Executive summary

The human toll of cancer, heart disease, kidney disease and musculoskeletal conditions is substantial. Current spending on these condition categories will continue to rise dramatically, significantly driven by patient complexity, hospitalizations, surgery and pharmaceutical costs. Addressing these conditions requires a comprehensive benefit management plan designed to improve clinical outcomes and the care experience for consumers while reducing the total cost of care.

This paper will examine these four condition categories — their prevalence, impact and cost drivers. It will also present an integrated strategy for managing the economic and human costs of these conditions.
Introduction

Health care spending in the United States has eclipsed the trillion dollar mark. Many Americans experience a high quality of life, low mortality and access to the most advanced medical treatments in the world. Yet the economic impact is enormous.

More than a quarter of health care costs — $455 billion — are associated with four complex condition categories. It costs:

- $181 billion a year to treat diseases of the heart
- $130 billion to address the musculoskeletal system
- $104 billion to fight cancer
- $40 billion to manage kidney disease

Cost trends for these condition categories are showing no sign of slowing. The trend lines for patient complexity, hospitalizations, surgical interventions, drug costs and growing prevalence indicate that payers, employers and consumers will be spending billions more in years to come. Spending for cardiovascular disease alone is expected to grow by $205 billion over the next decade. Combine that with musculoskeletal conditions ($73 billion), oncological disease ($48 billion) and kidney disease ($22 billion) and the economic footprint rapidly expands.

Beyond medical costs, the human costs of these highly complex conditions are staggering. Cancer strikes in many forms. Heart disease is the number two cause of death in the United States. One in every seven Americans has chronic kidney disease. And joint pain — especially back, knee and hip pain — needlessly impacts quality of life and productivity.
Oncology trends and challenges

Cancer incidence will continue to increase by 45 percent over the next two decades.\(^2\) But ongoing research and excellent care coordination among providers have pushed cancer survival rates higher over the years. Researchers predict that the number of survivors will increase by nearly 70 percent through 2040.\(^3\) While this is good news, payers and employers can expect a much larger cancer population to manage as time goes on.

Oncology costs are also rising and require careful management. Throughout the previous decade, costs for treating cancer have increased by 62 percent,\(^8\) largely driven by new therapies. Nearly 70 therapies have been approved within the last five years,\(^9\) and costs are expected to continue to increase.\(^10\) Although cancer has a low prevalence rate compared to other conditions, oncology costs are increasing disproportionately. Costs are driven by large growth in pharmaceuticals and chemotherapy costs, radiology and inpatient admissions.

In addition, variation in oncology care is widespread. Consider the examples of prostate cancer and breast cancer patient care. Nearly half of all prostate cancer patients are getting unnecessary imaging. And about one in five breast cancer patients choose mastectomies when such a surgery is not clinically indicated. In this case, having a care pathway strategy in place can be part of the solution. Reducing treatment variation by providing evidence-based care for breast cancer can drop the per-case cost by more than $16,000 per case.\(^11\)
Musculoskeletal trends and challenges

Pharmaceutical expense is a major driver of musculoskeletal (MSK) spending. Prescription drug costs have risen across the board, and the costs of the non-steroidal anti-inflammatory drugs used to manage MSK conditions rose by 9 percent in just one year.\(^\text{12}\) It is easy to see why the total percent of pharmaceutical spending in MSK conditions has risen more than 60 percent over a recent period of 12 years.\(^\text{13}\)

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<th>National impact</th>
<th>Employer impact</th>
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<td>8 percent of the national health expenditure is attributable to MSK treatment(^\text{14})</td>
<td>17 percent of the total cost of musculoskeletal disorders to employers is estimated at $20 billion per year, accounting for roughly 17 percent of employer health care budgets(^\text{16,17})</td>
<td>$130 billion in direct medical costs across all payers(^\text{18})</td>
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<td>3rd-highest expense contributor of total health care spend(^\text{15})</td>
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<td>32 percent of MSK expense is paid for by private insurance(^\text{19})</td>
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Much of musculoskeletal procedures have shifted out of the inpatient setting. Inpatient MSK expenditures decreased by 7 percent between 1996 and 2011.\(^\text{20}\) But like almost every category of health spending, per-case costs are still rising year over year. The annual growth for national average per-case spending is 16 percent, and the MSK average is slightly lower, at 15.4 percent.\(^\text{21}\) Yet costs are expected to go up. Projections show that osteoporosis\(^\text{22}\) and arthritis\(^\text{23}\) diagnoses will increase by about one-third by 2030. This will contribute to a $73 billion increase in MSK spending by 2024.\(^\text{24}\)

Cost, treatment variability and overutilization present compelling opportunities for reducing cost and improving quality. Some utilization management examples:

- By managing variation to the 90th percentile, organizations could save $1,500 per knee and hip replacement case.\(^\text{25}\)
- Appropriately referring patients with back pain who are amenable to non-surgical treatment, e.g. physical therapy, chiropractic care (avoiding unnecessary surgery), would generate $14,000 in savings per case.\(^\text{26}\)
- Approximately $21,000 could be saved if patients performed uni-compartmental knee arthroplasty in an outpatient setting rather than in a hospital.\(^\text{27}\)
Kidney disease trends and challenges

Chronic kidney disease (CKD) is poised to become a top-10 contributor to health care costs. It already affects an estimated one in seven adults. Most adults do not realize they are suffering from CKD in its early stages.

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<td>2 percent of the national health expenditure is attributable to kidney management</td>
<td>53 percent of chronic kidney disease patients are between the ages of 20 and 65</td>
<td>$40 billion in direct medical costs across all payers</td>
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<td>13th-highest expense contributor of total health care spend</td>
<td>68,000 people could no longer work in the six months before they developed ESRD</td>
<td>30 percent of total expenses for kidney disease paid for by private insurance</td>
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Left unchecked, CKD can progress to full-blown ESRD. Early stages of CKD are fairly easily manageable from a cost, health and quality-of-life standpoint.

But the impact of ESRD, especially when it gets to the point of dialysis, is extreme. Patients on dialysis experience major life disruptions and can cost payers more than a quarter-million dollars a year. Employers and their payer partners can better serve this population by helping their members slow the progress of kidney disease.

If the goal is to avoid dialysis, variation in renal care practices must be reduced. Research shows that utilization management could lead to greater than a $1,500 reduction in the cost of care per CKD patient — an average per hospital cost savings opportunity of almost $300,000 and an opportunity to save approximately $610 million nationwide.

Cardiovascular trends and challenges

Heart disease has been the leading cause of death among Americans for more than a century. And its impacts extend broadly to all health care players.

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<td>11 percent of the national health expenditure is attributable to cardiovascular disease management</td>
<td>56 hours is the amount of time employees with heart conditions lose per year in productivity</td>
<td>$181 billion in direct medical costs across all payers</td>
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<tr>
<td>2nd-highest expense contributor of total health care spend, after “other care and screening”</td>
<td>$1,119 is how much more in insurance costs per year per employee attributable to cardiovascular disease</td>
<td>27 percent of total expenses for heart conditions paid for by private insurance</td>
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In terms of spending, the news is not all bad. A decrease in outpatient utilization and smaller-than-average increases in inpatient and pharmacy costs have tempered the spending growth in cardiovascular disease (CVD) treatment. Several high-priced medications have recently gone generic. Combine that with improved treatment protocols and reduced treatment rates, and spending increases for CVD have been below average — 6 percent — over the past five years. But 6 percent of $181 billion is still significant.

As prevalence grows across the cardiovascular disease spectrum, major heart-condition-based spending is expected to increase dramatically by 2035. Costs for coronary artery disease, high blood pressure, stroke, atrial fibrillation and congestive heart failure are expected to more than double in the next 15 years.

The costs of CVD and stroke include more than health care expense. Of the $330 billion lost due to CVD and stroke, the biggest cost driver is lost productivity and mortality. These constitute more than one-third of cost impact, in addition to high inpatient costs.

Variation in treatment is a recurring theme among complex conditions, and CVD is no different. Finding the optimal management strategy is no easy task, since CVD often comes bundled with one or more additional chronic diseases. For example, 53 percent of adults with hypertension have two or more comorbidities such as diabetes and obesity. Still, 27 percent of cost of caring for CVD and stroke can be saved by reducing variation in treatment.

An integrated strategy to address complex conditions

For health care payers and purchasers, an integrated medical benefit management strategy can help keep spending in these categories in check and improve clinical outcomes for consumers. Four critical capabilities are necessary to reduce clinical and administrative costs for the most complex and expensive medical conditions and improve quality of care for these condition categories.

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Care management: Payers and employers can influence member outcomes and cost of care using patient outreach, education and advocacy through dedicated, condition-specific clinical teams. Predictive modeling capabilities can help payers identify at-risk members and employees who will benefit the most from clinical intervention.

Utilization management: Health care is at its best when patients are provided the right care in the right setting at the right time. By steering members to high-quality providers who follow evidence-based best practices, payers and employers can reduce the risk of complications and readmissions and increase treatment success.

Network management: In the past, network management focused on minimizing unit costs. Today, it constitutes a more holistic focus on overall cost efficiency, quality outcomes and a better member experience. Centers of Excellence, which require rigorous clinical and financial qualification, are integral to an effective network management program.

Focused claims review: When organizations inspect claims to make sure every detail is justifiable and payment is forthright, they reduce waste, curtail costs and protect patients. Focused claims review — where payers use human in addition to automated methods to verify claim accuracy prior to payment — can also help enhance administrative cost savings for payers.

Conclusion

Any one of the above strategies — care management, utilization management, network management and focused claims review — can be effective on its own. But the above spending growth projections indicate that anything less than a fully integrated strategy will likely be insufficient. An integrated strategy, effectively executed, can yield superior clinical outcomes and decrease the total cost of care for these most complex and high-cost specialty patients. The result is value for every stakeholder: payers, employers and, most importantly, patients.

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Sources


29. LaCombe, P. Medical expense figure based on Optum Healthcare Expense (HCE) analysis of large health plans, 2015 data.


