

BENCHMARKING BASICS

Cautions and Precautions

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Benchmarking is one of those terms that is used loosely by most people, but has a specific meaning to business professionals. It's like the difference in the way that "work" is used by most people, but means force times distance to a physicist. Benchmarking, to business professionals, means measuring, comparing, analyzing, and improving performance.

Xerox invented benchmarking in 1983. About 10 years later, hospitals became interested in it, and soon, clinical engineering (CE) departments were being asked by hospital administrators to benchmark. Next, a variety of benchmarking applications were developed that allowed hospital administrators to compare their hospital's CE department to others who participated. One thing was obvious: None of the participants were from Lake Wobegon; everyone was below average.

At the time, it seemed that no CE director was satisfied with the validity of any of the benchmarking applications and most of the metrics they were using. (This may have had something to do with the results indicating that we were all below average.) In 1996, I did a teleconference on benchmarking,¹ and in 1997, I wrote an article about benchmarking.² I pointed out that, one, benchmarking done right had tremendous potential for improving performance, and, two, clinical engineering was unprepared for doing benchmarking right. More specifically, benchmarking requires training, experience, and commitment. It requires benchmarking professionals to make sure that it's done right. Clinical engineering did not meet these requirements. Well, we do now.

Last year, Ted Cohen published an article introducing *AAMI's Benchmarking Solution* (ABS).³ ABS is designed to allow CE departments to measure and report their performance, compare it to like departments, and set performance improvement goals based upon the results. ABS teamed up with NeuraMetrics, a company that writes benchmarking software for organizations, and with clinical engineering subject matter experts (SMEs), to provide valid

benchmarking measurement and comparison tools for clinical engineering. You can learn more about ABS at aami.org/abs/index.html, and about NeuraMetrics at www.neurametrics.com/home.html. The original SMEs were Matt Baretich, Frank Painter, Ted Cohen, and Manny Furst. When Manny retired from the original group, I was asked to replace him.

ABS is a software application that is accessed online at the NeuraMetrics website. Subscribers enter their data via survey questions. The next steps depend more heavily on the individual participants: data analysis, setting performance improvement goals, and implementing performance improvement activities. AAMI has extended its agreement with the SMEs to provide additional help for these steps.

In the next few issues of *Biomedical Instrumentation & Technology* (BI&T), the ABS subject matter experts will provide guidance on data measurement, comparison, analysis, and most especially, on performance improvement. The first of these benchmarking "how to" articles will cover staffing, professional development, department resources (e.g., space, test equipment, supplies, etc.), and finance and budget. Each article will discuss data collection, accuracy, and comparison, plus performance improvement opportunities, goals, implementation, and monitoring. We offer this new "How to ..." series as an educational tool for your CE department/organization.

With benchmarking, the measurement system is not the goal. The analysis is not the goal. Performance improvement is the goal. ■

References

1. **Stiefel RH.** Benchmarking. ACCE Teleconference Series, 1996.
2. **Stiefel RH.** Clinical engineering cannot do benchmarking. *Biomedical Inst & Tech*, 1997, 31(3):286–288.
3. **Cohen T.** AAMI's benchmarking solution: analysis of cost of service ratio and other metrics. *Biomedical Inst & Tech*, 2010, 44(4):346–9.

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For more information about *AAMI's Benchmarking Solution*, visit www.aami.org/abs.

Editor's Note: "Benchmarking Basics" is a new feature in *Biomedical Instrumentation & Technology* (BI&T). It will feature guidance from experts in the field on how to implement benchmarking practices within clinical engineering departments and how to improve performance.