With the high and growing prevalence of Type 2 diabetes among Medicare beneficiaries, cost effective diabetes prevention, treatment and management are essential to the future of the Medicare program. Approximately one-quarter of the Medicare population has Type 2 diabetes, with estimates ranging from 24 to 31 percent depending on whether Medicare claims data are used or self-reported data are obtained from surveys of Medicare beneficiaries.[1] The Centers for Medicare & Medicaid Services's (CMS's) trend analysis shows that the proportion of the Medicare population being treated for diabetes increased by almost 6 percent during the 2003-2012 period.[2] Based on current trends, Medicare could be serving 14.6 million diabetics by 2034.[3]

The costs to Medicare of diabetes and its co-morbidities are extraordinarily high. Almost one in every three Medicare dollars is spent on diabetes-related care[4] and diabetes is one of the ten most expensive disease categories in the Medicare population.[5] Co-morbidities associated with diabetes (e.g., heart disease, heart attacks, stroke, lower extremity infections and amputations, and blindness) also drive higher Medicare costs through more frequent and longer hospital stays, more physician visits and higher medication costs.[6] These costs increase further when diabetes is not well-managed. Annual Medicare costs for diabetes-related care could increase to $171 billion by the year 2034, if current trends continue.[7]

The Medicare Advantage Model

More than 16 million seniors rely on Medicare Advantage for their health care coverage, receiving medical, prescription drug, vision, dental, fitness and wellness benefits from the Medicare Advantage program. Medicare Advantage's diabetes prevention, treatment and management services are provided in the context of care coordination and screening services, including vision care, evidence-based treatment, and services during transitions from one care setting to another.

In addition, diabetics can also benefit from enrollment in Medicare Advantage's special needs plans for individuals with chronic conditions. In 2014, Medicare Advantage plans were required to report a number of HEDIS measures associated with the risk of diabetes or complications of diabetes, including access to preventive ambulatory services, adult BMI assessment, hypertension control and comprehensive diabetes care.

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[1]Huang, E.S., Basu, A., O'Grady, M. and Capretta, J.D., *Projecting the Future Diabetes Population Size and Related Costs for the U.S*, Diabetes Care, 32:12 (Dec. 2009). Available at: http://care.diabetesjournals.org/content/32/12/2225.full.

[2]See Centers for Medicare and Medicaid Services, *Chronic Conditions Data Warehouse, Table B2 Medicare Beneficiaries Prevalence for Chronic Conditions – Diabetes.* Available at: https://www.ccwdata.org/web/guest/medicare-charts/medicare-chronic-condition-charts).

[3]Supra at n.1.

[4]Ashkenazy, R. and Abrahamson, J.J., *Medicare Coverage for Patients with Diabetes*, J. Gen. Intern Med. 21(4), (Apr. 2006). Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1484724/.

[5]*See* Day, H.R. and Parker, J.D., *Self-Report of Diabetes and Claims-based Identification of Diabetes Among Medicare Beneficiaries*, National Health Statistics Reports, vol. 69 (Nov. 2013., Available at: http://www.cdc.gov/nchs/data/nhsr/nhsr069.pdf.

[6]Id.

[7]*Supra* at n. 1.

Medicare Advantage versus Fee-for-Service Medicare

There is evidence of more successful diabetes treatment and management for Medicare Advantage beneficiaries compared to those in original Medicare. An analysis of HEDIS measures indicates that the Medicare Advantage program outperforms original Medicare on a number of diabetes measures, including eye examinations, glycated hemoglobin testing, LDL cholesterol testing and nephropathy screening.[8] Another study reports that the quality of diabetes care was higher in Medicare Advantage than original Medicare, with rates 4 to 10 percentage points higher on the four measures studied.[9]

In addition, a 2010 study in the American Journal of Managed Care found that a Medicare Advantage disease management program for high-risk diabetes patients significant reduced all-cause hospital admissions and diabetes-related hospital admissions. Total medical costs for patients receiving the intervention were reduced by almost $1,000 per patient per year, compared with an almost $5,000 increase in total medical costs for patients who did not receive the intervention.[10]

Further, a 2012 five-state case study of Care Improvement Plus, a Medicare Advantage Chronic Care/Special Needs plan, compared utilization rates among diabetes patients with those of diabetics enrolled in original Medicare and found that enrollees in Care Improvement Plus experienced an improved quality of care and better outcomes because of the unique benefits that Medicare Advantage provides. Medicare Advantage enrollees had 9 percent lower hospital admission rates, 19 percent fewer hospital days and 28 percent fewer hospital readmissions. The researchers concluded that, "…the strategies used by the special-needs plan to enhance primary care—including in-home visits, medication reconciliation, improved care transitions, and care coordination—are effective in reducing hospitalization and readmission rates."[11]

Additional Case Studies: Demonstrated Results in Medicare Advantage for Diabetes Patients[12]

In addition to the clinical evidence and literature referenced above, there are a number of real-life case studies that demonstrate successful diabetes treatment and management in the Medicare Advantage program. It is worth noting that many of these results were obtained prior to implementation of the cuts in the Affordable Care Act (ACA).

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[8]Guram, J. and Moffit, R., T*he Medicare Advantage Success Story – Looking beyond the Cost Difference*, N. Eng. J. Med 366:13 (Mar. 29, 2012).

[9]Brennan, N. and Shepard, M., *Comparing Quality of Care in the Medicare Program*, American Journal of Managed Care, vol. 16 (Nov. 2010). Available at: http://www.ajmc.com/publications/issue/2010/2010-11-vol16-n1/AJMC_10nov_Brennan841to0848.

[10]Rosenzweig, J., et al., *Diabetes Disease Management in Medicare Advantage Reduces Hospitalizations and Costs*, American Journal of Managed Care, vol. 16:7 (2010). Available at: http://www.ajmc.com/publications/issue/2010/2010-07-vol16-n07/AJMC_10julRosenzweigWbX_e157/

[11]Cohen, R., Lemieux, J., Schoenbom, J., and Mulligan, T., *Medicare Advantage Chronic Special Needs Plan Boosted Primary Care, Reduced Hospital Use Among Diabetes Patients*. Health Affairs, 31:1, (Jan. 2012).Available at: http://content.healthaffairs.org/content/31/1/110.full.pdf+html.

[12]Unless otherwise cited, these case studies are drawn from the following source: America's Health Insurance Plans, Trends and Innovations in Chronic Disease Prevention and Treatment: An Update on Medicare Advantage Plans, April 2008.

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Case Study #1: Presbyterian Healthcare Services

Model Components	Results
• Online registry/information tracker • Lay community worker to assist in care coordination and help connect the patient to social services, if needed • Case management • Diabetes education and health coaching • In-home assessments, where needed • Pay-for-performance incentive for physicians who achieve improved results on diabetes-related quality indicators • Team-based system to improve hospital care	• The proportion of Medicare beneficiaries with HbA1c readings above recommended levels or with no HbA1c test in the past year dropped from 36.5 percent to 12.2 percent (from 2002-2007). • The number of hospital admissions per thousand among patients receiving the team-based approach to diabetes care was 26 percent below that of patients who did not receive care in sites using the team-based approach (2006).

Case Study #2: UCare

Model Components	Results
• Educational brochures and newsletters • Access to toll-free nurse line, as well as a phone card with 100 free minutes • Customized reports • Rewards for visiting their physicians • Coordination between the hospital and the patient's primary care clinic in the event of a diabetes-related hospitalization or emergency room visit • Health coaching and case management	• 31 percent of patients with diabetes moved from the at-risk group to the low-risk category (2007). • Rate of inpatient admissions among members with diabetes fell from 2.8 percent in 2004 to 1.1 percent (2006). • Percent of members with diabetes who had emergency room visits for the conditions declined from 2.8 to 1.7 (from 2004-2006).

Case Study #3: Aetna's Integrated Comprehensive Diabetes Program

Model Components	Results
• Newsletters and periodic mailings • Toll-free number to speak with a nurse case manager • Complimentary glucose meters and check lists to track preventive care • Health coaching • Physician aids and educational tools in a variety of languages where needed	• Percent of patients with diabetes who had HbA1c tests increased from 86.6 to 89 percent (from 2004-2006). • Proportion of Medicare Advantage members with diabetes whose cholesterol levels were below 100 mg/dL increased from 48.6 to 52.4 percent (from 2004-2006).

Case Study #4: XLHealth's Care Improvement Plus Program

Model Components	Results
• In-home 60 minute visits that result in an individualized care plan • Access to an all-hours nurse hotline • Coaching calls • Preventive services and interventions to identify medication-related issues • Staff to help connect patients with social services, where needed • Advance care planning and guidance for patients with a life threatening or terminal illness	• Risk-adjusted hospital days per enrollee were 19 percent lower than original Medicare patients, and 27 percent lower for non-white patients (2010). • Risk-adjusted physician visits were 7 percent higher than original FFS patients, and 26 percent higher for non-white patients (2010).

Conclusion

The Better Medicare Alliance is committed to a short and long-term research agenda to further document the quality of diabetes prevention, screening, treatment and management that enrollees in Medicare Advantage experience, using HEDIS and other measures. The Alliance also will continue to feature best practices among Medicare Advantage plans for effective care for enrollees with diabetes.