Gia. by scienza

Depression cohort insights

SYNTHETIC TEST | Invented records scored by the frozen models. Not a customer result.

Historical reference date: 2026-10-01

Predictive PHQ-9 cohort analytics: two reports from one analysis

Cohort-level predictions for organizational planning. Not for individual diagnosis or treatment decisions.

Your cohort at a glance

Report 1: persistent elevated score

67.63%

Mean model estimate among 20 scored members

Members scored for Report 1

20 / 60

33.3% of submitted members

Report 2: documented symptom rise

1.20%

Mean model estimate among 20 scored members

Members scored for Report 2

20 / 60

33.3% of submitted members

In plain numbers

Of your 20 members whose last self-reported PHQ-9 was 10 or more, about 14 are expected to meet Report 1's outcome: the first self-reported PHQ-9 taken 60 to 180 days after the reference date is still 10 or more, with under a 50% reduction (model estimate).

Of the 20 members scored for Report 2, fewer than 1 is expected to show a documented rise within 90 days (model estimate).

20 of your 60 members kept in this analysis are in neither report because they had no self-reported PHQ-9 in the 120 days before the reference date.

What these numbers mean

The left cards show each report's mean model-estimated probability among its scored members. The right cards show actual counts: members scored for each report and their share of submitted members. Each member is eligible for at most one report.

Results by report

Report 1 is a model estimate of the probability that the first self-reported PHQ-9 taken 60 to 180 days after the reference date is still 10 or more, with under a 50% reduction, for members whose last self-reported PHQ-9 was 10 or more. Report 2 is a model estimate of a documented rise: a self-reported PHQ-9 of 10 or more, at least 6 points above the last score, within 90 days, for members whose last self-reported PHQ-9 was 0 to 9.

Cohort flow	Report 1	Report 2
Submitted	60	60
Excluded by overlap safeguard	0	0
Retained for eligibility assessment	60	60
Not eligible for this report	40	40
No self-reported PHQ-9 in the 120 days before the reference date	20	20
Last self-reported PHQ-9 was 0 to 9	20	–
Last self-reported PHQ-9 was 10 or more	–	20
Records begin less than 365 days before the reference date	–	0
A more recent observer-only depression assessment	–	0
Eligible and scored	20	20
Mean model-estimated probability among scored members	67.63%	1.20%
Model-estimated number of members with the outcome	13.5 of 20	0.2 of 20
Predicted concentration: share of that number held by the highest-ranked tenth	Withheld: fewer than 100 scored	Withheld: fewer than 100 scored

Each member is counted in at most one report. A dash marks a reason that does not apply to that report. Counts from 1 to 10 are not shown, to protect privacy.

What the ranking shows

Where the expected cases concentrate

Report 1: not shown; fewer than 100 members were scored.

Report 2: not shown; fewer than 100 members were scored.

How well the ranking worked when tested

Sealed tests, tested once on 2023 records of people held out from development.

Sealed test, 2023 records	Report 1	Report 2
People with the outcome in the highest-ranked tenth	93 in 100	14 in 100
People with the outcome overall	61 in 100	3.6 in 100
Share of all rises held by the highest-ranked tenth	–	38.7% (95% interval 34.6% to 42.3%)
Ranking by the last PHQ-9 alone	67 in 100 in its highest tenth	Its highest tenth held 21.5% of rises
AUROC (95% interval)	0.748 (0.740 to 0.757)	0.752 (0.731 to 0.773)

Report 1's outcome: the first self-reported PHQ-9 taken 60 to 180 days after the reference date is still 10 or more, with under a 50% reduction. Report 2's outcome: a documented rise within 90 days. A dash marks a measure not given for that report. Calibration in the same tests: observed outcomes matched the model's expected numbers (observed/expected 1.01 for Report 1, 1.00 for Report 2).

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How to read this

Report identity	Value
Product	Gia Depression Analytics
Report 1 model	run2ft10depr-phq9-persistent-elevated-cohort-v1
Report 2 model	run2ft11depr-phq9-documented-rise-90d-cohort-v1
Report 1 endpoint	phq9_persistent_elevated_60_to_180d
Report 2 endpoint	phq9_documented_rise_90d
Sample class	frozen_model
Report contract	depression-aggregate-v1
Product version	0.2.1
Historical reference	2026-10-01
Catalog	gia-depression-v1 / version 2
Original report SHA-256	847244255658b5564167cf3f4ca84d98a3ae2dcaa801ea5f1935dc72903bc6be

Reading the results

One completed analysis delivers both reports for the same reference date. Each member is eligible for at most one report, decided by the most recent self-reported PHQ-9 total in the 120 days before the reference date: 10 or more for Report 1, 0 to 9 for Report 2.

A member without a self-reported PHQ-9 in the 120 days before the reference date is eligible for neither report, so a cohort without self-reported PHQ-9 history qualifies for neither report.

Report 2 also requires records that begin at least 365 days before the reference date, and no observer-only depression assessment more recent than the last self-reported PHQ-9.

Report 1 estimates the probability that the first self-reported PHQ-9 taken 60 to 180 days after the reference date is still 10 or more, with under a 50% reduction. It covers scored members whose last self-reported PHQ-9 was 10 or more.

Report 2 estimates the probability of a documented rise: a self-reported PHQ-9 of 10 or more, at least 6 points above the last score, within 90 days. It covers scored members whose last self-reported PHQ-9 was 0 to 9.

The means, the expected numbers of members with each outcome and the predicted concentration are model estimates.