

CDW 5.1 External Release Notes

Release 5.1 of the HSSC CDW and i2b2 was moved to production on March 10, 2015. The release includes the following updates and enhancements added since the last release:

General Enhancements

- Spartanburg Regional Health System Medication Orders are now available in CDW and included in the i2b2 HSSC project.

Fixes

- Patient *Race* data quality was improved:
 - Reduced *Unknown* race frequency from 15% to 2% overall, and by up to 31% in site projects.
 - Duplicate race categories have been reconciled in site projects.
 - Accuracy of i2b2 patient counts by race was improved in site projects.
- Patient *Address* data quality was improved:
 - Reduced frequency of missing address data from 9% to 2.3%.
- *Financial Class* search criteria were restored in the i2b2 web client.
- *Age at Visit* search criteria are now available in i2b2 site projects.
- *Referral Source* search criteria are now available in i2b2 site projects via the *Admission Source* category.
- *Medication Frequency* search criteria are now available in i2b2.
- Additional medications (860) were added as search criteria to i2b2. These medications are not properly classified in the “Navigate Terms” hierarchy but are searchable via “Find Terms.”

Things to Consider

- There is a known i2b2 search bug related to “Search by Names” within “Find Terms.” If a search does not return expected results, try repeating the search using multiple wording combinations. For example, a search for “Type II Diabetes” yields fewer concepts than a search for “Diabetes Type II.” This stems from an inconsistency in diagnosis descriptions.
- Some ZIP codes may reflect an inaccurate urban-rural classification code. This issue affects approximately 6.5% of patients, who live in ZIP code areas intersected by two or more counties with differing urban-rural codes.
- When querying *Marital Status*, use the HSSC project rather than site projects as this element returns ‘0’ counts for some sites even when it may be populated.

This release includes the following historical data in CDW:

CDW Detailed Summary	R5 Count
Patients	
Total Patients Received	4,235,298
Total Distinct Patients in MPI (Merged)	3,889,996
Total Patients Received from GHS	1,300,769
Total Patients Received from MUSC	1,318,588
Total Patients Received from PH	1,253,130
Total Patients Received from SRHS	362,811
Total Patients with Clinical Visit Data Available	2,737,123
Total Visits	33,806,965
Total Visits from GHS	17,266,833
Total Visits from MUSC	9,414,710
Total Visits from PH	5,424,387
Total Visits from SRHS	1,701,035
GHS Emergency Visits	1,196,197
GHS Inpatient Admissions	593,467
GHS Outpatient Visits	15,477,169
MUSC Emergency Visits	456,133
MUSC Inpatient Admissions	262,704
MUSC Outpatient Visits	8,695,872
PH Emergency Visits	1,095,561
PH Inpatient Admissions	426,815
PH Outpatient Visits	3,901,986
SRHS Emergency Visits	321,985
SRHS Inpatient Admissions	97,569
SRHS Outpatient Visits	1,281,162
Total Diagnoses	99,425,444
Total Diagnoses GHS	21,424,079
Total Diagnoses MUSC	29,990,147
Total Diagnoses PH	30,077,388
Total Diagnoses SRHS	17,933,830
Total Procedures	11,815,995
Total Procedures GHS	5,547,841
Total Procedures MUSC	3,834,424
Total Procedures PH	1,943,494
Total Procedures SRHS	490,236
Total Medication Orders	13,615,448
Total Medication Orders GHS	4,243,421
Total Medication Orders MUSC	6,383,478
Total Medication Orders PH	0
Total Medication Orders SRHS	2,988,549
Total Medication Orders mapped to RxNorm	12,144,063
Percentage Medication Orders Mapped	89.19%

Total Medication Admins	12,616,721
Total Medication Admins GHS	3,251,468
Total Medication Admins MUSC	9,365,253
Total Medication Admins PH	0
Total Medication Admins SRHS	0
Total Medication Admins mapped to RxNorm	11,424,539
Percentage Medication Admins Mapped	90.55%
i2b2 Fact Breakdown	R5.1
Admission Source	19,377,690
Admission Type	18,228,902
Age At Visit	32,780,388
Discharge Disposition	25,997,223
Encounter Type	33,051,670
Financial Class Group	25,703,251
Hospital Service Group	14,922,248
ICD9	68,628,551

HSSC Breakdowns:

Gender	Count
Female	2,039,968
Male	1,705,461
Unknown	144,567
Total	3,889,996

Current Age Range	Count
0-9	396,194
10-19	436,331
20-29	487,505
30-39	503,620
40-49	487,690
50-59	502,062
60-69	438,048

70-79	295,527
80-85	104,825
85+	208,320
Unknown Age	29,874
Total	3,889,996

Note: Age Ranges above pulled from CDW and not from i2b2 which is date-shifted. So, counts are similar to i2b2 but not exact matches.

Detail Visit Types By Year:

Sum of COUNT(*)	Column Labels			
Row Labels	E	I	O	Grand Total
2007	568,653	255,526	3,592,905	4,417,084
GHS	147,023	48,522	1,324,089	1,519,634
MUSC	58,786	33,283	939,114	1,031,183
PH	362,337	173,571	1,329,066	1,864,974
SRHS	507	150	636	1,293
2008	589,128	250,453	3,706,775	4,546,356
GHS	147,554	49,189	1,365,315	1,562,058
MUSC	59,500	33,699	1,039,745	1,132,944
PH	381,060	167,193	1,300,335	1,848,588
SRHS	1,014	372	1,380	2,766
2009	631,776	249,646	4,039,335	4,920,757
GHS	153,987	48,723	1,587,711	1,790,421
MUSC	60,471	33,871	1,160,538	1,254,880
PH	413,238	165,228	1,285,560	1,864,026
SRHS	4,080	1,824	5,526	11,430
2010	648,098	288,760	4,607,151	5,544,009

GHS	146,002	80,753	2,089,466	2,316,221
MUSC	59,980	34,052	1,160,104	1,254,136
PH	415,836	163,440	1,300,323	1,879,599
SRHS	26,280	10,515	57,258	94,053
2011	953,236	414,590	5,913,807	7,281,633
GHS	151,017	124,959	2,096,382	2,372,358
MUSC	60,556	34,679	1,107,633	1,202,868
PH	429,243	160,725	1,545,147	2,135,115
SRHS	312,420	94,227	1,164,645	1,571,292
2012	993,665	426,919	6,358,478	7,779,062
GHS	158,565	139,928	2,328,967	2,627,460
MUSC	62,192	35,393	1,160,251	1,257,836
PH	459,714	160,017	1,650,606	2,270,337
SRHS	313,194	91,581	1,218,654	1,623,429
2013	864,744	308,878	6,287,113	7,460,735
GHS	165,109	59,678	2,583,449	2,808,236
MUSC	62,987	36,083	1,232,114	1,331,184
PH	452,616	157,185	1,708,617	2,318,418
SRHS	184,032	55,932	762,933	1,002,897
2014	639,851	220,500	4,711,155	5,571,506
GHS	126,785	41,606	2,099,326	2,267,717
MUSC	31,011	17,977	612,800	661,788
PH	367,773	127,653	1,486,827	1,982,253
SRHS	114,282	33,264	512,202	175,434
Grand Total	5,852,011	2,399,024	38,785,793	47,522,204

Note: <2% of Encounters collected fall outside of our targeted date range of 2007-2014 and have been omitted from this table for quality purposes.