

Independent review of Teladoc Health's Cardiometabolic Health Value Model

Commissioned by Teladoc Health

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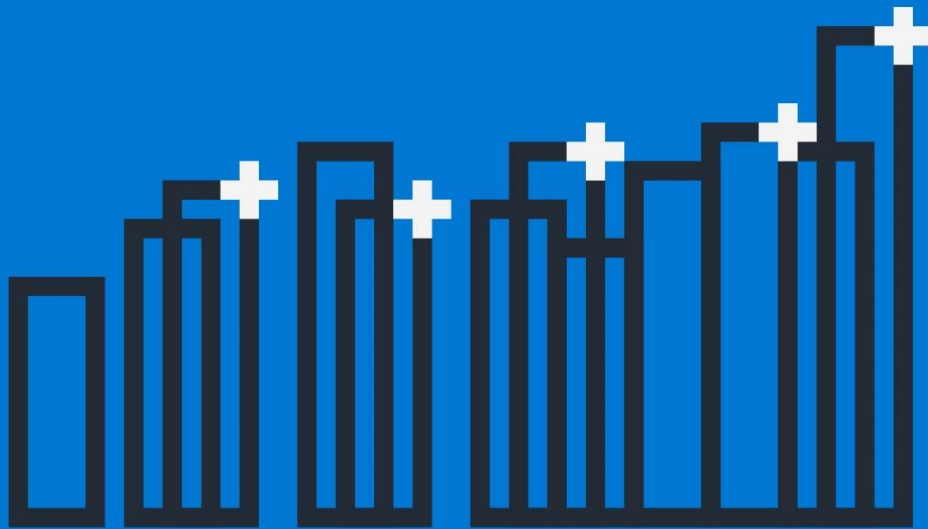


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Executive summary

Teladoc Health has developed a Cardiometabolic Health Value Model (Model), a theoretical economic model to estimate the return on investment (ROI) and value on investment (VOI) of its chronic care multi-condition programs. ROI estimates account for medical and pharmacy cost impacts by applying savings assumptions to clinical improvement inputs and VOI estimates account for incremental cost impacts from metrics such as productivity, absenteeism, presenteeism, and workforce retention. Teladoc Health's Model includes the following chronic care programs: diabetes, prediabetes, hypertension, overweight and obesity, and combinations of these programs inclusive of mental health.

Teladoc Health engaged Milliman to conduct a review of its Model for estimating ROI and VOI to determine its appropriateness for estimating the ROI and VOI of its above programs. Milliman was not engaged to review Teladoc Health's assumption inputs for clinical impact. This report:

1. provides an overview of Teladoc Health chronic care programs,
2. describes the methodology employed in the Model to estimate the ROI and VOI for these programs,
3. discusses potential limitations of the methodology used by Teladoc Health, and
4. outlines important caveats and limitations of Milliman's review of Teladoc Health's ROI and VOI methodology.

This report is intended to provide feedback on Teladoc Health's Model for estimating its chronic care programs' theoretical impact as it was presented to Milliman and may not be appropriate and should not be used for any other purpose. Our review was based on an Excel model from Teladoc Health, "Cardiometabolic Health Value Model_160524.xlsm", received on May 16, 2024. Note that this Model multiplies clinical improvement assumptions estimated by Teladoc Health by savings factors Teladoc Health estimated based on their review of published literature on the financial value of clinical risk reductions. Actual experience may differ from experience, results, and assumptions used in the Model, and the results for any particular Teladoc Health client may be unique to the characteristics of that client, point in time, and other factors not considered in this assessment. We are only commenting on the specific Model provided to us by Teladoc Health for estimating the potential ROI and VOI of its chronic care programs from clinical impact assumption inputs. This information does not constitute an endorsement or recommendation of Teladoc's chronic care programs, nor does it quantify the value of its chronic care programs in general or in aggregate or for any specific group or individual historically or in the future.

Our review of Teladoc Health's Cardiometabolic Health Value Model involved a thorough examination of the Model's assumptions and methodology, but not the specific input values used for any particular modeled result. We evaluated the validity of the assumptions made and the robustness of the methodology applied. Our review did not include a verification of the results produced by the Model. Our review is based on the methodology inherent in the Model provided by Teladoc Health at the time of the review.

We conclude that Teladoc's Model for estimating ROI and VOI based on clinical impact assumptions is a reasonable and appropriate approach that is consistent with industry standards for theoretical models to estimate the potential ROI and VOI of its chronic care programs subject to the following limitations:

- The cost impact assumptions are based on results from clinical and peer-reviewed quasi-experimental studies¹ sourced from literature that associate cost impacts with clinical metric outcomes. These assumptions are then applied to clinical impact measurements from Teladoc Health's programs based on experience from its book of business, as opposed to case-control matched observational studies of Teladoc Health programs.
- The multi-year ROI and VOI projections are extrapolated based on the estimate of the first year.
- Credible client-specific summarized healthcare claims data is not incorporated in the basis for this theoretical ROI and VOI calculation and assumptions.

¹ Quasi-experimental studies are nonrandomized pre-post intervention studies and are often used in medical informatics literature when it is not logistically feasible to conduct a randomized controlled trial. See the following article for more details: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1380192/>.

An additional limitation to Teladoc Health's ROI and VOI estimation methodology as well as common industry practices is plausibility and attribution of results. Many factors impact healthcare costs, utilization, and outcomes, and impacts may not be fully attributable to the Teladoc Health program's interventions. For that reason, the Teladoc Health program's cost impact estimates should be evaluated alongside other metrics to help validate the plausibility of results. Estimates of clinical impact that are based on the experience of program enrollees may be subject to concerns about selection bias.

As with any methodology, it is important to understand the caveats and limitations that may impact the accuracy, validity, and generalizability of the results, and we have documented these considerations in this report. We have also referenced supplemental analyses and metrics that may provide additional insight on the ROI and VOI of Teladoc Health's chronic care programs, as described within the Discussion section. It is important to read this report in its entirety.

Any reader of this report must possess a certain level of expertise in areas relevant to this analysis to evaluate the significance and reasonability of the inputs and assumptions as well as the effect of these inputs and assumptions on the results. We recommend that all parties be aided by their own actuary or other qualified professional when reviewing this report.

Background

Milliman was commissioned by Teladoc Health to review and assess its Cardiometabolic Health Value Model for the purpose of estimating the cost impacts of its chronic care programs and whether or not the Model is in line with common industry practices.

According to information provided by Teladoc Health:

Teladoc Health is a healthcare company that provides whole-person virtual care services for more than 90 million Americans with a mission to empower people everywhere to live their healthiest lives. The company offers general medical/urgent care, primary care, mental health, chronic condition management and expert medical services which are available and accessible to users through a single, easy-to-use mobile application.

In chronic condition management, Teladoc Health offers programs directed at cardiometabolic health and disease prevention. Its core programs focus on diabetes prevention, diabetes management, hypertension and weight management. These programs use evidence-based clinical protocols to help users achieve better health through the following core capabilities:

- Cellular-connected devices, such as blood glucometers and blood pressure monitors, that help members effortlessly track vital health information and view their progress;
- AI-informed, personalized communications that engage members at the right time no matter where they are in their health journey;
- Human-based support with a dedicated care team that can include physicians, nurses, dedicated health coaches, mental health coaches and registered dietitians to keep members supported and to help foster sustainable health modifications;
- Integrated digital mental health tools and programs that provide additional support to help members address commonly associated concerns such as depression and anxiety.

Teladoc Health is committed to helping its members make sustainable behavior changes and achieve better health outcomes which drives cost impacts for plan sponsors.

Objective

Our review was limited to Teladoc Health's Cardiometabolic Health Value Model designed to estimate the cost impacts of its chronic care programs. These programs address the following chronic conditions: diabetes, prediabetes, hypertension, overweight and obesity inclusive of mental health. The scope of this report is strictly limited to the review of the methodology used in this Model, not the accuracy or applicability of results generated from

the Model or the validity of the values used as input assumptions in the Model. Our review does not apply to any other methodologies that Teladoc Health may use to evaluate its market offerings or any other ROI or VOI model that is derived from the one we reviewed. Any changes made to the methodology by Teladoc Health after our review are outside the scope of this report.

Results

Our review of Teladoc Health's Cardiometabolic Health Value Model involved a thorough examination of the Model's inputs, assumptions, and methodology. We evaluated the appropriateness of the data used, the validity of the assumptions made, and the robustness of the methodology applied. Our review did not include a verification of the results produced by the Model or the clinical metric values input as assumptions into the Model. Our review is based on the methodology inherent in the Model provided by Teladoc Health at the time of the review.

We reviewed formulas and methodology in the Excel-based model, baseline costs and data underlying the Model, including the prevalence of each chronic condition and combination of conditions, the annual trend used to project the baseline cost forward to the contract year, the enrollment curve projections including peak and co-occurring condition enrollment assumptions (determines the maximum enrollment by chronic condition alone and in combination with other chronic conditions), the fee structure for each of the chronic care management programs, literature-based medical and pharmacy cost impacts from quasi-experimental studies to be applied to the assumptions around program impact on relevant clinical metrics as provided by Teladoc Health, and the application of each of these assumptions to generate an estimate of the ROI and VOI of the Teladoc Health program interventions. There are several possible limitations that should be considered by any party that relies on results produced by Teladoc Health's Cardiometabolic Health Value Model. These limitations include, but may not be limited to:

- 1. Applicability of the medical and pharmacy savings assumptions.** The Model relies on clinical literature-derived medical and pharmacy savings associated with clinical improvement outcomes assumed to be demonstrated by Teladoc Health's chronic care programs, and the interaction between the different chronic care management programs is subjectively estimated in the Model. We reviewed the applicability of the literature to each clinical metric and the strength of the correlation between the medical and pharmacy savings and clinical metric impacts within the literature. We did not review the methodology Teladoc Health used to estimate clinical impact assumption inputs. As claims data from Teladoc Health's cases becomes available we recommend that Teladoc Health conduct a claims-based case-control matched observational analysis that compares all client members that qualify for an intervention to members from an independent control group that also qualify for the intervention but were not offered the same intervention.
- 2. Development of the multi-year ROI and VOI projections.** The Model develops a multi-year ROI and VOI projection that is based on an extrapolation of the results from the first program year, which is applied to a multi-year enrollment projection. We recommend refining this projection to incorporate the cost impacts separately in each of the subsequent performance years, including any dependences or interactions with the prior program year performance.
- 3. Incorporation of client-specific data.** As the Model is intended for estimating ROI and VOI projections during the pre-sales process, the cost impacts estimated in the Model are based on a representative sample of credible baseline data from Milliman's Consolidated HCG Sources Database. We recommend enhancing the Model to allow for incorporation of summarized client-specific healthcare claims cost data, if credible, available, and of sufficient quality and quantity, as the basis for estimating ROI for a given Teladoc Health client in addition to the client-specific prevalence data used. The user should confirm that the client-specific data, if used, is the most appropriate source and not necessarily only the most favorable.

Methods

The purpose of Teladoc Health's Cardiometabolic Health Value Model is to estimate the medical and pharmacy cost impacts (ROI) as well as the VOI for members enrolled in and engaged with one or more of the chronic care management programs. Our review of Teladoc Health's Cardiometabolic Health Value Model involved a thorough

examination of inputs, assumptions, and methodology. The key inputs, outputs, assumptions, methodology, and data underlying the Cardiometabolic Health Value Model are summarized below.

METHODOLOGY

The Teladoc Health Cardiometabolic Health Value Model estimates the total multi-year (up to three year) medical and pharmacy cost impacts, or ROI, based on the projected monthly average enrollment, the selected programs, the prevalence of chronic conditions among enrollees, and the medical and pharmacy cost savings assumptions. Other multi-year VOI cost impacts per enrollee are estimated based on the monthly average enrollment, the selected programs, an assumed average annual salary per enrollee, and literature-derived assumptions for absenteeism and productivity. The combined ROI and VOI is then estimated as:

$$\frac{\text{Total medical and pharmacy cost impacts} + \text{Total non claims cost impacts}}{\text{Total program cost}}$$

This is estimated for each chronic condition and combination of chronic conditions represented by the selected program.

Medical and pharmacy cost impacts (ROI)

To estimate ROI, the baseline average total cost of care is first developed based on the line of business, comorbidity mix, and distribution of age and gender of the enrolled population. The baseline total cost of care reflects the assumed comorbidities of the population eligible for the selected program. For example, if the diabetes multi-condition program is selected, then the average baseline total cost of care is developed for each combination of comorbidities with the diabetes anchor condition – hypertension, obesity, and mental health. These costs are then trended forward from the baseline year to the performance year using line of business-specific trend factors.

The assumed cost impact percent for each comorbidity combination is then applied to the corresponding baseline total cost of care to estimate the medical and pharmacy cost impact per enrollee. The cost impacts for each chronic condition are derived from quasi-experimental literature supporting reductions in medical and pharmacy costs associated with improvements in clinical metrics, as outlined in the Assumptions section. The cost impacts are estimated using these literature-based assumptions in conjunction with clinical impact data supplied by Teladoc Health.

Total cost impacts are combined additively for condition cohorts with multiple chronic conditions, with the option to then dampen through an assumption around perceived interactions between the chronic condition management programs. For example – diabetes and hypertension programs are assumed to have overlapping effects, with outcomes that are highly interdependent for enrollees with both chronic conditions. Therefore, a dampening factor is applied additively to the cost impact assumption. On the other hand, diabetes and mental health programs are assumed to have minimal overlapping effects, so the total cost impact percent for these two programs is assumed to be sum of the cost impacts from both programs with no dampening.

The estimated medical and pharmacy cost impact per enrollee is multiplied by the total number of projected enrollees to arrive at total ROI cost impacts. The total number of projected enrollees is determined by multiplying the comorbidity prevalence rates for each combination of chronic conditions for each selected product by the total number of eligible members to approximate a pool of recruitable members. Engagement, lapse, and re-engagement assumptions for each month are then applied to the total number of recruitable members to produce a multi-year monthly enrollment curve.

Non-claims cost impacts (VOI)

The VOI per enrollee is estimated based on literature-derived assumptions from quasi-experimental studies around presenteeism, absenteeism, and productivity, which are applied to an assumed average annual salary per enrollee. These assumptions are based on three primary drivers:

1. Lost working minutes in a day spent traveling to or waiting for in-person healthcare services – applies to all virtual care programs, under the assumption that the care provided via telehealth is replacing in-person services

2. Missed workdays per year associated with chronic diseases due to sickness or injury – applies to hypertension, diabetes, obesity, and mental health (distinct source from No. 1 but may include some overlap)
3. Decreases in productivity associated with Type 2 diabetes – applies to prediabetes and diabetes

The assumed average annual salary per enrollee is converted into a daily or hourly rate and multiplied by the missed working time due to these three drivers to estimate the cost impact per enrollee. VOI cost impacts per enrollee are then multiplied by the multi-year projection of total enrollees, consistent with the method described above for total medical and pharmacy cost impacts.

Program cost

Total annual program cost is calculated by multiplying the Teladoc Health program fee per enrollee for the given program year by the total number of projected enrollees for that year. Diabetes supply costs can be subtracted from the Teladoc Health program fees for diabetes products, as diabetes supplies are provided as a part of these programs. Time periods for program costs and cost impacts align.

INPUTS AND OUTPUTS

The calculator relies on mandatory inputs to estimate the ROI and VOI for a specific Teladoc Health client and a given combination of products. There are also optional inputs to either override default assumptions or tailor the Model output more specifically to a client. These inputs can be grouped into three main categories: product profile, client profile, and population profile.

- Product profile inputs inform the products and product structures that are being modeled and include:
 - Pricing/fee structure (mandatory)
 - Inclusion or exclusion of condition-based chronic care products (mandatory)
- Client profile inputs impact the benchmarks used as the baseline from which medical and pharmacy cost impacts are estimated, as well as any client-specific information on the output exhibits. These include:
 - Client line of business (mandatory)
 - Commercial group
 - Individual
 - Medicare Advantage
 - Medicaid
 - Consumer engagement and enrollment campaign (mandatory)
 - Inclusion or exclusion of VOI impacts (mandatory)
 - Client average annual salary for VOI impacts (mandatory when VOI impacts are included)
- Population profile inputs inform the characteristics of the population being modeled, and include:
 - The number of program eligible individuals (mandatory)
 - Client-specific demographic distributions (optional)
 - Gender
 - Age
 - Census region
 - Client-specific chronic condition prevalence (optional)
 - Diabetes
 - Prediabetes
 - Hypertension

The Model output is categorized into two main sections – ROI and VOI drivers.

- The ROI output demonstrates medical and pharmacy cost impacts resulting from Teladoc Health chronic care management solutions in excess of (or lesser than) the program costs. The ROI estimation is split out across

multiple years assuming continuous enrollment in the programs (subject to the enrollment and lapse curves) and estimates the monthly medical cost impact per enrolled member.

- The VOI drivers include cost impacts such as productivity, absenteeism and presenteeism, workforce retention, and changes in relevant clinical metrics. These are impactable metrics that are not related to medical and pharmacy cost impacts but may be valuable to a Teladoc Health client.

Other outputs of the ROI and VOI calculator include an exhibit that allows the user to model the incremental impact of moving from a condition-specific to multi-condition program.

ASSUMPTIONS

There are three main categories of assumptions in the Model. These include enrollment, pricing, and savings and are a key component of the ROI and VOI estimation.

The enrollment assumptions are developed by Teladoc Health and reflect its expectations and experience for engagement and enrollment based on varying consumer engagement strategies. These assumptions are also varied for each of the condition-specific and multi-condition products based on the eligible or recruitable population. Eligible members are determined by the prevalence of chronic conditions for the selected line of business. The peak enrollment assumption, which was developed by Teladoc Health, is set based on an expectation for the maximum percentage of eligible members that will be engaged, which is used to cap the monthly enrollment growth. The cumulative enrollment curve assumptions can also be overridden by manual inputs but will still be subject to the cap developed based on the maximum enrollment of recruitable members.

The pricing assumptions used are based on Teladoc Health fee structure for each of the chronic care programs.

The savings assumptions are developed in the Model using clinical and peer-reviewed literature of quasi-experimental studies that support medical and pharmacy cost impacts associated with the clinical outcomes supplied in the Model by the Teladoc Health care management programs for similar types of program interventions. The average PMPM savings have been trended using line of business specific healthcare trends. The savings are then estimated based on the assumed impact of Teladoc Health program interventions on specific clinical outcomes converted to a financial impact, using the relationships between clinical outcomes and cost impacts found in literature. The clinical outcomes for each of the chronic conditions driving medical and pharmacy cost impacts are summarized below along with the literature Teladoc Health relied upon for the cost impact assumptions.

CHRONIC CONDITION	CLINICAL OUTCOME	SUPPORTING LITERATURE ²	TITLE	YEAR
Diabetes	HbA1c reduction	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8873294/	The Association Between HbA1c and 1-Year Diabetes-Related Medical Costs: A Retrospective Claims Database Analysis	2022
Prediabetes	Weight loss of >5 lbs.	https://www.milliman.com/en/insight/insights-into-cost-patterns-and-actionable-factors-in-newly-diagnosed-type-2-diabetes	Insights into cost patterns and actionable factors in newly diagnosed Type 2 diabetes	2022
		https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7875131/	Trends in Medical Expenditures Prior to Diabetes Diagnosis: The Early Burden of Diabetes	2021
		https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7875131/		

² The medical and pharmacy cost impacts are derived by applying the literature-based results to Teladoc Health clinical performance metric experience.

		nih.gov/pmc/articles/PMC1762038/	Effect of Weight Loss With Lifestyle Intervention on Risk of Diabetes	2006
Hypertension	Systolic blood pressure reduction of >5 mm Hg	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7484110/	Cardiovascular Events and Costs with Home Blood Pressure Telemonitoring and Pharmacist Management for Uncontrolled Hypertension	2021
Weight management	Weight loss of >5% of starting weight	https://www.jmcp.org/doi/10.18553/jmcp.2020.20036#sec-1	Economic value of nonsurgical weight loss in adults with obesity	2020

Average healthcare spend reductions are assumed to be independent across chronic conditions; that is to say, the medical and pharmacy cost impacts are applied additively in the Model for the multi-condition products that support combinations of multiple chronic conditions, with an option to dampen these aggregate medical cost impacts. For example – diabetes and hypertension programs are assumed to have overlapping effects, with outcomes that are highly interdependent for enrollees with both chronic conditions. Therefore, a dampening factor is applied additively to the cost impact assumption. On the other hand, diabetes and mental health programs are assumed to have minimal overlapping effects, so the total cost impact percent for these two programs is assumed to be sum of the cost impacts from both programs with no dampening. The degree to which medical and pharmacy cost impacts are purely additive for these programs is judgement-based for which no supporting literature was found.

Additionally, products that include the mental health program assume an additional 16.8% average 1-year healthcare spend reduction based on a matched cohort study³ on changes in healthcare cost after engaging with a virtual mental health solution.

The VOI assumptions are also supported by quasi-experimental study literature and include metrics on productive minutes and workdays regained per visit, increased work-life satisfaction, and decreased stress, as well as changes in relevant clinical metrics. These cost impacts are estimated based on the average annual salary of a Teladoc Health client's employee. The table below summarizes the sources Teladoc Health relied on to support the development of the VOI assumptions.

CATEGORY	SUPPORTING LITERATURE ⁴	TITLE	YEAR
Lost working minutes due to travel and wait times	https://altarum.org/news-and-insights/travel-and-wait-times-are-longest-health-care-services-and-result-annual	Travel and Wait Times are Longest for Health Care Services and Result in an Annual Opportunity Cost of \$89 Billion	2019
Absenteeism	https://www.cdc.gov/pccd/issues/2016/15_0503.htm	Absenteeism and Employer Costs Associated With Chronic Diseases and Health Risk Factors in the US Workforce	2016
	https://news.gallup.com/poll/163619/depression-costs-workplaces-billion-absenteeism.aspx	Depression Costs U.S. Workplaces \$23 Billion in Absenteeism	2013
Productivity	https://adulorlife.com/blog/type-2-diabetes/impacts-of-type-2-diabetes-in-the-workplace	The Impacts of Type 2 Diabetes in the Workplace and How Employers Can Help	2022

³ <https://www.sciencedirect.com/science/article/pii/S1877050922009693>

⁴ Derived from the days or minutes lost, as cited by the literature, with an assumed average annual salary earned evenly throughout the year.

<https://www.endocrine.org/news-and-advocacy/news-room/2023/endo-2023-press-lee>

DATA

The data underlying the Model is derived from three primary sources:

- Costs and prevalence assumptions for members with certain condition and comorbidity profiles, using Milliman's Consolidated HCG Sources Database
 - Includes summarized claims and enrollment in calendar year 2022 for the commercial, individual, Medicare Advantage, and Medicaid lines of business
 - Used for the baseline average total cost of care and default comorbidity prevalence rates
- Assumptions from quasi-experimental studies found in clinical and peer-reviewed academic journals and publications, listed in the Assumptions section
 - Used to develop the cost impact assumptions, specifically for associating medical and pharmacy cost savings with clinical outcomes and deriving the non-claims cost impacts
- Teladoc Health-derived clinical outcomes for HbA1c, systolic blood pressure, BMI, and weight loss
 - Used to develop the healthcare cost impact assumptions in combination with the literature-based assumptions

Discussion

Teladoc Health's Model for estimating the ROI and VOI of its chronic care programs from clinical improvement is reasonable, appropriate, and consistent with industry practices. Notwithstanding this general conclusion, each party relying on estimates based on Teladoc Health's Cardiometabolic Health Value Model should review the relevance of the inputs, assumptions, and methodology used in the Model as it applies to each population of interest and should consider the extent to which benefit design, retention, and other contractual terms affect modeled cost impacts. In particular, it should be clear that if the Teladoc Health program does not result in changes to clinical metrics then there would be no expectation of cost impacts and we did not review Teladoc's methodology for estimating clinical impact and do not opine on the reasonability of its clinical impact assumptions.

An additional limitation to Teladoc Health's ROI and VOI estimation methodology as well as common industry practices is plausibility and attribution of results. Many factors impact healthcare costs, utilization, and outcomes, and impacts may not be fully attributable to the Teladoc Health program's interventions. For that reason, the Teladoc Health program's cost impact estimates should be evaluated alongside other metrics to help validate the plausibility of results. The following types of metrics may provide additional insight on the cost impacts of the program:

- Existence of a dose-response relationship – whether groups with higher use of the Teladoc Health program have better risk-adjusted financial results than groups with lower use of the program.
- Whether total cost of care results improve after increasing Teladoc Health program engagement, and whether this improvement is better than the results of groups that are not increasing the program engagement.

Caveats, limitations, and qualifications

Austin Barrington, Deana Bell, and Erin Birkeland are members of the American Academy of Actuaries and meet the qualification standards to render the actuarial opinion contained herein. To the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

This report is intended to provide our evaluation of the standard Teladoc Health Cardiometabolic Health Model methodology for estimating the ROI and VOI of their chronic care programs. It may not be appropriate, and should not be used, for other purposes. We did not assess the effectiveness or impact of Teladoc Health chronic care programs and make no opinions about their effectiveness or impact.

If distributed to third parties, this report must be shared in its entirety. We do not intend this information to benefit, or create a legal liability to, any third party, even if we permit the distribution of our work product to such third party. Those reviewing Teladoc Health estimations should take full responsibility for interpreting the results, which should be reviewed by someone knowledgeable in the areas of healthcare data and impact estimations.

We understand that Teladoc Health intends to provide public access to this report and the methodology we reviewed, and therefore it could be viewed by its prospective clients, competitors, potential investors, or other interested parties. We consent to this distribution if the work is distributed in its entirety.

In completing this review, we relied on information provided by Teladoc Health in May 2024, which we reviewed for reasonableness, but accepted without audit. Specifically, the information we received includes:

Cardiometabolic Health Value Model_160524.xlsm

If any of this information is inaccurate or incomplete, the contents of this report along with many of our conclusions may likewise be inaccurate or incomplete. This review incorporates Milliman's experience in working with similar programs that rely on administrative claims data, clinical literature based-assumptions, and theoretical economic impact models. Teladoc Health clients' actual results may differ from modeled projections due to factors such as population health status, reimbursement levels, delivery systems, changes in Teladoc Health programs, changing regulations, and random variation. It is important that Teladoc Health and its clients monitor actual experience and make adjustments to inputs, assumptions, and methodology, as appropriate.

While we find Teladoc Health standard methodology for estimating ROI and VOI to be reasonable, all methodologies, algorithms, and formulas are by nature assumption driven. We are not commenting on the assumptions chosen for any particular estimation of the chronic care programs' impacts performed for any Teladoc Health client. We did not attempt to replicate Teladoc Health assumptions, recalculate its results, test for potential omissions, weaknesses, or biases. Furthermore, we did not review Teladoc Health specific care management activities or whether those activities would produce results to demonstrate a causal relationship between care management activities and resulting cost and utilization impacts.



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