RESULTS: Resource use information was matched to financial data based on the EMR database or imputed from retrieved data sources. Diagnosis. Missing information was retrieved manually from the site of care, procedures performed, laboratory tests results, and hospital EMR systems. Pertinent health care information included the community clinics EMR system. Other health care information with a diagnosis of diabetes in 2001–2003 were obtained from Prescription order data for patients on anti-diabetic medications allows a direct comparison of resource utilization and economic community clinics and hospital based EMR and charge data. This clinical resource utilization information and costs using a comprehensive database that includes information from multiple databases and EMR sources can be challenging. OBJECTIVE: To develop a comprehensive diabetes dataset of clinical resource utilization information and costs using a community clinics and hospital based EMR and charge data. This allows a direct comparison of resource utilization and economics associated with various anti-diabetic treatments. METHODS: Prescription order data for patients on anti-diabetic medications or with a diagnosis of diabetes in 2001–2003 were obtained from the community clinics EMR system. Other health care information was collected from the hospital outpatient clinics and hospital EMR systems. Pertinent health care information included site of care, procedures performed, laboratory tests results, and diagnosis. Missing information was retrieved manually from the EMR chart from physician notes which are not transferred to the EMR database or imputed from retrieved data sources. Resource use information was matched to financial data based on patient visit numbers. Professional charges were matched to each visit based on patient identifier and approximate visitation date, with Institutional Review Board approval. RESULTS: The final dataset includes pertinent clinical, costs resource utilization information for patients suffering from diabetes across 810 patients receiving insulin. This dataset was used to determine the differences in resources and cost differences between different insulin regimens. CONCLUSION: Integrated data systems across outpatient and inpatient settings can be very useful in outcomes research however pulling together information from various datasets can be challenging.

OBJECTIVES: The Diabetes Prevention Program (DPP) excluded subjects at baseline due to multiple disease states. The objectives of this study were to 1) design a long-term cost-effectiveness model to evaluate the use of intensive lifestyle intervention to prevent type-2 diabetes (T2DM) based on the DPP study design; and 2) attempt to project these findings onto a more generalized hypothetical population than that studied by the DPP. METHODS: Markov models were developed based on the DPP results incorporating the states of normal glucose tolerance, impaired glucose tolerance, T2DM and death. Transition probabilities were derived from DPP and current literature. A three-year intervention was assumed with outcomes of 1) a three-year duration of effect; and 2) a lifetime duration of effect. A second set of models, based on a hypothetical, more generalized population included higher direct medical control cost of illness, and US Life Table mortality figures. RESULTS: Lifestyle dominated placebo in both models, with the following results derived for incremental cost-effectiveness ratios: 1) DPP model—3-year duration = $9750; 2) DPP model—lifetime duration = $9750/year; 3) generalized model—three-year duration = $19,496/LY; and 4) generalized model—lifetime duration = $19,496/LY. A maximal acceptable cost of intervention per year for the three-year duration of effect that could be used to maintain lifestyle domination was also established. These values were: 1) DPP model—three-year duration = $1820/year; 2) DPP model—lifetime duration = $6500/year; 3) generalized model—three-year duration = $2910, and 4) generalized model—lifetime duration = $9750. CONCLUSION: In this model that examined an intervention that had little apparent effect on life expectancy, increasing control cost of illness increased incremental costs and incremental cost-effectiveness ratios, and ultimately increased the apparent cost-effectiveness of this preventive treatment.