

Supplemental Online Content

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eMethods. Sensitivity Analysis Methods

eTable. Information Criteria for Alternative Time Specifications (Non-Survey Weighted Models)

eFigure. Temporal Pattern of CHS Under Alternative Time Specifications

This supplemental material has been provided by the authors to give readers additional information about their work.

This file contains additional analyses and supporting material referenced in the manuscript, *Cannabinoid Hyperemesis Syndrome in the US, 2016-2022*.

eMethods. Sensitivity Analysis Methods

We conducted sensitivity analyses to assess the robustness of temporal trend estimates for cannabinoid hyperemesis syndrome (CHS). In addition to the prespecified restricted cubic spline with knots at quarters 8, 15, 18, and 25 (corresponding to distinct phases of the COVID-19 pandemic), we estimated spline models with evenly spaced knots, percentile-based knots, and models with 3 and 5 knots. We also fit a quarter fixed-effects (FE) model, which estimates a separate parameter for each calendar quarter. As expected, the FE specification achieved lower information criteria due to its fully saturated nature but provided little interpretive parsimony. Across specifications, survey-weighted predicted probabilities of CHS were very similar, reinforcing that substantive conclusions were stable regardless of knot placement or model form.

Table e2 and **Figure e1** provide results of the sensitivity analyses of alternative time specifications for modeling CHS trends, including spline models with different knot placements and a quarter fixed-effects specification. These materials demonstrate robustness of the findings reported in the main manuscript.

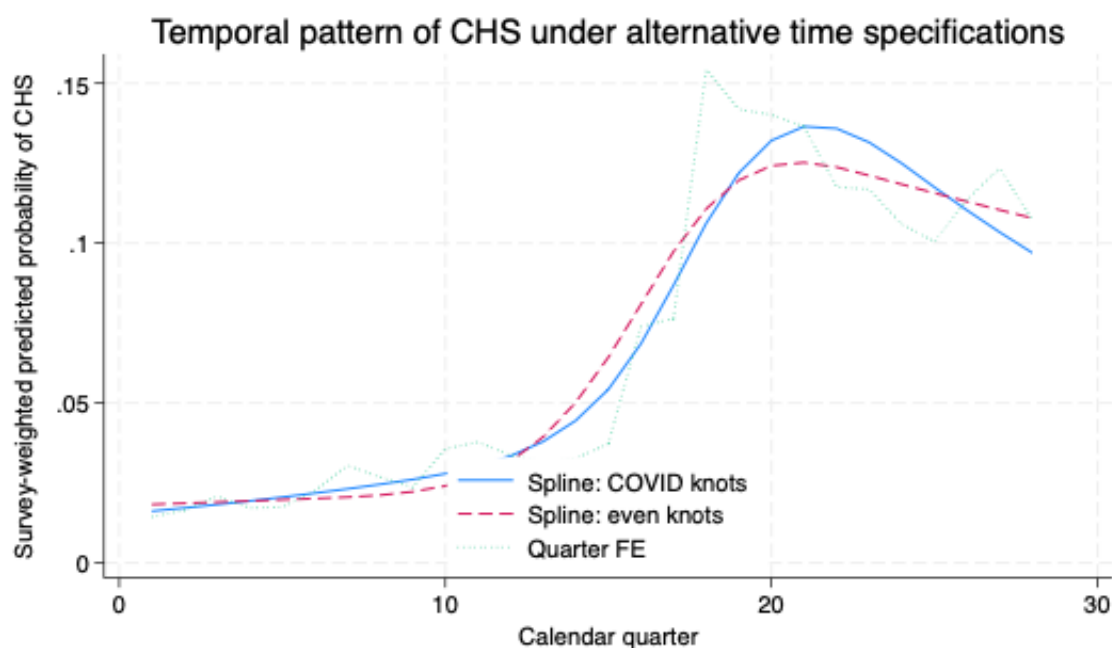
eTable Information Criteria for Alternative Time Specifications (Non-Survey-Weighted Models)

Model	N	Log-likelihood	AIC	BIC
COVID-knot spline	412,991	-90369.589	180747.18	180790.9

Evenly spaced spline	412,991	-90456.829	180921.66	180965.38
Percentile-knot spline	412,991	-90557.909	181123.82	181167.54
3-knot spline	412,991	-91160.372	182326.74	182359.54
5-knot spline	412,991	-90532.055	181074.11	181128.77
Quarter FE model	412,991	-89959.885	179975.77	180281.84

Note: Displayed are N, log-likelihood, Akaike information criterion (AIC), and Bayesian information criterion (BIC) for the prespecified spline, alternative spline placements, and quarter fixed-effects specification.

eFigure Temporal Pattern of CHS Under Alternative Time Specifications



Note. Survey-weighted predicted probabilities of CHS from models using a restricted cubic spline with prespecified COVID-phase knots (quarters 8, 15, 18, 25), a spline with evenly spaced knots, and a quarter fixed-effects (FE) specification are shown. Predicted trajectories were nearly identical across specifications. The FE model, as expected, achieved the best fit but at the expense of parsimony, whereas the spline model provided a smoother, interpretable functional form.