

# Access and Sourcing of Medical Devices in Portuguese Hospitals: Challenges and Opportunities

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## INTRODUCTION

Medical devices are essential tools for prevention, diagnosis, treatment and rehabilitation of various health conditions. The effective access and acquisition of medical devices in hospitals, plays a pivotal role for delivering quality patient care and achieving positive health outcomes. Medical devices (MDs) are a high-growing sector in Portugal, with great impact in healthcare. There is a lack of comprehensive data about medical devices in Portugal, making it difficult to assess their usage and availability.

## OBJECTIVES

The objectives of this study were to map the circuit of MDs in Portuguese Health Service hospitals, characterize their selection and sourcing process, identify mechanisms for cost reduction, measurement and monitoring of value, as well as identify acquisition and access key barriers.

## METHODS

### RESEARCH METHODOLOGY

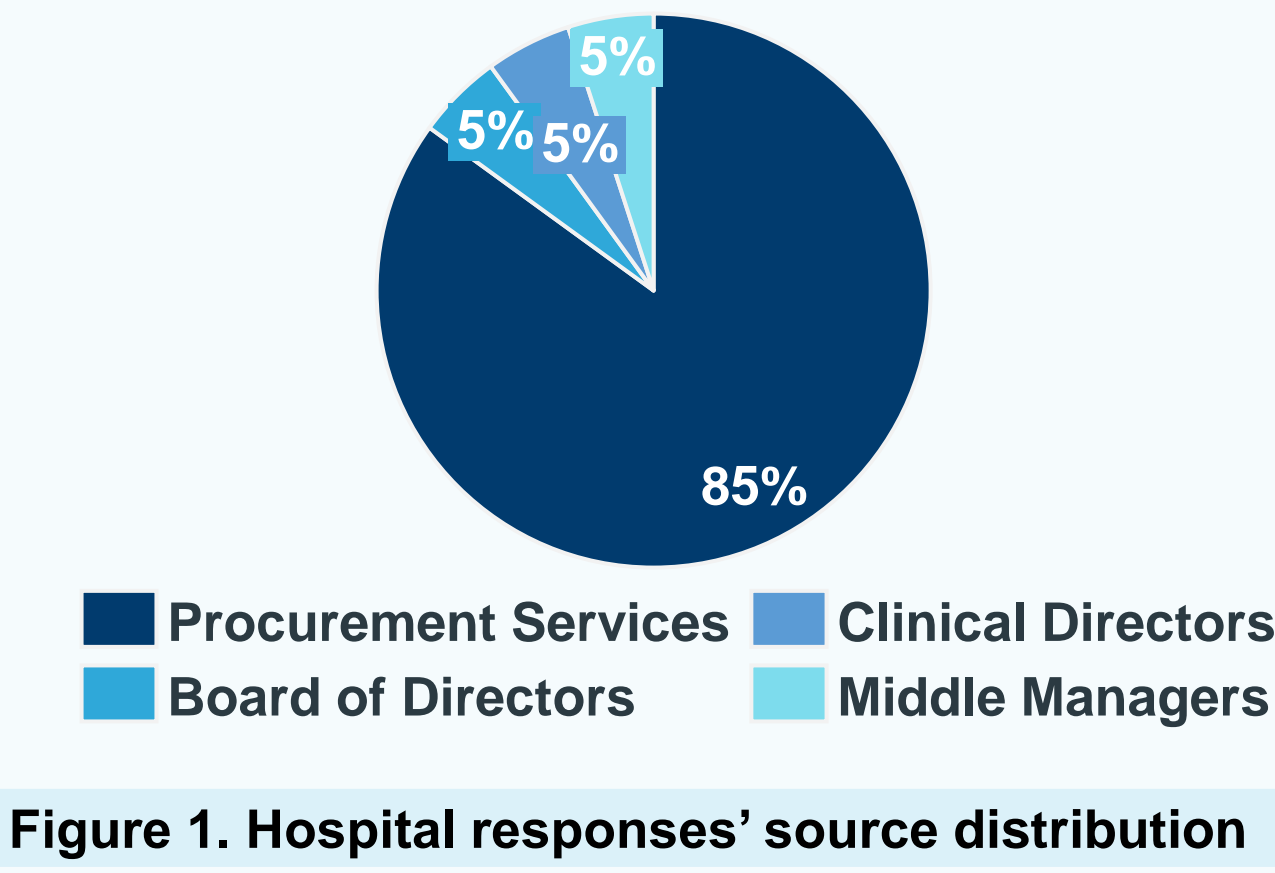
The data was collected through the application of quantitative questionnaires to Portuguese hospitals via a digital platform. Data collection took place from March 28th to May 10th, 2024, with the analysis period referencing data from 2023.

It was assessed 4 hospital services with high usage of MDs: cardiology, gastroenterology, ophthalmology and orthopedics. The statistical analysis included a set of descriptive and comparative analysis.

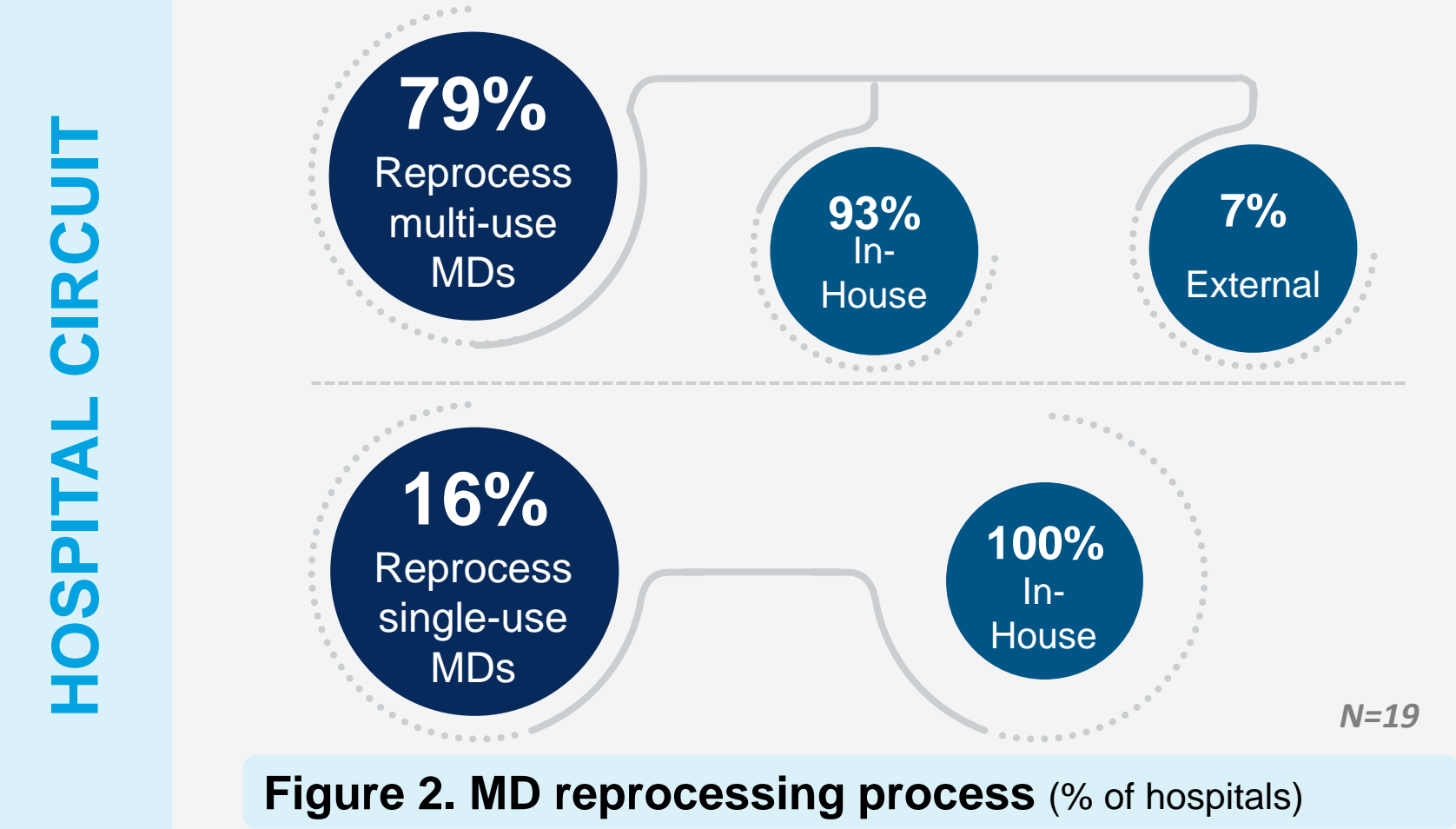
### STUDY CHARACTERIZATION

The sample consists of 22 continental Portugal hospitals, concentrated in the North and Lisbon (LVT) regions, with the questionnaires mainly answered by the procurement services. The representativeness of Portuguese NHS Hospitals in the study is 52% (22 questionnaires / 42 institutions overall).

Regarding the four groups of MDs studied, it was found that they are used in most institutions, with 95% of hospitals reporting handling MDs used in orthopedic surgery and 84% handle ocular prostheses and gastrointestinal devices, while only 54% use cardiac MDs



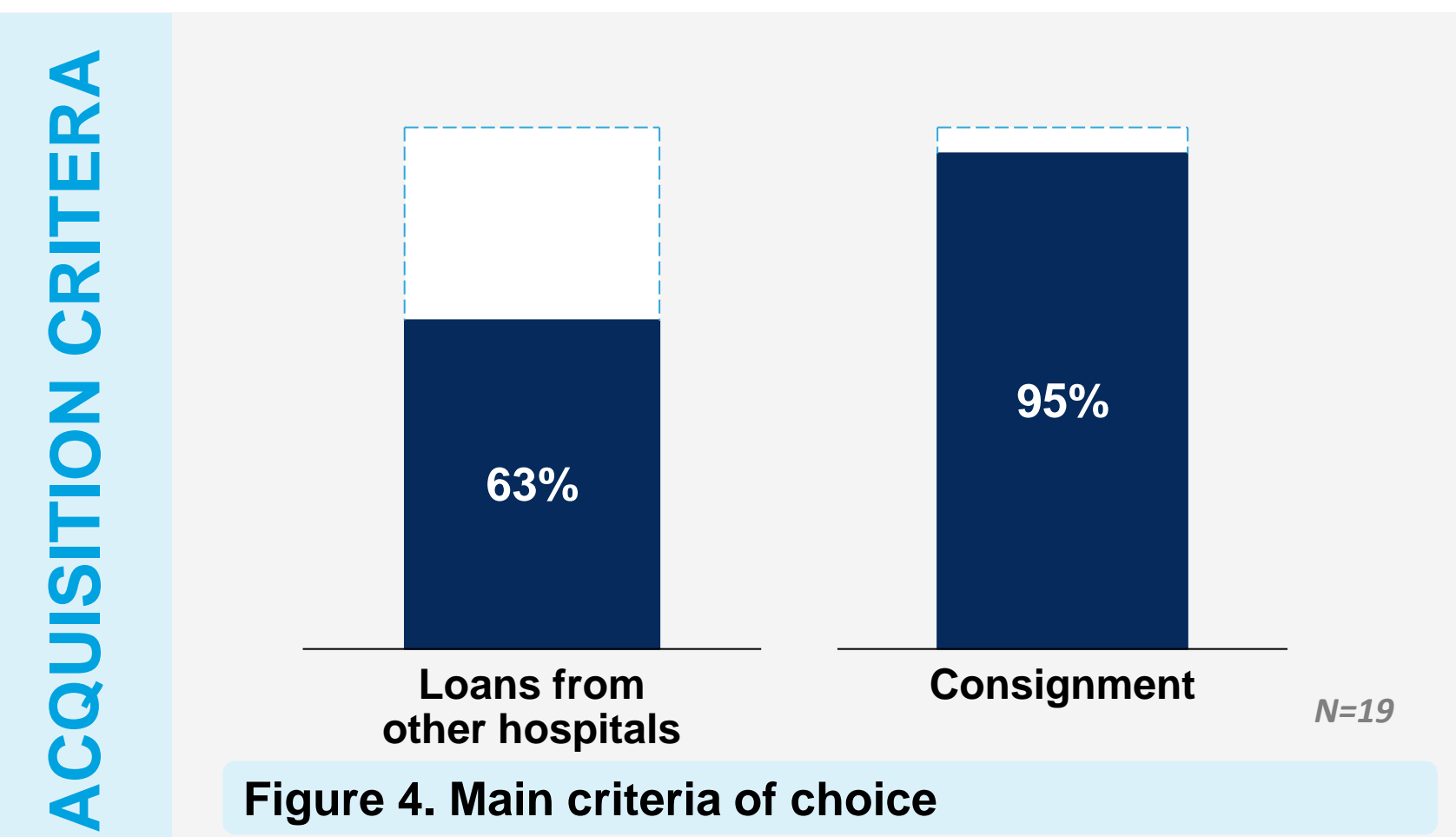
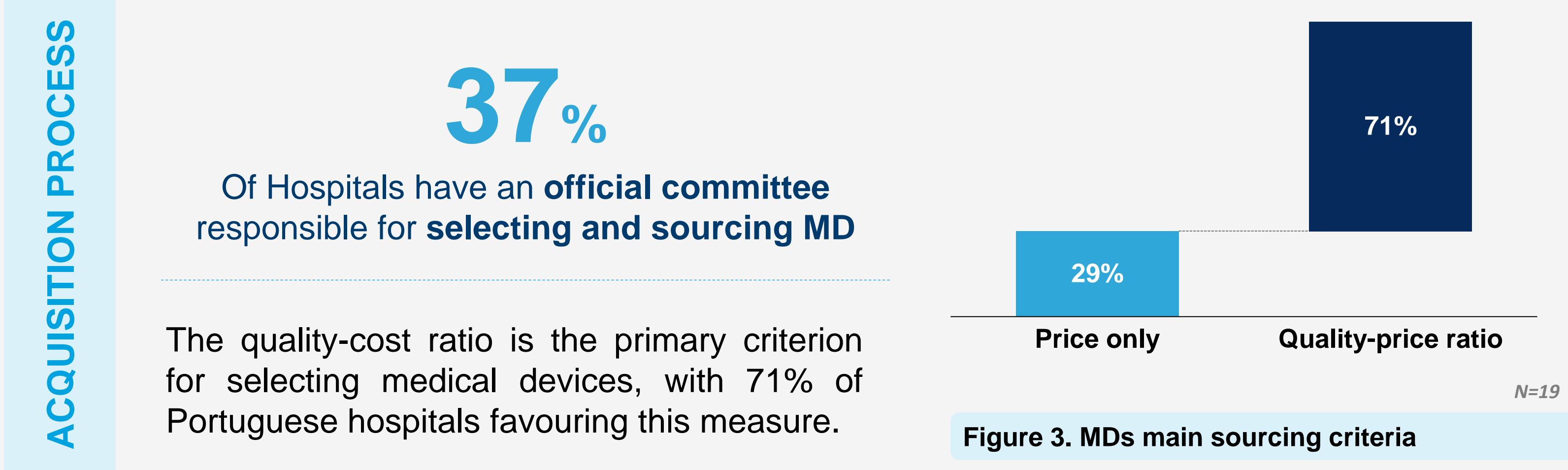
## RESULTS & DISCUSSION



Most hospitals (79%) reprocess reusable MDs, as expected.

From these, 93% are reprocessed in-house, while only 7% use subcontracted companies to perform this procedure.

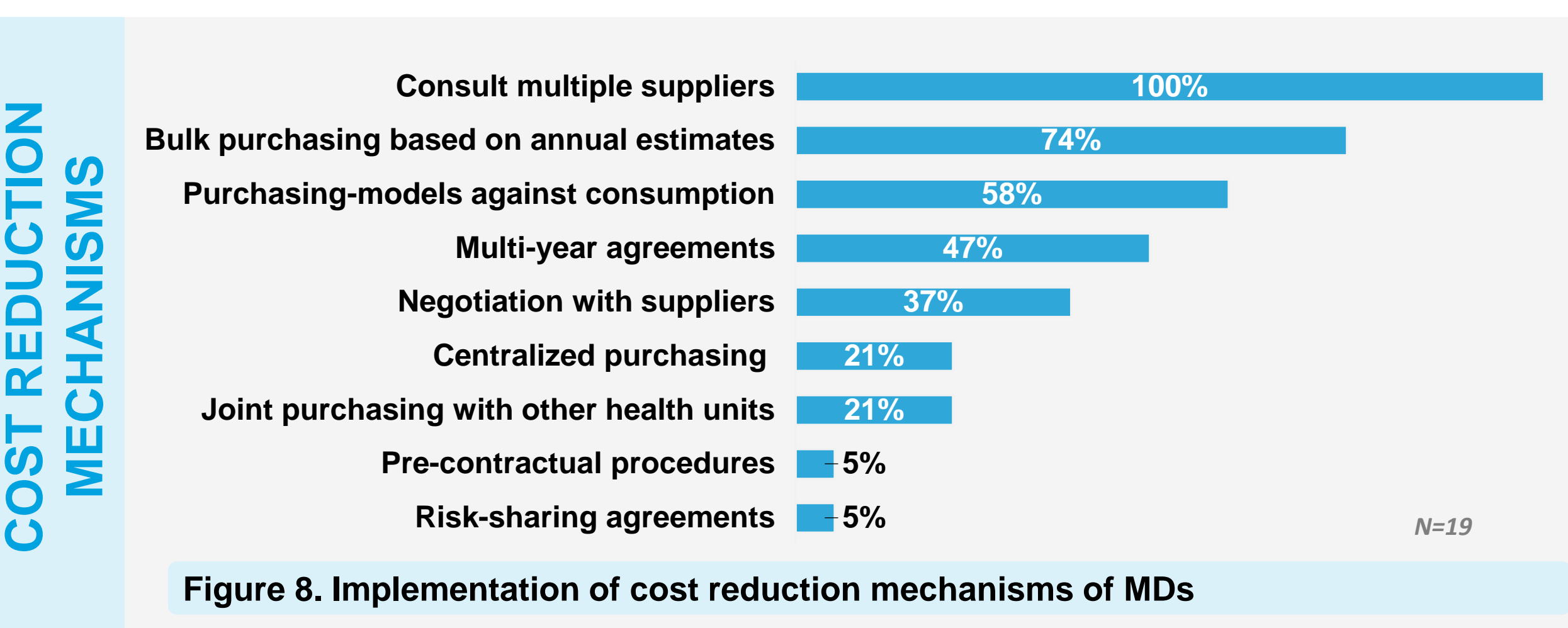
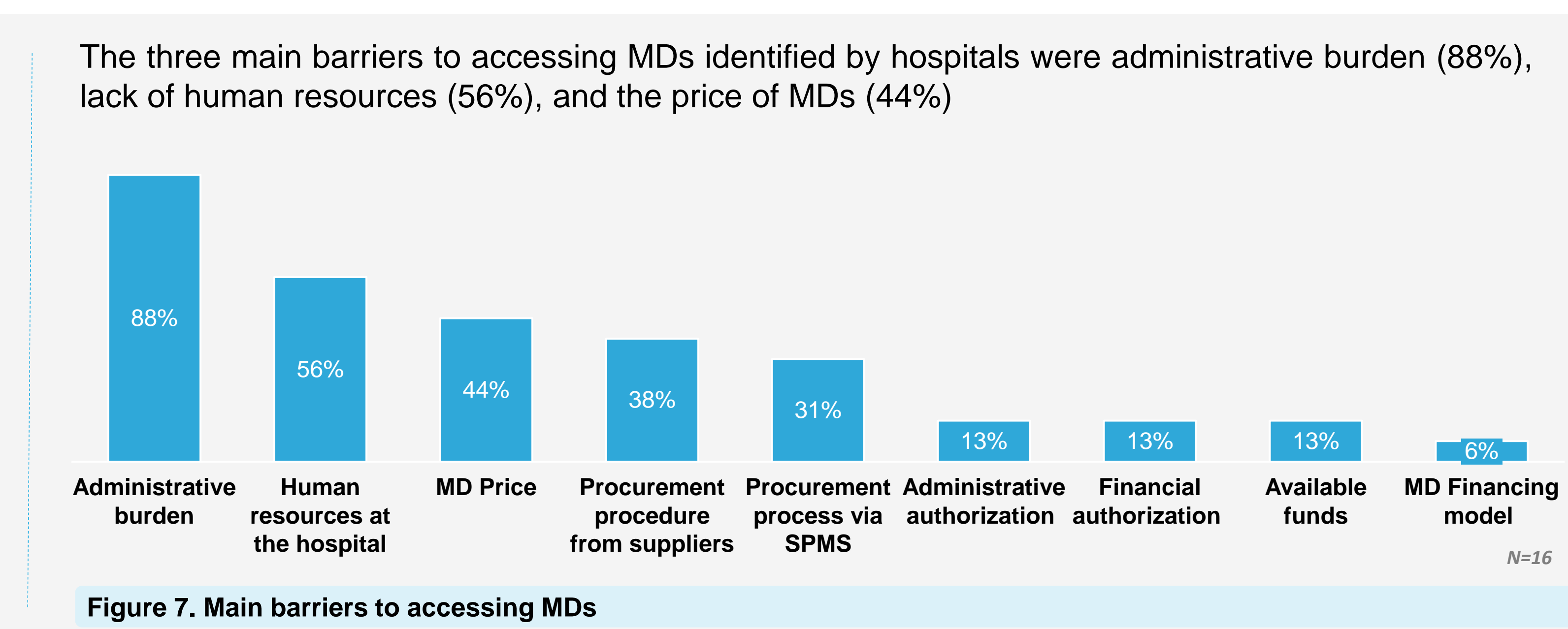
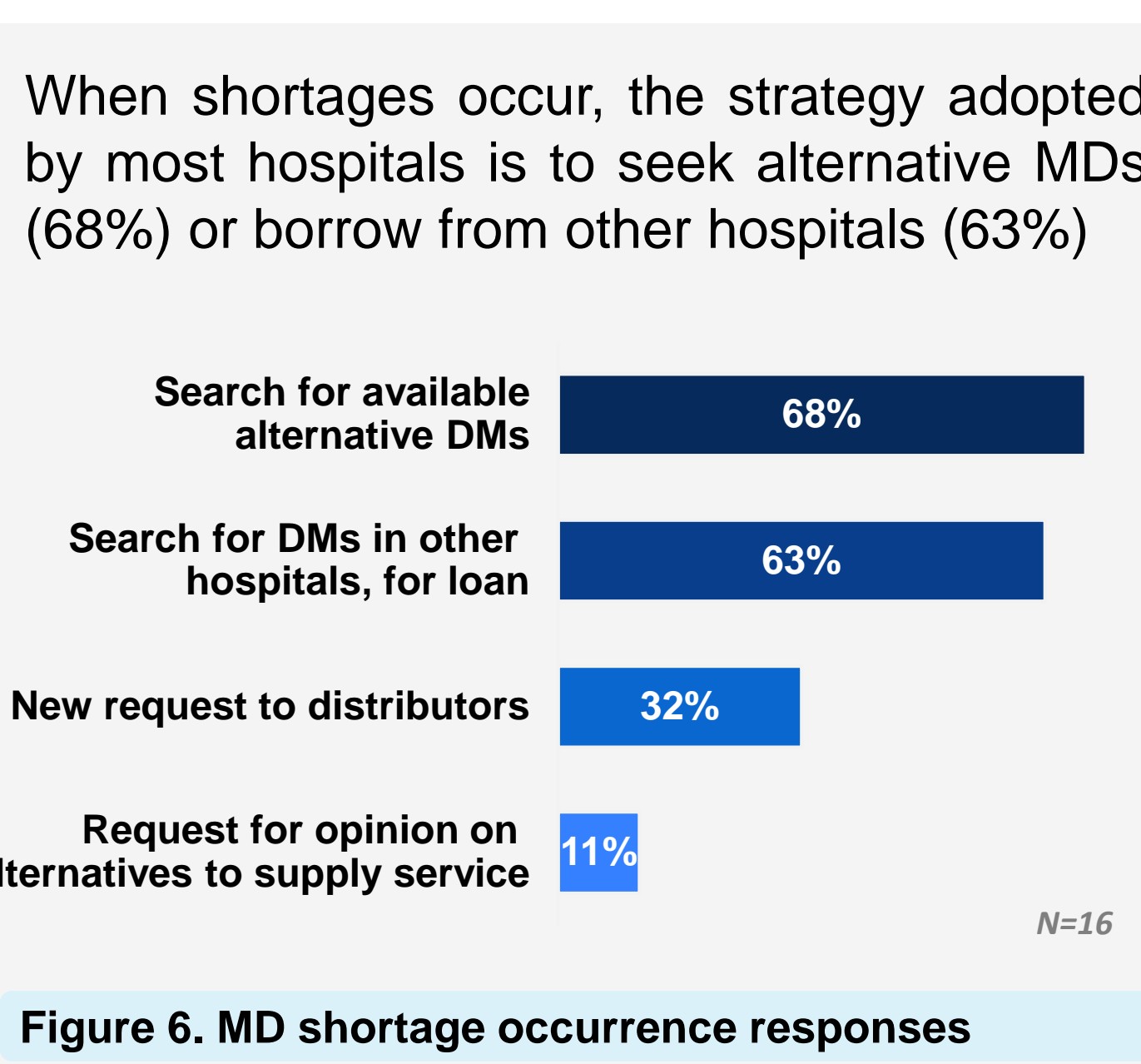
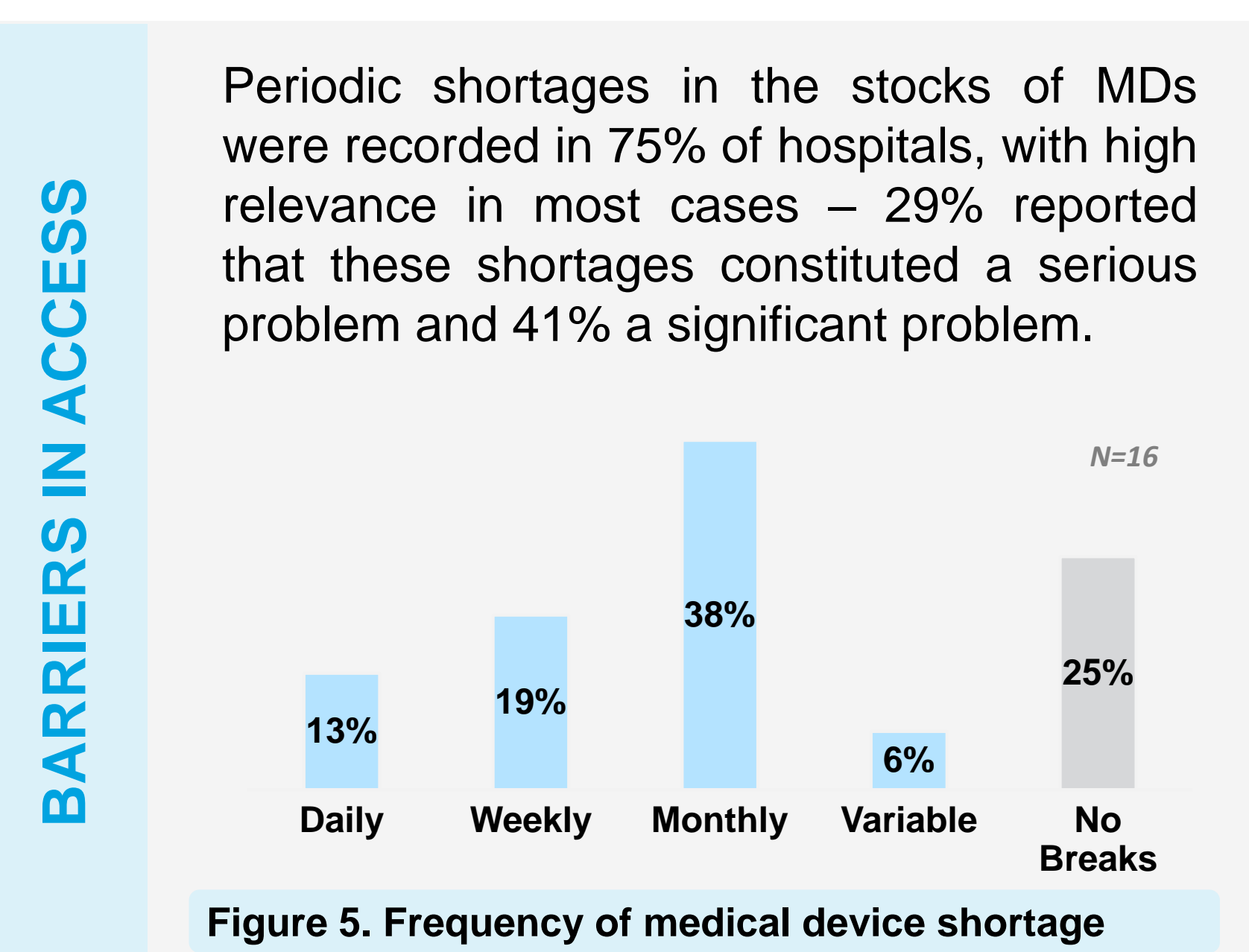
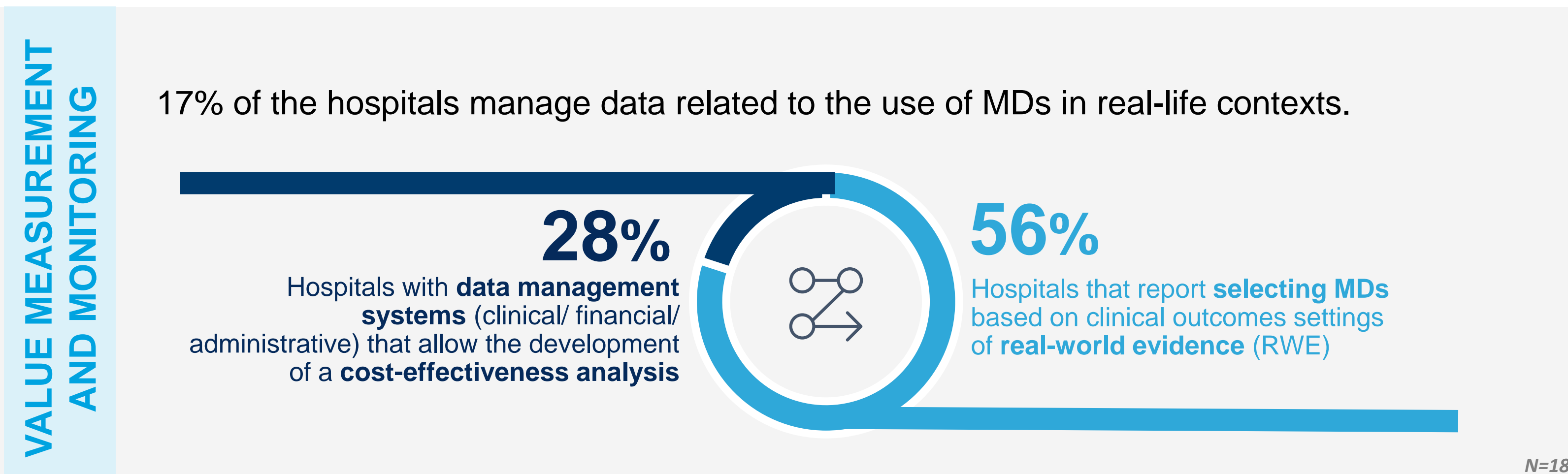
On the other hand, and surprisingly, 16% of Portuguese Hospitals also reprocess single-use MDs.



The primary criteria for innovative MDs sourcing, with impact in terms of cost are clinical outcomes (37%) followed by the comparison between overall costs of several alternatives (32%)

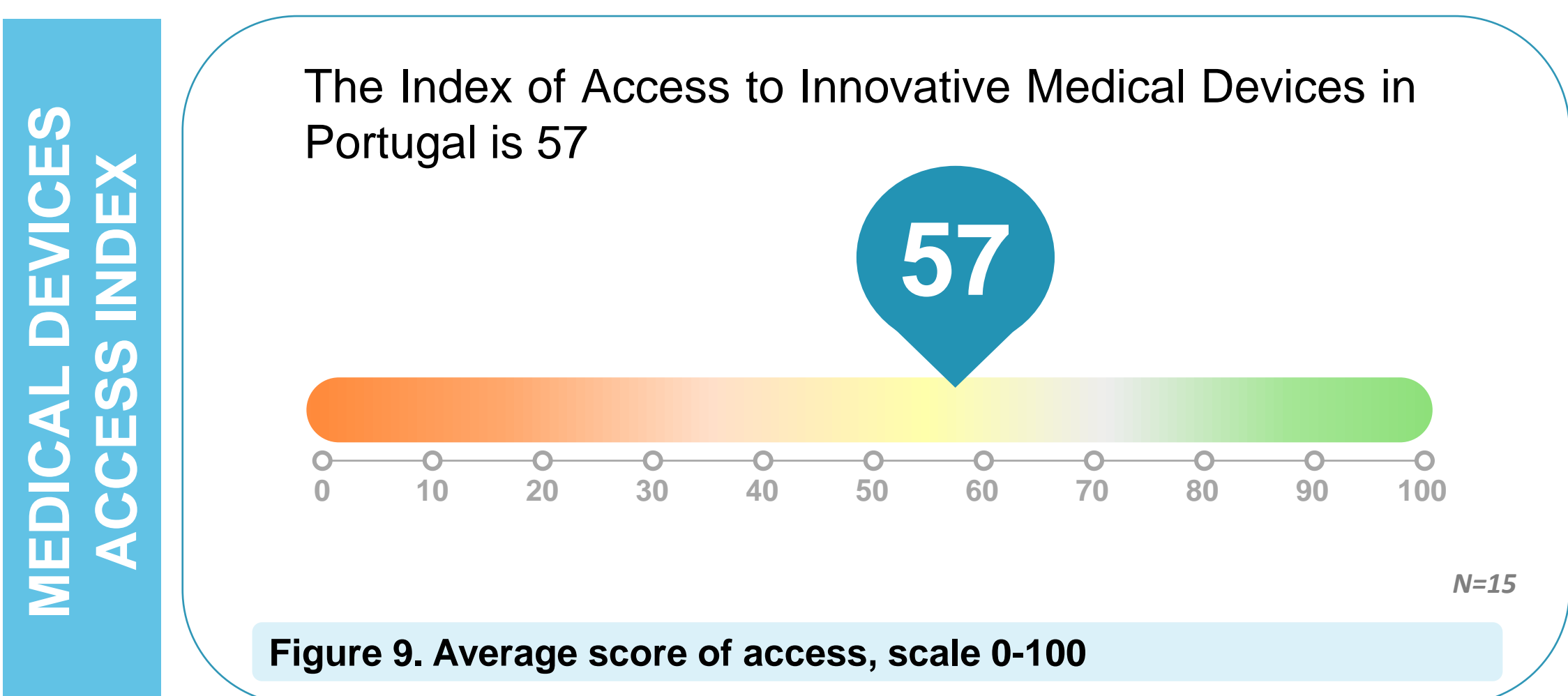
MD loans concession from other hospital institution is a practice in 63% of hospitals.

Consignment is a recurring practice in almost all hospitals (95%), with MDs being stored in the medical service.



The most referenced cost reduction mechanisms are based on supplier prospecting initiatives, bulk purchasing, and consumption-based purchasing models.

However, it is noted that only 26% of hospitals always adopt cost reduction mechanisms, while 53% have done so, though not frequently. On the other hand, 21% have never adopted cost reduction mechanisms when purchasing DMs.



## CONCLUSIONS

This study revealed several key insights into the management of medical devices in Portuguese hospitals. A good participation rate was achieved, with over 50% of hospital institutions taking part. It was found that 79% of hospitals reprocess multiple-use medical devices, predominantly in-house. However, only 37% of hospitals have a committee dedicated to analysing alternatives to existing medical devices on the market.

Almost all institutions rely on the consignment of medical devices, primarily due to financial constraints. Data management related to the use of medical devices in real-life contexts is conducted by only 17% of hospitals, though 11% have published their findings. The study also highlighted that 70% of institutions considered medical device shortages in 2023 to be severe or relevant.

The main barriers to accessing medical devices were identified as administrative burden and a lack of human resources, similar to the challenges faced in accessing hospital medications. The access index to medical devices stands at 57, a figure that warrants close monitoring in future studies.

To address the identified challenges, several actions are recommended: national strategies are needed to reduce medical device shortages, mechanisms should be established to evaluate device usage and generate real-world evidence, hospitals should form committees to explore alternatives to existing devices, and procedures must be streamlined to reduce administrative burdens. These steps are essential for improving the management and accessibility of medical devices in Portuguese healthcare settings.

## ACKNOWLEDGEMENTS

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