The interest in comparative effectiveness research (CER) is based on the belief that more informed decisions about the use of health care resources could improve the public's health and reduce the costs of care. Although CER encompasses a broad range of methodological approaches and data sources, the goal of this proposal is to develop the capacity to perform CER by enhancing the breadth and scope of data contained within a statewide, all-payer hospital discharge and emergency department data set in Hawaii - the state that has the nation's most racially diverse population, the longest life expectancy, the longest experience with employer-mandated health care benefits (over 35 years), and one of the lowest Medicare costs per beneficiary.

The aims of this study are to:

- Supplement administrative hospital discharge data with hospitalization-related laboratory results, an enhancement that has been shown to improve estimates of inpatient mortality and surgical complications, and the measurement of disease severity and clinical performance.

- Build on our preliminary work developing a Master Patient Identifier (MPI) to link patients across hospitals throughout the state, by extending our work to include newborns, and creating a program that would automatically assign an MPI to all new patient records received into the statewide database.

- Demonstrate the feasibility and usefulness of the enhanced database by performing a CER study that will examine the outcomes of care (e.g., length of stay, cost, in-hospital death, 30-day readmission to any hospital) for patients treated by hospital staff compared with patients treated by non-hospital staff.