In many circumstances, patients can save time and money by consulting with medical personnel electronically rather than in person.

Thinking of a Telemedicine Health Care Benefit?

by Henry DePhillips, M.D.

Telemedicine has become one of the fastest growing offerings that major employers are adding to their health care benefits programs, increasing from less than 10% just two years ago to 28% of large U.S. employers, according to a national survey. And another 24% plan to add it as a benefit in 2015.¹

That is a staggering adoption rate—for any new offering—and especially impressive in the health care arena, which typically has high standards for acceptance of all things new. This article seeks to explain what telemedicine is, why it is fast becoming ubiquitous and considerations for organizations thinking about adding telemedicine to their benefits plans. It also summarizes findings from an independent RAND Corporation study of the telemedicine program offered by the California Public Employees’ Retirement System (CalPERS), including member experiences and utilization details.
Thinking of Adding a Telemedicine Health Care Benefit?

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Simply defined, telemedicine—or telehealth as it is sometimes called—is the use of electronic communications to exchange medical information toward improving a patient’s health. Often these terms are used interchangeably, although some states now have specific definitions for each. Putting aside such nuances, in the context of a health care plan, telemedicine essentially is a virtual or remote visit between patient and physician, as opposed to an on-site visit. Technologies enabling those interactions include computers, tablets, smartphones and plain old telephony, along with specialized freestanding kiosks.

Telemedicine is not a separate medical specialty but rather the utilization of technology to deliver care that might otherwise be delivered on site. Reimbursement fee structures often make no distinction if services are provided on site or via telemedicine. In fact, in addition to telemedicine being embraced by employers and employees, the federal government increasingly is adding codes eligible for reimbursement if services are provided via telemedicine. A telemedicine option within a benefits plan might have a specific flat rate fee that is lower than an average office visit, but it’s important to note that a telemedicine visit is a “real” physician visit and more than a nurse helpline. It is a one-on-one consultation with a state-licensed physician who may make a diagnosis and prescribe medication.

What’s new about telemedicine isn’t the idea of it but rather the broader deployment of it and the infrastructure to support that. Telemedicine has been around for many decades, primarily to provide health care access to people in rural and remote locations. For example, one of the earliest telemedicine applications involved Native American reservations, and one of the most dramatic involved offshore oil rigs. With the advent of videoconferencing technology, more telemedicine applications became possible and telemedicine started being utilized for such things as remote access to specialists. And continuing advancements in digital imaging technology and high-speed data communication led to things such as remote sharing of medical images. But in spite of these kinds of developments, telemedicine was used only randomly for specific circumstances and not...
something most patients would ever encounter—until recently.

What has catapulted telemedicine into the mainstream is a confluence of several key factors:

- The problem of “access to care” and shortage of primary care physicians
- Pressures on providers for cost reductions and improved outcomes
- Enthusiastic consumer adoption of communications technologies such as computers, tablets and smartphones.

The health care profession’s mantra today is greater access to quality care at reduced cost. Telemedicine is stepping in with solutions that promise to give patients immediate 24/7 access—within minutes—to primary care physicians, reducing utilization of emergency rooms and urgent care centers, with no trade-off in quality.

**Adoption and Acceptance**

The global consulting firm Towers Watson and the nonprofit National Business Group on Health (NBGH) produce an annual survey of U.S. employers on a wide range of topics related to health care benefits, and the most recent results illustrate how fast telemedicine is gaining traction. The annual Towers Watson/NBGH survey is an important barometer of benefits decisions and trends among large U.S. companies with 1,000 or more employees and also specifically focuses on the strategies and practices of best-performing companies that are health care trend leaders.

The 2013/2014 survey demonstrated high telemedicine adoption rates and intention among large employers overall and even higher among best performers. According to the report, telemedicine—defined as the remote diagnosis and treatment of patients using telecommunications—was adopted by 28% of large employers overall and nearly a third of best performers. Significantly, another 24% of large employers and 29% of best-performing companies said they plan to add telemedicine to their offerings in 2015 for professional consultations. Although telemedicine accounts for only a small portion of the full range of health care benefits offered, the survey shows tremendous growth. More than half of large employers will have some type of telemedicine offering in place by the end of 2015. (See the “Consideration Checklist” sidebar for questions a plan sponsor may want to ask of a potential telemedicine provider.)

The 2013/2014 Towers Watson/NBGH survey also indicated substantial support for telemedicine as a way to expand access to care. According to the report, more than half of all respondents said they foresee health care becoming more accessible as a result of new technologies that provide additional access points. In addition, the report noted that although “telemedicine typically accounts for only incremental savings, it can be combined with other interventions to drive aggregate savings, and it provides a viable alternative to emergency room or physician office visits for nonemergency health issues.”

The 2013/2014 survey also asked respondents to rank their health care priorities and found that a significant difference between large employers as a whole and best performers is that the latter ranked “new technologies” among their top five priorities. The authors of the report interpreted that to mean that best performers—which also are on top in financial performance and cost reduction—are unique in placing more value on “emerging strategies” and companies that want to emulate their performance should look at them for “a glimpse of where health care is headed.”

**Expanding Access, Reducing Cost**

In the past, discussion of access to care was focused largely on low-income Americans and the uninsured, but today even people with quality health plans can have trouble getting the care they need, when they need it. The cost to employers is considerable, including absenteeism and lost productivity. And access to primary care is a problem that is expected to worsen as more people are added to the pool of insured. The Association of American Medical Colleges (AAMC) Center for Workforce Studies estimates that by 2020 the nation will face a shortage of 45,000 pri-
Mary's son comes home with a goose-egg hematoma that looks alarming, and he seems lethargic. It's too late in the day to call the pediatrician. Her choices are limited: Pile the kids into the car and drive to an urgent care center, or wait and watch.

John is prone to allergic rashes, but this one is unusual. Should he tough it out with antihistamines or call a doctor for an appointment? Should he try his family physician or a dermatologist? Can he even get an appointment?

It's the weekend and Dick believes his inflamed eye is conjunctivitis—pink-eye. He knows he shouldn’t wait because early diagnosis and treatment will help avoid spreading it to his family. There's no urgent care or walk-in clinic nearby, so an emergency room is his only option.

Jane suspects a bladder infection; she's had them before. But making a doctor's appointment is problematic because she has to arrange for transportation, child care and someone to cover for her at work. Maybe she’ll wait to see if it resolves.

These examples, while ordinary, illustrate different circumstances people may face when considering what to do about a health problem, and all are candidates for successful telemedicine visits. The obstacles to accessing quality care are not just about weekend and evening hours. People may have difficulty getting appointments, taking time away from work or arranging for travel and child care—and countless other issues that impact quality of life and productivity along with health.

There are several ways telemedicine expands access to primary care. (See the sidebar “How Telemedicine Works for Members.”) Perhaps most obviously, telemedicine shifts some patients from costly emergency or urgent care to primary care. There are clear bottom-line benefits to that, as well as benefits to patients whose needs can be met with less hassle and interruption of their lives.

Secondly, telemedicine offers an immediate response as compared with days and even weeks some patients must wait to secure an appointment with a family or general medicine practitioner. And a faster resolution in many instances will result in improved quality of care if it means getting a needed prescription more expeditiously or simply eliminating a delay in treatment.

Thirdly, telemedicine occasionally is an alternative for someone who otherwise would not have sought care from any source due to either logistical hassles, expected delays in securing a physician appointment or another reason for reluctance to pursue professional care.

Telemedicine also is one of precious few solutions that can enhance member satisfaction while helping to reduce costs. With reduced overhead and greater efficiencies, telemedicine can result in savings per consultation of $100-$200 compared with an office or urgent care visit and far more compared with emergency care. However, reducing claims costs is just the beginning when also considering workplace absenteeism and productivity loss due to employees’ office-based physician visits, both for themselves and for their children.

CalPERS Experience With Telemedicine

Telemedicine is reaching sufficient critical mass to be evaluated in third-party investigational studies, and researchers are keen to understand how it’s working and quantify the results. In 2014, results were released from the first major assessment of telemedicine services offered to a large patient group. The study was conducted by
RAND Health, the nation’s largest independent health policy research program, and supported by a grant from the California HealthCare Foundation. The RAND study looked at the telemedicine experiences within a large sample of public employees in California who were newly offered access to care through Dallas-based Teladoc, a leading telehealth provider.2

CalPERS manages pension and health benefits for more than 1.6 million employees, retirees and family members and is the second largest public purchaser of health benefits in the nation after the federal government. CalPERS began offering telemedicine services as a covered benefit to approximately 300,000 members enrolled in its Blue Shield of California health maintenance organization plan. The RAND study looked at CalPERS enrollees’ experience with telemedicine in the first 11 months of the program in 2012-13, evaluating 3,701 telemedicine visits by 2,718 children and adult enrollees and comparing them with traditional on-site visits.

Published in the February 2014 edition of the journal Health Affairs, the study found that although telemedicine represented only a small portion of overall health care use, Teladoc is offering a useful and potentially cost-effective service using simple, widely available technologies and expanding access to health care in certain instances.

RAND researchers were particularly focused on whether there was evidence to support concerns expressed by some providers that worry that the limitations of telemedicine might lead to misdiagnoses and higher rates of followup visits. To the contrary, researchers found little evidence of treatment failure and fewer followup consults among the telemedicine patients. Among those who used telemedicine, only 6% required a followup consult compared with 13% of those who visited an office and 20% of those who visited an emergency room.

The study also found telemedicine to be a potential entry point to the health care system for enrollees who had difficulty accessing a regular physician, including employees unable to take time off work to obtain care. People who were younger and lived in more affluent areas were more likely to use telemedicine, as were those who had no established health care relationships. More than one-third of the telemedicine visits occurred on weekends and holidays, according to the study, and people used telemedicine for a surprisingly diverse set of conditions—395 distinct diagnosis codes overall. The top nine categories accounted for 80%

**TABLE**

Leading Reasons for Teladoc Visits by Children and Adults

<table>
<thead>
<tr>
<th>Condition</th>
<th>Visits Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute respiratory illnesses</td>
<td>1,151</td>
<td>31.1%</td>
</tr>
<tr>
<td>Urinary tract infections and urinary symptoms</td>
<td>439</td>
<td>11.9%</td>
</tr>
<tr>
<td>Skin problems</td>
<td>335</td>
<td>9.1%</td>
</tr>
<tr>
<td>Abdominal pain, vomiting and diarrhea</td>
<td>231</td>
<td>6.2%</td>
</tr>
<tr>
<td>Back and joint problems</td>
<td>190</td>
<td>5.1%</td>
</tr>
<tr>
<td>Influenza and general viral illnesses</td>
<td>172</td>
<td>4.7%</td>
</tr>
<tr>
<td>General advice, counseling and refills</td>
<td>169</td>
<td>4.6%</td>
</tr>
<tr>
<td>Eye problems</td>
<td>138</td>
<td>3.7%</td>
</tr>
<tr>
<td>Ear infections (internal and external)</td>
<td>137</td>
<td>3.7%</td>
</tr>
<tr>
<td>All others</td>
<td>739</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

*Source:* RAND Corporation analysis of claims data from CalPERS, April 2012-February 2013.

*Note:* Percentages do not sum to 100 because of rounding.

**takeaways >>**

- Although a telemedicine option may be less expensive than an average office visit, it is a one-on-one consultation with a state-licensed physician who may make a diagnosis and prescribe medication.
- A shortage of primary care physicians, pressures to reduce cost and increase quality, and the enthusiastic adoption of smartphones and other technology have accelerated the use of telemedicine.
- More than half of large employers are expected to offer some type of telemedicine by the end of this year.
- Telemedicine shifts some patients from costly emergency or urgent care to primary care with less interruption to their lives and can result in a faster resolution of a medical problem.
- Telemedicine may help overcome a person’s reluctance to seek medical treatment.
of visits; the three leading ones were acute respiratory illnesses, urinary tract infection/urinary symptoms and skin problems (see table).

RAND researchers concluded that telemedicine is an important area for further study and echoed the findings of the Towers Watson report noting “the shortage of primary care providers make it likely that telehealth will play an important role in health care delivery.”

**Conclusion**

Broad-based use of telemedicine is fast becoming a reality in America and globally. According to a 2014 report from medical market research firm Kalorama Information, the worldwide telemedicine market grew from $4.2 billion in 2007 to more than $10 billion in 2012. Telemedicine has great potential to address current and looming health care issues, including access to care, shortage of primary care physicians, cost containment and quality of care. Consumers have embraced new technologies and platforms at unprecedented rates and increasingly expect services that fit their mobile lifestyles. Early adopters of telemedicine are fast becoming the norm, and bottom-line benefits are being realized.

**Endnotes**
