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Successful Evaluation of Collaborative Research Centers for Long-Term Sustainability

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Purpose:

Research centers are formal structures, often within universities, established to advance scholarly productivity through collaborative research, often focused on a specific scientific area, through mechanisms such as collaborative forums, research training, infrastructure support such as help with recruitment and data analysis, and facilitated dissemination. Funders of research centers increasingly request that detailed evaluation plans be included in applications for funding and that, once funded, centers submit regular and detailed updates about productivity and plans for revised processes based on evaluation data. The purpose of this presentation is to provide a comprehensive overview, using concrete examples of techniques and results, of 10 years of leadership experience with designing and implementing the evaluation of two U.S. clinical and translational research centers to successfully improve centers' outcomes and sustainability through three funding cycles.

Methods:

Evaluation included a balanced portfolio of both qualitative and quantitative methods implemented using a multilevel systems framework, consideration of all stakeholders, and addressing both process and outcome evaluation. Techniques involved use of logic and impact models, trend analysis of core metrics, progress on milestones, surveys of key stakeholders, and continuous process improvement initiatives

Results:

Initially, logic models were useful for mapping a rigorous evaluation strategy, using both formative and summative techniques, to the centers' specific aims and anticipated short-term and long-term outcomes. Establishment of annual milestones and mechanisms for reporting and tracking of those milestones was critical for leadership of centers, particularly those with multiple cores and a large, dispersed leadership team. Comprehensive systems for tracking and monitoring of both the quantity and quality of outputs and outcomes (e.g. trends in publications, new collaborative grants, utilization/billing data, pre/post measures of competency or satisfaction) allowed for summative evaluation of center productivity and progress. Core metrics were operationalized and prioritized based on the center's specific aims and national and international guidelines. Continuous improvement initiatives (e.g. Lean) improved the quality and efficiency of center processes (e.g. turnaround times). Frameworks for evaluating long-term impact, such as the Translational Science Benefits Model (Luke et al, 2018), were added and applied after the centers had been in existence for multiple years.

Conclusion:

Skilled leadership of collaborative research centers necessitates a high-level understanding of how to design and implement a multi-method, multi-level, comprehensive evaluation plan for long-term center success and sustainability.

Title:

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Keywords:

Center Grants, Evaluation and Evaluation Research

Abstract Summary:

The purpose of this presentation is to provide a comprehensive overview, using concrete examples of techniques and results, of 10 years of leadership experience with designing and implementing the evaluation of two U.S. clinical and translational research centers to successfully improve centers' outcomes and sustainability.

References:

- Grazier, K.L., Trochim, W.M., Dilts, D.M., & Kirk, R. (2013). Estimating return on investment in translational research: Methods and protocols. *Evaluation and the Health Professions*, 36(4), 478-491. doi:10.1177/0163278713499587
- Luke, D.A., Sarli, C.C., Suiter, A.M., Carothers, B.J., Combs, T.B., Allen, J.L., Beers, C.E., & Evanoff, B.A. (2018). The Translational Science Benefits Model: A new framework for assessing the health and societal benefits of clinical and translational sciences. *Clinical and Translational Science*, 11(1), 77-84. doi:10.1111/cts.12495
- Patel, T., Rainwater, J., Trochim, W.M., Elworth, J.T., Scholl, L., & Gaurav, D. (2019). Opportunities for strengthening CTSA evaluation. *Journal of Clinical and Translational Science*, 3, 59-64. doi:10.1017/cts.2019.387
- Rubio, D.M., Blank, A.E., Dozier, A., Hites, L., Gilliam, V.A., Hunt, J., Rainwater, J., & Trochim, W.M.. (2015). Developing common metrics for the Clinical and Translational Science Awards (CTSAs): Lessons learned. *Clinical and Translational Science*. 8(5), 451-459. doi:10.1111/cts.12296
- Tigges, B.B., Miller, D., Dudding, K.M., Balls-Berry, J.E., Borawski, E.A., Gaurav, D., Hafer, N.S., Kimminau, K.S., Kost, R.G., Littlefield, K., Shannon, J., & Menon, U. (2019). Measuring the quality and outcomes of research collaborations: An integrative review. *Journal of Clinical and Translational Science*, 3, 261-289. doi:10.1017/cts.2019.402
- Trochim, W.M., Rubio, D.M., Thomas, V.G., & the Evaluation Key Function Committee of the CTSA Consortium. (2013). *Clinical and Translational Science*, 6, 303-309. doi:10.1111/cts.12036

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