

Creating digital networks to improve access and outcomes

Malen M¹, Brown C², Kressel J², Hernandez Y¹

1. Humana Inc., Louisville, KY; 2. MyHealthDirect, Nashville, TN

Background

The ability to coordinate referrals across a disparate provider network has many challenges: long delays between a referral order and actual appointment; identifying appropriate specialists; inefficient appointment coordination and scheduling; and inability to track timeliness of the appointment, completion rates and results in real-time.¹ These challenges create a time-consuming process, a poor patient experience, and untimely diminished access to care. Patients may experience long delays or simply not follow through on referrals, correlating to poor clinical outcomes and increased medical costs. To address these challenges, Humana partnered with MyHealthDirect (MHD) to create a digitally connected referral network across wholly owned primary care physician (PCP) offices and the corresponding affiliated specialist network.

Objective

To describe the benefits of successfully implementing a digitally connected network of specialists for a Medicare Advantage population

Methods

Study Design: Pilot program implemented in 2nd quarter 2015

Program Description:

- The pilot was deployed in a Medicare Advantage population residing in two geographic areas: San Antonio, TX and South Florida.
- A range of specialties were identified for building the digital referral network, including:
 - Neurology
 - Cardiology
 - Gastroenterology
 - Pulmonology
 - Rheumatology
 - General surgery
- Specialists were included based on existing referral patterns of primary care offices in the geographic areas and quality and cost metrics
- Each specialty practice reserved specific appointment time blocks for patients referred from a participating primary care office
 - Time blocks were reserved based on the rules that governed appointment setting within each specialty practice
- A-PCP network (wholly owned and joint venture practices) was identified and trained
 - Referral coordinators operating in centralized call centers and Humana affiliated PCP offices began using the digital network to schedule appointments with specialists
- Show status (patients showing up for their scheduled appointment) was tracked at specialist offices and reported back to the initiating PCP, allowing care coordinators and PCPs to ensure patients were receiving proper and timely care

Program Measures and Analysis:

- Referral lead time:** time between the date of the referral request (from PCP) and scheduled specialist appointment
- Show rate:** percent of scheduled specialist appointments that were completed by the referred patient
- Referral workflow efficiency:** average time required to schedule a referral, as reported by referral coordinators, and associated personnel costs
- Program measures were tracked and reported for 4th quarter 2015 and 1st quarter 2016, representing the time frame when the pilot was fully implemented
- Descriptive statistics were used to assess improvements in the specialty referral process after implementation of the digital network pilot program

Projected impact on emergency department (ED) visits and hospitalizations:

- Internal analysis t of Humana data show that every incremental week between referral and specialist visit increases the likelihood of an ED visit or hospitalization by 1.12%
- Reductions in lead time were multiplied by 1.12% to estimate projected impact on ED and hospital visits

Humana.

Results



Figure 1. Overview of the Digital Network

The digital network provides a simpler and more timely referral process

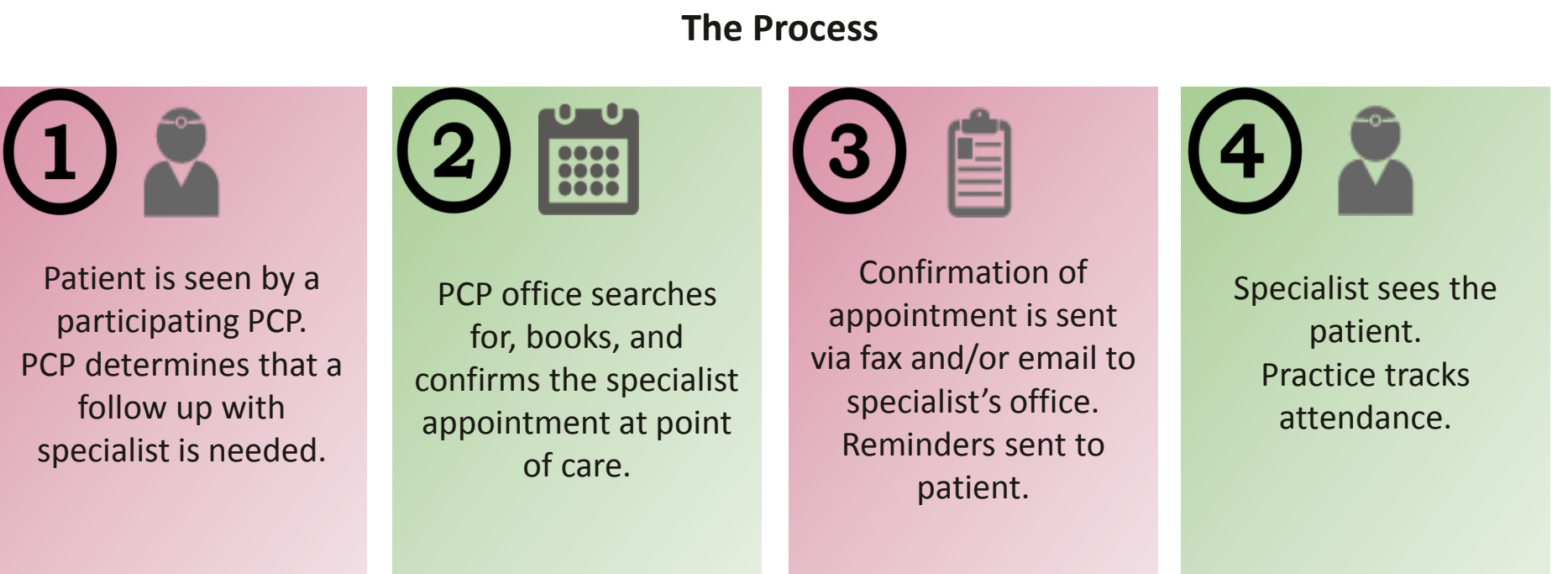
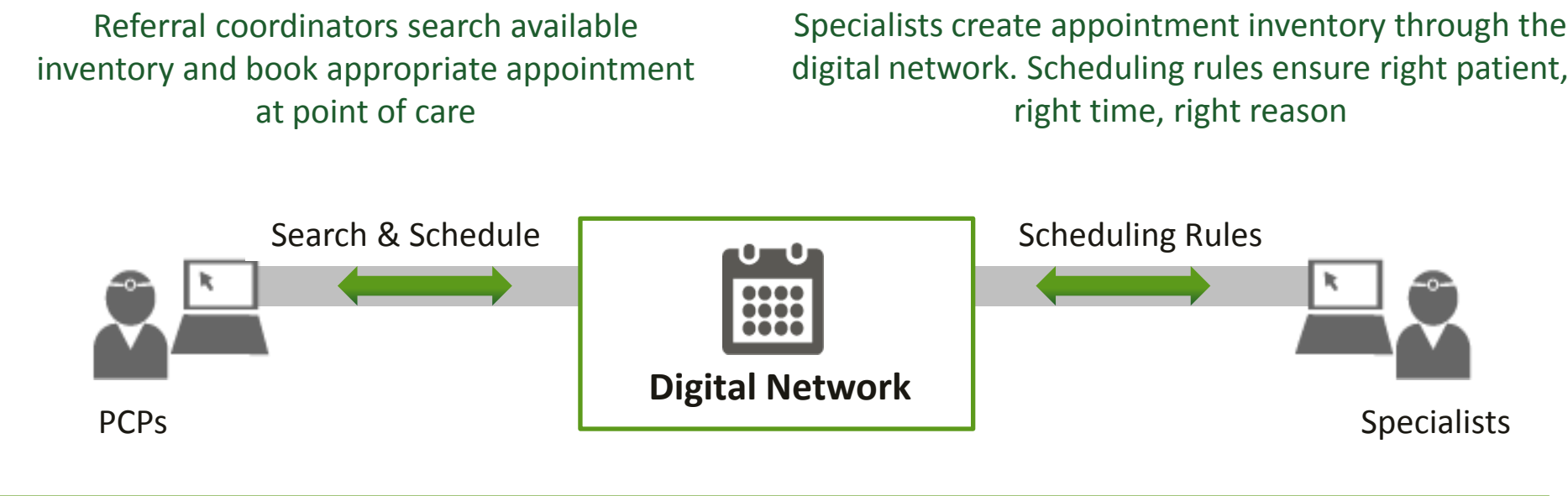


Figure 2. The Impact of Lead Time on Show Rates

A greater percentage of specialist appointments were completed by the patient when the time period between the referral and the specialist appointment was short

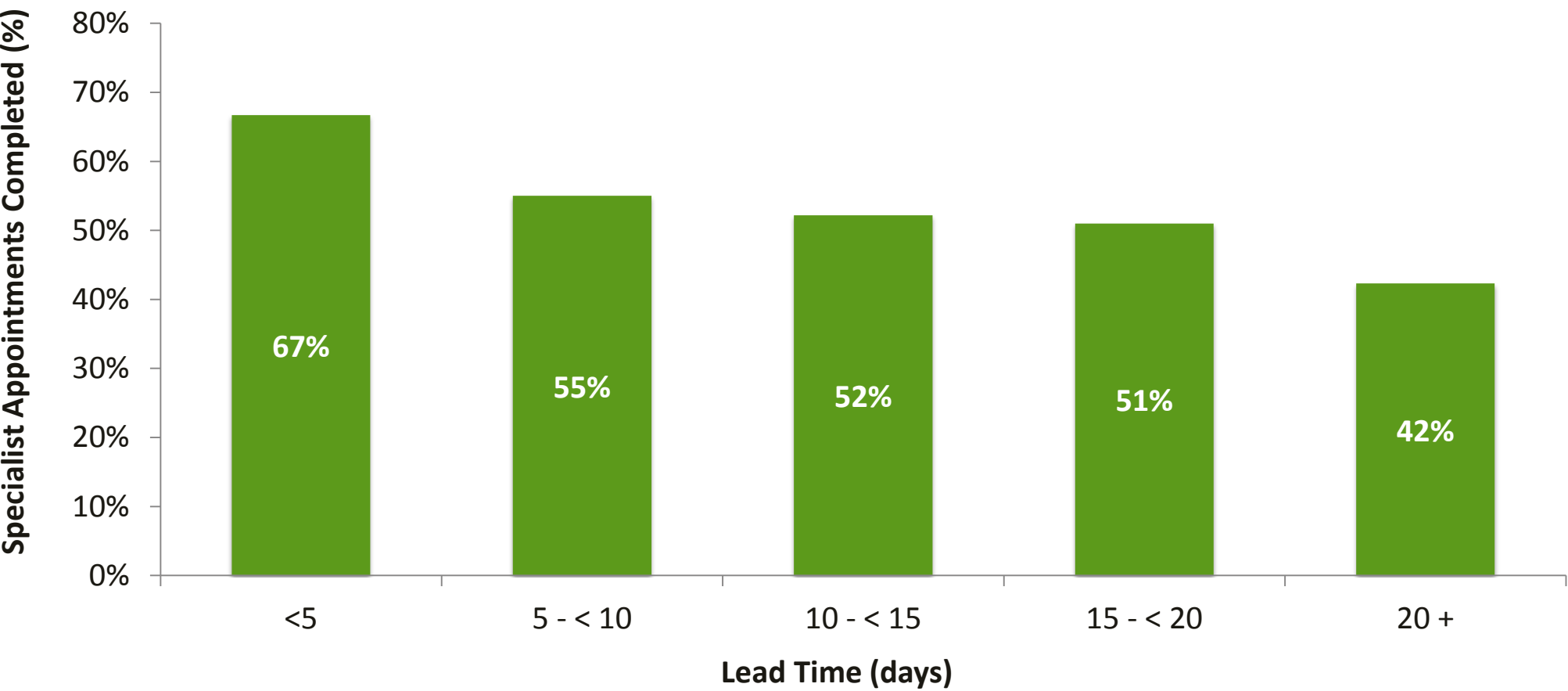
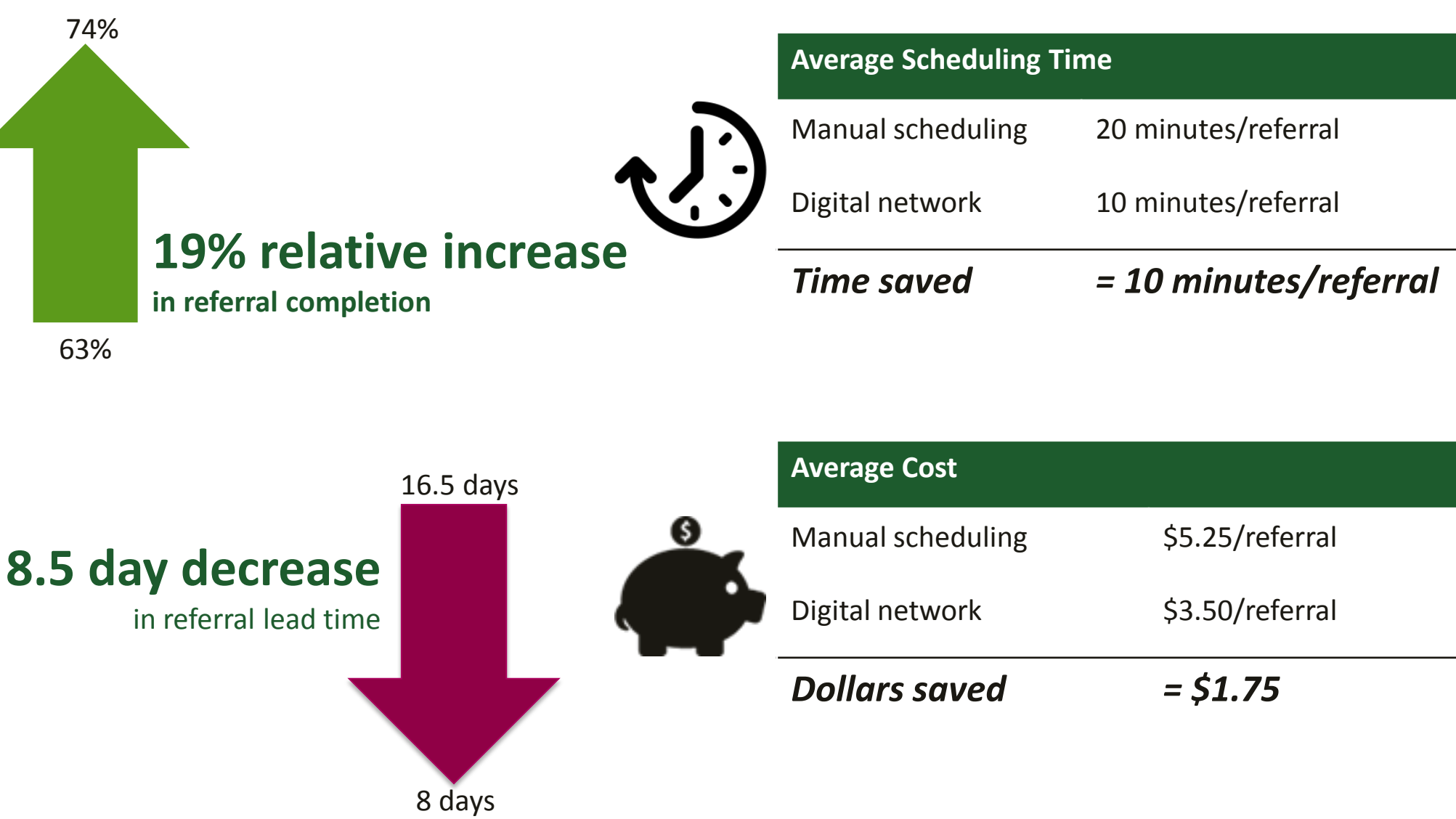


Figure 3. Efficiencies Gained with the Digital Network



*Projected impact on ED visits and hospitalizations:
Based upon an internal analysis of Humana claims-based utilization data, an 8.5 day reduction in lead time could translate to a 1.3% reduction in ED and hospital visits.*

Conclusions

- Initial results from implementation of this pilot program indicate that a digital network linking PCP offices and preferred specialty practices can improve care in this older adult population.
- Adoption of a digital network increased efficiency in PCP and specialty practices, and improved access to specialty care.

Limitations

- The descriptive nature of this pilot program limits our ability to establish a causal link between the implementation of the pilot program and outcomes.
- Certain aspects of the program, may limit generalizability to other populations:
 - Implemented in an older population in two select geographic areas
 - Selected specialists based on PCP and quality metric criteria

Relevance to Policy, Delivery, Clinical Practice

- This pilot program helps address many of the well-documented challenges with the referral process, such as long delays between referral order and scheduled appointment, identifying appropriate specialists, inefficient coordination and specialist appointment completion.
- Research designed to evaluate the impact of a fully implemented program beyond this pilot is needed to determine quantify changes in patient experience, care coordination, healthcare utilization and outcomes and program efficiency.

References

- Mehrotra A, Forrest CB, Lin CY. Dropping the baton: specialty referrals in the United States. *Milbank Q.* 2011;89(1):39-68.

