

Listening to the Nurse Pays Off: An Integrated Nurse HealthLine Program Was Associated With Significant Cost Savings

Jessica Navratil-Strawn, MS, MBA¹, Kevin Hawkins, PhD², Timothy S. Wells, MPH, PhD², Stephen Hartley, BS¹, Ronald J. Ozminowski, PhD¹, HungChing Chan, MPH², Richard J. Migliori, MD³, and Charlotte S. Yeh, MD⁴

¹OptumHealth, ²OptumInsight, ³UnitedHealth Group Alliances, and ⁴AARP Services, Inc.

Contact Information:

Jessica L. Navratil-Strawn, MS
Senior Research Analyst
OptumHealth
6300 Olson Memorial Hwy
Golden Valley, MN 55427
Phone: 763-754-6246



UnitedHealth Group

Email: jessica.navratil-strawn@optum.com

Objective

To evaluate the impact of adherence with nurses' advice on health care expenditures, for callers into a Nurse HealthLine triage program.

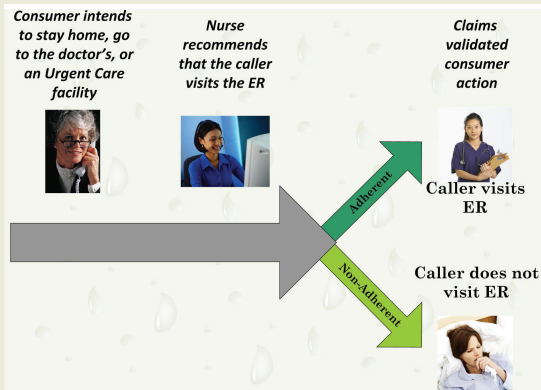
Background

- In 2011, about 3.1 million people were covered by an AARP® Medicare Supplement Insurance plan insured by UnitedHealthcare Insurance Company (for New York residents, UnitedHealthcare Insurance Company of New York).
- These plans are offered in all 50 states, Washington DC, and various US territories.
- These plans are commonly referred to as Medigap plans.

Sample Characteristics

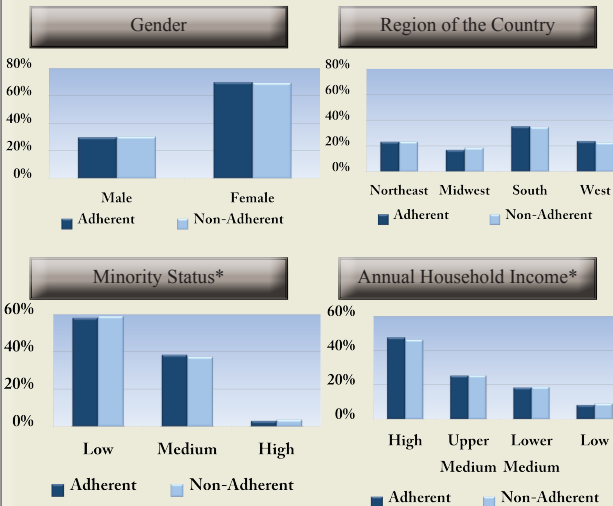
- Nurse HealthLine Program:** UnitedHealthcare began offering the current version of the Nurse HealthLine program to these individuals in 2008.
 - This analysis represents the second full year (i.e. 2010) of the program.
- Data from 53,206 adults with Medigap coverage who called into a Nurse HealthLine triage program were included in these analyses.
 - For the purposes of this study, callers following the nurse's recommendation regarding where to receive care (e.g., emergency room, urgent care, doctor's office, or home) were classified as adherent, while those who did not were classified as non-adherent.
 - The assessment of adherence was based upon a review of claims data.
- Adherence to the Nurse Care Path Recommendations:**
 - 29,438 (55%) were Adherent. The remainder were Non-Adherent.

Sample Flow Diagram with Potential Outcomes in the Nurse HealthLine Program



Sample Characteristics

- For brevity, only select sample characteristics are shown below.
- The mean age of the study sample was 77.5 years (not shown).



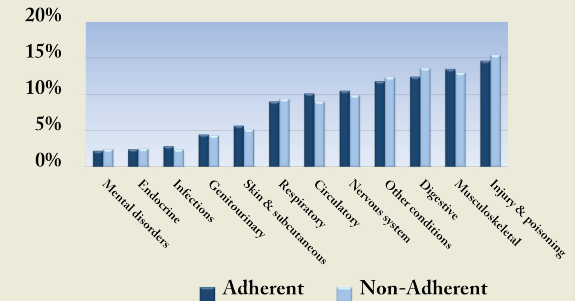
Methods

- Savings Analyses:** The Nurse HealthLine program savings were estimated by comparing downstream differences in health care expenditures between the adherent and non-adherent individuals.
 - Propensity score weighting was used to remove demographic, socioeconomic, health status, supply of health care services, and caller chief complaint case-mix differences between the callers.
 - This allowed more accurate estimates of program savings.

Notes: *Minority status and annual household income were geocoded based upon demographic characteristics of the caller's zip code, according to 2000 U.S. Census data.

- Minority status: Low (15% or less), Medium (15.1%-59.9%), and High (60.0% or more) refers to the percent of minority residences in that zip code using common cutoff points.
- Income: High, Upper Medium, Lower Medium, and Low refers to the average household income in the person's zip code by quartile (i.e. Low, Lower Medium, Upper Medium, or High).

Chief Complaint with Nurses



Results

- Savings:** The program was associated with a total savings of \$13.8 million dollars, which was statistically significant (p<0.05).
 - About 91% (\$12.5 million) of Nurse HealthLine savings were attributable to Medicare, 8% to Medigap, and 1% to callers.
- Nurses Recommendations had an impact on where to receive care:**
 - More than half of the individuals were redirected to care they otherwise would not have received.
 - Nurses were over three times as likely (41% versus 13%) to recommend seeking a higher level of care, indicating that the program focused on directing individuals to the appropriate level of care for their individual circumstance.

Nurse Care Path Recommendations Relative to Intent

