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DRAFT

2023-2024 Proposed Idea

(Applicant must complete this two-page form as it is. Agency identifying information must be removed or the application will not be reviewed. Please read the attached documents before completing this form: 1.) HRSA HIV-Related Glossary of Service Categories to understand federal restrictions regarding each service category, 2.) Criteria for Reviewing New Ideas, and 3.) Criteria & Principles to Guide Decision Making.)

THIS BOX TO BE COMPLETED BY RWPC SUPPORT STAFF ONLY

Control Number: **1/2025** Date Received: **02/01/25**

Proposal will be reviewed by the: Quality Improvement Committee at:**12 pm, on 2/18/25**
HTBMN Workgroup on: **04/14/25 or 04/15/25**
Priority & Allocation Committee on: **TBD**

THIS PAGE IS FOR THE QUALITY IMPROVEMENT COMMITTEE

(See Glossary of HIV-Related Service Categories & Criteria for Reviewing New Ideas)

1. SERVICE CATEGORY: **Referral for Health Care & Support Services**
   (The service category must be one of the Ryan White Part A or B service categories as described in the HRSA Glossary of HIV-Related Service Categories.)

This will provide ~500 clients based upon 2020 new diagnoses with ~2 units of service/client.

2. ADDRESS THE FOLLOWING:

A. DESCRIPTION OF SERVICE:

Referral for Health Care and Support Services directs a client to needed core medical or support services in person or through telephone, written, or other type of communication. Activities provided under this service category may include referrals to assist HRSA RWHAP-eligible clients to obtain access to other Ryan White Funded services for which they may be eligible. e.g. (CPCDMS, provider care, case management, other Ryan White related services).

This service will be provided by case managers and other staff employed by providers.

B. TARGET POPULATION (Race or ethnic group and/or geographic area):
Patients who are newly diagnosed or have fallen out of care and receive treatment through the Ryan White program.

C. SERVICES TO BE PROVIDED (including goals and objectives):

- Streamlined referral and care coordination across multiple providers.
- Reduced wait times and improved access to services for clients.
- Enhanced tracking of client engagement and outcomes, aiding in quality improvement efforts.

D. ANTICIPATED HEALTH OUTCOMES (Related to Knowledge, Attitudes, Practices, Health Data, Quality of Life, and Cost Effectiveness):
Implementing a centralized scheduling system for Ryan White providers, along with enhanced referral services, is expected to lead to significant improvements in health outcomes for people living with HIV (PLWH).

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These improvements include:

Improved Linkage to Care:

- A centralized system will enable faster and more efficient referrals to HIV care providers. Newly diagnosed individuals will experience shorter delays in connecting to care, thereby reducing the risk of disease progression.
- The assessment identifies primary care, local medication assistance, case management, oral health care, and vision care as the top five most needed services among clients.

Higher Retention in Care:

- Simplifying appointment scheduling and reminders will increase the likelihood of clients attending follow-up visits and remaining engaged in their care over time. Coordinated efforts between providers will help minimize missed appointments and lapses in treatment.

Improved Viral Suppression Rates:

- Consistent engagement in care and adherence to antiretroviral therapy will lead to higher rates of viral suppression, which lowers the risk of HIV transmission and enhances individual health.

Better Integration of Support Services:

- Enhanced referral services will connect clients with a wider range of supportive services (such as mental health care, housing assistance, and substance use treatment), addressing social determinants of health that impact long-term outcomes.

Enhanced Patient Experience:

- A user-friendly system will reduce frustration and confusion for clients navigating complex healthcare systems, thus improving overall satisfaction with care.

Reduction of Barriers to Care:

- The 2020 Needs Assessment notes that the percentage of participants reporting a need for case management and primary care services has decreased, while the need for other services has increased. Centralized scheduling can help address these shifting needs by efficiently allocating resources and reducing barriers to accessing various services.
- By improving care coordination and reducing redundancies, unnecessary hospitalizations, emergency room visits, and late-stage treatments can be minimized.

These outcomes directly support the national goal of ending the HIV epidemic by improving access to testing, care, and support services while ensuring long-term engagement in effective treatment.

3. ATTACH DOCUMENTATION IN ORDER TO JUSTIFY THE NEED FOR THIS NEW IDEA. AND, DEMONSTRATE THE NEED IN AT LEAST ONE OF THE FOLLOWING PLANNING COUNCIL DOCUMENTS:

_X_ Current Needs Assessment (Year: 2020) Page(s): 5,19_Paragraph:4, 1&2
___ Current HIV Comprehensive Plan (Year:_____) Page(s): ___Paragraph: ___
___ Health Outcome Results: Date: _____ Page(s): ___Paragraph: ___
___ Other Ryan White Planning Document:
Name & Date of Document: _____ Page(s): ___Paragraph: ___

RECOMMENDATION OF QUALITY IMPROVEMENT COMMITTEE:
___ Recommended ___ Not Recommended ___ Sent to How To Best Meet Need

REASON FOR RECOMMENDATION:

(Continue on Page 3 of this application form)

EXECUTIVE SUMMARY

The 2020 Houston Area HIV Care Services Needs Assessment presents data on HIV service needs, barriers, and other factors influencing access to care for people living with HIV (**PLWH**) in the Houston Area as determined through a consumer survey. Needs assessments ensure consumer experiences and perspectives are included in the data-driven decision-making processes of local HIV planning. Data are used to help set priorities for the allocation of HIV care services funding, in the development of the comprehensive HIV plan, and in designing annual service implementation plans. The last Needs Assessment was conducted in 2016.

HIV Service Needs in the Houston Area

According to the Houston Area HIV Care Services Needs Assessment, all currently funded HIV services in the Houston Area are needed by consumers. The top five most needed services are:

1. Primary care
2. Local medication assistance
3. Case management
4. Oral health care, and
5. Vision care

For the first time in 2020, need for currently unfunded services was analyzed, which revealed substantial need for housing services for PLWH in the Houston area.

Accessibility of HIV Services in the Houston Area

In addition to revealing the most needed HIV services in the Houston Area, the Houston Area HIV Care Services Needs Assessment provides information about access to those services, which helps communities better understand where barriers to services may exist.

In 2020, at least 78% of the PLWH who said they needed each HIV funded service *also* said the service was easily accessible to them. There were some funded services, however, that were less accessible than others: early intervention services, oral health care, and health insurance assistance *least* accessible services according to 2020 Houston Area HIV Care Services Needs Assessment. ADAP enrollment workers and local medication assistance were the most accessible services in 2020.

Barriers to HIV Services in the Houston Area

To improve understanding of barriers to HIV services, the 2020 Houston Area HIV Care Services Needs Assessment also gathers information about the types of difficulties consumers experience when services are not easily accessible. The most common types of barriers encountered are:

1. Education and awareness issues
2. Interactions with staff
3. Wait-related issues
4. Administrative issues, and
5. Health insurance/coverage issues

In addition to the above results, the 2020 Needs Assessment includes detailed information about a variety of issues that affect access to care, including:

- Service needs and barriers at each stage of the HIV care continuum, from HIV testing and initial diagnosis to treatment to support viral load suppression
- The social, economic, health (both physical and mental), and behavioral characteristics of PLWH that may help or hinder HIV prevention and access to HIV care
- A brief profile on the service needs and barriers of people who are out of care
- Service-Specific Fact Sheets detailing the needs and barriers for each HIV core medical, support, and housing service

Together, these data are used to better understand the HIV care needs and patterns of PLWH in the Houston Area, to identify new and emerging areas of need, and to ultimately improve the system of HIV services so that it best meets the needs of PLWH.

The 2020 Houston Area HIV Care Services Needs Assessment is a collaboration between the Ryan White Planning Council, HIV Prevention Community Planning Group, Ryan White Grant Administration, Houston Health Department Bureau of HIV/STD and Viral Hepatitis Prevention, The Resource Group, Harris Health System, and Housing Opportunities for Persons with AIDS (HOPWA). A total of 38 individuals assisted in the planning and implementation of the needs assessment, of whom 45% were self-disclosed PLWH.

For more information about the 2016 Houston Area HIV Care Services Needs Assessment, contact the Office of Support at (832) 927-7926 or visit www.rwpchouston.org.

OVERALL SERVICE NEEDS AND BARRIERS

As payer of last resort, the Ryan White HIV/AIDS Program provides a spectrum of HIV-related services to people living with HIV (**PLWH**) who may not have sufficient resources for managing HIV. The Houston Area HIV Services Ryan White Planning Council identifies, designs, and allocates funding to locally-provided HIV care services. Housing services for PLWH are provided through the federal Housing Opportunities for People with AIDS (**HOPWA**) program through the City of Houston Housing and Community Development Department and for PLWH recently released from incarceration through the Houston Regional HIV/AIDS Resource Group (**TRG**). The primary function of HIV needs assessment activities is to gather information about the need for and barriers to services funded by the local Houston Ryan White HIV/AIDS Program, as well as other HIV-related programs like HOPWA and the Houston Health Department's (**HHD**) prevention program.

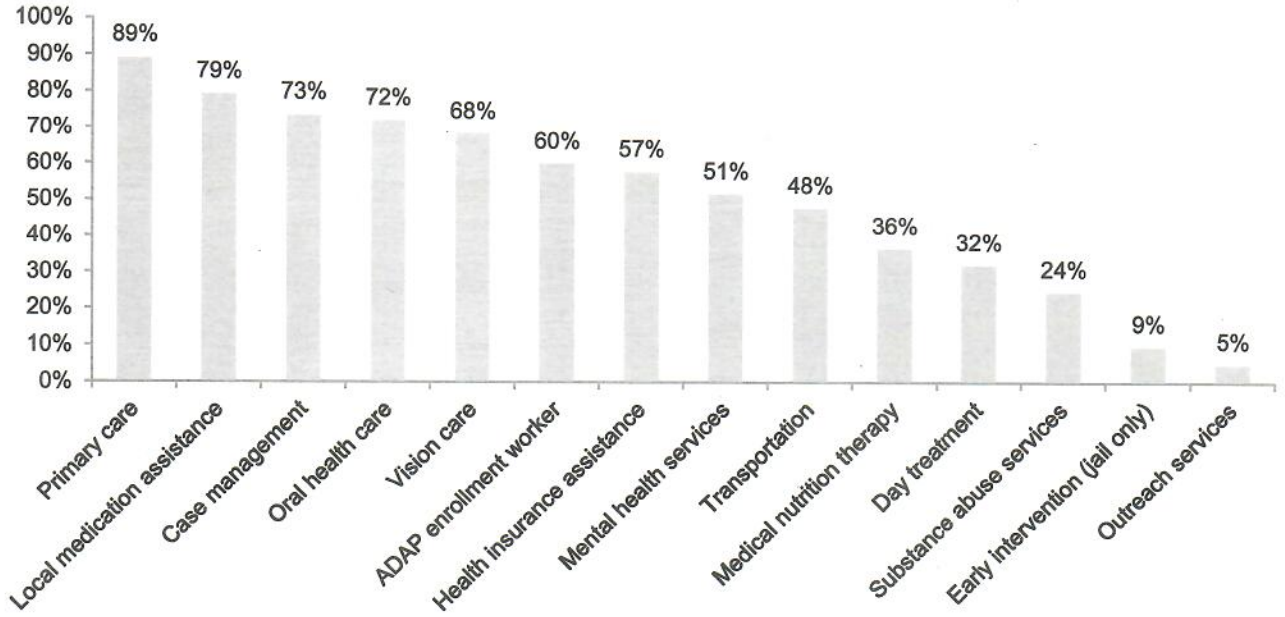
Overall Ranking of Funded Services, by Need

At the time of survey, 17 HIV core medical and support services were funded through the Houston Area Ryan White HIV/AIDS Program. Participants of the 2020 Houston HIV Care Services Needs Assessment were asked to indicate which of these funded services they needed in the past 12 months.

(**Graph 1**) All funded services except hospice and linguistics were analyzed and received a ranking of need. Emergency financial assistance was merged with local medication assistance, and non-medical case management was merged with medical case management. At 89%, primary care was the most needed funded service in the Houston Area, followed by local medication assistance at 79%, case management at 73%, oral health care at 72%, and vision care at 68%. Primary care had the highest need ranking of any core medical service, while ADAP enrollment worker received the highest need ranking of any support service. Compared to the last Houston Area HIV needs assessment conducted in 2016, need ranking decreased for most services. The percent of needs assessment participants reporting need for a particular service decreased the most for case management and primary care, while the percent of those indicating a need for local medication assistance and early intervention services increased from 2016.

GRAPH 1-Ranking of HIV Services in the Houston Area, By Need, 2020

Definition: Percent of needs assessment participants stating they needed the service in the past 12 months, regardless of service accessibility.
Denominator: 569-573 participants, varying between service categories



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Proposed Idea

THIS PAGE IS FOR THE PRIORITY AND ALLOCATIONS COMMITTEE
(See Criteria and Principles to Guide Decision Making)

THIS BOX TO BE COMPLETED BY RWPC SUPPORT STAFF ONLY AND INCLUDE A BRIEF HISTORY OF RELATED SERVICE CATEGORY, IF AVAILABLE.

CURRENTLY APPROVED RELATED SERVICE CATEGORY ALLOCATION/UTILIZATION:

Allocation: **$141,000** **Note: PC allocated funds for Referral – Incarcerated**

Expenditure: **$ 0** **underwritten by alternative funding source**

Utilization: _____ Unduplicated Clients Served Year-to-Date

_____ Units of Service Provided Year-to-Date

AMOUNT OF FUNDING REQUESTED:

$49,900

This will provide funding for the following purposes which will further the objectives in this service category: (describe how): This funding will facilitate the integration of a centralized scheduling system into CPCDMS, improving efficiency and streamlining operations. This service will be provided by case managers and other staff employed by providers.

PLEASE STATE HOW THIS IDEA WILL MEET THE PRIORITY AND ALLOCATIONS CRITERIA AND PRINCIPLES TO GUIDE DECISION MAKING. SITE SPECIFIC STEPS AND ITEMS WITHIN THE STEPS:

1. Addresses Core Medical and Support Service Needs:
   - The centralized scheduling system and enhanced referral services directly align with the Ryan White Program's focus on improving access to core medical services (e.g., HIV primary care) and support services (e.g., mental health care, housing).
   - By streamlining processes, clients will have greater access to services that improve health outcomes and support retention in care.

2. Supports the Ryan White Program's Key Principles:
   - Client-Centered Care: Simplifies navigation, reduces barriers, and ensures timely access to needed services.
   - Outcome-Driven Decisions: Directly supports improvements in key metrics, including viral suppression and retention in care.

3. Resource Optimization:
   - Reduces duplication of services and missed opportunities for engagement by enabling better coordination among providers.

Principles to Guide Decision-Making:

1. Evidence-Based Approach:
   - Proven models show that care coordination and centralized scheduling improve retention in care and health outcomes.
   - The system will integrate data analytics to monitor progress and adapt strategies as needed.

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2. Community Input and Engagement:
    - Implementation will involve input from PLWH, providers, and community stakeholders to ensure the system addresses real-world challenges.
3. Sustainability:
    - By integrating with existing systems and leveraging technology, the initiative will be cost-effective and scalable over time.

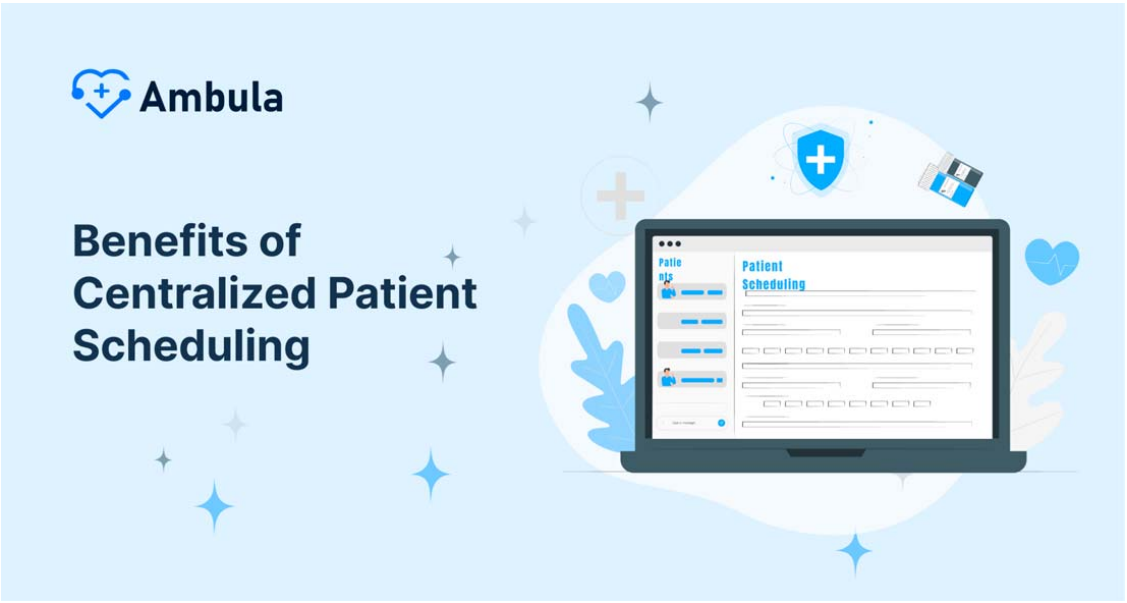
RECOMMENDATION OF PRIORITY AND ALLOCATIONS COMMITTEE:

___ Recommended for Funding in the Amount of: $_____
___ Not Recommended for Funding
___ Other:

REASON FOR RECOMMENDATION:

Benefits of Centralized Patient Scheduling - Ambula Healthcare

Mousa Kadaei



Today, we're delving into the world of centralized patient scheduling. In its simplicity, it's just a harmonized, up-to-date way of organizing patient appointments. This central scheduling method has grabbed the attention of numerous healthcare providers lately for a whole host of good reasons.

So, what's the big deal about it? It's essentially about getting everything in order – making sure the right patient meets the right doctor at the right time, all while keeping the patient scheduling process smooth and steady. How about an easier, more streamlined experience for the medical staff and the patients? Sound good? Let's dive in!

Trust me, it's quite an evolution from the traditional way we used to do things. That takes us to our next point of discussion about what is centralized scheduling.

The Shift from Traditional to Centralized Scheduling

Those of us who've been in the healthcare industry for a while remember the traditional ways of scheduling. Each department followed its systems and protocols. There wasn't much coordination between them, which often led to confusion, miscommunication, and, most importantly, delays in patient care. This highlights one disadvantage of appointment systems that lack centralization.

Thankfully, those days are gradually starting to fade. Now, we have the option of a centralized scheduling hospital system. This innovative scheduling model consolidates every department under one universal scheduling system. Imagine – no more stumbling through a maze of separate schedules or dealing with duplicate entries; it's all clean, neat, and efficient! This showcases the clear advantages of centralized processing.

More and more healthcare organizations are embracing this shift, both the smaller clinics and the large hospital chains. Why, you ask? Well, let's roll up our sleeves and dig a little deeper into the definition of centralized healthcare scheduling.

Importance of Centralized Patient Scheduling

In an increasingly connected world, healthcare is no exception. The services we deliver, the care our patients receive, and the overall outcomes we achieve are all a part of a closely-knit system. This is where centralized patient scheduling becomes the nerve center of modern healthcare operations, in contrast to the disadvantages of decentralization.

Firstly, it brings about an overarching view of system-wide schedules, allowing us to always see the bigger picture. No more blind spots or unexpected overlaps. Every little piece of the scheduling puzzle is right there in front of us. This clarity is priceless and aligns with the core purpose of appointment systems!

Secondly, it's all about efficiency and consistency. With faster scheduling, reduced errors, and improved patient and staff experience, quality healthcare delivery is no longer just a goal; it's our reality. Therefore, centralized scheduling is not just important; it's essential. These are key factors for choosing a scheduling system.

Increased Efficiency through Centralized Scheduling

Efficiency. Everyone loves it! It's a core component in any industry, most of all in healthcare. Longer waiting periods, last-minute cancellations, and miscommunication can lead to discontent and dissatisfaction, which are some of the disadvantages of computerized appointment systems if not implemented well. But how do we address these issues?

Centralized scheduling, my friend. This method allows healthcare providers to funnel all appointments through a unified system, thereby improving logistics and reducing hiccups. It's like having an extra pair of hands on deck to make the patient-scheduling process a seamless experience, showcasing the clear advantages of computerized scheduling and advantages of electronic schedulers.

Take Mr. Smith for an example. He has a dental appointment on a Monday, a cardiology check-up on a Wednesday, and a physiotherapy session on Friday. Instead of juggling his appointments between different departments, the centralized scheduler does the work. Voila an efficient, hassle-free system! This is one of the key benefits of scheduling.

Enhancing Patient Experience

Let's talk about our patients, the heart of our healthcare story. Patient satisfaction is the barometer of our success. Can centralized patient scheduling significantly enhance their experience and improve customer service? Absolutely, yes!

Allow me to paint a picture: Gone are the days of frustrating phone calls to book an appointment and the seemingly endless wait times. With centralized patient scheduling, the entire process becomes smooth and easy. It cuts down the time a patient spends waiting to book appointments or in waiting rooms, making the entire experience streamlined and patient-centered. This improves patient access and the overall patient engagement.

Moreover, this system caters to larger patient data, enabling healthcare organizations to better understand patient needs. This improved knowledge allows for better-informed decisions about when, where, and how patients receive care, supporting a patient-centered medical home model. Sounds pretty satisfying, right?

Streamlined Communication and Coordination

Something else to think about – what makes a healthcare organization run smoothly? If your mind shouted, "Communication and coordination!" you're right!

A well-coordinated healthcare team can work wonders. The centralized scheduling process steps up to the task of streamlining communication between departments and healthcare professionals by providing a single, shared platform. Everyone sees the same information simultaneously, reducing misunderstandings and fostering better connections, even in a multi-location practice.

This doesn't just lead to higher staff morale; it also leads to more consistent and high-quality patient care. After all, when teams are synced, they're better equipped to provide optimal and personalized care to patients. The scheduling structure and scheduling consistency are key to this.

Improved Revenue and Cost-Effectiveness

Now, we're getting down to the nitty-gritty—the business side of healthcare. Providing efficient and quality care is good, but a healthcare organization's financial health is also crucial. This is yet another front where centralized patient scheduling shines, impacting the overall revenue cycle.

Consider this: by reducing administrative work and scheduling errors, healthcare providers can save considerable time and money. Additionally, with more organized provider schedules, providers can accommodate more patients, effectively increasing revenue and patient capacity.

Also, this synchronized system reduces patient cancellations and no-shows, which could otherwise result in revenue loss. So, we're looking at more operational efficiency, less expenditure, and increased revenue. Talk about a win-win-win situation!

Centralized Scheduling and Data Management

There's one major upside of centralized patient scheduling that we haven't touched upon yet – data management. In our world of information, effective data management can significantly improve service delivery.

A centralized scheduling system offers a remarkable advantage: It is a panoptic data management system. Everything is stored in one location, from patient personal data to appointment history. This certainly has implications for patient care but also aids in forecasting, research, and decision-making. Essentially, it's creating a gold mine of information at your fingertips, enabling risk stratification!

Moreover, the role technology plays in centralized scheduling is also worth appreciating. With digital solutions and scheduling templates for medical office, scheduling patients has become more accurate, faster, and accessible, improving access point healthcare and access scheduling.

Potential Challenges and Solutions in Centralized Patient Scheduling

Just like anything else, centralized patient scheduling is not entirely without challenges. But don't worry, none of them are insurmountable!

Some might point out the cost and complexities of moving to a new system, or the training and time it takes to get everyone up to speed, especially the scheduling staff and call center. Those are fair points, indeed. However, the long-term benefits tend to outweigh these short-term challenges.

Moreover, many scheduling systems for practice today are user-friendly and intuitive. Besides, ongoing training and software updates can help speed up the transition process. And as for the costs, consider it an investment unto more significant savings down the line! It's all part of continuous process improvement.

Conclusion

In a nutshell, centralized patient scheduling is a game-changer. It streamlines operations, enhances communication, and significantly improves the patient experience. Moreover, it acts as a pillar of support to healthcare organizations' financial health and eases data management's complexity.

But just like any other transformation, it takes time and mindful implementation. Rest assured, I do not doubt that this change is well worth embracing, helping you to take your healthcare delivery to the next level through workflow optimization, scheduling optimization, improved staff utilization, scheduling efficiency, and rapid cycle change. So, healthcare organizations, are you ready for the shift?

Centralized Scheduling: Boost Efficiency & Patient Access

Relatient

Centralized scheduling is an important part of patient appointments, especially for any medical, specialty, or hospital groups that have multiple providers and locations. It requires managing a great deal of complex rules and preferences, so unfortunately, there are a lot of practices struggling to effectively use this scheduling method.

If you are having a difficult time getting the most out of centralized scheduling, there are several areas of improvement to consider. Optimizing your centralized scheduling enables you to streamline the scheduling process, maximize the number of patients your practice sees in a day, improve the patient and provider experience, reduce onboarding time, and generate more revenue.

What is centralized scheduling, and how can you get the most out of it? Learn more below.

A centralized scheduling system is one where there is a single, dedicated scheduler (or scheduling system) responsible for handling all appointments in the practice, even across multiple locations.

When there is a centralized scheduling system in place, that system has to keep up with the schedules of all providers, ensuring that all information regarding appointments flows through a single checkpoint so that patients are scheduled, checked in, seen, and checked out efficiently. It also involves centrally managing rescheduling and cancelling appointments.

Centralized vs. Decentralized Patient Appointment Scheduling

While a centralized scheduling system uses one system (or one group of people) to handle all appointments, a decentralized scheduling system is quite different. In a decentralized scheduling system, certain staff and team members are responsible for managing the appointments of their individual providers.

They might be familiar with the schedules of their specific location, and they could customize the appointment slots to meet the needs of their providers. Some practices even use a hybrid system, combining a centralized schedulingsystem and a decentralized scheduling system.

Before deciding on the scheduling method that is right for you, it is critical to think about the benefits and drawbacks of using a centralized scheduling system.

Advantages of Centralized Scheduling

There are several significant advantages of using a centralized schedulingsystem to handle patient appointments. Some of the biggest benefits include:

- **More Efficient Workflows:** When there is only one scheduling system in place, it is easier to manage. Medical practices often break up a centralized scheduling appointment system into smaller sectors, where each individual focuses on one sector of the system. A few areas include new appointments, acute visits, appointment cancellations, and rescheduling. Everyone has a role, and everyone focuses on their specific task.
- **More Control:** Instead of having many people focusing on the schedules for their assigned providers, a centralized scheduling system makes it easier to control the individual parts of the schedule. Instead of worrying about disagreements among different provider scheduling teams, there is one person in place to complete tasks during the day.
- **Track Metrics:** It is also much easier to track metrics regarding individual providers when there is one scheduling team. Multiple tools can track metrics and measure the success of certain workflows.

These are just a few of the biggest benefits that come along with using a centralized scheduling system.

Considerations When Using Centralized Scheduling

There are a few things to consider when using a centralized scheduling system, such as:

- **Less Flexibility:** A centralized scheduling system is not as flexible as a decentralized one. If it is difficult to keep the system simple for all providers, changing or inserting features for certain practitioners can be a challenge.
- **Less Awareness:** Sometimes, there is a centralized scheduling system for multiple locations. Not every location handles things the same way, and there may be reduced awareness in some areas.
- **Potential Losses:** If the goals are not made clear and if processes are not audited from time to time, there is the potential to lose a significant amount of money if scheduling efficiency is lacking. That is why it is important to keep track of all metrics related to centralized scheduling.

Fortunately, if you leverage a solution that addresses these areas with rules-based scheduling and the system is implemented efficiently, you can usually avoid each of these potential drawbacks.

How to Implement a Centralized Scheduling System

If you would like to get the most out of your centralized scheduling, it is important to follow the right steps for implementing the system. A few important steps to follow include:

1. Define the Intent of the Scheduling System

First, you need to specify why you are implementing a centralized schedulingsystem in the first place. What are the primary and secondary goals of implementing this system? Some of the reasons you might want to use a centralized scheduling system include provider utilization, more efficient operations, or reducing wait time.

You may also want to increase the calls you handle during the day, manage call volumes more effectively, and implement an automated waitlist. If you clearly state your goals, you will have a better chance of achieving them.

2. Involve Various Staff Members (Different Levels and Teams)

Another important step is to ensure that a variety of team members are involved in the implementation process. This should include staff across different departments and at different levels in your organization.

Everyone has a different perspective on the practice because everyone has a slightly different job. People need to understand how this change is going to impact them so that they can plan their jobs accordingly. That way, it is easier for you to anticipate issues, mitigate risks, and address any problems that might arise immediately.

3. Set Standard Appointment Times and Durations

You also need to set standard appointment times and durations. What time do providers get to the office? How long will their appointments last? There may be some situations where variances are necessary. For example, new patient visits are usually longer than return visits. Annual physicals might be longer than acute visits. Make sure the criteria for variances are made clear.

4. Develop Scheduling Parameters

You should also set rules, guard rails, and parameters when it comes to implementing a centralized patient scheduling process. Set up your workflows to address potential use cases, appointment types, and provider preferences. Even though this planning process can be time-consuming in the beginning, it will help you down the road.

Some scheduling implementation questions that your contact center, executives, patient access team, and schedulers will need to consider include:

- How should same-day appointments be handled?
- When do patients need specialty care?
- What scheduling considerations need to be made for new patients?
- How do you handle providing a recommended provider to patients when scheduling?
- Do you verify insurance when scheduling?

- Do you manage an appointment waitlist? If so, how?

If you set this system up properly, it will be easier for your staff to schedule appointments in a way that keeps providers as well as patients happy.

5. Do a Risk Stratification

Risk stratification is the ongoing process of assigning a particular risk status to all patients in a practice. This step will make it easier to manage population health and chronic care issues. Make sure patients are risk-stratified so schedulers will have an easier time matching patients with appropriate appointment lengths.

There may also be situations where some providers are more comfortable managing chronic care patients than others, so performing this step will make it easier to assign patients to the proper providers. Even a simple risk stratification system can be set up relatively quickly. Just make sure to identify this information on patient profiles so it is easier to schedule them in the future.

6. Communicate

Effective communication is critical. It is important to communicate with all staff as early as possible so they can provide input as the centralized schedulingsystem and workflows are being integrated into the existing systems. Then, continuously collect feedback from your team – including schedulers, providers, and eventually, patients – as the central system is rolled out. Meetings should take place regularly, and feedback should be considered carefully.

Furthermore, it is beneficial to use self-scheduling to enable patients to reschedule or cancel their appointments easily using an email or text message platform. The right system lets you leverage the same workflows, preferences, and rules as the centralized scheduling system. Therefore, you can use both systems together to provide the best experience possible for patients and even help optimize your staff's time.

For example, enabling self-scheduling allows patients to book appointments online even when the practice is closed. That means your team doesn't have to go through voicemails and return numerous calls after a weekend or evening.

7. Use Rapid Cycle Change Strategy

Rapid cycle change strategy is critical during the implentation period. It might be prudent to have a "champion" stakeholder practice with the centralized system as it is rolled out. There could be bugs in the system at first, but rapid cycle change strategizing helps address them quickly, and it will only affect one provider or group within the practice.

Here's how it works. One or two providers (or even a single location or market, depending on your group's size) might volunteer to use the system first, identifying bugs before the system is rolled out throughout your entire practice. That way, you minimize the potential impact of these bugs, and you help ensure that the vast majority of providers are happy with the system.

As the system expands, the number of supported providers will expand as well, but the chances of finding more bugs will be minimal.

8. Perform Regular Monitoring & Measurement

Finally, continuous, active monitoring is key (even after the system has been fully implemented). Feedback needs to be collected from all staff members and providers so that the system can be improved as quickly as possible.

It is also important to track key metrics, data, and analytics. That way, you'll be able to see what is working and what is not. Determining key metrics from regular monitoring and collecting feedback will help ensure your organization is on the same page at every level.

At Relatient, we provide access to a customized dashboard with analytics and reporting. That way, it is relatively easy to track the most important metrics and act accordingly. We can collect feedback, compile this on a dashboard, and make changes that can improve the scheduling process.

Get the Most out of a Centralized Scheduling Solution with Relatient

Even though there can be challenges with rolling out a centralized schedulingsystem, there are numerous benefits as well. A centralized scheduling system makes it easier to provide care for patients sooner, analyze metrics, manage provider rules and preferences, automate a waitlist, and address problems as they arise.

If you would like to get the most out of your scheduling system, work with Relatient's team to implement a customized scheduling system tailored to meet the needs of your practice.

ORIGINAL RESEARCH

Does a Centralized Scheduling Process Improve Referral Timeliness?

Quinn Bongers, MD; Bradley H. Crotty, MD, MPH; M. Chris Decker, MD; John Fangman MD

ABSTRACT

Background: Timely, necessary specialist care is associated with better patient health outcomes and lower costs. This assessment looks at the effects of centralized scheduling, as well as patient and referral-level factors on referral completion rates. We hypothesized that centralized scheduling would increase access to specialty care, as evidenced by higher referral completion rates.

Methods: We analyzed data for specialty referrals to cardiology, nephrology, gastroenterology, and neurology from 6 months before to 6 months after implementation of a centralized scheduling system within a midwestern academic health system. We considered a referral complete if an appointment occurred within 3 months following an order for service.

Results: Overall, referral completion rates modestly increased (63.7% to 69.9%, $P<0.01$), but this was driven by improvement within a single specialty (gastroenterology, 54.2% to 67.3%, $P<0.05$). Other specialties saw either no significant change (neurology, nephrology) or a decrease (cardiology, 87.3% to 78.6%, $P<0.05$). The time to schedule, or cycle time, improved overall from 21 days (SD 8-38) to 15 days (SD 8-30), $P<0.05$.

Conclusions: Centralized scheduling had inconsistent effects on referral completion across specialties, though the process (cycle time) improved. Variable implementation fidelity and microenvironments likely contributed to uneven findings across specialties. Centralized scheduling may improve timely access but likely depends on implementation and buy-in.

INTRODUCTION

Referrals from primary care physicians to specialists represent a major link for patients to have their needs met by the health care system. The referral process touches on all 6 pillars of what the National Academy of Medicine considers a well-functioning health care system, namely that care should be safe, effective, patient-centered, timely, efficient, and equitable.[1] The referral process also plays an important role in ensuring that patients receive the specialty care they need, when they need it, and how they need it. Inefficiencies or inequities in the referral process can pose threats to safe and effective care.

Primary care serves as the first point of contact for most Americans with the health care system. When conditions are sufficiently complex, primary care physicians refer to, and coordinate care with, specialists. Around 1 in 10 office visits results in a referral to a specialist, yielding an estimated 50 million new referrals and 430 million specialty visits every year.[2,3] When appropriate and effective, this primary care-specialist coordination can lead to better health outcomes for patients. In chronic kidney disease, for example, specialist co-management of patients is associated with reduced incidence of end stage renal disease, and in more advanced cases of kidney disease, leads to a 37% reduction in mortality.[4-6] Heart failure patients who are co-managed by an internist and a cardiologist have decreased costs of care and are less likely to be admitted to the hospital.[7] Conversely, when patients fail to complete referrals and receive necessary, timely specialist care, they are at risk for worse health outcomes and higher costs.[8]

Patient-centered scheduling efforts have centered around trying to improve patient access to care, but approaches to achieve this goal have varied. In several studies, implemented changes included same-day appointments, after-hours care, and increased

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opportunities for walk-in care.[9] Studies have shown open-access scheduling, which emphasizes patient-driven scheduling, to be beneficial for reducing no-show rates and wait times, although effects on patient satisfaction have been mixed.[10] Concerns remain over continuity of care with open-access scheduling and the risks for patients with chronic conditions to fall through the cracks.[10,11] Further, local schedulers are likely more familiar with the subset of clinical conditions seen by their clinicians, and they may also "bump" appointment requests to clinicians for triage. While patient-centered scheduling efforts have been well-defined in primary care, the effects of these efforts on access to specialty care have been less well-characterized and have been limited mainly to single specialty studies.[12-14]

Another component related to the referrals process and access to specialty care is ensuring that access to specialty care is consistent across different groups and demographics. This plays into the National Academy of Medicine's aim of making health care more equitable. One area of identified inequity in health care is racial disparities in use of, and access to, health care. Prior to 2014, access and insurance coverage were identified as primary factors contributing to racial disparities in health care utilization.[15] While the full implementation of the Affordable Care Act has been shown to have reduced racial disparities through increased insurance coverage and access to health care, work remains to be done in making access to health care more equitable.[15]

With a drive to improve access, timeliness, and the patient experience, our health system implemented a new process with the centralized management of patient referrals. The process uses a centralized call center with workflows to improve the matching of patients and clinicians at locations most convenient for patients. In this analysis, we aimed to identify the effects of centralized scheduling on access to specialty care, represented by referral completion rates, by reviewing referral data from a large regional academic health system. We also sought to identify other patient and referral-level factors (age, ethnicity, sex, marital status, insurance financial class, and referral priority) that might be associated with higher or lower referral completion rates. By assessing processes, including time to appointment and referral completion, we sought to assess if the process was measurably more efficient. In assessing patient factors, we sought to proactively look at equity and assess for any differences across patient groups—including race, income, and language—such that those could be actively addressed. We hypothesized that centralized scheduling changes would increase access to specialty care, as evidenced by higher referral completion rates. To focus our assessment, we looked at 4 specialties: cardiology, nephrology, neurology, and gastroenterology.

METHODS

Setting

Froedtert and the Medical College of Wisconsin (MCW) is a regional health network serving 9 counties in southeastern Wisconsin. The health network has 3 hospitals, including a 604-bed academic campus, and 38 satellite health centers that provide ambulatory, laboratory, and radiology services. The network has over 900,000 annual outpatient visits, and network physicians have close to 800,000 annual patient visits at its health centers and clinics. Froedtert and MCW implemented these patient-centered, centralized referral management changes, by specialty, over the course of 2015-2017, to help increase patient access to, and satisfaction with, care.

Description of Centralized Scheduling Process

During the centralized scheduling changes implemented during this project, clinicians used provider order entry within an electronic health record (EHR) (Epic Systems, Verona, Wisconsin) to place referrals. Prior to centralized scheduling, clinicians ordered referrals by location, specifying the clinic location where the patient was to be referred. Each referral location was a unique order. Staff within those clinics would then use a work queue to reach out and call patients, or patients would telephone the clinic directly, to schedule those appointments. Through the centralized scheduling process, orders were altered such that clinicians could refer to a specialty using a single order for all locations. Clinicians had the option within the order to specify a patient-preferred location or preference for the first available appointment within the region. Staff at a centralized call center operated these work queues rather than the individual clinics. Scheduling grids were created that outlined the scope of services available at each clinic and scope of practice for individual doctors, such that specialized knowledge that was held within the clinic staff could be scaled to the centralized schedulers. Providers received information about the new process and information about how the order process was modified for centralized scheduling. Schedulers received information and educational inservices about how to access scheduling grids.

Data Sources

We used data from the EHR detailing referrals and appointments for 4 specialties that were high priorities for improving access: cardiology, nephrology, gastroenterology, and neurology. We used referrals as ordered in the EHR by affiliated primary care physicians (PCP) who used the health system's EHR, inclusive of general internal medicine, family medicine, or medicine-pediatrics practices. We excluded referrals that were later cancelled by any clinician. We included patients who had a PCP within the health system and who were 18 years or older when the referral was placed to limit the analysis to electronic orders. Only office visits were included, not referrals for procedures such as endoscopy or cardiovascular or neurological testing because these procedures continued to be scheduled by departments. To assess whether a referral was completed, we used the scheduling system to determine if the patient had a completed appointment within 90 days of the referral being placed. Referral cycle time, measured

Table 1. Centralized Scheduling Dates and Clinician Counts 6 Months Before and After Implementation

Specialty	CS Implementation Date	Clinicians Before CS	Clinicians After CS
Neurology	8/12/2015	55	53
Cardiology	6/22/2016	45	46
Gastroenterology	4/12/2017	63	71
Nephrology	4/12/2017	21	20

Abbreviation: CS, centralized scheduling.
Counts were statistically similar ($P = 0.55$).

in days, was defined as time from referral placement to appointment completion. We assessed implementation fidelity with key informant meetings with ambulatory services leaders. We assessed the number of clinicians seeing patients by a unique count of clinicians within ambulatory clinics during the 6 months before and after the implementation. Differences were compared by paired *t* tests. Data on clinical effort (ie, percent of time seeing ambulatory patients) was not available for this analysis.

We abstracted referrals 6 months before and 6 months after the implementation of the centralized scheduling process at each department, looking for appointments within 90 days of the referral (Table 1).We abstracted demographic information from the EHR to capture patient details at the time of the referral, including age, sex, insurance status, marital status, ethnicity, race, ZIP code, and language. We also abstracted details about the referral, such as its priority in the system (urgent vs routine).

Statistical Analysis

We explored descriptive statistics by specialty, comparing referral completion by implementation of the new centralized scheduling process. The unit of analysis was the referral. If patients had multiple referrals to a single specialty within the time frame, we used the first referral. We used multilevel logistic regression on referral completion using SAS version 9.4 with generalized estimating equations using PROC GLIMMIX, clustering by patient given that patients may have had more than 1 referral. Coefficients, *P* values, odds ratios, and confidence intervals were calculated and reported for all variables of interest. A *P* value of <0.05 was required for a variable effect to be considered significant.

RESULTS

During the 6 months prior to and after their respective adoptions of centralized scheduling, 10,974 patients had 11,761 referrals placed to cardiology, nephrology, gastroenterology, and neurology (Table 2). Of these patients, 3719 (33.9%) had at least 1 incomplete referral by our 90-day criteria. Through 4 key informant interviews (vice president of ambulatory services, senior medical director for ambulatory care, director of enterprise scheduling, and chief transformation officer), we assessed implementation fidelity, defined as following through with centralized scheduling rather than local scheduling. Participants identified that cardiology continued to send referrals to local clinics to facilitate scheduling, while the other specialties had a strong fidelity to the intervention. The number of clinicians providing care to patients in the pre- and post-implementation periods increased modestly, driven by a 13% increase in gastroenterology, though the difference was not statistically different (Table 1).

The overall referral completion rate for all 4 specialties of interest was 66.7%, with the completion rate climbing significantly from 63.7% during the time before centralized scheduling implementation to 69.9% after implementation (Table 3). Of the specialties, cardiology had the highest overall completion rate (80.9%); however, it saw its completion rate fall slightly but significantly from pre-centralized scheduling to post-centralized scheduling (83.7% to 78.7%). Conversely, gastroenterology had the lowest overall completion rate (60.2%) but saw its completion rate rise significantly from 54.2% to 67.3%. Neither nephrology nor neurology saw significant changes in the referral completion rates pre- and post-centralized scheduling.

The median time from referral order to specialist appointment (the cycle time) was 18 days, with that number falling significantly from 21 days before implementation of centralized scheduling to 15 days after implementation. Cardiology, gastroenterology, and neurology all saw their median cycle times improve from pre-implementation to post-implementation, although only the changes for neurology (27 to 20) and gastroenterology (21 to 15) were statistically significant. Conversely, nephrology saw its median cycle time rise, from 11 days pre-implementation to 14 days post-implementation, although not significantly.

DISCUSSION

In this assessment of primary care to specialty referrals within a single academic health system implementing a centralized scheduling and referral process, we identified that the centralized scheduling process modestly improved referral completion for patients, though we identified that this was driven almost entirely by throughput in a single specialty of gastroenterology. This may be due, in part, to variable implementation fidelity. We did see that cycle time overall was reduced by about 6 days (or nearly 30%), also driven by both gastroenterology and neurology improvements, which had the highest cycle times at baseline. While the changes in completion were small, any change is important given that the intervention was focused only on scheduling processes. With cycle time more notably improved, it adds credence to how scheduling and administrative processes impact care delivery.

In proactively assessing equity, we identified differences in referral completion by race, a finding that merits closer attention. The results were mixed, with non-White patients having improved referral completion rates compared to White patients in gastroenterology but lower in neurology. In general, we saw that patients on Medicare and/or Medicaid were less likely to complete referrals after adjusting for age categories.

Given the inconsistent results for referral priority and the other variables studied across the 4 specialties, we suspect that each specialty represents its own microsystem, and that the variable fidelity of the centralized scheduling process affected the outcomes. As such, due to either differences in patient population characteristics or different, persistent cultural and organizational practices, it is possible that results cannot necessarily be predicted with the implementation of a standardized process, but, like most process improvement activities in health care, must be assessed to ensure that desired results are achieved.

Moving away from local scheduling to scalable, centralized processes has important implications for health systems that are moving forward with enabling several scheduling improvements, such as the ability for patients to self-schedule online, assistants in primary clinics to directly schedule patient appointments, and the ability to create a single customer service center. Ensuring that barriers to scheduling, such as a single scheduling point within clinics or for individual physicians, are minimized are expected to facilitate the above innovations. Our data for gastroenterology likely show the clearest picture of the impact: with centralized scheduling embraced, cycle time dropped and referral completion improved.

We hypothesize that the mechanism of better referral completion is mediated by easier scheduling or giving the patient more flexibility for choosing times or optimal locations. Additionally, as opposed to open-access scheduling, where there have been concerns about decreased continuity of care, scheduling standardization and more consistent scheduling practices achieved through adoption of centralized scheduling might have prevented patients from being lost to follow-up.[10] Other factors, such as appointment reminder telephone calls, went unchanged during this time period, although the effects of staff changes would need to be better analyzed and understood.

Our results appear consistent with prior assessments in patient-centered scheduling improvements in areas where implementation fidelity was judged to be high, such as in gastroenterology. Similar to Rose et al, we identified improvement in access metrics, in the form of reduced wait times and no-show rates.[10] Importantly though, given that patient-centered scheduling effects have been better characterized in a primary care setting, it is possible that there are specialty-level variations that need to be considered and better studied before more coherent results can be synthesized.

Table 2. Patient Demographic Breakdown

	Cardiology		Gastroenterology		Nephrology		Neurology		Total	
No. of referrals	2290	%	5656	%	777	%	3038	%	11732	%
Language										
English	2272	99%	5584	99%	757	97%	3009	99%	11622	99%
Non-English	18	1%	72	1%	20	3%	29	1%	139	1%
Ethnicity										
Non-Hispanic	2235	98%	5447	96%	749	96%	2933	97%	11364	97%
Hispanic	55	2%	209	4%	28	4%	105	3%	397	3%
Race										
White	1896	83%	4756	84%	518	67%	2479	82%	9649	82%
Non-White	387	17%	885	16%	258	33%	552	18%	2082	18%
Marital status										
Married	1252	55%	3077	54%	369	47%	1511	50%	6209	53%
Non-married	1038	45%	2579	46%	408	53%	1527	50%	5552	47%
Insurance										
Medicare/Medicaid	1263	55%	3313	59%	410	53%	1833	60%	6819	58%
Non-government	1027	45%	2343	41%	367	47%	1205	40%	4942	42%
Age group										
18-39	253	11%	1114	20%	92	12%	732	24%	2191	19%
40-64	945	41%	2837	50%	280	36%	1307	43%	5369	46%
65+	1092	48%	1705	30%	405	52%	999	33%	4201	36%
Centralized scheduling										
Before	1029	45%	3081	54%	384	49%	1492	49%	5986	51%
After	1261	55%	2575	46%	393	51%	1546	51%	5775	49%
Sex										
Female	1229	54%	3428	61%	397	51%	1937	64%	6991	59%
Male	1061	46%	2228	39%	380	49%	1101	36%	4770	41%
Priority										
Urgent	270	12%	470	8%	68	9%	157	5%	965	8%
Routine	2017	88%	5169	92%	705	91%	2874	95%	10765	92%

Table 3. Completion Percentages and Referral Counts by Specialty

	Cardiology	Gastroenterology	Nephrology	Neurology	Total
Total Referrals	2287	5656	777	3038	11758
Completed Referrals	1850	3403	575	2016	7847
Overall Completion %	80.9%	60.2%	74.0%	66.4%	66.7%
Pre-CS Completion %	83.7%	54.2%	74.7%	66.6%	63.7%
Post-CS Completion %	78.6%[a]	67.3%[a]	73.3%	66.1%	69.9%[a]
Overall Median Cycle Time	15 (7-29)	18 (8-35)	14 (7-24)	22 (11-41)	18 (8-35)
Pre-CS Median Cycle Time	16 (7-30)	21 (9-41)	11 (7-24)	27 (13-44)	21 (8-38)
Post-CS Median Cycle Time	14 (7-28)	15 (7-29)[b]	14 (8-26)	20 (9-37)[b]	15 (8-30)[b]

Abbreviation: CS, centralized scheduling.
[a]$P < 0.05$ by chi-square.
[b]$P < 0.05$ by Wilcoxon rank-sum.
[c]Cycle time measured in days, defined as time from referral placement to appointment completion.
Appointments that weren't completed did not have a cycle time and were thus omitted from these calculations.

Looking at race and equity in health care, being a race other than White was associated with increased odds of a completed referral in gastroenterology but decreased odds of a completed referral in neurology. These mixed results are somewhat unexpected, given the findings from other studies uncovering racial disparities in health care access and utilization.[15] Further assessment looking at more granular details, such as transportation access and geography may be helpful to understand these results in more detail. Proactively monitoring equity for patients across different groups should be explored for any changes that relate to access.

Our analysis has limitations that should be considered. We assessed fidelity of the implementation through key informant interviews but do not have quantifiable data about this aspect of the project available. Nonetheless, the information provides important context for why we may see differences by specialty. We used 90-day cutoffs for when appointments were to be scheduled, but it is possible that some elective referrals may have been completed outside of that window. We only captured referrals that were completed within our health network; it is possible that patients may have had referrals completed at outside systems but did not have claims data available. While this "leakage" may overestimate uncompleted referrals, we do not expect that leakage would have differed before or after implementation of centralized scheduling. We did not look at appointment scheduling time because of limitations with cancellations and reschedules affecting the clarity of the picture. Our models contained a significant number of potentially relevant pieces to the referrals puzzle. However, we were not able to include all the desired variables in our research model, including other patient contextual factors that are likely to be relevant, such as transportation access, childcare availability, or financial information such as copayment requirements. Organizational factors, such as staff turnover and physician leader engagement, were also not included in our model. Limited analysis of provider counts in each of the specialties before and after centralized scheduling implementation showed a mild increase in the number of gastroenterology providers but was otherwise insignificant. However, this analysis did not include any calculation or consideration of full-time equivalents. Future research would add additional variables through focused patient-surveys or incorporation of other contextual data to paint a more complete picture of factors affecting referral completion.

CONCLUSION

As attempts are made to improve access to care, it is important to ensure that these measures are having their intended effects. Where the centralized scheduling changes were most completely adopted, improvements in referral completion rates appear to have been the highest. Variable implementation fidelity and microenvironments within the different specialties, among other things, likely led to uneven findings across specialties, with some specialties failing to improve their completion rates significantly. There were similar uneven findings with racial equity and likelihood of completion of specialty referrals, hinting at currently unmeasured variables that might explain why the relative referral completion rates by race differs significantly across specialty. A more in-depth focus on the granular scheduling details—both past and present—of each specialty, along with characterization of patient socioeconomic factors, would help us better understand why we saw such divergent results for an organization-wide initiative and what needs to be done to ensure more consistent improvements to access to care with future interventions.

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