

Cost Estimation of H.R. 2787 using Congressional Budget Office Scoring Methodology: Medicare Diabetes Self- Management Training Act

Summary of Findings

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Summary of Findings

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Submitted by:
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Summary of Findings

Dobson DaVanzo & Associates, LLC (Dobson | DaVanzo) was commissioned by the American Association of Diabetes Educators to develop a cost estimate of H.R. 2787 over the ten year period from 2013 (when the legislation would be implemented) through 2022 using Congressional Budget Office (CBO) scoring methodology. Like H.R. 2425 entitled “Medicare Diabetes Self-Management Training Act of 2009,” the proposed legislation (H.R. 2787) designates Certified Diabetes Educators (CDE) as Medicare providers of Diabetes Self-Management Training (DSMT). H.R. 2787 also adds DSMT to the list of procedures which can be delivered to beneficiaries via telehealth.

DSMT has the potential to create lasting behavior change. The skills and knowledge a beneficiary acquires through DSMT include key self-care areas of healthy eating, physical activity, glucose monitoring, medication management, reducing risks of acute and chronic complications, problem solving of diabetes care related issues, and psychosocial adaptation to living with diabetes.

In our review of the literature, we found a solid base of research supporting the effectiveness of Diabetes Education in improving metabolic outcomes in diabetes patients.¹ Studies that examine self-management education programs in chronic diseases found that for diabetes and hypertension, self-management programs have small to moderate benefit on intermediate endpoints, such as glycosylated hemoglobin levels and systolic blood pressure. These studies also found that interventions that incorporated face-to-face education tended to be more effective.²

H.R. 2787 designates Certified Diabetes Educators (CDEs) as recognized Medicare providers of DSMT. It also adds DSMT to the procedures which can be delivered to beneficiaries through telehealth.

¹ Norris SL, Engelgau MM, Narayan KM: Effectiveness of self-management training in type 2 diabetes: a systematic review of randomized controlled trials. *Diabetes Care* 24:561–587, 2001.

² Warsi A, Wang PS, LaValley MP, et al. (2004) Self-management education programs in chronic disease. *Archives Internal Medicine*; Vol. 164:1641-1649.

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We found studies concerning the economic benefits and costs of diabetes education which found that the benefits associated with education on self-management and lifestyle modification for individuals with diabetes are positive and outweigh the cost of the intervention. Over ten years ago, for example, Rubin and colleagues found that hospital admissions and bed days could be reduced with better diabetes management.³ More recent studies have found quantifiable Medicare savings associated with DSMT of \$135 per member per month.⁴

A recent Markov simulation study by Winn and colleagues (2012) found that ten year savings to Medicare if diabetes patients who have an A1C level above 7 percent are able to lower their A1C level to 7 percent would be \$610 million for type 1 and \$5 billion for type 2 diabetes after ten years.

Finally, we found that increased contact with Diabetes Educators was associated with lower hospitalization rates and charges.⁵ Literature also supports the provision of Diabetes Education to patients diagnosed with pre-diabetes, as proper nutrition and exercise through effective self management have been shown to help patients to not convert to diabetes. Nearly two-thirds of people diagnosed with Type 2 diabetes are not able to successfully manage the condition, and are exceeding the recommended sugar levels (American Diabetes Association-recommended A1C goal of less than 7 percent).

Beneficiary Access to Services

Diabetes has been called “one of Medicare’s most significant challenges.”⁶ In 2010, out of 25,959,622 fee-for-service beneficiaries, 7,225,822 or 27.8 percent were diagnosed as having diabetes.⁷

Ironically, the vast majority of beneficiaries with diabetes does not know about or avail themselves of DSMT. In the Final Rule for FY2011, CMS noted the following: “After more than a decade of Medicare coverage, the most recent information shows that DSMT continues to be significantly underutilized in the context of the eligible population of Medicare beneficiaries. While we are uncertain to what extent geographic barriers to care contribute to this underutilization, given the morbidity associated with poorly managed diabetes and the growing evidence-base regarding effective DSMT services, we believe it

³ Rubin RJ, Dietrich KA, Hawk AD. (1998). Clinical and economic impact of implementing a comprehensive diabetes management program in managed care. *Journal of Clinical Endocrinology & Metabolism*

⁴ Duncan I, Birkmeyer C, Coughlin S, et al. (2009) Assessing the value of diabetes education. *The Diabetes Educator*; 35(5):752-760.

⁵ Warsi A, Wang PS, LaValley M, et al. (2004) *Ibid.*

⁶ O’Grady MJ, John P, Winn A. (2012) Substantial Medicare savings may result if insurers cover ‘artificial pancreas’ sooner for diabetic patients. *Health Affairs*. Vol 31:1822-1829.

⁷ Data Source: CMS Chronic Conditions Warehouse (see <http://ccwdata.org/index.php>) which contains 100 percent of Medicare claims for beneficiaries who are enrolled in the fee for service program.

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is very important to facilitate Medicare beneficiary access to these underutilized services.”⁸ Given the underutilization of DSMT, CMS added DSMT to the list of services that could be provided via telehealth, with the caveat that injection training had to be delivered face-to-face.

Estimate of Baseline Medicare Spending for DSMT – 2006-2011

In order to create a baseline scenario of DSMT use, we examined the Medicare claims files. We first examined the Provider Supplier Procedure Summary (PSPS) files from 2006-2011 for G0108 and G0109 over time. The PSPS contains 100 percent of procedure claims in a given year, and provides the site of service. We also examined the 2010 Standard Analytic File for the Outpatient Hospital and Carrier (physician) to determine the number of beneficiaries who had received these services. The SAF is a 5 percent sample of beneficiary claims which are organized at the patient level. The PSPS gives the researcher the total and allowed procedures and total and allowed charges in a given year. The PSPS also provides place of service. The SAF file is a patient-level file, and gives the researcher the ability to link across care settings to look at all of an individual beneficiaries’ claims in a given year. Given that the PSPS indicated that the vast majority of claims occurred in physician offices and outpatient hospitals, we examined the Carrier and Outpatient Hospital SAF files for 2010.

Results of our PSPS analyses are shown below in Figure 1 and Figure 2, which show Medicare allowed services and denied services for individual DSMT per 30 minutes (G0108). Figure 2 contains the same information for group DSMT (G0109).⁹

⁸ Federal Register; Volume 75, No. 228; p. 73313. November 29, 2010.

⁹ Dobson DaVanzo analysis of the 2010 Medicare PSPS file.

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Figure 1: Number of Medicare Allowed Services and Denied Services: 2006-2011

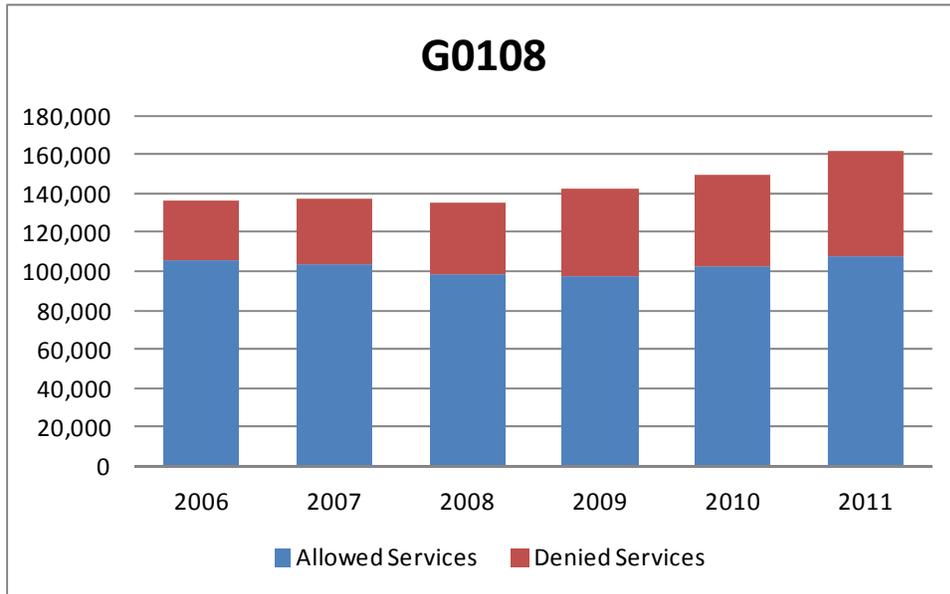
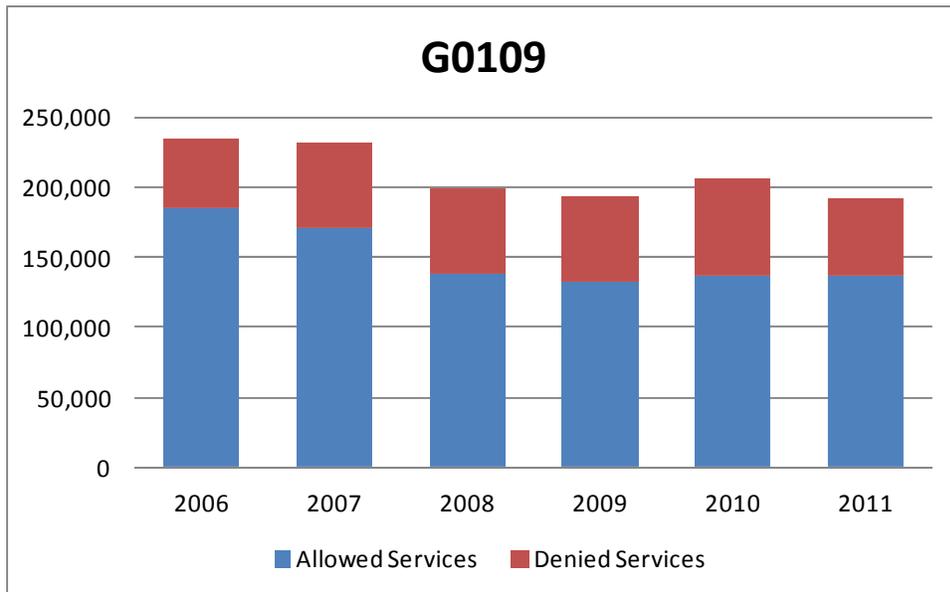


Figure 2: Number of Medicare Allowed Services and Denied Services: 2006-2011



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Determining the Number of Beneficiaries Currently Receiving DSMT

As noted above, we then conducted an analysis of the 2010 SAF and determined that only 196,300 beneficiaries received DSMT (combined G0108 and/or G0109) that was paid by Medicare in either a physician office or a hospital outpatient department. Furthermore, Medicare only paid for 239,184 services for these beneficiaries. This finding suggests that on average, beneficiaries were not receiving DSMT according to clinical guidelines, as they only received 1.2 services per year, which is lower than recommended.

We then subset those beneficiaries who received both G0108 and G0109 in 2010 as these would be beneficiaries who were newly diagnosed in 2010. Overall, approximately 390,000 individuals are diagnosed with diabetes each year. The Medicare benefit provides the eligible beneficiary with 10 hours of DSMT the first year after being diagnosed, of which one hour can be individual services (G0108) and eight hours can be group services (G0109). We found that 38,280 beneficiaries received both G0108 and G0109 in 2010, for which Medicare paid \$1,841,220.¹⁰ This represents 10 percent of all beneficiaries diagnosed. The literature asserts that two thirds of beneficiaries with Type 2 diabetes are not able to maintain appropriate glucose levels.

Estimating Baseline DSMT Utilization

In order to estimate ten year baseline DSMT utilization (absent the proposed legislation), we used our analyses of the PSPS files, since they contain 100 percent of services. These results can be seen in Figures 3 and 4. We then summed the allowed services and allowed charges across the two services (G0108 and G0109) in each of 2010 and 2011.

Figure 3: Medicare Allowed Services and Allowed Charges for Individual DSMT

| HCPCS | Year | Services | Allowed Services | Charges | Allowed Charges | Allowed Charge Per Allowed Service |
|--------------|------|----------|------------------|--------------|-----------------|------------------------------------|
| G0108 | 2006 | 136,148 | 105,640 | \$8,239,350 | \$3,224,064 | \$31 |
| | 2007 | 136,763 | 103,468 | \$8,531,008 | \$2,967,314 | \$29 |
| | 2008 | 135,353 | 98,940 | \$8,747,146 | \$2,659,654 | \$27 |
| | 2009 | 142,796 | 97,855 | \$9,194,207 | \$2,184,590 | \$22 |
| | 2010 | 149,304 | 102,701 | \$10,001,363 | \$2,419,179 | \$24 |
| | 2011 | 161,408 | 108,139 | \$11,970,060 | \$5,706,372 | \$53 ¹¹ |

Source: Dobson | DaVanzo analyses of Medicare PSPS files 2006-2011.

¹⁰ Dobson DaVanzo analysis of the 2010 Carrier and Outpatient Hospital SAF.

¹¹ In 2011, CMS increased the payment rates for G0108 and G0109.

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Figure 4: Medicare Allowed Services and Allowed Charges for Group DSMT

| HCPCS | Year | Services | Allowed Services | Charges | Allowed Charges | Allowed Charge Per Allowed Service |
|--------------|------|----------|------------------|-------------|-----------------|------------------------------------|
| G0109 | 2006 | 235,131 | 184,288 | \$7,964,951 | \$3,261,780 | \$18 |
| | 2007 | 231,559 | 170,747 | \$8,024,923 | \$2,805,800 | \$16 |
| | 2008 | 199,752 | 138,166 | \$7,292,057 | \$2,062,397 | \$15 |
| | 2009 | 193,589 | 132,782 | \$7,142,800 | \$1,642,160 | \$12 |
| | 2010 | 205,839 | 136,483 | \$7,638,446 | \$1,766,933 | \$13 |
| | 2011 | 191,633 | 136,144 | \$7,282,842 | \$2,521,374 | \$19 |

Source: Dobson | DaVanzo analyses of Medicare PSPS files 2006-2011.

In 2010, a total of 239,184 beneficiaries received either individual or group DSMT. (G0108 was 102,701 from Figure 3 and G0109 was 136,483 from Figure 4. Allowed charges for G0108 in 2010 were \$2,419,179 from Figure 3 and for G0109 were \$1,766,933 from Figure 4.) Medicare allowed charges for 2010 totaled \$4,186,112. For 2011, we found that only 244,282 beneficiaries availed themselves of DSMT, and Medicare allowed charges were \$8,227,746. This finding suggests that absent the legislation, even with the higher payment rates, the growth of DSMT among Medicare beneficiaries is and would remain minimal.

In order to project current DSMT utilization and Medicare payment forward, we then escalated both the number of beneficiaries receiving DSMT by 1 percent per year, and the Medicare allowed charges by one percent per year. We escalated the number of allowed services by 4.5 percent per year, consistent with the increase between 2010 and 2011 shown above.

Our ten year (2013-2022) baseline estimate of the number of beneficiaries who availed themselves of DSMT is 2,120,059. Our ten year baseline estimate of Medicare allowed charges for DSMT is \$205,476,655.

Growth Trajectory of Diabetes Education Services

Our rationale for a slow growth trajectory in baseline utilization and Medicare spending for DSMT is based upon two factors: 1) a highly constrained supply of Certified Diabetes Educators (CDEs), and 2) historical patterns of slow uptake of preventive benefits under Medicare.

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A recent workforce analysis found that the current supply of CDEs is less than 20,000 individuals.¹² Although Diabetes Education is a specialty among many different health professions, approximately fifty percent of Diabetes Educators are nurses, and about thirty percent are registered dietitians. A Diabetes Educator must have in-depth knowledge of biology and social sciences and be skilled in communication and counseling. He or she focuses on seven specific behaviors which are essential for improving the diabetic patient's health. Currently, over 80 percent of Diabetes Educators seek advanced certification as a CDE or become BC-ADM: board certified in advanced diabetes management. These certifications include additional experience and education requirements.

In addition to there being a number of potentially available health professionals to become CDEs in the future, it is important to consider the age distribution within these professions. The Institute of Medicine at its conference on the Future of Nursing found that policymakers have expressed concerns regarding the number of nurses that will be available to replace at least 900,000 nurses over the age of 50. The current stock of Diabetes Educators also includes many individuals approaching retirement. For these reasons, we believe that implementing H.R. 2787 will result in minimal increases in utilization of Diabetes Education over time due to a highly constrained supply of CDEs.

The second factor contributing to the slow growth trajectory for DSMT is the historical pattern of utilization of screening mammograms in the Medicare population. Medicare coverage of screening mammograms was created as a result of the implementation of the Omnibus Budget Reconciliation Act of 1990 (OBRA 1990). This act authorized Medicare to begin covering screening mammograms on or after January 1, 1991. A recent analysis of the 2005 Medicare Current Beneficiary Survey (MCBS) showed that only 23 percent of female Medicare beneficiaries received a mammogram that year.¹³ After nearly 20 years (even with the description of the benefit in the *Medicare & You* handbook), only about one fourth of eligible beneficiaries have availed themselves of screening mammograms.

The relevance of the mammogram experience is that the health services literature has consistently shown that health-related behavior changes slowly over time, and is influenced by many factors, including insurance status, service availability, level of patient self reliance or autonomy, among others.¹⁴ Uptake of mammography has been

¹² DaVanzo J, Dobson A, El-Gamil A, Freeman J. (2011) Diabetes Education in a New World of Healthcare Delivery System Innovation. Final report submitted to AADE.

¹³ Unpublished Dobson | DaVanzo analyses of the 2004 and 2005 Medicare Current Beneficiary Survey (MCBS).

¹⁴ DaVanzo J. (1993). *The Relationship between Autonomy and Medicare Utilization in an Elderly Sample*. Unpublished dissertation. University of California, Los Angeles.

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slow, and we expect that because DSMT is heavily dependent upon patients being able to make lasting changes in their behavior, it will also be very slow.

Estimate of Medicare Savings for Beneficiaries Receiving DSMT

The case for DSMT accruing savings to Medicare is centered on the documented reductions in health care utilization that result when patients receive DSMT and are able to maintain control of their blood sugar levels. Individuals with diagnosed diabetes, on average, have medical expenditures that are approximately 2.3 times higher than what expenditures would be in the absence of diabetes.¹⁵ Due to data availability, for this analysis 2010 served as the base year. Standardized, risk adjusted per capita Medicare spending in 2010 was \$8,217.¹⁶

We estimated that the 2010 standardized risk adjusted Medicare health care spending for beneficiaries with diabetes was \$13,882, annual Medicare spend for beneficiaries without diabetes in 2010 was \$6,035.¹⁷ Because up to 75 percent of diabetes-related health care costs are related to hospital treatment for complications, better glycemic control can reduce or delay complications and reduce hospital admissions.¹⁸

The current Medicare DSMT benefit provides up to ten hours of DSMT in the year in which the eligible beneficiary is first diagnosed with diabetes. Two hours can be individual services, and eight hours can be group services. Patients work with the Diabetes Educator to develop a plan with measurable and achievable goals. Patients learn effective means of optimizing blood sugar levels and blood pressure through compliance with medication regimen and diet. Additionally, patients can learn to monitor these outcomes in an objective way (through A1C measurement). Finally, the Diabetes Educator delivers skill-based training as appropriate. There is a follow-up DSMT benefit of two hours each year in which patients revisit their goals and their progress with the Diabetes Educator.

Based upon our analysis of the 2010 SAF, we assumed that the cohort of beneficiaries availing themselves of DSMT totaled 39,440 individuals who had received both G0108

¹⁵ American Diabetes Association: Economic costs of diabetes in the U.S. in 2007. *Diabetes Care* March 2008; vol. 31 no. 3: 596-615.

¹⁶ CMS created four datasets (the Datasets) using the new Geographic Variation in Medicare Spending and Utilization (GV) database, which uses Medicare claims data to calculate utilization measures and total, standardized, and risk-adjusted spending. Data are organized by Hospital Referral Region (HRR) and span 2007-2010. Standardized, risk adjusted per capita Medicare spending in 2010 was \$8,217.

¹⁷ Dobson | DaVanzo analysis of CMS data using goal-seek methodology.

¹⁸ The Changing Diabetes Barometer: First Report. 2009. Novo Nordisk A/S. Denmark.

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and G0109 in the year.¹⁹ Each of the approximately 40,000 beneficiaries in their first year receiving DSMT in 2013 would save Medicare \$1,620 (or \$135 per member per month) through their achievement of glycemic control, reducing annual Medicare spending of \$13,882 to \$12,262 for diabetics who utilize DSMT. We derived the \$1,620 from Duncan and colleagues' estimate of Medicare savings of \$135 per member per month accruing for beneficiaries who received DSMT. The cohort of 40,000 beneficiaries represents approximately half of the one third of beneficiaries who are able to maintain appropriate blood sugar levels.²⁰

In the second year, (2014), these approximately 40,000 beneficiaries from 2013 would receive two hours of follow-up DSMT and would maintain the same degree of glycemic control, saving Medicare approximately half of the savings that accrued during the first year (\$810 in 2010). The rationale for the assumed decrease in cost savings is that complex behavior change is difficult – without sustained contact with the Diabetes Educator, savings would decay as beneficiaries were less able to strictly control A1C levels. At the same time, 39,834 new beneficiaries would enter and receive their first year DSMT services, and also save Medicare \$1669 by maintaining strict glycemic control.

In the third year (2015), 79,274 beneficiaries would continue to receive the DSMT follow-up benefit and would continue to accrue savings at half the rate of the first year (\$939 per year). Also in 2015, 40,233 beneficiaries would enter the cohort and receive the first year Medicare DSMT benefit, with annual savings to Medicare of \$1,878 as they maintained strict glycemic control and experienced fewer healthcare encounters or hospitalizations.

We estimate that gross ten year (2013-2022) savings to Medicare of implementing H.R. 2787 would total \$2,767,532,001. Net savings after the cost of providing DSMT and a 25 percent beneficiary premium for the years 2013-2022 would be **\$2,006,995,797**. See tables below for detail and data sources.

Discussion

These estimates are conservative in that the model assumes that only about 10 percent of beneficiaries diagnosed with diabetes in a given year would receive DSMT according to guidelines and maintain control of their A1C. Because the facility fee for telehealth is approximately \$24, we assume that services provided through telehealth will substitute for services provided in person due to the requirement to perform injection training in a face-to-face session.

¹⁹ New cases of diagnosed diabetes in individuals aged 65 and over totaled 390,000 in 2010. Source CDC analysis using National Health Interview Survey estimates from 2007-2009.

²⁰ American Diabetes Association

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The patterns of claims show that currently, absent the legislation, beneficiaries are not receiving DSMT according to the guidelines (e.g., 1.2 services per year per beneficiary). Furthermore, under H.R. 2787, two to four new patients who are compliant with DSMT goals per year would enter the caseloads of the current stock of less than 20,000 CDEs and could be treated successfully and maintain lasting behavior change. This is the purpose of H.R. 2787.

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| Cost Estimation of Incremental Impact on Medicare of H.R.2787 | | | | | | | | | | | | |
|---|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------------|
| | 2010 (base year) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total 2013- 2022 |
| Baseline Medicare Spending on DSMT | | | | | | | | | | | | |
| Medicare Enrollment - 2012 Trustees Report, Table IV.B2 (2022 estimated 3% increase) | 43,690,848 | 47,742,169 | 49,174,434 | 50,649,667 | 52,169,157 | 53,734,232 | 55,346,259 | 57,006,647 | 58,716,846 | 60,478,351 | 62,292,702 | |
| Medicare FFS Enrollment - 2012 Trustees Report, Table IV.B2 (2022 estimated 3% increase) | 25,959,622 | 28,129,000 | 30,011,000 | 32,359,000 | 34,931,000 | 36,693,000 | 38,072,000 | 39,187,000 | 40,388,000 | 41,582,000 | 42,829,460 | |
| Number Beneficiaries with Diabetes CMS Health Indicators Warehouse GV Dataset, Table 1. Updated 6/12/12 | 7,225,822 | 7,668,100 | 7,821,462 | 7,977,891 | 8,137,449 | 8,300,198 | 8,466,202 | 8,635,526 | 8,808,237 | 8,984,401 | 9,164,089 | |
| Number beneficiaries receiving DSMT physician offices and outpatient hospital- D&D 2010 5% SAF with escalation of 1% per year | 196,680 | 202,640 | 204,666 | 206,713 | 208,780 | 210,868 | 212,976 | 215,106 | 217,257 | 219,430 | 221,624 | 2,120,059 |
| Medicare allowed services- G0108+G0109 - D&D PSPS run 2006-2011, inflated at 4.5% per year | 239,184 | 266,762 | 278,766 | 291,311 | 304,420 | 318,119 | 332,434 | 347,394 | 363,026 | 379,362 | 396,434 | |
| Total Medicare allowed charges D&D PSPS, not inflated by MEI per MPFS freeze inflated 1% to match increase in people | \$17,639,809 | \$19,639,885 | \$19,836,284 | \$20,034,647 | \$20,234,993 | \$20,437,343 | \$20,641,717 | \$20,848,134 | \$21,056,615 | \$21,267,182 | \$21,479,853 | \$205,476,655 |
| H.R. 2787: New Medicare Spending on DSMT (Incremental) | | | | | | | | | | | | |
| Number of potential DSMT users (FFS beneficiaries minus already enrolled in DSMT) | 7,029,142 | 7,465,461 | 7,616,796 | 7,771,179 | 7,928,669 | 8,089,331 | 8,253,226 | 8,420,420 | 8,590,980 | 8,764,972 | 8,942,466 | 81,843,498 |
| Number of Beneficiaries receiving both G108 and G109 in same year - indicates new dx - D&D 2010 5% SAF =new patients escalated at 1% per year supply constraint | 38,280 | 39,440 | 39,834 | 40,233 | 40,635 | 41,041 | 41,452 | 41,866 | 42,285 | 42,708 | 43,135 | 412,629 |
| Medicare payment for new patients (both G108 & G109)- D&D analysis 2010 5% SAF - escalated 3% inflation | \$1,841,220 | \$2,011,951 | \$2,072,309 | \$2,134,479 | \$2,198,513 | \$2,264,468 | \$2,332,402 | \$2,402,374 | \$2,474,446 | \$2,548,679 | \$2,625,139 | \$23,064,761 |
| Medicare annual spend per diabetic beneficiary - CMS Health Indicators Warehouse - calculated goal-seek | \$13,882 | \$15,169 | \$15,624 | \$16,093 | \$16,576 | \$17,073 | \$17,585 | \$18,113 | \$18,656 | \$19,216 | \$19,792 | |

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| Cost Estimation of Incremental Impact on Medicare of H.R.2787 | | | | | | | | | | | | |
|---|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------|
| | 2010 (base year) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total 2013- 2022 |
| Savings per Solucia of \$135 per member per month for diabetics who participated in DSMT | \$1,620 | \$1,770 | \$1,823 | \$1,878 | \$1,934 | \$1,992 | \$2,052 | \$2,114 | \$2,177 | \$2,242 | \$2,310 | |
| Delta spend for DSMT users who are able to reduce spend to average levels | \$12,262 | \$13,399 | \$13,801 | \$14,215 | \$14,641 | \$15,081 | \$15,533 | \$15,999 | \$16,479 | \$16,973 | \$17,483 | |
| Total Medicare spend for diabetic beneficiaries if no DSMT - calculated | \$531,402,960 | \$598,273,497 | \$622,383,919 | \$647,465,991 | \$673,558,871 | \$700,703,293 | \$728,941,636 | \$758,317,984 | \$788,878,199 | \$820,669,990 | \$853,742,991 | \$7,192,936,370 |
| Medicare spend for diabetics if DSMT results in their maintaining glycemic control sufficient to have avg spend | \$469,389,360 | \$528,456,247 | \$549,753,034 | \$571,908,081 | \$594,955,977 | \$618,932,703 | \$643,875,691 | \$669,823,881 | \$696,817,783 | \$724,899,540 | \$754,112,992 | \$6,353,535,929 |
| Savings for the new DSMT Medicare beneficiaries who reduce glycemic levels to A1C=7 | \$62,013,600 | \$69,817,250 | \$72,630,885 | \$75,557,910 | \$78,602,894 | \$81,770,590 | \$85,065,945 | \$88,494,103 | \$92,060,415 | \$95,770,450 | \$99,629,999 | \$839,400,441 |
| Savings Minus the cost of providing DSMT - net savings | \$60,172,380 | \$67,805,299 | \$70,558,576 | \$73,423,431 | \$76,404,381 | \$79,506,122 | \$82,733,543 | \$86,091,728 | \$89,585,969 | \$93,221,771 | \$97,004,859 | \$816,335,680 |
| Number of beneficiaries maintaining one half of savings pulled through for Years 2-10 | | | 39,440 | 79,274 | 119,507 | 160,142 | 201,183 | 242,635 | 284,501 | 326,786 | 369,494 | 1,822,963 |
| Savings reduction after first year - erosion of glycemic control | | \$885 | \$912 | \$939 | \$967 | \$996 | \$1,026 | \$1,057 | \$1,089 | \$1,121 | \$1,155 | |
| Pull through annual savings of 50% of reduction per beneficiary (\$1620-\$810=\$810) | | \$0 | \$35,955,955 | \$74,439,539 | \$115,585,049 | \$159,533,091 | \$206,430,937 | \$256,432,827 | \$309,700,275 | \$366,402,397 | \$426,716,251 | \$1,951,196,321 |
| Total first year plus pull through savings | \$60,172,380 | \$67,805,299 | \$106,514,531 | \$147,862,971 | \$191,989,430 | \$239,039,213 | \$289,164,480 | \$342,524,556 | \$399,286,244 | \$459,624,168 | \$523,721,110 | \$2,767,532,001 |
| Cost of 2 hours DSMT for individual | \$38 | \$42 | \$43 | \$44 | \$45 | \$47 | \$48 | \$50 | \$51 | \$53 | \$54 | |
| Cost 2 hours DSMT for whole group | | \$0 | \$1,686,823 | \$3,492,225 | \$5,422,508 | \$7,484,268 | \$9,684,414 | \$12,030,182 | \$14,529,149 | \$17,189,248 | \$20,018,787 | \$91,537,605 |
| Net pull through savings | | \$67,805,299 | \$104,827,708 | \$144,370,745 | \$186,566,921 | \$231,554,944 | \$279,480,066 | \$330,494,374 | \$384,757,096 | \$442,434,919 | \$503,702,323 | \$2,675,994,395 |
| Beneficiary Part B premium offset of 25% - beneficiary shares savings, Medicare gets less | \$45,129,285 | \$50,853,974 | \$78,620,781 | \$108,278,059 | \$139,925,191 | \$173,666,208 | \$209,610,049 | \$247,870,780 | \$288,567,822 | \$331,826,190 | \$377,776,742 | \$2,006,995,797 |