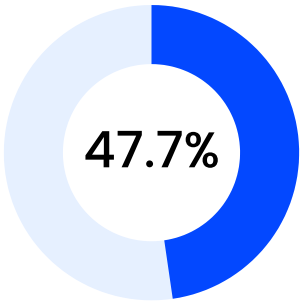
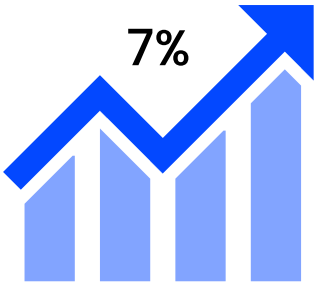
Impact of Happy Bob usage on time in range



Active users improved after 6 months of usage



Average TIR improvement

Average app sessions per day

To measure the improvement in time in range, we first calculate the percentage time in range per user per day. So, if a patient has been using Happy Bob for 300 days, we generate a time series of 300 points where each point is the percentage of time spent in range on a given day. The time in range is defined as the time spent in the acceptable band of glucose values between 4 and 10 mmol/L. We call this time series the "TIR curve". Then for each patient, we fit a straight line to the TIR which then allows us to compute the average improvement in TIR for that patient since the time they started using Happy Bob.

To get an overall understanding of any potential improvement in TIR across the entire patient data set, we calculate the fraction of patients who have been using Happy Bob for a certain period of time and who have seen an improvement divided by the overall number of patients who have been using Happy Bob during that same period. So, for instance, if there are 20 patients who have been using Happy Bob for 6 months and who have seen an improvement and the total number of patients who have been using Happy Bob for 6 months is 40, the ratio becomes 20 / 40 = 50%. In addition, we also calculate by how many percentage points the TIR has improved.

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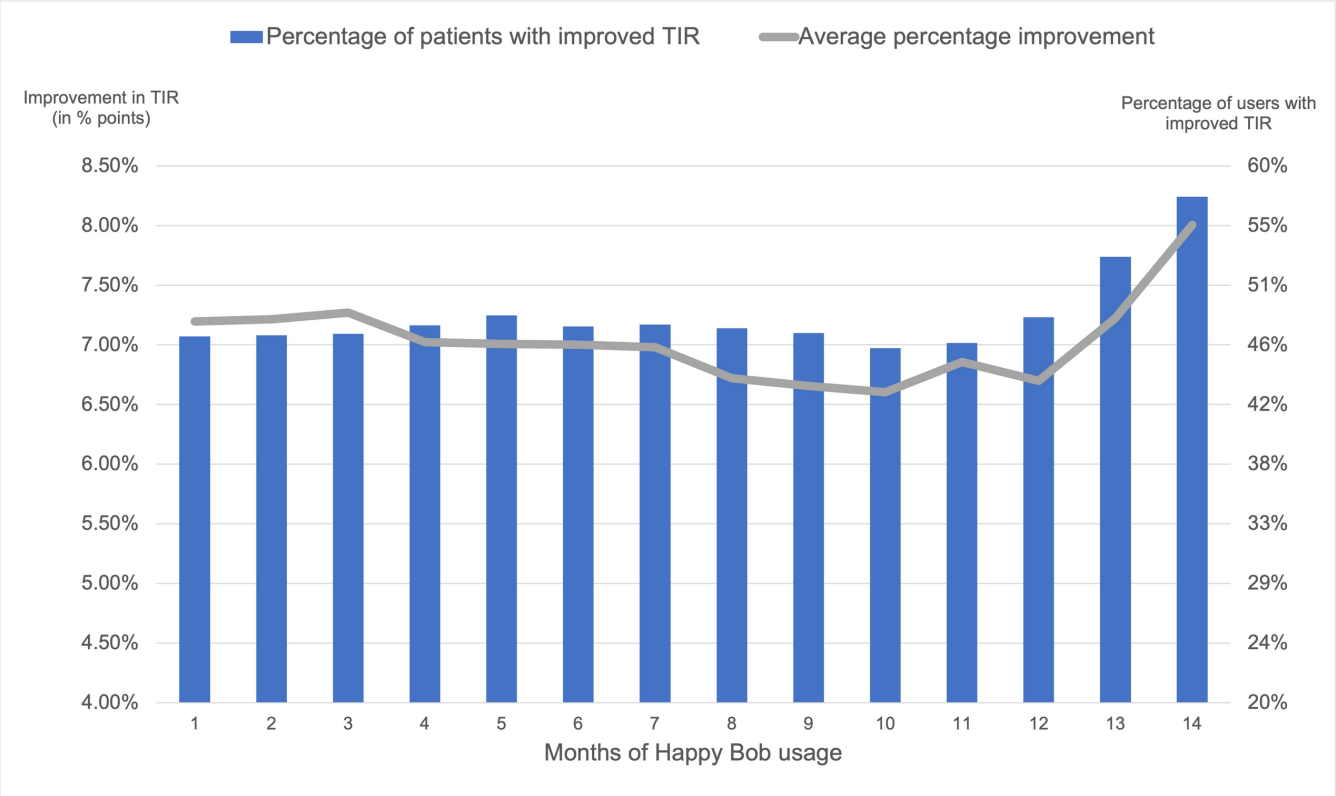

From this chart we can see that the percentage of patients whose TIR has improved after, say, 6 months of usage, is 47.7% and the amount of the improvement is 7%. Improvement is in percentage 1 points so, if at the start of the period a user spent 40% of time in range and the improvement is 7% then at the end of the period the user's time in range is 47%. The data has been analysed by our data scientists and medical care professionals.

Definition of active user :
The cohort of Happy Bob users was selected according to the following criteria:

- We exclude from this analysis users who have been using Happy Bob for less than 50 days as this would give too few datapoint for a significant result
- We sorted users by the number of app sessions they've had and then picked the top 700. The minimum number of sessions in this cohort was 306 sessions per user. For users with at least 6 months of activity, the mean number of sessions per active user was 4.5 per day.

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