

Adoption of Central Data Warehouses (CDW) in Medical Affairs: Benchmarking Trends, Challenges, and Best Practices

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OBJECTIVES

- Medical Affairs (MA) organizations are accelerating their shift from siloed reporting to CDW and data lake architectures to enable omnichannel engagement, improve insight reporting, demonstrate MA value and impact, and support evidence generation
- Yet integration maturity, governance frameworks, and AI readiness varies widely, creating inconsistent value realization and limiting the capacity to scale insights across MI, MSL, medical communications, and related MA domains
- EVERSANA, in partnership with phactMI, conducted a survey to assess how data warehousing and data lake solutions are adopted within MA across the pharmaceutical and life sciences industry to drive analytics, generate actionable insights, and inform omnichannel strategic decision-making

METHODS

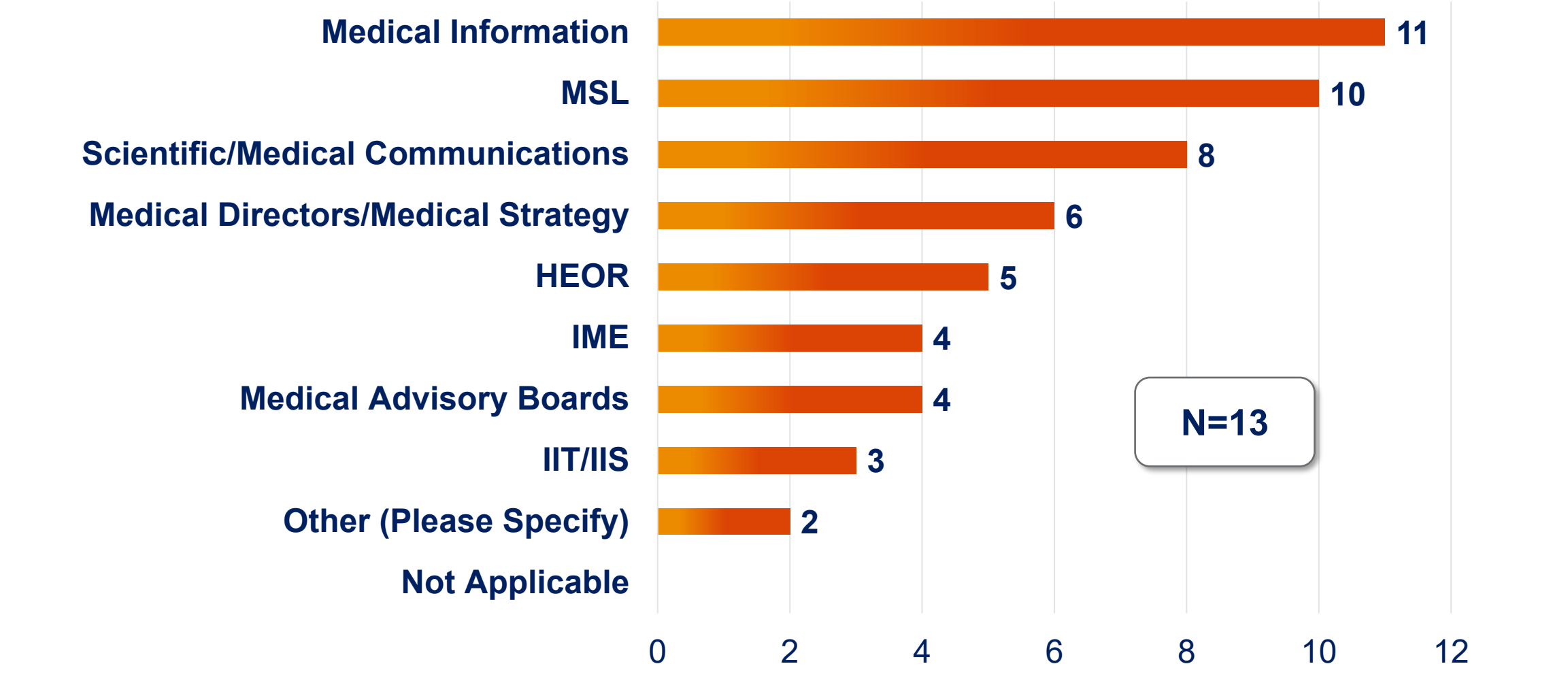
- In 2025, EVERSANA, in collaboration with phactMI, conducted an online survey of MA professionals representing pharmaceutical companies of varying sizes
- The 10-question survey examined adoption models, data integration, analytics priorities, technology platforms, KPIs, and AI/ML utilization

RESULTS

- Overall, MA professionals from 19 companies completed the survey: large size (12), mid-size (6), and small/emerging (1)
- Of the 19 organizations, 8 had already implemented CDW/data lake, 3 were enhancing/expanding, while others reported 'evaluation', 'not started', or 'early planning' phases

RESULTS

Figure 2: Medical Affairs Data in CDW



In total, 36% (5/14) of respondents indicated that they actively utilized AI/ML tools as part of their data analysis processes. Among those using AI/ML, 40% reported their tools were integrated into the platform, while another 40% had separate solutions.

Figure 3: Medical Affairs Objectives for CDW

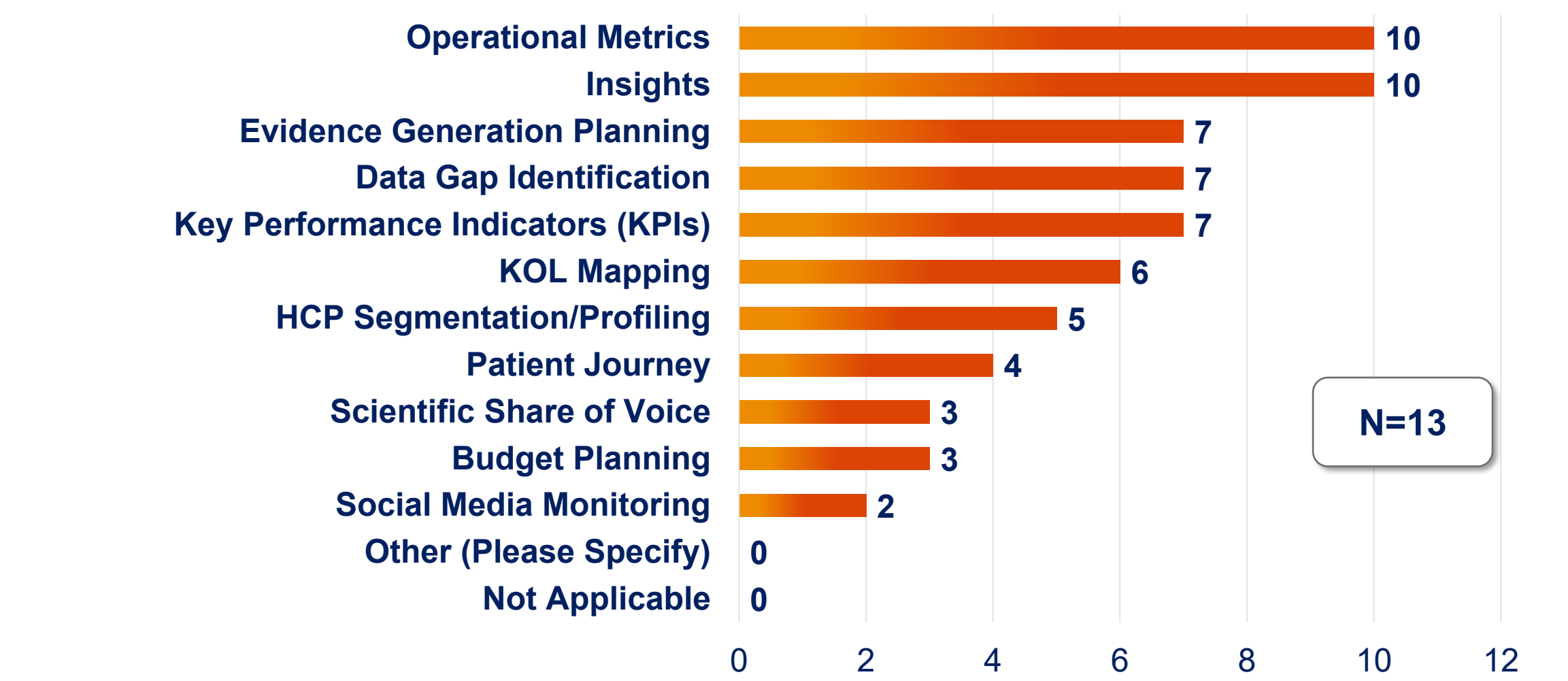


Figure 4: Analytical Tools Leveraged with CDW

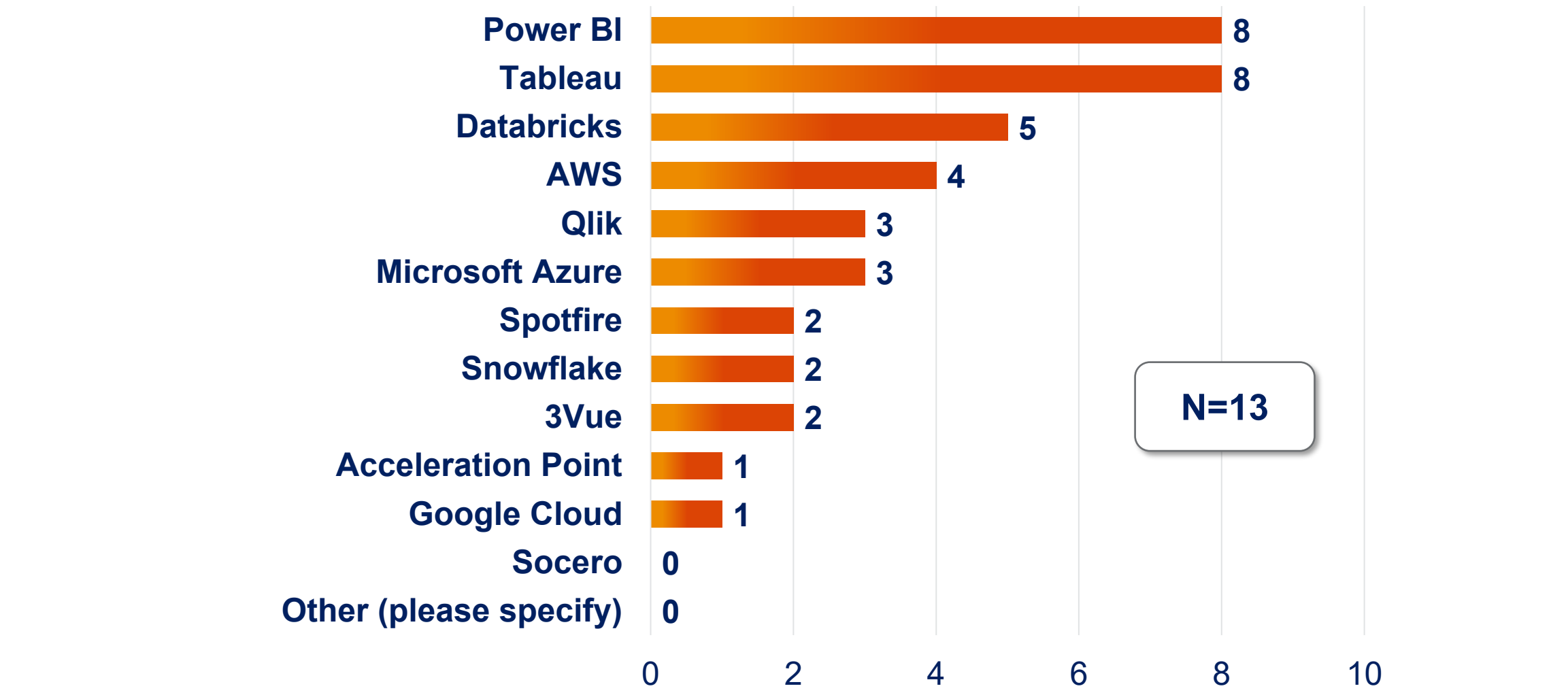


Figure 5: Medical Information Data Sources

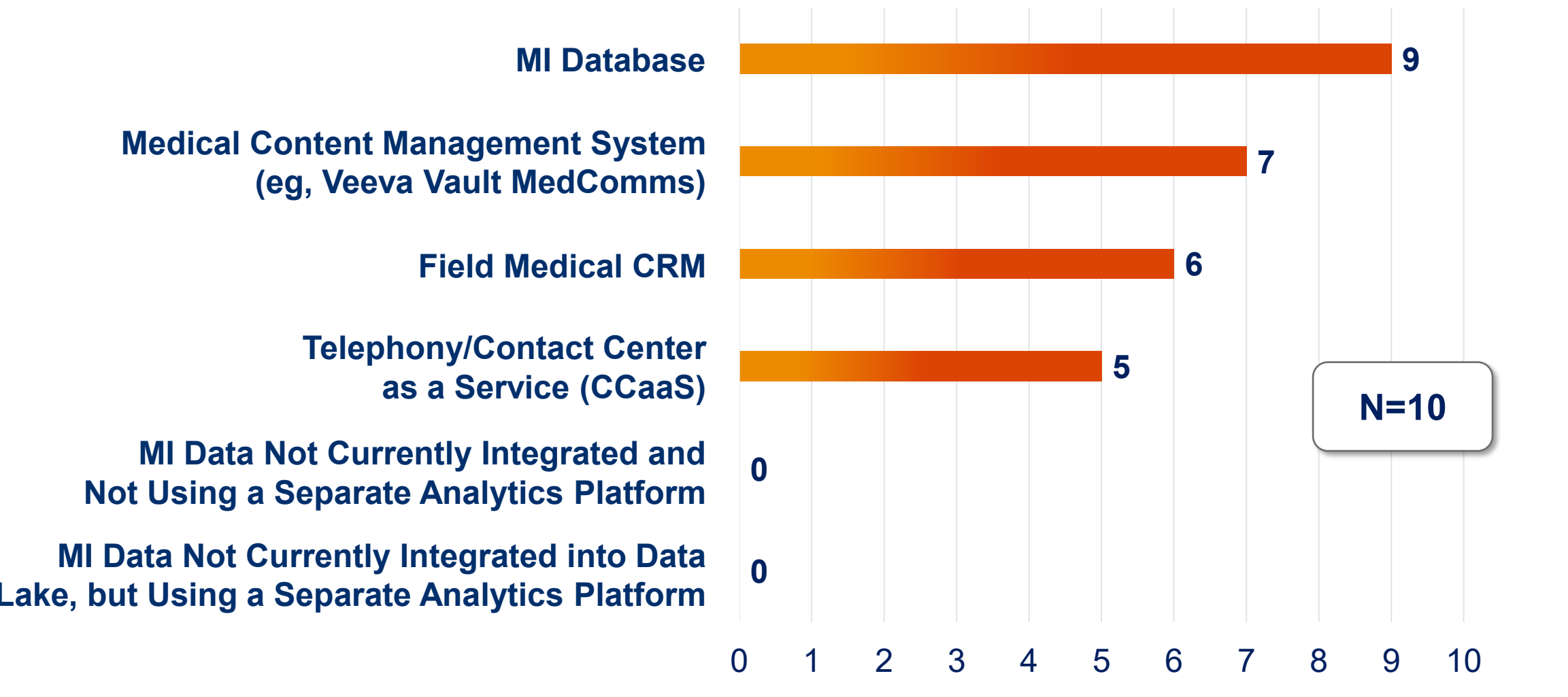


Figure 6: Medical Information Data Analyzed (I)

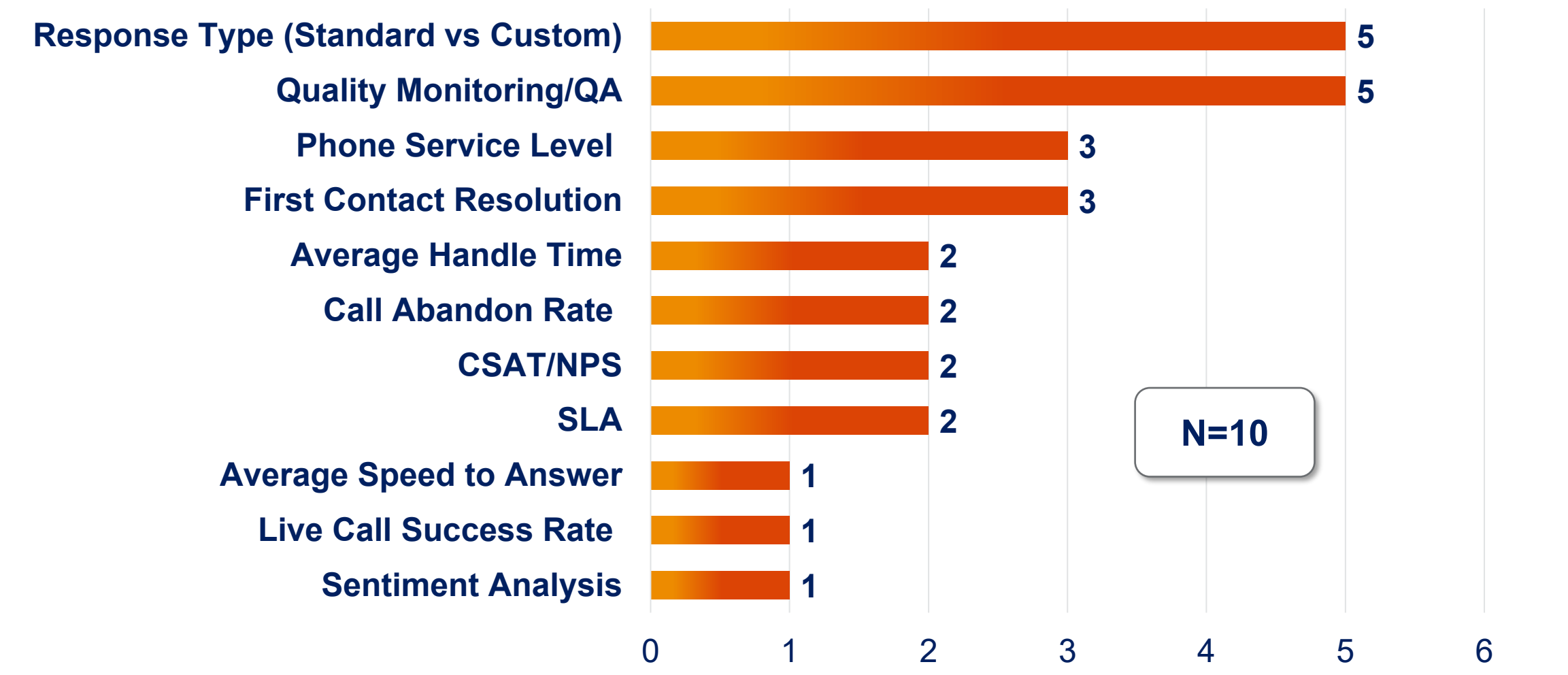


Figure 7: Medical Information Data Analyzed (II)

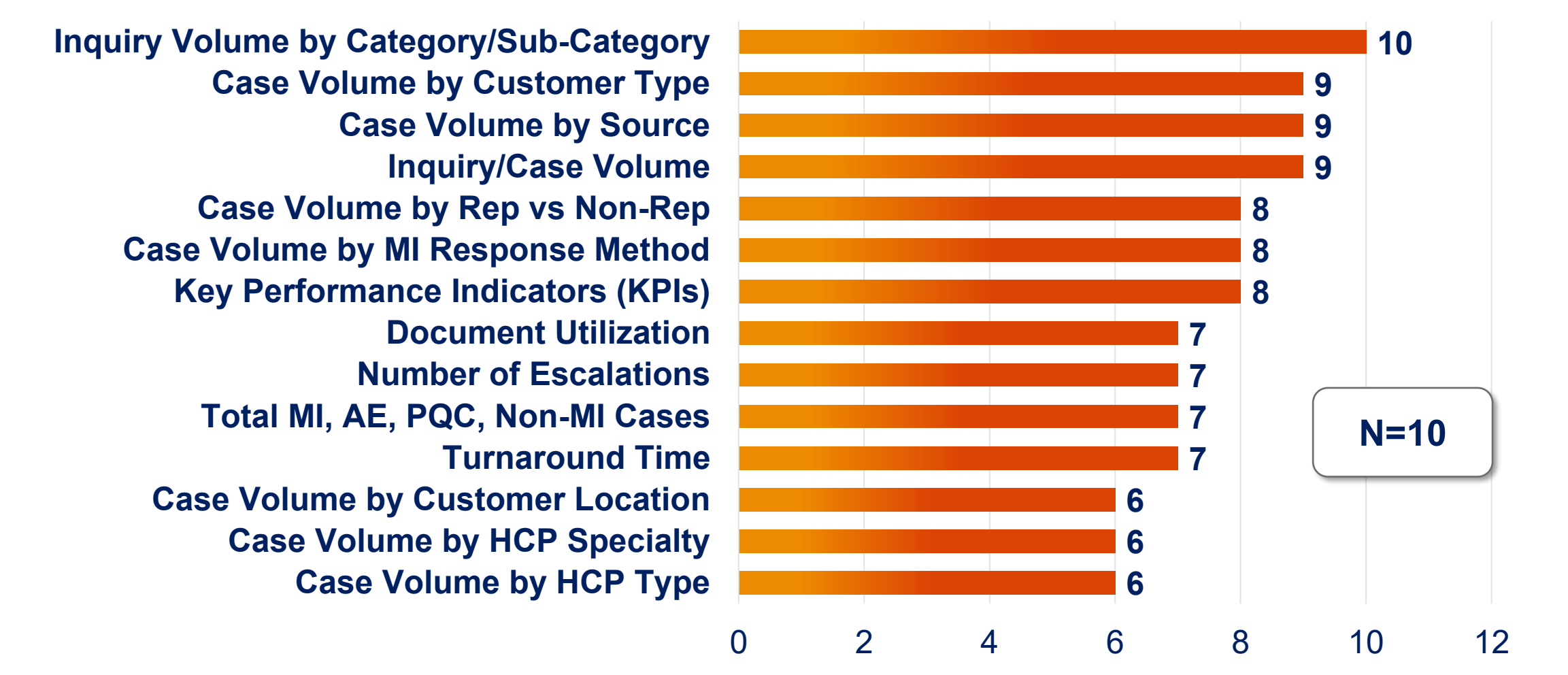
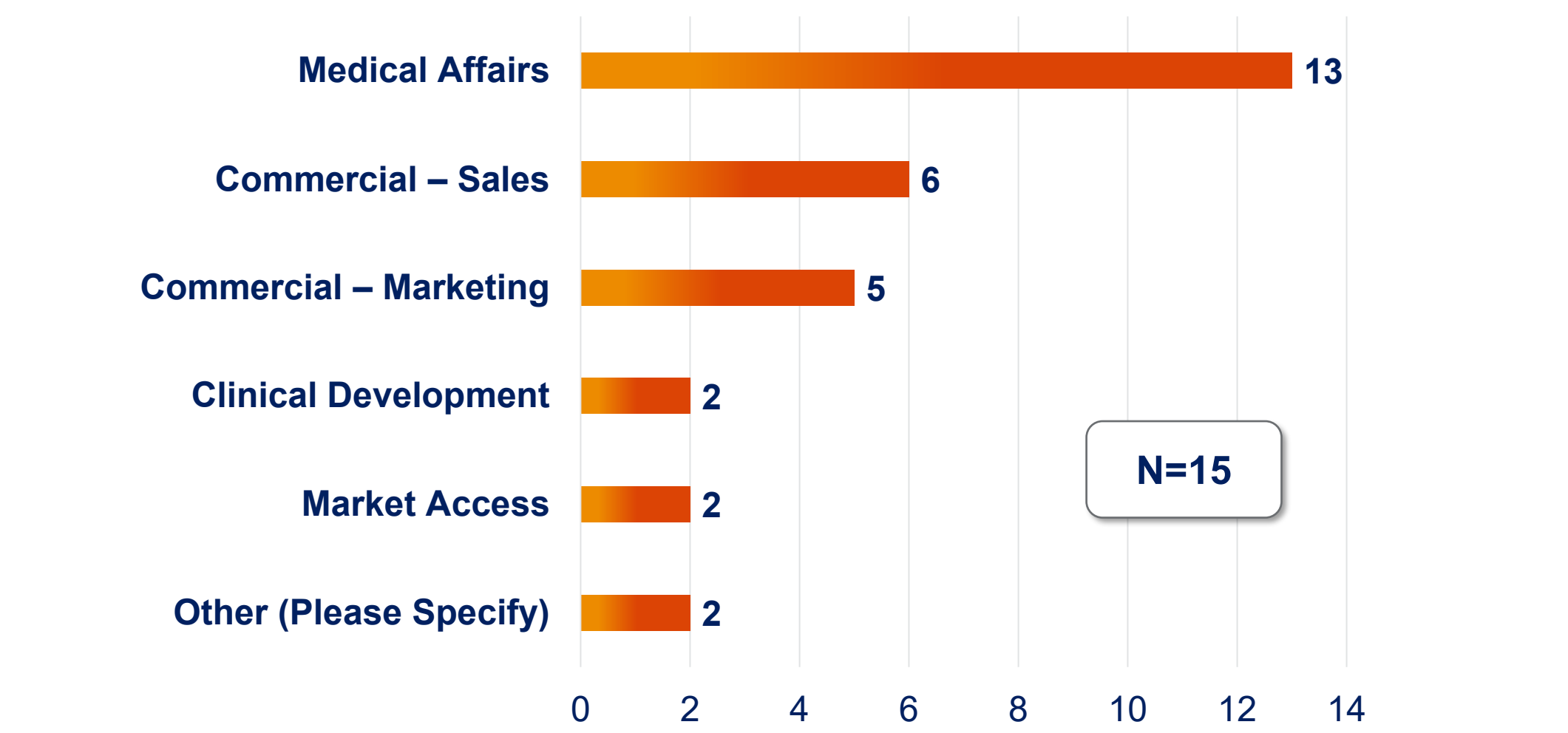


Figure 1: Business Functions Leveraging CDW



CONCLUSIONS

- The benchmark makes clear that centralized data architectures have become indispensable to MA; however, organizations are at disparate stages of maturity, and value capture is gated more by governance and standardization than by raw technology
- Developing standardized KPIs to benchmark performance and demonstrating the impact of MA activities on outcomes is essential. Additionally, developing a framework for leveraging CDW with overlaying analytic solutions is equally important
- As companies adopt omnichannel engagement, CDW strategy becomes increasingly critical. A robust CDW serves as the omnichannel backbone – integrating data streams, aligning KPIs, ensuring compliant content delivery, and enabling timely, personalized, and insight-driven interactions with HCPs and patients
- Establishing shared frameworks for MA will not only safeguard compliance, but also maximize the long-term impact, scalability, and value of MA as a strategic driver of evidence generation, engagement, and patient-centered outcomes

DISCLOSURES

The authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

- Carolyn Quon – nothing additional to disclose
- Michael DeLuca – nothing additional to disclose
- Natalia Gandarillas – nothing additional to disclose
- Varun Pandey – nothing additional to disclose
- Evelyn DeSantis – nothing additional to disclose

Abbreviations: AE, adverse event; AI, artificial intelligence; AWS, Amazon Web Services; CCaaS, contact center as a service; CDW, centralized data warehousing; CRM, customer relationship management; CSAT, customer satisfaction score; HCP, healthcare professional; HEOR, health economics and outcomes research; IIS, investigator-initiated study; IIT, investigator-initiated trial; IME, independent medical education; KOL, key opinion leader; KPI, key performance indicator; MA, medical affairs; ML, machine learning; MSL, medical scientific liaison; NPS, net promoter score; PQC, product quality and compliance; QA, quality assurance; SLA, service level agreement.