

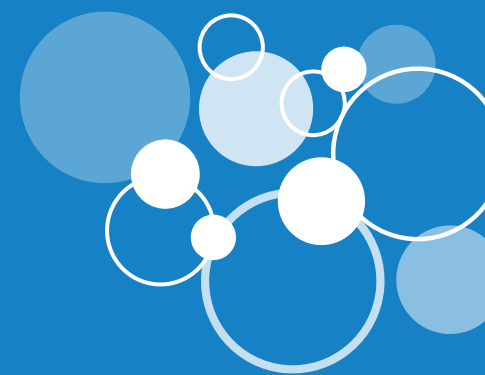
Mapping Patient Minds to Reduce Readmissions

Using the Science of **Mind Genomics**® to decrease less than 30-day congestive heart failure hospital readmissions

St. Mary's Hospital (Amsterdam, NY)
September 2013



INTRODUCTION



With nearly one in five Medicare patients returning to the hospital within a month of discharge, the federal government considers less than 30-day readmissions symptomatic of a costly and uncoordinated health care system. Historically, hospitals have had little financial incentive to ensure that patients comply with their physicians' orders after they leave their care. In fact, hospitals have financially benefited when patients were readmitted for additional treatment.

To decrease the cost of care, the Centers for Medicare and Medicaid Services (CMS) imposed financial penalties. The 2013 penalty reduces payments by up to 1% for more than 2,200 hospitals. This comprises two-thirds of U.S. hospitals, with total penalties estimated at \$280 million. This reduction in reimbursement is planned to apply to ALL Medicare discharges at the penalized hospitals. Failure to comply with CMS goals for readmission rates will result in a rise in penalties from 1% in 2013, doubling to 2% in 2014, and tripling to 3% in 2015. The penalties will severely impact hospitals in NY, NJ, DC, AK, KY, MS, IL and MA. It is anticipated that hospitals that serve a large volume of low-income patients will be hit hardest.

In view of the impending penalties for less than 30-day readmissions, it is prudent to create a way to avoid readmissions using sound science in the service of good health practice. At the outset, basic knowledge is critical. Hospitals should know their current readmission rates, benchmarking their

specific rates against the rates of other organizations in their hospital referral region (HRR). [HRR refers to a regional health care market for tertiary medical care, which generally requires the services of a major referral center.] Hospitals must immediately, actively and resolutely initiate effective compliance measures to safeguard their Medicare reimbursement, increase their patients' satisfaction and secure an institutional reputation of having low readmission rates.

A 2013 Robert Wood Johnson Foundation Report estimated that the total 2004 traceable unplanned re-hospitalization cost to Medicare is \$17.4 billion. It's no surprise that Medicare has targeted the three specific Diagnosis Related Groups (DRGs) of acute myocardial infarction (AMI), pneumonia, and heart failure as their focus areas to reduce preventable readmissions. Reducing preventable Medicare patient readmissions should increase quality of care, improve patient satisfaction and in the end, decrease the cost of care.

TODAY'S POST-DISCHARGE COMPLIANCE CHALLENGE

The medical community outlines post-discharge to include the following:

- Integration with electronic medical record (EMR) systems
- Arrangement of home health care
- Coordination of durable medical equipment and supplies
- Transitioning to step down facilities
- Coordination of transportation
- Communication with primary care physicians (PCPs) and specialists
- Communication with patients and caregivers.

Post discharge patient compliance closely aligns with process control and communication. At the time of hospital discharge, deficits in communication and information transfer between healthcare providers (HCPs) and patients are common. Poor communication may adversely affect less than 30-day readmissions. Communication must be adjusted and refined to effectively accommodate the capabilities and limitations of the individual patient or caregiver.

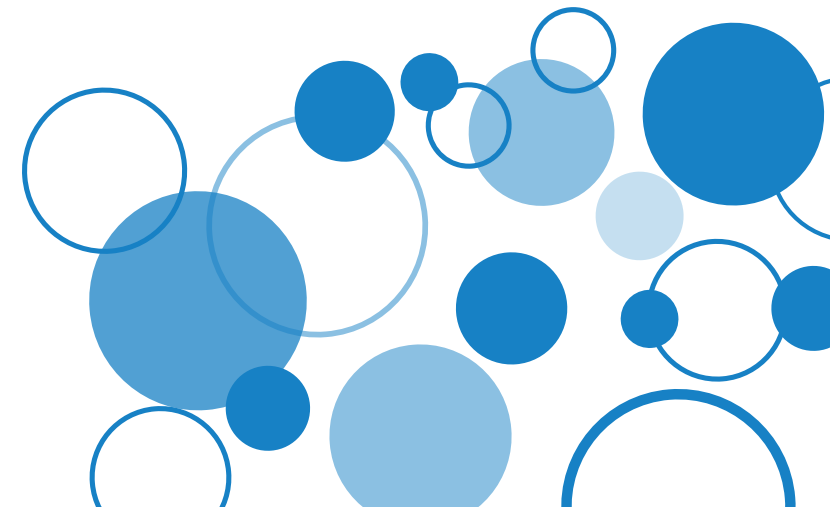
Evidence indicates that patients and caregivers who receive effective communication and support at discharge are significantly less likely to experience readmissions.

A SCIENTIFIC METHOD

Mind Genomics® creates a scientifically validated and scalable database of communications for one-to-one interaction. This science has a track record of success from direct to consumer marketing to issue based advocacy. Mind Genomics® is agnostic in it's application and unveils what truly motivates an individual.

Through discovery, Addressable Minds™ is a scientifically validated process that cuts across traditional demographics, psychographics and behavioral segmentation techniques. It directly aligns with an individual's mind-set. When communicating with specific mind-sets, users learn what to say, how to say it and what to avoid.

The science of Mind Genomics® together with the method of Addressable Minds™ enables clinicians to understand the individual patient's mind-set. For specified indications and specific patients, this approach determines what the right message is and how to deliver it. The goal is to motivate the patient to be compliant with their post-discharge care plan and ultimately reduce readmissions.



ADDRESSABLE MINDS™ AT WORK: 5 STEPS FOR THE CLINICAL SETTING

Based on topic-specific, relevant, and easy-to-communicate messages, Addressable Minds™ assigns an individual to different and homogeneous cohort groups.

1. **DETERMINE WHAT TO SAY... AND WHAT TO AVOID:** The first step is to deploy the microscience that discovers what works and what doesn't for the cohort group. Beginning with a set of specific messages rated by typical consumers/patients, the science identifies which messages motivate compliance. Further analysis reveals the existence of new and unexpected mind-set segments. These mind-set segments represent clusters of individuals sharing similar viewpoints in the specific topic area.
2. **CREATE THE MIND-SET IDENTIFICATION TOOL:** The second step is to create a tool that quickly identifies individual mind-set segments for the topic area. The science then creates a 'typing wizard.' This tool allows the user to assign new individuals an appropriate mind-set segment.
3. **IDENTIFY INDIVIDUAL MIND-SETS:** The third step is to deploy the "iNovum Viewpoint Identifier (IVI)" tool with new patients. The IVI tool reveals the mind-set segment they belong to.
4. **COMMUNICATE FOR COMPLIANCE:** The fourth step is to engage the individual patient using the style and tactics that match their mind-set. The 'typing wizard' further specifies what to say SPECIFICALLY to motivate compliance.
5. **BUILD A SMARTER EMR:** The fifth step is to integrate IVI data into the patient's electronic medical record. The patient's mind-set and messaging guidelines become a key element of their profile. Ideally, this information is accessible across the patient's entire network of care.

CASE STUDY: ST MARY'S HOSPITAL REDUCES 30-DAY CHF READMISSIONS WITH MIND GENOMICS®

Beginning in February 2013, St. Mary's Hospital in Amsterdam, NY partnered with iNovum to create a pilot program. By October of the same year, iNovum reported an increase in patient compliance and a decrease of less than 30-day CHF hospital readmissions. The key findings are:

1. Reduction from a traditional less than 30-day readmission rate of 17 in 100 to about 3 in 100 (see Figure 1).
2. Clear identification of Segment 2 (I Need Support) as the most at risk. Patients belonging to this cohort group uniquely require a support group of medical professionals, family and friends to continually encourage them to take their medication.
3. Patients in mind-set Segment 1 (It's My Decision) and Segment 3 (Faith in Medicine) were readmitted far less frequently during the same time period.

4. The A/B Test – What happens when patients **are not typed** for compliance?

Using data provided by the subject hospital (A/B study), iNovum identified patients who had been typed (A Group), and control group patients who had not been typed (B Group, see Figure 2). During the same time period, the A Group experienced a 2-3% readmission rate, while the B Group experienced a 26% readmission rate.

Figure 1

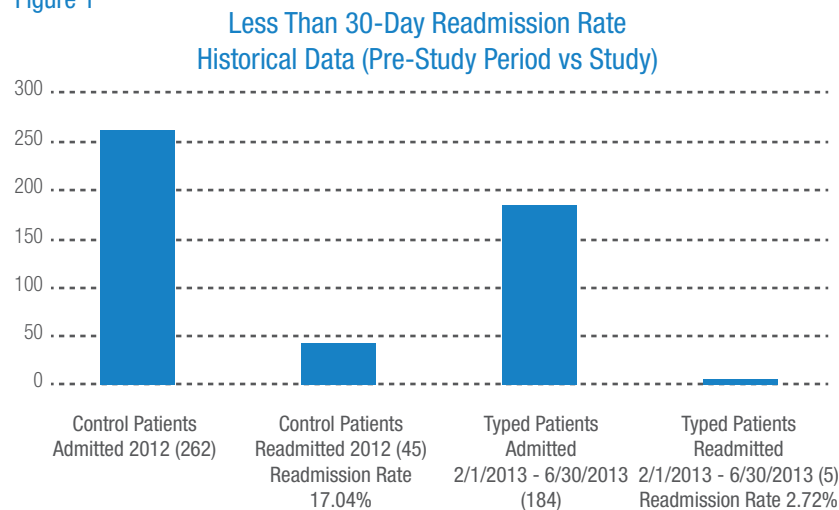
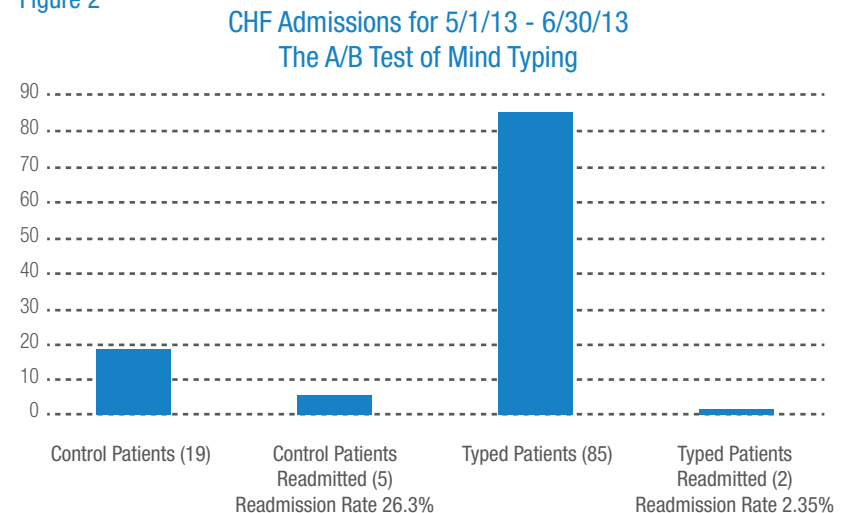


Figure 2





“I noticed that my conversations with the patients I was working with changed. **I started to understand their perspective.** I found that with increased practice, **I could steer the conversation** to areas that would be meaningful for that patient. I understood a bit more about the complexity of compliance due to patient perspective.”

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