



BETSY LEHMAN CENTER

for Patient Safety and Medical Error Reduction

Surveys of Massachusetts cataract surgeons and surgical facilities on anesthesia practices

Summary of results

May 2016

Overview

- Betsy Lehman Center conducted 2 online surveys in early 2016 in partnership with professional associations
 - **“Surgeon survey:”** Massachusetts Society of Eye Physicians and Surgeons (MSEPS)
 - **“Facility survey:”** Massachusetts Association of Ambulatory Surgical Centers (MAASC), and Massachusetts Hospital Association (MHA)

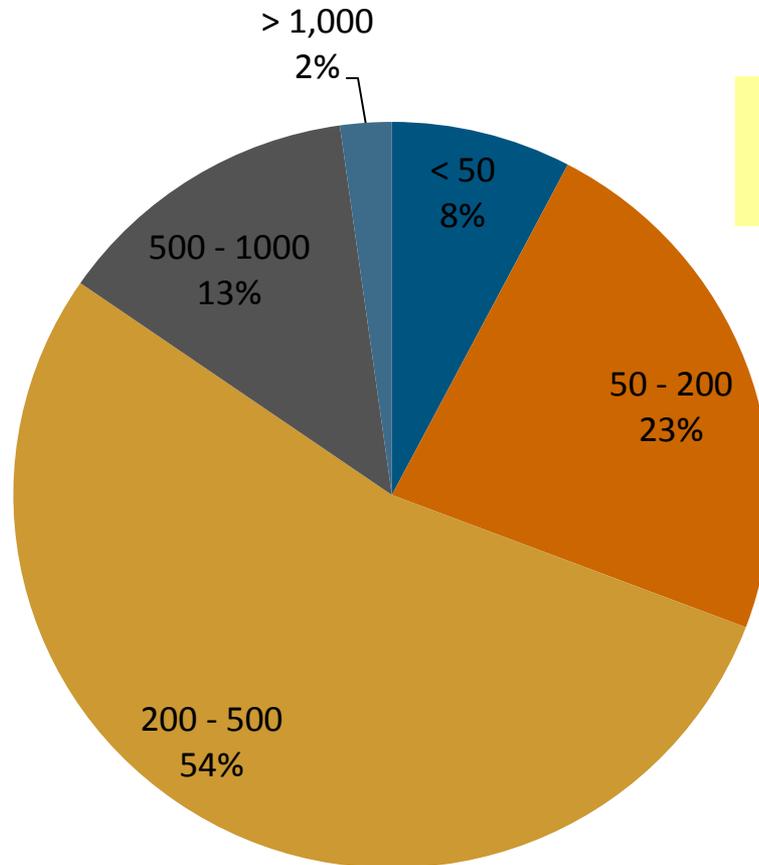
Important limitation: Survey responses are not necessarily representative of practices by all surgeons and facilities performing cataract surgeries in Massachusetts

Surgeon survey

- Survey open from Jan 25 – Feb 22, 2016
- 91 complete responses available for analysis (111 total responses)
- Response rate among cataract surgeons >32%

Note: Survey was provided to ~280 ophthalmologist members of MSEPS. 9 responses from ophthalmologists who do not practice cataract surgery and 11 partial responses were excluded from the results that follow.

“How many cataract surgeries do you perform in a year?”



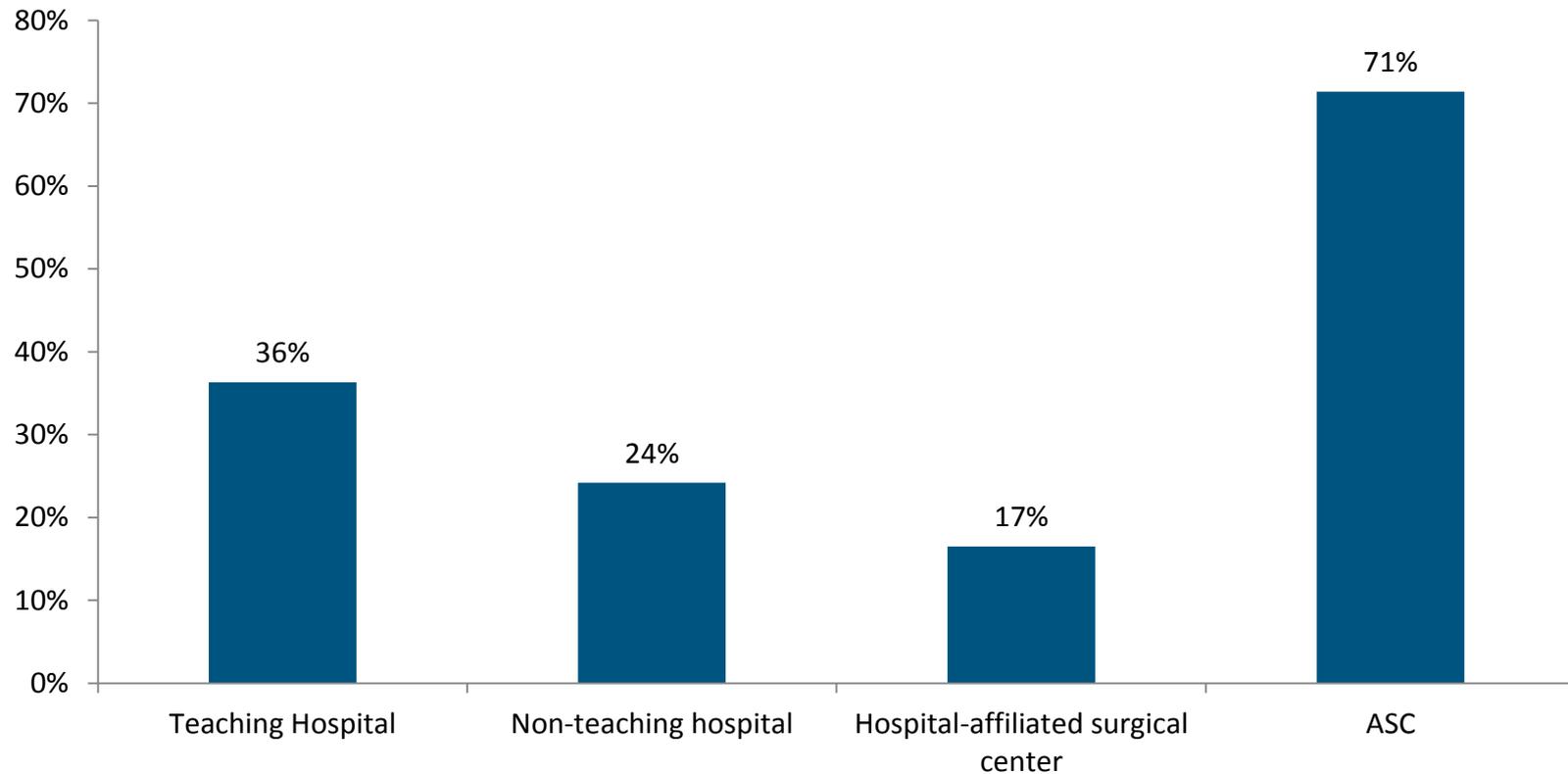
Respondents performed ~30k surgeries (~50% of MA cataract surgeries in 2015)

N=91

Source: BLC/MSEPS surgeon survey

“Where do you operate?”

% of respondents



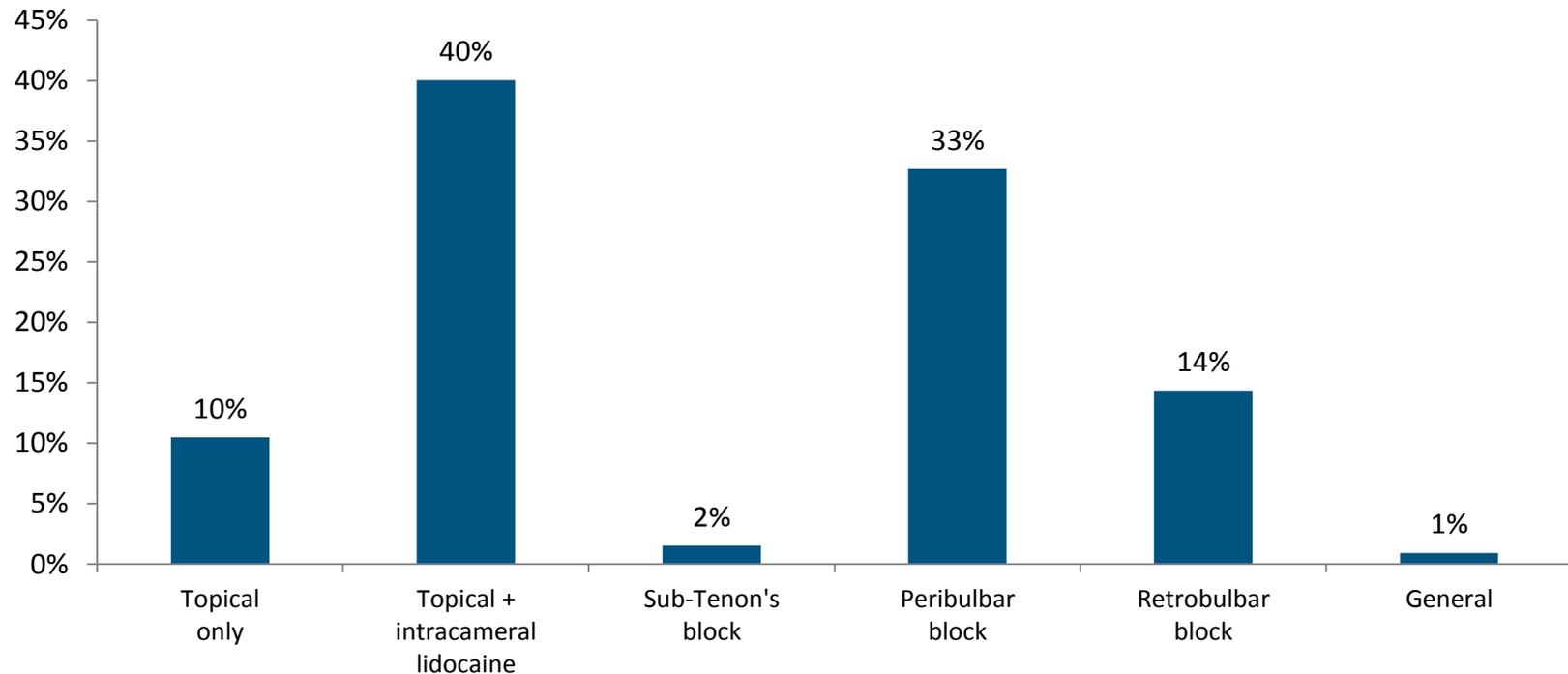
Source: BLC/MSEPS surgeon survey

Note: Respondents had the option of choosing multiple facility types.

ASC, ambulatory surgery center

Choice of anesthesia: Current utilization

% of cataract procedures



Nerve blocks are used in nearly half of cataract surgeries performed by surgeon survey respondents

Source: BLC/MSEPS surgeon survey

Choice of anesthesia: Influencing factors

	Efficiency	Patient preference	Safety (lower-risk)	Best for long/complex case	Common practice at facility	Other
Retrobulbar block	5	0	5	18	3	8
Peribulbar block	7	7	17	22	10	7
Sub-Tenon's block	0	2	11	5	0	9
Topical only	3	5	14	0	0	5
Topical+ IC lidocaine	16	10	22	1	2	9
General anesthesia	0	7	5	6	0	26

Surgeons using retro- and peribulbar blocks tend to feel these anesthesia types are best for long/complex cases

IC, intracameral

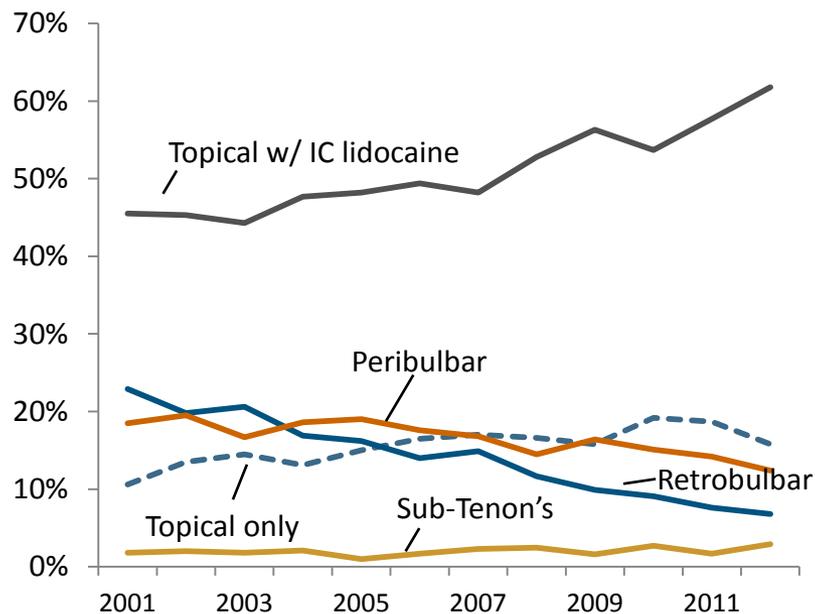
Source: BLC/MSEPS surgeon survey

Note: Highlighting denotes influencing factor for each anesthesia type chosen by largest number of respondents.

Choice of anesthesia

Preferred type (National)

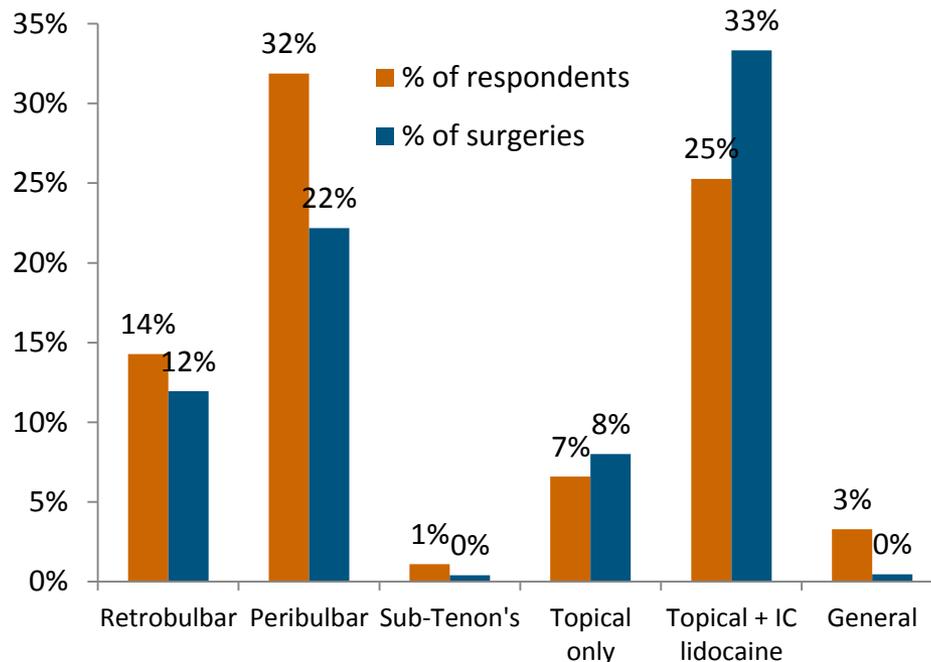
% of respondents



Source: BLC analysis of surveys of American Society of Cataract and Refractive Surgery (ASCRS) members, 2001-2012. Analez Inc.

Intensity of use (MA)

Respondents who indicated using a given anesthesia type in $\geq 75\%$ of surgeries



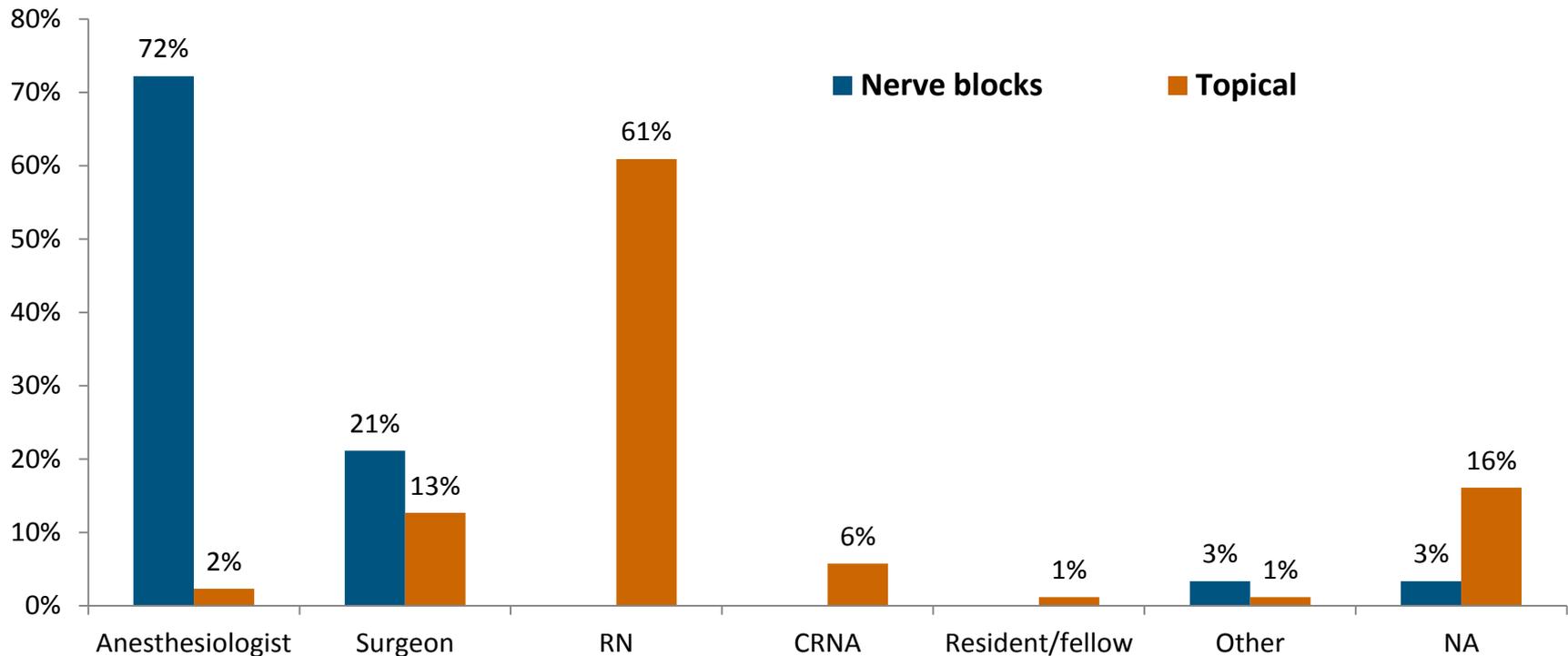
IC, intracameral

Source: Source: BLC/MSEPS surgeon survey

- In 1985, 71% of ASCRS survey respondents indicated a preference for retrobulbar nerve blocks; increasing preference for topical w/IC lidocaine and decreasing preference for retrobulbar nerve blocks at national level is consistent with MA surgeons' responses about changes in anesthesia preferences over the past 10 years
- Despite preference for topical anesthesia at the national level, nearly half of respondents use nerve blocks in most (i.e., $\geq 75\%$) of their surgeries; these surgeons perform about 38% of all cataract surgeries in MA

“Who generally administers the anesthesia?”

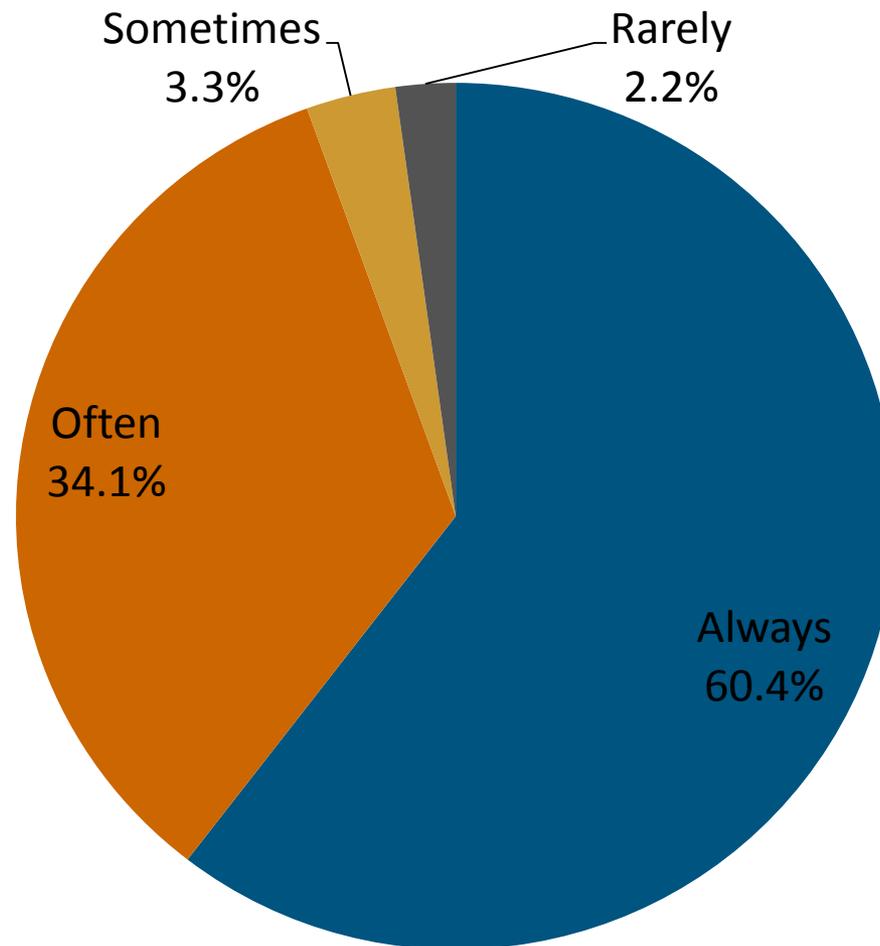
% of respondents



In procedures involving nerve block anesthesia, 21% of surgeons generally administer the nerve block themselves

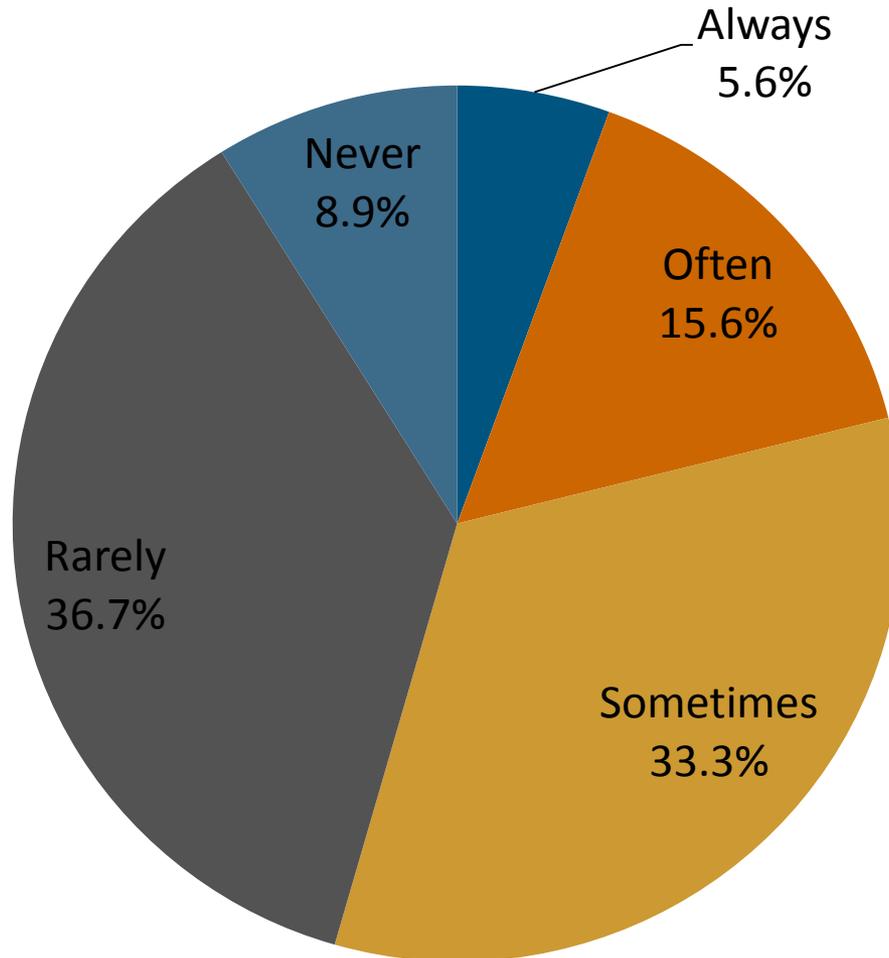
“How often do your cataract patients receive intravenous sedation?”

(% of respondents)



“How often are your patients offered a choice between types of anesthesia for their cataract procedure?”

(% of respondents)



Source: BLC/MSEPS surgeon survey

Key themes from surgeon survey comments

1. Anesthesia choice influenced by habit and facility norm

- *“Would prefer peri over retro but Anesth MD has success and habit of Retro.”*
- *“There are several older surgeons in my community who still use peribulbar block for every patient because of surgeon preference, and their patients are not given a choice of topical.”*
- *“We have had no problems with anesthesia for 25 years. Issues of adverse events are no different than 20years ago. No changes are necessary. the techniques and procedures are safe and effective.”*

Key themes from surgeon survey comments

2. Some respondents feel blocks are worth the risks, particularly in complex cases

- *“Nothing is risk free, but blocks are a rare cause of problems and prevent other problems”*
- *“Better pain control and superior immobility of the globe with peribulbar injection versus topical anesthesia outweighs the very small risk of globe perforation.”*
- *“At our ASC, the anesthesiologist who administers retrobulbar blocks on my patients is excellent with an extremely low complication rate. I used topical anesthesia for a number of years but I feel the block allows for greater patient comfort and surgeon comfort as well as less verbal anesthesia needed and the focus can be on the surgery itself.”*

Key themes from surgeon survey comments

3. Others feel topical is preferable to blocks except in complex and longer cases

- *“I strongly prefer topical w intracameral. Since I do most cataracts in under 15 minutes, it is ideal. If I was a slower surgeon, perhaps peribulbar.”*
- *“I have done topical almost exclusively since 1994 and started by doing on eye blocked and second eye topical and asking patients which they preferred; result heavily weighted toward topical.”*
- *“For routine cases, I'm doing much more topical. I have many complex cases for which I still prefer peribulbar block.”*
- *“I find that the vast majority of patients do quite well with intravenous sedation and topical/intracameral anesthesia. This eliminates the risks associated with blocks globe perforations, retrobulbar heme, neurotoxicity to extra ocular muscles resulting in diplopia, as well as the anxiety of patients related to the block. However, if I have a sense the patient is not tolerating it well, will add Sub-tenons block.”*

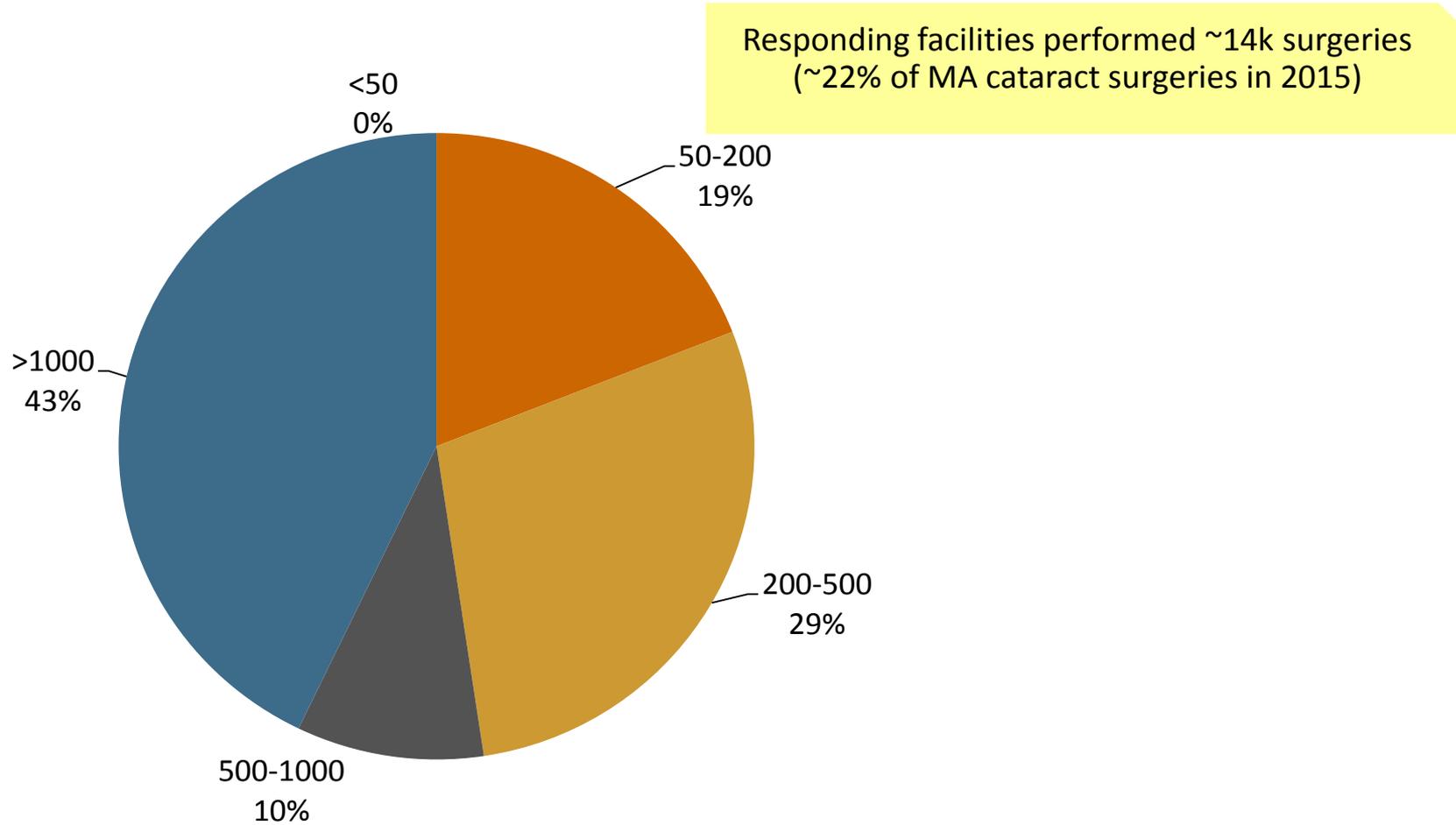
Facility survey

- Survey open from Jan 25 – March 31, 2016
- Response rate >23%
- 21 complete responses available for analysis (53 total responses)

Note: Survey was provided to MHA and MAASC members and several additional facilities. Response rate based on an estimated 90 facilities that perform cataract surgery in Massachusetts. 32 partial responses were excluded from the results that follow.

Annual number of cataract surgeries

(% of respondents)

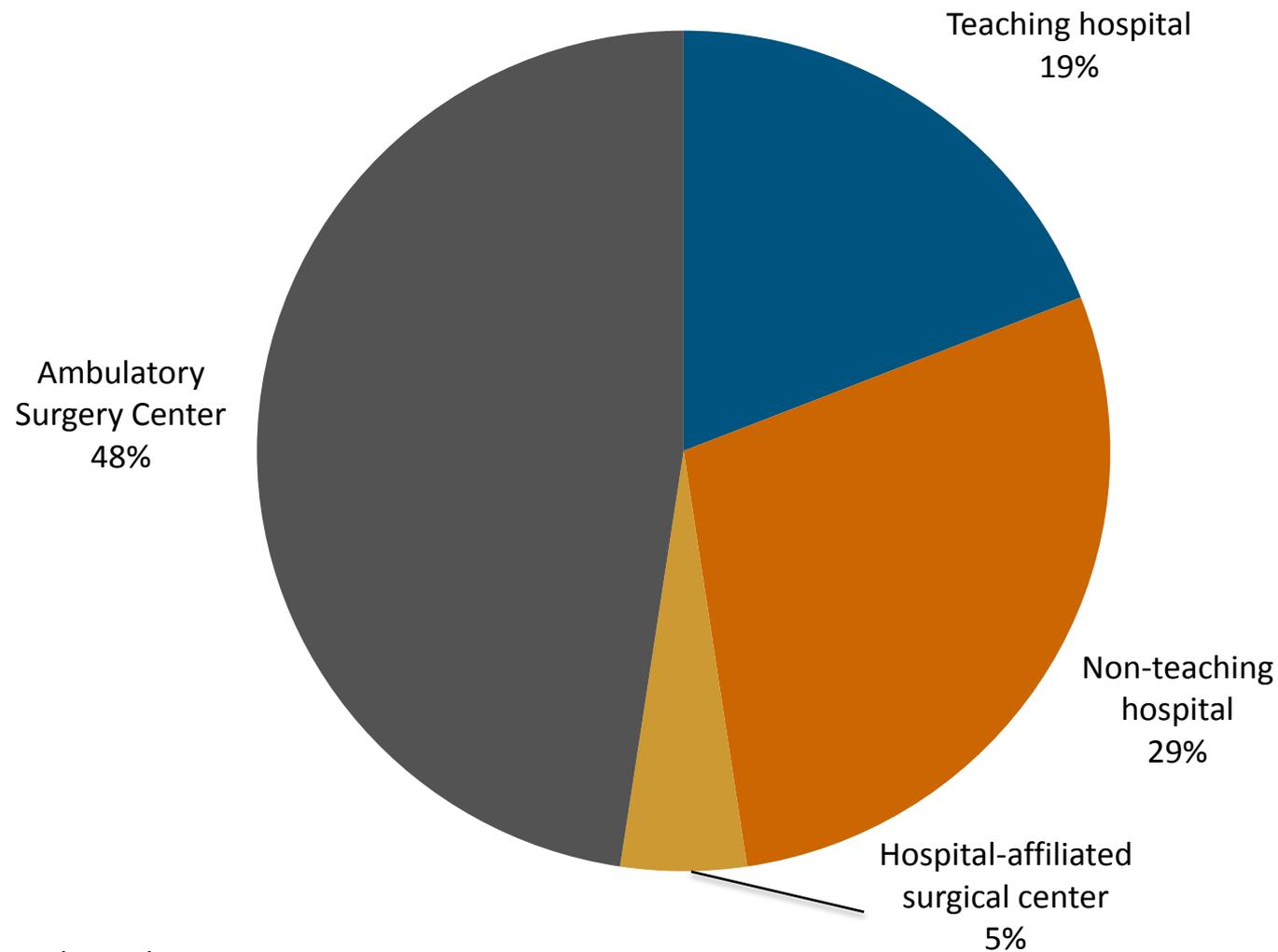


N=21

Source: BLC/MHA/MAASC facility survey

Facility type

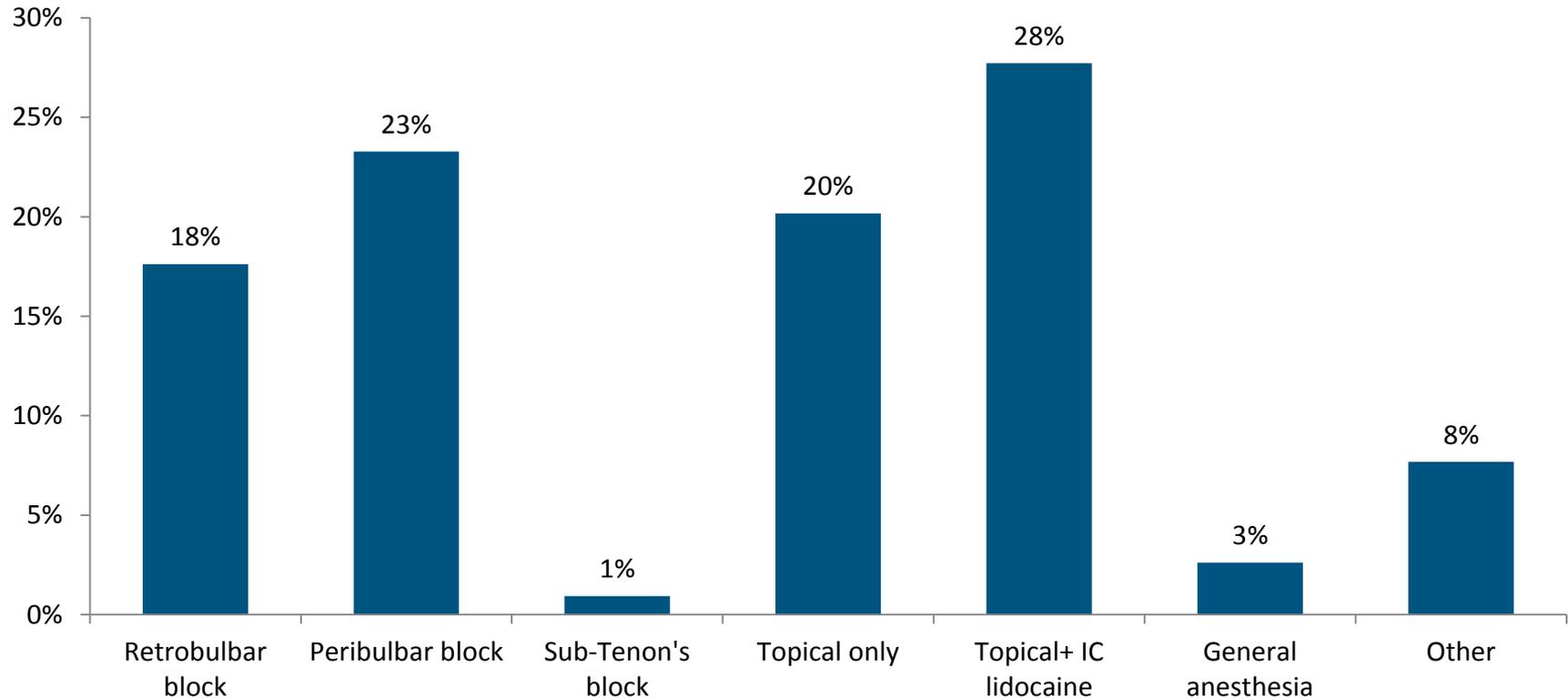
(% of respondents)



Source: BLC/MHA/MAASC facility survey

Choice of anesthesia: Current utilization

% of procedures



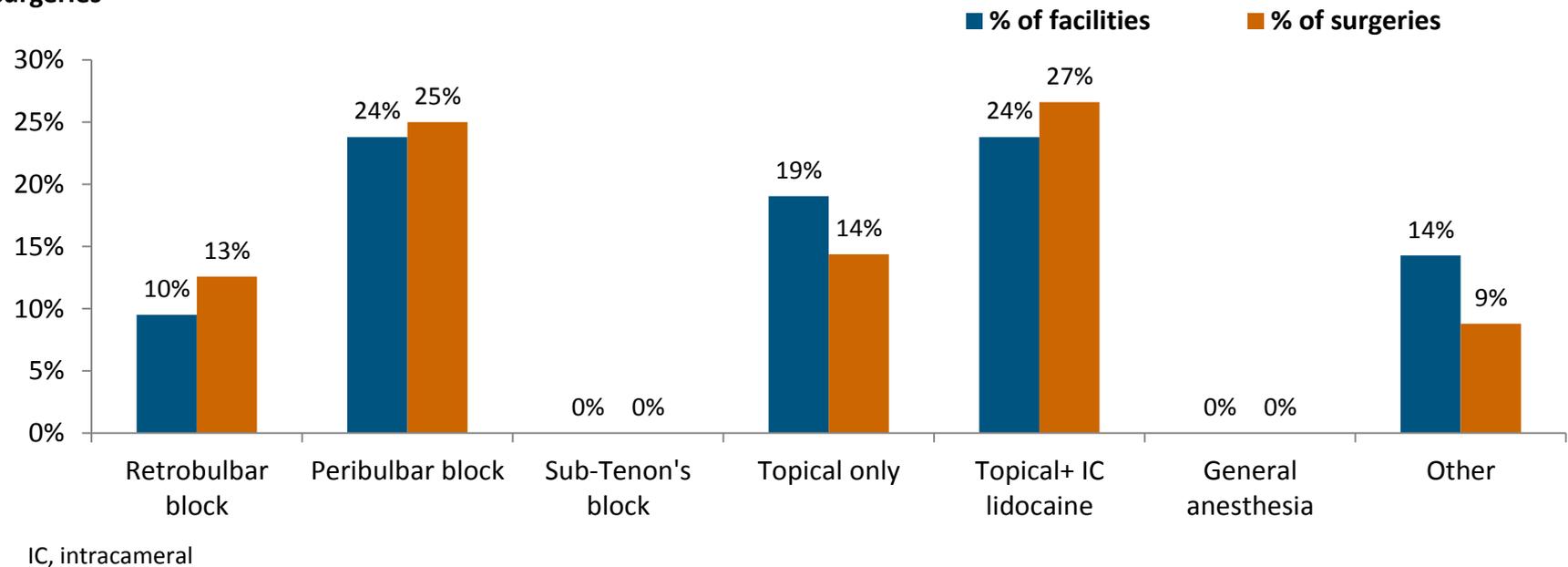
Nerve blocks are used in more than 40% of cataract surgeries performed by facility survey respondents

IC, intracameral

Source: BLC/MHA/MAASC facility survey

Intensity of use of a given anesthesia type among responding facilities

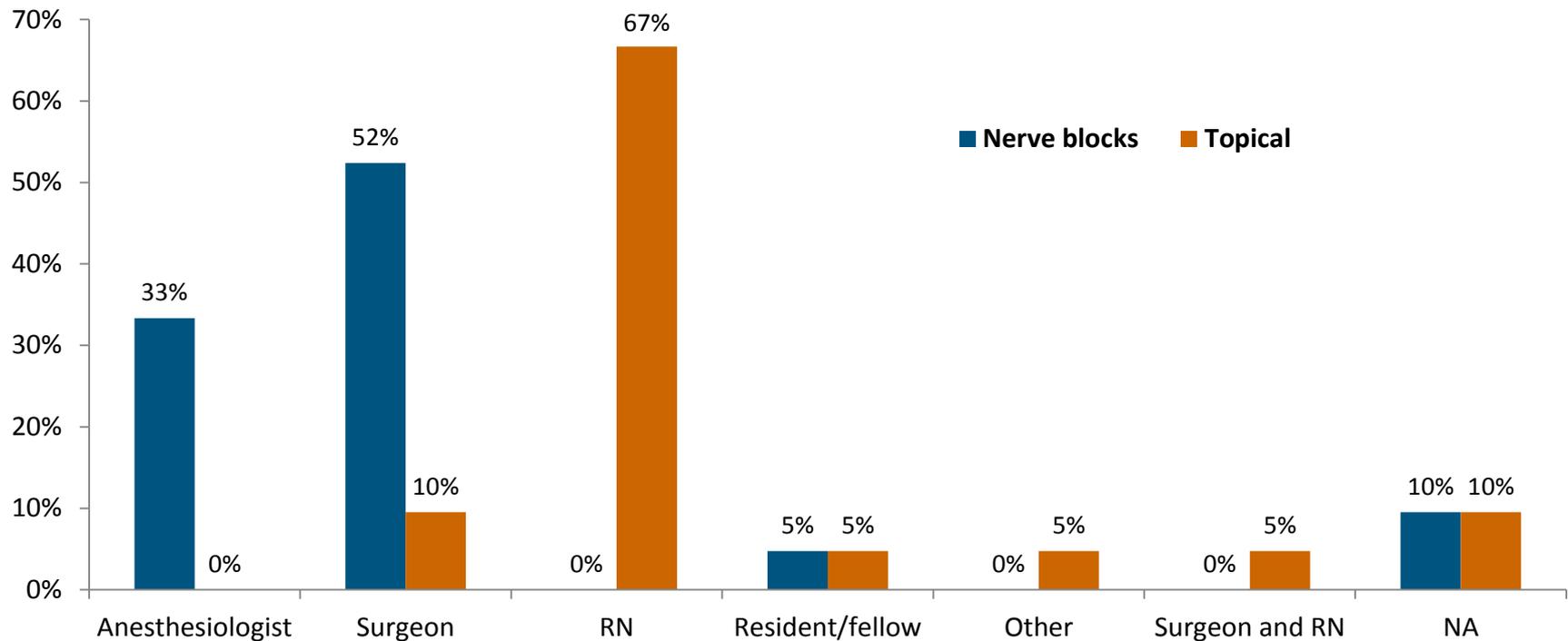
Respondents utilizing given anesthesia type in $\geq 50\%$ of surgeries



- One-third of responding facilities use nerve blocks in at least half of their surgeries, comprising nearly 40% of all surgeries performed in responding facilities
- Surgeon vs. facility surveys: Somewhat more heterogeneity in type of anesthesia used across surgeries within a given facility compared with a given surgeon: only 15% of responding facilities used nerve blocks in $\geq 75\%$ of their surgeries; surgeries involving nerve blocks in these facilities comprise about 20% of all surgeries performed in responding facilities

“Who generally administers the anesthesia?”

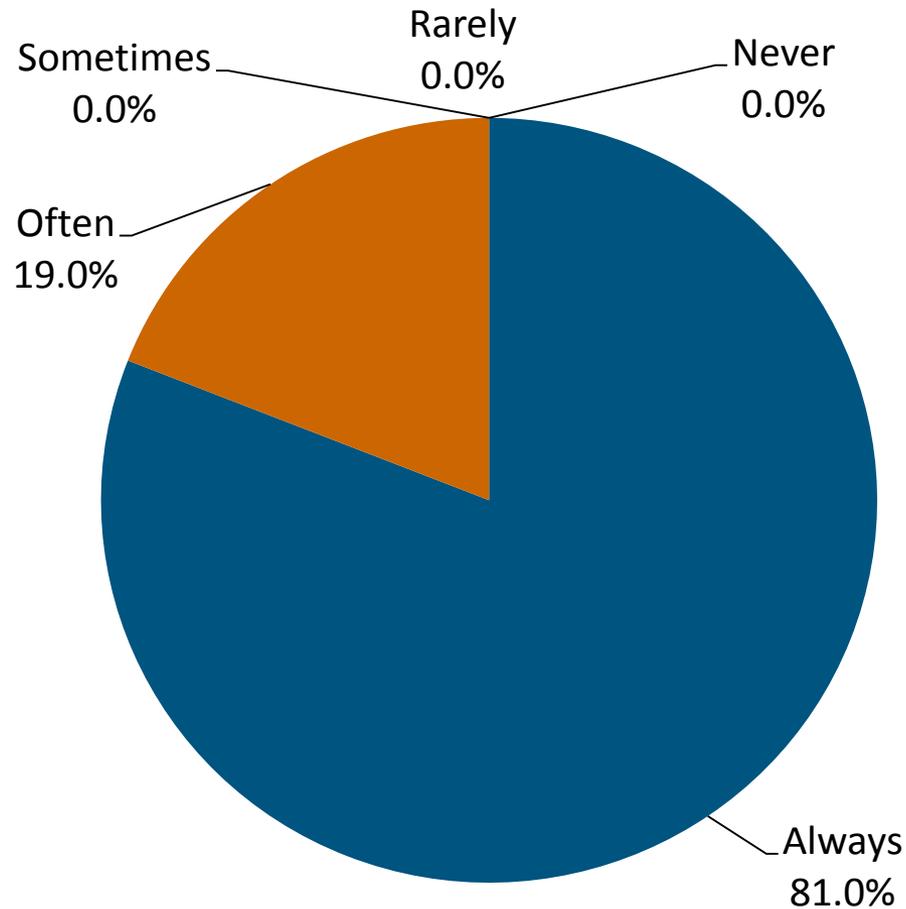
% of respondents



Contrast with surgeon survey in which 72% of respondents indicated that nerve blocks were generally administered by the anesthesiologist vs. 21% by the surgeon

“How often do cataract patients at your facility receive intravenous sedation?”

(% of respondents)



Source: BLC/MHA/MAASC facility survey