

MILLIMAN REPORT

Independent review of EO Care's model for quantifying theoretical healthcare cost impacts in the United States

Commissioned by EO Care

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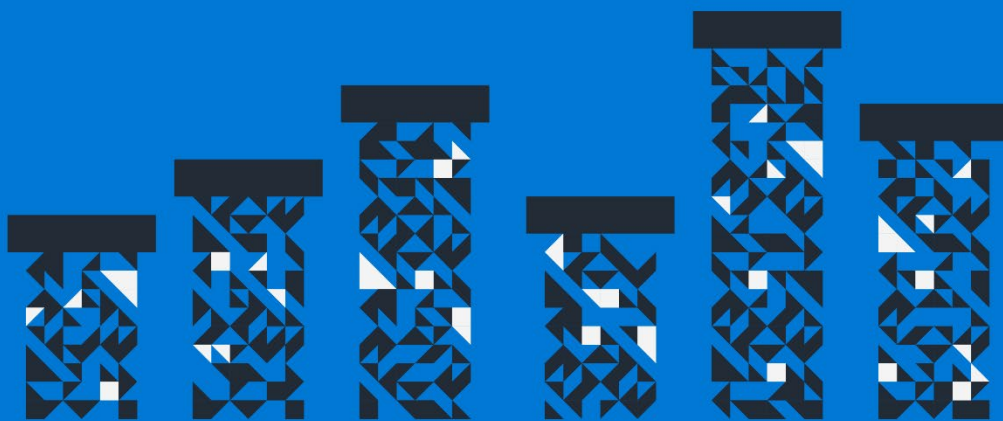


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Executive summary

EO Care has developed a model for employers and group plan sponsors to estimate the theoretical healthcare cost impacts of using evidence-based, clinically guided cannabinoids to mitigate symptoms of cancer, chronic pain, sleep disorders/insomnia, and anxiety. EO Care engaged Milliman to conduct a review of its model methodology to determine its appropriateness for the aforementioned purpose. This report:

- 1) describes EO Care's approach to determining the model's input values;
- 2) outlines EO Care's approach for estimating theoretical healthcare cost impacts for employers/group plan sponsors;
- 3) discusses potential limitations of the methodology used by EO Care; and
- 4) outlines important caveats and limitations relevant to our review of the EO Care model.

Our review is based on the model provided by EO Care named *CRC Aggregate Model 20240322 FINAL.xlsx* on March 22, 2024. The model relies on a set of literature-based assumptions, rather than EO Care or other group experience. This report is intended to present our review and feedback on EO Care's model for its consistency with typical practices for estimating impacts of a healthcare intervention; it may not be appropriate or used for any other purpose. Actual experience may differ between users, and results obtained through the model will vary due to factors that are unique to each user, population distribution, and condition prevalence. Our review is only commenting on the general approach represented by the model and not any specific output or estimated result. This report is not an endorsement or recommendation of EO Care's model, nor does this report serve as an endorsement of any output of the model.

We conclude that EO Care's cost impacts model methodology for its offering is a reasonable theoretical approach to estimating the explicit healthcare cost impacts for employers and group plan sponsors and is appropriate for estimating the healthcare cost impacts of using clinically guided cannabinoid-based care to mitigate symptoms of cancer, chronic pain, sleep disorders/insomnia, and anxiety for a specific employer or group plan sponsor, subject to the potential limitations summarized below:

- Potential differences in the cost and utilization of healthcare services and prescription drugs estimated in the model compared to that of a modeled employer or group plan sponsor.
- A broad factor for excluding existing cannabinoid users is applied, ignoring any EO Care impacts for this population.
- Literature-based prevalence rates do not match the EO Care condition hierarchy.
- Literature-based assumptions are not trended to the modeled impact year.
- Efficacy factors applied in the model are based on results of quasi-experimental studies of clinical cannabinoid usage sourced from literature as opposed to evidence from a study of the EO Care interventions specifically.

While there is not adequate data available at this time to complete an observational case-control matched study of EO Care's intervention, we recommend that such a study be completed and used to estimate results as an alternative to this theoretical model once data is available. Any user of EO Care's model methodology must possess a certain level of expertise in areas relevant to this analysis to evaluate the significance and reasonability of the assumptions and the impact of these assumptions on the estimated results output from the model. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing this report.

Background

According to the information provided by EO Care:

EO Care offers a digital health platform that provides affordable, clinician-created guidance for cannabinoid-based treatments. Its goals are to mainstream and streamline medical cannabinoid use, ensuring clinical responsibility, affordability, and ease of use. EO Care's digital platform includes general education via a pre-trained Large Language Model (LLM), evidence-based care and prescription models, 24/7 clinical and member support teams available for questions or telemedicine consultations, clinician access platforms and solutions with proprietary data models, and medicinal cannabinoid-based care products.

Milliman was commissioned by EO Care to review the model EO Care has developed to estimate theoretical healthcare cost impacts for employers and group plan sponsors. EO Care may use other methodologies to evaluate its market offerings which fall outside of the scope of this report.

Overview and assessment of the EO Care healthcare cost impacts model

Model overview

EO Care's healthcare cost impacts model estimates the theoretical direct healthcare cost impacts for a specific employer or group health plan sponsor from using EO Care's program to mitigate symptoms of four targeted medical conditions: cancer and its treatment, chronic pain, sleep disorder/insomnia, and anxiety. Indirect cost impacts were not addressed in this version of the economic model. EO Care's estimates for these direct cost impacts rely on clinical literature-based assumptions and findings, including expected condition prevalence, estimated pharmaceutical and hospitalization costs, efficacy, and utilization, along with an employer's or group health plan sponsor's specific member demographic data. Citations from the clinical literature EO Care relied upon are provided within the model as support for condition prevalence inputs, efficacy of the cannabinoid-based intervention, and incremental healthcare spending. Cost impacts are summarized for each condition. The methodology is outlined below:

- Input group-specific data, including:
 - company demographic information:
 - average enrollment
 - enrolled member months
 - membership distributed by age group and sex
 - average annual health plan costs per member
- Literature-based prevalence rates from meta-analyses of reported symptoms are used to estimate the expected number of adults within the group with each of the EO Care four targeted medical conditions.
- To estimate the incremental healthcare and pharmaceutical costs associated with the non-cannabinoid treatment of each condition above the average healthcare spend, literature-sourced assumptions based on the Medical Expenditure Panel Survey (MEPS) data are used within the model.
- Assumptions for the healthcare cost impacts of the EO Care program are sourced from results from qualitative studies sourced from literature or other online sources of information, such as GoodRx, for approximating member unit cost for certain drugs. These healthcare cost impacts include:
 - the mitigation of polypharmacy
 - avoidance of emergency department visits or hospitalizations
 - management of opioid-related adverse events
- The model applies efficacy factors to calculate the adjusted estimated impact of EO Care's cannabinoid offering for each targeted condition. These assumptions are not based on historical data from EO Care but are based on results from quasi-experimental studies of clinical cannabinoid usage sourced from literature with additional moderation to be conservative regarding the effectiveness of its care model and member adherence.
- Adjustment factors for existing cannabinoid users within the populations with the four targeted conditions are applied to reduce the estimated cost impacts.
- The final total adjusted cost impact estimates and the estimated impact as a proportion of the total healthcare spend are the main model output.

While EO Care does provide its rationale for determining the literature-based figures and includes all references in the model, we are unable to comment on the appropriateness of the specific methodology or model inputs used for any particular customer or study, only on the general methodology outlined above.

Model assessment

We believe EO Care's model for estimating theoretical employer- and group health plan sponsor-specific healthcare cost impacts attributable to its cannabinoid-based care offering is appropriate and reasonable for its

intended purpose. Notwithstanding this general conclusion, parties relying on the model output should review the relevance and appropriateness of the assumptions, model inputs, and calculations used in EO Care's model.

There are several potential limitations that any party relying on the results from EO Care's model should consider. These limitations include, but may not be limited to:

1. **Potential differences in estimated pharmaceutical savings.** The EO Care model calculates an average of the cash prices for a list of generic drugs used to treat the symptoms of the four conditions addressed in the model. Cash prices are based on information from GoodRx for three locations across the US, each with a median cost of living. We believe this is a reasonable approach for finding the cash price for common generic drugs in a local area, however:

A potential limitation of this approach is differences in geographic location and the actual drug list and dosage mix of the specific group. Using actual drug prices for the exact location of plan members, actual dosage strength/tablet amount of the search can result in different prices.

To further improve the accuracy of the pharmacy costs, another potential improvement would be to use market benchmark data as the source, rather than GoodRx.

2. **Pathways for new and existing cannabinoid users.** The EO Care model applies a broad factor to its projected cost impact calculations to account for people with the four targeted conditions who are existing cannabinoid users. While this factor appropriately treats existing cannabinoid users differently in the model's estimations, it does not account for EO Care's impact from clinically-based treatment plans and improvements in adherence.

An alternative is to categorize the population into new and existing cannabinoid users for a more accurate cohort analysis because the efficacy of a medicinal cannabinoid intervention may vary between these two cohorts. This will allow EO Care to demonstrate different pathways for each cohort, which may lead to more precise results, particularly if changes to adherence and treatment plans for existing cannabinoid users are to be part of EO Care's strategy.

3. **Prevalence, utilization, and cost differences by demographics and geography.** The current model employs prevalence, utilization and cost assumptions that are representative of the United States' nationwide population. These national measures may not reflect the condition prevalence or healthcare cost and utilization within a specific group. The model estimates are sensitive to these assumptions, which could vary materially by employer or group health plan sponsor:
 - a. The EO Care model relies on assumptions from the US National Health Interview Survey which reported on the prevalence of chronic pain among US adults. The prevalence in the survey varied significantly by age group, and the employer/group plan sponsor's actual demographics should be used as the model input for prevalence.
 - b. The baseline cost and utilization metrics rely on nationwide averages; however, the EO Care model could vary these by using geographical factors.

We recommend using group-specific inputs for condition prevalence, cost, and utilization, whenever available. These inputs could be credibility-blended with an external benchmark that is specific to the age, gender, and geographic distribution of the group.

4. **Condition prevalence overlap.** EO Care has created a condition hierarchy to allow for members who have multiple targeted conditions (cancer, chronic pain, sleep disorders/insomnia, and anxiety) and include them only once within the model. This approach of estimating cost impacts based on a single condition alone is conservative in that only the incremental medical and pharmacy costs of one primary condition for each member are considered in the baseline costs in the model. However, the model currently uses literature-based condition prevalences of cancer, chronic pain, sleep disorders/insomnia, and anxiety. Even though cost impacts for chronic pain were limited to non-cancerous pain only, the other conditions are not mutually exclusive cohorts and do not follow the EO Care condition hierarchy.

We recommend that, where possible, default condition prevalences are sourced that align with the EO Care condition hierarchy or that the group-specific condition prevalences be used as model inputs.

5. **Cost, utilization trends, and medical inflation.** The model relies on assumptions sourced from studies conducted between 2012 and 2023. Population demographics and the prevalence of various conditions

have evolved over time. Similarly, average medical costs associated with each condition have likely changed as well.

For example, the prevalence for chronic pain was sourced from a survey in 2016. This assumption value may not reflect the current condition prevalence.

We recommend applying medical utilization and cost trends to the values derived from the literature, so that they are aligned with the timeframe of the healthcare cost impacts being estimated.

6. **Efficacy factor reliability.** The efficacy factors currently used in the model for each condition are based on results from quasi-experimental studies found in literature, which are not reflective of the effect of EO Care on each specific employer or group plan sponsor population. While there is not adequate data available at this time to complete an observational case-control matched study of EO Care's intervention, we recommend that such a study be completed and used to estimate results as an alternative to this theoretical model once data is available.

We recommend EO Care replaces these factors with data from its clinical implementation partners once data is released.

Caveats, limitations, and qualifications

Austin Barrington and Deana Bell 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 summarize our opinion of the appropriateness of the EO Care cost impacts model for quantifying the estimated direct healthcare cost impacts of its cannabinoid offerings to employers and group plan sponsors. It may not be appropriate, and should not be used, for other purposes. We did not assess the effectiveness or calculate the impact of EO Care's program and make no statement about the effectiveness or impact of this program.

If distributed to third parties, the 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 EO Care's model outputs should take full responsibility for interpreting the results, which should be reviewed by someone knowledgeable in the areas of healthcare data and cost impact estimations. We understand that EO Care intends to provide public access to this report, and therefore it could be viewed by its prospective customers, competitors, potential investors, or other interested parties. We consent to this distribution if the work is distributed in its entirety. Milliman does not intend to benefit and assumes no duty or liability to other parties who review this work.

In completing this review, we relied on information provided by EO Care between January and March 2024, which we reviewed for reasonableness, but accepted without audit. 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. EO Care customers' actual results may differ from the projections output by the EO Care model due to factors such as population health status, variations in healthcare spending per year, changes in EO Care's programs, changing regulations, and random variation. It is important that EO Care and its customers monitor actual experience and make adjustments to assumptions and the model, as appropriate.



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