

# Continuous Glucose Monitors to Manage Persistent Hypoglycemia

## Caused by Congenital Hyperinsulinism



Lauren N. Lopez, Kristen E. Rohli, Tai L. S. Pasquini, Julie Raskin  
Congenital Hyperinsulinism International, Glen Ridge, New Jersey, USA

### INTRODUCTION

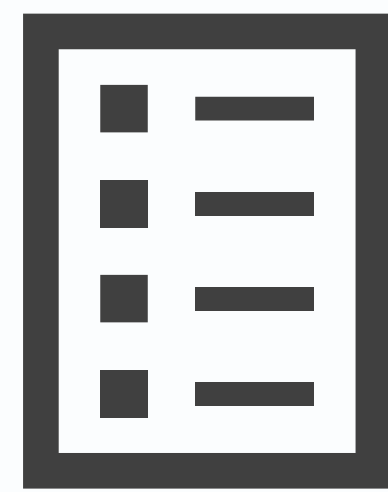
- Congenital hyperinsulinism (HI) is the most common cause of persistent hypoglycemia in newborns and children. Careful glycemc monitoring is essential to manage HI.
- Continuous glucose monitors (CGMs) are not approved for use in HI, but many individuals use CGMs off-label. **This study aims to evaluate user satisfaction with CGM for managing HI.**



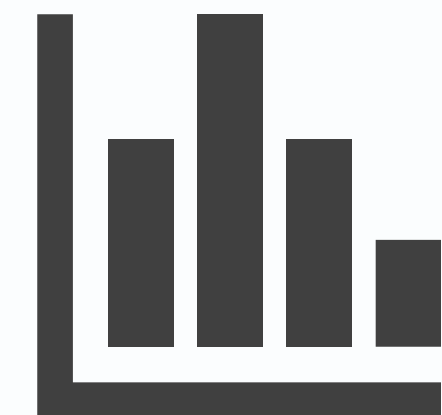
The HI Global Registry (HIGR) is the only international patient-powered registry for people with HI.



People with HI or their caregivers consented to participate in HIGR



N = 99 Completed the Glucose Monitoring survey



Categorical data reported using descriptive statistics

### CONCLUSIONS

- CGM is considered an effective tool for HI management by many HI families who report high levels of satisfaction and increased ability to identify and treat hypoglycemic episodes.
- To maximize CGM benefits for HI, improved technology for monitoring the hypoglycemic range is urgently needed.

Learn more about HIGR!

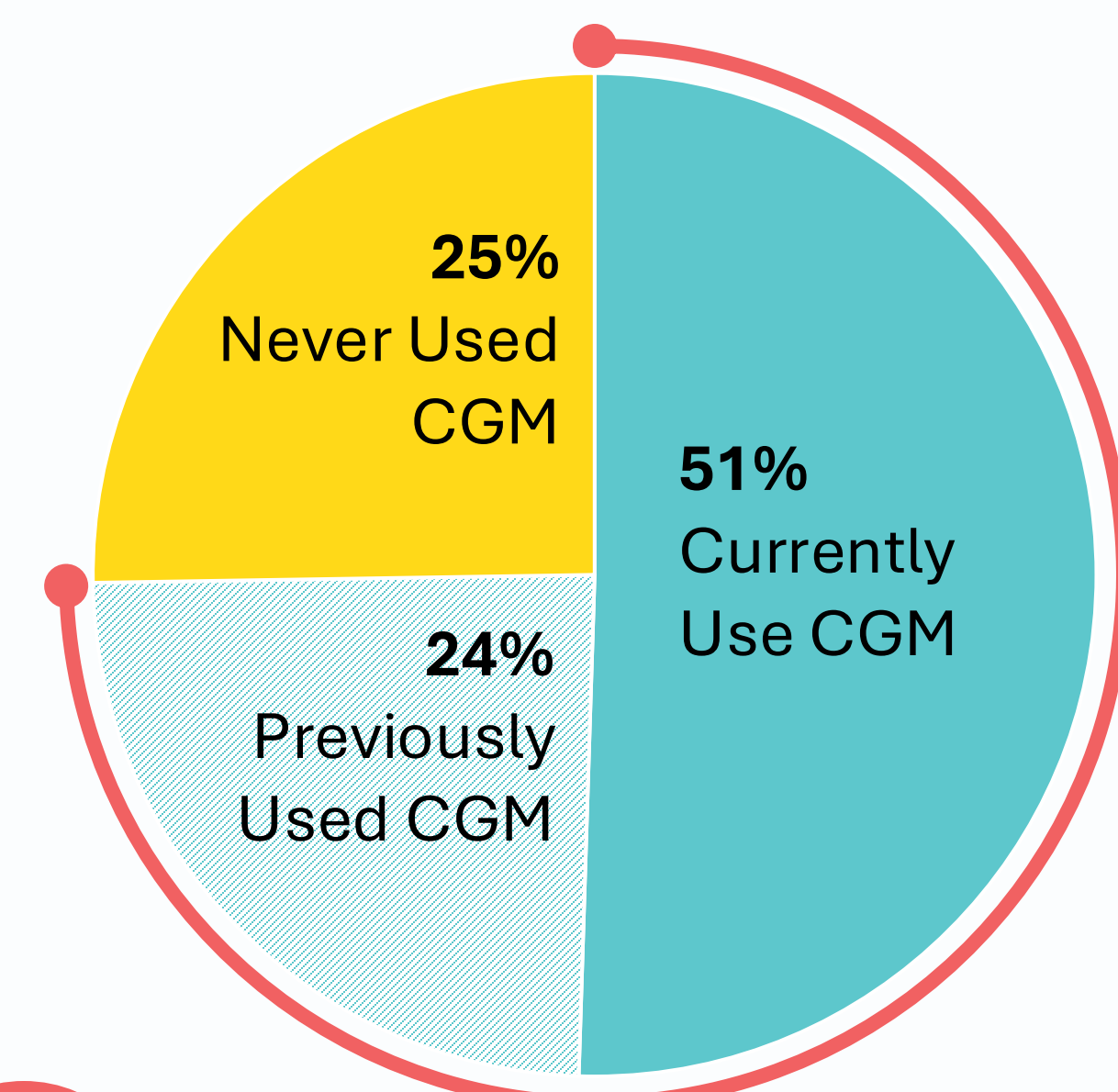


The authors would like to thank the patients and caregivers for their contribution to HIGR and the HIGR Steering Committee for their guidance. CHI receives funding for HIGR from Rezolute, Zealand Pharma, Hanmi, Rhythm, and many private sponsors. CHI also receives funding for HIGR from the EU LightCure grant #101080327.



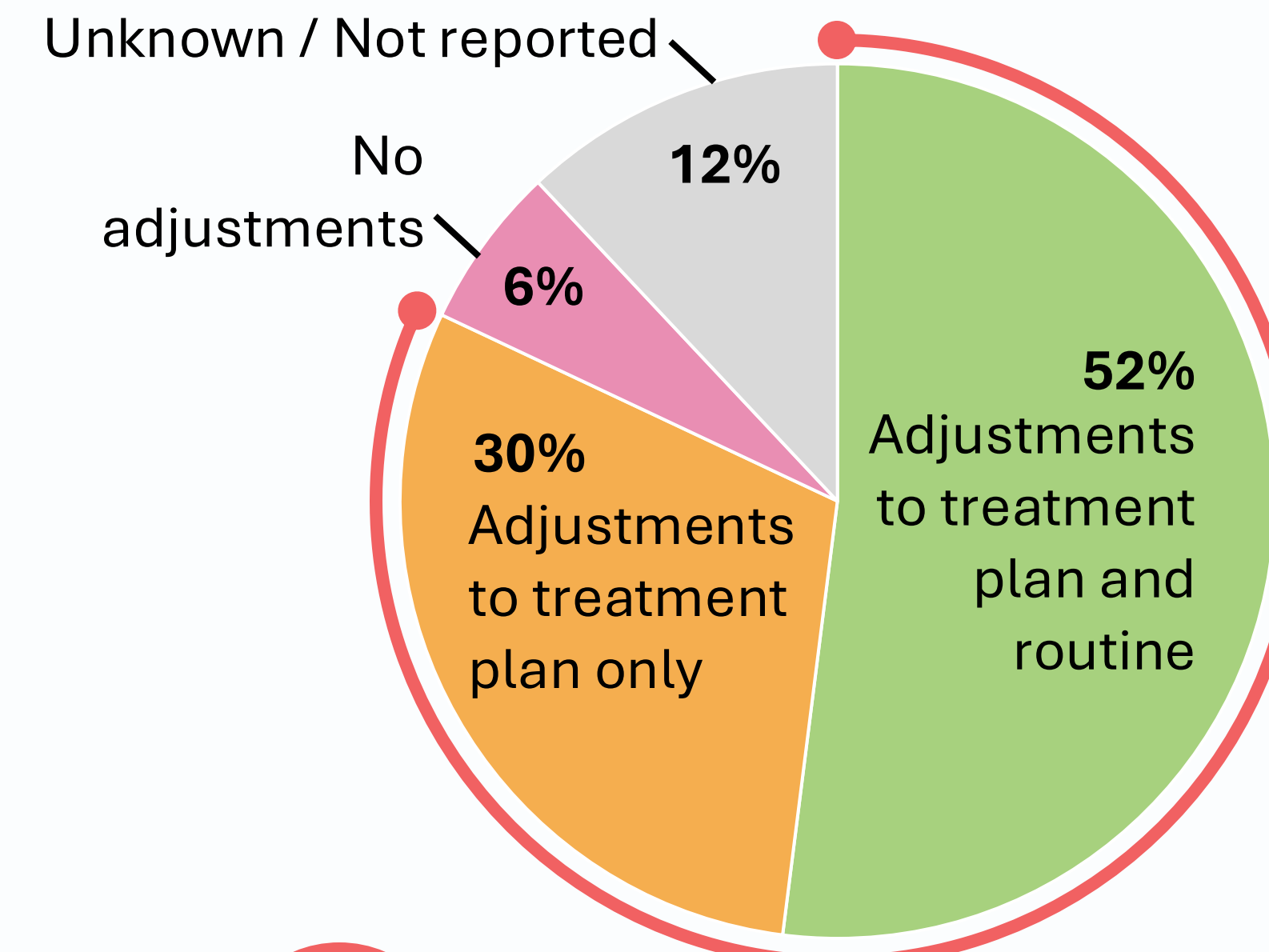
### RESULTS

**CGM Use History**  
(all respondents, n = 99)



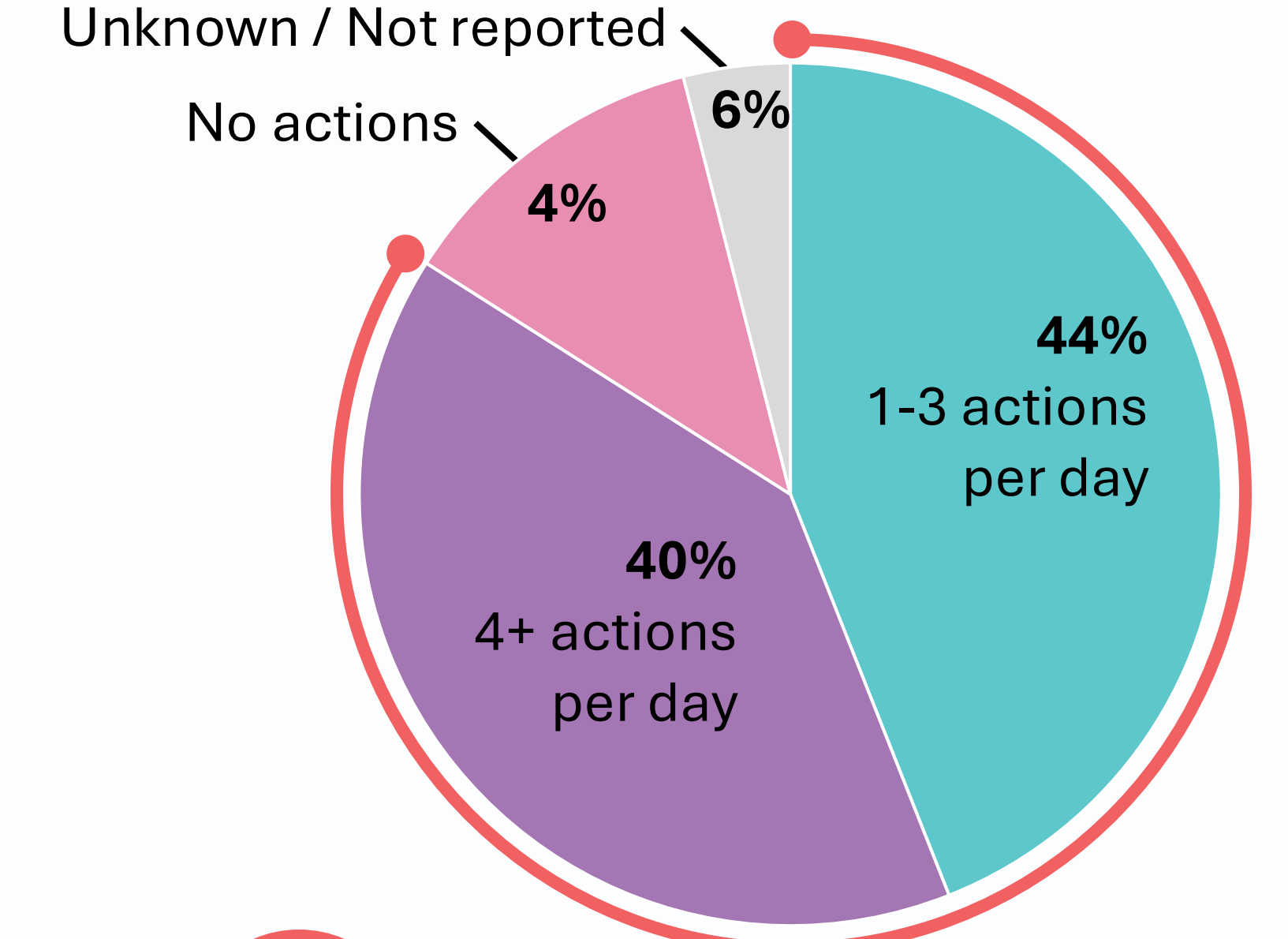
**75%** Of people with HI have used a CGM

**Impact of CGM on Treatment Plan / Routine**  
(current CGM users, n = 50)



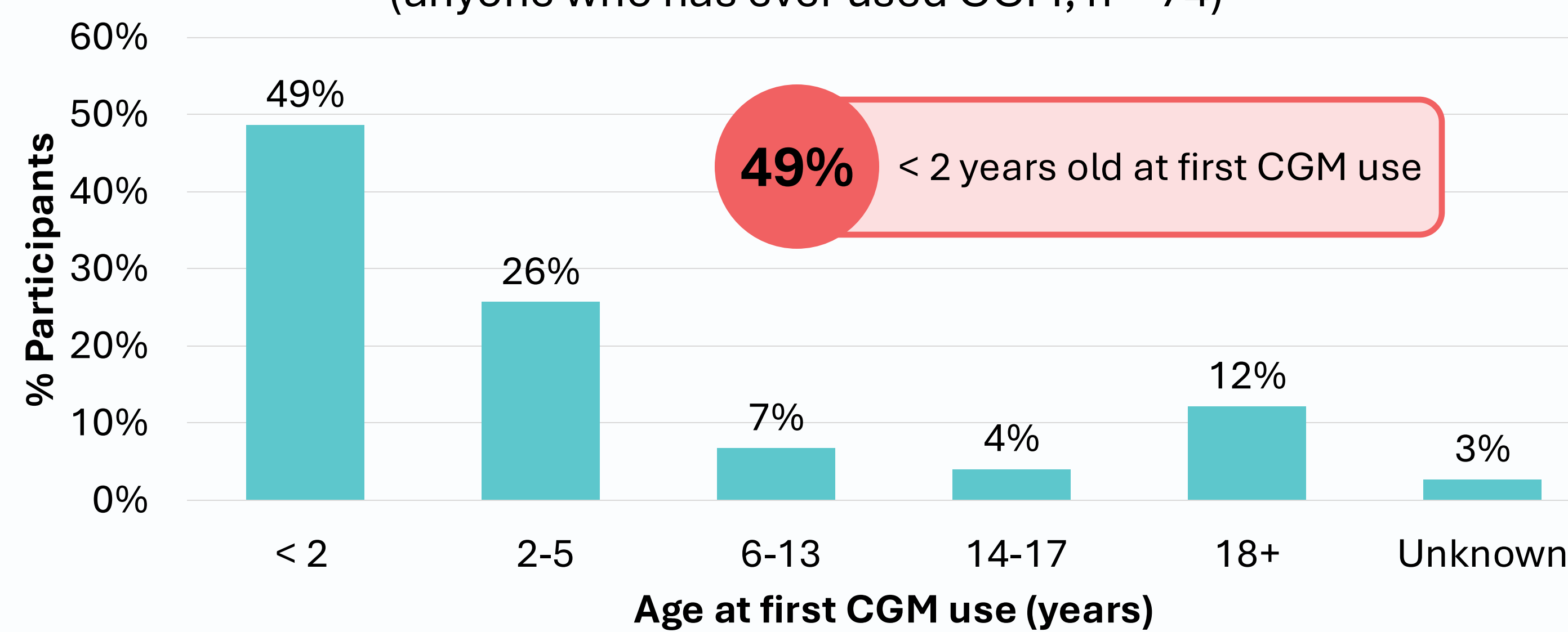
**82%** Made adjustments to treatment plan and/or routine based on CGM data

**Impact of CGM on Hypoglycemia-Preventing Actions**  
(current CGM users, n = 50)



**84%** Take at least 1 action daily to prevent a hypo based on CGM data/trends

**Age at First CGM Use**  
(anyone who has ever used CGM, n = 74)



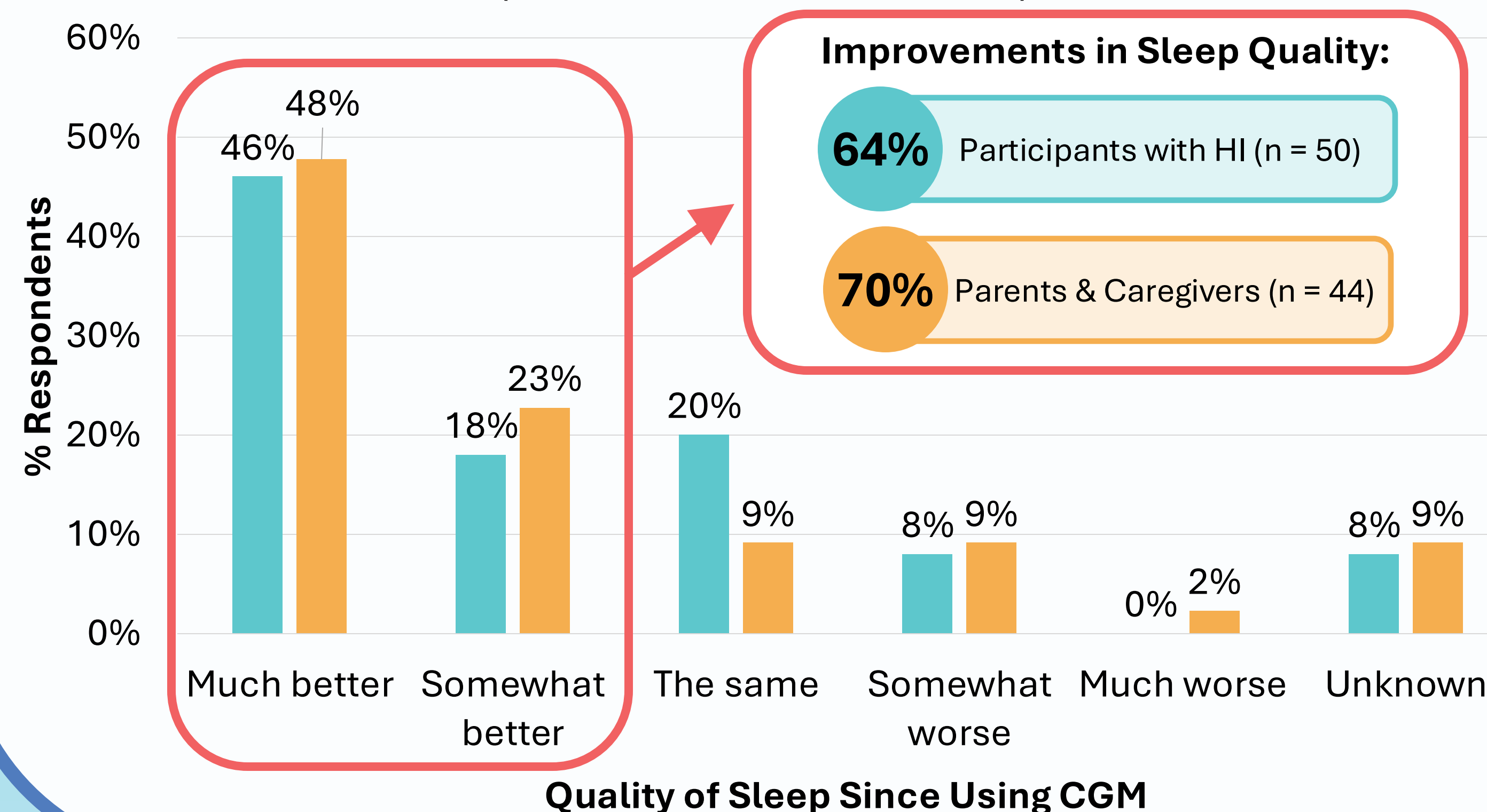
**49%** < 2 years old at first CGM use

**Top 3 Reasons for stopping using CGM**

Multiselect question, respondents could select more than one answer

Current CGM Users (n = 50)	Past CGM Users (n = 24)
<p><b>1. Too many false lows / compression lows</b> (Current users, 18%; past users, 33%)</p>	
<p><b>2. Affordability</b> (18%)</p>	<p><b>2. CGM alarmed too frequently</b> (33%)</p>
<p><b>3. Skin irritation or skin rash</b> (18%)</p>	<p><b>3. Concerns about the accuracy of CGM</b> (33%)</p>

**Impact of CGM on Sleep Quality**  
(current CGM users, n = 50)



**Improvements in Sleep Quality:**

**64%** Participants with HI (n = 50)

**70%** Parents & Caregivers (n = 44)

**Impacts of Remote Monitoring** (current CGM users, n = 50)

Multiselect question, respondents could select more than one answer

<p>Remote monitoring allowed the participant to <b>attend daycare/nursery, school, or work</b></p>	<p>Remote monitoring caused <b>less anxiety</b> about hypoglycemia</p>	<p>Remote monitoring allowed the participant to be <b>cared for by someone other than the primary caregiver/parent</b></p>
--	--	--