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As part of the collaboration, Truven Health performed a baseline analysis benchmarking the company’s preventive service adherence rates against national averages. The analysis revealed that many of its employees were underutilizing the company’s preventive health benefit. Despite providing 100 percent coverage for preventive care, data showed that the company’s employee population was performing below the national average in adherence to recommended services such as blood cholesterol screenings, cervical cancer screenings, childhood immunizations (MMR), and flu shots.

**Course of Action**

In an effort to raise employee adherence levels for preventive services, Truven Health worked with the company to implement Personalized Messaging. The solution sends customized, evidence-based health messages based on claims data, reminding and encouraging employees and their families to obtain recommended preventive screenings.

Highly tailored health messages were dynamically assembled using multiple data sources including medical, pharmacy, and lab claims. With personal data driving the messaging engine, employee reminders could be customized according to demographic attributes such as age, gender, ethnicity, and family status. In addition, the reminders could include information such as benefits coverage and physician name and contact information.

**Tailored Messages Motivate Employees and Improve Health**

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Four success factors were identified as part of the implementation:

1. **Privacy** – The program would strictly adhere to all HIPAA regulations and industry data security guidelines, ensuring that employee data would not be compromised in any way. In addition, company employees would be given the opportunity to opt out of the program at any time.

2. **Measurability** – A snapshot of the company’s baseline compliance rates would be taken at the start of the program, and an analytic model was put in place to carefully measure results throughout the year.

3. **Customization** – The messaging program would be designed to enhance and complement the company’s comprehensive health and wellness program. Messages would be branded with the company’s logo as well as the wellness program logo, bringing credibility to the program and establishing continuity among the wellness communications.

4. **Efficiency** – The program would be structured to operate with minimal impact to the company’s human resources staff. Truven Health would coordinate all aspects of the program’s day-to-day management.

### Early Indicators
Evidence of the message effectiveness began to emerge almost immediately. Only 150 days after implementing the Personalized Messaging program, the company found that adherence to preventive services — including those for cervical cancer, blood cholesterol, and breast cancer — had improved across the board, raising the company’s compliance rate 3.4 percentage points above baseline.

Most dramatically, flu shot compliance among adults improved 12.2 percentage points above baseline. Further data analysis revealed that key “at risk” segments of the employee population — adults age 50 and above, and individuals age 19-49 with chronic conditions — were among the most responsive to messaging about flu shots, increasing adherence 90.2 percent and 80.6 percent respectively. These results showed that not only were more employees getting their flu shots after receiving messages, but more of the “right” employees were becoming activated.
Results
After 12 months of using tailored reminders with its employee population, the company found that the Personalized Messaging solution proved to have a measurable impact on both screening and vaccination rates in all major categories. Across the board, adherence with preventive care improved 14 percent or 7.4 percentage points over the baseline rate.

The company saw double-digit improvements in colorectal cancer screenings, influenza vaccination, and cholesterol screenings. Normal cholesterol screenings showed dramatic improvements, increasing 13 percentage points over baseline, or 21.8 percent. Cholesterol screenings among high-risk populations increased 11.4 percentage points, or 24.6 percent.

The program also enjoyed wide acceptance among the company’s employee population. Of nearly 90,000 reminder letters sent to 11,000 households during the duration of the program, less than 0.25 percent of households opted out of the program.

Based on the results, the company is planning to not only continue using Personalized Messaging in the future, but to expand the program beyond preventive care reminders to chronic condition reminders and savings opportunities.

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