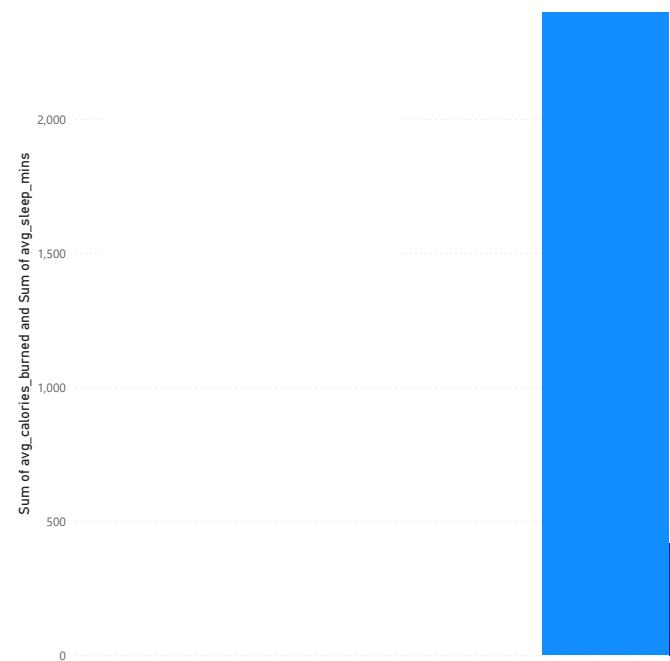
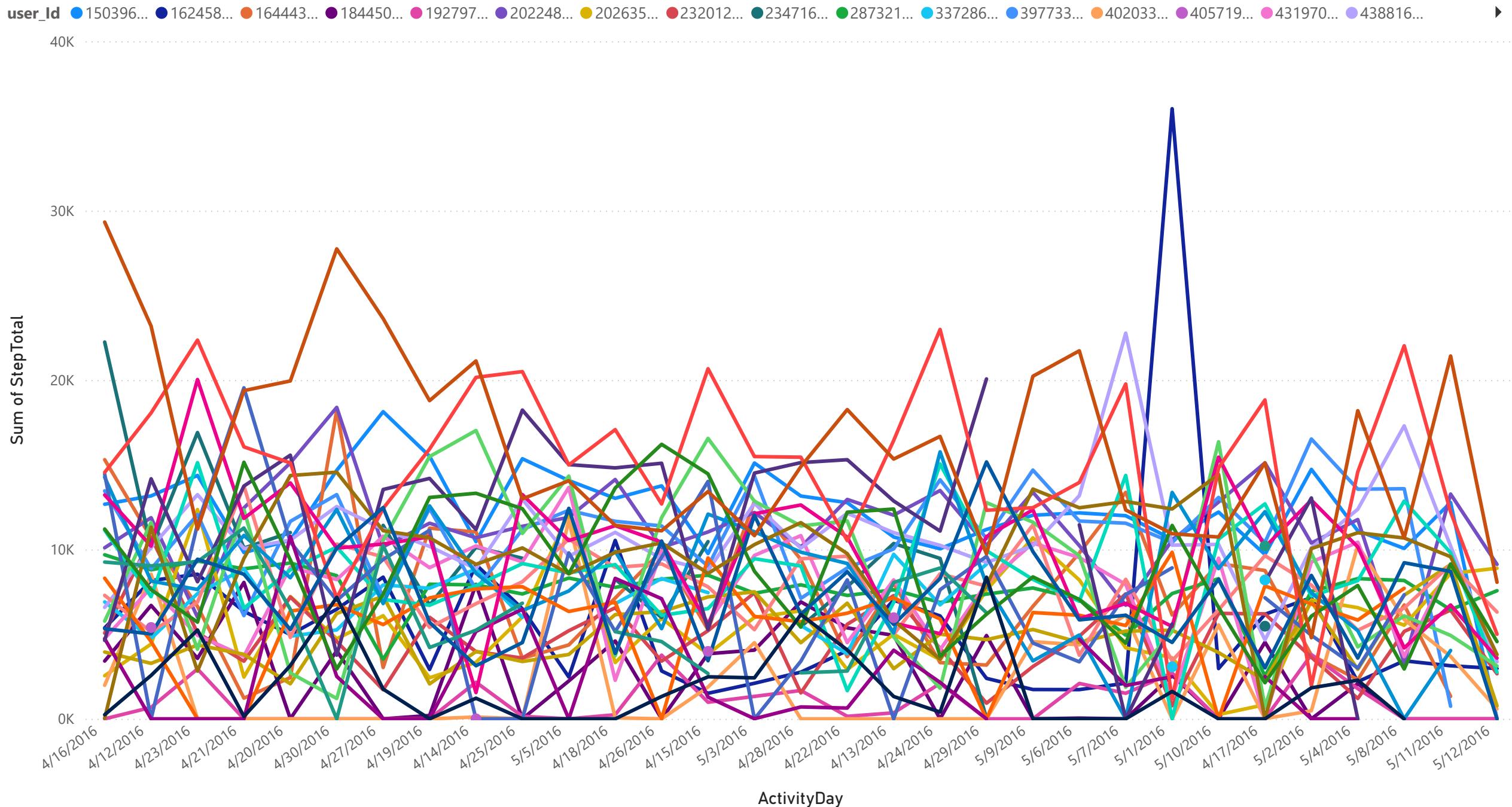


#### OBJECTIVE 1 - Avg Calories Burned vs Sleep Minutes

● Sum of avg\_calories\_burned ● Sum of avg\_sleep\_mins



## Daily Total Steps by User



## Avg Calories Burned by Sleep Quality

3000

2500

2000

1500

1000

500

0

Sum of avg\_calories\_burned

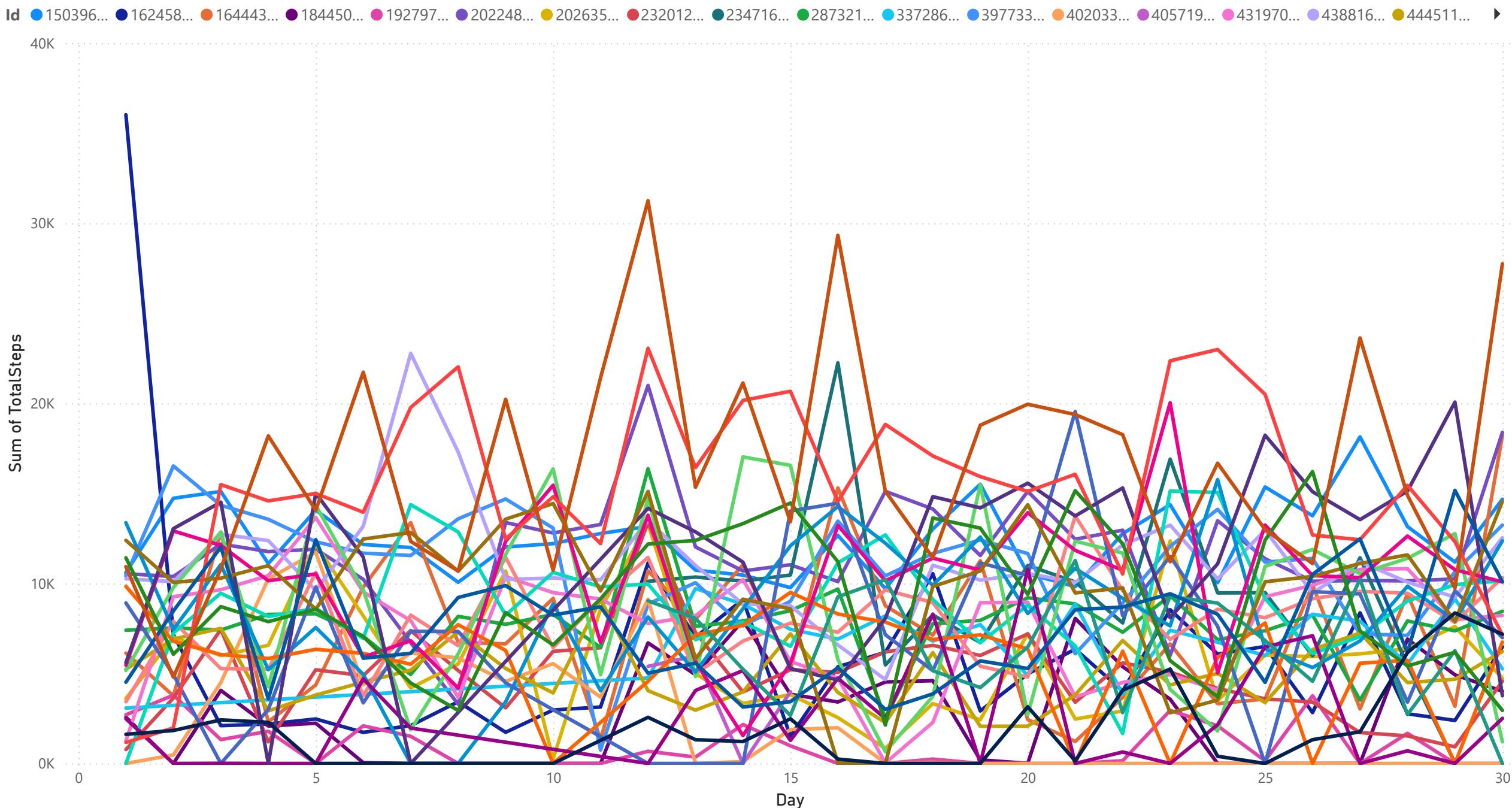
Sleep Deprived (<7 hrs)

Well Rested (7+ hrs)

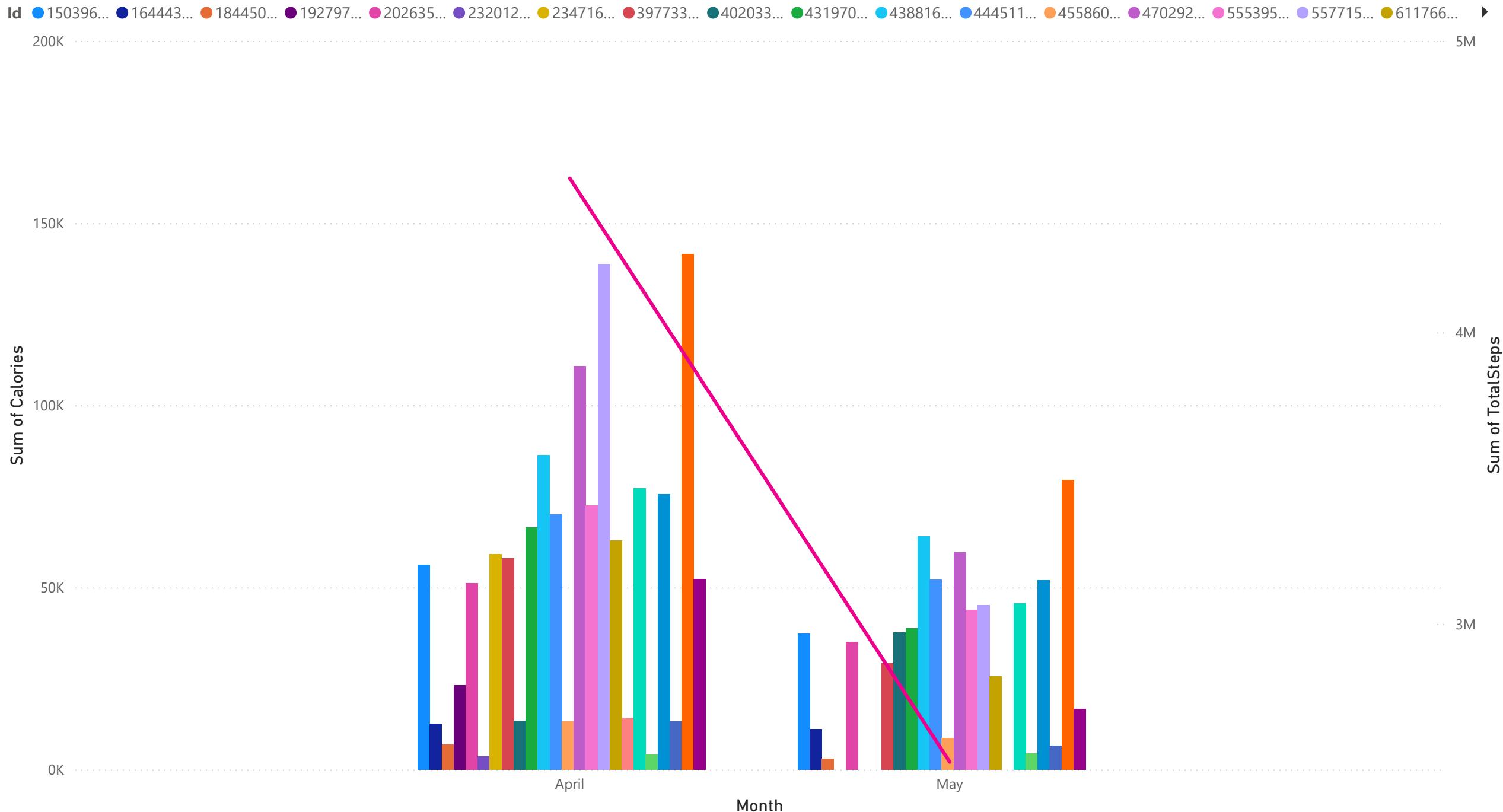
sleep\_quality



## Daily Steps by User (TotalSteps by Day and Id)

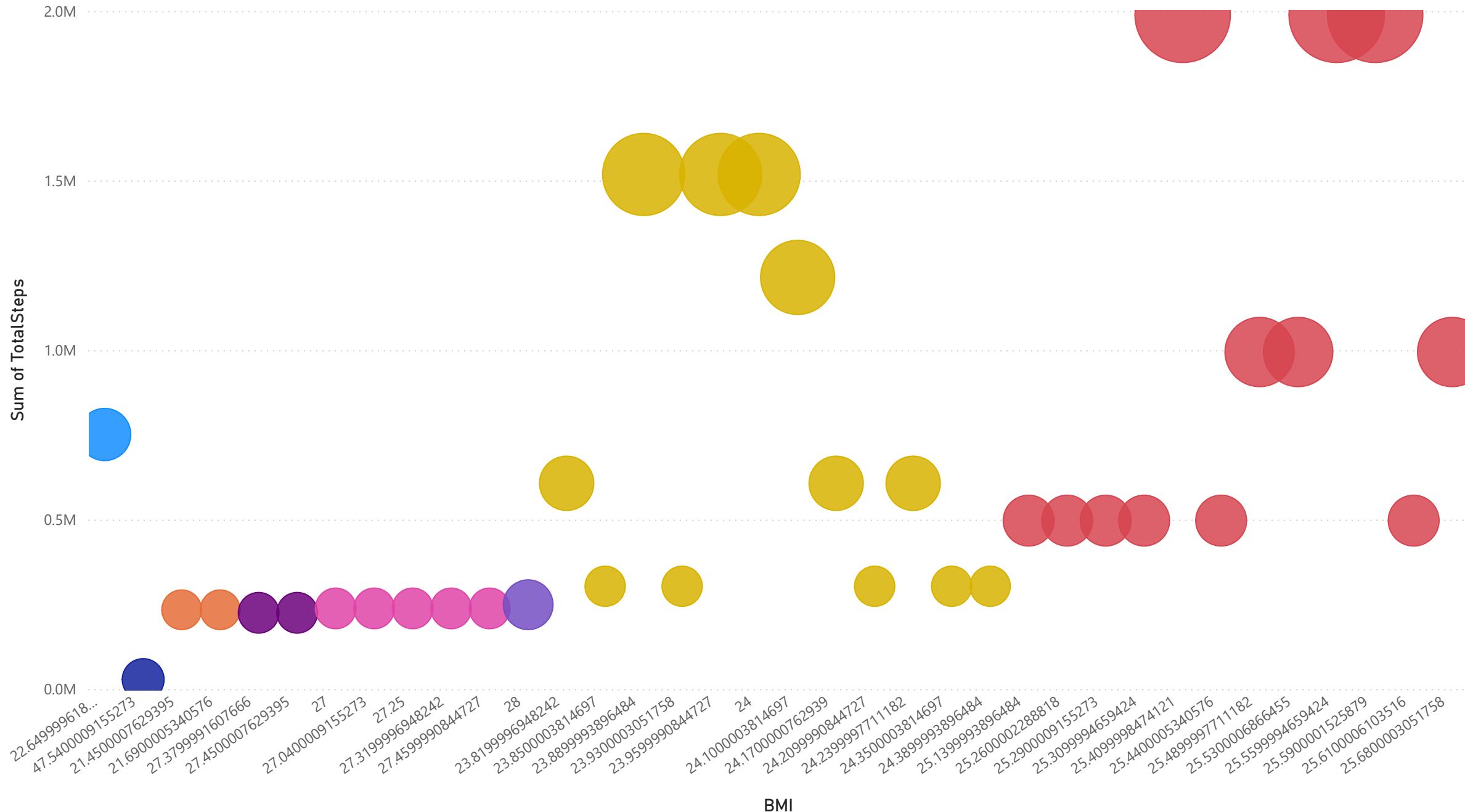


## Monthly User Trends – Steps and Calories



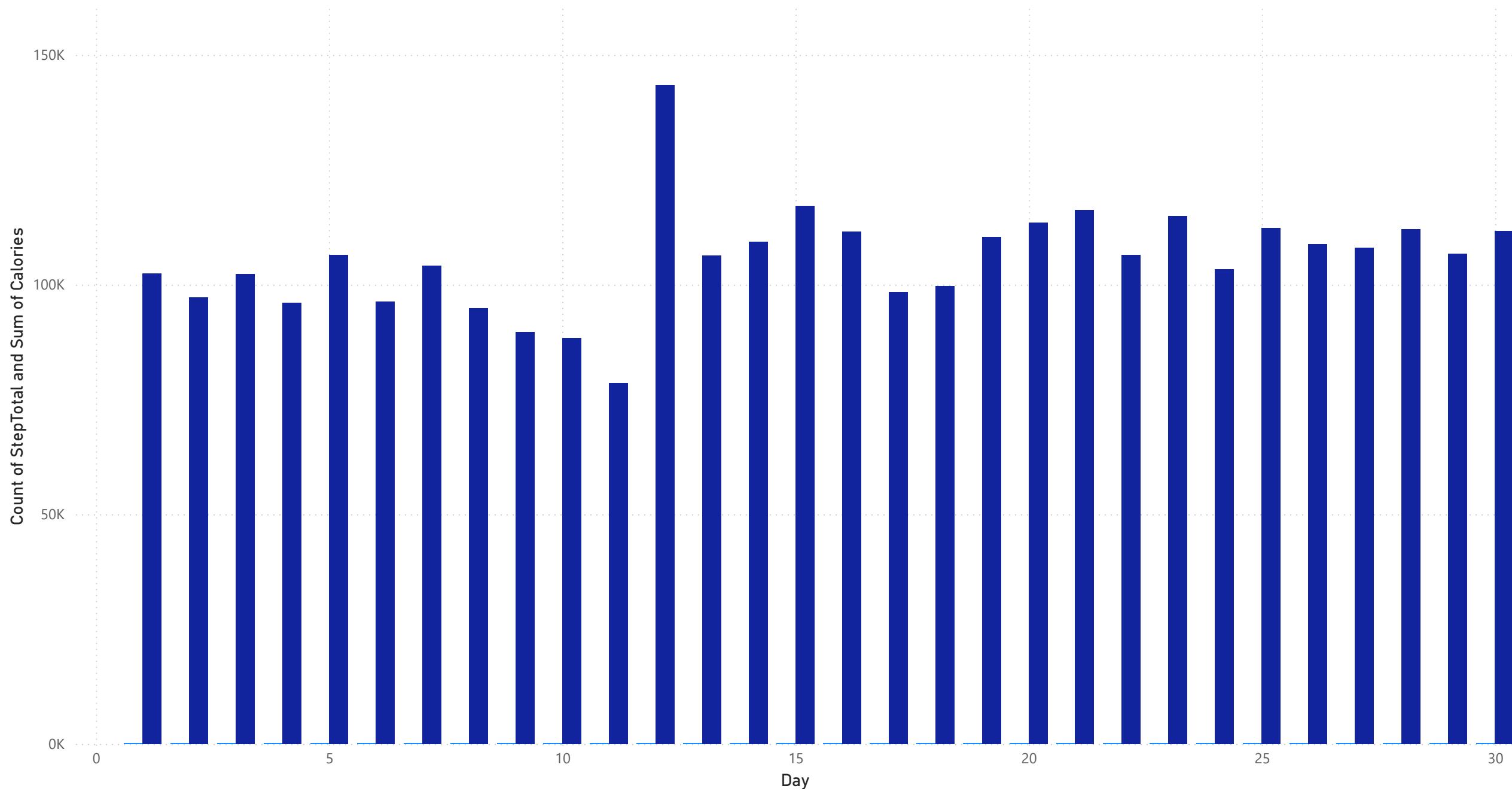
## BMI-wise Analysis – Steps, Calories & Weight by User

user\_id ● 1503960366 ● 1927972279 ● 2873212765 ● 4319703577 ● 4558609924 ● 5577150313 ● 6962181067 ● 8877689391



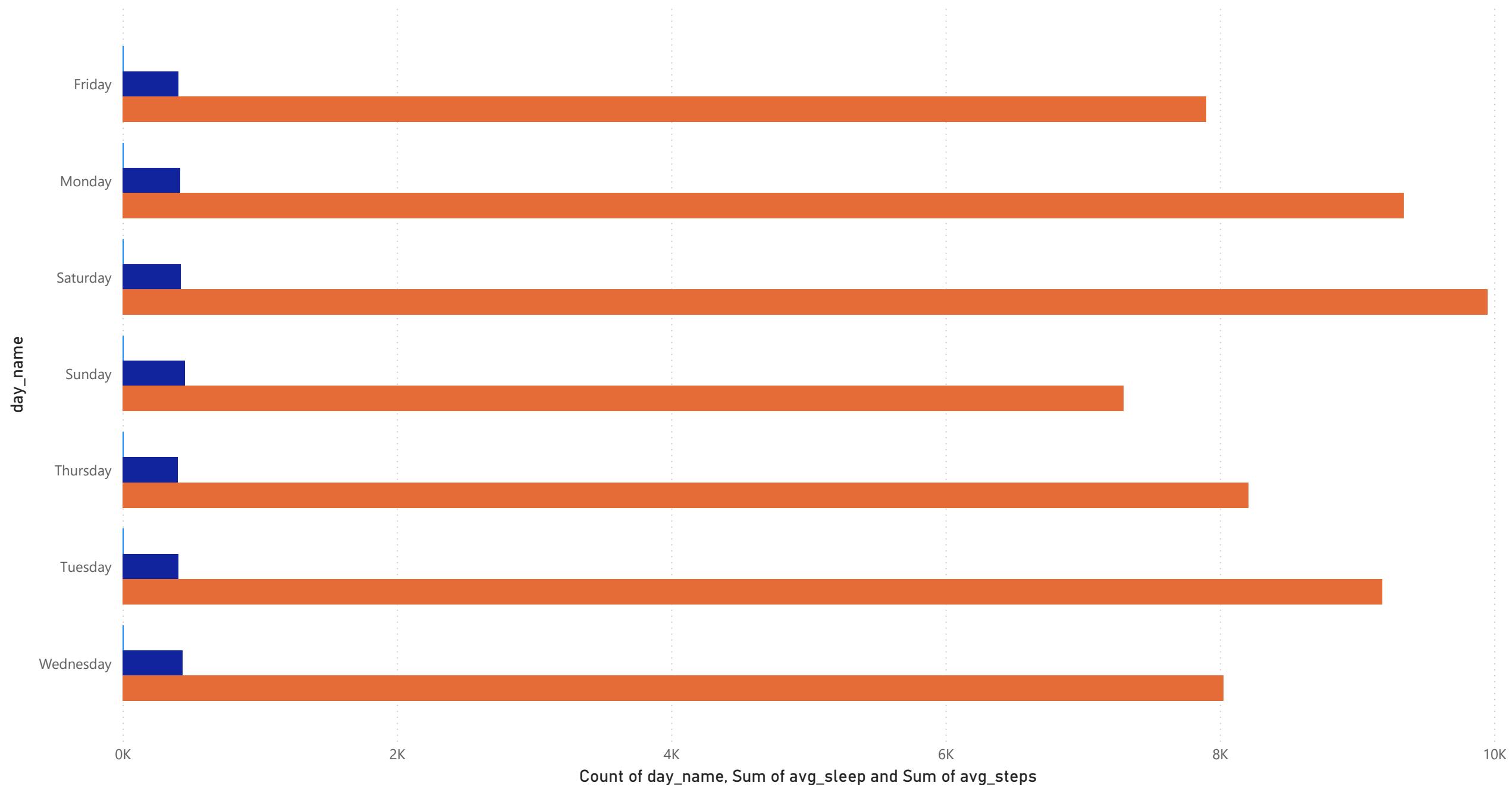
## OBJECTIVE 2- Daily Activity Count vs Calories Burned

● Count of StepTotal ● Sum of Calories



## Weekday-wise Trends – Sleep & Step Averages

● Count of day\_name ● Sum of avg\_sleep ● Sum of avg\_steps



## Avg Sleep Duration by Activity Level

Day	Sum of TotalMinutesAsleep	Sum of TotalSteps
1	346480	7054982
2	346480	7054982
3	346480	7054982
4	346480	7054982
5	346480	7054982
6	346480	7054982
7	346480	7054982
8	346480	7054982
9	346480	7054982
10	346480	7054982
11	346480	7054982
12	346480	7054982
13	346480	7054982
14	346480	7054982
15	346480	7054982
16	346480	7054982
17	346480	7054982
18	346480	7054982
19	346480	7054982
20	346480	7054982
21	346480	7054982
22	346480	7054982
23	346480	7054982
24	346480	7054982
25	346480	7054982
26	346480	7054982
27	346480	7054982
28	346480	7054982
29	346480	7054982
30	346480	7054982
<b>Total</b>	<b>346480</b>	<b>7054982</b>

## User-wise Averages – Calories, Sleep & Steps

- Sum of avg\_calories
- Sum of avg\_sleep
- Sum of avg\_steps

20K

Sum of avg\_calories, Sum of avg\_sleep and Sum of avg\_steps

15K

10K

5K

0K

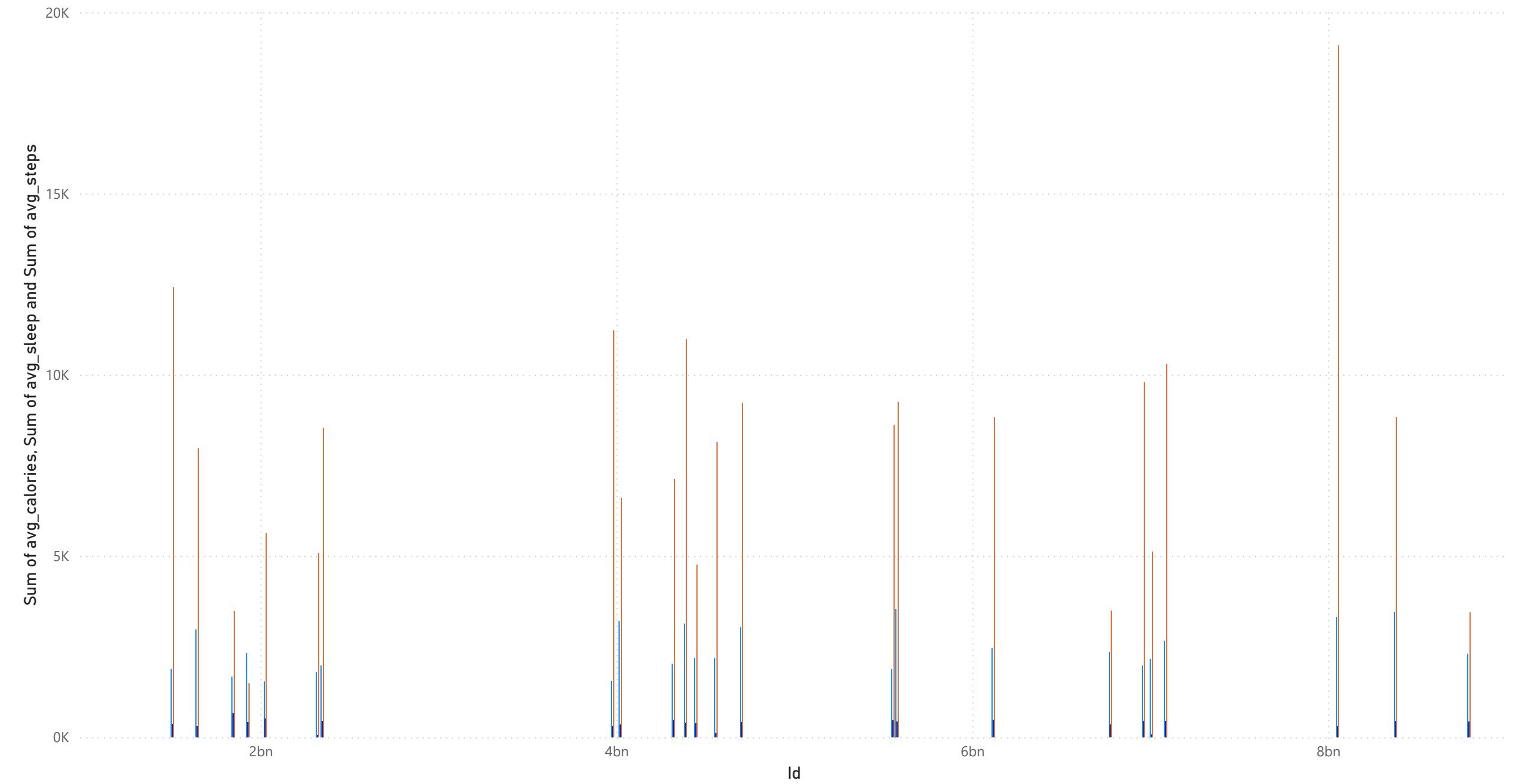
2bn

4bn

6bn

8bn

Id



## Sleep Duration & Days by Activity Level

● Sum of num\_days ● Sum of avg\_sleep

500

400

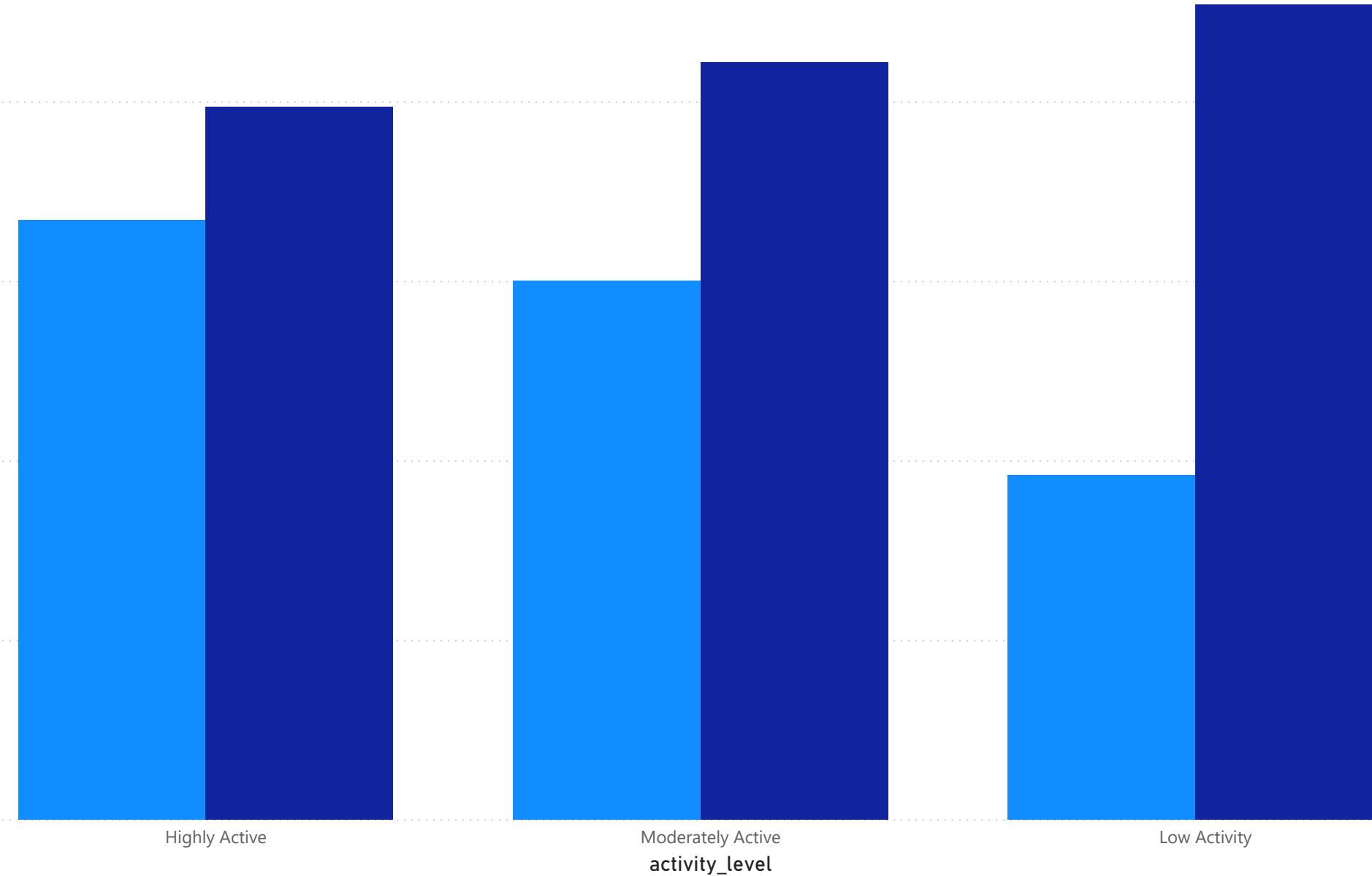
300

200

100

0

Sum of num\_days and Sum of avg\_sleep

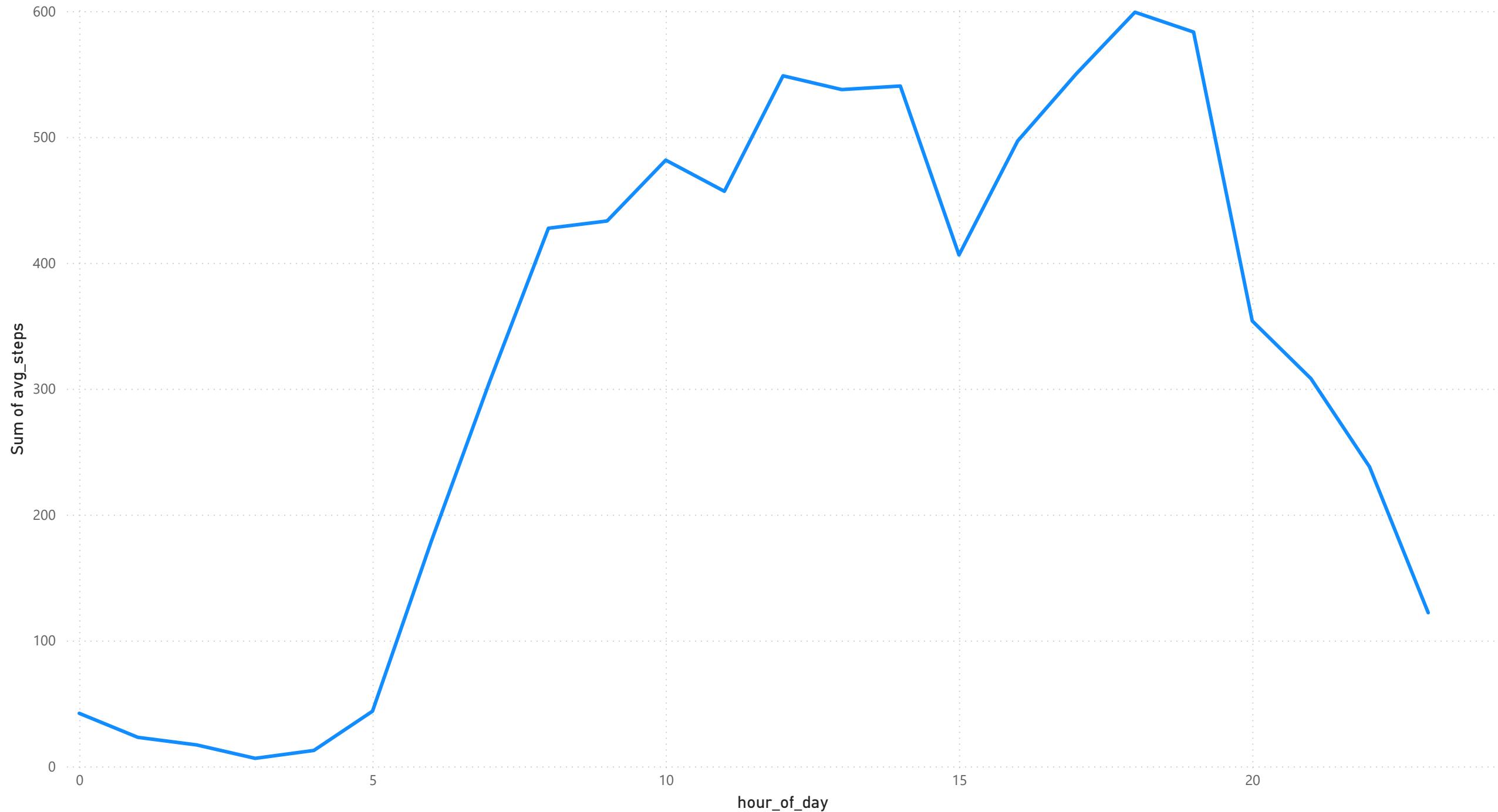


Highly Active

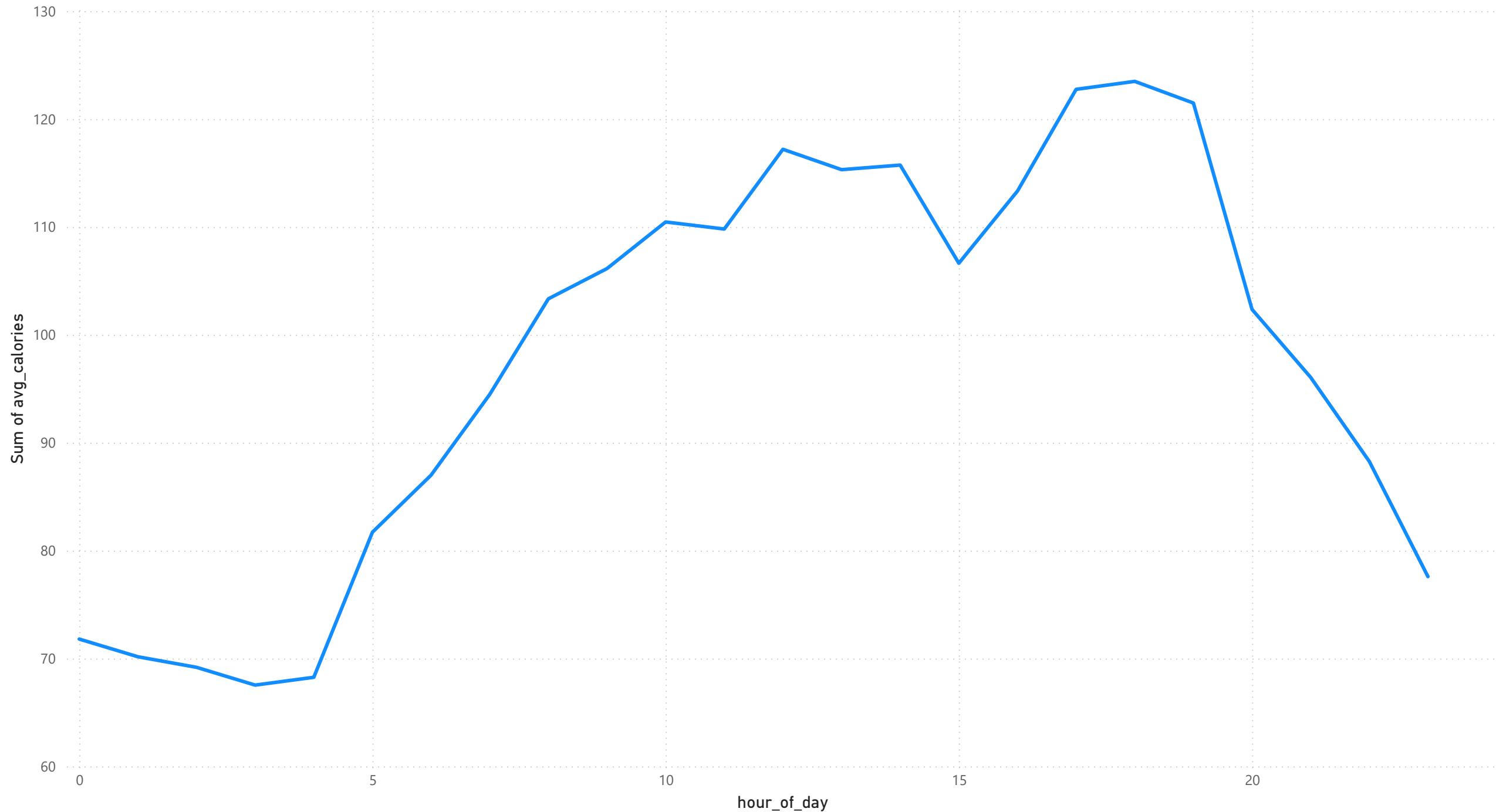
Moderately Active  
activity\_level

Low Activity

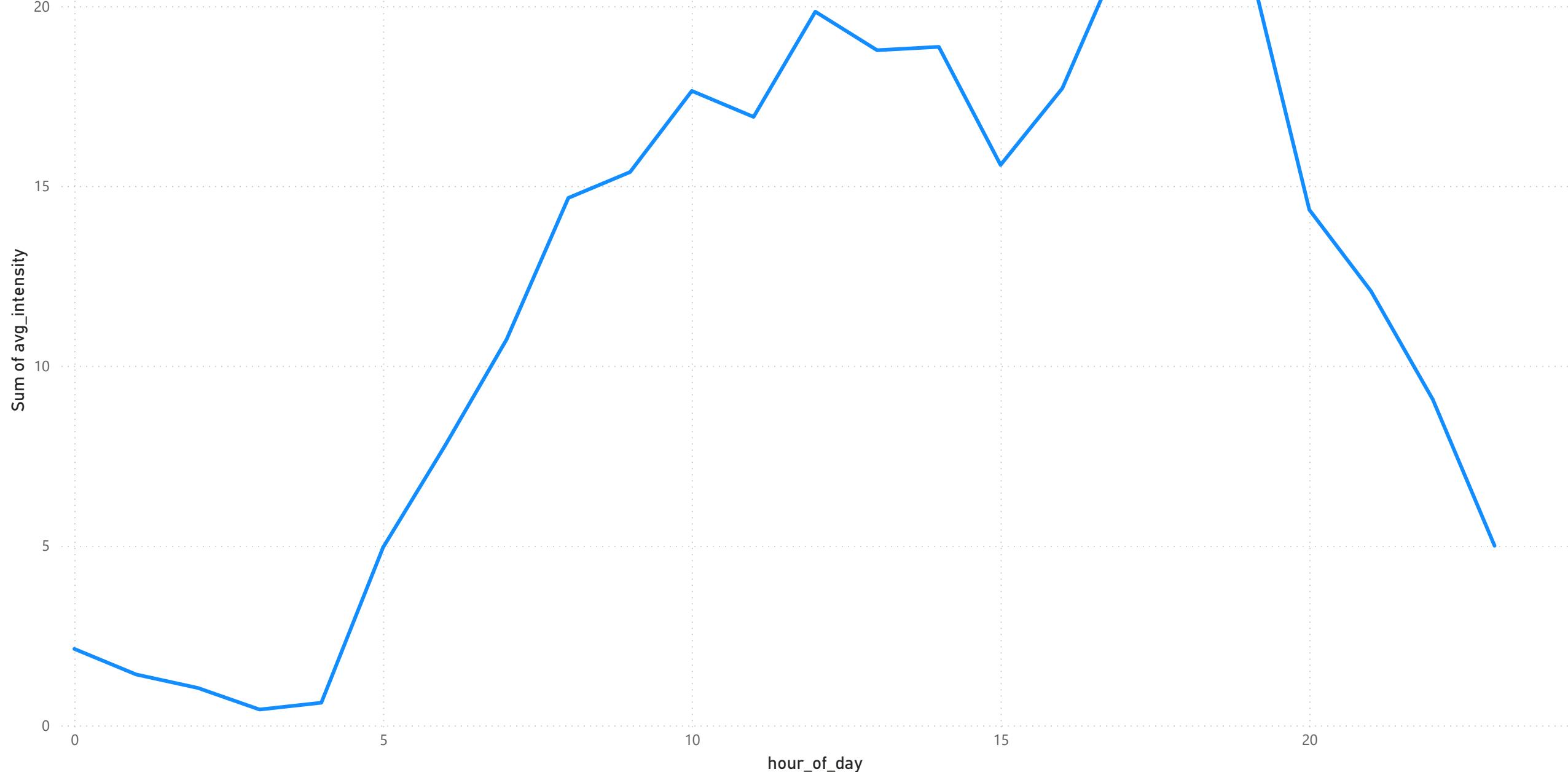
## Hourly Step Activity Patterns



## Hourly Calorie Burn Trends

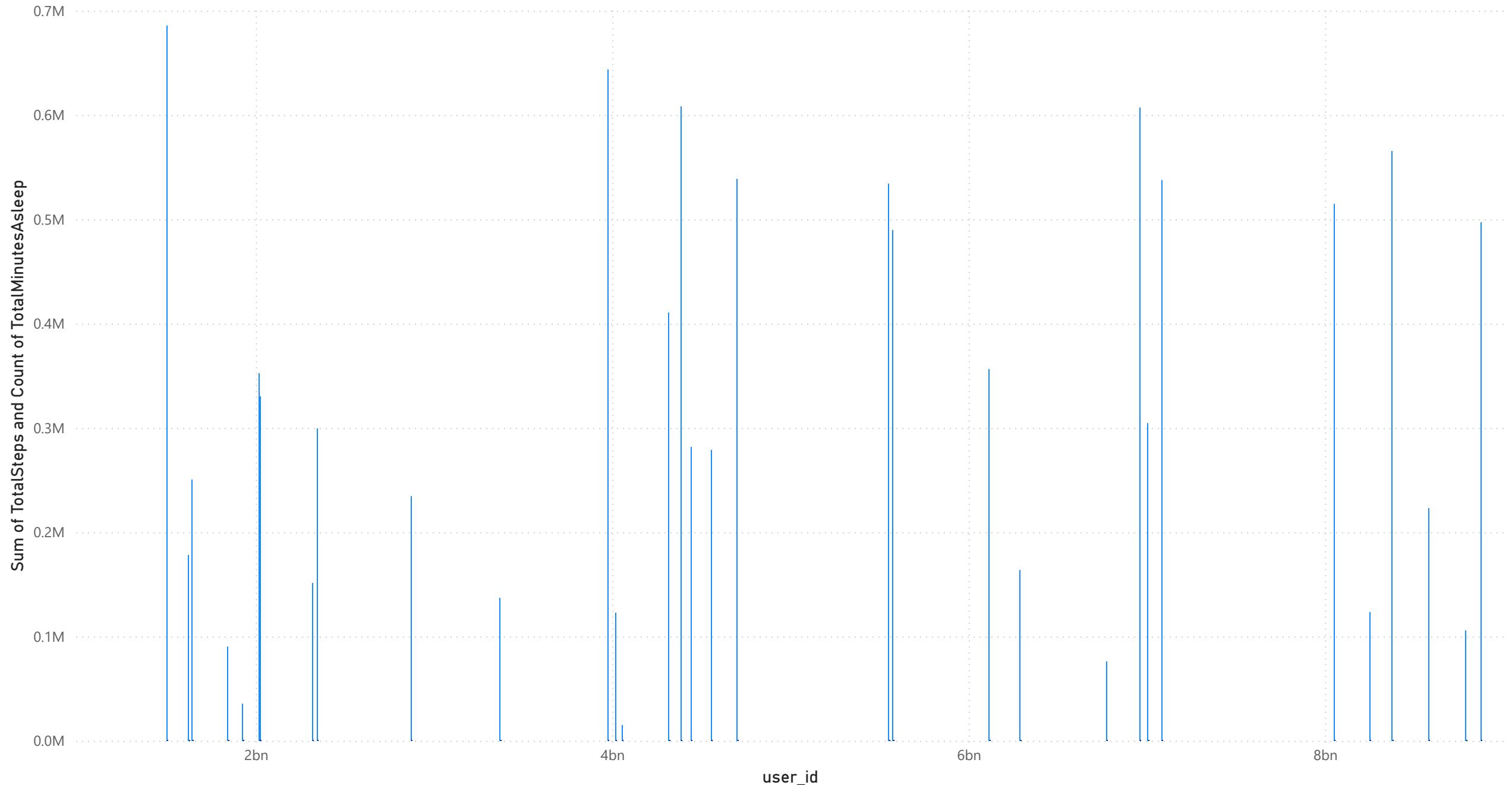


## Hourly Physical Intensity Patterns



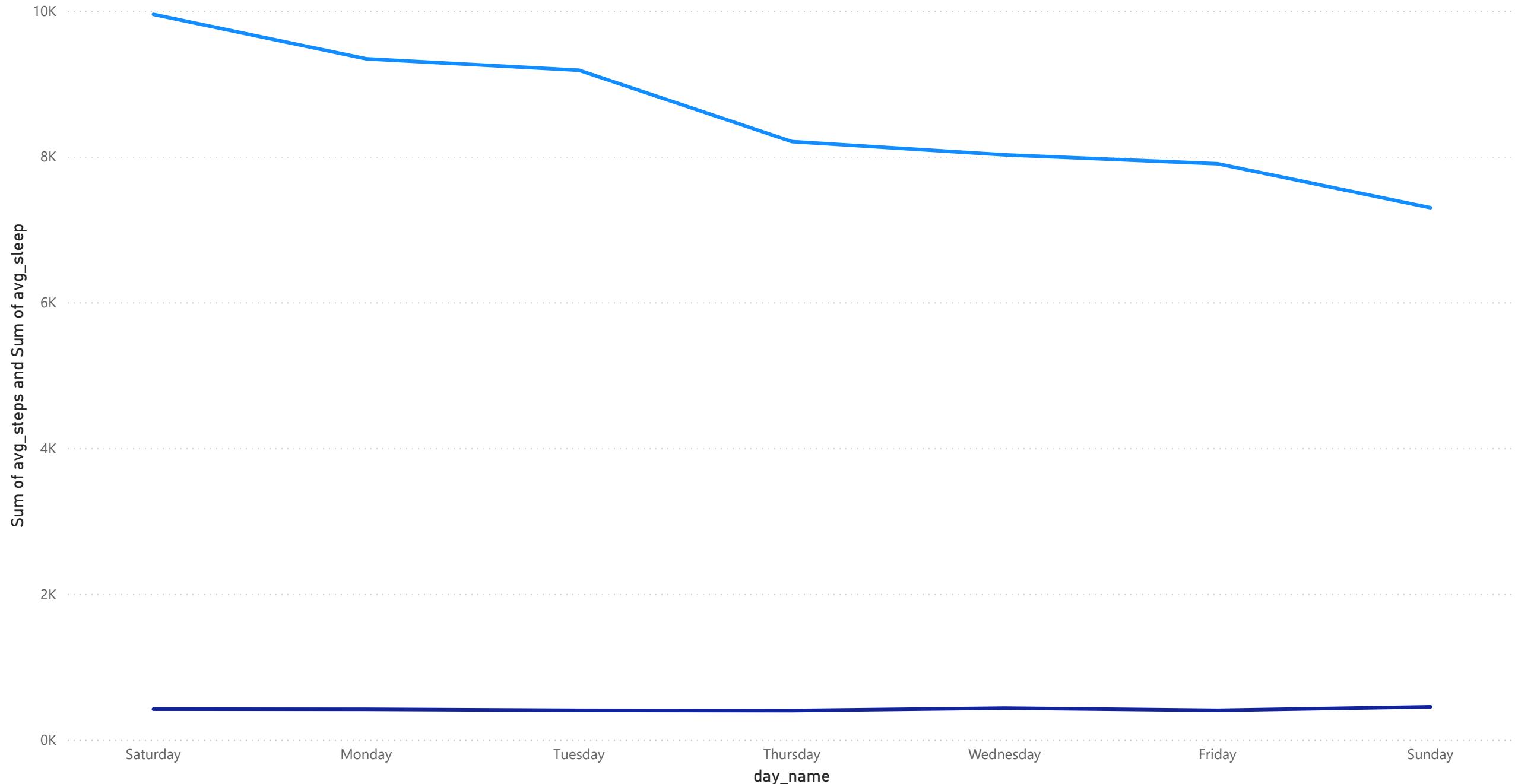
## OBJECTIVE 3-User-wise Segmentation – Steps vs Sleep Frequency

- Sum of TotalSteps
- Count of TotalMinutesAsleep



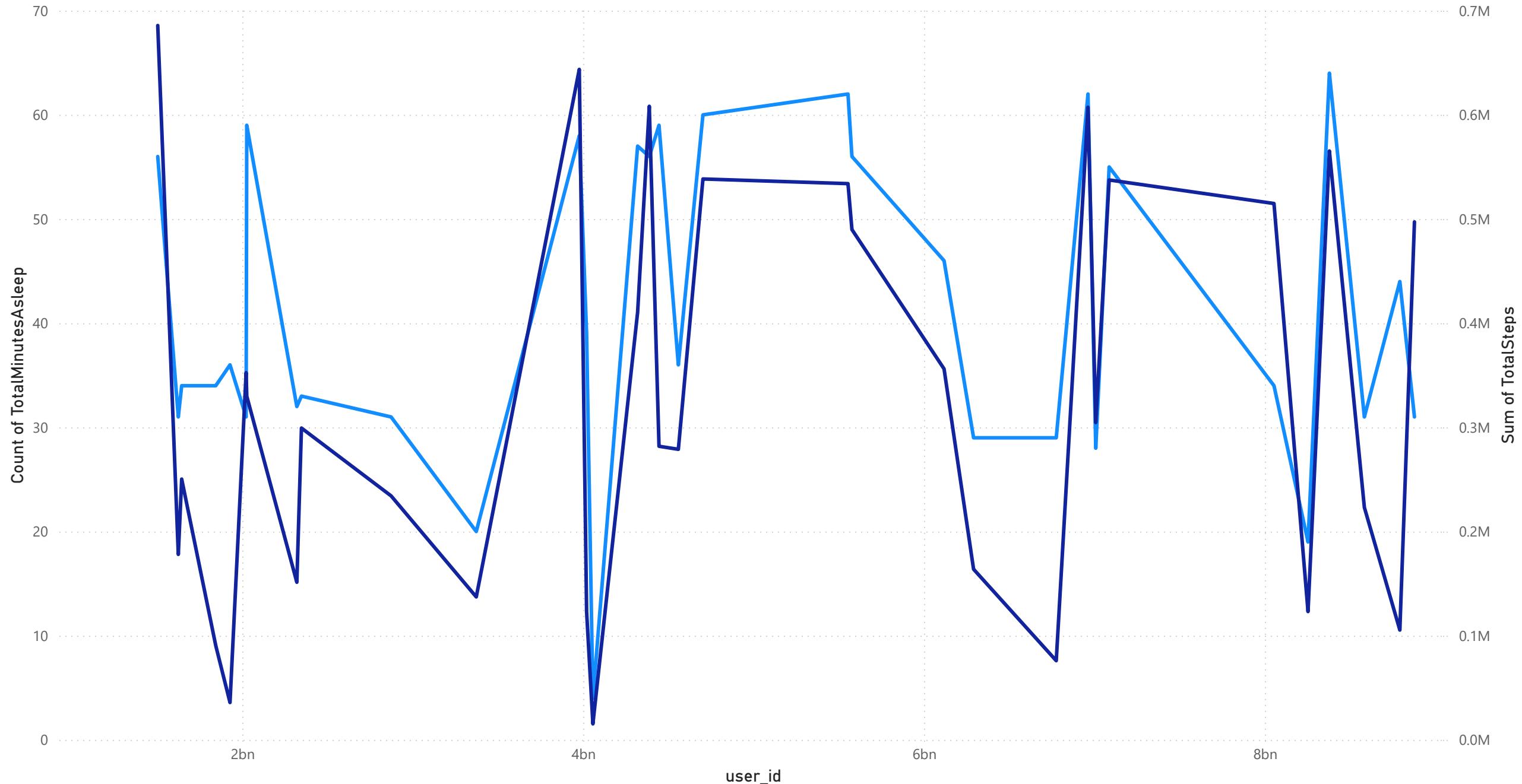
## Weekly Trends – Avg Steps vs Sleep Duration

● Sum of avg\_steps ● Sum of avg\_sleep



## User Segmentation – Sleep Count vs Step Volume

● Count of TotalMinutesAsleep ● Sum of TotalSteps



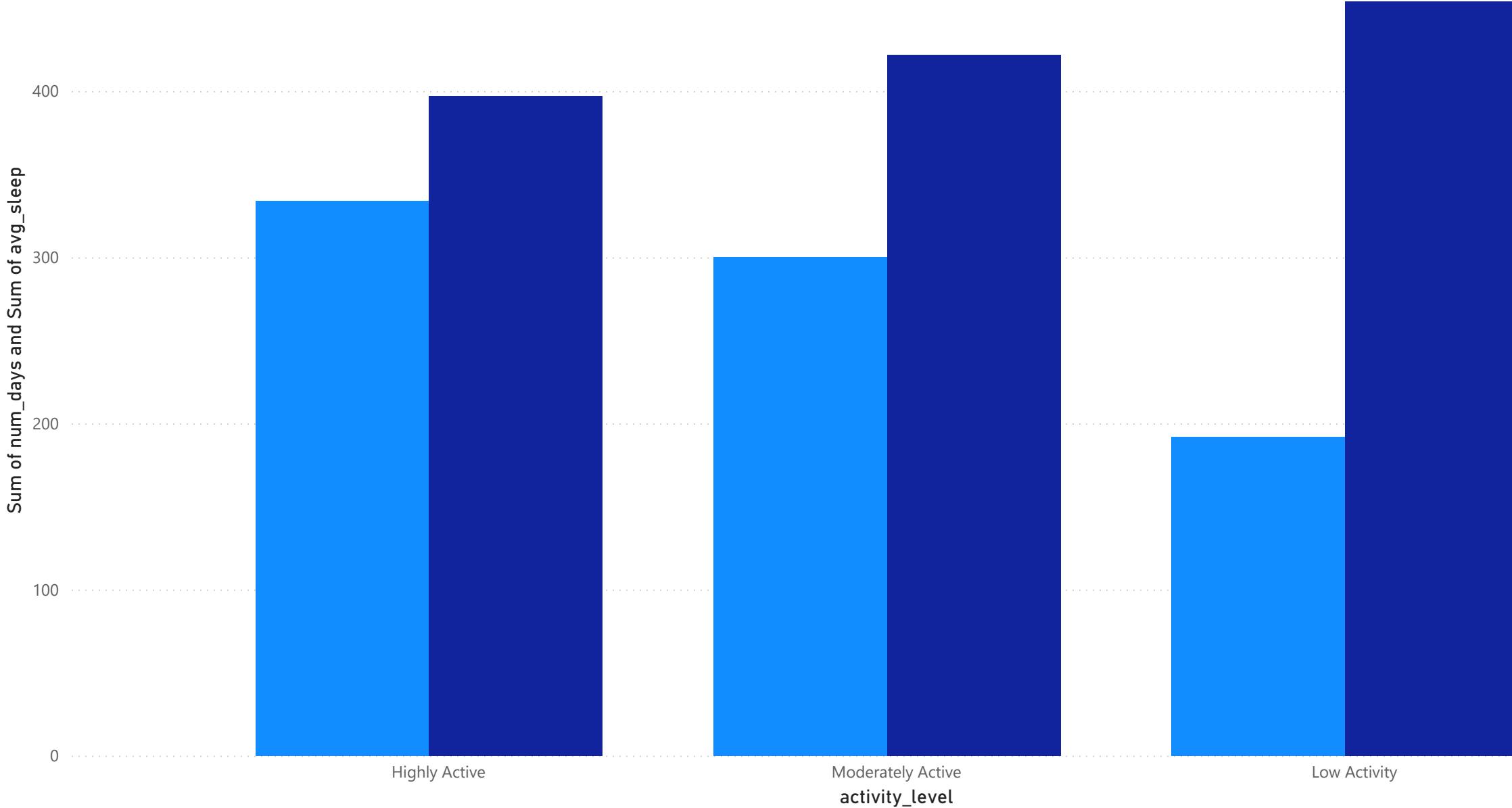
## User Segmentation – Sleep Events vs Step Totals

user_id	Sum of avg_steps	Sum of avg_calories	Sum of avg_sleep	Sum of avg_time_in_bed
1503960366	189361	57567	9064	10083
1624580081	189361	57567	9064	10083
1644430081	189361	57567	9064	10083
1844505072	189361	57567	9064	10083
1927972279	189361	57567	9064	10083
2022484408	189361	57567	9064	10083
2026352035	189361	57567	9064	10083
2320127002	189361	57567	9064	10083
2347167796	189361	57567	9064	10083
2873212765	189361	57567	9064	10083
3372868164	189361	57567	9064	10083
3977333714	189361	57567	9064	10083
4020332650	189361	57567	9064	10083
4057192912	189361	57567	9064	10083
4319703577	189361	57567	9064	10083
4388161847	189361	57567	9064	10083
4445114986	189361	57567	9064	10083
4558609924	189361	57567	9064	10083
4702921684	189361	57567	9064	10083
5553957443	189361	57567	9064	10083
5577150313	189361	57567	9064	10083
6117666160	189361	57567	9064	10083
6290855005	189361	57567	9064	10083
6775888955	189361	57567	9064	10083
6962181067	189361	57567	9064	10083
7007744171	189361	57567	9064	10083
7086361926	189361	57567	9064	10083
8053475328	189361	57567	9064	10083
8253242879	189361	57567	9064	10083
8378563200	189361	57567	9064	10083
8582815050	189361	57567	9064	10083
<b>Total</b>	<b>189361</b>	<b>57567</b>	<b>9064</b>	<b>10083</b>

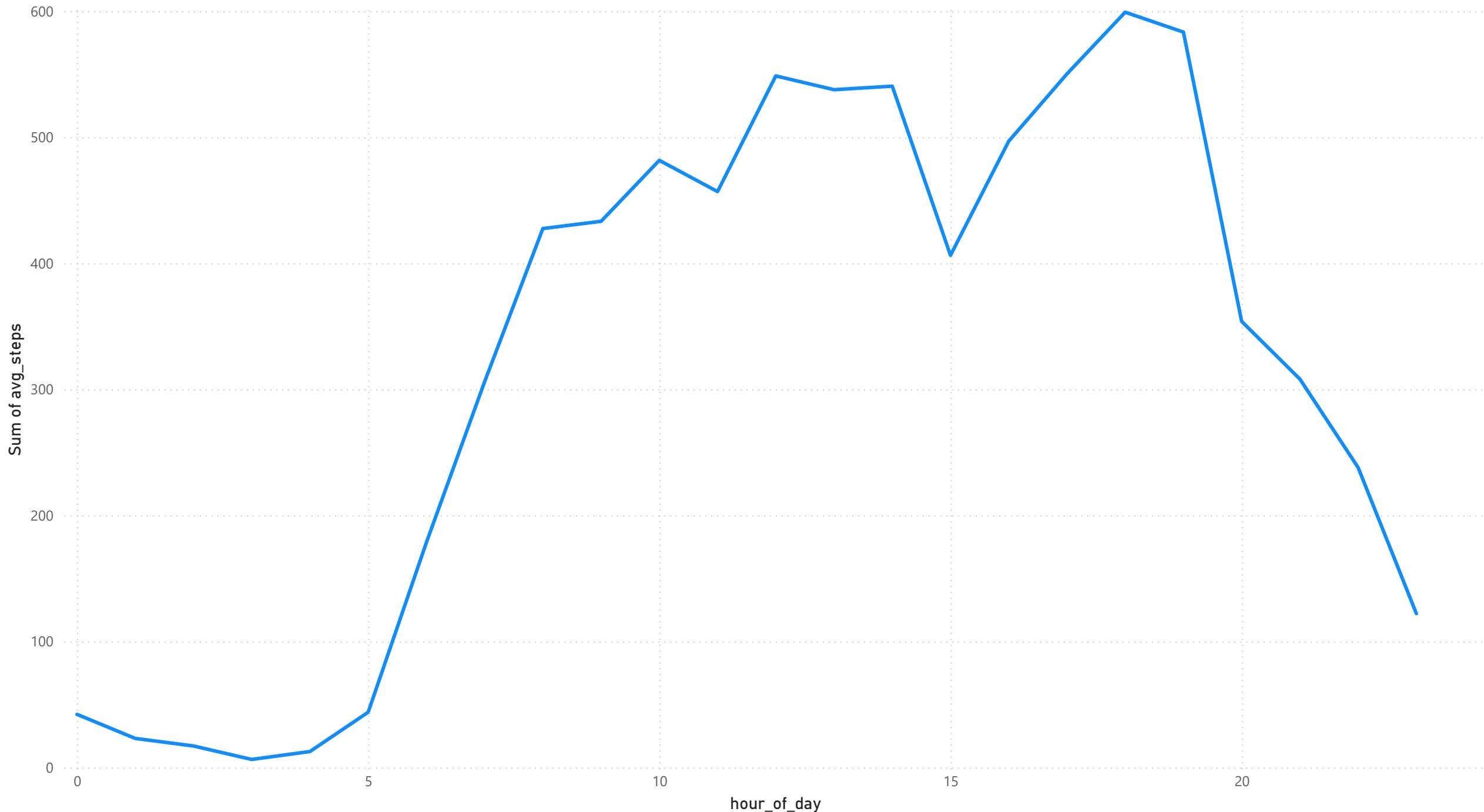
## Sleep Patterns by Activity Level

● Sum of num\_days ● Sum of avg\_sleep

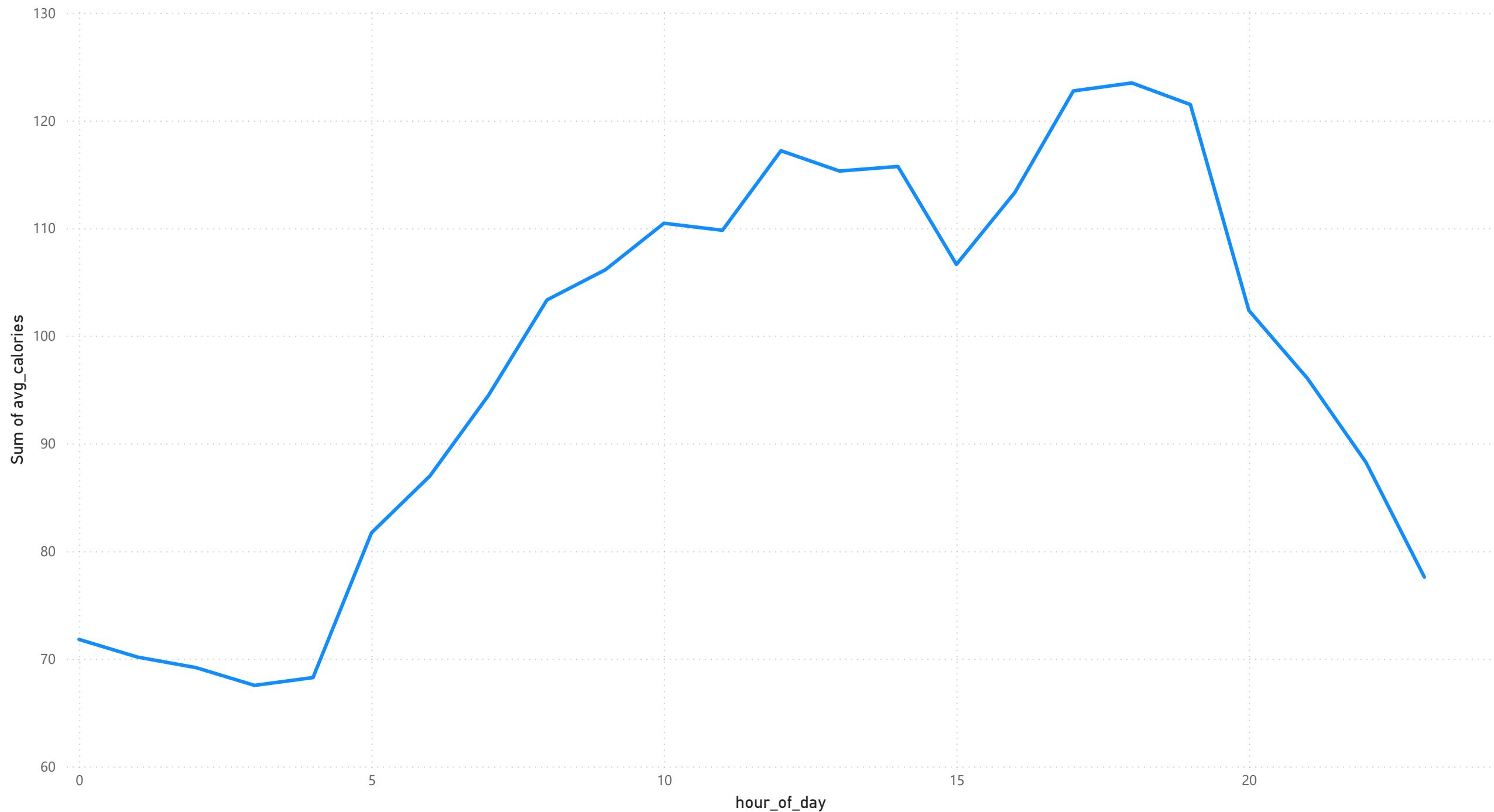
500



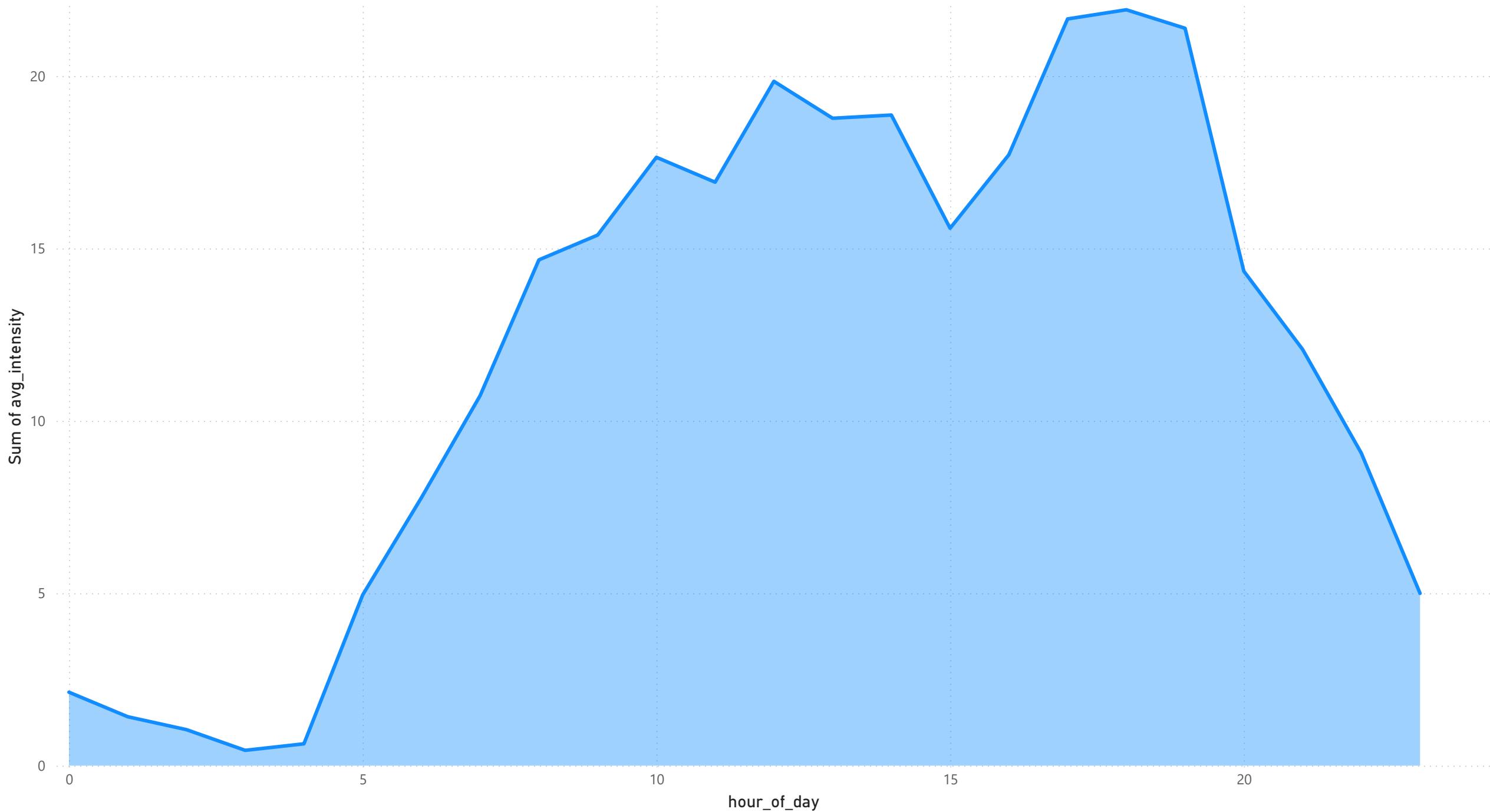
## Hourly Step Trends for User Profiling



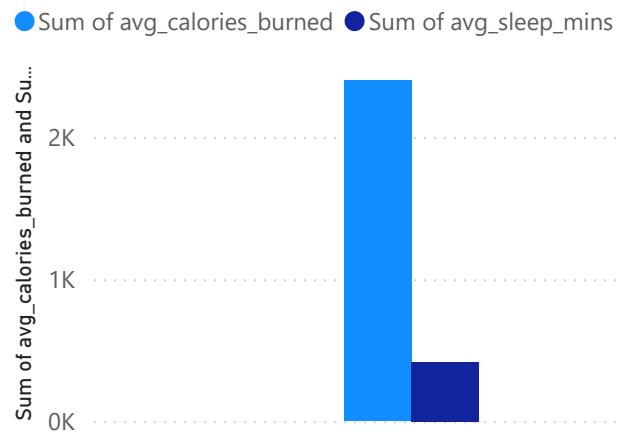
## Hourly Calorie Burn Patterns for User Segmentation



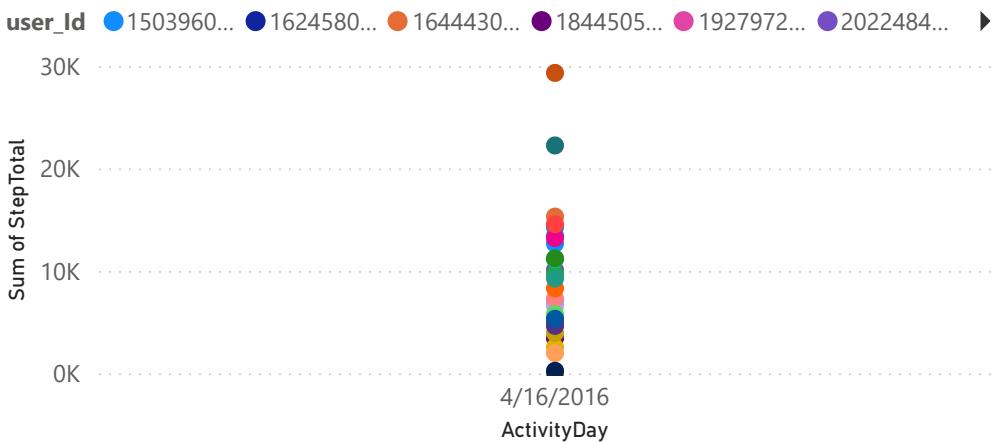
## Hourly Activity Intensity Patterns for Segmentation



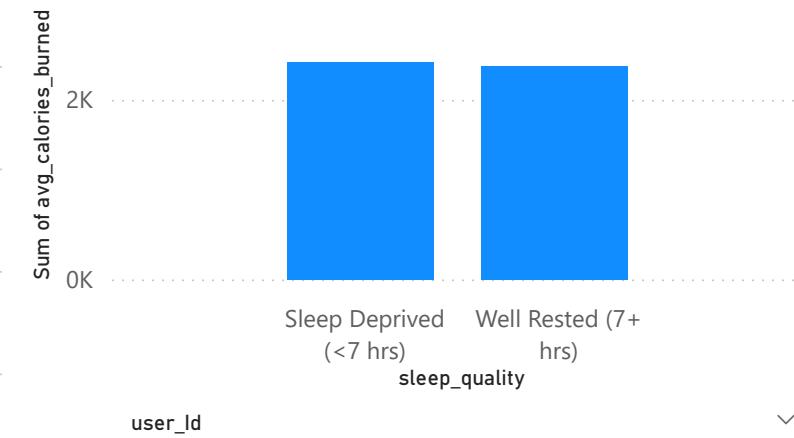
## Avg Calories Burned vs Sleep Minutes



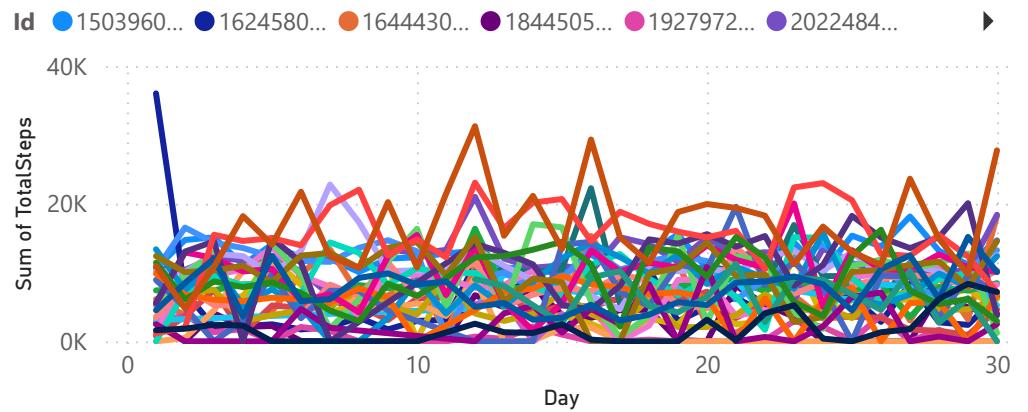
## Daily Total Steps by User



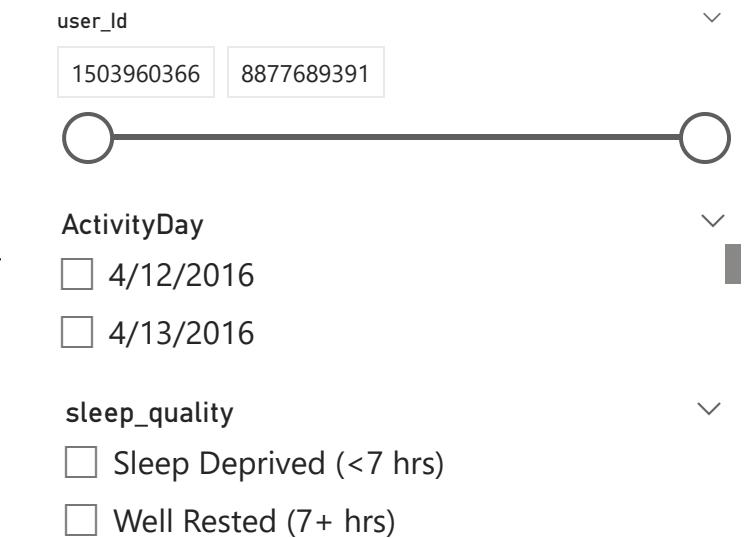
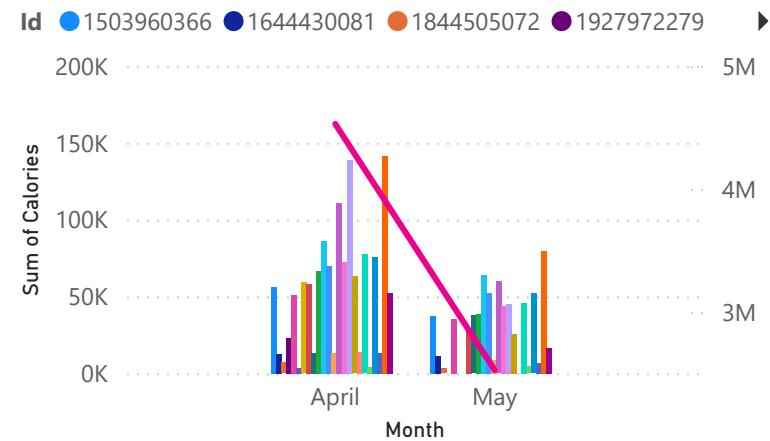
## Avg Calories Burned by Sleep Quality



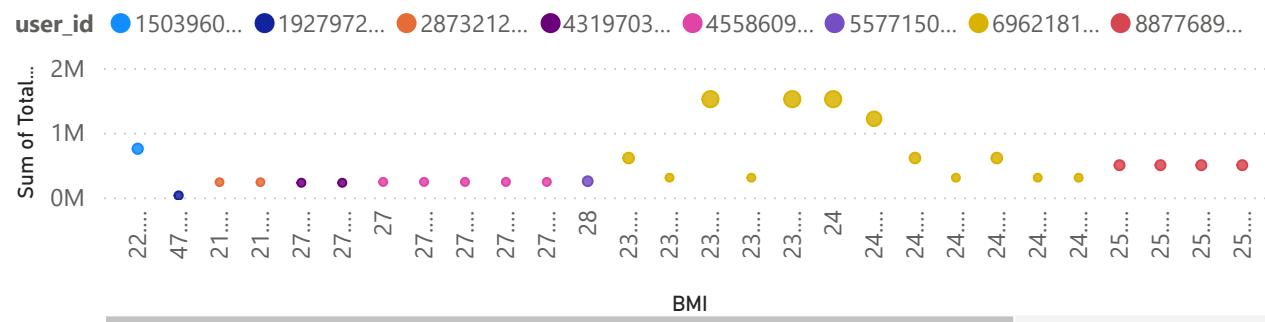
## Daily Steps by User (TotalSteps by Day and Id)



## Monthly User Trends – Steps and Calories



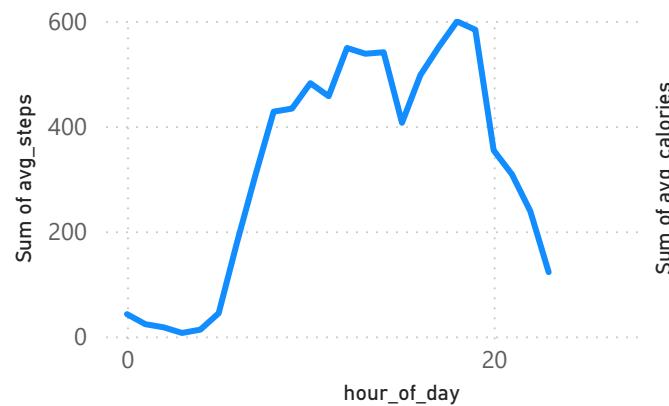
## BMI-wise Analysis – Steps, Calories & Weight by User



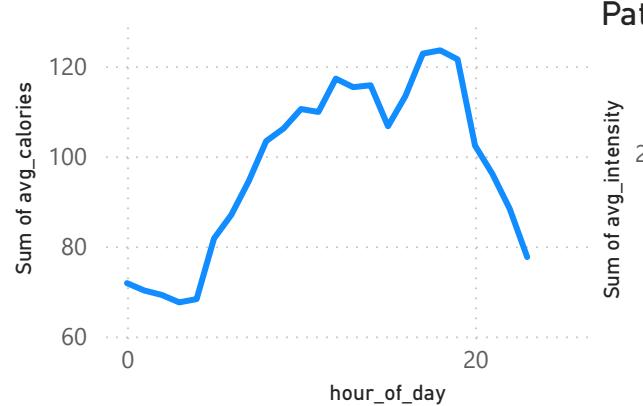
## Objective 1 – Usage Trends to Support Bellabeat's Marketing Strategy

This dashboard analyzes steps, sleep, calories, and activity data to uncover user engagement trends. These insights help the marketing team identify key behavior patterns to target in campaigns and feature promotion.

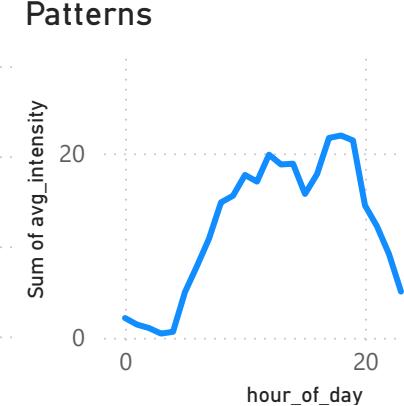
## Hourly Step Activity Patterns



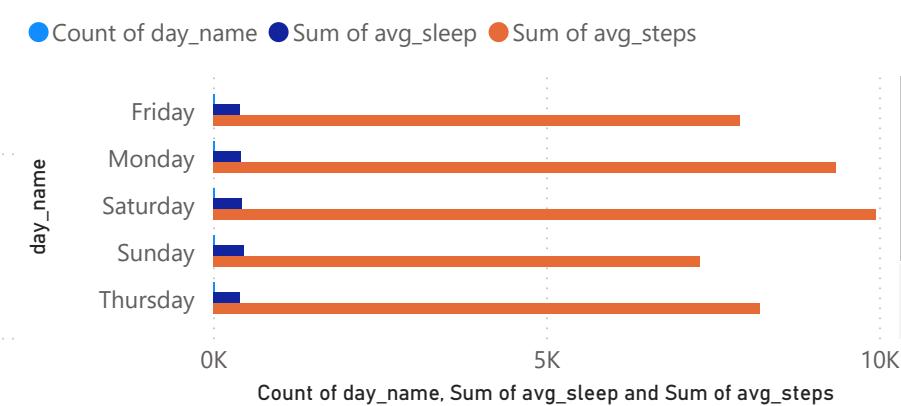
## Hourly Calorie Burn Trends



## Hourly Physical Intensity Patterns



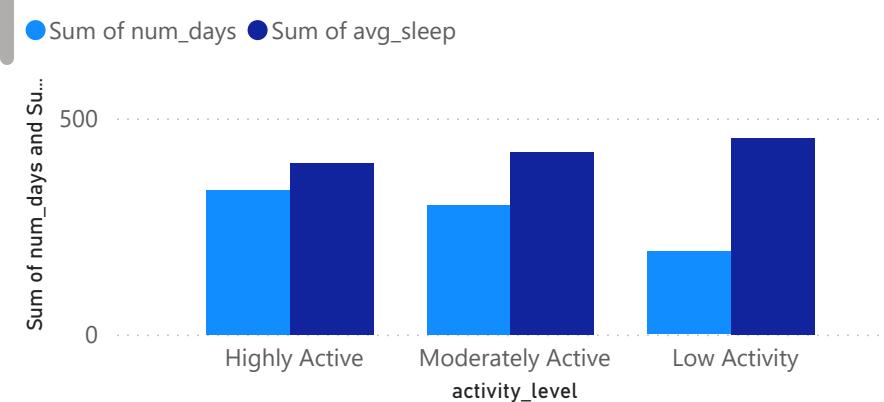
## Weekday-wise Trends – Sleep & Step Averages



## Avg Sleep Duration by Activity Level

Day	Sum of TotalMinutesAsleep	Sum of TotalSteps
1	346480	7054982
2	346480	7054982
3	346480	7054982
4	346480	7054982
5	346480	7054982
6	346480	7054982
7	346480	7054982
<b>Total</b>	<b>346480</b>	<b>7054982</b>

## Sleep Duration & Days by Activity Level



hour\_of\_day

0      23

activity\_level

- Highly Active
- Low Activity
- Moderately Active

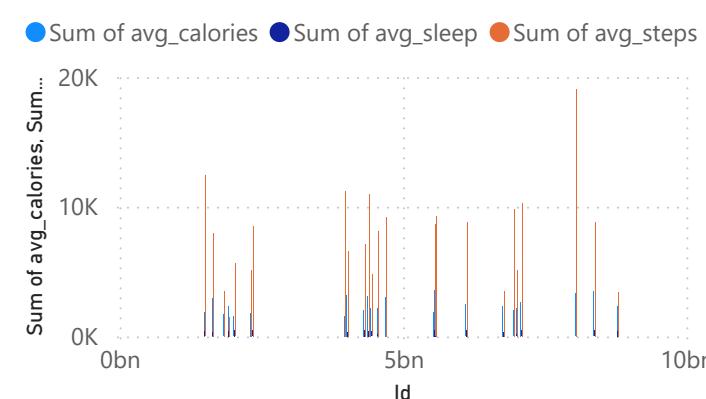
user\_id

1503960366    8877689391

## Daily Activity Count vs Calories Burned



## User-wise Averages – Calories, Sleep & Steps



day\_name

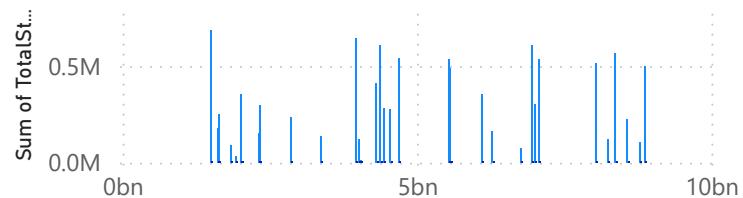
- Friday
- Monday
- Saturday
- Sunday
- Thursday
- Tuesday
- Wednesday

## Objective 2 – Patterns in User Engagement & Daily Habits

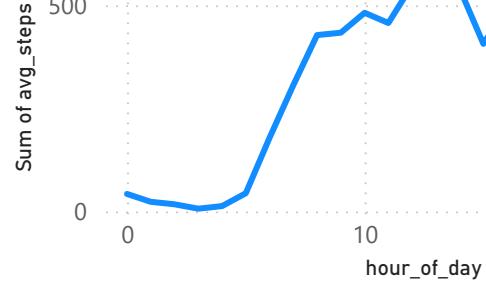
This dashboard uncovers how user behavior changes throughout the day and week. By visualizing sleep and activity levels by hour, weekday, and user type, it helps Bellabeat align its product features and reminders with real-life usage patterns.

## User-wise Segmentation – Steps vs Sleep Frequency

● Sum of TotalSteps ● Count of TotalMinutesAsleep

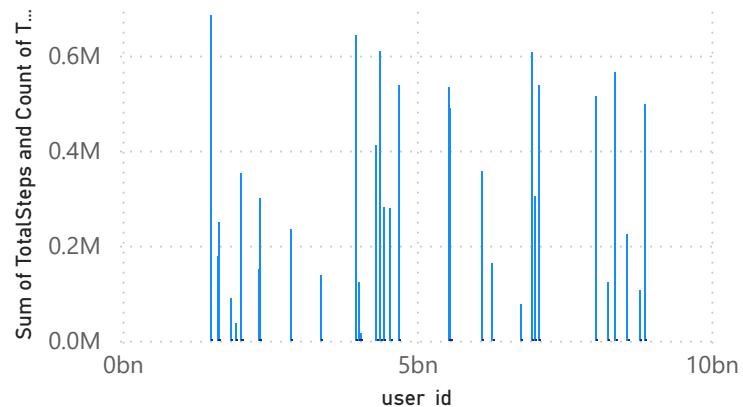


## Hourly Step Trends for User Profiling



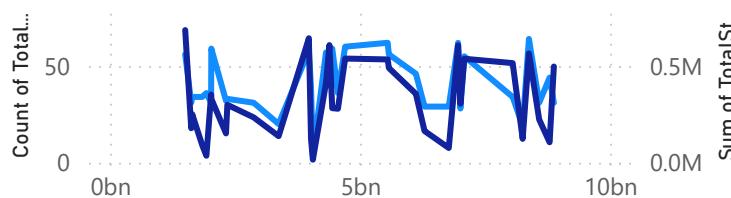
## User-wise Segmentation – Steps vs Sleep Frequency

● Sum of TotalSteps ● Count of TotalMinutesAsleep

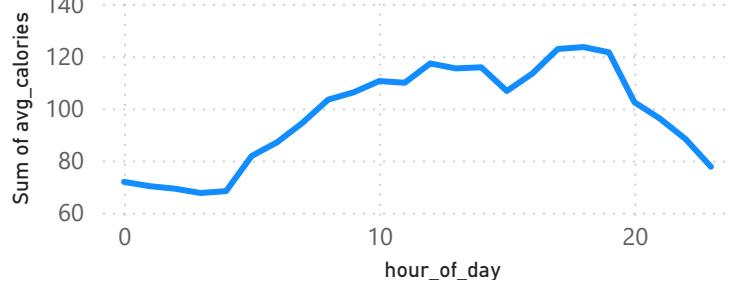


## User Segmentation – Sleep Count vs Step Volume

● Count of TotalMinutesAsleep ● Sum of TotalSteps



## Hourly Calorie Burn Patterns for User Segmentation

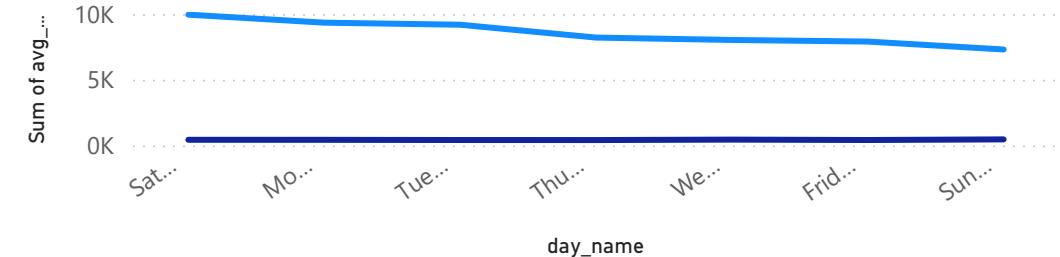


## User Segmentation – Sleep Events vs Step Totals

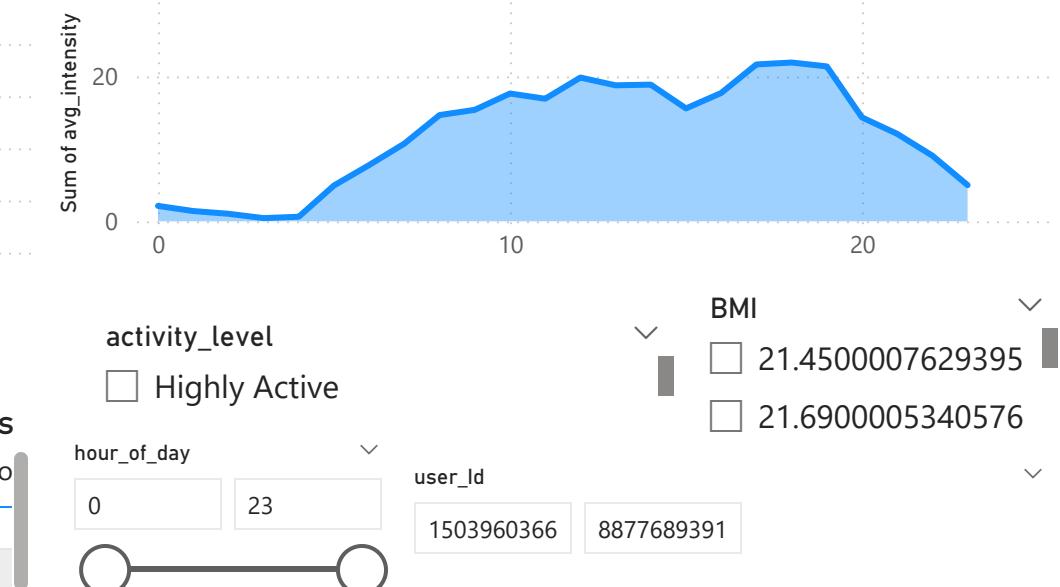
user_id	Sum of avg_steps	Sum of avg_calories	Sum o...
1503960366	189361	57567	
1624580081	189361	57567	
1644430081	189361	57567	
1844505072	189361	57567	
1927972279	189361	57567	
2022484408	189361	57567	
2026352035	189361	57567	
2320127002	189361	57567	
2347167796	189361	57567	
Total	189361	57567	

## Weekly Trends – Avg Steps vs Sleep Duration

● Sum of avg\_steps ● Sum of avg\_sleep



## Hourly Activity Intensity Patterns for Segmentation



## Objective 3 – User Segmentation for Personalization

This dashboard segments users by analyzing sleep, steps, calorie burn, and BMI. By understanding user patterns in detail, Bellabeat can tailor its wellness features and communication to boost user satisfaction and long-term retention.