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Bellaire Clinical Labs, Inc. (A)

Joe Mack, CFO of Bellaire Clinical Labs, Inc., (Bellaire) looked at the clock on his desk and frowned. He had a busy day ahead of him, and he was fairly sure he would have to work late into the evening for the third night in a row. By the end of the day, Mack had to finalize Bellaire's 2016 operating plan in preparation for his meeting tomorrow with Wilma Lands, the company's CEO. Mack had spent numerous hours developing the current draft of the operating plan, and he was getting pretty comfortable with the process. However, Lands was known to be both detail-oriented and demanding, and Mack knew he had better be fully prepared to answer any questions she may ask.

The Clinical Laboratory Testing Industry

Revenues for the clinical laboratory testing industry in the United States totaled approximately $80 billion in 2016. Clinical laboratory tests were used by physicians and other health-care providers to help diagnose and treat patients' medical conditions. The tests were usually performed on blood, urine, tissue, or other specimens. Testing services were provided by hospital labs, labs in physicians' offices, and approximately 6,000 independent clinical labs. Although there were some national independent clinical labs, most of the independent labs were relatively small and served regional and local markets.

The primary customers for testing services were hospitals, physicians, and other organizations (e.g., large corporations). Labs billed and obtained payment for the tests, however, from one of several parties: the ordering party (e.g., hospital or physician), the patient, or another party making payment on behalf of the patient (e.g., the patient's employer, a private insurance company, or governmental payers such as Medicare [which primarily covered patients over the age of 65] and Medicaid [which primarily covered indigent patients]). Payment for lab testing provided to Medicare beneficiaries was made according to a fee schedule established by the U.S. Congress, which imposed a cap on such payments. In addition, payment for lab testing provided to Medicaid beneficiaries was subject to similar ceilings. In effect, labs had limited ability to influence the price paid for testing services provided to Medicare and Medicaid beneficiaries. In many instances, these amounts were lower than the prices paid by other parties.

Bellaire Clinical Labs, Inc.

A small, high-quality, privately-owned independent clinical laboratory located just outside Boston, Massachusetts, Bellaire provided laboratory-testing services to local physicians' offices, hospitals, and other companies. Founded in 1982, the company specialized in providing swift, accurate medical-testing services and electronic communication of results. Bellaire provided both routine blood-testing services (primarily simple

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blood tests that patients received as part of routine physical examinations) and specialty testing services for more complicated medical problems. Routine tests were highly automated and required lower-skilled personnel than did specialty tests, which were more labor intensive and required highly skilled technologists to administer tests, conduct analyses, and prepare reports explaining the results.

Although physicians ordered the laboratory tests Bellaire was to perform on their patients, the costs of billing and collection varied greatly among the parties being billed. These costs were lowest when the physician was billed, highest when the patient was billed, and in-between when other parties—Medicare, Medicaid, private insurance companies, or employers—were billed. To reflect these significant cost differences, Bellaire charged different prices for the tests, depending on the party being billed. In addition, the price differential between tests billed to third parties and tests billed to the physician or patient reflected limitations imposed by the fee schedules under which Medicare and Medicaid made payments.

At the end of 2015, Bellaire faced intense competition from national and local independent laboratories. The greater Boston metropolitan area was well known for its high concentration of exemplary physicians and hospitals, and many clinical laboratory companies were attracted to the area. In addition, managed-care organizations, Medicare, and Medicaid had all increased their efforts to control the cost and utilization of health care services, and these efforts had negatively impacted Bellaire's operating margins for the past several years.

In response to the intense competition and price pressure, Wilma Lands planned to launch a media campaign in 2016 to promote Bellaire's accuracy, responsiveness, and flexibility. In addition, she hoped to position the company as a state-of-the-art clinical laboratory to attract additional contracts for clinical research trials of new drugs, oncology testing, occupational drug testing, and other specialized services. As support for the marketing initiative, the company also planned significant investments in the latest laboratory equipment. Mack knew the future success of Bellaire depended largely upon the success of the media campaign and on the company's performance in 2016. Therefore, he expected Lands to scrutinize the company's operating plan for the next year very carefully.

Estimation of Revenues

Early in November 2015, Mack had begun the budgeting process by estimating the labs' planned revenues for 2016. Mack knew the revenues for the company were a function of the following four factors: the volume of tests performed, the specific types of tests performed, the mix of billing parties, and negotiated prices. Each year, Mack and his staff employed a five-step process to determine planned revenues as follows:

- Estimate future test volume based upon prior year actual test volumes, customer needs, competition, demographic shifts, and contract negotiations;
- Estimate how many tests are expected to be routine tests and how many tests are expected to be specialty tests;
- Estimate what proportion of tests will be billed to physicians, patients, or other payers such as Medicare, Medicaid, or private insurance companies;
- Determine the expected average price per test for routine and specialty tests based upon planned tests and negotiated fee schedules; and
- Calculate overall revenue and review total volumes and revenues for reasonableness.

As a first step in his planning process, Mack compiled the 2015 year-to-date annualized volume and revenue data for Bellaire (shown in **Exhibit 1**). He knew that the 980,000 tests performed in 2015 represented a 1.5% increase over the number of tests performed by the company in 2014. Furthermore, Mack believed that demographic shifts in the area's population and customer response to Bellaire's planned advertising campaign would generate an additional 1.5% to 2.5% of test volume in 2016 for the company, despite increased local competition. Therefore, he projected the lab's overall test volume in 2016 to increase by slightly more than 2.0% over 2015, to 1,000,000 tests.

As the company's CFO, Mack was also well aware of certain uncertainties in the company's contract negotiations with physicians for 2016. A large national laboratory chain had recently opened up several locations in the Boston area, and several physicians had told Bellaire that the larger company was able to provide routine lab work very efficiently and at a low cost. Mack knew that several contracts with local physicians had not been renewed, and that his company was in danger of losing some of the routine lab work ordered by these providers. Therefore, he projected that the total number of routine tests performed by the lab would fall by 23,200 tests in 2016 as compared to 2015.

At the same time, Mack knew that Lands was working hard to establish Bellaire as a leader in specialized or niche testing services such as clinical research, occupational, diagnostic genetics, oncology, and other complex procedures. Mack expected Lands's efforts and the media campaign planned for 2016 to result in increased specialty tests billed to all payers. Therefore, he estimated specialty tests performed by Bellaire to increase by 3,600 tests per month in 2016 as compared to 2015.

As the next step in his planning process, Mack forecasted what proportion of 2016 tests would be billed to physicians, patients, or other payers. Due to the expected loss of several physician contracts, he estimated that only 50% of the total routine and specialty tests Bellaire performed in 2016 would be billed to physicians. In addition, Mack expected a shift toward tests billed to hospitals and pharmaceutical companies, due to new contracts to provide certain clinical trials testing procedures and specialized oncology testing services. Thus the percentage of tests billed to other parties was projected to increase from 28% of total tests in 2015 to 30% of total tests in 2016.

In order to determine the estimated revenues for 2016, Mack obtained the forecasted average price for routine and specialty tests for each billing party from Jennifer Russell, the company's director of billing and reimbursement. To calculate these amounts, Russell used a database of historical test data; she forecasted assumptions of customer needs to break down the 2016 overall volume projections by billing party (provided by Mack) into estimated test volumes for each of the 2,600 different clinical laboratory tests offered by the company. Then she loaded negotiated fee schedules with Medicare, Medicaid, physicians, hospitals, and other companies into the database and queried the database to determine the expected weighted average price per routine and specialty test for each billing party.

As they reviewed the results generated by the queries, Russell and Mack noted that the expected average revenue per test for both routine and specialty tests by billing party for 2016 remained unchanged from 2015 except for routine tests billed to physicians, which decreased an average of $0.50 per test, and specialty tests billed to other parties, which increased an average of $0.25 per test. Prices for routine tests billed to physicians were expected to decrease, due to price pressure from the increased local competition; prices for specialty tests billed to other parties were projected to increase, due to the shift toward high-end tests for clinical trials and oncology testing services in 2016. Overall, the forecasted average prices per test the database generated were consistent with Russell and Mack's expectations.

As the final step in his revenue budgeting process, Mack reviewed the estimated volumes by test type and billing party and calculated Bellaire's total projected revenue for 2016. In his opinion, the projected volumes

and revenues were reasonable given the competitive clinical laboratory industry and the current state of contract negotiations with local physicians, hospitals, and other companies.

Estimation of Expenses

To prepare the lab's initial operating expense budget for 2016, Mack sat down with Marty Walters, the company's manager of operations. Walters had been with Bellaire for only a few months, but he had been hired because of his reputation for astute management and cost control while previously employed at a competing clinical lab. In fact, Walters's employment contract stipulated that he could receive as much as a 20% annual bonus based on how effectively and efficiently he managed the overall operations of the lab.

Mack and Walters's first task was to estimate the materials cost for the lab. Materials cost was expected to vary with the number of tests, and the materials cost related to both routine tests and specialty tests was expected to be approximately the same. In 2015, the materials cost per test was $2.80. Walters told Mack that this figure appeared to be high, and that the materials cost per test at his previous employer was only $2.65 per test. He estimated that he could reduce Bellaire's materials cost per test to $2.70 in 2016, and Mack readily agreed to incorporate these savings in the company's 2016 operating plan.

The labor cost for routine tests was expected to vary with the number of routine tests performed during the year. Likewise, the labor cost for specialty tests was expected to vary with the number of specialty tests performed. Based upon the projected test volumes for 2016, Mack and Walters planned staffing of 200,000 hours for routine tests and 80,000 hours for specialty tests. Then, Mack and Walters utilized current wage rates, company turnover, and expected wage increases to determine average wage rates of $12.00 an hour for routine test staff and $25.00 an hour for specialty test staff.

The company recorded annual depreciation expense using the straight-line method. In 2015, depreciation expense totaled $3.2 million. To support the forecasted shift toward more complicated specialty tests, Walters had purchased new laboratory equipment for $3.0 million; it was expected to arrive in January 2016. Mack planned to depreciate the new equipment over 10 years using the straight-line method of depreciation and no salvage value.

Bellaire incurred other costs of testing, including additional labor, utilities, maintenance, and sanitation expenses. Mack expected the company to incur certain support costs to keep the lab functioning regardless of test volume; he estimated that amount at $300,000. In addition, he expected an additional $0.80 per test in variable costs in this category.

Bellaire employed several people dedicated to perform billing and collection activities for the company. As noted previously, the costs of billing and collection differed greatly among the parties being billed. Physicians, hospitals, and employers were billed once a month for all tests performed by the lab during that month. Tests performed for Medicare and Medicaid patients were billed daily via electronic filing arrangements with these payers. However, self-pay patients were billed individually, and these bills were often hard for the company to collect. Generally, the company had seen billing and collection costs vary based on the number of tests. To accurately calculate the average billing and collection cost for each payer, Mack had ordered a bi-annual time study for the billing and collections department. For a period of two weeks, department personnel tracked the actual time spent on all billing and collections activities by payer, and this data was used to calculate the total labor cost per test by payer for billing and collection activities. In addition, a resource analysis was conducted to determine the cost per test of materials, postage, computer time, bad debts, and other expenses for billing and collection activities by billing party.

In 2015, the time study and resource analysis showed total billing and collection expenses of $0.50 per test for tests billed to physicians, $3.50 per test for tests billed to individual patients, and $3.00 per test for tests billed to other parties. Mack and Walters agreed that a continued focus on process improvement in the billings and collection department should offset the 2.0% wage increase planned for that department in 2016. Therefore, billing and collection costs per test were held constant at 2015 actual cost levels for the company's 2016 operating plan.

Historically, Bellaire's annual advertising and promotion expenses averaged approximately $550,000. However, the latest estimates from the company's director of marketing showed a cost of $820,000 for the proposed media campaign and ongoing marketing efforts in 2016, and those costs were expected to be independent of test volume.

In addition to advertising and promotion expense, the company incurred management and other administrative costs to support the lab. For 2016, executive management salaries and bonuses were expected to total $700,000. Other administrative costs were expected to be fixed at $500,000.

As he put the final touches on the 2016 operating plan for Bellaire, Mack tried to predict Wilma Lands's reaction to his work. He predicted that she would not be happy with an increase in test volume of only 20,000 tests over 2015, and he needed to be prepared to defend his assumptions. Personally, Mack wondered if this projected increase in test volumes was too aggressive, given the heightened level of clinical lab competition in the Boston area. He knew that Lands was expecting great results from the company's new marketing campaign, and he suspected that she would ask him to run several sensitivities of the operating plan based upon various test volumes.

Exhibit 1

Bellaire Clinical Labs, Inc. (A)

2015 Actual Annualized Volumes, Revenues per Test

Number of tests per year	980,000
% of tests—routine	84%
% of tests—specialty	16%
% of tests paid for by physicians	52%
% of tests paid for by patients	20%
% of tests paid for by other parties	28%
Average price for a routine test	
when physician pays	$14.50
when patient pays	$17.00
when other party pays	$16.00
Average price for a specialty test	
when physician pays	$20.00
when patient pays	$23.00
when other party pays	$21.75

Source: Created by author.