

National survey of usage of continuous glucose monitoring in children and adolescents at non reimbursed setting



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INTRODUCTION AND OBJECTIVES:

➤ Continuous glucose monitoring (CGM) correlates with optimal control in type 1 diabetes (T1D)
 ➤ CGM plays a major role in decreasing the time spent in hypoglycemia and hyperglycemia, and achieving better QoL.

➤ **Aim:** To evaluate the usage and benefits of out-patient CGM and assess parents' attitudes to it at a non-reimbursed setting.

METHODS:

All families (984) with T1D children from 8 settings were invited to participate in the study by filling-in an on-line or paper version short questionnaire.

DATA WAS COLLECTED ABOUT:

- Demographics
- Anthropometrics
- Duration of diabetes
- Type of insulin treatment
- CGM usage: duration and type
- Parents' attitude to new technologies
- Frequency of measuring ketones
- Psychological support

Distribution of participants

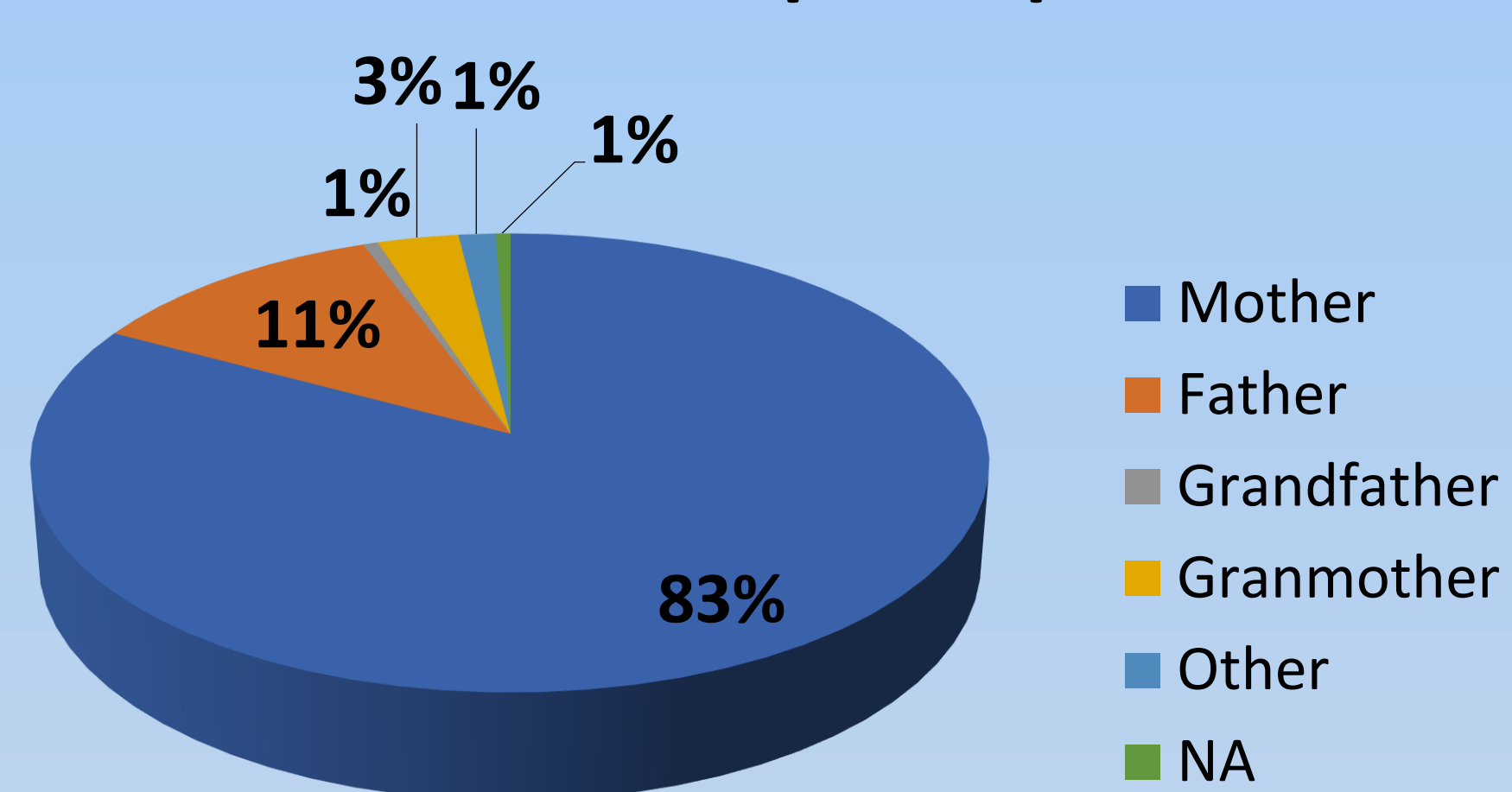


Fig. 1

Education of the parents

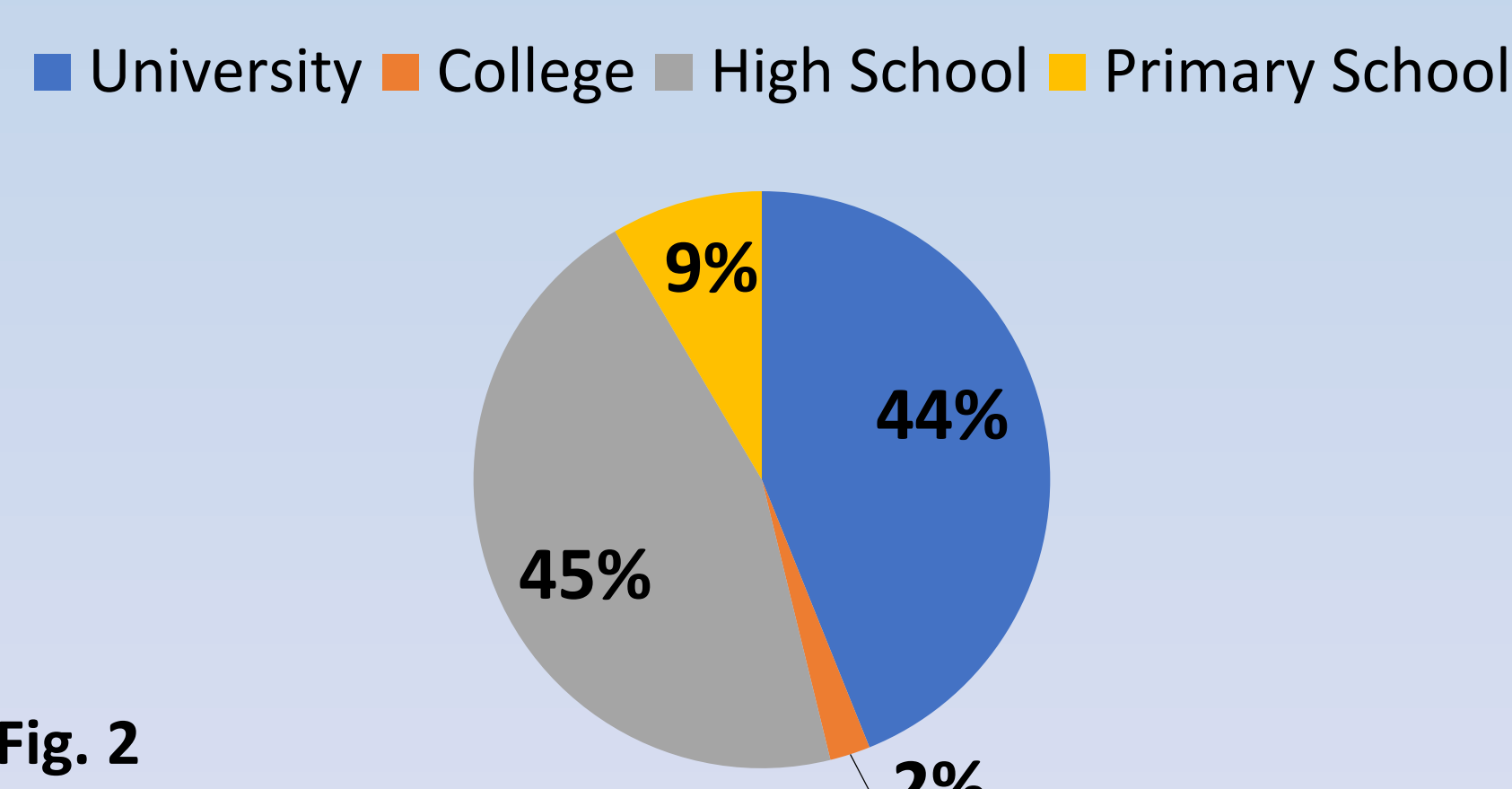


Fig. 2

Age groups

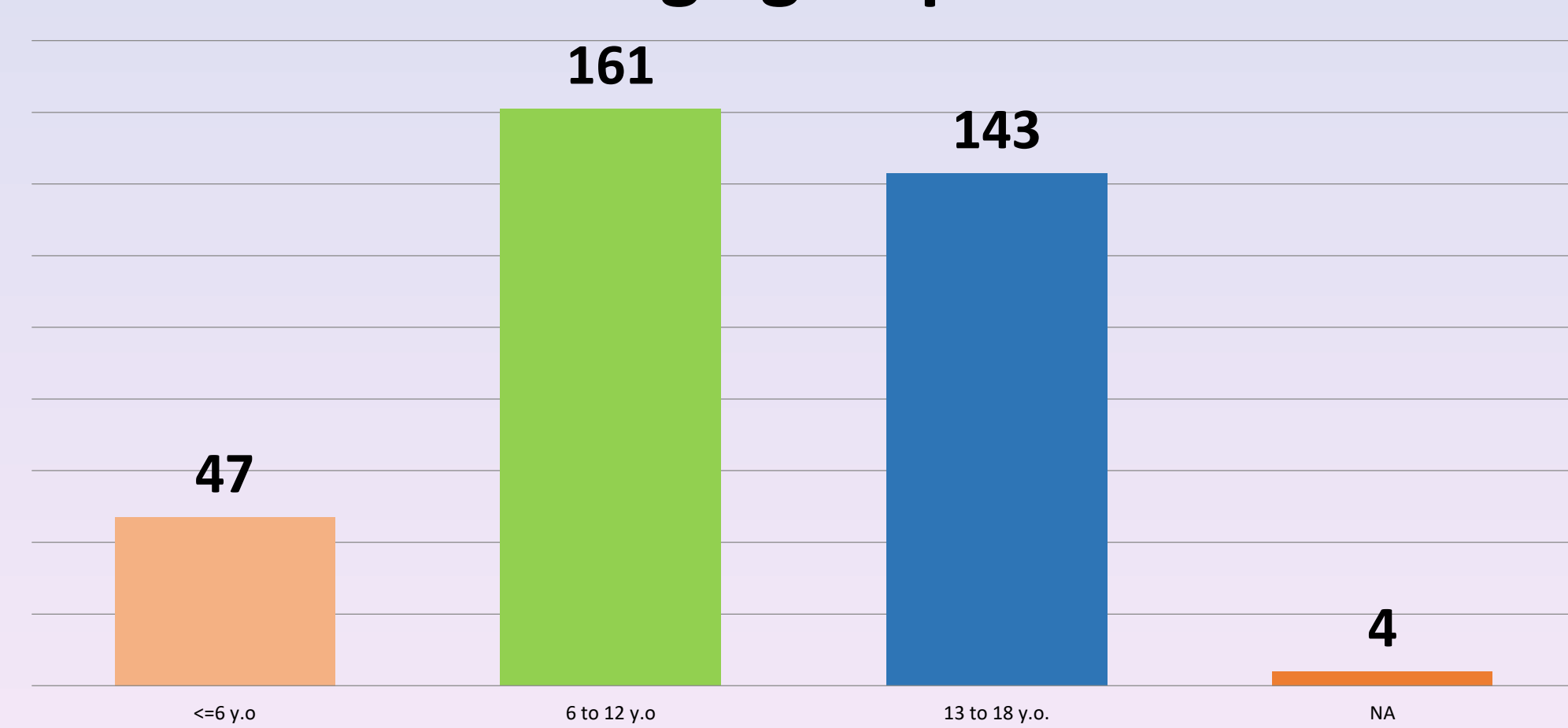


Fig. 3

Insulin therapy

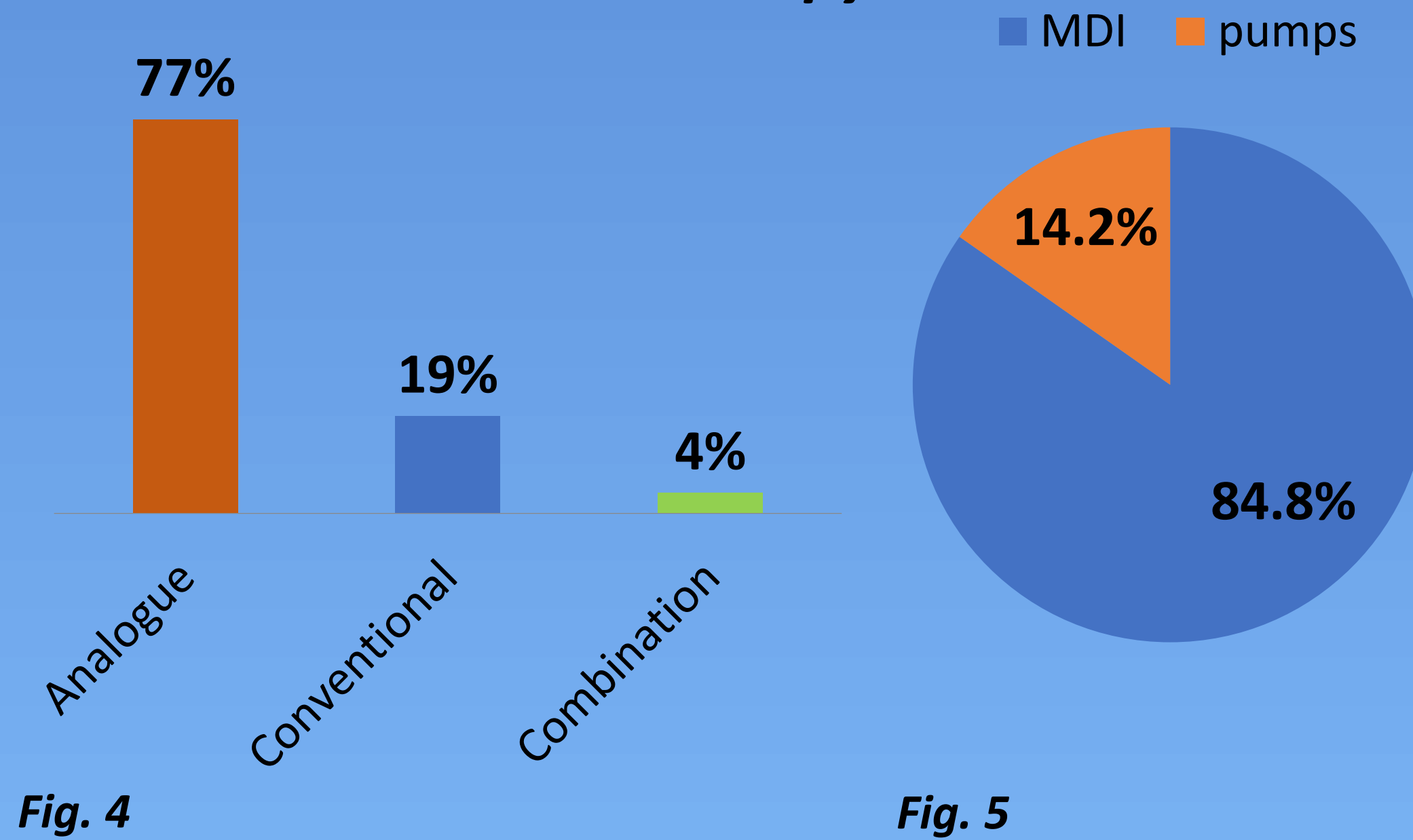


Fig. 4

Fig. 5

Duration of CGMs usage according to therapy

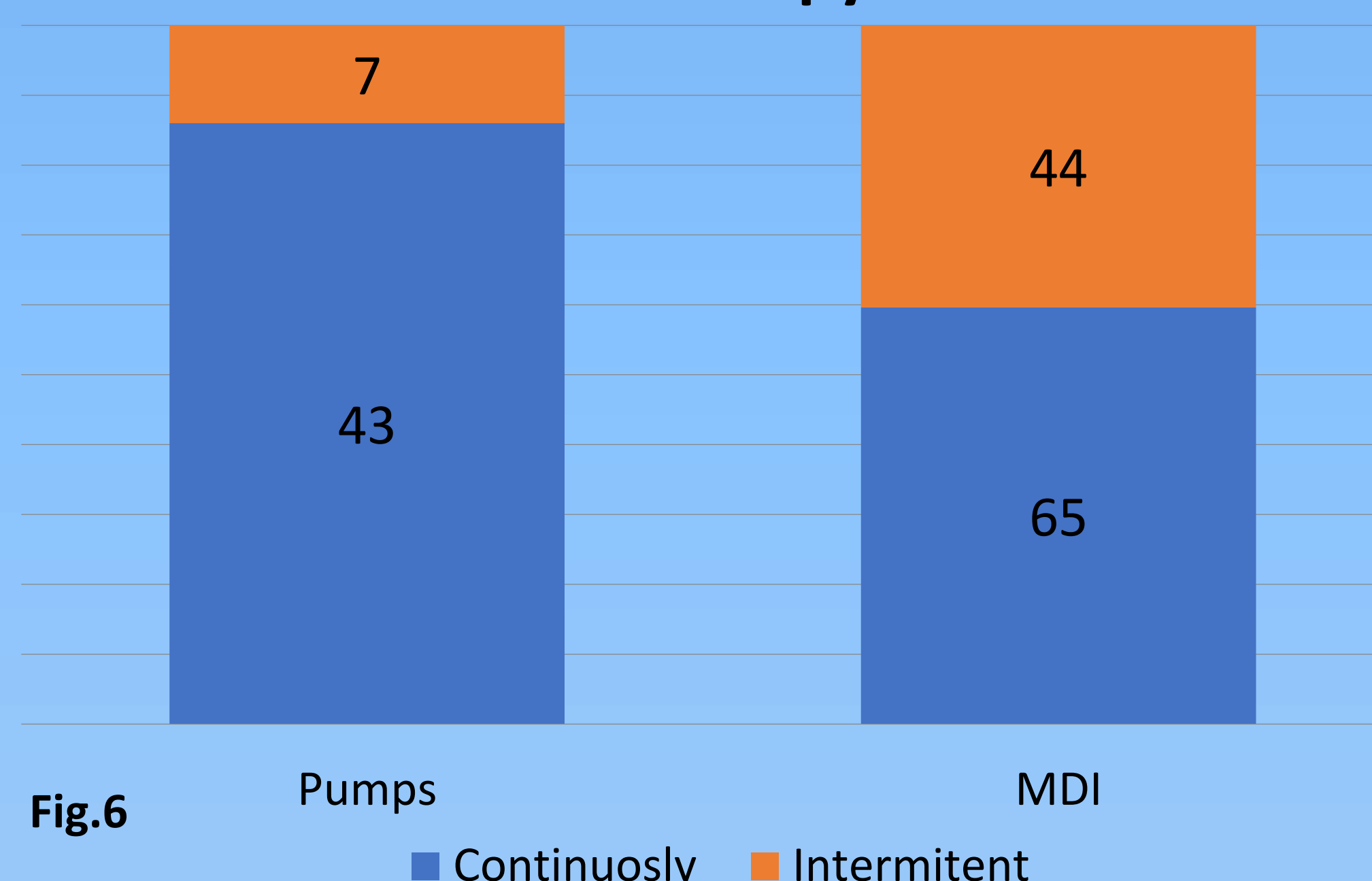
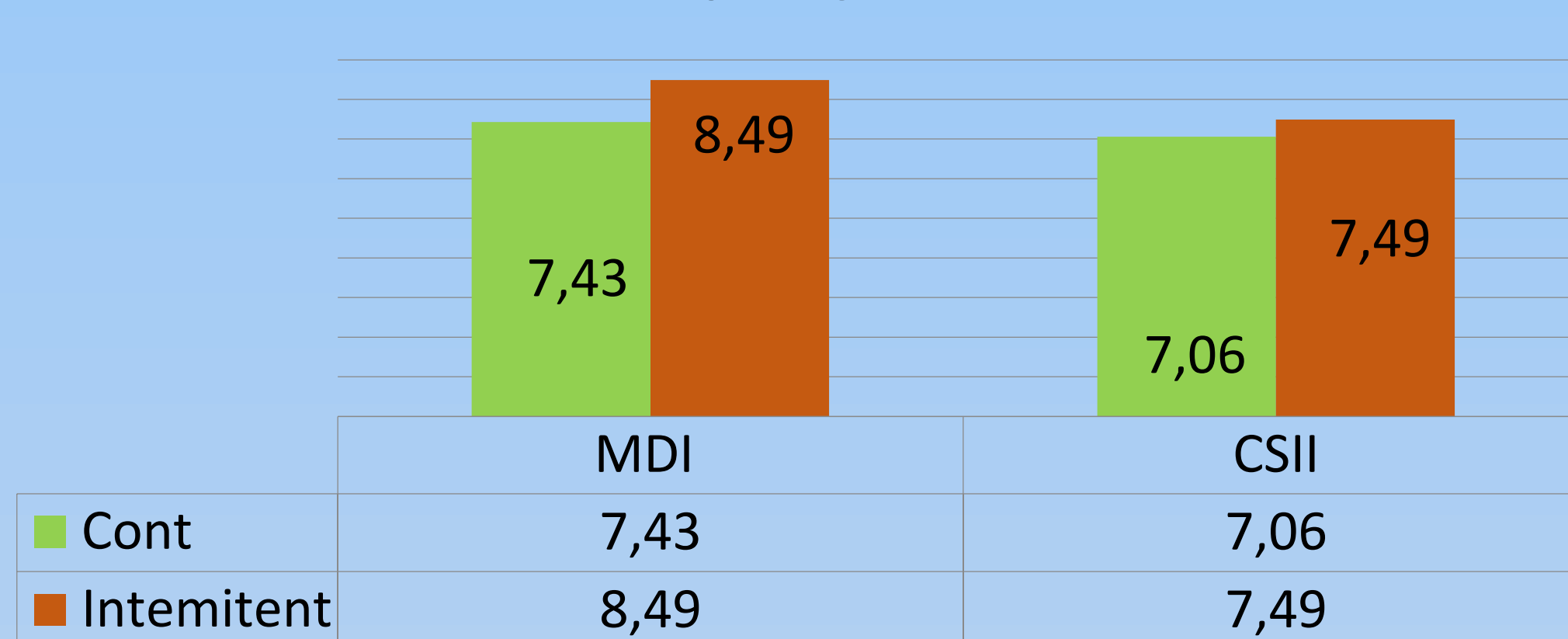


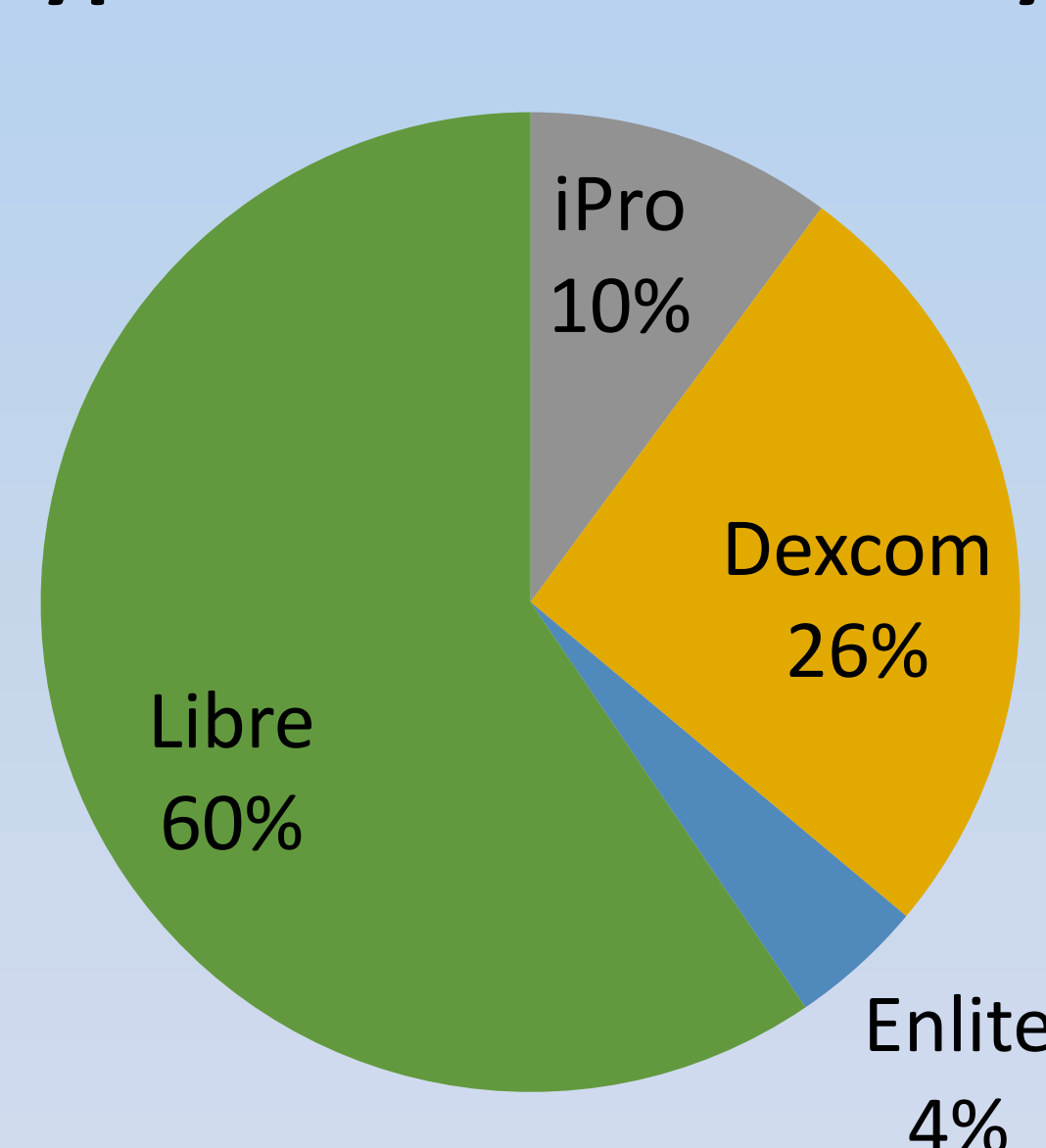
Fig.6

Fig.7

HbA1c



Types of used sensors by company



Reasons to use CGM

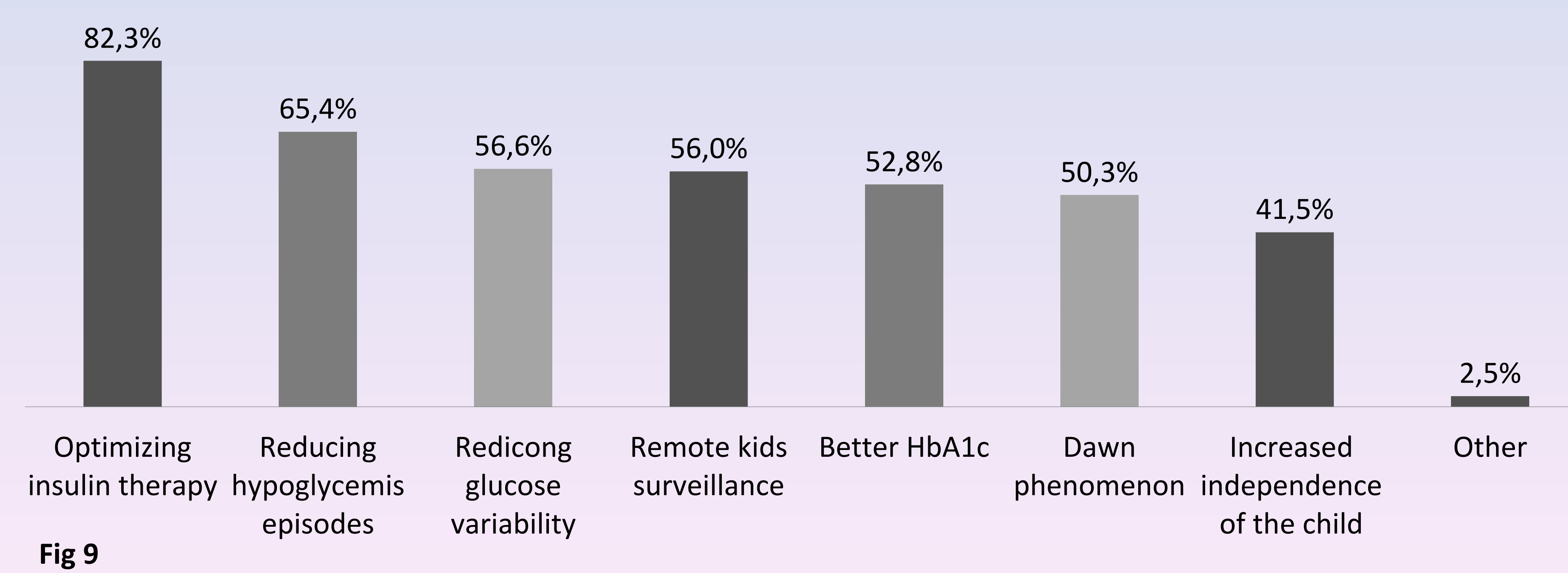


Fig 9

RESULTS:

- 354 (36%) families returned filled-in questionnaires – **fig 1, 2**
- Mean age of parents **39.4±6.9 y**
- Mean age of children **11.1±3.9 y**, 50.8% boys – **fig .3**
- Mean duration of diabetes **5.5±13.6 y**
- Type of insulin therapy - **fig . 4, 5**
- **44.9% (159)** used CGM at least once
- **108 (30.5%)** use it continuously **fig.6**
- HbA1c correlates with CGM usage consistency & type of therapy - **fig. 7**
- Frequency of sensor usage by company - **fig. 8**
- Most common reasons for usage CGMs are shown on **fig. 9**
- BGL with finger pricks - **4.3±2.6** times/day (sensor users vs. non users 3.2 vs. 4.5)
- **149 (42.1%)** measure blood ketones; **44.1%** check urine ketones; **39.3%** have never measured ketones
- **83.6%** have Glucagon prescribes by the physician
- Families receive information about CGM mostly from pediatric endocrinologists (**81.8%**) followed by internet/groups (**55.1%**) and lectures (**12.1%**).
- **82.5%** of all are discussing innovations and new technologies in T1DM with the pediatric endocrinologist;
- Only **26.8%** of families get support from a psychologist