

DISER Data Opportunities

The joining of the source databases creates many opportunities to explore their integrated data within a chronic disease lens. These may include some of the following:

Laboratory:

- i. Information on whether confirmatory lab tests were available prior to the designated incidence or prevalence dates
- ii. Ongoing monitoring of prevalent individuals (# of tests per period, % of tested individuals within thresholds)
- iii. Ongoing evaluation of non-prevalent individuals potentially at risk for diabetes (with ability to explore particular at-risk populations by other conditions, sex, or age)

Prescriptions:

- i. Utilization of diabetes-relevant medications by diabetes status
- ii. Medication history

Comorbidities/Complications:

- i. The incidence/prevalence of diabetes can be also conditioned on the existence or development of other conditions. Some example case definitions may include:
 - Incident Asthma
 - Incident Chronic Kidney Disease
 - Incident Chronic Obstructive Pulmonary Disorder
 - Incident Heart Failure
 - Incident Hypertension
 - Incident Rheumatoid Arthritis
 - First Recorded Lower-Limb Amputation
 - First Recorded Lower-Limb Amputation at Ankle or Above
 - First Recorded Coronary Artery Bypass Graft/Aortic Valve Replacement
 - First Recorded Dialysis
 - First Recorded Isolated Aortic Valve Replacement
 - First Recorded Isolated Coronary Artery Bypass Graft
 - First recorded Percutaneous Coronary Intervention
- ii. Dates of first occurrence or incidence can be mapped to the incidence/prevalence of diabetes



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Potential Opportunities (Continued)

Health System Utilization:

- i. Health care utilization can be correlated with diabetes status
- ii. Development of complications/comorbidities can be mapped to past patterns of utilization
- iii. Geographic access to/utilization of care can be mapped and analyzed since every individual is tagged to a given geography at the beginning of each calendar year

Health Outcomes:

- i. Diabetes can be correlated with prior or post development of comorbidities/complications
- ii. Mortality rates can be mapped to disease status and/or duration

