

Population Health: Think Like a Retailer

By Barry P. Chaiken, MD, FHIMSS

It is all about the consumer. With more than 68% of the U.S. economy driven by consumer spending, retailers clearly know how to identify and motivate consumers to take action (YCharts). Techniques and information technology tools utilized by these organizations offer a model for providers to deliver effective population health management.

These approaches include two specific actions: 1) Apply analytics to identify a subset of the population and, within it, individuals requiring attention, and 2) Deploy patient engagement activities to continuously influence the behavior of the targeted individuals.

Retailers utilize multiple sources of data to predict buying patterns including electronically recorded lists of items purchased in stores and websites visited during Internet sessions. These tracking tools include Internet browser cookies, which record websites visited and links clicked, and mobile phone location mapping. Cookies allow retailers to offer customized ads while browsing. Location tracking generates customized offers sent through text messages to consumers traveling through a particular retail location. Consumer market research firms know more about the buying patterns of consumers than even the individuals themselves.

Data collection and analytics tools for tracking consumer behavior improved as technology advanced and became more broadly distributed. As more consumer data became available, the ability to influence behavior became more sophisticated and impactful.

‘Push’ technology that actively reaches out to patients on a variety of technology platforms can mimic successful efforts employed by retailers.

Use EMR Data

Similarly, the recent availability of actual patient data through the use of electronic medical records (EMR) offers a rich source of data that helps stratify populations into risk categories. Previous efforts to identify patients who would benefit from care interventions relied upon untimely claims data lacking in clinical detail. Prediction models used healthcare services utilization as a surrogate for illness severity and to determine of the need for particular interventions. Although relatively effective at identifying patients already ill and in immediate need of disease interventions, these older models proved less reliable in their ability to identify those most likely to see their illnesses worsen in the near future.

Current predictive analytics draws upon actual patient data and more accurately identifies what interventions would mostly likely impact clinical and financial outcomes in a broad range of patient disease states. Organizations use this information to focus their disease management programs to intervene both with patients already moderately ill and those with a high probability of worsening illness. This enables interventions when the cost is relatively low and potential benefits are significantly high.

Customize “Touch Events”

Retailers use information technology tools to reach consumers on their desktop and mobile devices, customizing “touch events” to engage individuals in retail transactions. With each passing year, the specificity of the messages increases, and their impact becomes heightened as advertising and promotion are tailored individually for each consumer.

Healthcare organizations can similarly engage the individual by mimicking these techniques when applying health management strategies. Healthcare touch events can include text messaging, automated outbound calling, and gamification to encourage healthy behaviors (e.g., Fitbit®). Touch events can reflect information available in the EMR to personalize the message for the patient.

Unlike patient portals that require individuals to actively access the narrow set of information contained within the portal, “push” technology that actively reaches out to patients on a variety of technology platforms can mimic successful efforts employed by retailers. In addition, combining data from an EMR with data available from other point-of-care sites allows for the compilation of enough patient data to drive effective, customized care interventions.



Merging patient health with consumer data offers a potentially effective intervention strategy.

Merging patient health with consumer data offers a potentially effective intervention strategy not widely employed by providers. It is interesting to think of how these two data sources might interact and the value they might provide. Clearly Apple, Microsoft, and Samsung see this as a promising area to pursue.

Famous department store merchant John Wanamaker said, "Half the money I spend on advertising is wasted; the trouble is I don't know which half." Fortunately, by utilizing modern

predictive analytics and patient engagement techniques, providers of population health do know where to invest their effort to improve the health of the populations they serve. |

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