

National Program of Cancer Registries 2016 Data Quality Evaluation

Diagnosis years: 2008-2014

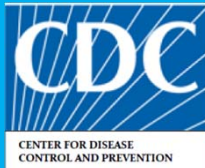
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FCDS Annual Meeting

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NPCR Data Quality Evaluation (DQE)

- Purpose
- Process
- Results
- Recommendations

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Purpose of the NPCR DQE

- Assess the quality of the data, including the accuracy and completeness of coding.
 - Complete and accurate data are important for estimating variations in and changes among population subgroups over time.
- These data are a critical because they are used for planning, operating, funding, and evaluating cancer surveillance systems.
- Westat, Inc. was awarded a multiple year contract to assess the accuracy of central cancer registry data with the sponsorship of NPCR.

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Purpose of the NPCR DQE

- Data evaluated had emphasis on policies and procedures for the following areas:
 1. Assessment of data quality
 2. Data consolidation
 3. Application of the Multiple Primary and Histology Rules
 4. Completeness of treatment information
- FCDS Policy and Procedures Manual

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Confidentiality and Security

- All electronic data was de-identified; all patient identifiers were removed.
- Staff signed all necessary confidentiality agreements before accessing confidential materials involved in the evaluation process.

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Methodology

- FCDS prepared two extract files:
 - Diagnosis years 2008-2014
 - Primary sites of breast, colon, prostate, lung, bladder, and melanoma of the skin
 - Behavior 2 or 3
- A random sample of 438 cases were selected from the submitted data file.
 - These 438 cases were reconsolidated and compared to FCDS consolidated cases.
 - Cases were reviewed for the accuracy of code against the supporting text.
- Breast and colon cases were also run through the NPCR Clinical Check Edits to evaluate reported prognostic and treatment items for cancer cases with specific tumor characteristics.

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Data Elements Reviewed

20	Patient ID Number	1220	RX Date—Chemo
40	RegistryID	1221	RX Date—Chemo Flag#
380	Sequence Number--Central	1230	RX Date—Hormone
390	Date of Diagnosis	1231	RX Date—Hormone Flag#
400	Primary Site	1240	RX Date — BRM
410	Laterality	1241	RX Date — BRM Flag#
440	Grade	1250	RX Date — Other
522	Histologic Type ICD-O-3	1251	RX Date — Other Flag#
523	Behavior Code ICD-O-3	1260	Date of Initial RX—SEER
540	Reporting Facility	1261	Date of Initial Rx-SEER Flag#
820	Regional Lymph Nodes Positive+	1270	Date of 1st Crs RX—CoC
830	Regional Lymph Nodes Examined+	1271	Date of 1st Crs RX—CoC Flag#
1200	RX Date — Surgery	1290	RX Summ—Surg Prim Site
1201	RX Date — Surgery Flag#	1292	RX Summ—Scope Reg LN Sur
1210	RX Date—Radiation	1294	RX Summ—Surg Other Reg/Dis
1211	RX Date—Radiation Flag#		

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Data Elements Reviewed

1360	Rx Summ—Radiation	2620	RX Text—Radiation (Beam)
1390	RX Summ—Chemo	2630	RX Text—Radiation Other
1400	RX Summ—Hormone	2640	RX Text—Chemo
1410	RX Summ—BRM	2650	RX Text—Hormone
1420	RX Summ—Other	2660	RX Text—BRM
1570	Rad—Regional RX Modality	2670	RX Text—Other
2520	Text—DX Proc—PE	2680	Text—Remarks
2530	Text—DX Proc—X-ray/Scan	2800	CS Tumor Size+
2540	Text—DX Proc—Scopes	2810	CS Extension+
2550	Text—DX Proc—Lab Tests	2830	CS Lymph Nodes+
2560	Text—DX Proc—Op	2850	CS Mets at Dx+
2570	Text—DX Proc—Path	2880	CS Site Specific Factor 1+
2580	Text—Primary Site Title	2900	CS Site Specific Factor 3+
2590	Text—Histology Title	3020	Derived SS2000
2600	Text—Staging	3250	RX Summ—Transplnt/Endocr

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Number of Data Elements Reviewed by Site

Site	Number of Data Elements (a)	Number of Abstracts (b)	Total Number of Data Elements (abstract-level) (c = a * b)	Number of Consolidated Tumors (d)	Total Number of Data Elements Audited (tumor-level) (e = a * d)
Bladder	23	160	3,680	73	1,679
Breast	23	158	3,634	73	1,679
Colon	23	151	3,473	73	1,679
Lung	23	154	3,542	73	1,679
Melanoma	23	154	3,542	73	1,679
Prostate	23	153	3,519	73	1,679
Total	138	930	21,390	438	10,074

DQE Results Case Consolidation

- Of a total of 10,074 possible data elements that could have had errors, only 89 data elements (0.9%) were found to have errors.
- Data accuracy rate was **99.1%**.

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DQE Results

Frequency of multiple primary errors across all sites

Total number of cases analyzed	Number of cases with no errors	Number of cases with error	Accuracy proportion
1057	1015	43	96.0%
Total number of patient level records analyzed	Number of patients with no errors	Number of patients with error	Accuracy proportion
400	372	28	93.0%

NPCR DQE Results

FCDS's overall data accuracy rate of merged data was 99.1 percent; FCDS is to be commended for this result.

NPCR Recommendations

- Continue conducting visual editing.
- Review basic abstracting principles with staff and data reporters.
- Continue to emphasize to all reporting facilities the importance of text documentation to support data elements.

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NPCR Recommendations

Florida educational training should focus on the following issues:

- MPH rules for breast primaries when Surgery of other sites indicates bilateral mastectomy.
- Grade rules for bladder tumors.
- MPH rules for colon tumors.
- Laterality coding rules for melanoma of the skin tumors.
- Correct code for bilobectomy treatment for lung tumors.
- Correct coding of Regional lymph nodes status and CS SSF1 for lung tumors

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