Lab Results Data Structure

We are starting with five tests (hemoglobin A1C (HgA1C), serum creatinine, international normalized ratio (INR), fasting blood glucose, and serum potassium) proposed by KPCO as part of the CCSN project.
For those who want to start with cancer specific tests BRCA1 & BRCA2, CA-125, and PSA seem to be logical places to start.

Variable Name	Variable Definition	Values	Comment
MRN	Char	Unique to each HMO	Person-level identifier, unique to each HMO. Used to link across files.
Test_Type	Char, 10	CRN's official name for the type of test	Documented on the CRN web site. Several LOINCs and/or LOCAL_CDs can point to one Test_Type.
LOINC	Char, 10	Codes in the form of nnnnn-n	Logical Observation Identifiers Names and Codes, from http://www.regenstrief.org/loinc/ Although a length of 7 would work as of 11/07/07 LOINC suggests 10 for future growth.
LOCAL_CD	Char	Unique to each HMO	Non LOINC code related to lab test result**
BATTERY_CD	Char	Unique to each HMO	Battery code
PX	Char, 6		Related procedure code (most likely CPT)
Codetype	Char, 1	C=CPT I=ICD9 H=HCPCS L=local home-grown O=other	Specifies what type of code PX is
Order_dt	Num, 4	SAS Date	Date test was ordered
Lab_dt	Num, 4	SAS Date	Date specimen was collected
Lab_tm	Num, 4	SAS Time	Time specimen was collected
Result_dt	Num, 4	SAS Date	Date of test result
Result_tm	Num, 4	SAS Time	Time of test result
Result_C	Char, 8	to accept >, <, >=, <=	Test result as short character. For true numeric values INPUT function can be used when programming to convert character to numeric.
Result_unit	Char, 11	possible values include %, IU/L, MEQ/L, MG/DL, THERAPEUTIC	Units in which result is reported. Future recoding will probably be necessary to standardize among sites.
Normal_low_C	Char, 8	to accept >, <, >=, <=	Lowest value of normal range for this test/instrumentation/etc as short character. For true numeric values INPUT function can be used when programming to convert character to numeric.
Normal_high_	Char, 8	to accept >, <, >=, <=	Highest value of normal range for this test/instrumentation/etc as

C			short character. For true numeric values INPUT function can be used when programming to convert character to numeric.
Abn_ind	Char, 1	A=abnormal; H=abnormal high L=abnormal low U=unknown N=normal	Abnormal result indicator
Order_prov	Char	Unique to each HMO. Identifier unique to a provider. Same coding scheme as rxmd in pharmacy or provider in utilization.	Ordering provider
Order_dept	Char, 4	Same coding scheme as department in utilization.	Department of ordering provider as bucketed by scheme used in the utilization file. It is STRONGLY recommend that a site keep its own local department number in this file in addition to the Order_dept so bucketing of department by different schemes is possible.
Facility_code	Char	Unique to each HMO. Local facility code that identifies hospital or clinic. Same coding scheme as facility_code in utilization.	Where order originated
RowID	as required by site	Missing value or a pointer	A nonmissing value points to the row in lab_results_character where the character results are found

**All sites may have home grown codes to place in this field. All Kaisers will have Non_LOINC values which are originally read into the LOINC field and should be moved into the LOCAL_CD field. Non-LOINC formatted numbers in the form of n.nn.nnnn are KP extensions. That means that the underlying concepts for these terms were not found existing in the current LOINC terminology. KP modeled them in its own terminology database and the number assigned is called a NID (KP National ID). These terms will be submitted to LOINC so that they can be assigned LOINC codes. However, sometimes LOINC does not accept KP's submitted concepts and the records remain extensions permanently. This is especially true for terms that were created to accommodate specialized KP workflow. Non-Kaiser sites may have similar situations.

Lab Results Character Data Structure

Not all rows in the Lab_Results data set will have corresponding observations in this data set. Only records which require more than 8 bytes character storage for results, normal_low or normal_high will have observations in this data set.

Variable Name	Variable Definition	Values	Comment
RowID	as required by site	a pointer	An arbitrary, unique, record identifier for tying character results to the parent record in lab_results
Result_CHAR	Char, 200	to accept >, <, >=, <= and text string results	Test result as a long character
Normal_low_CHAR	Char, 200	to accept >, <, >=, <= and text string normal lows	Lowest value of normal range for this test/instrumentation/etc as a long character
Normal_high_CHAR	Char, 200	to accept >, <, >=, <= and text string normal highs	Highest value of normal range for this test/instrumentation/etc as a long character