

'The Design of a Master of Science Program in Learning Health System Science at Wake Forest University'

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Problem/Needs Assessment: The Graduate School of Arts and Sciences at Wake Forest University currently administers a Master of Science (MS) program in Clinical and Population Translational Science (CPTS), which trains clinician scientists to conduct translational research. Currently there is demand not only for translational research, but research to continuously improve healthcare delivery and promote a learning health system (LHS). The Clinical and Translational Sciences Institute (CTSI) recently received a TL1 award to establish the LHS Scholars program, which includes formal training in LHS science (LHSS). Due to overlap in student populations and complementary missions of CPTS and the LHS TL1, a MS program in Translational and Health System Science (THSS) with two tracks, Clinical and Translational Investigation and LHSS, was developed.

Program Objectives: The program mission and competencies developed for THSS were evaluated in a competency-course matrix. The full curriculum was reviewed at a retreat attended by program and course directors, TL1 core faculty, and CTSI staff.

Description of Program: The THSS mission is to provide translational scientists with the methodological and professional skills to implement rigorous research in health care systems and in populations and to disseminate the findings to improve human health. Core topics for both tracks include: developing research questions, study design, biostatistics, ethics, biomedical informatics, and implementation science. LHSS includes organizational change, team management, systems theory, a practicum and colloquium, and CTI includes statistical modeling and clinical trial methods.

Evaluation and Assessment: THSS will launch in August 2020. Program directors will evaluate each course yearly and recommend improvements. Adherence to program mission will be maintained by support of faculty development, meetings with students, training program faculty, and review of syllabi, and periodic self-study at the request of the Graduate School. The LHS TL1 program evaluation will also include a review of the THSS program.

Conclusions and Lessons Learned: A comprehensive curriculum was developed utilizing a rigorous systematic approach with stakeholder involvement. We will strive to be a "learning curriculum," using the process of a learning system to improve our curriculum, policies, and procedures.