Pricing Consultant Pharmacist Services: A Case Study

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LEARNING OBJECTIVES

After analyzing this case, the student should be able to do the following:

1. Given financial and operational data for a consultant pharmacist's business, and given several formulae for calculating hourly billing rates, determine a variety of fees which will cover operational expenses and return a fair profit to the consultant;
2. Identify environmental, market, and personal considerations which a consultant pharmacist should take into account in deciding upon a fee, and analyze these considerations to select one or more appropriate fees from among those calculated in Objective 1.

BACKGROUND

After completing a hospital residency program, Judy Soon worked as a clinical pharmacist in a large hospital and in the Re-

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gional Drug and Poison Control Centre. Judy then began working for a community pharmacy chain which serviced long-term care (LTC) facilities and switched her practice focus to geriatric care. Judy introduced many services to LTC facilities such as medication carts, unit-of-use blister packaging, and medication administration records. Twice each year, Judy would conduct a comprehensive medication review for each LTC resident and inspect each LTC facility's drug storage areas. Judy also offered periodic inservice education presentations for LTC facility and pharmacy staffs. Judy became widely recognized as an expert on drug therapy and adverse drug reactions in the elderly, lecturing on these topics at national meetings, local universities, and community colleges.

Despite more than doubling its LTC business in British Columbia over the ten years which Judy worked for them, the corporation decided to divest itself of its Canadian operations. A second chain chose to purchase the majority of these LTC stores, and Judy was given the option of becoming an employee of the new chain, or contracting to the new chain as an independent outside consultant.

For a variety of reasons, Judy chose to become a part-time employee (averaging 16 hours/week over 48 weeks each year) of the new chain's central office. Judy was paid $25.14 per hour without benefits by the chain's franchisees to whom she consulted. She would bill her client stores for a specific number of hours each month, calculated by the number of beds serviced and the driving distance.

THE PROBLEM

After working for the new chain for three years, the corporation proposed that Judy enter into a mutually-beneficial external consultant arrangement with the company. This would reduce the company's overhead expenses and reduce the potential for conflict of interest should Judy wish to consult for other companies. She was offered a six-month guaranteed contract with the chain's existing stores.

The chain has given Judy six weeks to consult with her accountant and lawyer. She had to decide how much to charge for her independent consultant services, taking into consideration her experience, her reputation, her overhead expenses, and what the market will bear. Several other clinical pharmacists by this time were consulting to pharmacies which serviced LTC facilities, most charging approximately $40.00/hour. These pharmacists were geographically separated from one another, so little direct competition would result.

The provincial government's capitation reimbursement rate of $25.50/bed/month to pharmacies providing LTC services had not increased in several years, although the costs of providing services to these facilities had increased substantially. The British Columbia Pharmacist's Society had previously determined that drug distribution activities comprised 85% of pharmacy service time to LTC facilities, clinical activities represented 10%, and inservice provision represented the final 5% of the LTC time commitment.

Judy wanted a reasonable salary that was comparable to the salary which she was receiving from the new pharmacy chain. Since starting with the new chain three years ago, her salary had increased a total of 10%. She calculated that benefits valued at approximately 30% of her base salary would cover medical, dental, disability, and life insurance, as well as four weeks of paid holidays. Operating out of her home, Judy estimated that she would work the same number of hours per year as at present, servicing from five to ten stores. From her experience, Judy knew that she could provide services for approximately 16 beds for every eight hours worked, these consulting services including medication profile reviews, inservice programs, medication room audits, and travel time to the facility.

A $10,000 one-year bank loan, at an annual interest rate of 10%, would be necessary to cover Judy's start-up costs. Judy's accountant had advised her that there were no tax advantages from claiming a room in her home as her "office," as the area required for her business activities represented a low percentage of her total floor space. She had also been advised against incorporating as her annual gross revenues were predicted to be less than $100,000. Finally, Judy did not need to file for a Canadian federal GST (Goods and Services Tax) number nor charge clients the 7% GST for her services until her business had grossed more than $30,000 per year.

Exhibit 1 presents a representative contract detailing the services Judy would provide to pharmacies in the nursing home business. Exhibit 2 presents a statement of Judy's projected first-year expenses. Exhibit 3 presents a sample invoice that Judy would send to a client pharmacy for services provided.

EXHIBIT 1. Consulting Agreement

This letter will confirm our understanding concerning the terms discussed on (DATE) as well as the nature of the services to be performed for (NAME OF CLIENT PHARMACY). These terms are as follows:

1. TERM. This agreement will be for a period of (TIME PERIOD) commencing on (DATE). (A decision will be made in (TIME PERIOD) regarding the continuation of the agreement until (DATE).) Either party may terminate this agreement with thirty (30) days' written notice to the other party. In the event of termination, I will be compensated for services rendered through the date of termination.

2. DUTIES. My duties will include:
   a. Medication reviews at LTC facilities with preparation of physician letters, comment logs, and documentation of changes initiated.
   b. Medication safety and advisory committee meetings will be conducted at appropriate intervals in consultation with store staff and minutes prepared.
   c. Inspections will be performed, when necessary, in conjunction with store staff, and inspection guide documentation complete.
   d. Inservice lectures will be prepared and presented at the request of facility and store staff, and will be paid for by the facility.
   e. Drug information with appropriate background documentation will be provided on request or where felt appropriate.
   f. Informal role as facilitator and consultant to minimize and avoid time-consuming problems in day-to-day drug distribution operations between store and LTC facilities and to provide recommendations to minimize costs of providing LTC services.

3. COMPENSATION. The compensation for my services shall be at the rate of $ (AMOUNT) per (hour, day, month, etc.), payable on receipt as billed. Other out-of-pocket costs, such as mileage, long-distance telephone, postage, and photocopying will be billed separately. For the (LENGTH OF PERIOD) from (STARTING DATE) until (ENDING DATE).

Enclosed is a copy of this agreement for your records. Please sign the original and return to this office in the enclosed envelope. If you have any questions, please contact me.

Sincerely,

Judith A. Soon
Consultant Clinical Pharmacist

Accepted and agreed to:

Client   Date

ALTERNATIVE SOLUTIONS

Judy's problem in this case is fairly straightforward: determine a reasonable price to charge for the clinical pharmacy services she provides. The solution to the problem, however, is far from straightforward. No single method exists for determining fees (5). While the traditional percentage markup on cost method may be used, determining the cost of providing a service can be quite challenging (1). When determining a billing rate, Judy must take several considerations into account: salary, research, and development of new services, benefits, overhead expenses, profit level, competition, economic conditions, bad debts, and fairness to her clients and to her company (4). Several formulae are available for determining an hourly billing rate. The calculations are provided below, and the results are summarized in Exhibit 4.

Constant Value Method (Kelley, 1986)

$$\text{Hourly billing rate} = \frac{(\text{salary} + \text{benefits}) \times 3}{\text{Hours worked}}$$

Salary = 768 hours/year × \$27.65/hour = \$21,235

Benefits = 768 hours × \$8.30/hour = \$6,374

$$\text{Hourly billing rate} = \frac{(\$21{,}235 + 6{,}374) \times 3}{768 \text{ hours}} = \$107.85/\text{hour}$$

Exact Costs Method (Kelley, 1986)

$$\text{Hourly rate} = \frac{\text{Exact costs} + \text{profit requirements}}{\text{Yearly billable hours}}$$

Exact costs = fixed costs + salary + benefits

Profit requirement = 25% of exact cost

$$\text{Hourly} = \frac{(\$12{,}503 + \$21{,}235 + \$6{,}374) + \$10{,}028}{768 \text{ hours}} = \$65.30/\text{hour}$$

EXHIBIT 2

JUDITH A. SOON, CONSULTANT CLINICAL PHARMACIST

PROJECTED FIRST-YEAR EXPENSES

Pharmacist licensure	$ 481
Association memberships	749
Continuing education	300
Business license	50
Office rent	0[a]
Office furniture rental	0[a]
Telephone	275
Office supplies	450
Postage and mailing costs	25
Computer hardware	
Desktop 486	420[b]
Laptop 386	700[b]
Laser printer	360[b]
Computer software	1000[c]
Computer supplies	400
Service contract on equipment	200
Photocopy services	50
Reference textbooks	200
Journal subscriptions	500
Vehicle expenses	0[d]
Interest expenses	1000
Professional liability insurance	63
Business insurance	0[e]
Accounting fees	450
Legal fees	0
Travel (3 conferences)	1800
Hotel rooms/meals	1800
Meeting registration	750
Expense account	480
Advertising	0
TOTAL EXPENSES	$12,503

[a]Represent less than 3% of home floor space, not worthwhile deducting as business expense.
[b]Total cost amortized over 5-year period.
[c]Total cost amortized over 1-year period.
[d]Mileage reimbursed directly by client (includes gas, insurance, depreciation).
[e]Unnecessary; sole proprietorship, no designated business premises.

EXHIBIT 3. Sample Invoice

DATE: December 31, 1991

FILE REFERENCE: Ye Olde Medicine Shoppe #345

INVOICE NUMBER: 12

TERMS: NET CASH

TO: G. I. Luvdrugs, Owner
Ye Olde Medicine Shoppe #345
Igloo #2
Aleknagik, B. C.
V2C 6A2

RE: CONSULTANT CLINICAL PHARMACIST SERVICES

For professional services provided between December 1-31, 1991.

Treeline Lodge medication review 20.0 hours @ $______ /hour	$______
Direct Expenses:	
postage	$______
mileage(__ Km @ $0.25/Km)	$______
TOTAL FEES AND DIRECT EXPENSES DUE UPON RECEIPT	$______

Detailed particulars supplied upon request.

Thank you.

Yours truly,

Judith A. Soon
Consultant Clinical Pharmacist

Rule of Three Method (Kelley, 1986)

The majority of consulting firms rely on this method. (Kelley, 1986, p. 84)

  33.3% = Salary of consultant
+ 33.3% = Overhead and benefits
+ <u>33.3% = Company profit</u>
  100% Total yearly revenues

$$\text{Hourly billing rate} = \frac{\text{Total yearly revenues}}{\text{Total billable hours}}$$

Total yearly revenues = 3 × \$21,235 = \$63,705

$$\text{Hourly billing rate} = \frac{\$63{,}705}{768 \text{ hours}} = \$82.95/\text{hour}$$

Modified Rule of Three Method (Kelley, 1986)

Allows for lower profits and benefits than the Rule of Three Method:

50%	= Salary of consultant
+ 25%	= Overhead and benefits
+ 25%	= Company profit
100%	Total yearly revenue

$$\text{Hourly billing rate} = \frac{\text{Total yearly revenue}}{\text{Total billable hours}}$$

Total yearly revenue = \$21,235 + (2 × \$10,618) = \$42,470

$$\text{Hourly billing rate} = \frac{\$42{,}470}{768 \text{ hours}} = \$55.30/\text{hour}$$

Fixed Price Quotation (Gray, 1986)

Labor	\$27.65/hour
Benefits	\$ 8.30/hour (\$27.65 × 30%)
Fixed costs	\$16.28/hour (\$12,503/768 hours)
Subtotal	52.23/hour
15% profit	\$ 7.83/hour
Total hourly rate	\$60.06/hour

Percent of Per Diem Method

An alternative calculation for the billing rate would be to use the British Columbia Pharmacist's Society estimates and charge 15% of the per diem to provide the clinical and inservice component of LTC pharmacy services. The maximum number of beds which can be serviced is calculated as follows:

$$\frac{\text{Number of hours worked}}{\text{year}} \times \frac{\text{Number of beds}}{\text{hour worked}} = \frac{\text{Number of beds}}{\text{year}}$$

> Because each LTC resident and LTC facility must be reviewed twice annually, the number calculated above is divided by 2 to yield the number of beds which may be serviced per year.

For 768 hours, the maximum number of beds Judy could service would be:

$$[768 \text{ hours/year} \times (16 \text{ beds}/8 \text{ hours})] / 2 = 768 \text{ beds}$$

EXHIBIT 4. Calculated Hourly Billing Rates for Judy Soon[a]

Calculation Method	Hour Billing Rate
Constant Value[b]	$107.85
Exact Costs[b]	65.30
Rule of Three[b]	82.95
Modified Rule of Three[b]	55.30
Fixed Price Quotation[c]	60.06
Percent of Per diem	[d]

[a]Based upon 768 hours worked per year (16 hours/week for 48 weeks).

[b]Kelley, 1986.

[c]Gray, 1986.

[d]Based upon British Columbia Pharmacist's Society estimates of the percentage of a long-term care pharmacist's time spent on providing clinical pharmacy services and inservice education. The current per diem rate would yield $4,590/year for 100 beds serviced.

For 768 beds the billing rate is calculated as follows:

Billing rate =

No. of beds × Per diem rate × (Clinical component) + (Inservice component)

768 beds × 12 months/year × (15% × $25.50/bed/month)

= $35,251/year

The capitation rate is independent of the number of hours worked. To compare the estimated revenues from capitation with the fee rates calculated by the other methods detailed earlier, the capitation amount is equivalent to a rate of $45.90/hour, however, this amount must be spread over the five to ten pharmacies with which Judy is contracted.

Breakeven Analysis

The various fees will require Judy to sell varying units of service so that her revenues will cover her expenses, the "breakeven point." Any revenues generated beyond what is necessary to cover expenses represents the business's net profits. The breakeven point for each fee is calculated using the following formula (2):

$$\text{Number of units of service which must be sold} = \frac{\text{Total costs}}{\text{Price of unit of service} - \text{cost of providing that service}}$$

Exhibits 5 and 6 provide tabular and graphic summations of the resulting breakeven analyses. The table in Exhibit 5 shows only those calculated values for 250 billable hours (the point at which the highest billing rate generates adequate revenue to cover the business's costs), and 768 hours. The graph is based upon additional intermediate values. For the Percent of Per diem Method, the number of beds serviced are listed instead of an hourly rate.

SELECTION OF A FEE

Calculating an hourly billing rate is simply a matter of plugging numbers into one of several possible equations. But which billing

EXHIBIT 5. Breakeven Analysis for Calculated Hourly Billing Rates[a]

Hours billed (Beds serviced) annually	Annual fixed costs	Annual benefits (variable costs)	Annual total costs	Per diem[c] $3.83/bed/month
250	$12,503	$2,075	$14,578	
500	$12,503	$4,150	$16,653	
768	$12,503	$6,374	$18,877	
(250)[d]	$12,503	$2,075	$14,578	**$11,490**
(500)[e]	$12,503	$4,150	$16,653	$22,980
(768)[f]	$12,503	$6,374	$18,877	$35,297

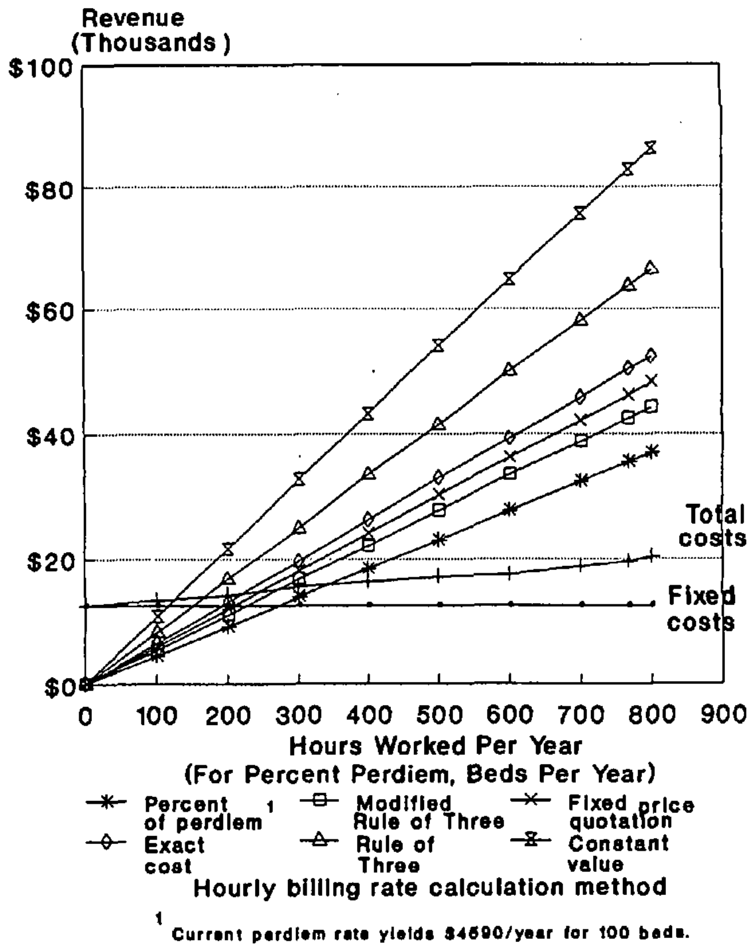
[a]For the first year of Judy's operations.
[b]Amounts in **bold** print fail to attain the breakeven point.
[c]Based upon British Columbia Pharmacist's Society estimates of the percentage of per diem which covers a long-care pharmacist's time spent on providing clinical pharmacy services and inservice education (15% of $25.50/bed/month). It is further estimated that a pharmacist spends 0.48 hours/patient review, and each patient is reviewed two times per year, for a total of 0.96 hours/patient/year.
[d]Servicing 250 beds for 12 months would require approximately 250 hours per year.
[e]Servicing 500 beds for 12 months would require approximately 500 hours per year.
[f]Servicing 768 beds for 12 months would require approximately 768 hours per year.

EXHIBIT 5 (continued)

		Revenues[b]		
		Hourly billing rate calculation method		
Modified Rule of Three	Fixed Price Quotation	Exact Costs	Rule of Three	Constant Value
$55.30/hr	$60.06/hr	$65.30/hr	$82.95/hr	$107.85/hr
$13,825	$15,015	$16,325	$20,738	$26,962
$27.650	$30,030	$32,650	$41,475	$53.925
$42,470	$46,126	$50,150	$63,706	$82,829

[a]For the first year of Judy's operations.
[b]Amounts in **bold** print fail to attain the breakeven point.
[c]Based upon British Columbia Pharmacist's Society estimates of the percentage of per diem which covers a long- care pharmacist's time spent on providing clinical pharmacy services and inservice education (15% of $25.50/bed/month). It is further estimated that a pharmacist spends 0.48 hours/patient review, and each patient is reviewed two times per year, for a total of 0.96 hours/patient/year.
[d]Servicing 250 beds for 12 months would require approximately 250 hours per year.
[e]Servicing 500 beds for 12 months would require approximately 500 hours per year.
[f] Servicing 768 beds for 12 months would require approximately 768 hours per year.

EXHIBIT 6. Breakeven Analysis for Judy Soon



rate should be selected? Obviously, a billing rate which at least enables the consultant pharmacist's operations to break even is necessary, and a rate which provides a profit above costs is highly desirable. The higher the fee charged per unit of service, the fewer units of service needed to cover expenses and attain the desired level of net profit; however, the consultant does not want to set fees so high that she or he is "priced out of the market." Along with their business's financial concerns, consultants must also address many other economic, environmental, and personal considerations when setting billing rates.

In the present case, until the government increases the capitation (per diem) rate, pharmacies are unlikely to be willing to pay Judy more than the government is paying. As pharmacies currently receive $4,590/year/100 beds to cover clinical pharmacy services (15% × $25.50/bed/month × 100 beds), this represents one ceiling rate that Judy should consider. Converted into an hourly rate, compensation of approximately $40.00/hour would be paid for conducting two medication profile reviews annually as required by current Canadian LTC facility accreditation standards.

The nature of the market must be considered in deciding upon a fee. Judy has a well-established performance record and a reputation among her peers as an expert. She was the first LTC consultant pharmacist in the province, and presently has little competition within her "trade" area. Most of her colleagues charge $40.00/hour for providing LTC pharmacy services. Given Judy's experience and reputation relative to her competitors, a fee greater than $40.00/hour would be justified.

Should the rates charged to schools or professional groups differ from those charged to LTC facilities? Such a sliding scale is logical, based upon differing amounts of preparation required for different service offerings, differences in the "perishability" of the different services offered, and the variations in financial resources from client to client. Consider a comparison between a series of one-hour lectures on drug use in the elderly for nursing students versus a single two-hour continuing education (CE) workshop to teach pharmacists about assessing the use of antidepressants in the elderly. The series of nursing lectures will require more time for preparation overall; however, the amount of preparation required per hour of presentation will be less than for the CE program. While the nursing lectures can be based primarily upon tertiary literature sources, the CE program will require a review of the primary literature to identify and extract relevant case reports for use in the workshop. The nursing lectures can be used again in subsequent years with minor modifications whereas the CE program may never be used again. Finally, the nursing school likely has a limited budget for outside lecturers, and students on limited incomes would rebel against paying extra for guest lecturers. The CE program, however, involves practitioners who are used to paying for educational activities, and third-party sponsorship of CE activities is quite common. Based upon these considerations, charging the nursing school $35.00/hour may be a reasonable billing rate, as may charging $65.00/hour for the CE program. Conducting original research for a client may warrant an even higher fee.

Personal considerations also influence the fee-setting decision. Will providing the service cut into the consultant's time for family or recreational activities? If so, a higher fee is warranted to cover these higher "opportunity costs." Does an agency or institution which the consultant finds objectionable persist in its attempts to engage the consultant's services? If the consultant finally relents, a higher "premium" fee may be warranted. Space limitations preclude a discussion regarding the ethics of such decisions.

SUMMARY

Determining an appropriate fee or schedule of fees to charge for consultant pharmacist services involves far more than mindless number crunching. A great deal of thought is required to adequately assess not only the costs of providing the services, but to assess environmental, market- and personal considerations as well.

REFERENCES

1. Bateson JEG. Managing services marketing. Chicago: The Dryden Press; 1989:358-64.

2. Corey ER, Lovelock CH, Ward S. Problems in marketing. 6th ed. New York: McGraw-Hill Book Company; 1981:804-5.

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4. Kelley RE. Consulting: The complete guide to a profitable career. 2nd ed. New York: Charles Scribner's Sons; 1986:74.

5. Posey LM. Pricing for consultant services: Set a reasonable fee and stick to it. Consult Pharm. 1990; 12(Dec):792-4.