

## The Utilization of Technology for Patient Outreach

Since the passage of the *Patient Protection and Affordable Care Act* (ACA) in March 2010, the healthcare industry has demonstrated “an increased commitment to health and healthcare quality,”<sup>1</sup> which aligns with the “triple aim,” from the *National Strategy for Quality Improvement in Health Care* (National Quality Strategy).<sup>2</sup> The “triple aim” delineates objectives which should be met in order to achieve quality care, including improving health outcomes, achieving lower costs, and providing better patient care.<sup>3</sup> This first article in the four-part Health Capital Topics series focusing on population health will discuss how technology is being used to achieve the “triple aim,” and why these efforts are important to population health as a whole.

A key strategy to achieving the “triple aim” involves patient engagement, which describes efforts to promote positive patient behavior, and increase patient activation, defined as possessing the “*knowledge, skills, ability and willingness to manage their own healthcare.*”<sup>4</sup> This strategy is important for improving health outcomes, as a large body of literature has demonstrated that patients who are more involved with their healthcare experience better outcomes and incur lower medical costs.<sup>5</sup> In some cases, the least involved patients were found to be three times more likely to have unmet medical needs, twice as likely to delay treatment, and incurred up to 21% more in medical costs.<sup>6</sup> Due to these negatively associated outcomes, patient engagement has become more integrated into the U.S. healthcare system, as evidenced by its inclusion in many health reform initiatives, i.e. *Accountable Care Organizations* (ACO), *Patient-Centered Medical Homes* (PCMH), and the Stage II Meaningful Use initiative.<sup>7</sup>

Industry stakeholders are increasingly utilizing *Healthcare Information Technology* (HIT) and *Electronic Health Record* (EHR) technologies to improve patient engagement.<sup>8</sup> Generally, these technologies:

- (1) “*Enhance communication and collaboration between providers and patients;*
- (2) *Increase patient access to their health information;*
- (3) *Promote health maintenance and prevention; and,*

- (4) *Support patient self-management of chronic conditions.”*<sup>9</sup>

In addition to HIT and EHR general applications, these technologies may be used to specifically assist patients with the following:

- (1) “*Viewing medical records and key medical data;*
- (2) *Conducting transactions with providers, such as secure messaging, refilling prescriptions and scheduling appointments;*
- (3) *Accessing medical knowledge and health information (i.e. blood pressure, weight)*
- (4) *Receiving decision support for healthcare and health management decisions; and,*
- (5) *Participating in health-related online social networks.”*<sup>10</sup>

While patients are embracing these new technologies, a 2014 WebMD survey indicates that 91% of doctors are concerned about allowing patients to have such immediate access to their records, fearing it could cause undue angst.<sup>11</sup> This concern is in part fueled by the debate over who actually “owns” these records, based on the traditionally paternalistic view of the role of doctors in the medical system.<sup>12</sup> This view has changed over time, continuing to transition towards the patient’s right to access all of their records. However, as of 2014, only 64% of doctors believe patients should see all of their records, while 89% of patients believe they have a right to their records.<sup>13</sup> This discrepancy could explain the slow roll out of EHR systems nationwide, but with financial incentives for achieving Meaningful Use under the HITECH Act, as well as the *Medicare and Medicaid Electronic Health Care Record Incentive* programs gaining in popularity, it may be difficult for medical practices to forego the use of EHR and HIT technology as a cornerstone of their practice.<sup>14</sup>

Another emerging technique for patient engagement involves mobile telehealth, or the utilization of software applications and hardware to connect both patients and physicians via their smartphones or tablets.<sup>15</sup> With 90% of American adults owning a cell phone, as of January 2014, and 58% of those being smartphones,<sup>16</sup> the demand for healthcare information at the consumer’s fingertips is increasing. Through the use of software applications, patients can be empowered to take an

active role in managing and tracking their own health.<sup>17</sup> Recently, Apple, in collaboration with the Mayo Clinic, rolled out its HealthKit application and an iWatch, aiming to utilize technologies to promote consumer involvement in monitoring their health.<sup>18</sup> Both entities hope to use these tools to more easily communicate with patients, particularly with patients in remote locations, as well as provide platforms to increase interaction with the consumer.<sup>19</sup> These tools can help improve health outcomes, for example, by interacting with obese patients, diabetics or HIV positive individuals, encouraging them to adhere to their prescribed regimen, and ultimately getting the patient more involved in their health and treatment plan.<sup>20</sup> This approach could be particularly appropriate, as the Pew Research study reports that seven in ten adults track some health indicator already, with 60% tracking diet or exercise, and 21% of these adults using some form of technology to do so.<sup>21</sup>

As technology becomes increasingly integrated into all aspects of daily life, expect for the healthcare industry to find new and innovative ways to not only engage patients, but also save money and improve the efficiency and quality of care.

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