THE BERYL INSTITUTE

ROI TOOLKIT

THE HOSPITAL MARKETER'S GUIDE TO MEASURING CREDIBLE RETURN ON MARKETING INVESTMENTS

BERYL

INTRODUCTION

For years, hospital marketers and CFOs have been at odds with one another over what constitutes a credible method for measuring returns on marketing expenditures. CFOs have long said they would eagerly support any marketing expenditures – even increasing marketing expenditures – if they could be convinced the result would be positive returns.

Until recently, most marketers didn't have the information necessary to convince CFOs that a particular marketing investment would pay off. Further, they didn't comprehend the metrics CFOs were evaluating. At the end of the day, neither had developed a methodology and formula that they could agree led to a credible result.

Today, however, the tide is turning. CFOs and marketers have come together and now agree on certain methodologies for matching consumer responses to marketing campaigns against patient activity which leads not only to revenue, but to profit. And they have agreed on a formula that will help them arrive at that conclusion.
Now, more than ever before, CEOs and CFOs agree that marketing works and they are lauding favor – and additional funding – on the marketers within their organizations.

Herein, we will answer the question that CEOs and CFOs ask and marketers struggle to answer:

"How do you know they wouldn't have come here anyway?"

This document is the result of numerous interviews with hospital CEOs, CFOs and marketers. It provides background on the discussions, consensus-based conclusions reached and the tools that can be utilized to determine returns on marketing investments (ROI).

"Working directly with finance to conduct the analysis and validate results was the best decision I could have made. We have substantiation that our marketing efforts are delivering results, significant results."

Pedro Ibarbia II
Director – Marketing Call Center
NewYork-Presbyterian Hospital

SOLUCIENT ON CALL CENTERS

A recently released four-year study of hospital call centers by Solucient[1] entitled The Call Center As A Marketing Channel concluded:

Call centers drive revenue and profitability.

- The average hospital call center caller generates $13,848 in hospital charges within twelve months after calling versus $5,524 for patients overall.
- Every telephone call to a hospital's call center represents more than $4,000 in downstream charges within twelve months.
- Hospital call center callers have more managed care coverage (HMO/PPO) and less Medicaid coverage than those who don't call hospital call centers.
- Hospital call center callers are twice as likely to be self-pay than patients overall.
- One in four hospital call center callers will have an inpatient or outpatient visit within the next twelve months.

Call centers support patient loyalty.

- 20 percent of all your customers will call your hospital's call center in a given year.
- 60 percent of all hospital call center callers are repeat callers.
- Repeat callers use more hospital services than one-time callers.
- Retention rate for hospital call centers is 70 percent versus 46 percent for those who don't call hospital call centers. (Note: retention rate means multiple hospital visits.)

Hospital call centers attract more highly valued customers.

- 71 percent of all hospital call center callers are women.
- 74 percent of all hospital call center callers are between 21 and 45 years of age.
- Seniors represent 18 percent of callers but account for 33 percent of downstream charges.
- Hospital call center callers have 25 percent more income than those who don't call hospital call centers.
- Hospital call center callers are more engaged, spend more time making healthcare decisions, and use the Internet at a higher rate than those who don't call hospital call centers.

REVENUE RECONCILIATION

The revenue reconciliation (or "patient match") process is crucial to producing a credible ROI.

The accuracy of your report has a great deal to do with how you match call center data to patient data. To ensure the greatest likelihood that call center data and patient data refer to the same person, Beryl suggests applying the following sets of filtering criteria in consecutive order, removing matched records as they are found:

- Last name, first name, date of birth
- Last name, first name, phone number
- Last name, phone number, date of birth
- Zip code, phone number
- Phone number, date of birth

[1]Reprinted with permission. Solucient is the nation's leading source of health care business information, concentrating on operational performance improvement, clinical performance improvement, and strategic planning and marketing.

CONSIDERATIONS

- A "family" match can occur. Those individuals calling hospital call centers are often calling about a family member who will become the actual patient. Those matches occur when the phone number is the same.
- Charges for a new mother and her newborn child will both be recorded as a match against a single caller record – the mother.
- The recommended revenue reconciliation process looks back 12 to 18 months from the date of the first patient record provided.
- For callers who have contacted the call center more than once, the date of their first call appears on the report.
- A match will occur only if the call date precedes the discharge date.
- Discharge patient records typically include inpatient, outpatient and emergency room patients.
- Since most physicians' offices maintain separate billing databases, physician office charges are never included in these reconciliation practices.
- If a patient has been treated more than once within the specified date range, their charges will be totaled and the corresponding number of visits will be indicated.

To prepare to reconcile records, Beryl clients' IT departments provide a data dump of their inpatient, outpatient and Emergency Department records to Beryl.

Data is sent to Beryl via:

- Beryl Customer Support Site at https://secure.beryl.net/css. ID and Password supplied by Beryl Account Executive.

  Data should be sent to Beryl in one of the following formats (shown in order of preference):

- Comma delimited format. Example follows:
  "12","Doe","John","K","19500302"

- Straight Data Format (SDF) Example follows:
  12Doe<17spaces>John<16spaces> …

Beryl clients provide Beryl the data already organized in the fields and format that appears on the following page.

COMMON QUESTIONS

Q: Should revenue be counted for patients entering through the Emergency Department?
A: Most hospitals do count charges for patients that entered the organization through the ED. The ROI calculation shown later deletes a variety of revenue types which will account for patients who chose this hospital because of proximity, not marketing efforts.

Q: How do you account for contractuals?
A: CFO provided a percent of total revenue for contractuals which was then subtracted from the total revenue reconciled.

HIPAA AND REVENUE RECONCILIATION

When a hospital contracts with Beryl, it agrees to a clause referring to Beryl as a business associate of the hospital. This relationship is viewed in the courts as similar to Beryl being another department within the hospital.

Data is transmitted to Beryl through secure encrypted means and only the data pertinent to a match is transferred. No medical condition or procedures about the patient are included.

Thus, the procedures being recommended herein are HIPAA compliant.

FILE FORMAT

FIELD	FIELD NAME	REQUIRED?	LENGTH	DESCRIPTION & FORMAT
1	LAST NAME	YES	20	LAST NAME
2	FIRST NAME	YES	15	FIRST NAME
3	BIRTH DATE	YES	8	DATE OF BIRTH - (IN YYYYMMDD FORMAT)
4	ADDRESS	YES	24	STREET ADDRESS
5	CITY	NO	15	CITY
6	STATE	NO	2	STATE
7	ZIP	YES	5	ZIP CODE
8	PHONE	YES	12	PHONE NUMBER (IN 999 999 9999 OR 999-999-9999 FORMAT)
9	GENDER	NO	1	SEX
10	ADMIT DATE	YES	8	DATE OF ADMISSION - (IN MM/DD/YYYY FORMAT)
11	FIN CLASS	NO	100	FINANCIAL CLASS/PAYOR CODE
12	MED REC NO	NO	10	MEDICAL RECORD NUMBER
13	TOT_CHG	YES	8	TOTAL CHARGES FOR PATIENT STAY
14	NEW	NO	1	VALUE IS 'Y' FOR NEW AND 'N' FOR EXISTING
15	PATIENT VISIT TYPE (IP, OP, ED)	NO	1	I = INPATIENT O = OUTPATIENT ED= EMERGENCY

RECONCILIATION REPORTS

Once the revenue reconciliation process is complete, a number of reports are created, including:

- Executive Summary
- Match Summary
- Financial Class Breakdown
- How Heard Listing
- Service Patient Match
- Registration Patient Match

The next page contains a sample Executive Summary:

Return on Investment Executive Dashboard

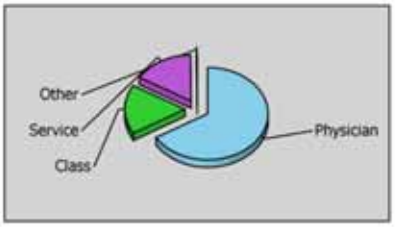
Sample Health System

Patient Admit/Discharge Date Range: 1/1/2003 - 12/31/2003

Call Date Range: 1/1/2002 - 12/31/2003

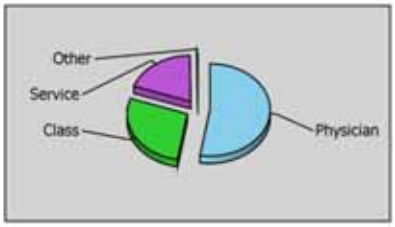
Total Dollars Matched	$73,068,422
Total Inter-System Charges	$0
Average Dollars per Unique Patient	$10,157
Average Dollars per Call	$3,123

% Charges by Call Type



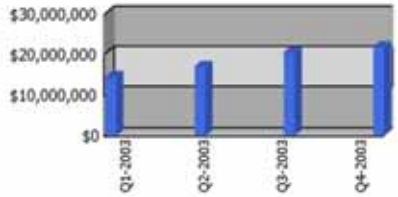
Physician	$48,474,628	66.34 %
Class	$12,566,722	17.20 %
Service	$11,917,531	16.31 %
Other	$109,541	0.15 %

% of Unique Patients by Call Type

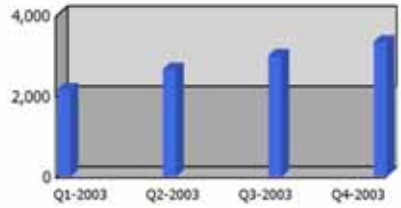


Physician	3,784	52.60 %
Class	2,000	27.80 %
Service	1,393	19.36 %
Other	17	0.24 %

Trended Charges



Trended Patients



Inpatient	$61,832,109
Outpatients	$9,237,207
Emergency Patients	$1,999,106
New Patients	$5,804,034
Returning Patients	$67,264,388

Billing Records	228,627
Calls Received	23,395
Unique Patients **	7,194

** Patient counted once regardless of number of hospital encounters in the designated date range.

COMMON QUESTIONS

Q: What period is appropriate for determining matches in the revenue reconciliation process?

A: For all call center records, most hospitals match to patient charges that occur within 18 months following the call date.

Q: How do you account for business we would have gotten had you not made the marketing investment?

A: Utilizing existing tracking tools to make a close, reportable connection between marketing activities, resulting calls and ultimate admissions is your best solution.

One way to accomplish that is to separate new patients from existing patients – by showing a caller has not been admitted within the past 24 months, it is far more likely that they were influenced by the marketing activities.

Another way is to ask the patients – some hospitals survey patients upon admission to determine if the hospital's marketing efforts were a significant factor in their decision-making process.

The easiest way however is to subtract the hospital's existing market share – if a hospital already has 15 percent of the market, you can take that off the top and the resulting numbers will still be impressive.

DETERMINING ROI

By now, most hospitals have gone to a profit and loss (P&L) model of financial accounting and determined which of their services and centers are most profitable. Cardiology, orthopedics and oncology are generally among the most profitable centers in any organization. It makes sense then that those are the services and centers on which marketers focus their attention and their budgets. So it makes sense that, in addition to overall ROI analysis, separate ROI analyses are conducted for each marketing campaign and/or each service or center promoted. The process is the same.

STEP 1

Complete revenue reconciliation process utilizing your call center database and your patient records as indicated earlier herein. This process will yield a dollar figure called "Reconciled Revenue."

STEP 2

From "Reconciled Revenue" subtract the percent your CFO tells you represents your organization's "Contractuals" (discounts given up by your hospital to managed care and other payers). This process will yield a dollar figure called "Net Revenue."

STEP 3

From "Net Revenue" subtract the percent your market research indicates is your organization's "Market Share." This step is performed to address or eliminate the portion of revenue that would have naturally occurred regardless of any marketing activity. This process will yield a dollar figure called "Adjusted Revenue."

STEP 4

From "Adjusted Revenue" subtract the percent your CFO tells you represents your organization's "Direct Cost of Care." This will yield a dollar figure called "Contribution Margin." NOTE: some hospitals stop here and proceed to Step 6. Others are more conservative and conduct Step 5 & 6.

STEP 5

Now multiply the percent your CFO tells you represents your organization's "Indirect Cost Allocation" by "Adjusted Revenue" and subtract the resulting number from the "Contribution Margin." This will yield a dollar figure called "Marginal Profit."

STEP 6

State ROI. Many hospitals will stop after Step 4 above and calculate their ROI. For these hospitals ROI calculation is achieved by dividing the "Contribution Margin" by the "Marketing Costs." For organizations that take the most conservative approach, ROI is achieved by dividing the "Marginal Profit" by the "Marketing Costs." The result of either calculation should be shown as:

For every dollar spent on marketing, 'x' dollars were contributed to the organization. Additionally, this can be shown as a ratio of 'x':1.

SAMPLE CALCULATION

STEP 1	RECONCILED REVENUE		$ 17,512,624
STEP 2	LESS CONTRACTUALS (CFO SAYS IT IS 30%) X RECONCILED REVENUE	-	$ 5,253,787
	EQUALS NET REVENUE	=	$ 12,258,837
STEP 3	LESS MARKET SHARE (MARKET RESEARCH SAYS IT IS 15%) X NET REVENUE	-	$ 1,838,826
	EQUALS ADJUSTED REVENUE	=	$ 10,420,011
STEP 4	LESS DIRECT COST OF CARE (CFO SAYS IT IS 40%) X ADJUSTED REVENUE	-	$ 4,168,004
	EQUALS CONTRIBUTION MARGIN	=	$ 6,252,007
STEP 5	LESS INDIRECT COST ALLOCATION (CFO SAYS IT IS 25%) X ADJUSTED REVENUE	-	$ 2,605,003
	EQUALS MARGINAL PROFIT	=	$ 3,647,004

STEP 6 DETERMINING ROI:
LESS CONSERVATIVE APPROACH
(STEPS 1-4 AND 6)

CONTRIBUTION MARGIN		$ 6,252,007
DIVIDED BY MARKETING COSTS	/	$ 827,520
EQUALS ROI	=	$ 7.56

So, for every $1 spent on marketing, $7.56 was returned to the organization. Or ROI was 7.56:1.

MORE CONSERVATIVE APPROACH
(STEPS 1-6)

MARGINAL PROFIT		$ 3,647,004
DIVIDED BY MARKETING COSTS	/	$ 827,520
EQUALS ROI	=	$ 4.41

So, for every $1 spent on marketing, $4.41 was returned to the organization. Or, ROI was 4.41:1.

PRESENTING TO CEO/CFO

Revenue reconciliation and ROI reports can be powerful tools and can position the marketer as invaluable to the organization in the eyes of the CEO, CFO and Board. Beryl's team can assist you in more complex analysis and use of your Beryl reports for strategic planning purposes. Here are a few examples:

- Compare your financial class codes to your overall patient discharge records. For instance, if 32 percent of your hospital patients are insured by an HMO, but 42 percent of your caller revenue is generated by HMO patients, the analysis tells us your caller population is better insured than your overall patient population. If you locate those HMO patient names on your "How Heard" report, you can determined which marketing vehicles are driving "good-payor" patient volume into your organization. The reverse is also true – how are the uncompensated or Medicaid patients learning about your hospital services? Should less emphasis be placed on those marketing efforts?

- Compare your "How Heard" report to your marketing spending. Are those high cost advertising items bringing in the revenue or are the smaller ticket items driving just as much?

- Examine your "Patient Registration Summary" and determine which of your callers are accessing more than one class or screening. Are these patients in your target market? Are they well insured? These callers are most loyal to your institution and should become part of your Customer Relationship Management (CRM) strategy.

- Compare all your reports to same period results. How has the percentage of revenue in the "Financial Class" and "How Heard" categories changed?

SAMPLE HOSPITAL

Marketing Results - 1/1/2002 - 12/31/2002
EXECUTIVE SUMMARY

# Calls Received	**$**	**14,324**
# Records Matched		**2,901**
Total $ Matched	**$**	**17,512,624**
Marketing Costs	**$**	**827,520**
Average $/Call	**$**	**1,223**

SAMPLE HOSPITAL

Contribution Margin	**$**	**6,252,007**
Average Margin/Call		**436**
ROI @ Contribution Margin		**7.56:1**
Marginal Profit	**$**	**3,647,004**
Average Profit per Call	**$**	**255**
ROI @ Marginal Profit		**4.41:1**

SAMPLE HOSPITAL

>Financial Class Analysis
- Call center patients are better insured than the general population - 48% of callers who become patients are insured versus 32% for all patients
- Only 8% of callers carry Medicaid versus 14% of the hospital's overall population

>How Heard Analysis Callers
- Callers reference brochures and flyers in 22% of calls. Spend for literature is 17%
- Medical staff supports the call center - 19% of callers/ patients were referred by a physician
- Only 14% of callers referenced YellowPages - further analysis of expenditures is warranted

Above are samples of slides – information straight from the six revenue reconciliation reports mentioned earlier herein. Utilizing a PowerPoint template of your design, prepare the information for presentation to your executive team.

HOW TO GET A BIGGER BUDGET

TEST. MODIFY. RETEST.

St. Vincent's Comprehensive Cancer Center (SVCCC), a national leader in cancer treatment and education in New York City, uses data pulled from call center reports to guide both long- and short-term planning of marketing for physician referral and outreach programs. By looking at daily reports, SVCCC marketing director Ron Sohn determines which specific advertisements were effective (those that generated calls) and which were not. The reports also provide information that allows instant alteration of marketing plans. For example, based on the reports, Sohn may decide mid-week to move ads to other newspapers or radio stations.

Sohn looks closely at the reported information source for the caller (i.e., the particular ad) and the times of day when an influx of calls are logged, which can indicate that a radio or television ad inspired a spike in interest. He's not satisfied, however, with knowing the number of calls alone. Sohn wants to know the number of "warm transfers," calls that are transferred directly to a physician's office so the caller can receive an answer to a clinical question or schedule an appointment. Sohn's statistics indicate that callers who are "warm transferred" are six times more likely to become St. Vincent's patients than those who are not "warm transferred." Knowing the number of callers who eventually bring in revenue is the single best way for him to determine the effectiveness of each advertisement. Essentially, he measures four things:

- Number of calls generated from each advertisement
- Number of "warm transfers"
- Actual number of people who become patients as a result of each advertising medium
- Revenue generated from those patients

At a time when many hospitals are slashing marketing budgets, SVCCC has increased its marketing budget each year. Sohn says SVCCC consistently sees a positive ROI on efforts tracked through the call center, and the hospital's top executives know that the organization's marketing investments are being closely watched to ensure optimum effectiveness.

OPTIMIZING YOUR CALL CENTER

By now it should be evident that your call center is a powerful tool in generating revenue for your organization. How can you make it work even harder for you? Contact Beryl to brainstorm about how to meet your strategic imperatives and objectives.

"I got more. You can too. Just test, modify, retest, modify again. Then ask for more when you are armed with irrefutable data that supports your requests."

Ron Sohn
St. Vincent's Comprehensive Cancer Center
New York, NY

BERYL

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