Humana

The intersection of

health + care

Value-based Care Report

Physicians in value-based agreements with Humana are making progress and seeing results. Authored by physicians, this report details results in the areas of prevention and outcomes, quality measures, and cost for Humana Medicare Advantage members affiliated with physician practices in value-based agreements with Humana.

We've been sharing value-based results for the last five years to demonstrate the progress physicians are making and to better inform the way we support them to improve patient care.

Table of Contents

The health care landscape	01
Humana at a glance	02
Value-based care continuum	03
Key insights	05
Prevention and utilization	07
Case study #1 / Central Ohio Primary Care	09
Four-year HEDIS trends	10
Case study #2 / Utica Park Clinic	11
Cost and payments	12
Case Study #3 / Hatfield Medical Group	13
Social determinants of health	14
Looking ahead	15
Physician author biographies	17
Citations	19

The health care landscape

Worthe Holt Jr., M.D., M.M.M. | *V.P., Office of the Chief Medical Officer*

Value-based care—a care model focused on improving clinical outcomes, the patient experience and the value for services—is gaining ground. Some of the success depends on technology, which is on a fast track. Developers are trying to catch up to and maximize the sophistication of today's medical breakthroughs and advancements.

Physicians and clinical staff are running alongside, adjusting protocols, workflows, training and best practices to keep patient care at the forefront. Also, patients, employers and payers are looking for better care at lower costs—demanding higher value for the health care dollar.

The U.S. health care system was designed to deliver care for a price—a fee for a service. In other industries, this structure worked just fine. But in health care, it sent costs skyrocketing—reaching $3.3 trillion or about 18 percent of gross domestic product (GDP).[1] And it didn't work; people aren't any healthier. In fact, three in four people 65 and older are living with more than one chronic condition, and about 75 percent of health care expenses are spent on chronic conditions.[2,3] We all know that the rise in health care costs is unsustainable and that the United States population is getting older. About 10,000 people join Medicare daily,[4] and the Medicare population is expected to increase from 56 million in 2015 to 81.5 million in 2030.[5]

Part of the solution has come from the government in its efforts to reshape the health care landscape. But the other part relies on physicians, hospitals, health plans, outpatient centers and at-home health services. By integrating care at all levels, we can better coordinate prevention and wellness of populations to slow and prevent the advancement of disease. We are rapidly moving from a focus on episodic care to one that addresses the whole person, inside and outside the clinical setting, by practicing value-based care.

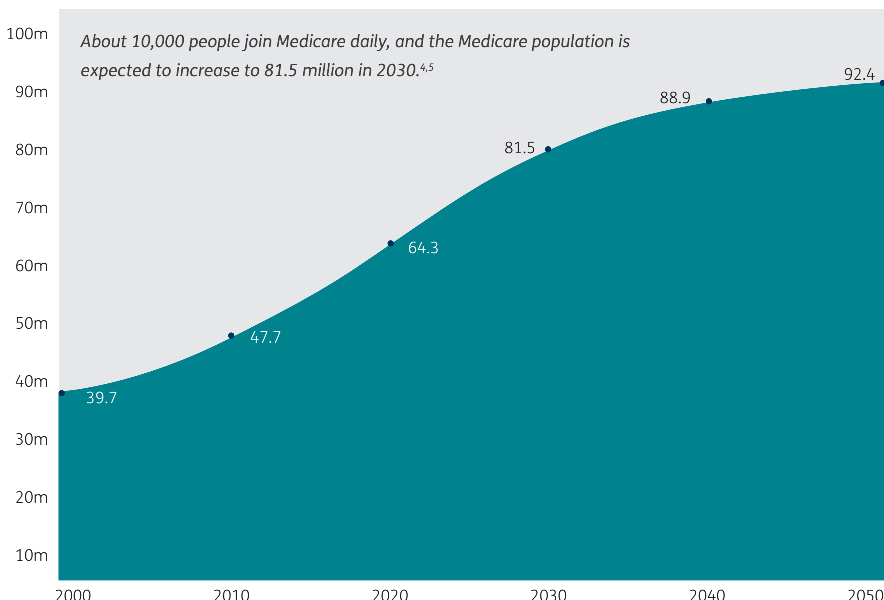
Since 2014, Humana has measured and reported favorable health outcomes for patients affiliated with physicians practicing value-based care.

On average, Americans with five or more chronic conditions ***spend 14 times more on health services*** *than people with no chronic conditions.*[6]

This year, Humana's fifth year reporting, reflects the same encouraging progress.

We're pleased to share with you our Value-based Care Report. Written by physicians, this report shares the progress value-based care practices have made in the areas of prevention and outcomes, quality measures and cost. Additionally, we make value-based care real by sharing case studies about the challenges of value-based care and physicians who are finding success.

Projected Increase in Medicare-age Population (2000–2050)



We are rapidly moving from a focus on episodic care to one that addresses the whole person.

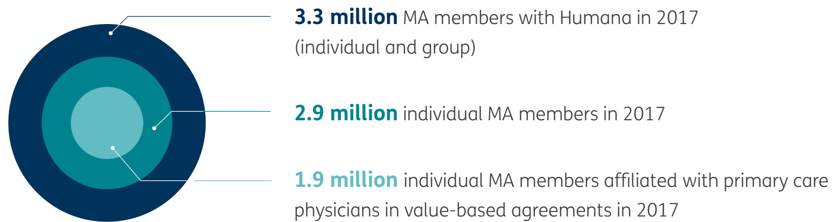
Humana at a glance

Stanley Crittenden, M.D. | *Lead Medical Director, National Medical Review Team*

Having a deep understanding of our members and the conditions they face is essential to helping them achieve their best health. By identifying chronic conditions and health challenges, geographic and environmental factors as well as social and demographic uniqueness, we are able to create clinical programs and services that address members' specific health needs as an extension of their physicians' care.

We believe value-based care is essential to achieving improved population health. Thus, we continue to work closely with physician practices to support them in the transition to value-based care—with actionable data, care coordination, clinical programs, predictive models and innovative solutions.

As of Decemeber 31, 2017, Humana's total Medicare Advantage (MA) membership was **approximately 3.3 million members, including 2.9 million individual MA members.**



Humana reached its 2017 goal of having 66 percent of Humana's 2.9 million individual MA members affiliated with primary care physicians in value-based agreements.

Humana has
1.9m
individual MA members...

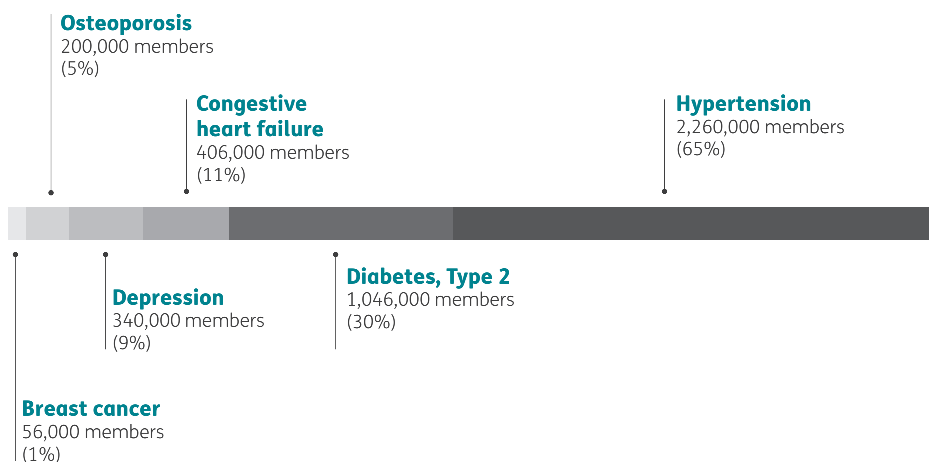
...affiliated with
52,000
primary care physicians...

...in more than
1,000
value-based agreements across 43 states.

The following conditions existed **across our 3.3 million Humana MA members** *(as of December 31, 2017)*:

91% of Humana MA members have at least one condition.[7]

83% of Humana MA members have at least two conditions.[7]



Value-based care continuum

Fernando Valverde, M.D. | *Regional President, Medicare South Florida*

At Humana, we understand that moving into value-based care may require an increase in population health management capabilities and access to accurate, actionable data.

We have tailored our value-based care models to meet primary care physicians (PCPs) where they are in this transition and support them with the tools they need to succeed. Using these tools, physician practices can continue focusing on prevention and improving health outcomes, quality and cost, and elevating the overall experience for their patients, physicians and care staff.

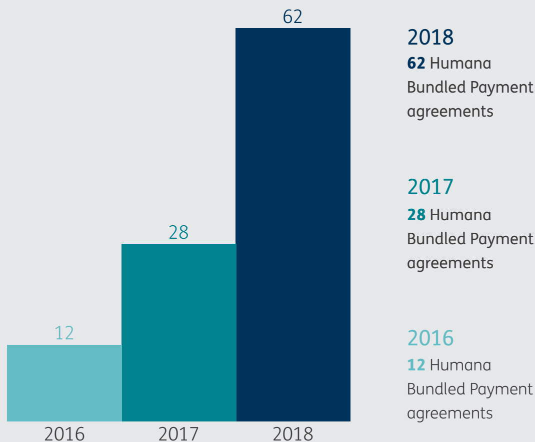
For the purposes of this report, there are two primary categories of payment models we will refer to—fee-for-service/bonus and value-based care. In addition to this care continuum for PCPs and health systems, Humana offers bundled payment agreements in select clinical specialties.

Humana Bundled Payment programs

Humana's Bundled Payment programs are retrospective, episodic, total-cost-of-care models that offer a value-based approach to specialists regarding a particular episode of care.

These specialty-care models are designed to improve quality and outcomes and reduce cost across a patient's entire episode of care, and they offer the opportunity for additional payment for better outcomes. Humana provides participating physicians robust data and analytics to enhance patient care—from diagnosis to recovery. The programs are designed to deliver a more coordinated care experience for the patient, with goals that include reduced readmissions and complication rates. Humana currently offers two bundled payment programs: Total Joint Replacement and Maternity.

Number of Humana Bundled Payment agreements[7]



2018
62 Humana Bundled Payment agreements

2017
28 Humana Bundled Payment agreements

2016
12 Humana Bundled Payment agreements

FFS

Pays for the services a patient receives

Bonus

FFS + additional compensation for meeting quality measures

Fee-for-service

Global value

Full responsibility for Medicare Parts A, B and D through monthly capitated payments

Full value

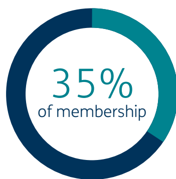
FFS + 100% responsible for Medicare Part B expenses and sharing of Part A (may have shared savings or complete responsibility for Part D)

Limited value

FFS + bonus + care coordination payment + higher portion of shared savings in Medicare Parts A, B and D

Bonus + shared

FFS + bonus + potential for limited shared savings (upside only) in Medicare Parts A, B and D



Value-based care

Capabilities for success: bonus + shared and limited value

Care coordination: Coordinator or dedicated team

Utilization: Management and insights on emergency room visits, hospital admissions and readmissions

Financial: Management of prospective payments, surplus and medical expenses

Data/insights: Quality metrics and patients with chronic conditions

Capabilities for success: full and global value (everything at left, plus)

Confidence: Success before taking on downside and health plan is transparent and aligned

Financial: Significant management of cost factors, sophisticated reporting and data functionality

Care coordination: Team-based care coordination management and discharge planning

2017 Key insights

Kathryn Lueken, M.D., M.M.M. | *Corporate Medical Director, Medical Market Clinical Integration*

Results show that patients affiliated with physicians in Humana MA value-based agreements had more favorable outcomes in all Healthcare Effectiveness Data and Information Set (HEDIS) Star measures. HEDIS is a measurement tool developed by the National Committee for Quality Assurance (NCQA) to assess health plans' performance on various dimensions of care and service.

Why is this important? Preventive care, chronic condition management and medication adherence may help physicians identify early stages of disease to allow for appropriate treatment and in turn keep patients healthier.

Prevention, outcomes and utilization

The results below show the percentage difference between Humana MA value-based agreements and Humana MA fee-for-service.[7]

Prevention	Diabetes care	Management and adherence
↑ **+11%** Colorectal cancer screenings	↑ **+9%** Eye exam	↑ **+4%** Adult BMI assessment
↑ **+10%** Breast cancer screenings	↑ **+2%** Renal disease controlled	↑ **+3%** Statin medication adherence
Utilization *(per 1,000)*	↑ **+2%** Blood sugar controlled	↑ **+3%** Hypertension medication adherence
↓ **7%** Fewer ER visits	↑ **+3%** Nephropathy	↑ **+3%** Diabetes medication adherence
↓ **5%** Fewer hospital admissions		↑ **+8%** Blood pressure control management

Patients with diabetes who are affiliated with value-based physicians had more condition-specific screenings and better adherence to medications, demonstrating tighter control of blood glucose and blood pressure levels.

Cancer screening rates were also higher for patients affiliated with value-based physicians. According to the Centers for Disease Control and Prevention (CDC), the vast majority of colorectal cancer (about 90 percent) occurs in patients who are 50 or older.[8] This highlights the importance of screening to potentially find and remove precancerous polyps before they turn into cancer. Additionally, the American College of Physicians reports approximately 1 in 8.2 women will receive a diagnosis of breast cancer during her lifetime, with breast cancer incidence increasing with age.[9] Although screenings cannot prevent breast cancer, they can help find breast cancer early so treatment can begin sooner.

Physicians who were in value-based agreements from 2014 through 2017 had a **4.21 average HEDIS Star score** *based on 672,000 Humana MA members.*

Four-year HEDIS trends

When looking at the different four-year trends by payment model, physicians who moved from bonus agreements to value-based agreements after 2014 had the best HEDIS Star score in 2017. Star scores were based on 19,000 Humana MA members at the end of 2017 (4.47 average out of 5). Physicians who were in value-based agreements from 2014 through 2017 had a 4.21 average HEDIS Star score based on 672,000 Humana MA members. Thus, those in value-based agreements at the end of 2017 had higher HEDIS Star scores compared to physicians in other types of agreements.

Physicians in Humana MA fee-for-service agreements performed better on HEDIS Star measures in 2017 versus 2016. Even though a lot of focus is placed on value-based care in this report, it is important to note that HEDIS quality results are improving for patients who are affiliated with fee-for-service physicians.

(See page 10 to view four-year trend comparisons)

Financial improvements

Physicians in Humana MA value-based agreements with shared savings performed better in 2017 than in 2016, with 10 percent more physician practices earning shared savings (from 60 to 70 percent). Not only did Humana MA value-based physician practices see improvements, Medicare Accountable Care Organizations improved in 2017 as well. According to the National Association of Accountable Care Organizations (ACOs), in 2017, 34 percent of those participating in the program earned shared savings.[10] That was an increase from 31 percent earning shared savings in 2016. This is a positive trend for physicians and care providers in shared savings agreements and for the health care industry as a whole.

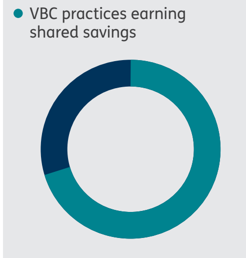
PCP practices in value-based agreements with Humana received 16.8 percent of every dollar spent on member care in 2017.

PCP practices in Humana MA value-based payment agreements are receiving more of the health care dollar than Humana's non-value-based PCPs and are exceeding the national average of 6 percent.[11] The 16.8 percent of payments Humana distributed to PCP practices in value-based agreements represents claim and capitated payments.

Non-value-based PCP practices contracted with Humana received 6.9 percent of total payments Humana distributed in 2017. While the 6.9 percent payment distribution is higher than the national average for primary care, it's clear that value-based groups can earn more—and did in 2017.

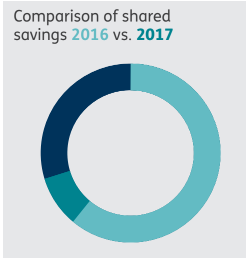
Not only that, but value-based groups and physicians were able to affect medical costs. Even when looking at HEDIS quality measures and utilization, Humana MA value-based physicians had better results than their peers in FFS. The goal of taking costs out of the system and creating more value for the care received is showing results. Thus, value-based care is achieving the goal of creating higher quality medical care for lower cost.

"Prevention" and "Outcomes" results were from a study of 1.74 million Humana MA members affiliated with physicians in value-based agreements compared to 130,000 Humana MA members affiliated with physicians under standard MA settings. "Outcomes" and "Cost" results were from a study of approximately 1.5 million Humana MA members affiliated with physicians in value-based agreements compared to 146,000 Humana MA members affiliated with physicians under standard MA settings and to original fee-for-service Medicare.



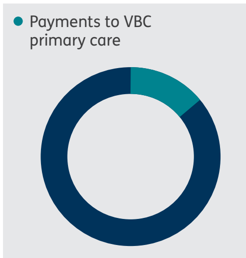
70% of physician practices

participating in the Humana value-based program earned shared savings



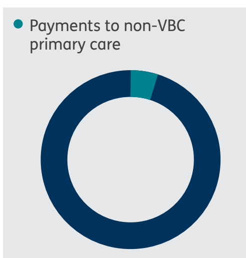
10% more

Humana MA value-based physician practices experienced shared savings in **2017 (70%)** vs. **2016 (60%)**



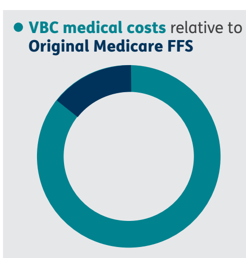
16.8% of every dollar spent

on member care went to PCPs in value-based agreements*



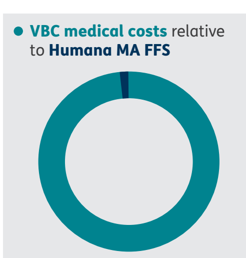
6.9% of every dollar spent

on member care went to PCPs in non-value-based agreements*



15.6% lower

medical costs for patients who are attributed to physicians in Humana value-based agreements compared to Original Medicare FFS[12]



1.0% lower

medical costs for patients who are attributed to physicians in Humana value-based agreements compared to Humana MA FFS

**Percent taken of total MA covered claims expense*

Prevention and utilization

Laura Trunk, M.D., M.B.A. | *Medical Director, Provider Development*

Physicians in Humana MA value-based agreements had more favorable results than physicians in fee-for-service agreements in all HEDIS Star measures. While we know that all physicians are committed to patient health, those in value-based care agreements have access to additional resources and capabilities to build the infrastructure they need to expand their reach outside the practice. Focusing on prevention and the whole health of their panel population allows physicians and their care teams to work more strategically to improve the care of their patients, thus keeping them home and out of the hospital and emergency room.

Lower admissions and emergency room visits

The below results compare utilization for patients in Humana MA agreements relative to original fee-for-service Medicare.

Hospital inpatient admissions relative to original Medicare *(per 1,000)*

Emergency room visits relative to original Medicare *(per 1,000)*

Additionally, Plan All-Cause Readmissions (PCR), a measure developed by the NCQA that assesses the rate of adult acute inpatient stays followed by an unplanned acute readmission for any diagnosis within 30 days after discharge, is not demonstrated above. Across the Humana MA models, there was a 1 percent lower PCR rate among patients affiliated with physicians in Humana MA value-based models versus fee-for-service and bonus models.

Prevention and adherence

Below are the percentages for each prevention and outcome measure (expressed as a frequency rate) across fee-for-service, bonus and value-based care settings for Humana MA members. For example, patients affiliated with physicians in value-based care agreements had a higher frequency rate of breast cancer screenings (78 percent) compared to patients affiliated with physicians in fee-for-service (69 percent) and fee-for-service plus bonus agreements (69 percent). In the spotlight on breast cancer screenings, you'll see the number of patients who were screened compared to those who were eligible, with results reported by payment model.

Management and medication adherence

Management and medication adherence	FFS	Bonus	VBC
Osteoporosis management	34%	36%	48%
Rheumatoid arthritis management	78%	78%	81%
Blood pressure control management	76%	80%	83%
Statin medication adherence	79%	82%	83%
High blood pressure medication adherence	82%	84%	85%
Adult BMI assesment	95%	98%	99%

Spotlight
Improved statin medication adherence

	Patients adherent	Patients eligible	Adherent
FFS	43,432	54,633	79%
Bonus	241,541	294,856	82%
VBC	690,910	835,576	83%

Cancer screenings

Cancer screenings	FFS	Bonus	VBC
Breast	69%	69%	78%
Colorectal	68%	68%	78%

Spotlight
Increased preventive breast cancer screenings

	Patients screened	Patients eligible	Screening
FFS	19,569	28,562	69%
Bonus	105,876	153,673	69%
VBC	305,257	391,005	78%

Diabetes care

Diabetes care	FFS	Bonus	VBC
Eye exam	66%	64%	74%
Diabetes medication adherence	80%	82%	83%
Blood sugar controlled	96%	96%	98%
Renal disease management	94%	96%	97%

Spotlight
Stronger diabetes medication adherence

	Patients adherent	Patients eligible	Adherent
FFS	15,464	19,322	80%
Bonus	83,813	102,219	82%
VBC	234,806	281,632	83%

Care for older adults

Care for older adults	FFS	Bonus	VBC
Functional status assessment	82%	92%	96%
Medication review	88%	91%	96%
Pain screening	90%	97%	98%

Spotlight
Increased medication reviews

	Patients reviewed	Patients eligible	Reviewed
FFS	1,667	1,904	88%
Bonus	1,777	1,954	91%
VBC	21,734	22,524	96%

Central Ohio Primary Care

Larry Blosser, M.D. | *Outpatient Medical Director*

Perhaps the most surprising thing about our transition to value-based care is how quickly we saw results. As the largest independent physician-owned primary care practice in the country, our path to value started with becoming patient-centered medical homes.

We decided to work with Humana to transform the way we deliver and got paid for care, beginning with developing our quality improvement department, care coordination program and our Transition of Care nurses.

Humana quickly took notice of our initiative and offered to embed a quality nurse into Central Ohio Primary Care (COPC). Working closely together, we built the foundation of our program and went from a 3-star to a 4-star practice in just one year.

We invested the per-member, per-month care coordination payments received from the plans to build the infrastructure and hired quality nurses and care-coordinators to ensure we had the infrastructure to provide value-based care.

Our physicians and care coordinators work together to create individualized plans for patients with a focus on those recently discharged from the hospital. Our staff provides in-home visits and personal assistance with the transition from hospital to home, which helps to reduce risks and prevent hospital readmissions.

We're also able to be more hands-on when patients share challenges at their office visits. For example, we had an elderly patient recently who was having difficulty with his diabetes medications. My colleague, Dr. Matthew Skomorowski, reached out to one of our care coordinators who then met with the patient and his family at home. Together, they formed a strategy and now the patient is adherent to his medications and doing well, potentially avoiding more serious health complications.

In 2017, all of our physicians caring for adults ***received a 20 percent shared savings bonus.***

It's become clear that health plans are no longer just a means of being paid. Now, they are a significant partner in quality patient care. Humana supports us in taking better care of our patients, and the results are significant.

Our admits-per-thousand have decreased from the mid-200s to roughly 160, and our Medicare Advantage readmission rate also dropped to between 6–7 percent.

In 2017, all of our physicians caring for adults received a 20 percent shared savings bonus, and we actually saw the number of office visits per physician go down that year. Doctors are able to spend more time with their patients and provide the kind of care they are capable of giving—the kind of care the patient deserves.

Value-based care requires a close partnership with the payers and aligns everybody's interests: patients, plans, providers. Everybody is moving in the same direction, trying to get to the same place. All have the same goal—to improve patients' quality of care while preventing complications and additional health care costs.

As the largest physician-owned primary care practice in the country, our path to value started with becoming patient-centered medical homes.

Four-year HEDIS trends

Anita Holloway, M.D., M.B.A. *| Large Group Market Medical Officer*

Physicians who practice value-based care are achieving higher rates of patient engagement in preventive screenings, medication adherence and management of chronic conditions as measured by HEDIS.

Humana has a model for attributing HEDIS ratings to practices by attributing member results to each HEDIS measure issued by NCQA. The member results attributed to each HEDIS measure are then compared to thresholds published by The Centers for Medicare & Medicaid Services (CMS) to calculate the HEDIS Star score.

In the chart below, we can see that regardless of their payment agreement, all physicians benefited from focusing on the quality measures associated with HEDIS. The Humana members analyzed were continuously enrolled in MA plans for four years and were affiliated with the same physicians, even though the physician may have progressed to a different payment model. While there are varying degrees of success each year, CMS raises the bar on HEDIS scores annually based on industry improvements.

5.0 score
4.9
4.8
4.7
4.6
4.5 score
4.4
4.3
4.2
4.1
4.0 score
3.9
3.8
3.7
3.6
3.5 score

VBC (4.37)
Bonus (4.05)
FFS (3.74)
FFS (3.74)
FFS (3.53)
VBC (4.21)
Bonus (4.21)
FFS (3.58)
Bonus (3.42)

2014
2015
2016
2017

VBC → VBC

Physicians in a value-based agreement for all four years had a **HEDIS score of 4.21 at the end of 2017, based on 672,000 patients.**

Bonus → VBC

Physicians in a bonus agreement in 2014 who transitioned to value-based care in 2015 had a **HEDIS score of 4.21 at the end of 2017, based on 19,000 patients.**

FFS → FFS

Physicians in a fee-for-service agreement for all four years had a **HEDIS score of 3.58 at the end of 2017, based on 10,000 patients.**

FFS → Bonus

Physicians in a fee-for-service agreement in 2014 who transitioned to bonus in 2015 had a **HEDIS score of 3.42 at the end of 2017, based on 28,000 patients.**

FFS → VBC

Physicians in a fee-for-service agreement in 2014 who transitioned to value-based care in 2015 had a **HEDIS score of 3.79 at the end of 2017, based on 5,700 patients.**

Utica Park Clinic

Jeff Galles, D.O. | *Chief Medical Officer*

Practice stats

150	*PCPs*
39	*Practices*
4,000+	*Humana MA patients*

One of the things we started to realize the further our practice progressed down the path of value-based care is how vital the role of data is in our patients' health. While we had access to some data through our electronic health record, we recognized that data from our payers could fill in the gaps and provide insight into our patients our practice wouldn't otherwise have. This expanded population health management data helps us manage the health of our patients and better informs and directs our outreach and care.

With this robust data, we've been able to track our patients' health data over the last several years and see the first hand improvements our value-based care strategies are making. Our physicians and care teams have access to this data because of our centralized reporting platform, which improves coordination of care, documentation and action planning.

> *There's no debate that our patients are seeing the benefit of value-based care...**these are things they may never have experienced with their primary care physician.***

Specifically, we've been able to improve care by identifying patients who may be at risk for emergency room visits or frequent hospital admissions. Through our dedicated care coordinators, we have developed actionable care plans and counseled patients on steps they can take to improve their health. This has led to a decrease in hospital readmissions, from 17 percent in 2016, to 12 percent in 2017.
One of the challenges we've faced is being able to proactively manage a large population and ensure patients are receiving the proper level of care, at the right time and right place. Having access to actionable data allows us to stay connected to our patients and ensure we are not just reacting to an episode of care, but rather also reaching out proactively to schedule wellness appointments and preventive screenings.

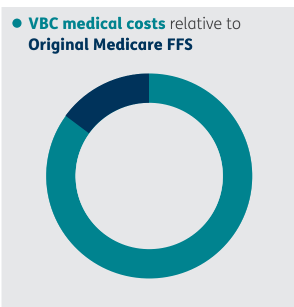
In fact, through this outreach, we've increased medication adherence by 4 percent and improved colorectal cancer screenings by 2 percent between 2016 and 2017. We have also increased the number of patients with two or more PCP visits per year to 80 percent in 2017—an indication that our patients are adhering to their wellness and preventive screenings.

There's no debate that our patients are seeing the benefit of value-based care. We hear patients make comments like, "I can't believe you called me after I left the hospital," or, "I was surprised you called to let me know I was due for my blood pressure monitoring. Thank you." These are things they may never have experienced with their PCP. But with the effort to get ahead of illness, focus on value and proactively improve the health of our patients, we're moving the needle on health like never before.

One of the things we started to realize the further our practice progressed down the path of value-based care is how vital the role of data is in our patients' health.

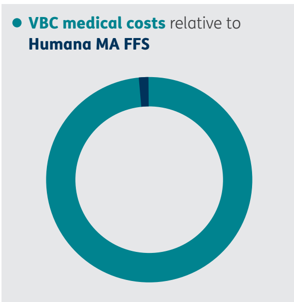
Cost and payments

Paul Mikulecky, M.D. | *Regional Vice President, Health Services*



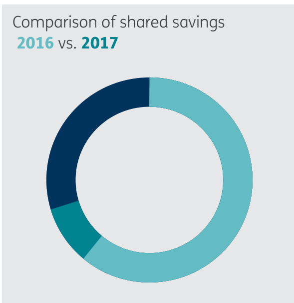
15.6% lower

medical costs for patients who are attributed to physicians in Humana value-based agreements compared to Original Medicare FFS



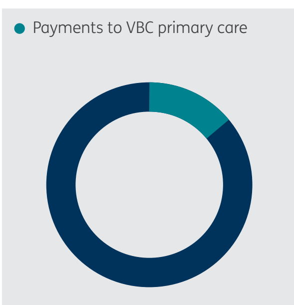
1.0% lower

medical costs for patients who are attributed to physicians in Humana value-based agreements compared to Humana MA FFS



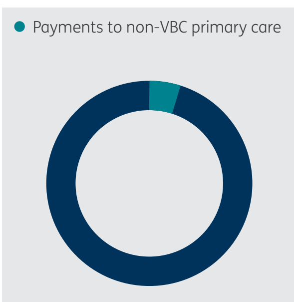
10% more

physician practices experienced shared savings in **2017 (70%)** vs. **2016 (60%)**



16.8% of every dollar spent

on member care went to PCPs in value-based agreements*



6.9% of every dollar spent

on member care went to PCPs in non-value-based agreements*

**Percent taken of total MA-covered claims expense*

Health care costs

Medical costs for patients attributed to PCP practices in Humana MA value-based care settings were 15.6 percent lower vs. Original fee-for-service Medicare.

Medical costs for patients attributed to physicians in Humana MA value-based care settings were 1 percent lower vs. Humana MA fee-for-service settings.

As part of the industry's transition from volume to value, improving health and outcomes for patients as well as reducing inefficiencies, like duplicate tests and unnecessary procedures, helps remove cost from the health care system. The shift to value over volume not only positively affects costs but also creates a better experience for the patient.

Shared savings opportunities in value-based models

Most value-based programs include shared savings opportunities. Shared savings is realized when a practice or organization provides care to their patients with the cost of services lower than a predetermined amount. Practices may earn a portion, or all, of the cost savings depending on the specific value-based program they participate in. With most cases, a practice must also meet certain quality-related metrics to earn any of the realized cost savings.

Humana looked across its value-based models and found that 70 percent of all practices in a value-based payment model earned a shared savings surplus in 2017, compared to 60 percent in 2016.

Physician payment distribution

With value-based care placing the PCP in a more central role of their patients' care, increased capital may be needed to overcome obstacles, like needed investments in information technology or care coordination support. Both Humana MA value-based and non-value-based PCP practices received a larger distribution of health care payments compared to the national average, especially those physicians in value-based agreements. These payments to physician practices include reimbursement based on claims and any capitated/per-member-per-month payments.

Hatfield Medical Group

David Hatfield, D.O. | *Chief Executive Officer & Lead Physician*

Practice stats

15	*PCPs/providers*
4	*Practices*
876	*Humana MA patients*

When a patient walks into Hatfield Medical Group, we want it to be clear that patient care is our top priority. From our staff that greets each patient by name, to our posted motto, "quality, compassionate care to every patient, every day," it's clear that high-quality care is the central focus of our practice. Over the last few years, we've been able to successfully transition our four clinics across the Phoenix area from fee-for-service to value-based care while keeping the well-being of our patients above all else.

Part of this accomplishment is attributed to how we're impacting the outcomes of our patients with diabetes by bringing one of the most common diabetic preventive services—a retinal eye exam—into our clinics.

One of the current Healthcare Effectiveness Data and Information Set, or HEDIS, measures is "Comprehensive Diabetes Care," which includes an annual retinal eye exam. This measure tends to have one of the lowest scores due, in part, to the inconvenience and additional cost of having to schedule the exam with an ophthalmologist.

We saw an opportunity to improve our patient experience and provide this critical screening by investing in retinal cameras and training for our staff to perform these exams right here in our clinics.

There's hardly a patient with diabetes who leaves our practice without receiving a diabetic retinal eye exam, which has led us to be rated 5 stars on this HEDIS metric.

Being able to conduct these retinal exams on-site—and then immediately have them read by an ophthalmologist—allows us to identify patients who have diabetic retinopathy earlier so we can take action right away. We keep the most important result of these efforts top of mind—improving the health of our patients. We made this investment because we knew we needed to provide the best care for our patients. Even though we weren't expecting reimbursement for the diabetic retinal exam technology and equipment, when Humana found out how quickly we moved the needle on this measure, they cut us a check the next week. This showed us that Humana, as well as other plans, are focused on prevention and committed to incentivizing value.

> *"I have been more fulfilled and happier as a physician because I've been able to spend more time with my patients* ***to truly impact their overall health.****"*

Not only are our patients seeing the benefit of a value-based model, but our physicians are as well. I have found personally and professionally that, in this day and age of value-based care, I have been more fulfilled and happier as a physician because I've been able to spend more time with my patients to truly impact their overall health.

When a patient walks into Hatfield Medical Group, we want it to be clear: patient care is our top priority.

Social determinants of health

***Andrew Renda, M.D., M.P.H.** | Director, Population Health*

Physicians are looking for every opportunity to improve the well-being and health outcomes of their patients. This is especially true of physicians in value-based relationships, who may spend additional time and resources getting to know and supporting their patients. There is growing recognition that mental and physical patient well-being is impacted by social, environmental and economic determinants of health.

For the last few years, Humana has been working with physicians and their practices to screen for social determinants and health-related social needs inside the clinical setting, as well as connect their patients to community resources once they leave the doctor's office. Our work with local non-profit, for-profit, faith-based and governmental organizations, along with physicians and health care professionals, has allowed us to identify and scale interventions that address food insecurity, social isolation and lack of transportation. These barriers to health particularly impact older adults and lower-income populations.

Through our data and analytics, along with research collaboration with CDC, Robert Wood Johnson Foundation and academic institutions, we identified these social determinants as major factors that impact Healthy Days.

By working with community partners and health care professionals practicing value-based care, we are investing in a healthier future. Our provider engagement and market teams work to connect patients with resources that can offer help.

*Those who identified as lonely or socially isolated **had two times more unhealthy days** than those who did not identify as lonely or socially isolated.[7]*

Social isolation and loneliness

Social isolation and loneliness are two social determinants that can have indisputable negative impacts on patients of all ages. Social isolation refers to the quantity and structure of a person's social network, contacts and participation in social activities, while loneliness refers to the quality of relationships within a person's network and their sense of belonging and social support. The senior population is particularly vulnerable. Studies show social isolation and/or loneliness can cause dementia to progress more rapidly and increases the rate of depression.[13]

Patients may not equate their loneliness to their health or may report feeling tired or unmotivated when, in fact, they have too little activity and a limited support system. To raise awareness and to offer suggestions for how physician practices might address social isolation and loneliness in their patients, Humana developed a toolkit, which can be found at **PopulationHealth.Humana.com/#toolkits**. The kit includes screening questions and ideas for intervention.

Our work at Humana will continue to look outside the clinical setting to where the majority of health happens: where people live, work and play. We have a Bold Goal to improve the health of our members, employees and communities 20 percent by 2020.

Social isolation by the numbers

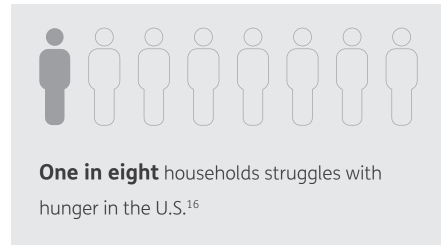
People with social isolation or loneliness are:

- At **64 percent greater risk** of developing clinical dementia and double the risk of Alzheimer's[13]
- **Four times more likely** to be re-hospitalized within a year of discharge[14]

Plus, people with social isolation are 2–5 times more likely to die prematurely than those with strong social ties.[15]

Food insecurity

Physicians are finding that food insecurity can have a significant impact on the management of chronic illness, like diabetes. This barrier can affect a patient's ability to purchase medications and stay adherent to care plans. If left unchecked, hunger and a lack of healthy food can undermine clinical efforts to improve patient health.



One in eight households struggles with hunger in the U.S.[16]

To raise awareness and to offer suggestions for how practices might address food insecurity in their patients, Humana partnered with Feeding America, the largest domestic hunger-relief charity, to develop a food insecurity toolkit, which can be found at **PopulationHealth.Humana.com/#toolkits.**

Food insecurity by the numbers

People with food insecurity have:

- Higher levels of diabetes, hypertension, coronary artery disease and kidney disease[16]
- Higher rates of ER visits, hospital readmissions and urgent care visits[17]
- More hospitalizations and longer inpatient stays[17]
- Poor diabetes self-management[18]
- Higher probability of mental health issues such as depression[18]

Our work at Humana will continue to look outside the clinical setting to where the majority of health happens: where people live, work and play.

Looking ahead

Roy Beveridge, M.D. | *Chief Medical Officer*

As we begin to look ahead at the possibilities for value-based care, it's important to be reminded of what we've learned through these results:

- Patients with diabetes who are affiliated with value-based physicians have more condition-specific screenings and, as a result, have better adherence to medications and better management of their blood glucose levels.
- The same is true for people with hypertension—their medication adherence rates are better, and their blood pressure is better managed.
- PCP practices in Humana MA value-based agreements are receiving a larger distribution of the health care dollar than the national average—meaning more money is going to Humana MA value-based PCP practices than those in FFS agreements.
- More physician practices in Humana MA value-based agreements received a shared savings surplus in 2017 compared to 2016, which is money that may be used to invest in practice resources and infrastructure or improve physician compensation.
- Overall medical cost is lower for patients affiliated with physician practices in Humana MA value-based agreements than those in either Humana MA FFS agreements or Original Medicare FFS.

Value-based care arrangements are designed, in part, with the intention to help move physicians closer to their desired practice experience. However, there is limited evidence in peer-reviewed literature that value-based care is in fact improving the physician experience. Results that do exist are mixed in terms of the benefits of value-based care.

A study Humana administered through Medscape, an organization that provides access to medical information and continuing education for physicians and health professionals, explores whether value-based care is delivering on an improved PCP and clinician experience. Specifically, does value-based care give them more time with patients, lead to better quality conversations, more investments in physician practices and higher physician payments? So, we're just starting to explore that.

More PCP practices in Humana MA value-based agreements ***received larger shared savings payments in 2017 compared to 2016.***

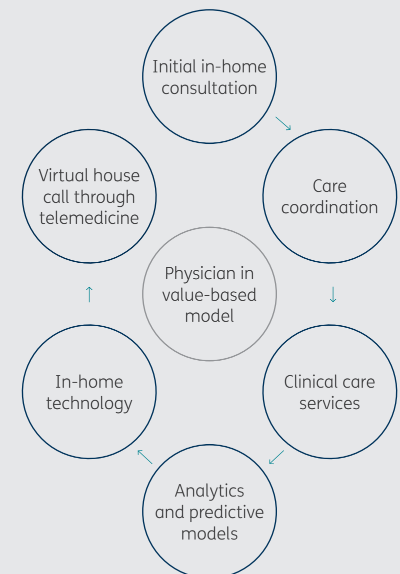
Our experience tells us that, with the evolution of value-based care, PCPs are relying on a team-based approach to stay connected to their patients in their everyday lives. That's why we, at Humana, believe the future of health care is in the home.

Care in the home becomes even more important following a patient's hospital discharge, especially when you consider that nearly every fifth hospitalization among Medicare FFS beneficiaries who were discharged from the hospital resulted in a readmission within 30 days.[19]

We have found it's essential to augment the reach of the PCP with holistic, in-home care services for their recently discharged patients within the first 24 hours of their homecoming.

This includes six elements that depend on integrated clinical relationships that support the value-based care model. This comprehensive approach to care fully supports the PCP and their practice, reducing the burden on the clinician and complexity for their patients.

Elements of holistic support



We've invested in our integrated care delivery strategy, which specifically supports and advances the care necessary to help individuals with Humana MA stay in their homes and out of the hospital. Those investments include an agreement with Kindred at Home, which sees more than 570,000 patients daily across 41 states and is the leading provider of home health services in the country. Kindred at Home accelerates our goal to create a national care platform that extends into the home.

Looking ahead, Humana will continue to make investments in accelerating our integrated care delivery strategy, which encompasses supporting physician practices and care providers, making it easier for our members to engage at the intersection of health care and lifestyle, and leveraging technologies and clinical analytics that enhance our holistic health approach.

What our experience tells us is that PCPs are relying on a team-based approach to stay connected to their patients in their everyday lives.

Humana's investments include an agreement with Kindred at Home, which sees more than 570,000 patients daily across 41 states and is the leading provider of home health services in the country. Kindred at Home accelerates our goal to create a national care platform that extends into the home.

- Kindred at Home sees more than 570,000 patients daily across 41 states

Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Indiana, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusets, Michigan, Minnesota, Missouri, Mississippi, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Washington, Wisconsin, West Virginia

Physician author biographies

***Roy Beveridge,* M.D. /** *Chief Medical Officer*

Humana

Dr. Beveridge is Humana's Chief Medical Officer and is responsible for developing and implementing the company's clinical strategy and advancing its integrated care delivery model. He is known for creating collaborative environments among physician communities and providing thought leadership, publishing extensively in the fields of medical oncology, quality design, ethics, and population health.

***Larry Blosser,* M.D. /** *Outpatient Director*

Central Ohio Primary Care

Dr. Blosser is the outpatient medical director for Central Ohio Primary Care. In his career, he has facilitated solving operational and physician satisfaction issues and has worked with the development of strategies to support population health management as they relate to primary care.

***Stanley Crittenden,* M.D. /** *Lead Medical Director*

Humana

Stanley D. Crittenden, M.D. is a Lead Medical Director at Humana on the National Medicare Review Team and is board certified in internal medicine, nephrology and clinical hypertension. He leads a team of physicians and staff responsible for grievance, appeals, special investigations and payment integrity as it relates to facilities services, personalized and genetic medicine, and complex laboratory testing.

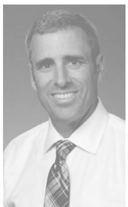
***Jeff Galles,* D.O. /** *Chief Medical Officer*

Utica Park Clinic

Dr. Galles is board certified in internal medicine. He is actively involved in quality improvement. He serves as the Chairman of the Quality Improvement Council, chair of the Utica Park Clinic Medical Executive Committee and is an officer of the Medical Executive Committee at Hillcrest Medical Center.

***David Hatfield,* D.O. /** *Chief Executive Officer*

Hatfield Medical Group



Dr. Hatfield is the Chief Executive Officer and Lead Physician at Hatfield Medical Group in Mesa, Ariz. He has a background in health care consulting, clinical research, disease prevention and a deep understanding of Medicare Advantage. He is an industry advocate for value-based care.

***Anita Holloway,* M.D., M.B.A /** *Large Group Medical Officer*

Humana

Dr. Holloway is Medical Director for Humana covering Wisconsin, Illinois, and Tennessee commercial markets. She brings together clinical and business strategies to support healthy communities. She has been a clinician in private, academic, and group physician practice settings, medical director in both provider and employer environments, and business leader on professional committees and organizational boards.

***Worthe Holt Jr., M.D., M.M.M.* /** *V.P., Office of the CMO*

Humana

Dr. Holt is a physician and executive with an extensive background in operational and strategic leadership. He has spearheaded consolidation of quality metrics and clinical insights into value-based care delivery and reimbursement models. He is a published as well as nationally recognized expert and advocate for quality, value and collaboration in the health care environment.

***Kathryn Lueken,* M.D., M.M.M. /** *Corporate Medical Director*

Humana

Dr. Lueken is based in South Carolina and is the Corporate Lead Medical Director for Integration of Medicare Retail Markets at Humana. She is board certified in family medicine. Her expertise is in reducing unnecessary emergency department utilization through delivery of peer support and trauma informed care.

***Paul Mikulecky,* M.D. /** *Regional Vice President*

Humana

Dr. Mikulecky worked in both primary care and hospital medicine prior to coming to Humana. He strives to facilitate transparency in costs and utilization at the primary care level, allowing treating physicians the ability to make the best decisions for their patients based on quality outcome metrics.

***Andrew Renda,* M.D., M.P.H. /** *Director, Population Health*

Humana

Dr. Renda is Humana's Director of Bold Goal – Population Health. His work includes leading insights, strategy, interventions, and communications for Humana's Bold Goal population health strategy to improve community health by 20 percent. He is a published author and speaker in the fields of population health, social determinants of health and chronic disease.

***Laura Trunk**, M.D., M.B.A. / Medical Director*

Humana

Dr. Trunk is board certified in internal medicine and has been with Humana for 10 years. Her work focuses on value-based care and using analytics to engage physicians to work toward improvements in quality and cost of care initiatives. She has been involved with several population health projects and is the physician sponsor for the New Orleans and Baton Rouge Bold Goal markets.

***Fernando Valverde**, M.D. / Regional President*

Humana

Dr. Valverde is the Regional President for Humana in South Florida. In this role he is responsible for the oversight of 400,000 Humana Medicare and Medicaid members. Dr. Valverde was also the Associate Dean for Community and Clinical Affairs at the Herbert Wertheim College of Medicine at Florida International University where he taught humanism, health care policy and managed care.

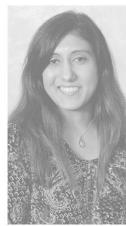
Contributing Editors:

***Tich Changamire**, M.D., Ph.D., M.B.A. / Executive Immersion Physician*

Humana

Dr. Changamire participates in the Executive Physician Immersion Program at Humana and is a board-certified family physician with a strong interest in value-based health care, population health, clinical quality improvement and the business of health care. His experience includes incorporating entrepreneurship, innovation and data analytics to solve contemporary health care challenges.

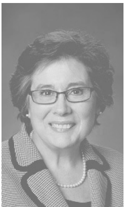
***Nisha Patel**, M.D. / Regional VP, Health Services*



Humana

Dr. Patel joined Humana in 2014 as a Medical Director and has served as Regional Vice President of Health Services for the East Central region (Ohio, Indiana and Michigan) since October 2015. Dr. Patel is board certified in internal medicine and, prior to coming to Humana, was a founding partner and owner of a private hospitalist group for several years.

***Liz Peterson**, M.D. / Regional VP, Health Services*



Humana

Dr. Peterson is a board-certified pediatrician. She has had a long career in managed care, starting as a clinical physician in a staff model HMO. She has gone on to hold several leadership positions in various health plans and has led a large multispecialty group. She currently oversees the Health Services Organization for Central Region.

***Tom Roben**, D.O., RPh / Regional VP, Health Services*

Humana

Dr. Roben is board certified in internal medicine with pharmacist and medical technologist undergrad degrees. His work in population health care began in 2010 with Health Care Partners of Nevada, acquired by Davita in 2012, and he joined Humana as the Regional Vice President of Health Services in 2015.

Citations

Health care landscape

[1] Health care in the trillions--Health Affairs, “National Health Care Spending In 2016: Spending And Enrollment Growth Slow After Initial Coverage Expansions”--https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2017.1299

[2] Three out of four people age 65 and older are living with more than one chronic condition--https://www.cdc.gov/chronicdisease/about/multiple-chronic.htm

[3] 75 percent of health care expenses is spent on chronic conditions-- Gerteis J, Izrael D, Deitz D, LeRoy L, Ricciardi R, Miller T, Basu J. Multiple Chronic Conditions Chartbook.[PDF – 10.62 MB] AHRQ Publications--https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/prevention-chronic-care/decision/mcc/mccchartbook.pdf

[4] 10,000--Number of people joining Medicare daily-- http://www.medpac.gov/docs/default-source/reports/chapter-2-the-next-generation-of-medicare-beneficiaries-june-2015-report-.pdf?sfvrsn=0

[5] 25 million: The Medicare population is expected to increase from 56 million (2015) to 81.5 million (2030)-- https://www.kff.org/medicare/slide/projected-change-in-medicare-enrollment-2000-2050/

[6] Buttorff, C.; Ruder, T.; Bauman, M.; “Multiple Chronic Conditions in the United States”; RAND Corporation, 2017; https://www.rand.org/content/dam/rand/pubs/tools/TL200/TL221/RAND_TL221.pdf

Humana at a glance

[7] Figures derived from internal Humana data

Value-based care continuum

[7] Figures derived from internal Humana data

Key insights

[8] According to the Centers for Disease Control and Prevention (CDC) the vast majority of colorectal cancer (about 90 percent) occurs in people who are 50 or older; Centers for Disease Control and Prevention (CDC). 2018. “Colorectal (Colon) Cancer” Atlanta, GA: U.S. Department of Health and Human Services. https://www.cdc.gov/cancer/colorectal/basic_info/screening/index.htm

[9] The American College of Physicians states approximately 1 in 8.2 women will receive a diagnosis of breast cancer during her lifetime, with breast cancer incidence increasing with age; Humphrey LL, Helfand M, Chan BK, Woolf SH. Breast Cancer Screening: A Summary of the Evidence for the U.S. Preventive Services Task Force. Ann Intern Med. ;137:347–360. doi: 10.7326/0003-4819-137-5_Part_1-200209030-00012

[10] According to the National Association of Accountable Care Organizations, in 2017, 34 percent of those participating in the program earned shared savings: https://www.naacos.com/press-release--more-medicare-acos-achieve-quality-and-cost-goals-in-2017

[11] AAFP (2017). Academy Presents Advanced APM for Primary Care. Advanced Primary Care: A Foundational Alternative Payment Model (APM) for Delivering Patient-Centered, Longitudinal, and Coordinated Care

[12] Humana Medicare Advantage member health results were limited to medical claims incurred during the 2017 calendar year. Humana compared members affiliated with providers in a value-based reimbursement agreement versus an estimation of original fee-for-service Medicare medical costs using CMS Limited Data Set Files from 2016. Estimates of cost, admission and emergency department savings are subject to restatement with the availability of more current CMS data.

Social determinants of health

[13] Those with social isolation have a 64 percent greater chance of developing clinical dementia; https://jamanetwork.com/journals/jamapsychiatry/fullarticle/482179

[14] Those with social isolation are four times more likely to be re-hospitalized within a year of discharge; Nicolas Nicholson (2012) A Review of Social Isolation: An Important but Underassessed Condition in Older Adults; The Journal of Primary Prevention June 2012, Volume 33, Issue 2, pp 137-152 https://www.ncbi.nlm.nih.gov/pubmed/22766606

[15] People with social isolation are 2–5 times more likely to die prematurely than those with strong social ties; Dave Clark (2014) Social Isolation and Physical and Sensory Impairment: Research Findings Report; Bristol City Council; https://www.bristol.gov.uk/documents/20182/34732/Social%20isolation%20and%20physical%20and%20sensory%20deprivation_0_0_0.pdf/393c572d-5eeb-4b01-b013-b7139843af8e

[16] Nationally, 1 in 8 (12.3 percent) households is food insecure; Coleman-Jensen, A., Rabbitt, M.P., Gregory, C., and Singh A. 2017. Household food security in the United States in 2016, ERR-237, U.S. Department of Agriculture, Economic Research Service.

[17] Higher rates of chronic conditions – Patients with chronic conditions are 50 percent more likely to be diabetic, 14 percent more likely to have high blood pressure, nearly 60 percent more likely to have congestive heart failure or experience a heart attack; Zaliak, J. P., Gundersen, C. 2014. The health consequences of senior hunger in the United States: Evidence from the 1999-2010 NHANES.

[18] Ippolito, M., Lyles, C. Prendergast, K., Seligman, H. 2016. Food insecurity and diabetes self-management among food pantry clients; Journal of Public Health Nutrition. 20(1): 183-189.

[19] Gorina Y, Pratt LA, Kramarow EA, Elgaddal N. Hospitalization, readmission, and death experience of noninstitutionalized Medicare fee-for-service beneficiaries aged 65 and over. National health statistics reports; no 84. Hyattsville, MD: National Center for Health Statistics. 2015--https://www.cdc.gov/nchs/data/nhsr/nhsr084.pdf

Y0040_GHHKCXYEN_C

Humana®

Humana.com/valuebasedcare