



## Caravan Health ACO – Improvements in Diabetes Quality Measures

*What a 40% improvement in blood sugar control tells us about how ACOs are helping patients*

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Caravan Health ACOs have shown marked improvement in quality measures between 2016 and 2017. Through a combination of improved clinical practices, coding, and commitment to prevention and wellness, Caravan Health partner physicians and hospitals are showing gains in almost all areas, most notably in diabetes management. The chart below shows a comparison of preliminary data on 15 clinical quality scores between 2016 and 2017.

Data from Caravan Health’s analytics platform shows a 7 percentage point decrease in hemoglobin A1c poor control rates from 16.8 in 2016 to 9.5 in 2017. This amounts to a 43 percent reduction in uncontrolled diabetes. Diabetes eye exams were also up 15 percent over the same period. Considering the long-term complications and harms from diabetes – which can include kidney failure, cardiovascular disease, peripheral vascular disease and loss of vision – Caravan Health partners are delivering significant increases in wellbeing to their communities.

*Caravan Health ACOs - 2017 Clinical Quality Measures Compared to 2016*

Measures		Measures rates		
		2016	2017	2016 to 2017 % change
<b>PREV-12</b>	Preventive Care and Screening: Screening for Clinical Depression and Follow-up Plan	31.7	57.3	80.9%
<b>MH-1</b>	Depression Remission at 12 Months	3.4	6.1	78.3%
<b>DM-2</b>	Diabetes: HemoglobinA1c Poor Control	16.8	9.5	43.5%
<b>CARE-2</b>	Falls: Screening for Future Fall Risk	53.7	75.7	41.0%
<b>DM-7</b>	Diabetes: Eye Exam	39.6	45.7	15.4%
<b>PREV-8</b>	Pneumonia Vaccination Status for Older Adults	66.6	73.4	10.2%
<b>PREV-6</b>	Colorectal Cancer Screening	59.9	65.0	8.6%
<b>PREV-5</b>	Breast Cancer Screening	62.7	67.8	8.2%
<b>PREV-9</b>	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan	64.8	68.8	6.0%
<b>PREV-13</b>	Statin Therapy for the Prevention and Treatment of Cardiovascular Disease	77.8	80.3	3.3%

<b>PREV-7</b>	Preventive Care and Screening: Influenza Immunization	71.6	73.3	2.3%
<b>PREV-10</b>	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention	93.0	94.6	1.7%
<b>IVD-2</b>	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antiplatelet	90.9	92.2	1.4%
<b>HTN-2</b>	Controlling High Blood Pressure	69.5	67.8	-2.4%
<b>CARE-1</b>	Medication Reconciliation Post-Discharge	*	75.9	*

## Background on ACO quality measures

Each year, Medicare Shared Savings Programs (MSSP) ACOs must report on a full panel of quality measures that are set by CMS. ACOs need to demonstrate high quality patient care to receive shared savings if earned. Caravan Health ACOs have been able to attain high scores on these measures using standardized workflows around prevention and wellness and other quality improvement strategies. Over the course of participation in the ACO, the scores play a larger and larger role in determining those shared savings. In addition, these same quality data are used to score ACOs' MIPS quality category which factors into adjustments on Medicare Part B payments.

Overall, the news about ACO quality performance is very good. MSSP ACOs earned an average quality [score of 95 percent](#) in 2016. ACOs that earned shared savings in 2016 showed declines in inpatient hospital expenditures and utilization as well as decreased home health, skilled nursing facility and imaging expenditures.

The HHS Office of Inspector General (OIG) [published a report](#) in August 2017 that found most Medicare Shared Savings ACOs were able to "reduce spending and improve quality of care in the first three years of the program." This OIG report analyzed spending and quality data to determine how ACOs were reducing Medicare spending and increasing quality. Caravan ACOs' reduction in uncontrolled diabetes far surpasses what's found in that report.

## Quality Performance in 2017

For the 2017 reporting year, ACOs reported on [31 quality measures](#). These scores measure progress across both specific clinical activities geared at prevention and early detection, such as flu shots and depression screenings, as well as patient experience and care coordination of high-risk patients, including measures that assess provider communication and readmission rates. For the 15 clinical quality measures, [CMS selected a random sample](#) of patients and asked ACO practices to report on whether those patients met those measures using data from their patient medical records. The remaining 17 measures are assessed either through a patient survey or through analysis of Medicare claims.

There are two clinical quality measures specific to diabetes. In 2017, Caravan Health ACOs reported these measures on 5,375 patients, representing about 10 percent of our diabetic patient population. The first is a measure of hemoglobin A1c. This test determines the level of blood sugar control over the prior 2 to 3 months. The specific ACO measure is defined as the percentage of patients 18 - 75 years of age with diabetes and hemoglobin A1c result greater than 9.0 percent, or out of control, during the measurement period. For this measure, a lower measure rate indicates a better score since it shows more patients in better control of their



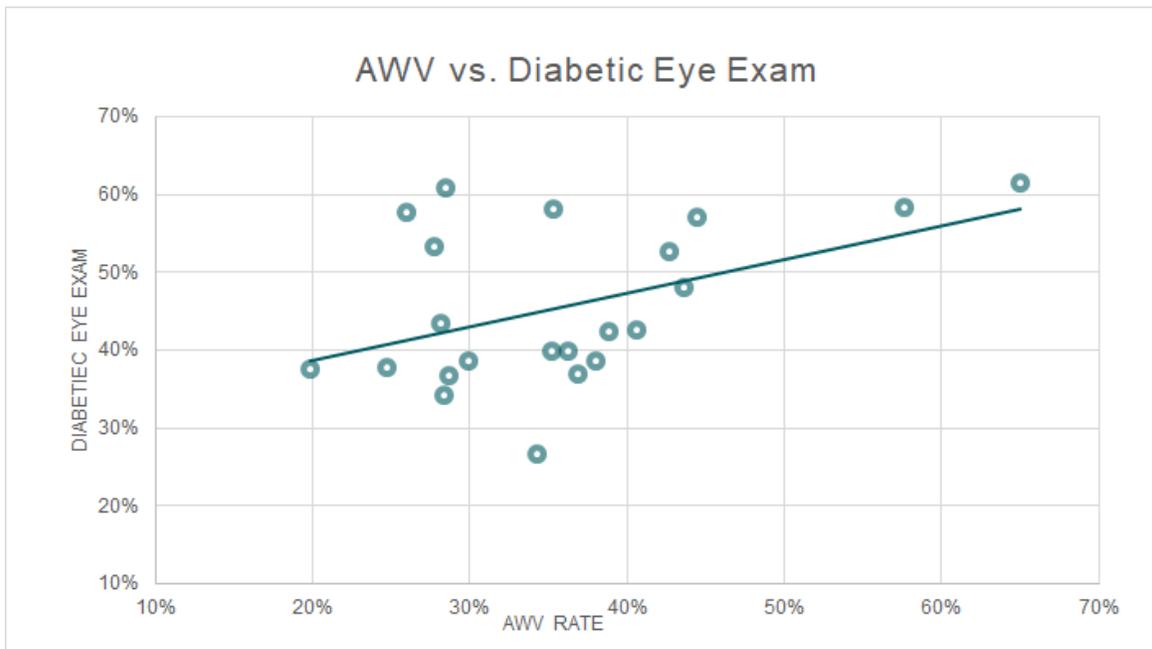
blood sugar levels. Among patients served by Caravan Health ACOs, this measure improved from more than 16 percent in 2016 to 9.5 percent in 2017, a 43 percent reduction.

The second measure is the percentage of patients 18 - 75 years of age with diabetes who had a retinal or dilated eye exam by an eye care professional during the measurement period (2017) or a negative retinal or dilated eye exam in the 12 months prior to the measurement period. These eye exams can lead to early diagnosis and treatment of diabetes-related eye complications such as diabetic retinopathy or glaucoma. Patients with diabetes in Caravan Health ACOs saw an increase in the share receiving this preventive service from 40 percent to 46 percent over the years 2016 – 2017, an increase of 15 percent.

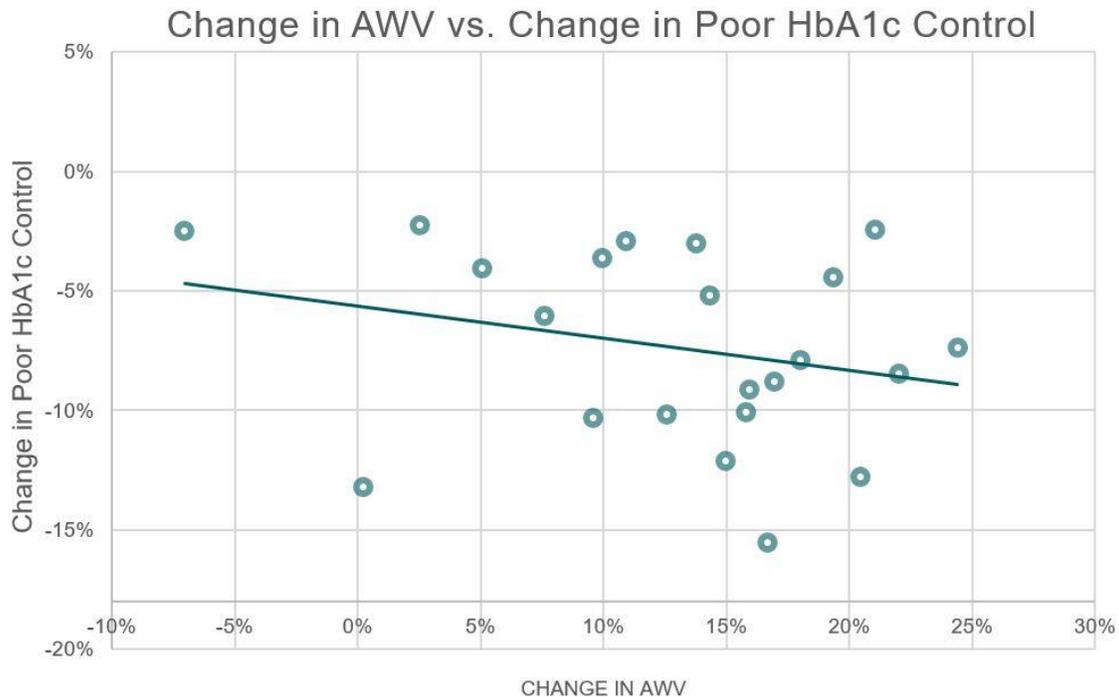
### Building Primary Care Results in Higher Quality

Caravan has an innovative approach to improving quality. We encourage all practices to add nurses to their primary care team. Trained population health nurses can provide annual wellness visits with provider oversight. This model supports all patients with an annual visit that addresses prevention, wellness services and identifies patients who need more support to address chronic conditions, like diabetes, in between provider visits. The visit will also address 10 ACO quality measures. Simultaneously, Caravan Health ACOs are engaged in activities, such as educational webinars, quality improvement workshops, focused audits, and practice improvement management, that are making a real difference in clinical quality.

Our recent analysis shows a positive correlation between annual wellness visits (AWVs) and eye exams for those with diabetes in Caravan Health ACOs. The more annual wellness visits that are done the greater the likelihood of having a screening eye exam.



In addition, we see a correlation between increasing the number of AWWs and reducing out of control diabetes or HbA1c:



To understand factors driving improvement we called clinical leaders in the communities with the largest improvements. Some themes emerged: staff training, increasing annual wellness visits, point of care testing, launch of chronic care management, and other investments in systems seemed to make all the difference. Here are a few examples of those stories.

### Impact Story: Marcus Daly Memorial Hospital

Between 2016 and 2017, [Marcus Daly Memorial Hospital](#) in Hamilton, Montana reduced the rate of uncontrolled high blood sugar among its patients from 42 percent down to 10 percent. They also increased the percentage of eye exams for patients with diabetes from 51.5 to 60 percent. To better understand how the hospital achieved these results, we spoke with Medical Director Allen “Woody” Jones for his thoughts.

Dr. Jones compared diabetes care to physician-led smoking cessation visits. He said that doctors treat every visit as an opportunity to remind the patient of the importance of diabetes management. Those repeated reminders encourage patients to take recommendations seriously.

He identified two interventions that helped Marcus Daly get a handle on diabetes for its patients. First, they started conducting a point of care HbA1c test for every appointment with a diabetic patient, even if the appointment was not related to diabetes. The benefits of this were multifold. The providers could get a better view of who needed more intensive treatment and oversight and the patients could obtain a higher-level view of their diabetic control than is allowed by finger sticks at home. Because the results are real time, it allowed



the provider and nurses to discuss the results immediately with the patient and use this to engage those whose disease was not well controlled.

The second system improvement they implemented was for handling eye exam results. There are two local providers performing diabetic eye exams for the ACO Medicare beneficiaries, one optometrist and one ophthalmologist. Results from these providers are now put in the electronic health record by ACO population health nurses to make sure the information is captured and easily available to primary care providers. This small process change has ensured that results are reviewed consistently and all providers are aware of retinopathy and able to reinforce the need for attention to diabetes control as well as follow up eye exams.

### **Impact Story: Knox Community Hospital**

[Knox Community Hospital](#) in Mount Vernon, Ohio saw dramatic changes from interventions stemming directly from ACO participation. They reduced the rate of uncontrolled high blood sugar among its patients 15 percentage points from a measure of 19.6 in 2016 to one of 4.4 in 2017. They also increased diabetes eye exams from 30.4 percent in 2016 to 35.3 percent in 2017 – an increase of more than 16 percent.

Knox Hospital identified several initiatives as the driving forces behind their dramatic improvements. They have made identification of uncontrolled diabetes a priority. Clinical staff reviewed the charts of all patients with diabetes, flagging all those with a HbA1c level higher than 7 (Medicare uses 9 as a cut off but in other populations control is tighter, using less than 7 as the desired level). All of these patients were contacted and enrolled in their newly launched chronic care management program.

Knox Hospital has also started a quality subcommittee made up of the medical director, care managers, coding specialists, IT experts, office staff, and others. To get their 20 primary care providers on board with new workflows required for ACO participation, the quality subcommittee set out to educate all practices on these new initiatives and how ACO participation would benefit them and their patients.

The ACO leaders at Knox Hospital are encouraged by the excellent results from their diabetes intervention. In the coming year, they are planning to address mammograms and colonoscopies with the same data-driven and integrated approach to increase the quality of care and outcomes for their patients.

