. Researchers can use the data set to investigate hunches and identify cohorts for research studies. Use this model to monitor volume trends for a single or multiple years, across various locations or your facility as a whole.

Operational Reporting Tools

Operational reporting tools typically run for shorter periods on real-time data, and are intended for use to guide day-to-day practice management decisions.

The ES Appt Search Report Template is a Reporting Workbench template that offers a variety of options for reporting on scheduled appointments. It includes many parameters and data elements, and can be further customized to fit each reporting need. Sample parameters and data elements that are included by default include: date, department, provider, specialty, visit type, appointment status, and much more.

- Using these parameters and Reporting Workbench summarizing capabilities, users can monitor the visit volume of certain areas or specialties. For example, a manager can create a report to find the volume of appointments in the areas she oversees for the next week, and graph it based on time of day. She can then use this data adjust the work hours of her reception staff.
- Some additional examples of reports built from the Appointment Search template that exist in the Foundation System are Appointment Statistics by Status Report and the OB Prenatal Appointments in the Last Month Report.

Radar Dashboards

Radar dashboards are a way for users to quickly see the analytical information they need on a single screen.

For seeing appointment volume, users can add the ES Department Appointment Volume dashboard component. This component shows a graph and table of appointment volumes for a specified time range, broken down by status.

Increasing Your Visit Volume

Higher volumes mean more exposure for your organization, and can also correlate with higher revenue. This section outlines some ways to increase your outpatient volume.

Attract New Patients

Patients have many choices when picking a healthcare provider. Making access to care readily available for new patients will help your organization become their preferred provider. Refer to the Measuring and Improving New Patient Access section of this handbook for details on how you can attract new patients to your organization.

Encourage Patients to Stay Healthy

When patients are not sick, healthcare is usually not their minds. However, it is often important for patients to come in for appointments regularly so that any health problems are caught early.

Recalls: Recalls are an easy way to encourage patients to stay healthy. Recalls allow the system to remind patients as well as schedulers that a patient should come back for an appointment. When a patient should call back to

schedule an appointment, the system will print a letter, send a MyChart message, or send an email to the patient. There are a variety of uses for recalls, such as reminders of annual mammograms or regular physical exams.

Each recall corresponds to an appointment a patient should be scheduling in the future. Recalls can be automatically created in response to a certain type of appointment, or created manually by a scheduler. For details on how to set up recalls, refer to the Recalls Setup and Support Guide.

Front Desk Productivity

Your front desk and scheduling staff have a lot to do. Managers need to make sure staff are completing tasks in a timely manner. If staff productivity is too low, departments might have too many staff for their current workload. If reports show low productivity only for certain areas or users, it could be an indication of a workflow problem or a user that needs extra coaching.

You can measure staff productivity in Epic in two areas:

1. Workflow productivity, or how effective staff are in basic Cadence workflows such as scheduling, check in, and registration.
2. Collecting copays when patients attend their appointments.

Increasing Workflow Productivity

Workflow productivity is a measurement of how efficiently your staff is working. This can be measured at the department level or at the individual level, allowing you to compare the efficiency of various facilities, departments, or staff members. Once efficiency has been measured, you can manage the key performance indicators that mean success for you and your organization.

Measuring workflow productivity is important because more efficiency in the standard workflows improves patient satisfaction, end-users' happiness in their jobs, and revenues. It allows managers to identify high-achieving users for recognition and struggling users for additional training and assistance. It can also help you identify workflows that can be streamlined through operational or build changes if one department is just not able to achieve the same level of efficiency as the others. In addition, the more efficient your front desk staff members are, the fewer staff members you need at any given time, thus freeing up staff to work on other tasks.

Tools for Monitoring Workflow Productivity

Cadence provides a number of tools to help managers monitor workflow productivity. These tools provide metrics to allow you to understand the patterns of effectiveness in your organization.

User Scorecards

Managers can review key productivity metrics for all of the users they supervise using a scorecard dashboard. Managers can see how each staff member is performing relative to each other as well as the best, worst, and average productivity for the selected staff. Review the User Scorecard Setup and Support Guide for more information.

Clinic Manager Dashboard

Managers can review key patient access metrics in the Clinic Manager - Home dashboard. Clinic managers can monitor of the performance of their departments and staff, keep track of their workqueues, and see details about their In Basket using the Clinic Manager - Home dashboard. They can see a quick overview of their clinics and

then drill down into specific areas that might require follow-up.

Workflow Productivity Reports

Managers can report on Cadence workflow productivity using the ES Workflow Productivity Tracking Report Template in Reporting Workbench. Managers can use reports built from this template to track productivity for specific users, departments, and workflows. For example, a manager could monitor how long it takes a specific front desk staff member to complete check in, or compare how many workflows were completed to how many were not completed.

Starting in August 2019, Cadence automatically records productivity data for all departments. In May 2019 and earlier, you must set up your departments to collect workflow productivity data before you can use this report. For additional information, refer to the Measure Scheduler Productivity topic.

Measuring Productivity with User Scorecards

User scorecards show the number of appointment-related actions, such as scheduling and checking in appointments, done by users in departments. There are different scorecards based on the role of the user:

- Hospital Front Desk User Scorecard Dashboard
- Hospital Patient Access User Scorecard Dashboard
- ED Registration Scorecard Dashboard
- Front Desk User Scorecard Dashboard

ES Appt Search Reports

Another way to report on appointment cycle time is to use the ES Appt Search Report Template in Reporting Workbench. This template can be configured to use report columns that show the time stamps of important events. There are even report columns that perform calculations and return the time intervals between important events. In concert with the improved Reporting Workbench summaries in recent versions, this report allows for easy access to cycle time graphs and charts, which can then be viewed in a Radar dashboard.

Additional Reporting

In addition to these scheduling-centered reports, other reports look at larger cycle time issues, of which scheduling is only a part of the big picture.

Clinic managers can use the Encounter Cycle Time by Provider Report to analyze how quickly patients are moving through different phases of a visit, including

- How long the patient waited to be roomed
- How much time the nurse spent with the patient
- How long the patient waited for the physician
- How much time the physician spent with the patient
- How much time the physician spent working in the chart before and after the visit.

For more detailed custom events that are not available in our standard reports, report writers can create a custom report using V_SCHED_EVENTS. This is a Clarity database object that includes many common events, along with placeholders for ten less common events that your organization defines. Your Clarity administrator and Epic representative can help you define the ten additional events in V_SCHED_EVENTS.

Other Productivity Resources

Cadence isn't the only part of Epic that offers productivity reports. In some healthcare settings, scheduling functions are combined with other roles, and some registration or referrals productivity reports may provide

valuable insight to combined front desk managers. This section provides a brief overview of these other reports with links for further information.

Registration

Registration timing can be assessed through the Registration Workflow Timing Report Template. Depending on how the report is configured, it can show user workloads and compare registrars' performance on different measurements such as workqueue issues created and resolved or number of coverages added. This report gives a better look at overall user registration performance and can help identify the sources of productivity issues.

Registration timing can be assessed through the Registration Timing Report Template. Reports based on this template show how long it takes registrars to complete registration for both new and existing patients. The reports can be based on department, user, or type of workflow, for example Outpatient or L&D registration, and they show the total number of encounters as well as the average time taken per encounter registered. Some reports can also have a detailed view, which breaks registration down by user.

In addition, the Reg Dashboard can be used to see a high-level overview of real-time registration data, allowing them to quickly determine which areas of registration are successful and which need attention. The dashboard can look at registration workqueue volumes, registration timing, bypassed warnings, and verification statistics by individual users and departments.

Referrals

Referrals managers can use reports based on the Referral Productivity Report Template to track the productivity of referrals users. These reports provide both a specialized view, which provides statistics on all referrals, and a detail tab, which breaks statistics down by individual referral users.

Referrals workqueue productivity can be measured through the Referral Workqueue User Productivity Report Template. Reports based on this template offer a section for each individual workqueue, showing users assigned to that workqueue and how they added or removed referrals from it over the course of the day.

Strategies to Improve Workflow Productivity
Support Your Users for Great Success

KPIs can improve over time as users get more used to using Epic. Make sure to continue training past go-live, with an emphasis on:

- Correct workflow and workflow shortcuts
- Keyboard shortcuts to reduce clicks
- Workqueues as a safety net, not a part of the normal workflow on each account

You might want to use the reports discussed earlier in this document to identify highly efficient users and have them act as super users to share their efficiency tips. You can shadow users in areas that have lower productivity and spot the areas where they could improve.

Optimize the System for Greater Success

Even when things are going well, there is always room for improvement. Look for the following opportunities:

- Are there any forms that could be removed from the default workflow because your users are just clicking Next without adding anything? If these screens are truly not necessary to your workflow, they might be removable.
- Do your schedule templates use many blocks? Using a heavily-blocked schedule can reduced the optimization of both schedulers and providers.

- Is there a field where you would like to see a default answer that doesn't currently exist?
- Are all of the items that will drop a registration to a workqueue marked with a yellow yield sign? If not, adding that visual reminder can prompt staff to get that answer on their first time through the record.
- Are there are forms or documents that you always print at certain trigger points? It might be possible to have these automatically print for you.

These aren't things you should try to fix yourself. If you spot any of these opportunities, contact your Epic project team or Epic representative and ask for their help. There very well might be good reasons why these things have not been done, but it never hurts to ask.

In addition, there might be adjustments you can make to your workflow and training to help improve productivity. If your staff is overburdened at check in, then there might be ways to let the system do more of the work or to move some of that work away from the check-in desk.

- Have your staff register patients before they present themselves at the check-in window, either at the point of scheduling or in a separate phone call.
- MyChart can allow patients to preregister online at their convenience, without staff being involved.
- Implementing a sign-in desk and collecting some information there can avoid the need to jump to registration at check in.
- Welcome kiosks can allow patients to check themselves in, answer questionnaires, and even pay their copays

For more information about how to move away from registering patients at check in, talk to your Epic representative.

Increasing Copay Collection Rates

To increase copay collection at your organization, you should focus on improving consistency and accuracy of the copay.

- Collecting copays at every patient visit puts more cash in the bank right away, which can reduce your AR days and increase your overall collection rate. Point-of-service collection also eliminates the need to send a statement, saving your organization money in printing, mailing, and processing costs.
- Correctly collecting copays reduces the chance that you'll need to refund unnecessary copays or bill a patient because you collected more or less than the required amount. Both refunds and re-bills are costly and can cause patient dissatisfaction.

Tools for Monitoring Copay Collection

There are several methods you can use to monitor copay collection rates and identify areas of concern. All of these methods use tools and reports available with Epic's Cogito analytics capabilities, mainly Radar, Reporting Workbench, and Clarity.

ES Appt Search

Using the ES Appt Search Report Template, a clinic manager might use a report to determine whether copays are being collected, monitor kiosk usage, or track appointment statistics by department. After analyzing report results, managers can follow up with individual users and schedule additional training if, for example, front desk staff aren't collecting copays or encouraging patients to use the kiosks.

Copay Collection in Welcome

The Kiosk Check In Demographics - Past Month Report allows you to see how successfully Welcome is being used

to collect copays from patients. The Copay Collection tab provides a summary of copays collected at kiosks at the location and department levels.

Radar Dashboards and Components

Radar dashboards make it easy for end users to view copay collection data. These dashboards open upon logging in to Hyperspace and provide a high-level overview of reports that are important to your users.

If you want to add copay information to your custom dashboards, you can use several standardly-released components to see this information.

The ES Department Copay Collection component shows the average copay collection rate for a department so clinic managers can monitor copay collection rates and follow up with users whose collection rates are lagging behind. The component also shows the amount collected and the amount due by each user in the department. This component can show multiple departments.

This component is for a single department. If you want to report on copay collection across departments, use component ES Department Copay Collection (Multiple Departments).

The ES Copay Collection Rate Trending component allows managers to track the extent to which users are collecting copays over various intervals, including day, week, month, quarter, and year.

For more information on setting up Radar dashboards, refer to the Radar Setup and Support Guide.

What if Reports Seem Wrong?

This section highlights the reasons that customers experience issues with Epic's reporting tools and a mitigation plan for these issues. If reports indicate a higher or lower copay collection rate than expected, it is likely that end users are not documenting copays in Epic correctly.

Collection Rates Higher Than Expected

When copay collection reports indicate a higher collection rate than expected, end users might be collecting copays without indicating a copayment due. The system calculates collection rates based off of the amount collected over the copay due. If a user doesn't capture the copay due in the system but does collect a copay, the copay collection rate could feasibly be over 100%.

If this issue becomes common, clinic managers should emphasize the importance of collecting a copay due in the registration workflow. In addition to this field's importance in accurate copay collection rates for the current visit, the copay due field also helps end users identify copays for future visits.

Note that in the Foundation System, using the AR Copay node as the Copay form in an advantage activity or using the Enterprise Payment activity for cash collection prevents this error from occurring. Users that try to indicate a copay collection in these places without editing the Copay due field receive an error preventing them from saving the copay paid without listing a copay due.

Epic recommends the Enterprise Payment activity for organizations that want to collect balances across both Hospital Billing and Professional Billing, and the AR Copay node for organizations that use Epic for Professional Billing copay collection. For other copay collection workflows, including the Hospital Billing copay collection suggested workflow of using the HB Copay form, there are no rules to prevent users from posting a copay paid that they do not also mark as due.

Collection Rates Lower Than Expected

If your organization has the opposite issue, copay collection rates are lower than expected, this could be because end users are not collecting copays in the correct fields in Epic. Copays are tracked in reports only if the end user collects a copay and enters it into the Copay paid field (I EPT 5775). In Epic, users can collect copays in the Copay Collection activity, in the Copay forms in Check In and Check Out activities, through enterprise payment posting activities, or through other payment posting activities. Each of these activities has Copay paid field, but they can also contain extraneous fields to collect payments.

For instance, in the Enterprise Payment activity, a user can enter a copay into the Amount paid or the Balance paid fields and the payment still posts to the patient's account. However, only the amount collected the Copay paid field will fall onto the Copay Collection reports.

To ensure your end users collect copays in the appropriate fields, you can monitor copay collect in the following two ways:

- Use the PB Undistributed Self-Pay Report Template (only available if you are using Resolute Professional Billing) to view payments that couldn't be matched. Copays that are posted in Epic without any anticipated copay due would remain undistributed.
- Watching the non-"System" Credit workqueues for payments after go-live. These workqueues should have minimal outstanding balances, and too many might indicate that end users are not collecting copays correctly.

Best Practices and Improving Rates

Below, we've outlined some options for your organization to improve collecting copays, from decisions that your organization can implement outside of Epic to specific build that can help with copay collection.

Policy Decisions

Collection Timing: Copays can be collected at sign in, check in, and check out. Epic recommends that end users collect copays prior to a service, at sign in or check in, as it prevents users from leaving without checking out and paying their copay. If a registrar is unable to collect copays prior to a visit, your organization can still follow up with patients after they've left using workqueues. To collect copays in the sign in or check in workflows, train end users to check for a copay due on the Copay form of the Check In or Check Out activity or within the Enterprise Payment activity.

Reminder Phone Calls: Most organizations already make reminder phone calls or send reminder letters about upcoming appointments. Leverage this current system setup to also remind patients that they might be expected to make a copay while they confirm their appointment. Further, provide information about how a copay can be paid, including the payment types that your organization accepts, in addition to where users can make payments.

Identify Trends

Your organization can add report column 1327-Appointment Payor to copay reports and sort by the payer, allowing the hospital to determine if there are trends for a specific payer. You could even talk to your IT department about creating criteria in a new report to create reports by payer.

If you notice trends with a specific payer, you should review the configuration set up for that payer. For instance, there could be issues with the real time eligibility (RTE) plan mapping or maybe this payer is unreliable in giving accurate eligibility messages.

Integration with Other Applications

Welcome: If your organization uses Welcome, make sure it collects copays. A 2009 study conducted by the California HealthCare Foundation titled, Touchscreen Check-In: Kiosks Speed Hospital Registration, states that "Kiosks have been shown to collect more copays than the average clerk," (pg 22). This increase could be due to a variety of reasons, for instance kiosks don't discriminate against asking families that might struggle to pay copays based on their financial situation and never forget to ask for copayment as front end users might. To learn how to setup up patient payments in Welcome, refer to the Collect Patient Payments topic.

MyChart: MyChart allows patients to pay their copays before they arrive for their appointment. To learn how to set up copayments in MyChart, refer to the Copay Payments topic. In Epic 2014, Epic doesn't post the payment until the patient checks in for her visit to prevent an unreconciled copayment if the patient misses their appointment. If your organization is on a version earlier than Epic 2014, you might need to create a mitigation plan for copayments that post to a hospital account but are never reconciled as the patient never checks in.

Following Up with Patients on Uncollected Copays

Stanford Hospital found success using the Copay type field to track copays that might need follow up. They discussed their workflow at the 2013 Spring Financial Advisory Council, materials from which are posed to the UGM website. Using a discrete field to capture the information allowed Stanford to build workqueues so that users could follow up on a manageable number of accounts.

To implement this method at your organization:

- First decide how to categorize cases where a copay was due but not collected, so that you can build these into a discrete category list, such as the Copay Type (I EAF 5505) item. Some copay types might then route visits to the back-end workqueue for customer service staff to follow up on. Other copay types might be simply for reporting purposes.

- Evaluate copay types that require back-end follow-up. Route visits to a workqueue only if there's a good chance that a customer service representative can resolve the issue successfully by verifying the correct copay amount with the payer or collecting the copay over the phone. Don't route visits to a workqueue simply to have someone double-check the front desk staff's compliance with copay policies, as this can be accomplished through reports.

Some examples of the Copay type category list include:

Copay Type	Front-End Workflow	Back-End Workflow
Office Visit	Collect the full copay due	None
Office Visit Confirm	Collect a copay amount that's different from the copay due indicated by the system and record a reason in the Reference field	Routed to a workqueue so staff can follow up on the discrepancy
Contact Patient	Indicated that the patient has a question about the copay due and explain in the Reference field	Routed to a workqueue so staff can call the patient to discuss his concerns
Bill	Indicate that the patient wants to be billed for the copay	None. The account is billed as usual
Decline	Indicate that the patient declined to pay the copay and explain in the Reference field	Routed to a workqueue so staff can follow up with the patient
Copay Not Required	Indicate that no copay was due for the visit, for example a research-related visit	None
System Issues	Indicate that the copay due wasn't collected because of system issues, for example the patient wanted to pay by credit card but the credit card processing vendor was down	None. The account is billed as usual

System Build to Increase Copay Collection

Extract Copay Information from RTE Responses: After your RTE administrator and coverage expert have analyzed the RTE responses to determine the location of the correct copay information, the RTE administrator completes the build to store this information in the copay table.

- For more information about this build, refer to the File Benefit Data Using the Benefit Filing Configuration Activity topic.

Configure Benefits Engine to Calculate Coverage Level Copays: Configuring the Benefits Engine to correctly calculate coverage level copays involves several related records:

- Visit types: In the visit type record, you specify the benefit grouping that the visit type belongs to. This setting links the visit type record to the Benefits Engine record. For example, in the Foundation System, visit types that typically require copays have a Copay benefit grouping.

- Component records for:
  - Visit types: These records tell the system to treat certain visit type benefit groupings the same way for copay calculation.
  - Specialties: These records tell the system which specialties should be considered primary care or specialty care. For example, you might group family medicine, internal medicine, and pediatrics together as primary care.

- Component group records: These records group the visit type and specialty components together for purposes of copay calculation.

- Adjudication table records: These records tell the system to use the copay amounts in the coverage record and what service type to use.

- Benefit package records: In these records, you link the component or component group records to the adjudication tables. For example, you link your component group for office visits in primary care departments to an adjudication table with the primary care service type.

- Benefit plan records: Your benefit package records are linked to plan records to indicate how copays are calculated for the patient's specific benefit plan.

Your organization might have some or most of this build in place, but doing a thorough review of your build to ensure that it accounts for every possible department specialty and visit type combinations at your organization could still be helpful. Ensuring that the Benefits Engine calculates the copay due correctly allows front desk staff and patients to trust the system.

- For more information about configuring coverage-level copays in the Benefits Engine, refer to the following documents:
  - Benefits Engine Setup and Support Guide
  - Benefits Engine Strategy Handbook
  - BEN100 Benefits Engine Basics