

Population Health Management: Achieving Results in a Challenging Environment, Part I

By Patricia Curran, R.N.

The Environment

Health Care Costs Are Out of Control (Again)

Health care inflation continues to outpace overall inflation by a wide margin. What's more, many health plan sponsors don't expect relief any time soon and they find this situation unsustainable in the long run. The beleaguered U.S. automobile industry has gone so far as to publicly state that its health benefit obligation to employees and retirees places it at an unacceptable cost and a pricing disadvantage vis-à-vis its global competitors.

Is any help on the way? The answer is yes. That help is Population Health Management. This paper examines Population Health Management in two parts. This first part examines in depth many of the health care costs that Population Health Management is designed to manage. The second part, which you will receive within a week, introduces the Population Health Management tools that Buck Consultants uses to help employers better manage their plan participants' health and their own health care costs. These tools include analytical instruments that can be leveraged to identify group-specific illness burdens and gaps in care that suggest tangible opportunities for improved health outcomes and savings.

The "Perfect" Storm

It seems inevitable that sky-high health costs rain down on us when the following demographic, health status, behavioral, social and medical management factors converge.

The key demographic factor is the aging of America. Today, the fastest-growing segment of the population is the over the age of 85 segment, some of whom are covered by employer-sponsored retiree health care plans. This aging of the population will accelerate as millions of baby boomers, now 45 to 60 years old, approach retirement. One need not be a health care actuary to be able to predict that the entitlement mindset and high health service expectations of many boomers will lead to a dramatic increase in the nation's consumption of health care resources.

Unfortunately, although Americans are living longer, they are not all living healthier. The incidence of chronic diseases such as hypertension, heart disease, diabetes, high cholesterol, depression and arthritis is increasing and is often exacerbated by behavioral factors such as obesity, inactivity, stress, and substance abuse.

In addition, the nation suffers from unmanaged consumer expectations — wanting the "best" available treatment even when lower cost, less advanced alternatives are appropriate. Perhaps these consumers often equate "best" with high cost, which they assume is the price for higher quality and efficacy. The goal should be to use the "best" only when older, less costly technology will not produce the desired result. Furthermore, the highly effective direct-to-consumer marketing campaigns of the pharmaceutical industry have fueled patients' unprecedented demand for new diagnostic and therapeutic modalities.

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Finally, in response to anti-managed-care sentiment, many health insurers significantly have cut back on their use of utilization management (UM). UM was instituted to ensure that services that are either costly or prone to inappropriate utilization and over-utilization are, in fact, utilized properly. But as a backlash against managed care has developed over the last five to 10 years, physicians and patients began complaining loudly about insurers' micro-management.

In the face of this protest, and taking note of the relatively low final claim denial rate after physicians and patients pursued appeals, insurers concluded that UM may not be worth the trouble, especially when they can simply pass along the costs of unmanaged care to their self-funded customers.

To some extent all of these factors play a role in compiling the *Troubling Statistics* enumerated to the right.

Troubling Statistics

Despite medical technology's advances, the following clinical and epidemiological data supports the contention that the care given by providers and the public's ability to "self-manage" chronic conditions and its overall health are sub-optimal. It's disturbing to note that:

- 40 percent of antibiotic usage is of questionable benefit
- 16 percent to 30 percent of hysterectomies are unnecessary
- 28 percent of heart attack victims are not prescribed beta-blockers
- 93 percent of diabetics do not maintain recommended levels for blood pressure, blood sugar, and cholesterol
- 77 percent of hypertensives either are undiagnosed, choose not to treat, or are improperly managed
- Two-thirds of U.S. adults are overweight — as are 15 percent of children (up from 5 percent in 1985)
- Obesity is second to tobacco use as a cause of preventable death
- 60 percent of health claim dollars are associated with chronic disease
- 10 percent of employees are on short-term disability every year

The Health Risk Spectrum

In general, a small minority of sick plan members generate disproportionate health cost and a majority of healthy ones account for a commensurately small share.

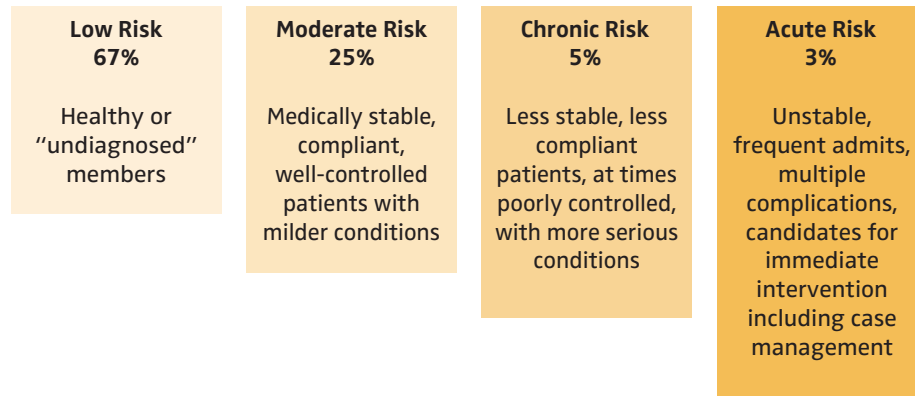


Figure One

Understanding Health Management

The plan sponsor committed to the effective health management for its plan participants must first understand the likely risk profile of its population and the risks inherent in those health conditions that can affect its members. Here are two perspectives that facilitate that understanding.

A Population Risk Perspective

In segmenting their plan population on the basis of health risk, plan sponsors work with four distinct categories. Figure One describes each category briefly and provides the proportion of the total population each category typically represents.

Below are more complete descriptions.

- **Low risk** individuals are generally healthy people, "the walking well." However, a non-trivial subset of this group may have an underlying medical condition that is undiagnosed or which they choose to ignore. Although these individuals may appear healthy based on the absence of significant medical claims or health service utilization, they could develop serious complications and generate heavy claim activity in the future. This underscores the importance of regular health screening, preventive services, and lifestyle changes.

- **Moderate risk** patients are medically stable, compliant, well-controlled patients with generally mild and diagnosed conditions such as hypertension, high cholesterol and stable asthma. These people are self-managing their health appropriately but require ongoing encouragement and support. If their self-management regresses and/or their conditions advance, it is important that they become aware of the needed resources that may benefit them.
- **Chronic risk** patients are less stable and often non-compliant with treatment regimens. This situation leads to conditions that at times are poorly controlled. These are generally serious conditions such as diabetes, coronary artery disease (CAD), congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD). These patients are candidates for chronic disease management interventions to help them become more knowledgeable about their conditions and their proper self-management.

The goals here are to help them become more compliant with treatment recommendations and, in time, to bring about better clinical surveillance (improved blood pressure readings, blood sugar levels, etc.) and control. The key is behavior modification — one cannot underestimate the challenge of changing sub-optimal lifestyles and health behaviors that have been practiced for years, if not decades.

- **Acute risk** patients are unstable patients, often with high utilization, frequent emergency room and hospital admissions and multiple complications. These individuals are at high risk for morbidity and mortality and are candidates for immediate intervention, including ongoing case management.

A Perspective on Specific Conditions

When analysts examine claims data from a given employee group, they invariably find evidence of inappropriate utilization levels and patterns. These situations usually imply significant and avoidable risk, with adverse financial and clinical consequences.

For instance, they may find claims from the chronic low back pain sufferer who sought out multiple clinicians in search of answers (and symptomatic relief), and in the process received a costly lumbosacral MRI every three to four months (an example of over-utilization). On the other hand, they may find the breast cancer survivor who did not receive regular follow-up and screening exams such as mammograms to detect possible recurrences or second malignancies as early as possible (under-utilization).

Both situations should obviously be avoided since they escalate each individual’s clinical risks and the financial costs that both the employer and individual could bear. In fact, when examined from the following “condition” perspectives, it is easy for the analyst looking at claims to see how much opportunity exists for all kinds of risk escalation. Consider the following.

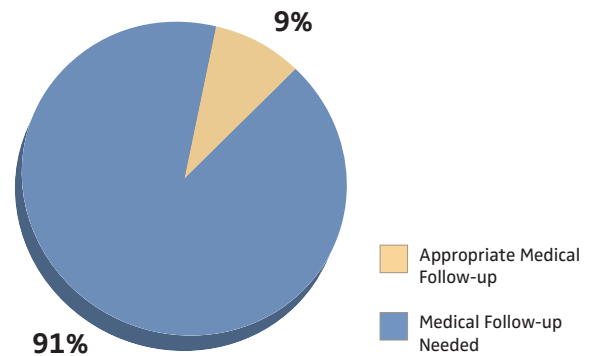
High Cholesterol: According to the American Heart Association (AHA), 41 million adults in the United States have cholesterol levels that place them at high risk for heart disease. An additional 61 million are borderline high risk. The AHA advises that a 10 percent decrease in total cholesterol levels may result in a 30 percent reduction in heart disease.*

In the claims data analyzed in Figure Two, 91 percent of claimants with hyperlipidemia had evidence of inadequate medical follow-up during the 12-month interval examined. This deficiency took the form of an absence of associated physician office visits or laboratory blood lipid studies. This finding is all the more notable given that most employer pharmacy claims show statins as the most commonly prescribed class of drug for the group.

Figure Two

Hyperlipidemia (High Cholesterol)

\$1,603,842: 448 Claimants



* AHA, 2002 Heart and Stroke Update. Recent guidelines have further lowered cholesterol levels at which treatment is recommended.

Diabetes: This is a serious, chronic, progressive disease that can lead to devastating complications such as:

- Retinopathy (leading to blindness)
- Vascular disease and neuropathy (amputations)
- Kidney failure (dialysis, transplantation)
- Heart disease (heart attacks, congestive heart failure, death)

Treating diabetes requires lifelong vigilance, centered on controlling blood glucose and regularly examining end organs that the disease can affect. Tight glucose control can decrease the incidence of the above complications by 50 percent and delay their onset by 15 years.

In this claims data (Figure Three), 60 percent of diabetics had not shown evidence of adequate follow-up care and 34 percent of diabetics have already shown signs of diabetic complications. If those diabetics who are already experiencing complications or who are at-risk of doing so (due to inadequate screening and follow-up) were to improve their overall control and compliance with therapy, the resulting savings would very likely include sight, limbs, kidney function and lives (not to mention significant dollars here and there).

Depression: Recognized today as a major public health threat, depression is thought to be under-diagnosed. Depression not only results in costly medical and pharmacy claims, but it significantly affects productivity, absenteeism and disability. In the client population analyzed in Figure Four, depression is revealed as the second most prevalent and third most costly condition. It is one not always being properly managed. Our analysis found that four percent of claimants had experienced recent hospitalizations or ER visits. Furthermore, 18 percent had more than 20 psychotherapy visits within the past 12 months.

In this population, depression claimants were 12 percent of chronic disease claimants overall. Furthermore, there is an at-risk subset (22 percent of depression claimants) that required frequent and escalating levels of service utilization.

Figure Three

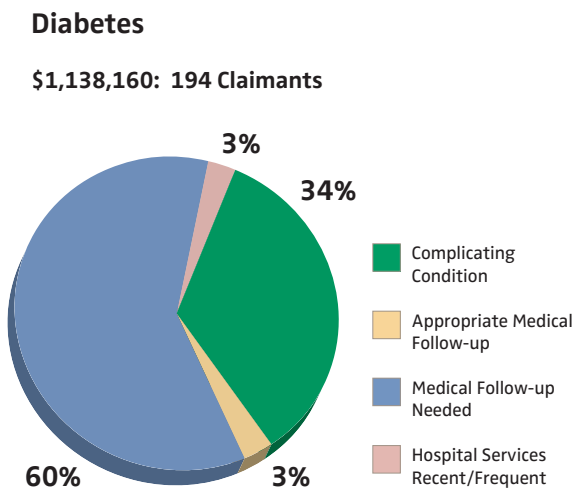
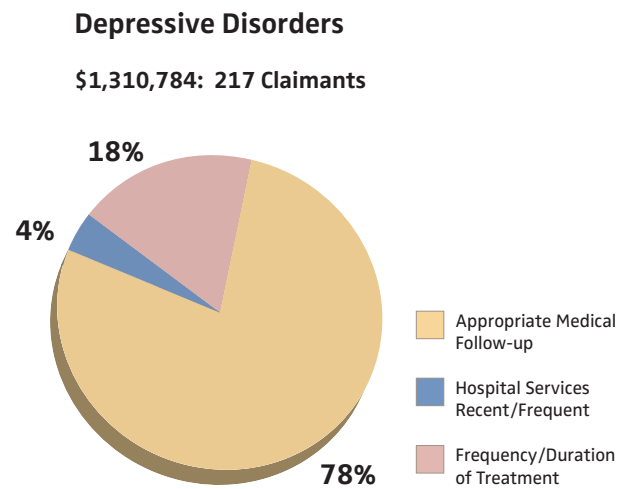


Figure Four



Care management programs that emphasize education, self-care and compliance with prescribed treatment could improve health outcomes while reducing risks and costs.

We advise that the gaps in care identified be viewed as opportunities for improvement through care management and not as inalterable problems.

Million Dollar Babies — the smaller they come, the costlier they are: Many of the factors that predispose women to pregnancy complications can be managed with proper prenatal care and education. In fact, patient education is the most effective way to avoid pre-term deliveries. Women who know the signs and symptoms that lead to prematurity are better able to self-monitor and seek care promptly. Doing so can significantly reduce their incidence of pre-term labor and its attendant risks and costs.

In this client population, there were six medically complex and very low birth weight newborns during the 12 months analyzed. Their care was, by far, the most costly on a per capita basis: \$208,634 per claimant. Those costs explain a health management rule of thumb: avoiding *one* extremely premature infant could pay for an employer-sponsored maternity management program. Avoiding *two* could pay for an entire disease management program for a year.

What Does It Mean?

The data presented here can be interpreted in many ways. However, our analysis leads to one conclusion: there are numerous opportunities for improvement! The clear fact is that many covered individuals, afflicted with potentially costly chronic diseases, are not:

- Receiving appropriate follow-up care
- Complying with recommended and prescribed therapy
- Responding to current treatment plans but are requiring excessive and escalating levels of care

One can argue that findings such as those uncovered by our analyses imply inadequate standards of care and gross non-compliance. In response, we advise plan sponsors to implement health management initiatives with the goal of empowering members and improving their health care experiences and outcomes. Care management programs that emphasize education, self-care and compliance with prescribed treatment could improve health outcomes while reducing risks and costs. We strongly recommend that employers and plan sponsors pursue these in a collegial, non-accusatory manner with their health plans and network physicians. We advise that the gaps in care identified be viewed as opportunities for improvement through care management and not as inalterable problems.

This proactive approach is far more likely to lead to sustained improvement than is pointing fingers and seeking blame for an uncoordinated and complex health care delivery system.

We return now to the four risk categories described on pages three and four and quantified with cost and participation data in Figure Five. It is interesting to speculate how many of the just discussed claims related to the treatment of diabetes, depressive disorders and premature infants were filed by the eight percent of members reported in Figure Five in the chronic and acute risk categories.

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Although every plan sponsor’s response to that speculation will be based on its own claim experience, the plan sponsor’s goals in providing appropriate support and interventions to these four populations must be to:

- Slow down or, better yet, halt the progression of some individuals’ risk states to the right on the continuum, i.e., to higher-acuity states.
- Shift other individuals’ risk status to the left (to lower-acuity states), as their compliance and medical stability improve.
- Improve clinical outcomes and reduce health service costs.

The Health Risk Spectrum

Risk categories are based on diagnoses, treatment and patterns of care

Real Life Example	Low Risk	Moderate Risk	Chronic Risk	Acute Risk
Percentage of Members	67%	25%	5%	3%
Benefit Cost	\$7.9m	\$20.5m	\$11.9m	\$24.1m
Percentage of Total Cost	12.3%	31.8%	18.5%	37.4%
Per Capita Cost	\$300	\$2,200	\$7,000	\$25,500

True cost savings result from continually moving patients “one box to the left”

Figure Five

Part Two of this paper discusses in detail how the Health Management Program outlined in Figure Six will help plan sponsors meet those goals.

About The Author

Patricia Curran is a Director in Buck Consultants' National Health Management Practice with expertise in a wide range of health care issues that affect employers and their employee populations. Patricia is a registered nurse with a strong clinical background and extensive experience in account management, obstetrical nursing, high-risk obstetrical home care and case management. Prior to joining Buck Consultants, Patricia worked for two of the leading disease management firms as a Vice President of Marketing and as a Regional Nurse Manager.

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The Health Management

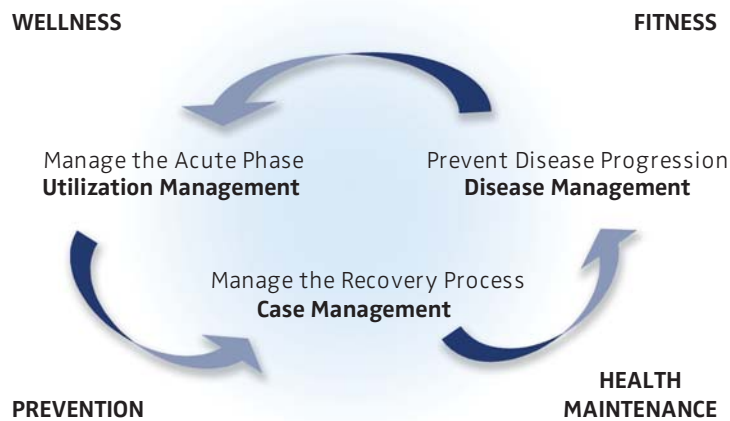


Figure Six