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Leveraging telemedicine to improve access to care, reducing absence, and controlling costs

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Telemedicine background

What is "Telemedicine"??



Formally defined, telemedicine is the use of medical information exchanged from one site to another via electronic communications to improve a patient's clinical health status. Telemedicine includes a growing variety of applications and services using two-way video, email, smart phones, wireless tools and other forms of telecommunications technology.



Telemedicine is the use of telecommunication and information technologies in order to provide clinical health care at a distance.



Telemedicine is the use of electronic information and communications technologies to provide and support health care when distance separates the participants.



The practice of medicine when the doctor and patient are widely separated using two-way voice and visual communication (as by satellite or computer)

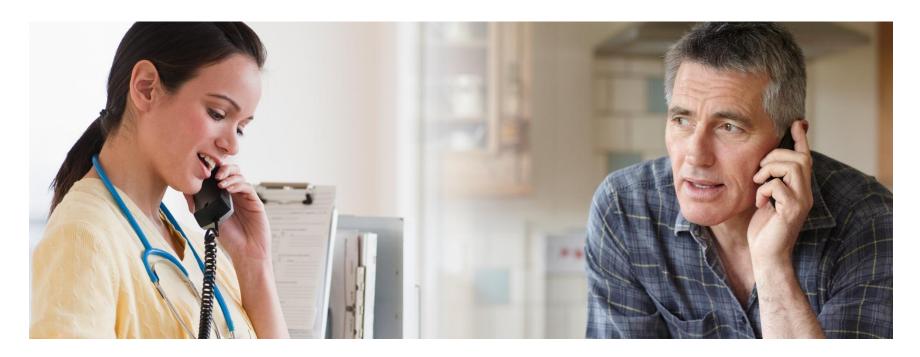


For purposes of Medicaid, telemedicine seeks to improve a patient's health by permitting two-way, real time interactive communication between the patient, and the physician or practitioner at the distant site. This electronic communication means the use of interactive telecommunications equipment that includes, at a minimum, audio and video equipment.

Working definition

Telemedicine:

Two-way real time communication between patient and clinician, for the provision of healthcare, using telecommunications technologies to connect them from distant sites.



Benefits to employers and members



Access challenges are worsening

80%

of adults discharged from ER were there due to lack of access to other provider.¹

40%

Projected increase to yearly PCP visits by 2025, while also facing a shortage of PCPs. ²

- 1. "Emergency Room Use Among Adults Aged 18-64: Early Release of Estimates From the National Health Interview Survey", Renee M. Gindi, Ph.D.; Robin A. Cohen, Ph.D.; and Whitney K. Kirzinger, M.P.H., Division of Health Interview Statistics, National Center for Health Statistics, Jan-June 2011
- 2. "Projecting US Primary Care Physician Workforce Needs: 2010-2025"; Stephen M. Petterson, PhD, Winston R. Liaw, MD, MPH, Robert L. Phillips Jr, MD, MSPH, David L. Rabin, MD, MPH, David S. Meyers and Andrew W. Bazemore, MD, MPH; November/December 2012

Employer adoption





48%

employers who plan to provide telemedicine services in 2015¹

1/3

Of those adopting telemedicine, number who plan to couple the services with incentives and penalties¹

37%

expect to offer telemedicine as an alternative to ER or office visits for nonemergency health issues by 2015.²

34%

More considering offering telemedicine for 2016 or 2017 if they don't already²

¹ National Business Group on Health's Large Employers' 2015 Health Plan Design Survey

² Towers Watson's 2014 Health Care Changes Ahead Survey:

Published research

Telemedicine can address access for diverse conditions, with high quality

PRACTICE SETTINGS By Lori Uscher-Pines and Ateev Mehrotra **Analysis Of Teladoc Use Seems To Indicate Expanded Access To Care** For Patients Without Prior Connection To A Provider ABSTRACT Despite the potential benefits of telehealth applications, little is known about their overall impact on care. This is critical because rising health care costs and a shortage of primary care providers make it likely that telehealth services will play an increasingly important role in health care delivery. To help fill this gap in knowledge, we describe early experiences with Teladoc, one of the largest telemedicine providers in the United States, which provides care directly to patients over the telephone or via the Internet. We analyzed claims data for a large California agency serving public employees that recently offered Teladoc as a covered service. The 3,701 Teladoc "visits" we studied were for a broad range of diagnostic categories, the most common of which were acute respiratory conditions, urinary tract infections, and skin problems. Compared to patients who visited a physician's office for a similar condition, adult Teladoc users were younger and less likely to have used health care before the introduction of Teladoc, Patients who used Teladoc were less likely to have a follow-up visit to any setting, compared to those patients who visited a physician's office or emergency department. Teladoc appears to be expanding access to patients who are not connected to other providers. Future research should assess the impact of Teladoc and other telehealth interventions on the quality and cost of care eladoc is one of the largest tele- tions, there are several potential benefits and health providers in the United drawbacks to Teladoc States, offering patients with minor Because Teladoc uses the telephone and Inter illnesses around-the-clock access to net, it can provide medical care at a patient's physicians via telephone or video home or workplace. This could increase access consultations through the Internet. In 2013 in areas where there is a shortage of other proalone Teladoc reported that its six million mem- viders. By replacing emergency department (ED) bers nationwide had collectively requested more or primary care visits with a Teladoc visit, pa than 120,000 consults.12 Along with retail clintients could save time, potentially improving ics, e-visits, and urgent care centers, Teladoc is productivity by taking less time away from work In addition, Teladoc charges only \$38 per visit one of the growing number of alternatives for acute care that focus on convenience and after- Thus, using Teladoc to replace at least some of nours access. Health plans and employers have contracted health plans. Health plans and employers have contracted health plans. However, the use of Teladoc could also lead to the first first first. with Teladoc primarily to improve access and decrease costs. As with other telehealth applica- unintended consequences such as further frag-

- Many telemedicine users do not have existing PCP relationships or other access to care
- 34% of telemedicine visits occurred on weekends and holidays
- Range of symptoms and diagnoses are surprisingly diverse (top 3 diagnoses represent 52% of telemedicine, vs 72% of retail clinic)
- Need for follow-up visits (a proxy for quality and treatment success) is very low (6%).

Health Affairs, February 2014, 33:2

Published research

Telemedicine can cost less



- Telemedicine reduced the average cost per case by \$88.03, ranging from \$20-30 less than convenient care clinics, to \$159-469 less than ER care.
 - The resolution rate was similar to convenience care clinics.

Health Affairs, February 2013, 32:2385-392

Published research

Telemedicine can achieve similar treatment outcomes with greater convenience

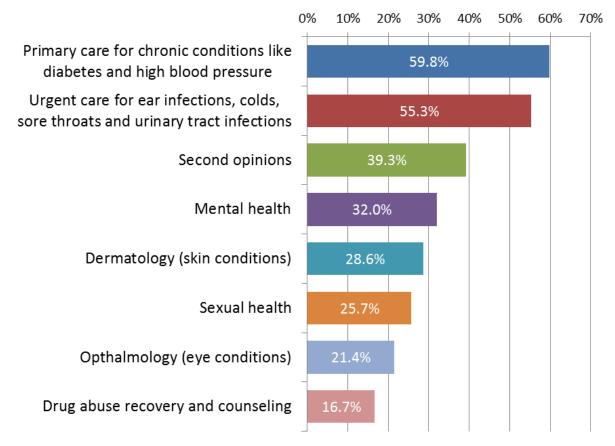


- "e-visits" for sinusitis and urinary tract infections produce similar outcomes as in-person office visits and cost less
- Same rates of treatment failure and follow-up visits

JAMA Internal Medicine 2013;173(1):72-74

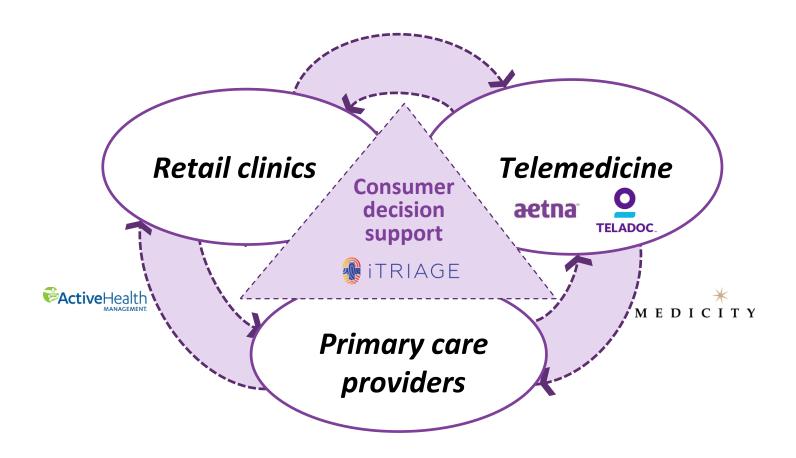
Employees are highly receptive to a wide array of telemedicine services

Online survey - What type of health services would you most like to see offered using telehealth? (check all that apply)



Answered: 2,422 Skipped: 391

Envisioning a better primary care ecosystem



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Support for the patient-physician relationship

Telemedicine complements a patient's PCP

- **Member communications** reinforce importance of PCP relationship
- Data exchange, and the ability to share record of consultation with PCPs and health systems
- Patient does not select their telemedicine physician or develop an ongoing relationship
- Close monitoring of overutilization of telemedicine services.
- Telemedicine physicians will specifically ask a member who has not entered physician information if a PCP relationship exists, and reinforce the importance of establishing a **PCP relationship**.



Teladoc supports the Patient / Physician **Medical Home**

Teladoc refers patients to their PCP for any follow up care

Employer experience

Company overview



- Privately Held Global TransportationOrganization
- Provide
 - Truck, Tractor & Trailer (over 250,000)
 - Leasing
 - Rental
 - Contract Maintenance
 - Logistics Services
 - Dedicated Contract Management
 - Transportation Management
 - Consulting
 - Brokerage

- 22,000 Employees Worldwide
 - Majority of workforce;
 - Driver,
 - Warehouse,
 - Truck technicians
 - 150 separate Collective Bargaining
 Agreement's with Teamsters, UAW and
 Machinists Unions
- \$4.5 billion in annual revenue
 - \$3.5 billion truck rental, leasing and contract
 maintenance
 - \$1.0 billion logistics services

The challenges

- Manage health care costs
- Communication obstacles
- Emergency room abuse
- 50% without family doctor
- 50% prescription non-adherence
- Need for non-emergency medical care
 - 5000 drivers
 - Decentralized Operations

Key goals

Obtaining C-Suite buy in

- Goal: Maintain year-over-year health care cost increase to onehalf of the national market trend
- Extend success of several previously implemented programs designed to improve member engagement and manage utilization and costs
- Reduce emergency room abuse by increasing engagement with health care provider community
- Enhanced health care offering by providing convenient access to medical care at no cost to our associates
- Favorable perception from covered union work force
- Win-win for company and associates

Implement for success!

- Engaged key field leaders early
- Sought guidance from internal Wellness Council
- Thoughtful communication strategy including:
 - Highlighted in annual open enrollment materials
 - Teladoc posters prominently displayed in work locations
 - Teladoc quarterly post-cards mailed directly to homes
 - Special mention during on-site employee meetings



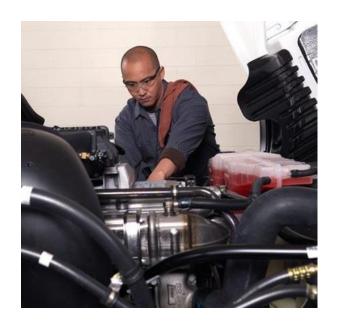
Important lessons learned



- Best way to "sell" is face-to-face
- Touting the high quality of the program's doctors is important, to overcome skepticism
- All appointments are 100% confidential
- Communication strategy needs to be a multi-year approach
- Word of mouth and associate testimonials are key to engaging others

Success stories!

"Teladoc is a true God send. The representatives and doctors are **very knowledgeable and very personable**. They answer your questions immediately without having you call them several times and having to revisit and pay copays each time. This has **saved us** many times this winter, so we could pay other bills and have food on the table and most of all have a little money left over for movie and pizza night with our daughters. Thank you Teladoc. **Your service is amazing**." - *Penske truck leasing associate*



"Most members will agree that when you have a sinus infection or flu, you pretty much already know it and can convey that to Teladoc with confidence that they can provide the **right treatment for huge savings of both time and money**, not to mention when you don't feel well, **you don't want to have to get out in the cold** and go to the doctor and **sit in an office for an hour** waiting to be seen. This keeps people from being exposed to viruses and bacteria. **A+ for Teladoc**." - Penske truck leasing associate

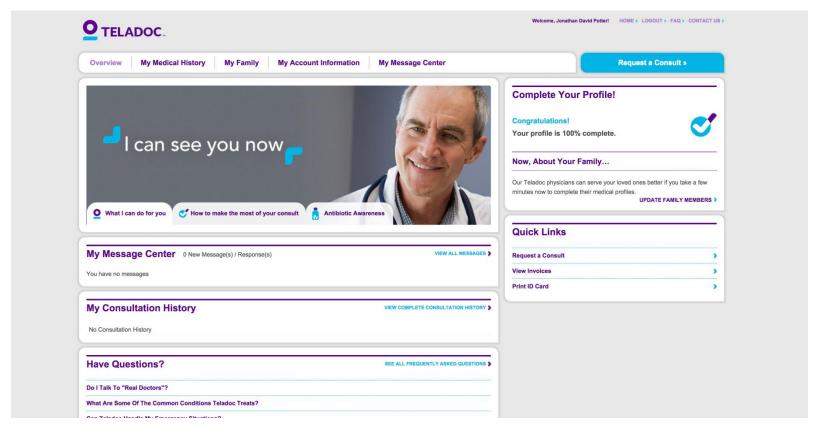
Measuring the impact

The member (patient) experience

Member experience:

- Step 1 Complete medical history
- Step 2 Request consult
- Step 3 Talk with a physician

- Step 4 Resolve the issue
- Step 5 Continuity of care
- Step 6 Settle up





The value telemedicine offers

To truly understand the value of the services offered by Teladoc to its customers and members, we need to answer the following questions:

- What is the total cost of care including all ancillary services?
- What is the cost specifically for the medical conditions most often treated by Teladoc?
- Where would you have gone had you not called Teladoc?
- What is the potential productivity savings of telemedicine?



Calculating claim savings

The gross claim savings to Teladoc customers for its services are calculated as follows:

Sum of redirected service expenses (client specific)

- Sum of Teladoc visit expenses (consult fees)
- Productivity savings

Gross claim savings



Productivity

This approach attempts to measure the value of time saved at work following the onset of illness or intervention

Productivity assumptions

- 4 hours saved per employee consult
- Client supplied average annual salary or Department of Labor generated national average can be used
- Does not credit "Do Nothing" redirection responses

Adjusted by the employee/dependent use ratio

- Ex. Employees are responsible for 50% of consults at 4 hours; dependents are responsible for 50% at 0 hours
- An average of 2 hours per consult will be used

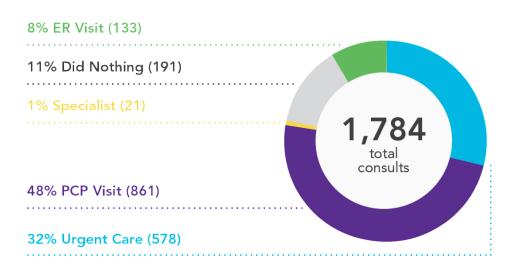
Additional areas of interest

- Impact for dependent child use
- Time of day
- Redirection type



Penske savings analysis

If their associates hadn't gone to Teladoc, where would they have gone?



The consult total is equivalent to 15.3% of the avg. employee base during this period.

What would it have cost?

Avoiding unnecessary and very costly ER visits is a primary goal of Telemedicine.

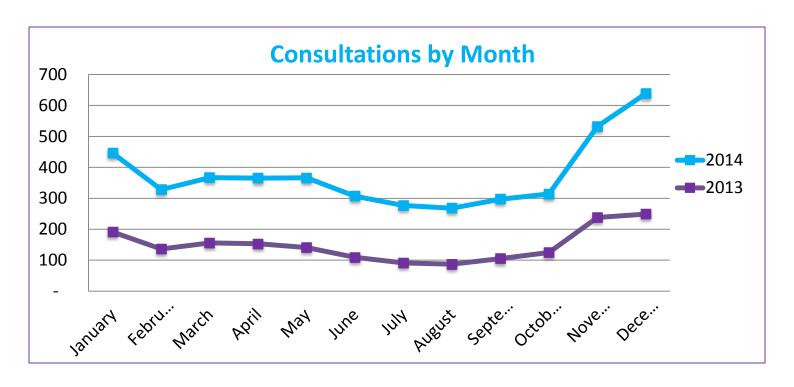
Represents gross savings and does not consider the administrative fees associated with the service.



	TELADOC	SAVINGS
ER / \$1,064	\$40	\$136,192
UC / \$121 ·····	· \$40	\$46,818
Specialist / \$145 ·····	\$40	\$2,205
PCP / \$96 ·····	\$40	\$48,216
Avg. savings per consult with Teladoc		\$127
Increased productivity savings		\$109,535
Total 12-month savings***		\$335,326

Utilization growth

97% member satisfaction in both years!



- 48% consult growth from 2013 to 2014
 - 2013: 1,784 (15.3% utilization)
 - 2014: 2,648 (19.0% utilization)



Moving the methodology forward

As data becomes more available the need to refine value comes with it:

- Visits vs. Episodes
- Member Response vs. Claims History

Veracity Healthcare Analytics' Teladoc Research:

Determining the short-term utilization and savings impact

Analysis of two large, national, Teladoc clients:

Compared utilization and spending of carefully matched Teladoc users vs. non-users in a 30-day period for initial and related diagnoses

Criteria used in matching:

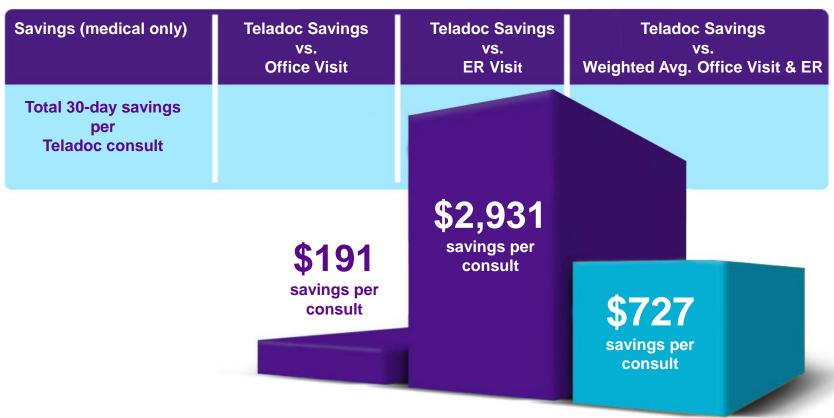
- Age and sex
- Calendar quarter of index encounter
- Comorbidity score
- Indicators for most common primary diagnosis
- Pre-encounter enrollment duration, mean
- Total pre-encounter healthcare spending

- Prior hospitalizations
- Prior number of outpatient visits
- Prior number of emergency department visits
- · Diagnosis of one of five chronic conditions
- Diagnosis of cancer
- Diagnosis of HIV/AIDS



Teladoc resolves conditions at much lower cost than alternatives

Findings reflect savings of an individual episode of care* based on origin of initial encounter



^{*}Episode of care: Includes initial encounter and any subsequent utilization of follow up office visits, hospitalization, or ER utilization, resulting from initial encounter within a 30 day window for same and related diagnoses

^{**}Weighted Average is based on redirection rates determined using member utilization of bricks and mortar services: 75% OV; 20% ER; 5% Do Nothing



Questions?