

TOWARD ACHIEVING MORE COMPLETE TREATMENT INFORMATION

What Can Be Obtained From Resubmitted Hospital Data?

New York State Cancer Registry

Theresa Hinman MPH, Amy Kahn MS CTR,

Colleen Sherman MS CTR, Maria J Schymura PhD

Background

- State law requires incident case reporting.
- NYSCR accessions every report received, i.e., no 'suspense file.'
- Records from non-hospital sources do not contain complete treatment information.
- New York has a high percentage of tumors without treatment information.
- CoC started a program of requesting resubmission of analytic cases.



Distribution of Type of Reporting Source For 2008 and 2009 Cases with Unknown Treatments (Originally)



□ Rx Summ--Surg Prim

- 33.9% - RTCs*
- 27.5% - Lab Only*
- 11.7% - Physician's Office*
- 12.6% - DCO
- 8.6% - Hospital Inpatient
- 5.8% - Other hospital outpatient units/surgery ctr.

□ RxSumm--Transplnt/Endocr

- 27.5% - Hospital Inpatient
- 25.7% - Lab Only
- 15.7% - Physician's Office
- 12.8% - Other hospital outpatient units/surgery ctr.
- 9.6% - DCO
- 8.8% - RTCs



Objectives

1. To assess the additional information available at the source level given more follow-up time.
 - a. Identify which sites are impacted most.
 - b. Identify which data items are impacted most.

2. To assess the impact of resubmitted data on consolidated treatment information
 - a. Compare consolidated values using original submissions vs resubmitted records.



Methods

1. In April 2011, NYS hospitals were asked to resubmit abstracts for 2008 and 2009 analytic cases. 114 hospitals complied.
2. Resubmitted abstracts were matched to original submissions based on:
 - Facility ID
 - Accession number
 - Name
 - Birthdate

Methods (cont'd)

3. There were approximately 168,000 matched records, representing 66% of the analytic records previously reported for 2008 and 2009 diagnoses.
4. We compared treatment codes in the resubmitted to codes in the original records.
5. We also re-consolidated the treatment data, and compared the results to the originally consolidated data.

Results Overview

- Close to 23,350 records (22,600 tumors) contained treatment codes that had been updated since the initial submissions.
- Unexpected Benefit: Over 3,100 records that had been missing Month and/or Day of diagnosis were resubmitted with a more complete date of diagnosis.

Results addressing Objective 1 -

Identifying treatment information that had been updated at the source level.

- a. Identify which sites are impacted most.
- b. Identify which data items are impacted most.



Updated Treatment Codes by Site

Site	# Records with Tx Updated	% of Matched Records Updated
Breast	8,385	20.8
Lung	2,577	11.4
Prostate	1,774	9.7
Corpus Uteri	2,240	33.8
Urinary Bladder	740	10.0



Updated Treatment Codes by Modality

Treatment Modality	# Records with Updated Codes	% of Matched Records Updated
RxSumm-- Transplnt/Endocr	8,892	5.3
RxSumm—Radiation	6,460	3.9
RxSumm—Hormone	4,977	3.0
RxSumm—Chemo	4,664	2.8
RxSumm—Surg Prim Site	4,533	2.7



Updated Treatment Codes by Modality

Treatment Modality	# Records with Updated Codes	% of Matched Records Updated
Reason for No Surgery	2,367	1.4
RxSumm—Scope Reg LN Sur	1,394	0.8
RxSumm—Surg Oth Reg/Dis	194	0.1
RxSumm—BRM	147	0.09
RxSumm—Other	86	0.05



Radiation: Percent Upgraded Records by Site

	None or Unk to Some	Less Specific to More Specific	Total Improved
Breast	12.0 (n=3,353)	0.8 (n=232)	3,585
Prostate	2.7 (n=506)	0.6 (n=115)	621
Lung	1.7 (n=389)	0.4 (n=98)	487
All Cancers	5,701	759	6,460



Hormone : Percent Upgraded Records by Site

	None or Unk to Some	Less Specific to More Specific	Total Improved
Breast	14.0 (n=3,898)	1.4 (n=382)	4,280
Prostate	1.0 (n=190)	0.4 (n=75)	265
Thyroid	3.1 (n=206)	0.1 (n=9)	215
Total	4,422	555	4,977



Chemo: Percent Upgraded Records by Site

	None or Unk to Some	Less Specific to More Specific	Total Improved
Breast	3.8 (n=1,072)	1.9 (n=529)	1,601
Lung	2.1 (n=481)	1.1 (n=247)	728
Colorectal	3.0 (n=454)	1.7 (n=257)	711
All Cancers	3,105	1,559	4,664



Surgery: Percent Upgraded Records by Site

	None or Unk to Some	Less Specific to More Specific	Total Improved
Breast	1.5 (n=404)	2.4 (n=670)	1,074
Lung	0.3 (n=67)	2.8 (n=633)	700
Colorectal	1.1 (n=162)	1.8 (n=272)	434
All Cancers	1,058	3,475	4,533

Results addressing Objective 2 -

Evaluating 'added value' –

Compare consolidated values using original submissions to consolidated values using resubmissions.



Percent Cases Reported as Receiving Treatment With and Without Resubmitted Records

	Radiation		Chemo		Hormone	
	Original	Resub	Original	Resub	Original	Resub
All Cancers	28.0	29.6	27.9	28.7	10.3	11.9
Breast	42.5	49.0	35.6	37.7	32.5	42.3
Prostate	44.7	45.9	0.7	0.8	16.2	16.7
Lung	35.1	35.9	40.2	41.1	0.91	0.93

Percent of Tumors Reported as Having Received Radiation, by Sources of Reports

	Only Hospital Reports			Hospital Reports and Other Sources		
	Orig	Resub	% Inc	Orig	Resub	% Inc
All Cancers	21.3	23.4	1.9	55.8	56.6	0.8
Breast	33.0	41.3	8.3	69.4	71.5	2.1
Prostate	31.1	32.9	1.9	57.3	57.7	0.4

Percent of Tumors Reported as Having Received Chemotherapy, by Sources of Reports

	Only Hospital Reports			Hospital Reports and Other Sources		
	Orig	Resub	% Inc	Orig	Resub	% Inc
All Cancers	27.4	28.3	0.9	39.4	40.3	0.9
Breast	35.2	37.4	2.2	38.1	40.0	1.9
Lung	36.8	37.8	1.0	58.0	58.9	0.9

Percent Changes in Tumors Reported as Having Received Hormone Tx, by Sources of Reports

	Only Hospital Reports			Hospital Reports and Other Sources		
	Orig	Resub	% Inc	Orig	Resub	% Inc
All Cancers	9.7	11.3	1.6	15.3	17.3	2.0
Breast	31.2	42.0	10.8	36.8	44.4	7.7
Prostate	18.4	19.1	0.7	20.4	20.8	0.5

Distribution of Type of Reporting Source For 2008 and 2009 Cases with Unknown Treatments (Finally)

- R [REDACTED]
 - 35.9% - RTCs
 - 29.8% - Lab Only
 - 12.6% - Physician's Office
 - 13.7% - DCO
 - 5.2% - Hospital*
 - 2.7% - Other hospital outpatient units/surgery ctr.
- RxSumm--Transplnt/Endocr
 - 33.4% - Lab Only
 - 20.4% - Physician's Office
 - 15.8% - Hospital **
 - 12.4% - DCO
 - 9.6% - RTCs
 - 8.4% - Other hospital outpatient units/surgery ctr.

*Compared to 8.6% originally

**Compared to 27.5% originally

Conclusions

- The greatest impact of revised treatment information was in radiation, hormone, transplant/endocrine, and chemotherapies.
- The site most impacted with one or more changes in treatment information was breast cancer.
- The updates reduced the percent of unknown treatment, particularly for tumors only reported by hospitals.

Next Steps

- Codes other than treatment are currently being analyzed for the impact on completeness.
- Resubmitted records are being requested from all hospitals this year, not only CoC-accredited, commercial-vendor-supported facilities.

Other Considerations

Impact on reporting facilities.

Burden to IT processes.

Increased volume of stored data.

Staff time involved with matching and analysis.



Questions??