

# A Comparison of Quality-Related Processes of Care for Medigap Insureds With and Without Near Full First Dollar Out-of-Pocket Payment Coverage

Kevin Hawkins, PhD<sup>1</sup>, Gandhi Bhattarai, PhD<sup>1</sup>, Ronald J. Ozminowski, PhD<sup>1,2</sup>, Richard Migliori, MD<sup>2</sup>, and Charlotte S. Yeh, MD<sup>3</sup>  
<sup>1</sup>Ingenix, <sup>2</sup>UnitedHealth Group Alliance, and <sup>3</sup>AARP Services, Inc.

## Background

- Over 40 million Americans have Medicare as their primary source of health insurance.
  - Of those with fee-for-service Medicare coverage, over 90% purchase some form of supplemental coverage with 27% purchasing Medigap coverage (1).
- Medicare Supplement Insurance (i.e. Medigap) plans that cover deductibles for Medicare Part A and Part B are often referred to as "full first dollar" or "near full first dollar" Medigap coverage plans as described herein.
  - Medigap plans C, F, and J are often considered near full first dollar coverage plans, while the rest of the plan types (A, B, D, E, G, H, I, K, L, and pre-standardized plans) constitute the "typical" plans (2).
- Some speculate that near full first dollar Medigap plans, which are plans that do not require a patient to meet a deductible before the Medigap plan starts reimbursing, promote greater healthcare service utilization, and therefore increase Medicare expenditures (3-5).
- Others might argue that increases in service utilization may be beneficial if such utilization is for preventive care or for care related to increased patient compliance with therapy for chronic conditions (1,6).
- The following chart summarizes coverage by Medigap plans prior to and after the Medicare Improvements for Patients and Providers Act (MIPPA). Data for this study were compiled prior to the MIPPA changes, which took effect 6/1/2010 (7).

Medigap Plans Prior to 06/1/2010	A	B	C	D	E	F	G	H	I	J	K	L	N/A	N/A	N/A	
Medicare Part A Coinsurance and Hospital Benefits	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Medicare Part B Deductible	-	X	X	X	X	X	X	X	X	X	X	50%	75%	100%	100%	100%
Medicare Part B Coinsurance or Copayment	X	X	X	X	X	X	X	X	X	X	X	50%	75%	100%	Copay**	-
Medicare Part B Excess Charges	-	-	-	-	-	-	X	50%	-	X	X	-	-	-	-	-
All Items Recovery (up to plan limit)	-	-	-	-	X	-	X	-	X	X	-	-	-	-	-	-
Blood (First Three Pints)	X	X	X	X	X	X	X	X	X	X	X	50%	75%	X	X	X
Foreign Travel (First Three Pints)	-	-	X	X	X	X	X	X	X	X	X	-	-	-	X	X
Emergency (up to plan limit)	-	-	X	X	X	X	X	X	X	X	X	-	-	-	X	X
Hospice Care Coinsurance or Copayment	X	X	X	X	X	X	X	X	-	-	-	50%	75%	X	X	X
Preventive Care Coinsurance	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Preventive Care not covered by Medicare (up to \$20)	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Skilled Nursing Facility Coinsurance	-	-	X	X	-	X	X	X	X	X	X	50%	75%	X	X	X

**Facility Coinsurance**  
 Basic Medigap Benefits After 06/1/2010  
 Hospitalization: Part A coinsurance plus coverage for 365 days after Medicare Benefits end.  
 Medical Expenses: Part B coinsurance (generally 20% of Medicare-approved expense) or copayments for hospital outpatient services. Plans K, L and N require insureds to pay a portion of Part B coinsurance or copayments.  
 Blood: First three pints of blood each year.  
 Hospice: Part A coinsurance and respite care expenses.  
 \*\*Up to \$20 copayment for office visit and up to \$50 for ER.  
 †Benefit Plans not offered after 06/1/2010  
 ‡New Benefits  
 §New Plans

## Population Studied

- In 2009, about 2.8 million people were covered by an AARP® Medicare Supplement Insurance (i.e. Medigap) plan provided by UnitedHealthcare Insurance Company (for New York residents, UnitedHealthcare Insurance Company of New York).
  - Monthly membership, facility, and claims data were used in the analysis.
  - Data from 3/1/2008 to 2/28/2009 were utilized.
  - Only those members age 65 or older were included.
  - Members in Nursing Facilities and who were enrolled in Medicaid were excluded.

## Objective

- Determine if differences in quality-related processes of care exist between members with near full first dollar coverage and those with a typical Medigap plan.

## Methods

- Members were categorized by plan type into the following two groups:
  - Near full first dollar (Medigap Plans C, F, and J)
  - Typical (Medigap Plans A, B, D, E, G, H, I, K, L, and pre-standard)
- Symmetry's (v7.0) Evidence-Based Medicine (EBM) Connect Software was used to identify treatment patterns based on medical, pharmaceutical, and laboratory claims.
  - EBM Connect software defines clinical conditions and rules, which are based on nationally recognized treatment guidelines.
  - Some of these EBM measures are also NCOA Healthcare Effectiveness Data and Information Set (HEDIS) metrics.
  - 161 EBM measures were investigated pertaining to the treatment of chronic conditions among those with Medigap insurance.

## Statistical Analysis

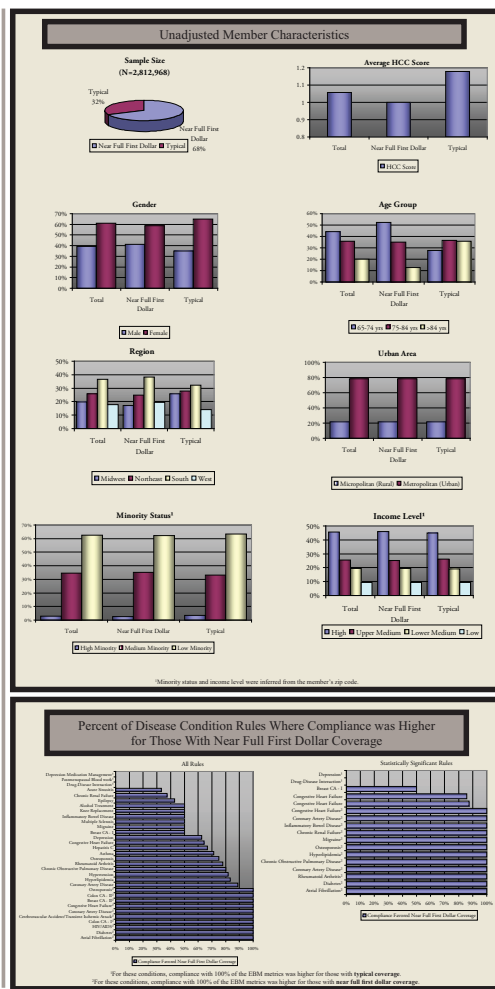
- Descriptive and multivariate models were used to describe the sample and determine if EBM compliance rates varied between the near full first dollar and typical plan members after adjusting for case-mix and health status.
  - For each EBM measure, a logistic regression model estimated member compliance controlling for plan type and patient demographics (age, gender, location, inferred income, and inferred race).
  - Health status was proxied using a Hierarchical Condition Category (HCC) score.
  - Higher HCC scores reflect expectations for higher costs in the future because of each member's medical conditions.

## Member Characteristics

- The figures in the next column detail the unadjusted member characteristics and compare the demographic and health status metrics between those with near full first dollar and typical plans.
  - All the unadjusted demographic and health status distributions were significantly (p<0.001) different between the near full first dollar and typical plan group members.
  - The logistic regression analyses adjusted for these differences.

## Results – Disease Conditions

- The results of the logistic regressions that adjusted for case-mix differences are shown in the horizontal bar charts in the next column.
  - The All Rules chart shows information about each of the medical conditions for which clinical guidelines have been operationalized in the EBM software.
  - A range of 1-14 guideline measures pertained to each of these conditions.
  - The charts illustrate the percentage of measures where compliance was higher for those with near full first dollar coverage.
    - For example, focusing on acute sinusitis in the All Rules chart, compliance rates for 33% of the rules were higher for those with near full first dollar coverage; whereas, compliance rates for 66% of the rules were higher for those with typical plans.
    - The Statistically Significant Rules chart focuses on those rules where compliance rates were significantly different (p<0.05) between those with near full first dollar and typical plans.
- Both charts illustrate that compliance rates varied by condition.
  - Different professional organizations have their own guidelines and we used both sets thus some disease conditions appear twice.
  - Those with near full first dollar coverage had higher compliance rates for most conditions.
  - For conditions with historically high prevalence rates in elder populations (e.g. congestive heart failure, diabetes, hypertension, coronary artery disease, and hyperlipidemia), members with near first dollar coverage had higher compliance rates.



Contact Information:  
 Kevin Hawkins, PhD  
 Senior Director  
 Engage, Health Care Innovation and Information  
 2450 First Street, Ann Arbor, MI 48106  
 Email: Kevin.Hawkins@Engage.com  
 Phone: 313.744.4276

## Results – Compliance Rules

Description	Total Rules	Rules Favoring Near Full First Dollar Coverage (62.1%)	Rules Favoring Typical Plans	Percent of Rules Favoring Near Full First Dollar Coverage
Statistically significant results only	4	1	3	25.0%
a. HEDIS Rules	2	1	1	50.0%
b. EBM Rules	23	21	2	91.3%
c. All Rules (n=161)	56	49	7	87.5%
All Rules	10	1	9	10.0%
a. HEDIS Rules	10	10	0	100.0%
b. EBM Rules	153	109	44	71.2%
All Rules (n=161)	161	110	51	68.3%

- When considering All Rules, members with near full first dollar coverage plans had better compliance for 68.3% of the EBM metrics.
- When considering only EBM measures in which a statistically significant (p<0.05) difference existed (about 1/3 of the metrics), members with near full first dollar coverage plans had higher rates of compliance 85.7% of the time.

## Practical Significance

Description	All Rules	Percent of Total Rules (n=161)	Statistically Significant (p<0.05) Rules	Percent of Significant Rules (n=92)
Rules that are within +/- 2% of each other	159	98.8%	56	100.0%
Rules that favor near full first dollar plans	2	1.2%	0	0.0%
Rules that favor typical plans	0	0.0%	0	0.0%
Rules that are within +/- 2% of each other	131	81.4%	40	71.4%
Rules that favor near full first dollar plans	24	14.9%	14	25.0%
Rules that favor typical plans	6	3.7%	0	0.0%

- Statistically significant differences in compliance can be found even when differences in compliance rates are very small because of the large sample size used in this study.
- Therefore, we applied a notion of "practical significance" to focus only on those where compliance rates differed by at least 5%.
- About 98.8% of the rules showed compliance rates that did not differ by more than 5% between those with and without near full first dollar coverage.
- About 81.4% of the rules showed compliance rates that did not differ by more than 2%.
- Thus, from a practical significance perspective, one might infer that members with near full first dollar coverage and typical plans were about equally compliant.
  - However, since two-thirds of the members belong to near full first dollar plans, even minor differences in compliance might be important.

## Conclusions

- Near full first dollar Medigap plans are popular.
  - About two-thirds of the members in our sample had near full first dollar plans.
- When considering All Rules, members with near full first dollar coverage plans had better compliance for 68.3% of the EBM metrics.
- When considering only EBM measures where a statistically significant difference existed, near full first dollar coverage members had higher rates of compliance 85.7% of the time.
  - However, statistically significant differences in adherence rates can be shown when sample sizes are large, even if the magnitudes of these differences are small. After applying the notion of "practical significance," EBM adherence rates were more similar.
- Since near full first dollar members accounted for most of the sample, while the actual percentage increases in adherence were small, the potential for affecting a large number of members may be meaningful.

## Limitations

- EBM compliance rates were measured over a relatively short timeframe thus may not be indicative of long-term compliance rates.
- The study sample consisted only of those enrolled in an AARP® Medicare Supplement Insurance Plan provided by UnitedHealthcare.
  - These results may not be generalizable to all Medigap or Medicare beneficiaries.

## References

- Lemieux J, Chovan T, Heath K. Medigap Coverage and Medicare Spending: A Second Look. Health Aff (Millwood). 2008;27(2):469-477.
- Centers for Medicare and Medicaid Services website, available at: <http://www.cms.gov/>.
- Zhang Y, Donohue JM, Lave JR, O'Donnell G, Newhouse JP. The effect of Medicare Part D on drug and medical spending. N Engl J Med. 2009 Jul 23;61(1):52-61.
- Khandker RK, McCormack LA. Medicare spending by beneficiaries with various types of supplemental insurance. Med Care Res Rev. 1999 Jun;56(2):137-55.
- McCall N, T. Rice, J. Boisnier, and R. West. Private health insurance and medical care utilization: Evidence from the Medicare population. Inquiry. 1991;28:276-87.
- Wolfe J, and J. Goddeeris. Adverse selection, moral hazard, and wealth effects in the Medigap insurance market. Journal of Health Economics. 1991;10:433-59.
- Developed by UnitedHealthcare.

