Children with Special Health Care Needs--Health Administration Case Study: Finance & Budgeting

Following is an example of budgeting in action at a health care provider servicing children and families with special needs.
(Common concepts are noted in **bold** type.)

Profitability Analysis as Part of a Business Plan to Establish A New Learning Disabilities Diagnostic Service in a Neurodevelopmental Group Practice

A neurodevelopmental clinic in the St. Theresa Health Care System in Ft Worth, Texas, is putting together a business plan to consider adding on a new diagnostic service to assess specific learning disabilities among children ages 6 through 18 and to provide care plans for the affected children. Several members of the clinical team –psychologists, speech/language specialists, and occupational therapists– have expressed great interest in branching out to this type of neurodevelopmental problem area because learning disabilities may play a role in some of the adjustment, attention, and behavioral issues they are seeing in the clinic, and they would like to get a better handle on it. A team of consultants has been hired by the clinic manager to analyze the current market conditions for such a service, and another team has been hired to prepare a profitability analysis to help the group practice manager determine how much patient volume will be required to make this new service "self-supporting." The financial consultants have decided to carry out a **cost-volume-profit analysis** to identify the minimum number of visits required for the clinic to "**break-even**" on this new service in the first year ("break-even" means that profit = 0 in the first year) and to determine if it is possible to make a modest profit that could be used in the future to cover raises for the clinical staff.

For purposes of illustration, this example will be simplified. Assume that three specialty areas are involved in this new initiative – a neuropsychologist, speech/language pathologist, and an occupational therapist. The fixed costs for the new service include clinician salaries, the purchase of 10 new psychological test kits and 10 new speech/language testing kits, each costing $1,000.00, and a certain amount for indirect costs charged to the clinic by their parent health care system. The occupational therapist does not need to purchase any testing kits. Variable costs involve scoring sheets for each patient who is given a diagnostic test in psychology or speech pathology. Each scoring sheet costs $2.50, and they come in packets of 25 from the testing company. We know from the previous year's analysis of utilization and total revenues generated by these three services that the average amount of revenue generated per service visit was $150.00. With the new service, each patient will receive an evaluation from each of the three clinical areas.

Assumptions:
Average Revenue per Visit: $150
First Year's Fixed Costs: $216,000 (clinical salaries, test kits, overhead)
Variable Cost: $5 per visit (based on each patient using two test booklets @ $2.50 per booklet)

1. **Base Case**: How much profit will the clinic make if they can schedule 10 patients per week for learning disabilities diagnostic work-ups?

   ANSWER: $4500
   Assume a volume of 1500 visits in the first year (assumes the clinic can schedule 10 patients per week, each receiving a psychological assessment, a speech and language evaluation, and an occupational therapy evaluation, thus, 30 visits per week over a 50-week period)

   The formula for computing cost-profit-volume analysis is as follows:
   Profit = (Total Revenue – Total Variable Costs) – Fixed Costs
   = ($150 x 1500 visits - $5 x 1500 visits) - $216,000
   = ($216,000 - $4500) - $216,000
   = $220,500 - $216,000
   Profit = $4,500

2. **Breakeven Analysis**: What is the minimum volume required for the clinic in the first year in order to break-even (i.e., where Profit=0)?

   ANSWER: 1489 visits

   Profit = (Total Revenue – Total Variable Costs) – Fixed Costs
   0 = ($150 x [visits] - $5 x [visits]) - $216,000
   ($150-$5) x [visits] = $216,000
   $145 x [visits] = $216,000
   [visits] = $216,000/$145
   [visits] = **1489**

3. **Profitability**: What volume is required for the clinic to realize a 5% profit?
   Note: 5% profit = 5% over fixed costs
   5% profit = 5% x $216,000
   5% profit = $10,800

   ANSWER: 1564 VISITS

   Profit = (Total Revenue – Total Variable Costs) – Fixed Costs
   $10,800 = ($150 x [visits] - $5 x [visits]) - $216,000)
   $10,800 + $216,000 = ($150-$5) x [visits]
   $226,800 = $145 x [visits]
   $226,800/$145 = [visits]
   1564 = [visits]

Final Comments: Offering Health Services within the LEND Training Grant Context – Some Unique Challenges

Offering health services for children with neurodevelopmental disabilities and related disorders in the context of the LEND training program poses some unique challenges for health administrators. First, Clinicians' time must be dedicated to not only seeing patients and thus generating volume and revenue, but also to training time. Thus, fixed costs in the context of a training program cannot be exclusively applied to patient volume. A second challenge for LEND and similar training programs is that a significant portion of the revenue base is grants, which do not respond directly to changes in volume. Thus, approaches to service expansion must thoughtfully consider the impact of grant revenues on the profitability analysis, bearing in mind that grant revenues are not as predictable as third party payments, and should not be factored into the revenue base when estimating reimbursement per visit. Thirdly, LEND training programs operate within academic medical center spheres where the billing and revenue recovery may be blended into larger program areas and departments, thus making it challenging to access all the needed information on utilization, costs, and revenues, that could support financial management activities on the level of the clinical unit. It also becomes difficult to expand into new areas because the process of generating equity to invest in new programs, equipment, and services may be restricted in the context of academic settings. Interdisciplinary services for children with neurodevelopmental and related disorders also pose challenges to providing the appropriate level of care. The range of medical and allied health professionals involved in interdisciplinary care have different payment levels and restrictions associated with reimbursement. Thus, the capacity to carefully analyze utilization and revenues across specialty types is essential for effective financial management, yet these activities are often difficult in the broader context of how LEND programs operate. Given these challenges, it seems prudent to dedicate time and effort to the ongoing relationships with administrators in the broader systems within which LEND programs operate.