

BACKGROUND

- Single Maintenance and Reliever Therapy (SMART) refers to the use of a single inhaler that contains a combination inhaled corticosteroid (ICS) and formoterol, a long-acting beta-agonist (LABA) for both maintenance and rescue.
- Used in step 3 (moderate asthma) and step 4 (severe asthma).
- Budesonide and formoterol, BUD/FORM (Symbicort™) is the only inhaler with data to support its use for SMART.
- Mometasone and formoterol, MOM/FORM (Dulera™), however, is utilized by some as well.
- A meta-analysis on the use of SMART in patients aged 12 or older or children 4-11 years showed a lower risk of asthma exacerbations as compared to conventional therapy for patients with persistent asthma.
- Some providers do not follow or are unaware of this recommendation.
- The use of SMART may be underutilized with the dosing differing amongst providers.

PURPOSE

To understand how, if at all, providers utilize SMART in patients with asthma

METHODS

- The survey was piloted at SSM Health Cardinal Glennon Children’s Hospital in St. Louis, MO. For the purposes of this project, it was refined to assess providers on a national level and the questions were adjusted to include patients of all ages.
- Survey includes 38 questions. It assesses providers on how (dose, number of puffs, frequency etc.) they prescribe SMART for chronic and acute asthma in different age groups .
- Prior to distribution, the survey was reviewed by pulmonary pharmacists.
- Social media platforms such as X™ (formerly Twitter), Facebook™, and LinkedIn™ were utilized for distribution. Additionally, the survey was emailed out to pharmacists on certain Pediatric Pharmacy Association listservs to complete or share with their providers.

RESULTS

Table 1: Provider demographics

Provider status (n=55)	Patient population (n=50)	Asthma Educator Certification (n=39)	Hours per week spent working with asthma (n=39)
MD	Pediatrics 26 (52%)	Yes 2 (5.1%)	<5 15 (38.5%)
DO	Adults 19 (38%)	No 37 (94.9%)	5-10 13 (33.3%)
PA-C	Family 5 (10%)		11-20 7 (17.9%)
NP	Other (urgent care) 1 (2%)		>20 4 (10.3%)
PharmD			

Figure 1: Age at which SMART is prescribed (n=39)

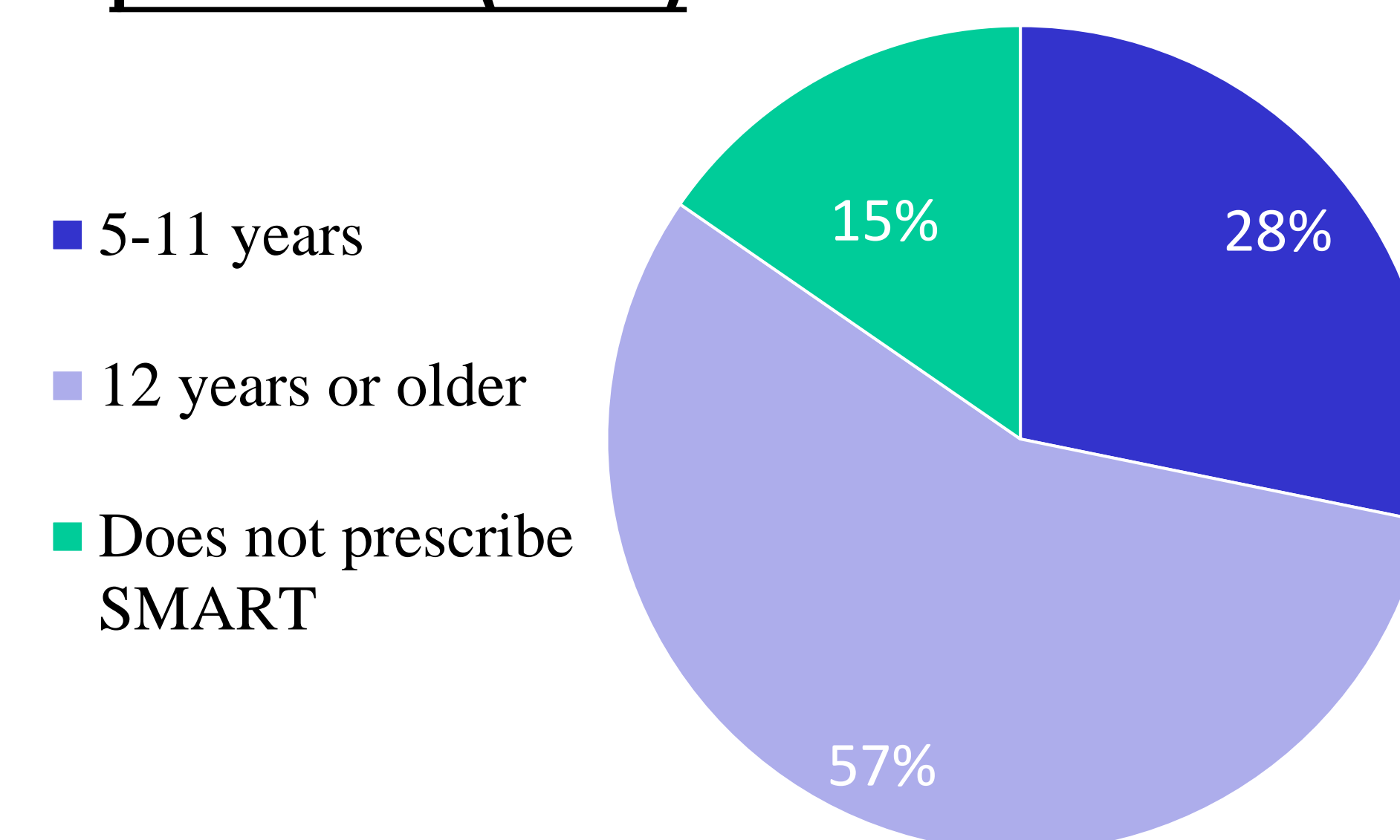


Figure 2: Use of MOM/FORM for SMART (n=12)

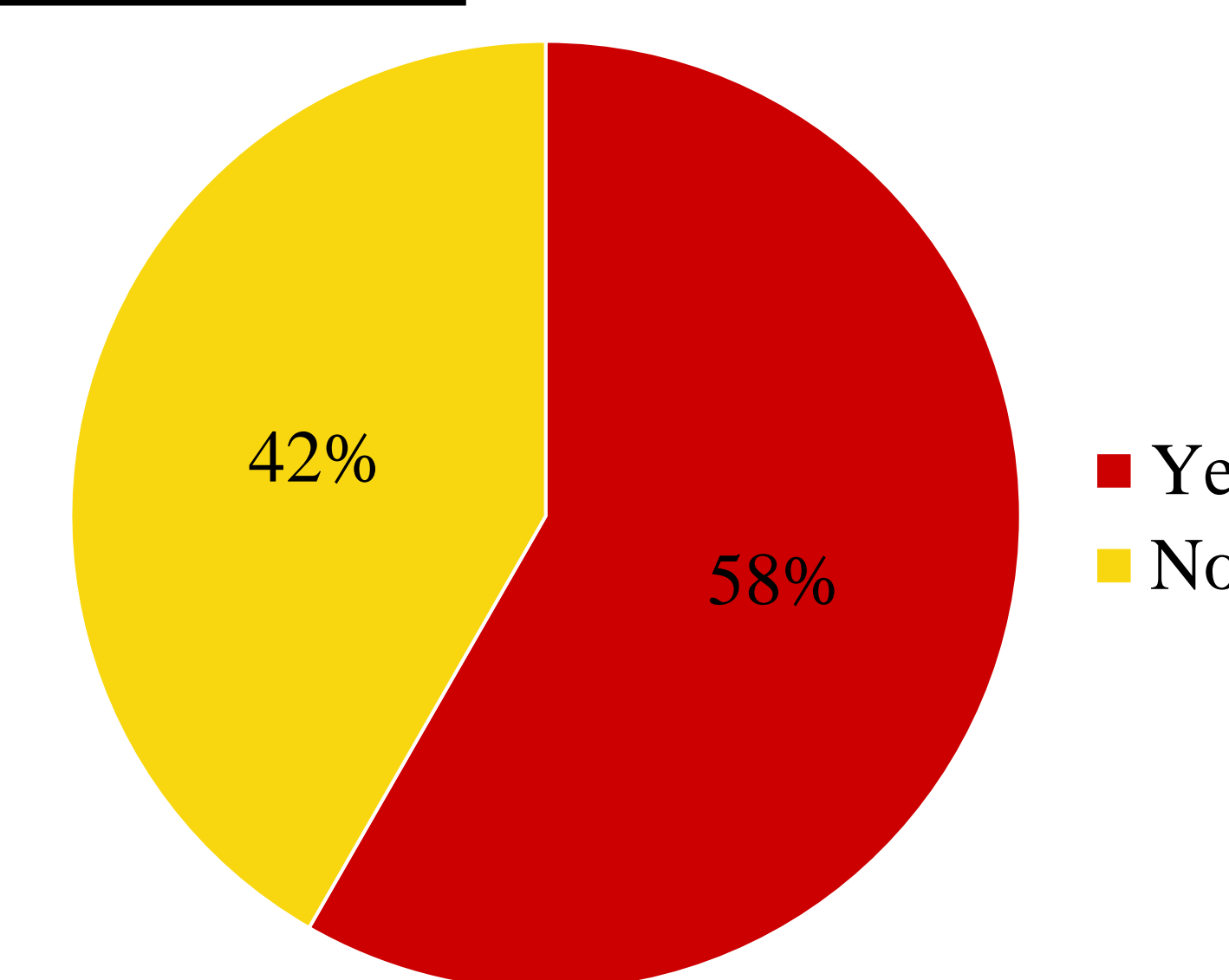


Table 2: How SMART with BUD/FORM is prescribed chronically in patients 5-11 years

	Dose	Number of puffs	Frequency
Step 3 - Moderate asthma (n=3)	80 mcg	2	BID
Step 4 - Severe asthma (n=3)	160 mcg	2	BID

Table 3: How SMART with BUD/FORM is prescribed chronically in patients ≥ 12 years

	Dose	Number of puffs	Frequency
Step 3 - Moderate asthma	80 mcg (n=12)	1 n=1, (8.3%)	QD n=1, (8.3%)
		2 n=11, (91.7%)	BID n=11, (91.7%)
Step 4 - Severe asthma	160 mcg (n=11)	1 n=1, (9.1%)	QD n=1, (9.1%)
		2 n=10, (90.9%)	BID n=10, (90.9%)
Step 4 - Severe asthma	160 mcg (n=12)	1 n=1, (8.3%)	QD n=1, (8.3%)
		2 n=11, (91.7%)	BID n=11, (91.7%)

Figure 3: Quantity of rescue puffs prescribed (n=15)

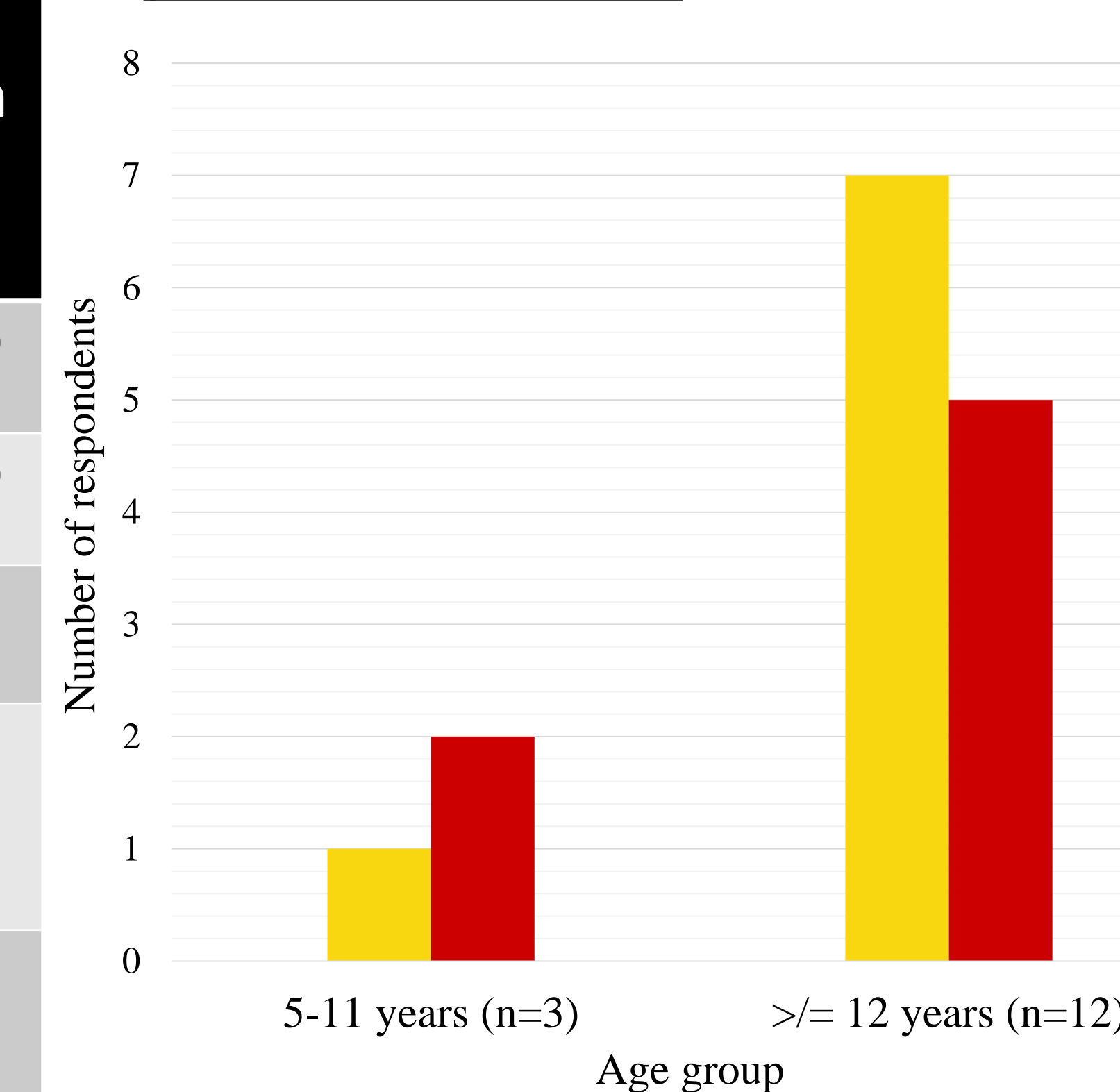


Figure 4: Frequency of rescue puffs prescribed (n=15)

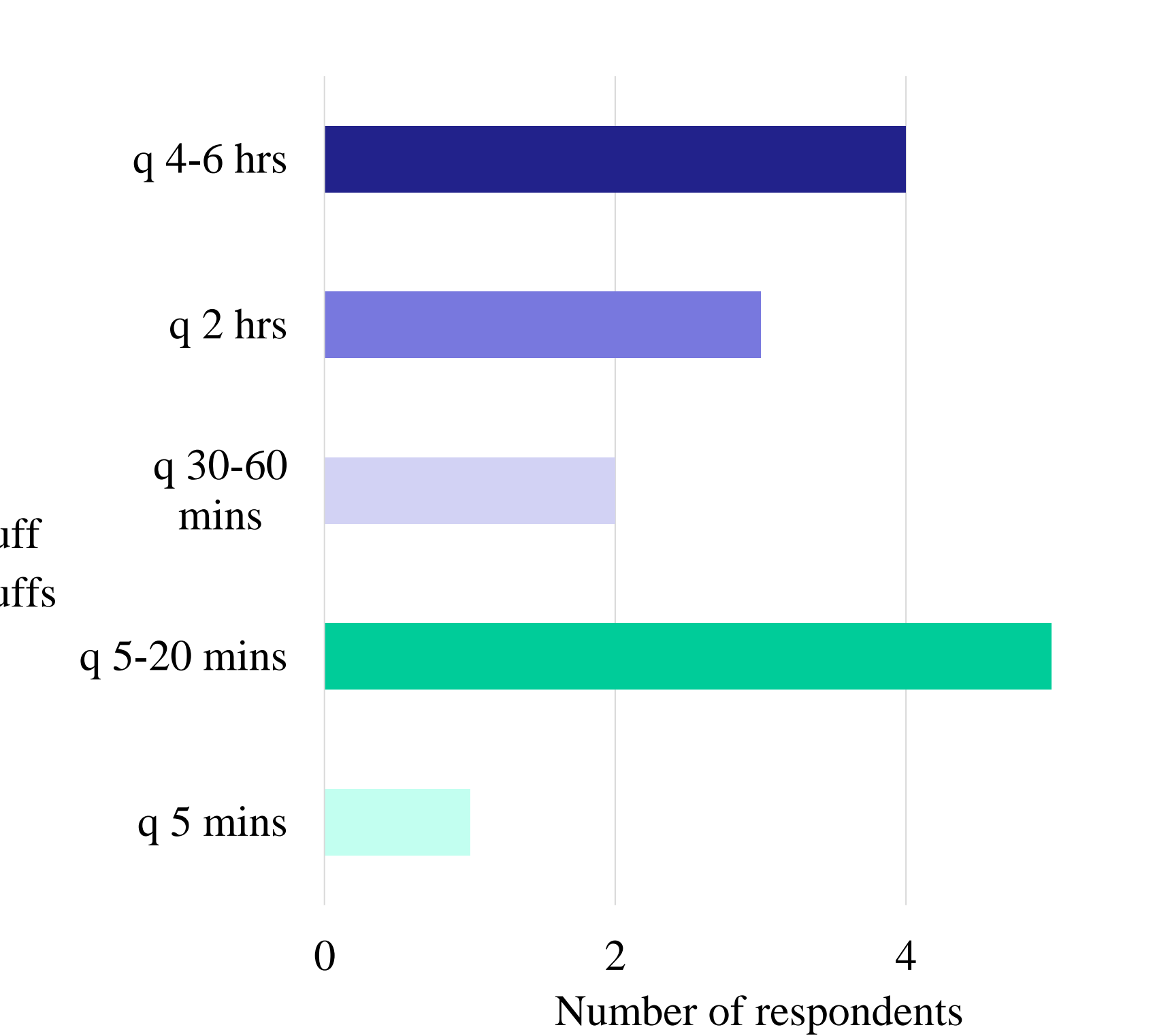
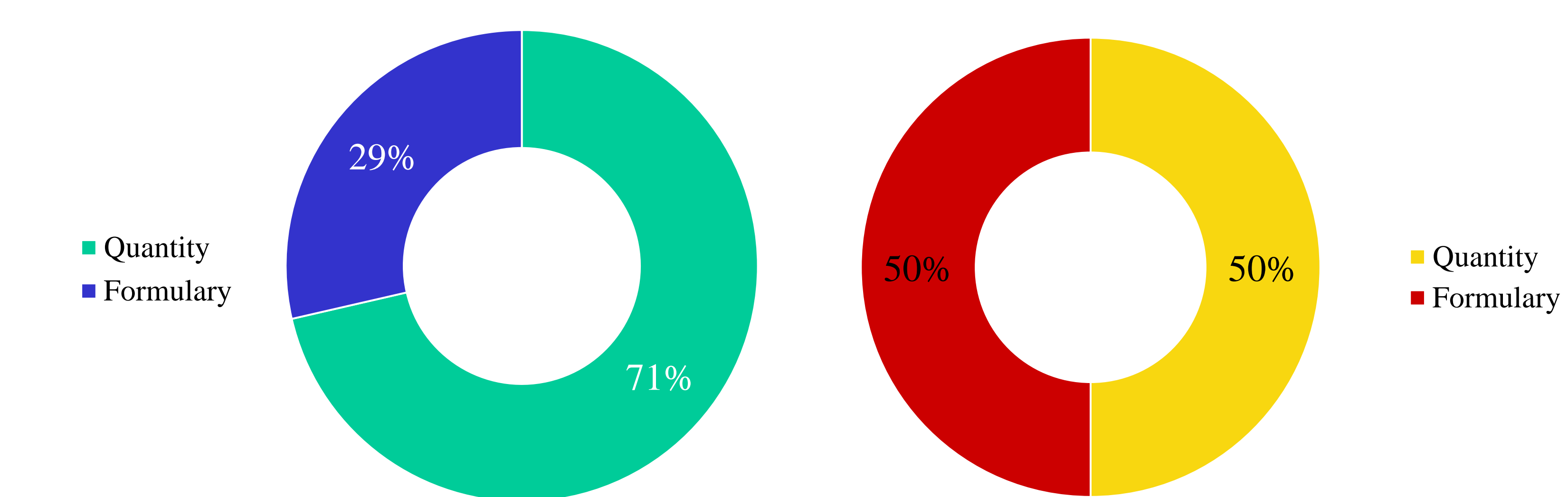


Figure 5: Insurance coverage issues

Commercial insurance (n=7)

Government insurance (n=18)



DISCUSSION

- So far, this survey shows that most providers prescribe SMART in patients 12 years and older. The most utilized dose for all age groups appears to be 160 mcg 2 puffs BID. Number of puffs appears to vary between age groups for acute dosing with the most common frequency being q5-20 mins.
- Although BUD/FORM is the only inhaler with data to support its use for SMART, providers report the use of MOM/FORM due to having the same LABA component as well as insurance preference.
- Insurance issues due to quantity of inhalers and formulary preference are common.
- Limitations include small sample size, incomplete answers, and predominantly one provider group (pharmacists).

CONCLUSION

- SMART appears to be utilized among providers with 160 mcg 2 puffs BID being the most common regimen, however more data is required to appropriately assess how it is being implemented.
- It was difficult to accurately assess the quantity and frequency of rescue puffs prescribed because the answers were very inconsistent