# Semi-Customizable Reporting System Database Model

Revision 0.2 Aug 1, 2013

This is draft 0.1 of the database to support first prototype (Sept 15)

## TablesMacBay1:Users:patrice:Development:scrc:schema.png

### 1.1 “users”

The system administrator allocates usernames and passwords to a particular site. It can accommodate more than one user per site.

By convention, site id=0 is CMS.

CREATE TABLE "users" (

"username" varchar NOT NULL,

"password" varchar NOT NULL,

"site\_id" int4 NOT NULL

)

### 1.2 “ownerships”

The ownership table specifies the ownership of a site. For example:

CREATE TABLE "ownerships" (

"id" int8 NOT NULL,

"type" varchar NOT NULL

)

**id Type**

1 Proprietary

3 Voluntary non-profit - Other

4 Voluntary non-profit - Private

2 Voluntary non-profit - Church

### 1.3 “sites”

This table is used to define hospital sites.

CREATE TABLE "sites" (

"id" int4 NOT NULL,

"name" varchar NOT NULL,

"latitude" float4 NOT NULL,

"longitude" float4 NOT NULL,

"ownership\_id" int4 NOT NULL,

"image" varchar,

"website" varchar,

"address" varchar,

"state" varchar

)

0 is reserved for CMS identification

1-9 is reserved for Control groups

0 CMS 0 0 0

1 CTRL GRP1 0 0 0

2 CTRL GRP2 0 0 0

3 CTRL GRP3 0 0 0

10 St. Clare's Hospital 40.89 -74.42 2 http://media.nj.com/ledgerlocal/photo/9018596-large.jpg http://www.saintclares.org/saint-clares-hospital-denville-new-jersey 25 Pocono Road Denville, NJ 07834 NJ

11 Hunterdon Medical Center 40.53 -74.86 4 http://www.hunterdonhealthcare.org/sites/default/files/u6/HMC%201-18-2012%20(2).jpg http://www.hunterdonhealthcare.org/ 2100 Wescott Drive Flemington, NJ 08822 NJ

12 Overlook Medical Center 40.71 -74.35 3 http://media.nj.com/independentpress\_impact/photo/10696945-large.jpg http://www.atlantichealth.org/overlook/ 99 Beauvoir Avenue Summit, NJ 07902 NJ

13 RiverView Medical Center 40.35 -74.06 1 http://www.riverviewmedicalcenter.com/images/noFlash-RMC.jpg http://www.riverviewmedicalcenter.com/RMC/index.cfm 1 Riverview Plaza, Red Bank, NJ 07701 NJ

### 1.4 “domains”

The domain table is used to identify the particular domains for the measures. The domain specifies if the measures will be represented in text form or graphics form.

CREATE TABLE "domains" (

"id" int4 NOT NULL,

"name" varchar NOT NULL,

"is\_text\_only" bool NOT NULL

)

1 Structural Measures t

2 Quality Measures f

3 Utilization Measures f

4 Payments f

5 Patient Case-Mix f

6 Physiciam Inforamtion f

7 Care Redesign Intervention t

8 Gainsharing Methodology t

9 Adherence f

10 Negative Unintended Consequences t

### 1.5 “measures”

This table defines the various measures, their domains and units to be used on the graphic chart.

CREATE TABLE "measures" (

"id" int4 NOT NULL,

"name" varchar NOT NULL,

"domain\_id" int4 NOT NULL,

"units" varchar

)

Example:

**Id name domain units**

1 Heath Information Technology 1

2 Leadership Oversight Support 1

3 Staffing Changes 1

4 Mortality 2 rate per 10,000

5 Hospital Acquired Conditions 2

6 Readmissions 2

7 Prevention Quality Indicators (PQI) (ambulatory sensitive) 2

8 Inpatient Quality Indicators (IQI) 2

9 Patient Safety Indicators (PSI) 2

10 Outpatient Imaging Efficiency Measures 2

11 Patient Survey 2

12 Emergency Department Efficiency 2

13 Timely & Effective Care - Acute Myocardial Infarction 2

14 Timely & Effective Care - Heart Failure 2

15 Timely & Effective Care - Pnemonia 2

16 Volume of Services 3

17 Physician Referral to Post Acute Care Settings 3

18 Admissions Patterns 3

19 Readmissions 3

20 Length of Stay 3

21 Incentive Payments 4

22 Medicare Payments 4

### 1.6 “drgs”

This table manages the valid MS-DRGS

CREATE TABLE "drgs" (

"id" int4 NOT NULL,

"name" varchar(255) NOT NULL,

"service" varchar(255) NOT NULL

)

Example:

1 Heart transplant or implant of heart assist system w MCC THORACIC SURGERY

2 Heart transplant or implant of heart assist system w/o MCC THORACIC SURGERY

3 ECMO or trach w MV 96+ hrs or PDX exc face,.. . SURGICAL TRACHEOSTOM

### 1.7 “patients”

This table is used to define the patient type used in the data table

CREATE TABLE "patients" (

"id" int4 NOT NULL,

"name" varchar

)

Example:

1 All

2 Dual Eligible

3 PP1

4 PP2

### 1.8 “departments”

This table is used to identify the various hospital departments used in the data collection.

CREATE TABLE "departments" (

"id" int4 NOT NULL,

"name" varchar NOT NULL

)

Example:

1 Hospital Emergency Department

2 Observation Care

3 Outpatient Care

4 Intensive Care Unit

5 Critical Care Unit

6 Intermediate Care Unit

7 Other Inpatient

9 Hospice

10 Long-term Care Hospital

11 Inpatient Rehab Facility

12 Home With Home Health Agency

8 Skill Nursing Agency

13 Other Facility Discharge

14 Home Without Home Health Agency

15 Againt Medical Advice

16 Other

17 Death (absorbing state at any point of Transition)

### 1.9 “quick statistics”

This table is used to identify the statistics to be displayed in the transitional care diagram.

CREATE TABLE "quick\_statistics" (

"id" int4 NOT NULL,

"measure\_id" int4 NOT NULL

)

### 1.10 “drg statistics”

This table is used to identify the statistics to be displayed in the DRG diagram.

CREATE TABLE "drg\_statistics" (

"id" int4 NOT NULL,

"measure\_id" int4 NOT NULL

)

### 1.11 “data”

This table is used to identify the data collected for the various hospitals.

Notes:

site\_id 1-9 is used for control groups

drg\_id: 0 is for all drgs

CREATE TABLE "data" (

"id" int8 NOT NULL,

"site\_id" int4 NOT NULL,

"drg\_id" int4 NOT NULL,

"patient\_id" int4 NOT NULL,

"measure\_id" int4 NOT NULL,

"year" int4 NOT NULL DEFAULT 2013,

"quarter" int4 NOT NULL DEFAULT 1,

"value" float4 NOT NULL,

"upper\_bound" float4,

"lower\_bound" float4

)

### 1.12 “summaries”

This table is used to maintain custom content for CMS and hospitals. This info will be displayed on first page

Id must be the same as id of site