**Diabetes Readmission Exercise**

**Basic Explanation**

It is important to know if a patient is likely to be readmitted after a hospital stay.

In this database, there are 3 different coded outcomes:

1. No readmission
2. A readmission in less than 30 days
3. A readmission in more than 30 days

**Data We Have**

The data set represents 10 years (1999-2008) of clinical care at 130 US hospitals and integrated delivery networks. It includes over 50 features representing patient and hospital characteristics and outcomes. Information was extracted from the database for encounters that satisfied the following criteria.

1. It is an inpatient encounter (a hospital admission).
2. It is a diabetic encounter, that is, one during which any kind of diabetes was entered to the system as a diagnosis.
3. The length of stay was at least 1 day and at most 14 days.
4. Laboratory tests were performed during the encounter.
5. Medications were administered during the encounter.

The data contains such attributes as patient number, race, gender, age, admission type, time in hospital, medical specialty of admitting physician, number of lab test performed, HbA1c test result, diagnosis, number of medications, diabetic medications, number of outpatient, inpatient, and emergency visits in the year before the hospitalization, etc.

**Key Question from Stakeholders**

“We have a lot of great data! What can we do with it to help us with our readmission problem??”