# **Guide to Blood Glucose Monitor (BGM) Visualizations**

## **Visualizations**

#### **Profile**

The Glucose Profile report is a standardized, single-page report that offers a comprehensive overview of glucose management, modeled after the proprietary Ambulatory Glucose Profile (AGP) report. The report has several key components, including:

- Modal Day BGM Values: Offers a 24-hour view of glucose patterns, which combines data from multiple days. It shows all values as if thay occured on a single day, which aids in determining daily patterns.
- Glucose Metrics: Displays average glucose, coefficient of variation, estimated A1c, BGM usage, and days with BGM data.
- Daily Glucose Charts: Presents single-day glucose charts for more detailed analysis.
- Time in Range: Visualizes the percentage of time spent in various glucose ranges using color-coded bars. Each 1% equates to approximately 15 minutes within a specific glucose range.

### **Daily View**

The Daily View report offers an in-depth analysis of a patient's glucose data for individual days. It allows users to:

- Assess glucose fluctuations throughout the day.
- Pinpoint specific times or events that contribute to glucose fluctuations.
- Understand how daily activities, meals, or medications influence glucose levels.
- Detect recurring patterns on specific days of the week.
- Investigate anomalies or unusual glucose events on particular days.

### Comparison

The Comparison report allows users to analyze glucose data across two time periods. This side-by-side comparison helps with:

- Evaluating overall progress in glucose management.
- Visualizing specific changes, such as the impact of medication adjustments.
- Monitoring improvements in both shortterm and long-term diabetes management.

**Note**: The graphs aggregate glucose readings into 15-minute intervals.

## **Monthly Values**

The Monthly Values report displays average glucose levels and estimated A1c (eA1c) by month for the most recent 12 months and the first 12 months of data.

This report provides a straightforward comparison of monthly glucose control over time.

## **Glucose Metrics**

**Common Measures** 

Displays key measurements for the selected date range, including the following:

### **Average Glucose**

The mean of all glucose readings from the selected date range.

#### Coefficient of Variation (CV)

The glucose standard deviation divided by the mean glucose. CV is a standardized measure that assesses the magnitude of glucose variability.

## Estimated A1c (eA1c)

An approximation of the A1c level expected, based on average glucose measured by a limited number of daily fingerstick readings per day.

#### **Standard Deviation (SD)**

Represents glycemic variability by showing how much BGM readings rise and fall from the average.

## **BGM** Usage

The number of readings divided by the number of expected readings for the selected period, displayed as a percentage.

#### **Days with BGM Data**

The number of days for the selected time period with two or more fingerstick readings.

#### Note About CV and SD

Results may vary more significantly day-to-day compared to CGM data due to the limited number of fingerstick readings.

## **Time in Range**

Displays the percentage of time that glucose levels fall within the specified ranges. Data is shown both as text and in a stacked bar graph.

Very High: Above 250 mg/dL High: 181-250 mg/dL In Range: 70-180 mg/dL Low: 54-69 mg/dL

Very Low: Below 54 mg/dL

### Note

The visualizations now follow the same format as those for CGM data, enabling direct comparisons with CGM data. While BGM data is limited in capturing real-time trends, it remains essential for establishing baseline readings, monitoring trends, and providing a cost-effective alternative for individuals without CGM access.

 $\underline{https://public.tableau.com/views/BGMData/BloodGlucoseMonitorBGMData?: language=en-US\&: sid=\&: redirect=auth\&: display\_count=n\&: origin=viz\_share\_link)}$