

Oncology Out-Migration Trends

PURPOSE:

The purpose of this review was to determine out-migration trends for oncology care over the past five years. The study was initiated because a report from Administration revealed an increase to 40% of oncology inpatient discharges occurring somewhere other than St. Joseph Hospital (SJH) for people with Whatcom County zip codes. The basis of this report was the CHARS statewide inpatient discharge database.

The St. Joseph Cancer Committee felt that, except for non-leukemia chemotherapy, most of the cases identified in the CHARS report were not surprising considering the current range of services available in our community. The Cancer Committee also felt the report was insufficient to assess overall oncology out-migration due to inherent limitations of inpatient data. Nationally and locally, the number of cancer patients who receive inpatient care is declining. The recent numbers estimate that over 85% of oncology episodes of care are now outpatient.

METHOD:

Cancer is a reportable disease under State law. Medical providers in Whatcom County satisfy this reporting obligation by participating in the SJH Tumor Registry. Registry data were reviewed for indications of out-migration.

The Tumor Registry places each patient in a Class of Case (COC) depending on where diagnosis and treatment occurred. Service is recorded as provided “here” if it occurred at St. Joseph Hospital, Northwest Pathology, Pacific Rim Surgery Center, Bellingham Surgery Center and/or Mt. Baker Imaging. See the Appendix for more detail about COC classifications. Table and Chart #1 show the number of patients within each Class of Case for the past five years. Very few patients are not diagnosed and treated here, and the proportion has apparently not grown significantly.

Table 1: Class of Case	2001	2002	2003	2004	2005
0=Diagnosis here, all 1st course treatment elsewhere	38	34	49	66	65
1=Diagnosis here, all or part of 1st course treatment here	704	729	750	743	800
2=Diagnosis elsewhere, part or all of 1st course treatment here	25	29	35	30	37
3=Diagnosis elsewhere, 1st course of treatment elsewhere	20	4	0	2	3
5=First diagnosed at autopsy	0	0	0	1	0
6=Diagnosis & all 1st course treatment only in staff MDs office	172	178	186	210	182
TOTAL NEW CASES	959	974	1020	1052	1087

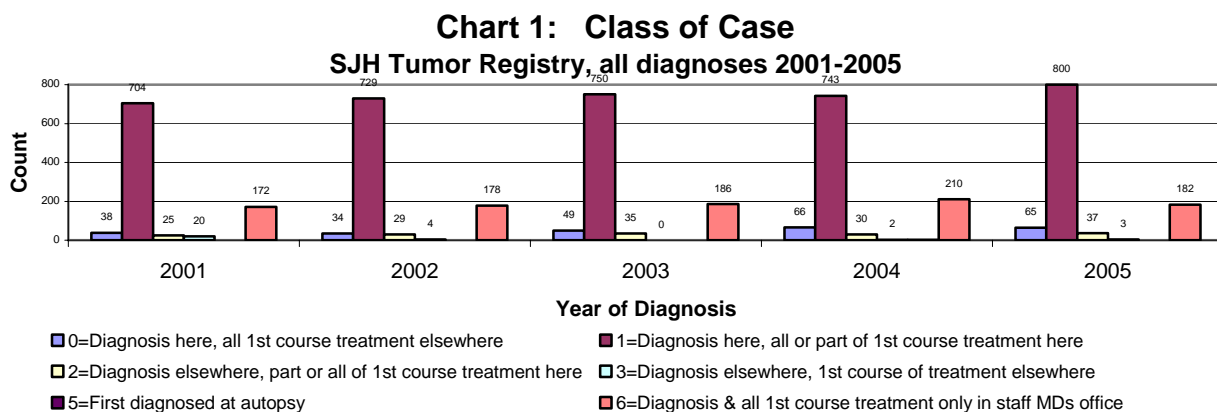


Table 2 identifies the county of residence at the time of diagnosis for cases recorded in the St. Joseph Tumor Registry. As expected the vast number are from our primary service area of Whatcom County. The numbers of patients from the hospital's secondary service area of Skagit is small due to the presence of a cancer center in Skagit County. San Juan County patients have a number of choices for oncology care, which includes Seattle, Skagit County or St. Joseph Hospital.

	2001	2002	2003	2004	2005
Whatcom	886	893	981	985	1016
Skagit	21	35	15	24	20
San Juan	18	22	11	13	27
Others	34	24	16	30	26
TOTAL NEW CASES	959	974	1023	1052	1089
<i>% from Secondary Service Area</i>	7.6%	8.3%	4.1%	6.4%	6.7%

Chart 2 shows the percentage of cases from each county that were diagnosed or treated at SJH. We rely heavily on the San Juan volunteer pilots association to transport patients to their treatments here at SJH. The availability of this program from year to year may be the reason for the fluctuation of San Juan patients seen in Chart 2.

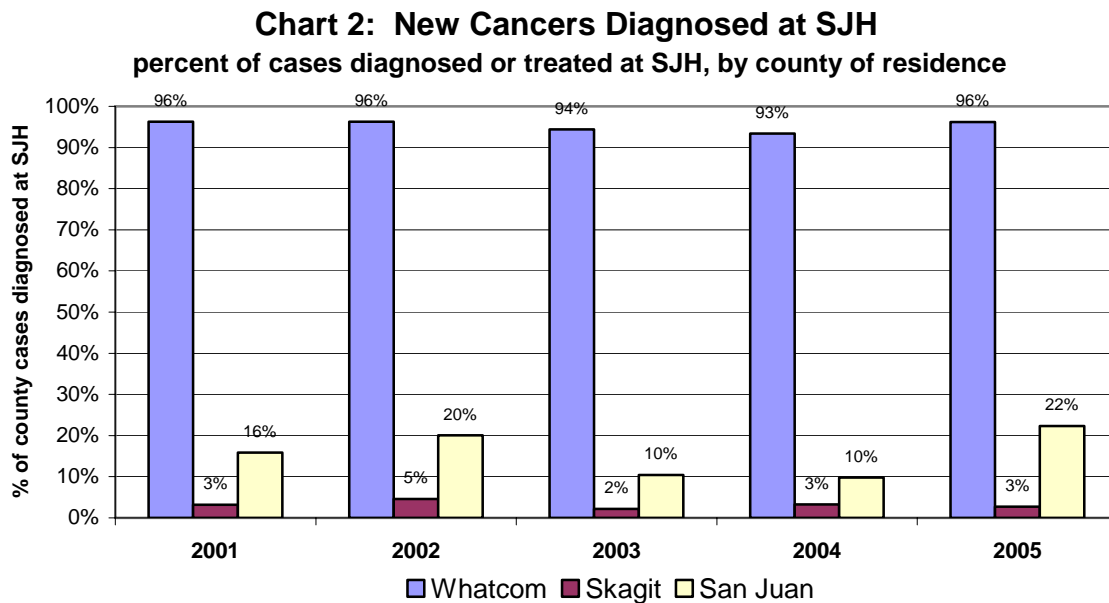


Table 3 summarizes all known cases of out-migration, which includes: COC-0; COC-3; plus Whatcom County residents with new cancers not recorded in the SJH Tumor Registry. From this data it is estimated that approximately 10% of Whatcom County patients with a new cancer diagnosis receive all or part of their diagnosis and treatment care outside the area. This percentage appears relatively stable over the past five years.

Table 3: Cancer Diagnoses Recorded for Whatcom County Residents					
WA State Cancer Registry					
	2001	2002	2003	2004	2005
Cancer diagnoses for Whatcom County residents (per WA State Tumor Registry)	920	954	1039	1054	1056
Cancer diagnoses for Whatcom County residents, SJH (per SJH Tumor Registry)	886	893	981	985	1016
Whatcom cases diagnosed but not shown in SJH Registry (out-migration)	34	61	58	69	40
Additional out-migration identified within the SJH Tumor Registry:					
COC-0	38	34	49	66	65
COC-3	20	4	0	2	3
TOTAL KNOWN OUTMIGRATION (component from COC-1 is unmeasurable)	92	99	107	137	108
<i>% of Total Whatcom County Cancer Cases with Certain Out-migration</i>	<i>10.0%</i>	<i>10.4%</i>	<i>10.3%</i>	<i>13.0%</i>	<i>10.2%</i>

An additional but unmeasured component of out-migrated care is contained in COC-1 and -2, where patients with “all or part of treatment here” are mixed within one code. 80% of cases are in either COC-1 or -2, so unfortunately for most Registry cases there is no code to identify the number who had all care here, versus those who went elsewhere for part of their care. Another confounding factor is that Registry treatment data is limited to initial diagnosis only. Although 12% of cases initially diagnosed in 2000 have subsequently been diagnosed with a recurrence, the Tumor Registry contains no information concerning that treatment -- either local or out-of-area.

CONCLUSION:

The perceived increase in out-migration as reported from inpatient data may be misleading. More routine, less invasive and less complex aspects of cancer care continue to move toward the outpatient setting. For the diminishing number of patients who receive inpatient care, the emphasis is on highly complex and specialized oncology treatment. This type of care is not provided at St. Joseph Hospital and it is appropriate for that care to be provided out of area.

Data from the St. Joseph Tumor Registry suggests that the number of patients who completely out-migrate from the area or from the hospital has held steady over the past five years as has the in-migration from our secondary service areas. However, this data is suggestive only and not conclusive due to coding limitations described above.

What is not available from this data is whether patients in Class of Case 1 or 2 receive an increasing “part of care” out of area. Our Registry data and available medical records may be able to answer this question but would require a more extensive chart review. It is estimated that a minimum of 160 hours of additional unfunded registry time would be needed for this review, which is beyond the budgeted staffing resources of the St. Joseph Cancer Program. With a major cancer center scheduled to open soon in Skagit County, it would be prudent to continue monitoring for out-migration through CHARS data review and by repeating this study in one year.

APPENDIX: Class of Case definitions

COC 0 – includes all patients who are diagnosed here* and receive all treatment elsewhere (out-of-area). COC 0 is comprised of true out-migration cases.

COC 1 - includes patients who are diagnosed here and receive all or part of treatment here. COC 1 contains a mix of outmigration and local care. All three examples below are COC 1:

Patient A was diagnosed here, went to Seattle for most of care (surgery and chemotherapy), then returned to Bellingham for radiation.

Patient B had most care here (initial surgery, chemo and radiation), then went to Seattle for additional surgery not available locally.

Patient C had chemotherapy in Skagit County and radiation here.

COC 2 - includes patients who were diagnosed elsewhere (out-of-area) and received all or part of treatment here.

COC 3 – includes people from Whatcom zip codes who go elsewhere for all diagnosis and treatment. COC 3 cases are wholly out-migration, and are invisible to our registry unless there is a later event that brings them to our attention. The only reliable source to accurately quantify COC 3 cases is the WA State cancer registry.

COC 6 – includes patients who are diagnosed and treated in physician offices. The most frequent sites of cancer in COC 6 include bladder, prostate, skin, multiple myeloma and lymphoma.

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