CASE

# 1

# NEW ENGLAND HEALTHCARE

## PREMIUM DEVELOPMENT

New England Healthcare is a regional not-for-profit managed care company headquartered in Hartford, Connecticut. Currently, the company has more than 1 million enrollees in 25 different plans offered in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. Recently, a consortium of employers—including major companies such as IBM, GE, and Prudential—contacted New England to bid on a managed care (health maintenance organization) contract the consortium will offer to its 75,000 employees and family members in and around Nashua, New Hampshire.

New England's approach to premium development starts with the recognition that the premium received from employers must cover two different categories of expenses: (1) the cost of providing required healthcare services (medical costs) and (2) the cost of administering the plan and establishing reserves (other costs). Reserves, which typically are required by state insurance regulators, are necessary to ensure that funds are available to pay providers when medical costs exceed the amount collected in premium payments. As a not-for-profit corporation, New England does not explicitly include a profit element in its premium. However, the reserve requirement is set sufficiently high that income from reserve investments is available to fund product expansion and growth; in effect, a portion of the reserve requirement constitutes profit.

New England uses a multistep approach in setting its premiums. First, a base per member per month (PMPM) cost is estimated for each covered benefit of the plan. When the premiums are initially established for a new subscriber group, the base PMPM costs are usually developed on the basis

of historical utilization and cost data. If data are available on the specific subscriber group, as with the consortium contract, these data are used. Otherwise, the base PMPM costs are based on utilization and cost data from one or more proxy groups, which are chosen to match as closely as possible the demographic, utilization, and cost patterns that will be experienced under the new contract. In addition, any utilization or cost savings that will result from New England's aggressive utilization management program is factored into the premium.

Second, the base PMPM cost is adjusted to reflect the dollar amount of copayments to providers as well as the estimated impact of copayment and benefit options on utilization and hence medical costs. Copayments, which are an additional source of revenue to the provider panel, reduce New England's medical costs and thus lower the consortium's premium. Furthermore, the higher the copayment, the lower the utilization of that service, especially if it is noncritical.

Finally, limitations are set on the benefits package. The more restrictive the benefits package, the lower the costs associated with medical services. The result of these adjustments is an adjusted PMPM cost for each service. The costs are then summed to obtain the total medical PMPM amount.

To estimate the total nonmedical PMPM amount, New England typically adds 15 percent to the total medical PMPM amount for administrative costs and 5 percent for reserves. The sum of the total medical and total nonmedical amounts—called the *total PMPM amount*—is the per member amount New England must collect each month from the consortium to meet the total costs of serving the healthcare needs of the plan subscribers (the employees).

After the total PMPM amount is calculated, it must be converted into actual premium rates for individual and family coverage. Using data provided by the consortium, New England estimates that 45 percent of subscribers will elect individual coverage, while the remaining 55 percent will choose family coverage. New England plans to offer the consortium a two-rate structure, under which employees may elect either single or family coverage. Data from the consortium indicate that family coverage, on average, includes 3.5 individuals; thus, all else the same, the premiums for family coverage should be 3.5 times as much as for individual coverage. However, children typically consume fewer healthcare services, on a dollar basis, than do adults, so the final premiums must reflect such differentials.

Here are the factor rates for obtaining individual and family premium rates:

| | |
|---|---|
| Single factor: 1.216 | Family factor: 3.356 |

In setting the specific premium rates, New England must ensure that the total premiums collected, which would be paid by both employer and employees, equal the estimated total calculated using the PMPM rate. The 75,000 members who would be served by the contract consists roughly of 12,000 individuals and 18,000 families. Thus, 75,000 × Total PMPM amount must equal (12,000 × Single premium) + (18,000 × Family premium). **(Note that all the data in this case are for illustrative purposes only and do not reflect current healthcare costs.)**

Exhibit 1.1 is a partially completed copy of the worksheet New England uses to establish the total PMPM amount and the premium rates on any contract. The worksheet is a relatively easy guide for implementing the procedures just described. Exhibit 1.2 contains the relevant cost and utilization adjustment factors for a variety of service and copayment options. Adjustment factors are the decisions made on the appropriate service and copay structure, which feed into the calculations for each service's medical PMPM amount, as shown in exhibit 1.1.

The consortium has furnished New England with a significant amount of data on its employees' current utilization of healthcare services. The employees' inpatient cost and utilization data are as follows:

| | |
|---|---|
| Average daily fee-for-service charge | $2,800 |
| Utilization ($100 copay) | 500 days per year per 1,000 members |

Note, however, that a recent survey of New Hampshire hospitals indicates that most managed care contracts call for per diem payments in the range of $2,000 to $2,400. In addition, New England's experience with similar employee groups indicates that moderate utilization management would result in 400 to 450 inpatient days per 1,000 plan members.

Exhibit 1.3 shows the current cost and utilization data for other facility services, including skilled nursing care, inpatient mental health care, hospital surgical services, and emergency department care. The employees' utilization data for primary care services are as follows:

| | |
|---|---|
| Current number of primary care visits ($5 copay) | 3.4 per year per member |

New England routinely pays primary care physicians a capitated amount based on an annual cost of $200,000. It assumes that one primary care physician can handle 4,000 patient visits per year. The employees' utilization and cost data for specialist office visits are as follows:

| | |
|---|---|
| Current number of specialist office visits ($0 copay) | 1.5 per year per member |
| Current cost per visit | $92.65 |

Note that the total PMPM amount shown in exhibit 1.1 may be modified to reflect anticipated medical cost inflation. This adjustment is especially critical if the total PMPM premium is based on relatively old cost data. The cost data provided in this case can be assumed to be two years old: The data are from the previous year, and the contract would not be in place for yet another year. Also, note that the premium calculation in exhibit 1.1 does not include certain medical services, such as routine vision and dental care, chiropractic services, durable medical equipment, out-of-network services, and pharmacy benefits. The consortium specifically requests that the initial premium bid exclude such "rider" services. However, if New England is chosen to submit a final premium bid, the consortium will likely request pricing on one or more riders.

Finally, with no guidance from the consortium regarding the level of services desired or the copay structure, New England intends to offer three choices to the consortium: low cost, moderate cost, and high cost. The low-cost (to the consortium) plan requires higher copays from employees and has more limitations on covered services. The high-cost plan has lower copays and fewer limitations. The moderate-cost plan falls between the two extremes.

You have recently joined New England Healthcare as its marketing analyst. Your first task is to develop the bid presentation to the consortium.

EXHIBIT 1.1
New England Healthcare: Premium Development Worksheet

**I. Medical Expenses**

| | *Base PMPM Cost* | *Copay Adjustment Factors* | | *Adjusted PMPM* |
|---|---|---|---|---|
| | | *Cost* | *Utilization* | |
| *Facility Services* | | | | |
| Inpatient: | | | | |
| Acute | $ | | | $ |
| Skilled nursing | | | | |
| Mental health | | | | |
| Substance abuse | 0.41 | 1.0000 | 1.0000 | 0.41 |
| Surgical procedures | | | | |
| Emergency department | | | | |
| Outpatient procedures | 3.43 | 1.0000 | 1.0000 | 3.43 |
| Total facilities | | | | |
| *Physician Services* | | | | |
| Primary care services | | | | |
| Specialist services: | | | | |
| Office visits | | | | |
| Surgical services | 9.00 | 0.9544 | 1.0000 | 8.59 |
| All other services | 23.67 | 0.8659 | 0.9100 | 18.65 |
| Total physicians | | | | |
| Total medical PMPM amount | | | | |

**II. Nonmedical Expenses**

| | |
|---|---|
| Administrative | |
| Reserves | |
| Total nonmedical PMPM amount | |

**III. Total Expenses**

| | |
|---|---|
| Total PMPM amount | |

**IV. Premium Rates**

| | *Single* | *Family* |
|---|---|---|
| Rate factor | | |
| Premium rate | | |

EXHIBIT 1.2
New England Healthcare: Cost and Utilization Adjustment Factors

| | *Patient Copay Amount* | *Copay Cost Adj. Factor* | *Copay Utilization Adj. Factor* |
|---|---|---|---|
| *Facility Services* | | | |
| Inpatient acute | $ 0 | 1.0000 | 1.0000 |
| | 100 | 0.9851 | 0.9750 |
| | 150 | 0.9777 | 0.9600 |
| | 250 | 0.9642 | 0.9200 |
| Skilled nursing | $ 0 | 1.0000 | 1.0000 |
| Mental health: | | | |
| 30-day limit | $ 0 | 1.0000 | 0.9524 |
| | 100 | 0.9805 | 0.9286 |
| | 150 | 0.9707 | 0.9143 |
| | 250 | 0.9532 | 0.8762 |
| 60-day limit | $ 0 | 1.0000 | 1.2000 |
| | 100 | 0.9845 | 1.1700 |
| | 150 | 0.9768 | 1.1520 |
| | 250 | 0.9628 | 1.1040 |
| 90-day limit | $ 0 | 1.0000 | 1.2500 |
| | 100 | 0.9851 | 1.2188 |
| | 150 | 0.9777 | 1.2000 |
| | 250 | 0.9643 | 1.1500 |
| Surgical procedures | $ 0 | 1.0000 | 1.0000 |
| | 100 | 0.9231 | 1.0000 |
| | 150 | 0.8846 | 1.0000 |
| | 250 | 0.8077 | 1.0000 |
| Emergency department | $ 0 | 1.0857 | 1.0250 |
| | 15 | 1.0000 | 1.0000 |
| | 25 | 0.9429 | 0.9850 |
| | 50 | 0.8000 | 0.9550 |

EXHIBIT 1.2 (continued) New England Healthcare: Cost and Utilization Adjustment Factors

| | *Patient Copay Amount* | *Copay Cost Adj. Factor* | *Copay Utilization Adj. Factor* |
|---|---|---|---|
| *Primary Care Services* | $ 0 | 1.0352 | 1.0150 |
| | 5 | 1.0000 | 1.0000 |
| | 10 | 0.9472 | 0.9800 |
| | 15 | 0.8593 | 0.9500 |
| | 20 | 0.7713 | 0.9200 |
| | 25 | 0.6834 | 0.8900 |
| *Specialist Services* | | | |
| Zero PCP copay | $ 0 | 1.0000 | 1.0000 |
| | 5 | 0.8897 | 0.9730 |
| | 10 | 0.7795 | 0.9590 |
| | 15 | 0.6692 | 0.9450 |
| $10 PCP copay | $ 0 | 1.0000 | 0.9920 |
| | 5 | 0.8897 | 0.9600 |
| | 10 | 0.7795 | 0.9460 |
| | 15 | 0.6692 | 0.9320 |
| $20 PCP copay | $ 0 | 1.0000 | 0.9680 |
| | 5 | 0.8897 | 0.9360 |
| | 10 | 0.7795 | 0.9220 |
| | 15 | 0.6692 | 0.9080 |

PCP: primary care physician

*Note:* New England uses various incentive systems to control utilization of specialty services. One system requires PCPs to assess a copay for each specialist office visit.

EXHIBIT 1.3
Consortium Employee Utilization and Cost Data: Other Facility Services

| | |
|---|---|
| Skilled nursing facility care | 25.2 days per year per 1,000 members |
| Current average daily cost | $650 |
| Inpatient mental health care ($0 copay) | 64.4 days per year per 1,000 members |
| Current average daily cost | $740 |
| Hospital-based surgery ($0 copay) | 41.7 cases per year per 1,000 members |
| Current costs | $1,800 per case |
| Emergency department care ($15 copay) | 132 visits per year per 1,000 members |
| Current costs | $250 per visit (see note) |

*Note:* The emergency department cost is the total charge for facility services, some of which would be covered by the $15 copay.

CASE 2

# ORLANDO FAMILY PHYSICIANS

## PAY FOR PERFORMANCE

Orlando Family Physicians is a medical group practice located in Orlando, Maine. The practice has four family practice physicians and a medical support staff consisting of a practice manager, two receptionists, four nurses, two medical assistants, two billing clerks, and one laboratory technician. Data relevant to the practice are shown in exhibits 2.1 through 2.3.

Orlando is organized as a partnership, with each physician having an equal share. Although the practice manager has the authority to make the day-to-day business decisions, all strategic decisions are made jointly by the partners. In addition, Orlando uses a local certified public accountant (CPA) to prepare and file its taxes and to act as a financial advisor when needed.

At Orlando, the current policy is to provide equal compensation to all four physicians. Last year, each physician was paid the same monthly salary ($12,500). At the end of the year, profits that were not needed for reinvestment in new assets were divided equally among the partners ($30,000 each). Although this "equal pay for equal work" policy has been in place since Orlando was founded in 1996, it has caused growing discontent among the partners. Not surprisingly, each of the physicians believes that he or she works harder than the others and hence should receive greater compensation. In addition, the physicians recognize the importance of putting away some profits to pay for new medical equipment that will replace aging items and expand the range of services offered.

A recent survey by the Medical Group Management Association indicated that less than 10 percent of group practice family physicians are compensated on a straight salary basis, while the majority are compensated on the basis of productivity. Of those compensated according to productivity

measures, about half are paid solely on productivity and half receive a base salary plus a bonus component based either on productivity alone or on productivity and other measures. (For more information on the Medical Group Management Association, see www.mgma.com.)

To reward those physicians who truly work harder and to create the incentive for all physicians to be as productive as possible, the partners instructed the practice manager to assess the current compensation system and to recommend any changes that would improve the system.

You are the practice manager at Orlando Family Physicians. As a start, you scheduled a meeting with the partners to gain some initial guidance. At this meeting, the partners agreed that any proposed system must have the following five characteristics:

1. *The system must be trusted.* Physicians must trust not only the data used but also the integrity and competency of the individuals who administer the system. The compensation model itself may be sound, but a lack of faith in either the data or the administration of the system will lead to a lack of confidence in the entire system.
2. *The system must be clearly understood.* In the search for the perfect system, practice managers tend to create a model that is overly complex, and hence the links between pay and performance cannot be easily identified. If the physicians cannot easily identify what performance is necessary to increase pay, the system will not have the desired results.
3. *The system must be perceived to be equitable.* If the physicians do not believe that the system is fair—that is, those physicians who contribute more are paid more—it is doomed to fail.
4. *The system must create the proper incentives.* A fundamental objective of any compensation plan is to maintain the financial viability of the organization. Thus, the model must create incentives that promote behavior that contributes to the success of the group. Furthermore, the incentives offered must be large enough to encourage physicians to change behavior.
5. *The system must be affordable.* The costs of implementing and administering the system must be reasonable. Furthermore, the total amount of incentive compensation paid must not impair the ability of the practice to cover its operating costs, replace existing assets, or acquire new assets.

The general agreement among the physicians is that the compensation system should consist of a base salary plus some form of pay-for-performance scheme. For example, each physician might receive a base salary of $6,000 per month, and the remaining compensation would be based on some measure(s) of performance.

Even with this agreement, the task of making recommendations for change in the physician compensation system is daunting. After all, many systems are available, each with its own strengths and weaknesses. To gain a better appreciation of the possible choices, you downloaded from the Internet several articles about pay for performance. Then, you met with Jennifer Wong, Orlando's CPA, to learn about the alternative systems used at other practices. After several meetings with Jennifer, you conclude that the following potential measures might be appropriate for Orlando's pay-for-performance plan.

**Productivity Measures**

- *Number of patient visits.* This measure is a simple count of the annual number of patient visits for a physician, regardless of the time per visit or type of patient. More patient visits indicate higher physician productivity.
- *Work relative value units (RVUs).* Jennifer consulted with another group practice that uses RVUs to measure productivity. RVUs form the basis of physician compensation for Medicare services. Under this system, each physician service has three relative value components: (1) physician work, (2) practice expense, and (3) malpractice expense. More work RVUs indicate higher productivity.
- *Professional procedures.* This measure is a simple count of the annual number of procedure codes (such as injections), regardless of the time per procedure, type of procedure, or reimbursement amount. More professional procedures indicate higher productivity.

**Financial Measures**

- *Gross charges.* This measure is the total gross charges generated by a physician during the year (discounts, allowances, and costs are ignored). Gross charges are easily identified from the current billing system used by the practice. More gross charges indicate higher physician financial performance.

- *Net collections*. This measure is the total collected revenue generated by a physician during the year (gross charges minus discounts and allowances; again, costs are ignored). Net collections are also easily identified from the current billing system used by Orlando. More net collections indicate higher financial performance.
- *Net income*. This measure is the total net income (before physician compensation) generated by a physician during the year. As stated, gross charges and net collections are easily identified from the current billing system used by Orlando. However, this measure requires allocation of practice costs to individual physicians. With limited data at hand, one possible solution is to divide the total costs of the practice into fixed and variable components and then allocate the fixed component equally to all four physicians and allocate the variable component on the basis of some measure of resource utilization, such as professional procedures. Higher net income indicates higher financial performance.

**Quality Measures**

- *Average patient satisfaction*. This measure is an average of the patient satisfaction scores for a physician. Higher patient satisfaction scores indicate higher physician quality.
- *Blood pressure control*. This measure indicates whether a physician met a target for blood pressure control among the patients seen during the year. The Centers for Medicare & Medicaid Services (CMS) sponsored the Physician Group Practice (PGP) Demonstration, which ended in 2010 but has been extended under the program PGP Transition Demonstration (see https://innovation.cms.gov/initiatives/physician-group-practice-transition/). Under the PGP, participating physicians are eligible to earn separate quality payments if they meet performance targets on a variety of quality measures. Blood pressure control is one of the quality measures that apply to all Medicare beneficiaries who meet age and sex criteria. Attaining the target indicates higher quality.
- *Breast cancer screening*. This is another PGP Demonstration quality measure that applies to all Medicare beneficiaries who meet age and sex criteria. Attaining the target indicates higher quality.

Of course, any combination of these measures could be used, making a wide variety of solutions possible.

Armed with this information, you held another meeting with the partners and Jennifer to understand their views regarding physician compensation. The meeting had three agenda items: (1) Should pay for performance be based on productivity, financial performance, and/or quality? (2) What total dollar amount should be allocated to performance pay versus base salary? (3) What amount of net income (after physician compensation) should the practice target?

At the beginning of the meeting, all agreed that the physicians who contribute most to Orlando should receive the highest compensation. However, they could not reach an agreement on how to define "contribute most." For example, one physician stated that work effort is the most meaningful measure. "Let's just use the number of patient visits—it's simple, and we all agree that more visits require more work," he argued. But this was challenged by another physician, who stated that many of her patients are elderly and chronically ill who require much more time per visit than do younger, healthier patients. Work RVUs are another basis of measuring productivity, but the physicians weren't sure about using the data from a billing system for such a purpose. Another physician argued that the real money is in procedures. Historically, physicians have been paid relatively well for diagnostic and treatment procedures, and group practices that do a lot of procedures have done well financially. Therefore, it makes sense to reward those physicians who perform higher numbers of professional procedures. But another physician was uncomfortable with rewarding such a narrow part of clinical practice. "Besides," he said, "I am getting older and don't do as many procedures as I once did."

Next, the discussion turned to financial performance measures. Although one physician strongly believed that gross charges were the best measure, another countered that (1) gross charges do not reflect reimbursement amounts and (2) gross charges generated at the expense of high costs do not financially help the practice much. Jennifer jumped in at that point, saying that the strength of the net income measure is that physicians are held responsible for both revenues and costs. Thus, physicians would have the incentive to be more productive (generate more revenues) while reducing the costs associated with operating the practice. However, the cost allocation required for calculation of net income can only be roughly estimated, so it will be difficult to convince the physicians that the allocation has true economic meaning.

Performance pay based on quality was the last item discussed. One physician stated that too much emphasis is placed on money. If the physicians do not provide high-quality medical care and keep their patients happy, there will be no patients and hence no revenues. Thus, she argued, "Patient satisfaction is just as important as revenue generation." In addition to the patient satisfaction issue, one partner noted that Orlando physicians provide care to many Medicare beneficiaries. "It's important to gain experience with the pay-for-quality approach that CMS is supporting," he argued. However, the reaction to this comment was mixed. Two partners thought the whole idea of rewarding physicians for practicing good medicine is ludicrous. One commented that the profession is in a sad state of affairs if physicians have to be paid extra to do what is right. On the other hand, another partner stated that if this were the trend among payers, it might be wise to build similar quality guidelines into Orlando's compensation system.

At the end of the discussion on agenda item 1, one physician stated, "It's clear we don't agree on how to measure performance, so why don't we just use all of the measures? Then everybody will be happy." The thought of using all of the measures made you shudder because of the complexity of interpreting the results and the administrative burden that would be required.

Then, the meeting turned to agenda item 2: the actual amount to be allocated to performance pay. One physician suggested that, because they could not agree on how to measure performance, compensation should be composed mostly of base salary and only a small amount of performance pay—say, $10,000 per physician. This brought a chorus of "why bother" from the other physicians. "This isn't enough of an incentive for anything—after all, we spend more than that on lattes," one joked. In contrast, another physician stated, "I'd prefer to base all of our compensation on performance. Who can argue with productivity, financial performance, and quality?" After a prolonged discussion, the only agreement reached was that the dollar amount allocated to performance pay should be high enough to make physicians pay attention to performance but should be less than the amount of base salary.

Agenda item 3 revolved around the target net income (after physician compensation). In contrast to their dissension on the other agenda items, all of the physicians readily agreed that the net income after physician compensation of the practice has to be at least $70,000 to pay for new medical equipment that the practice requires.

At the end of the meeting, you could tell that the task of revising Orlando's compensation system would not be easy. None of the approaches initially identified could be ruled out. Furthermore, you are given only broad direction on the dollar amount to be allocated for performance pay. Your major hurdle is to develop a system that would be supported by all four partners. Thus, the ability to "sell" the system to the partners is just as important as the system itself.

To ensure an orderly approach to the assignment, you decide to (1) use the historical allocation between base salary and performance pay as a starting point, (2) assess the sensitivity of physician pay to the various performance measures, and (3) recommend the system you believe is best for Orlando. Finally, you recognize that the merits of alternative compensation systems are influenced somewhat by the nature of the practice's revenue stream (reimbursement). Almost half of Orlando's revenues come from Medicare and Medicaid, and the remainder comes from commercial insurers, including managed care plans. Some of the managed care plans were using capitated payment systems several years ago, but today all of Orlando's payers use fee-for-service methodologies.

EXHIBIT 2.1
Orlando Family Physicians: Historical Support Staff Salaries

| | *Number of Employees* | *Total Compensation* |
|---|---|---|
| Practice manager | 1 | $ 75,168 |
| Receptionists | 2 | 48,652 |
| Nurses | 4 | 237,000 |
| Medical assistants | 2 | 52,615 |
| Billing clerks | 2 | 62,165 |
| Laboratory technician | 1 | 46,788 |
| Total | | $522,388 |

**EXHIBIT 2.2**
**Orlando Family Physicians: Historical Financial Data**

| | |
|---|---|
| Gross charges | $2,242,648 |
| Net collections | $1,747,059 |
| Practice expenses: | |
| Support staff salaries | $ 522,388 |
| Facilities cost | 298,351 |
| Supplies cost | 136,257 |
| Total practice expenses | $ 956,996 |
| Net income before physician compensation | $ 790,063 |
| Physician compensation: | |
| Base salaries | $ 600,000 |
| Bonus | 120,000 |
| Total physician compensation | $ 720,000 |
| Net income after physician compensation | $ 70,063 |

**EXHIBIT 2.3**
**Orlando Family Physicians: Historical Physician Data**

| | *Physician Identifier* | | | | |
|---|---|---|---|---|---|
| | *A* | *B* | *C* | *D* | *Total* |
| Patient visits | 4,023 | 3,567 | 3,966 | 4,244 | 15,800 |
| Number of RVUs | 4,667 | 5,055 | 5,475 | 4,967 | 20,164 |
| Professional procedures | 6,255 | 6,972 | 7,287 | 6,742 | 27,256 |
| Gross charges | $527,820 | $535,841 | $602,675 | $567,312 | $2,242,648 |
| Net collections | $422,256 | $401,881 | $421,872 | $501,050 | $1,747,059 |
| Average patient satisfaction score | 89 | 80 | 87 | 94 | |
| Blood pressure control target met? | Yes | Yes | Yes | No | |
| Breast cancer screening target met? | No | Yes | No | No | |

RVUs: relative value units

*Notes:*
1. The RVUs listed are work RVUs, which are only one of the three components used in Medicare physician reimbursement.
2. Over the past five years, the average annual amount reinvested in the practice was $65,000.
3. Patient satisfaction scores are measured using a 100-point scale.

CASE 3

# SANTA FE HEALTHCARE

## CAPITATION AND RISK SHARING

Santa Fe Memorial Hospital is a community hospital in Green Bay, Wisconsin. Recently, the hospital and its affiliated physicians formed Santa Fe Healthcare, a physician–hospital organization (PHO). Santa Fe is close to signing its first contract to provide exclusive local healthcare services to enrollees in BadgerCare (the Plan), the local Blue Cross Blue Shield of Wisconsin HMO. For the past several years, the Plan has contracted with a different Green Bay PHO, but financial difficulties at that organization have prompted the Plan to consider Santa Fe as an alternative. In the proposed contract, Santa Fe will assume full risk for patient utilization. In fact, the proposal calls for Santa Fe to receive a fixed premium of $200 per member per month from the Plan, which it then can allocate to each provider component in any way it deems best using any reimbursement method it chooses.

Santa Fe's executive director, Dr. George O'Donnell, a cardiologist and recent graduate of the University of Wisconsin Nonresident Program in Administrative Medicine, is evaluating the Plan's proposal. To help do this, Dr. O'Donnell hired a consulting firm that specializes in PHO contracting.

The first task of the consulting firm was to review Santa Fe's current medical panel and estimate the number of physicians, by specialty, required to support the Plan's patient population of 50,000, assuming aggressive utilization management. The results in exhibit 3.1 show that Santa Fe's medical panel currently consists of 249 physicians, whereas the number of physicians required to support the Plan's patient population is only 59. Note, however, that Santa Fe physicians serve patients other than those in the Plan. Thus, the total number of physicians required to treat all of Santa Fe's patients far exceeds the 59 shown in the right column of exhibit 3.1.

The second task of the consulting firm was to analyze Santa Fe physicians' current practice patterns. Clearly, utilization, and hence cost, is driven by Santa Fe's physicians and that variation in practice patterns is costly to Santa Fe. Results of the analysis show significant variation in practice patterns, both in the physicians' offices and in the hospital. For example, exhibit 3.2 contains summary data on hospital costs by physician for three common diagnosis-related groups (DRGs). Consider DRG 470 (major joint replacement). The physician with the lowest hospital costs averaged $12,872 in costs per patient, the highest-cost physician averaged $24,638, and the average cost for all physicians was $14,999. The consulting firm commented that reducing this variation is important because Santa Fe is at full risk for patient utilization.

The third task of the consulting firm was to recommend an appropriate allocation of the premium dollars to each category of provider. Specifically, the contract calls for Santa Fe to receive $200 per member per month, for a total annual revenue of $200 × 50,000 members × 12 months = $120 million. To reduce potential conflicts about how to divide the $120 million among providers, the consulting firm proposed a "status quo" allocation that would maintain the current revenue distribution percentages shown in exhibit 3.3.

The final task of the consulting firm was to recommend provider reimbursement methodologies that create appropriate incentives. In the contract, Santa Fe assumes full risk for patient utilization, so the consulting firm recommended that all component providers be capitated to align cost minimization incentives throughout Santa Fe. Furthermore, capitation of all providers would eliminate the need for risk pools, a risk-sharing arrangement that Santa Fe has never used. In addition to the consulting firm's report, Dr. O'Donnell decided to ask Santa Fe's new operations committee for a short report on the current line of thinking among Santa Fe's major providers. The committee provided the following information.

**Santa Fe Memorial Hospital**

Historically, the profitability of Santa Fe Memorial Hospital has been roughly in line with the industry. Last year, when the hospital received about 75 percent of charges, on average, the hospital achieved an operating margin of about 3 percent. However, hospital managers are concerned about its profitability if the Plan's proposal is accepted. The managers believe that controlling costs under the full-risk contract would require extraordinary

efforts and that the most effective way to control costs is to create a subpanel of physicians to participate in the capitation contract. When asked how the subpanel should be chosen, the operations committee recommended choosing the physicians who would do the best job of containing hospital costs.

**Primary Care Physicians**

Many of the primary care physicians are dissatisfied. On average, primary care physicians receive only about 60 percent of charges and are concerned about being penalized by accepting utilization risk for the Plan's enrollees. Primary care physicians know that they are paid less and believe that they have to work much harder than do the specialists. Furthermore, primary care physicians believe that the specialists supplement their own incomes by overusing in-office tests and procedures. Some primary care physicians are even talking about dropping out of Santa Fe to form their own contracting group, taking away the entire capitation payment from the Plan and contracting themselves for specialist and hospital services.

**Specialist Care Physicians**

The specialists believe that the primary care physicians refer too many patients to them. The specialists do not mind the referrals as long as their reimbursement is based on charges because, on average, they receive 90 percent of charges. However, if they are capitated, the specialists want the primary care physicians to handle more of the minor patient problems themselves. Also, whenever the subject of subpanels is raised, many of the specialists become incensed. "After all," they say, "the whole idea behind the PHO is to protect the specialists." Both sets of physicians—primary care and specialist—agree that the hospital is hopelessly inefficient. Said one specialist, "No matter how much revenue the hospital receives, it still seems to barely make a profit."

To respond to the Plan's proposal, Dr. O'Donnell and Santa Fe's executive committee must decide whether to accept the recommendations of the consulting firm.

You have been hired to advise Dr. O'Donnell and the executive committee regarding these challenges. Because your report will serve as the basis of Santa Fe's implementation plan if it accepts BadgerCare's contract, the report must address the concerns raised by the physicians and the hospital. Furthermore, the report must include specific recommendations on how to implement these changes.

EXHIBIT 3.1
Santa Fe Healthcare: Physician PHO Members and Estimated Needs for 50,000 Enrollees

| *Specialty* | *Number in PHO* | *Estimated Need per 50,000 Enrollees* |
|---|---|---|
| General medicine | 42 | 20.9 |
| Pediatrics | 15 | 4.1 |
| Total primary care | 57 | 25.0 |
| Anesthesiology | 9 | 2.5 |
| Cardiology | 12 | 1.4 |
| Emergency medicine | 10 | 2.5 |
| General surgery | 13 | 2.7 |
| Neurosurgery | 3 | 0.3 |
| Obstetrics/gynecology | 27 | 5.4 |
| Orthopedics | 11 | 2.5 |
| Psychiatry | 19 | 1.9 |
| Radiology | 8 | 3.0 |
| Thoracic surgery | 0 | 0.4 |
| Urology | 5 | 1.3 |
| Other specialties | 75 | 10.1 |
| Total specialists | 192 | 34.0 |
| Grand total | 249 | 59.0 |

EXHIBIT 3.2
Hospital Costs for Three Common DRGs by Physician

| *DRG* | *Description* | *Minimum* | *Average* | *Maximum* |
|---|---|---|---|---|
| 470: | Major joint replacement or reattachment of lower extremity without MCC | $12,872 | $4,999 | $24,638 |
| 871: | Septicemia or severe sepsis without MV; 96+ hours with MCC | 4,271 | 13,729 | 17,394 |
| 291: | Heart failure and shock with MCC | 6,498 | 10,849 | 18,015 |

*Note:* This exhibit is based on historical costs related to the old severity-unadjusted DRGs. In the future, the cost data will be related to the new severity-adjusted Medicare severity diagnosis-related groups (MS-DRGs).

EXHIBIT 3.3
Santa Fe Healthcare: Proposed Allocation of Premium Dollars

| | |
|---|---|
| PHO administration/overhead | 13% |
| Paid to within-system physicians | |
| Primary care | 10 |
| Specialists | 18 |
| Ancillary services | 5 |
| Administration/profit | 1 |
| Paid to within-system hospital | 38 |
| Paid for prescription drugs | 10 |
| Paid to out-of-system providers | 5 |
| Total premium dollar | 100% |