

HTM Departments Should Operate like a Business: Response to Maddock

I thank Ken Maddock for his comments¹ on my article.² I agree with most of them and would like to add the following.

Most of the definition material for this article came from the work that Matt Baretich, Frank Painter, and I did for the AAMI Benchmarking Guide, which was developed as part of AAMI's healthcare technology management (HTM) benchmarking product. In a variety of areas (e.g., benchmarking, alternative equipment maintenance plan development), the HTM community is in need of definitions, guidelines, and standards, and there are a number of AAMI committees and task forces working on these. In the benchmarking area, as Maddock mentioned, whenever *external* benchmarking is being performed, standardized metric definitions are very important and a critical factor for external comparisons. AAMI has a Benchmarking Task Force that is updating definitions for cost-of-service ratio (COSR) and other related metrics, as well as some other tasks, such as looking at how to include corporate-level clinical engineering into the metric definitions. In 2018, we hope to publish a second revision of the *HTM Benchmarking Guide* that will include clarifications on estimating acquisition costs and some of the other acquisition cost issues mentioned by Maddock.

For external benchmarking metrics, often there is no "right answer" but consistency is important. However, over the years, many of us have independently developed our own metrics and they often are not consistent. We have seen in various COSR benchmarking projects over several years that acquisition cost is still the easiest denominator to capture. Where acquisition cost documentation is not available, accurate estimates typically meet the "good enough" test and we have not found any other denominator that is as readily available. The table of "fixed acquisition costs" that Maddock mentioned has been previously proposed, but no one has developed such a table, even to test. And we know of no studies that have been done to show that a table of fixed acquisition costs would be easier to gather or provide more accurate information.

With regard to the allocation of parts costs, the important factor is to include all the parts regardless

of who is paying for them and which "bucket" an organization places the parts costs into. Whether parts are internal or external costs is not really an issue other than, as mentioned in my article, trying to distinguish the "penetration" of the in-house service program. As Maddock mentioned, simplifying this portion of the data collection and analysis would be good.

With regard to reagent rentals and other systems where only partial service costs are readily available, an attempt needs to be made to capture all of the costs or, for those few exceptions where that is not possible, to not include that system in either the COSR numerator or denominator. Using a reagent rental device as an example: You could include an estimated acquisition cost that should be readily available from the device vendor. Similarly, the actual or estimated device service costs also can be obtained, whether that's from service contract proposals, service records, per test data, a percent of the reagent rental cost, or other information. What we (HTM folks) need to do is "drill down" to gather this data in sufficient detail to meet the agreed-upon definitions and enter it into our computerized maintenance management systems (CMMSs) so it is readily available for analysis.

Finally, as these definitions are developed, reviewed, and published, an AAMI standards group is working on developing a long list of HTM-related definitions, including some terms that are relevant to COSR and other benchmarking metrics. This is a long-term project that hopefully will be widely accepted by the HTM community and incorporated into HTM-focused CMMSs.

I am grateful for Maddock's feedback, and it's nice to see that this article generated some reaction. ■

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References

1. **Maddock KE.** HTM Departments Should Operate like a Business: Response to Cohen. *Biomed Instrum Technol.* 2017;51(5):357–8.
2. **Cohen T.** HTM Departments Should Operate like a Business. *Biomed Instrum Technol.* 2017;51(4):301–5.