

Hospital expansion analysis



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Case Study 1: The Case for Open Heart Surgery at Cabarrus Memorial Hospital- *Chemplavil*

Brief Introduction: Cabarrus Memorial Hospital (CMH) is a large, public hospital located in North Carolina, that prides itself in cultivating a never waning commitment to its community. Having first opened in 1935, over time CMH has found powerful allies in both Mr. Cannon, owner of Cannon Mills with considerable political and financial influence, and Duke University Medical Center, with who they have formed an educational affiliation and unique teaching arrangement. Due to the board's failure to foresee several front-hand issues, CMH finds itself at a crossroad of sorts. Currently CMH does not have their own open heart surgery program, compelling patients to seek open heart surgery or coronary angioplasties elsewhere. Concerned with the tremendous burden placed on the members of their community and their families to travel to such far lengths to receive adequate care, the board of trustees is considering adding a program of this caliber to their repertoire of cardiac services. A SWOT analysis and service area structural analysis (Porter) was performed to determine if CMH should apply for a certificate of need (CON) to open a new cardiovascular service program moving forward.

Discussion of Key Issues: The potential implementation of a full-service cardiac surgery program in CMH required careful consideration of its existing service area, opposition from competition, need for cardiovascular surgeries, the role of Duke in the proposal, relevant costs, and the likeliness of acquiring approval from North Carolina's DHHS for the CON.

Evaluation of CMH's current service area was primarily based upon zip code analysis of current cardiac catheterization and radiation oncology patients, pinpointing Concord and Kannapolis as major sources of patient coverage. With Mr. Cannon's help, extensive market development strategies should promote their newly enhanced cardiovascular care and help CMH expand their territory to include farther communities like Rowan County and Stanley County, shaking off bordering service area competition like University, Stanly, and Memorial Hospitals.

Study of the population epidemiology points to an inevitably growing need for expanded cardiovascular services, namely open heart surgeries and angioplasties. Projections indicated the at-risk population growth over the next ten years will grow by 31. 2% in Cabarrus county, location of CMH. The growing rate of the target, at-risk service area population (45-64) will likely lead to higher rates of open heart procedures (1. 39 in North Carolina currently).

Proposed costs of the program would total at \$2. 87 million for year one, \$3. 81 million for year two and \$6. 24 million for year three. However, it is known that CMH has sufficient reserve cash to finance the whole project without even acquiring a loan! Based on these projections alone, CMH will reach their break-even point rather quickly, likely sometime after year three, making the addition of a cardiac unit a profitable endeavor.

The existing open heart surgery programs in Charlotte, Winston-Salem, and Greensboro are 25 to 60 miles from the service population. This incredulous distance has created confusion and an immense burden for many patients

who seek continuity of care as travel times may take up to two hours. It may be wise to consider swiftly bring on home town hero, Dr. Christy, as part of the new cardiovascular surgery medical staff to embolden the community's support of CMH and put its patients at ease. Duke can continue its educational affiliation with CMH, and cases needing specialized care would still be referred to Duke.

The DHHS of North Carolina awards the CON to centers that achieve an 80% utilization rate for the cardiac surgery suite. Unfortunately, open heart cases from Cabarrus County and Rowan County currently however around only around 73% utilization. CMH will need to make use of adaptive strategies such as the expansion of scope planning that would include market development, product development and market penetration strategies to substantially increase their current volume to hit that threshold.

Situational Analysis: SWOT analysis provided detailed findings of the strengths and weaknesses of the internal environment, in addition to the opportunities and threats of the external environment, regarding the current cardiac care CMH provides (Ginter, Peter).

Exhibit I: SWOT Analysis

Recommendation: CMH's status as a "modern, well equipped facility" implies that it has the necessary infrastructure to build a cardiac unit, pending a few structural additions. CMH's renovation project would total \$3,273,180, and no loans will be needed due to its sufficient reserve fund. Pending a two-year trial run, CMH should track the added comprehensive care that would result from the opening of one heart surgical suite for adult

patients, while moving angioplasty to the current cardiac catheterization laboratory. The proposed duration of this project would likely take 3 years and would require the assignment of three dedicated cardiac surgical ICU beds as well as seven telemetry beds to support the open heart program with an almost overwhelming 400 proposed procedures per year from the onset of the program.

Benchmarks for Success and Contingency Plans: Implementation of this new program will be complicated, but justified. The board should create and follow an action and strategic plan to oversee the creation of this new surgery program. Timelines, benchmarks, and a balanced scorecard will be used to monitor the progress of the plan, and to ensure the standards are being met (Bloomquist P, Yeager). Written reports, like a GANTT chart, which may plot the incurred heart operations against time, can also be used to monitor planning, costs, effectiveness, and resources used by the program (Cellucci L, 2009). Taking corrective action will be dependent on evaluation criteria that will be created by the board and redirection will take place if necessary. If added comprehensive care progress is not being met according to the action and strategic plans, program strategies will be outsourced to an outside consultant. If Dr. Christy is not satisfied with CMH's offer and relocates elsewhere, CMH may be pressed to ask the two surgeons from Duke Medical Center to act as interim on-call heart surgeons or even come on full time to continue the program. If the program's restraining forces continue to outweigh its driving forces, and fails to provide the proposed benefits, termination of the program may be likely.

References:

Bloomquist P, Yeager J. Using Balanced Scorecards to Align Organizational Strategies. *Healthcare Executive* ; Jan/Feb 2008. pp. 24-28.

Cellucci, L. W., Wiggins, C. (2010). *Essential Techniques for Healthcare Managers* . Health Administration Press: Chicago.

Ginter, Peter M. *Strategic Management of Health Care Organizations* . San Francisco, Calif: Jossey-Bass, 2015. Print.