

Assessment of the Feasibility and
Cost of Replacing In-Person Care with
Acute Care Telehealth Services

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Executive Summary

Use of acute care telehealth services is rapidly growing in the commercial health insurance market.¹ Although utilization of telehealth services is still relatively low (one to two percent) among eligible beneficiaries, the prevalence of these services is growing, suggesting that patients and providers believe that telehealth is an important health care service. Looking at the commercial market, this study found that the average estimated cost of a telehealth visit is \$40 to \$50 per visit compared to the average estimated cost of \$136 to \$176 for in-person acute care.² The average number of telehealth visits per patient is 1.3 visits/year. The most common diagnoses made during a telehealth visit are sinusitis, followed by cold/flu/pertussis and urinary tract infections. Patient issues are able to be resolved during the initial telehealth visit an average of 83 percent of the time.

Assuming that a telehealth visit costs approximately \$50/visit, the estimated savings per commercial telehealth visit are \$126. In Medicare, where telehealth visits are reimbursed at the same rate as in-person care, savings would still be realized from replacing in person care with telehealth visits where appropriate. In fact, replacing in-person acute care services with telehealth visits reimbursed at the same rate as a doctor's office visit could save the Medicare program an estimated \$45/visit.

Concerns regarding "induced utilization" will only be realized if the percentage of Medicare patients utilizing telehealth who would have otherwise "done nothing" increases to more than 32.8 percent, which seems unlikely given that telehealth vendors currently report that this patient segment is approximately 13 percent within the commercial market. Finally, the cost of follow-up care needed by patients who were unable to resolve their issues during the telehealth visit are not estimated to be great enough to cause Medicare to realize losses. The estimated average cost of follow-up care is less than the "worst case" scenario estimated costs of \$136 and \$104, respectively for commercial market and Medicare.

Introduction

Over the past few years, the use of telehealth services in the commercial marketplace has rapidly expanded. A number of vendors offer services directly to consumers on a per-month or annual fee basis, and many employers and commercial insurers sponsor programs as part of their benefit offerings. Moreover, in a recent survey by Towers Watson, 37 percent of employer respondents indicated that they

¹ Erin McCann, *Telehealth Sees Explosive Growth*, Healthcare IT News, June 6, 2013.

² \$136 is from worst case scenario shown in Table 7 and \$176 is from best estimate scenario from Table 6.

expect to offer telehealth services in 2015, up from the current 22 percent.³ Various reports have predicted the doubling of the global telehealth market in the next five years.⁴

Despite a growing footprint in the commercial marketplace, restrictive payment provisions have generally limited the adoption and use of telehealth in the Medicare program. A number of policy proposals have been put forward as an alternative to the existing framework, including a proposal by the Alliance for Connected Care to permit substitution of appropriate telehealth visits for acute care outside of rural areas and originating sites.

The primary purpose of this study is to assess the feasibility and cost of replacing in-person care with acute care telehealth services in the commercial market and extrapolating to Medicare. In-person care typically occurs when a patient physically goes to a traditional clinical setting, such as a physician's office, emergency room and/or an urgent care center, seeking care from a health care professional. By contrast, using telehealth, health care professionals are able to provide care to patients wherever they are using advanced technology.

Various data elements for the study were provided by American Well, Doctor on Demand, Optum, Teladoc and Anthem.⁵ The following questions are addressed:

- How often are commercial telehealth services currently being used on an annual basis?
- What types of health care conditions are being treated during a telehealth visit in the commercial market?
- Where would patients have otherwise sought care if telehealth services were not available?
- What is the estimated cost of receiving in-person care?
- Would Medicare realize savings if telehealth services were substituted for in-person care when medically appropriate?
- What costs are associated with follow-up care needed by patients who are unable to resolve their issues in an initial telehealth visit, and how does this impact the value proposition of telehealth?

Market Overview of Acute Care Telehealth Services

The market for acute care telehealth services is growing rapidly, but is still relatively nascent. As use of telehealth expands in the commercial market, increasing numbers of beneficiaries are becoming eligible

³ *Current Telemedicine Technology Could Mean Big Savings*, 2014 Health Care Changes Ahead Survey, Press Release from Towers Watson, August 11, 2014.

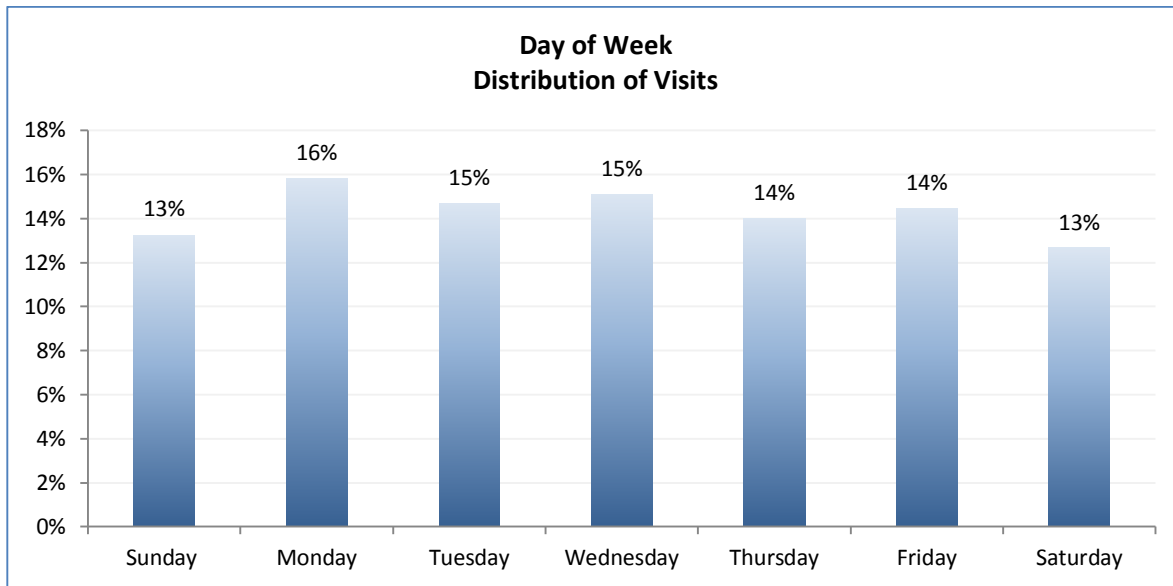
⁴ Global Telehealth Market 2015-2019, Reportsnreports, Infiniti Research Limited, <http://www.reportsnreports.com/reports/320313-global-telehealth-market-2015-2019.html> and US Telemedicine Market Outlook to 2018, Ken Research, June 2014

⁵ Appendix A includes a summary of data elements requested. No vendor was able to provide all data requested.

for these types of services. The market of eligible beneficiaries for many vendors has grown at least ten-fold in the last five years.

Although business models may vary, all of the vendors who submitted data for this study are staffed with credentialed providers who are licensed in the state where the patient resides. These physicians are generally available 24 hours a day, 7 days a week. At least one of the vendors participating in this study demonstrated relatively consistent utilization of telehealth services throughout the week, as measured by their distribution of visits by day of the week. (See Figure 1).

Figure 1: Distribution of Visits by Day of Week



Further, a recent analysis of the use of telehealth services included the timing of visits for a large employer. This analysis showed a similar utilization of services on the weekend. (See Table 1). Of interest, they compared the utilization of telehealth services to office visits and emergency room visits.⁶ Note the similarity of weekday utilization of telehealth services and ER visits as opposed to the relatively low office visit utilization on weekends.

Table 1: Day of the Week Utilization

	Sample Vendor		Office Visit		ER Visit	
	Number	Percent	Number	Percent	Number	Percent
Weekdays	1,110	66%	36,168	92%	781	64%
Weekends or holidays	564	34%	2,975	8%	434	36%

⁶ 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*, Health Affairs, Vol. 33, No. 2, February 2014.

The cost of telehealth services in the commercial market varies, but most have a cost per visit in the range of \$40 to \$50. This amount is generally less than the cost of a physician’s office visit. Some vendors may also charge a per employee fee for employer-sponsored contracts to cover additional administrative expenses. The patient also may be charged a co-pay under the employer’s health plan instead of the telehealth vendor’s charge, similar to the co-pay paid for physician office visits. The co-pay is dependent on the health plan design, but is often less than the amount of an office visit co-pay. We have not included those costs in this analysis.

Study Approach

The approach used in this study is relatively straightforward: collect utilization data from vendors, compare and average results and apply the cost of telehealth services to the estimated average costs of care delivered in other settings. As mentioned earlier, these services are relatively new in the commercial market and the data are evolving. The primary driver in the cost analysis is the difference in costs for the various sites of service. Additional information about the data sources used to develop commercial and Medicare cost estimates can be found in Appendix B.

Incidence of Telehealth Services

The first question our study examined is the relative frequency with which eligible beneficiaries are using telehealth. The number of telehealth services provided to eligible beneficiaries was difficult to determine due to the rapid growth of membership and the relative immaturity of the market. Our examination of the observed number of patients using telehealth services (estimated at one to two percent of the eligible population) found that approximately 80 percent, or four out of five, patients using telehealth only used telehealth services one time per year. (See Table 2). The average number of telehealth visits per patient is 1.3 visits/year.

Table 2: Telehealth Utilization⁷

Number of Visits per Year	Percent
1	81%
2	13%
3	4%
4	1%
5+	1%

Frequent Diagnoses and Resolution of Medical Conditions

The most common diagnosis treated during a telehealth visit was sinusitis, with each vendor reporting diagnosis data listing sinusitis as its most frequent diagnosis (13 to 24 percent). (See Table 3).

⁷ Based on utilization data including over 100,000 telehealth visits.

Other reported diagnoses included colds and flu, respiratory conditions, urinary tract infection, and eye and skin conditions. The following chart summarizes the average percentage of diagnosis among participating vendors.

Table 3: Telehealth Diagnosis

Diagnosis	Percentage (Mean)
Sinusitis	20%
Cold/flu/pertussis	12%
Bladder infection/urinary tract infection	6%
Respiratory condition	5%
Eye infection/pink eye/sty	3%
Skin inflammation/rash/shingles	3%

Further, participating vendors reported that they were able to resolve a patient’s issues during the telehealth visit approximately 83 percent of the time. Approximately 60 percent of telehealth visits among participating vendors were resolved with a prescription.

Alternative Sites of Care

For purposes of this study, “redirected care” refers to the site of care a patient would have used if telehealth services were not available. Most of the participating vendors provided data on redirected care based on patient surveys. Table 4 provides an average of the data provided and the standard deviation of the results for the alternative sites of care.

Table 4: Distribution of Redirected Care

Alternative Site of Care	Average	Standard Deviation
Emergency room	5.6%	2.4%
Urgent care	45.8%	11.7%
Physician office visit	30.9%	9.0%
Other clinics	5.4%	0.7%
Do nothing	12.3%	3.7%
	100.0%	

As an example, for every 100 telehealth patients, five or six (5.6 percent) would have gone to the emergency room if telehealth services were not available. The standard deviation is included in the above table to show that the variation in results by vendor was rather significant.⁸ This variation is considered in

⁸ The standard deviation is a statistical measure of how much the actual data varies from the average or the mean. Assuming a normal distribution, the actual cost would fall between the range of the average cost plus and minus one standard deviation about two-thirds of the time.

this study to determine the potential cost volatility of offering telehealth services for both the commercial and Medicare populations.

Cost of Care

Making a determination of the absolute cost of care for the commercial and Medicare populations is difficult due to the variation of costs throughout the country. Table 5 shows the assumed costs per service by site of care that the telehealth patient might have used if they did not utilize telehealth services. These costs are used in the cost analysis section that follows.

Table 5: Assumed Cost of Care⁹

Alternative Site of Care	Commercial	Medicare
Emergency room	\$ 1,595	\$ 943
Urgent care	116	98
Physician office visit	98	83
Other clinics	57	83
Do nothing ¹⁰	0	0

For example, a patient with commercial coverage who uses a telehealth vendor charging \$50 per visit would save \$66 (\$116 - \$50) by using the telehealth service instead of going to an urgent care center.¹¹

Cost Analysis

The basic cost analysis combines the redirection utilization (the costs of care for the settings where telehealth patients reported they otherwise would have sought care) with the cost of care in these alternative settings. Table 6 shows this basic calculation, using the reported alternative sites of care and their respective commercial and Medicare reimbursement costs.

The average cost is the weighted average of the commercial and Medicare costs based on the utilization shown. The average cost represents the cost of the patient's care if telehealth services were not available. If the cost of the telehealth service (*e.g.*, the estimated \$50 telehealth fee) is less than the average cost, the cost of the telehealth service is a viable replacement for care provided in the alternative site of care.

⁹ Note that the costs are for different calendar years. The HCCI data is the average cost per service for the participating carriers for the calendar year 2013. The Medicare data is for calendar year 2012. For this analysis, the year of the data is not particularly relevant as long as the relationship of costs between the places of service are relatively consistent from year to year. Over a long period of time, this is probably not a valid assumption although the relationships will not change significantly enough to alter the final result. The data sources and methodology used to develop these costs are outlined in Appendix B.

¹⁰ Note that this table does not reflect downstream costs that may arise as a result of a patient's decision not to seek care or treatment for a health condition.

¹¹ Note that while it was mentioned earlier that the telehealth fees for the contributing vendors ranged between \$40 and \$50, a fee of \$50 is used in any examples of costs in this study for simplicity and to be conservative in any savings estimates.

Table 6: Estimated Costs – Best Estimate

Alternative Site of Care	Utilization	Commercial	Medicare
Emergency room	5.6%	\$ 1,595	\$ 943
Urgent care	45.8%	116	98
Physician office visit	30.9%	98	83
Other clinics	5.4%	57	83
Do nothing	12.3%	0	0
Average cost	100.0%	\$ 176	\$ 128

For the commercial market, the savings are approximately 70 percent of the average cost of care that the patient would have used in the other settings (e.g. \$50 compared to \$176 (or $1.00 - 50/176 = 0.72$)). This calculation includes the 12.3 percent of the group that would have otherwise “done nothing” thus incurring no direct medical costs. This totals approximately \$126 in estimated savings ($\$176 - \50) per commercial telehealth visit. Although we have used \$50 as the cost of a telehealth visit for ease of analysis, we note that savings could be even greater if the cost of the telehealth visit is at the lower end of the per visit telehealth cost range (approximately \$40 per visit).

The Alliance for Connected Care’s telehealth reimbursement framework proposes to reimburse an acute care telehealth visit at an amount equal to the reimbursement for certain types of traditional Medicare physician office visits, which is consistent with current Medicare policy. Using the above calculations, Medicare will realize savings as long as the average cost for the alternative site of care is greater than the estimated \$83 Medicare-reimbursed office cost. Under the above scenario, the average savings to Medicare will be approximately \$45 ($\$128 - \83) for each telehealth visit. We note, however, that emergency room care is significantly more expensive than care provided at any of the other in-person care sites, suggesting that a higher rate of savings could be obtained by replacing emergency room visits for routine illnesses (like sinusitis and UTI) with telehealth visits.

We acknowledge, however, that estimated savings resulting from substituting telehealth services for in-person care when medically appropriate, may not reflect “induced utilization,” or increasing rates of care due to the fact that telehealth services are conveniently available. Patients who would have done nothing represent the “induced utilization” of offering telehealth services. However, even after the analysis of “induced utilization” Medicare can still achieve savings.

To test the impact of the “otherwise do nothing” cohort on the cost analysis, we examined a number of scenarios. One possible “worst case” scenario for the potential to save through substitution is a decrease in the number of patients visiting the emergency room and an increase in cohort of patients doing nothing. Subtracting one standard deviation from the *ER visits* ($5.6\% - 2.4\% = 3.2\%$) and adding one standard deviation to the *Do nothing* alternative ($12.3\% + 3.7\% = 16.0\%$) and then allocating the other utilization rates prorata to the average, yields the following. (See Table 7).

Table 7: Estimated Costs – Worst Case

Alternative Site of Care	Utilization	Commercial	Medicare
Emergency room	3.2%	\$ 1,595	\$ 943
Urgent care	45.1%	116	98
Physician office visit	30.4%	98	83
Other clinic visit	5.3%	57	83
Do nothing	16.0%	0	0
Average cost	100.0%	\$ 136	\$ 104

Assuming the cost of a commercial telehealth visit is \$50 and the cost of a Medicare visit is \$83, the calculations still indicate a cost savings for the benefit under this “worst case” scenario. The estimated savings in the commercial market are \$86 (\$136 - \$50) per telehealth visit, and the estimated savings in Medicare are \$21 (\$104 - \$83) per visit.

An additional question to consider is what would happen if a much larger portion of the Medicare population used telehealth services when they would have otherwise “done nothing” if the benefit was not available. To solve for the “break even” level of “do nothing” utilization, we allocated additional utilization to the other alternative sites of service, which yielded the following.¹² (See Table 8).

Table 8: Estimated Costs – Medicare Break Even

Alternative Site of Care	Utilization	Commercial ¹³	Medicare
Emergency room	2.5%	\$ 1,595	\$ 943
Urgent care	36.1%	116	98
Physician office visit	24.3%	98	83
Other clinics	4.2%	57	83
Do nothing	32.8%	0	0
Average cost	100.0%	\$ 109	\$ 83

The above analysis demonstrates that \$83 is the “break even” point where the cost of a telehealth visit is the same as the cost of a visit to an alternative, in-person site of care. To result in additional costs to the Medicare program, more than a third of patients (32.8 percent) would have to decide to use seek a telehealth visit instead of doing nothing to treat their condition. Given the still relatively small uptake of telehealth services in the commercial market, it is unlikely that this will occur. From a statistical perspective, the 32.8 percent would represent a 20.3 percentage point (32.8% - 12.5%) increase in

¹² Mathematically, the “Do nothing” utilization was set as a variable. The other alternative places of care utilization were adjusted prorata based on the worst case scenario. The “Do nothing” utilization was adjusted until the average cost was equal to \$83.

¹³ Although not used in this portion of the analysis, commercial data were included in Table 8 for consistency with the other tables throughout the paper.

utilization from the best estimate average or 5.5 standard deviations (20.3% ÷ 3.7%) which means that there is an extremely small chance that will occur.¹⁴

Follow-Up Care

As previously mentioned, 83 percent of presenting conditions were resolved during the telehealth visits by participating vendors, meaning that less than one in five patients required additional follow-up care. Data provided by one participating vendor indicated that about half of the remaining 17 percent of patients who did require follow-up care were referred to a physician’s office and an additional 10 percent were referred to the emergency room. Twenty percent of unresolved cases involved patients that had conditions that were not within the scope of the vendors’ offerings and an additional 20 percent of unresolved cases involved patients who were only seeking medication.

Table 9 shows the estimated cost of follow-up care for patients whose issues were not resolved during the telehealth visit. We assumed that patients who needed care outside the scope of the vendor’s offerings followed-up by going to a physician’s office, and that patients who were simply seeking medications did not seek any follow-up care.

Table 9: Cost of Unresolved Care Alternatives¹⁵

Disposition of Unresolved Cases	Utilization	Commercial	Medicare
Physician referral	50%	\$ 98	\$ 83
Out of scope	20%	98	83
Seeking medications only	20%	0	0
Emergency room referral	10%	1,595	943
Average cost	100%	\$ 228	\$ 152

The estimated per visit cost for the 83 percent of patients whose health condition(s) were resolved during the telehealth visit is \$50 and \$83 for commercial and Medicare patients, respectively. (See Table 10). The estimated costs of follow-up care needed for the remaining 17 percent of patients who did not have their health condition(s) resolved during the telehealth visit were \$228 and \$152 for commercial and Medicare patients, respectively.

¹⁴ From a purely statistical perspective, the statement is true. From a “real world” perspective, there are many reasons why the calculated numbers are not truly representative of the actual variation to be encountered (small sample size, dramatic changes in health care utilization patterns, different utilization of telehealth services for the Medicare population). However, the results imply that there is a good chance that offering telehealth services for acute care to the Medicare population will save money.

¹⁵ Estimated costs for the 17 percent of telehealth visits that were not resolved.

Table 10: Overall Costs with Unresolved Care

Follow-Up Care	Utilization	Commercial	Medicare
Yes	17%	\$ 228	\$ 152
No	83%	50	83
Average cost	100%	\$ 80	\$ 95

The estimated average cost of follow-up care for patients whose issues were not resolved during the telehealth visit is less than the worst case scenario estimated costs of \$136 and \$104, respectively for the commercial and Medicare costs shown in Table 7. Note that under the proposed reimbursement framework, some of the follow-up visits may make the telehealth visit not reimbursable (*e.g.*, an in-person visit within 48 hours of a telehealth service for the same complaint or condition). This provision should keep the costs of follow-up care under control.¹⁶

The added cost of the referrals for unresolved telehealth visits suggests an added break-even analysis to determine how much induced demand could be included in the estimates. Table 11 shows the break-even analysis setting the overall Medicare cost to the \$95 average estimated cost, including the cost of referrals for unresolved cases.

Table 11: Estimated Costs – Medicare Break-Even with Unresolved Care

Site of Care	Utilization	Commercial	Medicare
Emergency room	2.9%	\$ 1,595	\$ 943
Urgent care	4.2%	116	98
Physician office visit	27.8%	98	83
Other clinics	4.8%	57	83
Do nothing	23.3%	0	0
Average cost	100.0%	\$ 124	\$ 95

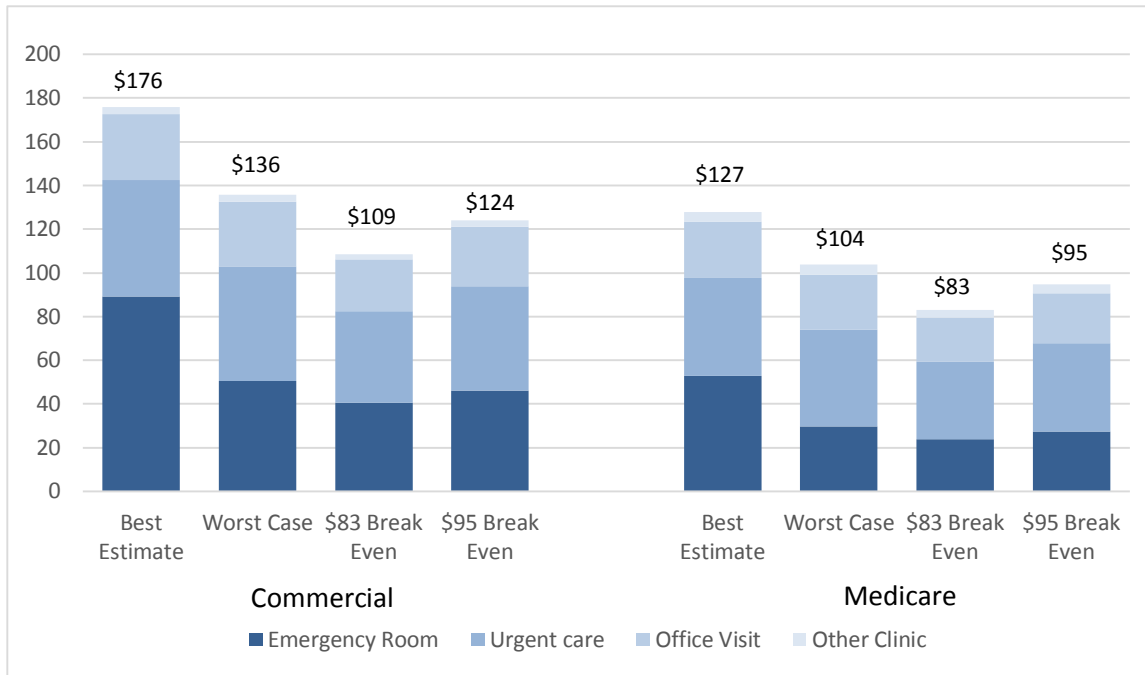
The 23.3 percent of patients who would have done nothing is within 2.9 standard deviations of the average percentage of patients from the provided data $((23.3\% - 12.5\%) \div 3.7\%)$. Assuming a normal distribution, that is over a 99 percent confidence interval that Medicare costs will at least be break-even with a telehealth service reimbursement, even in the event that follow-up care is needed.

Graphically, the components of the estimated costs from Tables 6, 7, 8 and 11 are shown below.¹⁷

¹⁶ Today's commercial telehealth service design typically does not include such an exclusion.

¹⁷ Reminder: Best Estimate is from Table 6, Worst Case is from Table 7, \$83 Break Even is from Table 8 and \$95 Break Even is from Table 11. Note that the "Do Nothing" alternative does not have a cost.

Figure 2: Cost Components of Alternative Sites of Care



Conclusion

The above analysis illustrates that lifting the restrictions on payment for telehealth in the traditional Medicare fee-for-service program will not increase overall costs and will instead result in cost savings if telehealth visits are substituted for in-person acute care, when medically appropriate.

Appendix A: Data Request

Data Contributors

Various data was contributed by the following telehealth service vendors.

- American Well www.americanwell.com
- Doctor on Demand www.doctorondemand.com
- Optum Health www.mynowclinic.com
- Teladoc, Inc. www.teladoc.com
- Wellpoint www.wellpoint.com

Data Request

The following was sent to all potential data contributors. None of the contributors provided all data requested in the exact form requested. Many provided summarized data to support the analysis.

Assessment of the Ability of Acute Care Telehealth Services to Replace In-Person Care

Data Request

The following is a preliminary list of potential data elements that would support an actuarial analysis of the ability of telehealth services to replace the in-person office visits for acute care. We understand that some data elements may not be available. Please consider this as “starting point” and if there is alternative data that could be beneficial for this study, any and all suggestions are welcome. Besides replacement in-person acute care services, if other services make sense to include this study, please feel free to make suggestions. For example, data to support cost savings for providing services for individuals in remote areas; and success in replacement of some office visits for persons with specific chronic conditions.

Please provide the following program information and data elements for your services:

General

1. List of types of practitioners providing services (e.g., family practice, internists, and nurse practitioners).
2. Service days and hours
3. Any specific accreditation requirements for practitioners
4. Range of fees and method (e.g., per member per month, per employee per month, percent of medical claims) for last three calendar years (2011-13)

Eligibility Data

1. Monthly eligibility data (members, employees/dependents) for last three calendar years (2011-13, more if available)

2. Detailed census data at the beginning of the calendar year for last three years (alternatively, summary of members by five-year age groups (under 20, 20-24, 25-29, etc.), gender and employee/dependent)

Utilization of Services by Patient

1. Patient identifier (unique code to identify separate patients)
2. Relationship code (employee/dependent)
3. Date of birth of patient
4. Gender
5. CPT code for telehealth service
6. Primary, secondary and tertiary ICD9 code
7. Telehealth service resolution
 - a. Case resolved with no recommended immediate in-person follow-up
 - b. Prescribed drugs with no recommended immediate in-person follow-up
 - c. Recommended in-person follow-up
 - d. Recommended emergency room/urgent care follow-up
8. Follow-up survey information
 - a. Alternative care if telehealth service not available
 - i. No treatment/home treatment
 - ii. Mini-clinic (e.g., in-store clinic at drug store)
 - iii. Primary care physician
 - iv. Urgent care center
 - v. Emergency room
 - b. In-person office visit within 30 days
 - c. Emergency room visit within 30 days
 - d. Inpatient admission within 30 days

Above data for services in the last three calendar years. Alternative reporting summaries by five-year age group, gender and employee/dependent.

Appendix B: Cost of Care Derivation

The cost of care by place of service was developed from the Health Care Cost Institute's (HCCI) *2013 Health Care Cost and Utilization Report*. The Medicare costs were developed from the Medicare & Medicaid Research Review, *2013 Statistical Supplement*.

Commercial Costs

The data from the HCCI report are from three major health insurance providers – Aetna, Humana and United Healthcare. The data are for employer-sponsored insurance and includes HMO, POS and PPO program data. The costs are normalized to match the demographics of the entire country through various publicly available sources. The 2013 report provides incurred costs for the 2013 calendar year.

Professional office costs were developed from the average of primary care and specialist office visits. Table B1 shows the development.

Table B1: Commercial Physician Office Visit Costs

Service Category	Utilization	Cost
Primary care office visit	1.472	\$ 96
Specialist office visit	1.493	100
Average cost	2.965	\$ 98

The utilization rates were taken from Table A5 of the report's Appendix and average price paid was from Table A6.

The emergency room cost per service was \$1,595 from Table A6 of the HHVI Appendix.

The cost of urgent care visits and retail clinic visits are not captured in the HCCI report. Therefore, it was necessary to estimate the costs of those visits. They were estimated based on data from an insurance carrier that captures their costs. Their data indicated that urgent care visits were, on average, 18.3 percent higher than physician office visits and retail clinic costs were 57.9 percent of physician office visit costs. Using those factors developed the costs for urgent care and retail clinic costs Table B2.

Table B2: Other Commercial Costs

Service Category	Factor	Cost
Physician office visit	1.000	\$ 96
Urgent care visit	1.183	116
Other clinic visit	0.579	\$ 57

Medicare Costs

The Medicare average costs were developed from two tables in the *2013 Statistical Supplement*. Professional costs are from Table 9.7¹⁸ and emergency room facility costs are from Table 10.2. The development of the average costs used in this study are in Table B3.

Table B3: Medicare Office Visit and ER Costs

Service Category	Utilization	Allowed Charge	Average Cost
Physician office visit			
• New visit	26,803	\$ 3,296,163	\$ 123
• Established visit	222,738	17,506,922	79
• Average	249,541	20,803,085	83
Emergency room visit			
• Professional	20,604	\$ 2,641,084	\$ 128
— Facility	20,604	16,799,631	815
— Total ER	20,604	19,440,715	943

Given that the total Medicare fee-for-service enrollment in 2012 is 37.214 million, the average number physician visits per enrollee is 6.7 and the average ER visits is 0.55.

As with commercial costs, urgent care and other clinic costs were not separately identified. The same factors used for the commercial costs were used to estimate Medicare costs for urgent care services in Table B4. It is assumed that the Medicare reimbursement for the retail clinic will be the same as the physician office visit which should be conservative as the level of care is likely to be less than the average physician office visit.

Table B4: Other Medicare Costs

Service Category	Factor	Cost
Physician office visit	1.000	\$ 83
Urgent care visit	1.183	98
Other clinic visit	1.000	83

¹⁸ Table 9.7 includes allowed charges for Medicare physicians by BETOS classifications. It includes charges for both primary care physicians and specialists but limited to office visit charges (BETOS codes M1A and M1B) so should be representative of charges for telehealth services.

Summary

Table B5 summarizes the commercial and Medicare costs used in the study.

Table B5: Cost of Care

Place of Care	Commercial	Medicare
Emergency room	\$ 1,595	\$ 943
Urgent care	116	98
Physician office visit	98	83
Other clinic visit	57	83