

# Operational and Financial Benchmarking for Oncology

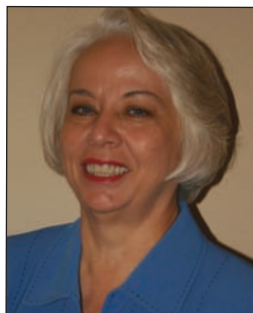
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As healthcare consumes a significant portion of the US budget, oncology services similarly consume a significant portion of any hospital's budget. The need to recruit qualified and well-paid clinicians, the continuing medical arms race to ensure the hospital remains competitive by providing physicians and staff with the latest technical equipment, as well as the desire to satisfy increasing consumer demands for a reasonable clinical experience (eg, physician office wait times, navigation to traverse the physical confines of hospitals and their many facility add-ons, nontraditional treatment-hour extensions to enable individuals to continue working) all converge to ensure an active cancer program administrator is often in the position of requesting yet additional dollars to improve cancer care services, upgrade oncology equipment, or recruit new or additional specialized staff.

Although the term "benchmarking" is ubiquitous in quality-of-care literature, of immediate importance to cancer program administrators is their ongoing challenge with internal hospital competition for acquiring access to scarce or limited resources (eg, equipment dollars, capital budget funds). Because it is a highly technical field (often coupled with intense consumer/patient/media scrutiny) without adequate funding, cancer programs may quickly fall behind and begin to bleed patient volume to competitors.

Program leaders often ask for accept-



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ed standards or benchmarks to establish a baseline need as they prepare a compelling (and successful) business case for whatever service extension, facility improvement, or staff recruitment challenge the program currently faces. Whereas certain benchmarks are well established, such as profitability, The

Oncology Group queried participants on the Association of Cancer Executives (ACE) listserv regarding what other oncology-specific benchmarks or metrics experienced administrators found useful. An original survey was conducted in November 2007, and a similar survey was conducted in early 2010. Differences between the 2 years will be shown.

## The survey

The survey asked respondents (the ACE listserv) to answer this series of open-ended questions.

As you work to position your cancer center within the confines of the larger hospital:

- What are the three to five most important benchmarks that you use to make your case for resources and support from senior administration; or which benchmarks does your administration require?
- What information/metrics/numbers do you need to sell the importance of oncology to your senior team?
- What metrics or resources do you use? Also, what has been successful?
- What metrics do you track and report on your oncology dashboard?

- And most importantly, what metrics have proven most useful to your team?
- If the hospital uses a balanced scorecard, what specific measures does your team use to track oncology services (eg, productivity standards for radiation therapy, department-based profit margin, cost-per-case, etc).

## Survey findings

Seventeen experienced hospital cancer program administrators responded to the survey in 2007. Fourteen (82%) of the respondents represented large community hospital cancer programs. The remaining respondents (3; 18%) represented academic center cancer programs. In 2010, eight administrators responded, all from community hospitals.

## Primacy of financial metrics

As expected, when reporting to senior administration, most respondents focused on financial metrics. Seventy-six percent (13) in 2007 and 85% (7) in 2010 of the program administrators used some type of financial metric for reporting. Whereas some used a full service line financial metric, others used departmental measures as a surrogate. This is not uncommon, as many hospitals find it difficult to roll up the total financial impact cancer has on a hospital/health

system (especially outpatient downstream revenue in pharmacy, radiology, surgery, and laboratory). In 2010, the trend was to use hospital-wide financials, which, in some cases, the respondents said "were not useful." For example, financials were based on Medicare severity diagnosis-related groups (MS DRGs) and not ICD-9-CM codes or were for hospital inpatient only.

Table 1 lists financial measurements oncology program administrators reported they use and find useful to achieve their objectives with senior administration.

## Patient volume also used by most

The next most common metric, patient volume, is relatively easy to measure and was used by 65% (11) of the respondents in 2007 and 100% of the 2010 respondents. However, it must be cautioned that using volume only may not provide an accurate picture of program growth. If the market is growing and your institution's or cancer program's volume is not keeping pace with that growth, the hospital (or the program) may be losing market share. Table 2 lists typical patient volume measures respondents reported using.

An interesting difference seen in 2010 was that half (4) of the hospitals monitored volume per physician (such as cases per medical oncologist; referrals

**Table 1. Financial Benchmarks Used by Oncology Program Administrators**

- Cost per unit (whether it be treatments, patient day, etc)
- Net margin per type of case; or for cancer patients overall
- Service line profitability
- Net revenue per patient visit
- Program operating margin
- Salary dollars per visit
- Expense per statistic
- Downstream referrals to radiation and surgical oncology from breast center
- Profit margins—to include downstream revenue
- Downstream revenue from medical oncology

**Table 2. Patient Volume Measurements Typically Used by Cancer Program Leaders**

- New analytic and nonanalytic patient volumes (cancer registry data)
- New patient visits—radiation oncology or medical oncology
- Number of patients enrolled in clinical trials
- Number of cases presented to tumor board
- Patient volumes by treatment specialty (ie, medical oncology, radiation oncology, surgical oncology)
- Hospital (inpatient) cancer admissions (all but one respondent reported using ICD-9-CM codes rather than cancer diagnosis-related groups)
- Room turns per day for outpatient oncology

**Table 3. Physician Volume Metrics**

- New patient visits per medical oncologist
- Oncology referrals to medical oncologist
- Mammograms per radiologist
- Breast surgeon visits
- Office visit volumes

**Table 4. Useful Productivity Benchmarks**

- Variance to budgeted full-time equivalents
- Overtime utilization
- Full-time equivalents per visit
- Productivity compared with Solucient data
- Billed units of activity per full-time equivalent

**Table 5. Clinical Quality Guidelines/Metrics Program Leaders Report Using**

- Percent of analytic cancer patients enrolled on clinical protocols
- Adherence to National Comprehensive Cancer Network clinical practice guidelines
- Use of Physician Quality Reporting Initiative indicators
- Percent of observed deaths and mortality index
- American Society of Clinical Oncology's Quality Oncology Practice Initiative metrics
- Time from initial presentation to biopsy
- 5-Year survival rates
- Percent of patients diagnosed in stages 0 to II
- Percent of patients receiving a pain assessment

**Table 6. Treatment-specific Data Seen as Useful**

- Percent of radiation oncology patients receiving intensity-modulated radiation therapy
- Treatments per field for radiation therapy patients
- External-beam treatments per patient
- Percent of breast cancer patients who have a sentinel node study
- Ratio of new patients to all visits for medical oncology

to breast surgeon). This indicates that a growing number of cancer programs have closer alignment models (including employment) for cancer physicians than were evident in 2007. Volume and productivity measures are listed in Tables 3.

### More than half report using clinical quality guidelines

Just over half (53%; 9) of the respondents in 2007 and 25% (2) in 2010 reported using some clinical quality guidelines when preparing a business case. A number of programs used specific clinical quality guidelines and relied on numerous pages of quality measures and benchmarks, based on the American Society of Clinical Oncology's Quality Oncology Practice Initiative, the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology series, and other groups. Other programs reported using very few (ie, 1-5) clinical quality measures. Table 5 lists a sample of clinical quality metrics that several program leaders noted are of value to them and to their senior administrators.

### Productivity benchmarks seen as valuable

More than one third (35%; 6) of respondents in 2007 and up to 62% of the 2010 respondents indicated reporting operational productivity statistics carried weight with hospital administrators. These metrics appeared most often to be monitored for radiation therapy departments. Table 4 lists examples of these benchmarks.

### Patient satisfaction metrics important to some

More than one third (35%) of respondents in each year also noted that they used measurements of patient satisfaction to make their cases for additional resources. Most respondents did not list specific patient satisfaction measurements, though some noted they compared themselves with local results from Press Ganey data. A few respondents also noted that they used department-specific patient satisfaction scores as opposed to hospital-wide or cancer patient-specific surveys. Survey analysts assume these were tailored to the specific business case being made, or

perhaps to what patient satisfaction tools or outcomes data were available in the institution.

### Treatment volumes spell revenue

Surprisingly, less than one third (29%; 5) of respondents noted that they routinely used treatments per visit or types of treatment metrics in their operational or planning work in 2007. In 2010, that number was up significantly to 100%. Table 6 lists treatment-specific volumes

some respondents report as useful.

### Market share cited less often

Survey analysts are surprised also by the low importance apparently given to market share. Only three (18%) respondents noted that they used market share as an ongoing tracked metric in 2007. Analysts surmised this may be because inpatient market share data (although almost universally available) is such a

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## Operational and Financial Benchmarking Recommendations

1. Know your institution's leaders
  - Lead with data that address their priorities
  - Educate as you go—gradually introduce new information to enable them to make better decisions about cancer care
2. Emphasize the obvious through data (be mindful that facts which may be obvious to insiders are unappreciated by broader hospital leaders)
  - Cancer care is expected to grow in their career lifetimes
  - It is heavily outpatient, and it is profitable (margin)
  - It is dependent on a strong physician referral base (track these data)
  - When done well, it generates goodwill in the community and repeat hospital business
  - When done poorly (and this can involve simple patient dissatisfaction), the results are evident and the experience is discussed widely
  - Breast, lung, colorectal, and prostate cancer (The Big Four) drive both margin and mission in the United States
  - Using diagnosis-related groups seriously underreports cancer care's impact on the institution
3. Work with the primacy of financial data
  - Model expected revenue per patient
  - Lead with profitability and contribution data
  - Calculate site-specific financials when requesting site-based funds (eg, breast center, prostate-disease specific equipment, etc)
4. Measure hospital benchmarks, but develop cancer-specific metrics
  - Create specific cancer care benchmarks that are not only important but resonate with hospital leaders
  - Measure performance of major service components; track US cancer's Big Four sites
5. Use benchmarks that have national comparables
  - Use national productivity and capacity benchmarks to ensure efficiency and staff/physician satisfaction or acceptance
  - Compare national and local data to jump-start quality or efficiency efforts
6. Focus on market data—and use data to communicate a broad respect for cancer care's contribution
  - Track program growth in the context of community growth and competitor actions
  - Develop a reasonable model to report outpatient market share (and to show geographic markets for cancer and the hospital may differ somewhat)
  - Use data to your best advantage by marketing to the internal audience (including referring physicians, senior management, the board, the volunteer cadre, and foundation members)
7. Develop a benchmarking plan
  - Develop a recurring set of statistical benchmarks that will assist you and leaders to best understand the successes/challenges of the institution's cancer care business and patient services model
  - Develop a consistent tracking and reporting data set and timetable

diaphragm peritonectomy, and resection of tumor implants followed by treatment with a combination of intravenous and intraperitoneal cisplatin and paclitaxel. With this regimen chosen, preventing or minimizing toxicities became our secondary focus. When patients experienced CIPN, docetaxel was substituted for paclitaxel and supportive care measures were implemented. When the disease recurred, her platinum-sensitive status led to treatment with a platinum drug (carboplatin) and liposomal doxorubicin, which was favored over paclitaxel because of her history of CIPN. This patient continues to do well. ●

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poor measure of actual oncology patient volume, which is largely outpatient; or because local program administrators find it difficult to secure valid and reliable outpatient or analytic case market share data for their institution and certainly for competitors.

In 2010, this theory was supported, with respondents saying things such as “our hospital uses state-wide data for market share, but it is MS-DRG-based, which is not useful for the cancer program.” Others are utilizing cancer registry data for market share, but realize the limitation of timing for this measurement.

### Time to treatment used rarely

One key patient *dis*-satisfier is often time to treatment, defined as the time from diagnosis to definitive treatment. Two (12%) respondents indicated that they used a time to treatment benchmark as part of their operational evaluations in 2007; no respondent reported using this metric in 2010.

### Remaining benchmarks

Respondents identified many other measurements they used in developing business cases or requests for resources. These included:

- Technology assessment based on the advisory board
- Number of individuals attending community events

- Grant or contract funding available for particular program elements.

An interesting finding seen in 2010 but not seen in 2007 was the number of respondents who stated that they measured the use of drug replacement programs to show money saved to justify support for that program. Just over one third (3) of the respondents reported measuring this metric.

### Conclusions and discussion

These survey results, although informal and limited in their general use, do show that cancer program administrators use a vast array of indicators to support their requests for continued or increased funding. As working oncology program administrators recognize (but which fewer hospital administrators may know), cancer care often represents 10% to 15% of a general hospital's revenue. Furthermore, cancer patients often provide the majority of vaunted patient volume for at least three key hospital departments—the operating room, diagnostic radiology, and laboratory/pathology.

Moreover, as reimbursement continues to be “rationalized,” an increasing number of supportive care or ancillary services targeted to cancer patients remain unfunded by the Centers for Medicare & Medicaid Services and other major insurers. These unreim-

bursed items include program elements such as patient navigation, nutrition counseling, financial counseling, support programs (support groups), and education. All these factors make it clear to program administrators that it is incumbent on them to continue to procure the funds necessary to care for individuals diagnosed with cancer who come to their institution for all, or most, of their care.

Procuring these funds typically requires the program administrator to “frame the cancer experience from the view of senior management,” as Catherine Harvey, RN, DrPH, AOCN, a leading cancer business consultant, puts it. This means coming to budget meetings armed with the facts that will tell your institution's cancer care story in a compelling manner that covers both margin and mission. ●

## Breast MRI Accreditation Program

In May 2010, the American College of Radiology (ACR) Committee on Breast Magnetic Resonance Imaging (MRI) Accreditation launched its Breast MRI Accreditation Program (BMRAP). This program enables facilities to improve and maintain the quality of their breast MRI services through a peer-reviewed assessment of their processes, equipment, and the quality of their images. BMRAP sets quality standards for providers and will help them continuously improve their patient care by evaluating the qualifications of personnel, equipment performance, effectiveness of quality control measures, and image quality. For facilities that solely offer breast MRI services, BMRAP fulfills the accreditation requirements under the Medicare Improvements for Patients and Providers Act. The ACR has accredited more than 20,000 facilities nationwide and has added to its staff of certified radiologic technologists to help providers through all stages of the accreditation process. The ACR does not require a fee to access the application nor an annual fee. ●