BUSINESS CONSIDERATIONS AND PATIENT EXPERIENCE

THE CASE FOR IN-HOUSE PCR IN MULTISITE PRIMARY CARE ENTITIES

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EXECUTIVE SUMMARY

The Current Problem

Primary care practices are central to the delivery of modern healthcare and are required to deliver quick, reliable care, but often under mounting financial and regulatory pressures.

Many primary care networks respond to these challenges with non-clinical business optimizations, such as adding more locations, increasing marketing spend, and expanding hours to improve business operations. Still, the effectiveness of these solutions ultimately falls short.

A Primary Care-Ready Solution

Ancillary services offer a way to enrich the patient encounter. While most primary cares already use Polymerase Chain Reaction (PCR) to some extent by sending tests to a 3rd party reference lab, clinical operations can be further enhanced by **turning PCR into an in-house service**.

Such an approach allows primary care practices to control the patient experience more effectively and promotes consistent turnaround times within 24 hours. Multi-location primary cares may be able to implement in-house PCR as a hub-and-spoke model that serves multiple practices in a region.

PATIENT DEMAND FOR PCR-DRIVEN DIAGNOSIS HAS RISEN

During the COVID-19 pandemic, PCR testing established itself as the gold standard for SARS-CoV-2 testing, with patients relying on this technology to furnish accurate results rapidly.

This has had a lasting effect on patients as consumers. They have become accustomed to receiving precise, actionable results within short time frames—not only for COVID-19 but also for other infections. In an era of collaborative patient-provider decision-making, patients seek fast answers to increase confidence in their providers' treatment options and reduce uncertainty.

When you combine this expectation with the fact that almost **80-90% of antibiotic use occurs in outpatient settings**[1], you can see why patients' buying power might gravitate towards a primary care practice that not only offers PCR but also performs testing in-house to capitalize on its speed.

Providers Want Easier Access to PCR, Too

Doctors and other providers contend daily with the balance between antibiotic stewardship and uncertain clinical diagnoses. Providers are increasingly favoring rapid PCR diagnostics to navigate clinically ambiguous or complex infections, which supports them in making better clinical decisions and reducing inappropriate or unnecessary antibiotic prescribing.

HOW IN-HOUSE PCR ADDRESSES THE CHALLENGES CAUSED BY THIRD-PARTY REFERENCE LABS

CHALLENGE: REFERENCE LABS COMPLICATE PATIENT AND FACILITY BILLING.

Reference lab send-out testing introduces an additional layer of third-party involvement, which can result in separate charges from the reference lab that are outside the primary care's control. Patients may receive unexpected or higher bills directly from the lab, leading to confusion and frustration, especially if insurance coverage varies or is limited for external labs.

In contrast, in-house PCR testing allows practices to streamline billing under their existing structure, consolidating charges into a single, transparent bill. This approach simplifies the patient process and improves their overall experience by avoiding unexpected costs and delays in payment processing.

SOLUTION:
In-house PCR can simplify the patient experience.

EXTERNAL REFERENCE LAB

- ✕ Separate lab bills create confusion
- ✕ Complex insurance processing
- ✕ Multiple parties involved in billing
- ✕ Variable pricing structures and additional handling fees

IN-HOUSE PCR

- ✓ Single, consolidated billing
- ✓ Clear patient communication
- ✓ Simplified insurance process
- ✓ Predictable cost per test

CHALLENGE: REFERENCE LABS TYPICALLY TAKE 2-4 DAYS TO FURNISH PCR RESULTS.

Sending samples to a reference lab often means delays because your primary care's results may not be prioritized among other clients. While many reference labs are able to meet their predetermined or contractual timelines for furnishing results, this can still mean waiting several days for a result.

By controlling workflows, in-house PCR allows you to consistently furnish PCR results within a much shorter timeframe, allowing you to dependably build patient follow-up processes that account for a shortened turnaround time.

SOLUTION:
In-house PCR can deliver results in under twenty-four hours.

EXTERNAL REFERENCE LAB

- ✕ 2-4 days typical wait time
- ✕ Unpredictable delays
- ✕ Limited control over prioritization

IN-HOUSE PCR

- ✓ Results within 24 hours
- ✓ Predictable timing
- ✓ Full control over priorities

CHALLENGE: REFERENCE LABS AND SLOWER PCR RESULTS CAN AFFECT CARE DELIVERY.

According to CDC data, **at least 28% of all outpatient antibiotic prescriptions may be unnecessary or inappropriate.**[1] While many factors contribute to poor prescribing habits, slower diagnostic results do not help in the fight for antibiotic stewardship and might lead to more time on a broad-spectrum antibiotic or one that is unnecessary for a viral infection.

For bacterial infections, getting a result back quickly means being able to prescribe a tailored antibiotic sooner. If an antibiotic has been prescribed for viral infections, it supports earlier antibiotic discontinuation.

SOLUTION:
In-house PCR supports earlier decision-making.

EXTERNAL REFERENCE LAB

- ✕ Extended empiric treatment periods
- ✕ Multiple follow-ups needed
- ✕ Potential antibiotic over-prescription

IN-HOUSE PCR

- ✓ Earlier targeted treatment
- ✓ Reduced follow-up needs
- ✓ Better antibiotic stewardship

FURTHER BENEFITS TO IN-HOUSE PCR

Primary care practices can experience various operational and non-health-related advantages as downstream effects of the clinical improvements.

ENHANCED PATIENT EXPERIENCE

Since in-house PCR results are faster than send-out results and are often available within 24 hours, patients can have increased peace of mind in treatment decisions and develop more vital patient-provider trust.

IMPROVED PATIENT SATISFACTION

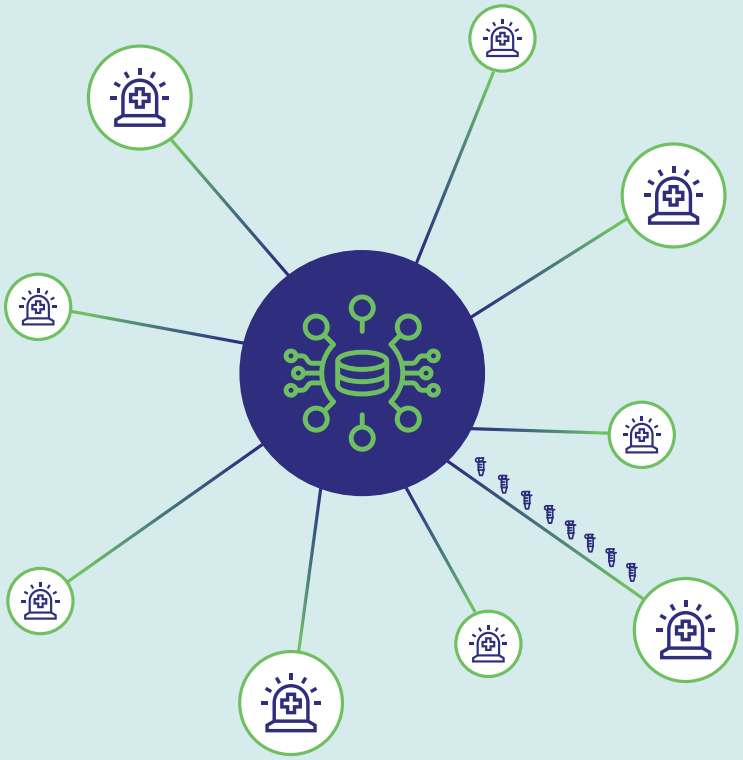
Faster results reduce the friction often accompanying antibiotic discussions. Ordering PCR while explaining that results will be available within 24 hours to determine if antibiotics are needed can help patients better understand and accept the decision to withhold them initially.

MARKETPLACE DIFFERENTIATION

In-house PCR is a unique offering that can enhance a primary care's reputation in a competitive landscape, making it a powerful asset in marketing efforts.

IN-HOUSE PCR IS PRIME FOR MULTI-LOCATION SCALING

While individual practices can benefit from in-house PCR integration, the advantages only grow as you scale. Primary care networks with multiple locations may be able to leverage this potential through a hub-and-spoke model.



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THE ADVANTAGES OF A HUB-AND-SPOKE MODEL FOR PCR TESTING

This approach involves centralizing PCR testing equipment and expertise at one or more "hub" locations, which can serve multiple "spoke" clinics in the network. This approach offers several advantages:

COST EFFICIENCY

Reduce your initial investment in equipment, space, and personnel.

STANDARDIZATION

A centralized testing facility ensures consistent quality and standardized procedures across all locations in the network.

EXPERTISE CONCENTRATION

The hub can employ dedicated lab technicians and specialists, supporting quality testing and interpretation of results.

FURTHER OPTIMIZATIONS FOR IMPLEMENTATION

A successful implementation of in-house PCR in a Hub-and-Spoke model might include the following strategies:

PLACE YOUR HUB STRATEGICALLY

While geographic considerations can improve sample transportation and result delivery times, hub locations should also account for patient volume distribution and future expansion.

INTEGRATE INTO YOUR EHR

The PCR platform should integrate easily into your existing EHR to ensure seamless adoption and improve utilization.

PLAN FOR SCALE

Before implementing in-house PCR, capture a baseline of measurements you expect to change after implementation (operations, patient-provider behaviors, etc.). This will allow you to determine the success of your integration and identify opportunities for further scaling into additional facilities or expanded testing.

THE MOMENT IS RIGHT FOR IN-HOUSE PCR

We are at a unique historical crossroads where PCR's accessibility now matches its benefits. Owning ancillary services like PCR for your primary care network can satisfy patient demands for PCR, improve providers' prescribing behaviors, differentiate your primary care in the marketplace, and streamline your workflows. Consider how PCR may advance your organization's unique goals.

ABOUT STREAMLINE SCIENTIFIC

We are a team of medical doctors and scientists who know firsthand how quality data informs accurate and timely diagnoses. Our CLIA-certified reference labs were built to deliver the best objective data to the clinicians and researchers who need it.

As in-house PCR lab experts—from implementation to optimization—our partnerships and consulting services provide an end-to-end solution for reference labs and physician practices nationwide.

To learn more, please visit:
streamlinesci.com

REFERENCES:
1. Outpatient antibiotic prescribing in the United States. Antibiotic Prescribing and Use. Published December 5, 2024. https://www.cdc.gov/antibiotic-use/hcp/data-research/antibiotic-prescribing.html