The primary purpose of this report is to identify the total financial needs of a hospital-based Multitest System which describes a systems approach to the methodology employed in the delivery of health care. It is the utilization of computer-based, on-line, real-time, data-acquisition program techniques interactive with bio-medical testing instrumentation to produce a patient data record base of primary importance to the physician. The report moves through five major sections concluding with an opinion that The Swedish Medical Center is a candidate for a Searle Medidata Multitest System.

This report discusses the accelerated pressures on health care providers to demonstrate that the traditional patient processing methods employed today will be subject to ever increasing scrutiny by major payers of health care services as to reasonableness. The focus of traditional methods concentrates on financial resources in a form less productive than may be available with existing technology.

Experienced health care providers anticipate an expansion of demand for inpatient as well as outpatient services. More liberal hospital and medical benefit packages for employees together with expansion of health care legislation continues to form the basis for increasing demand. Traditional patient processing systems cannot meet such growing demand and will be judged medically and financially unreasonable, therefore, subject to stringent payment ceilings and/or payment adjustments. Systems must be researched to process patients in such form as to demonstrate cost effectiveness. Cost effectiveness is demonstrated if costs are not only contained, but actually reduced as demand for services grows without a decrease in quality of care.

As the dominance of major third party payers grows at health care negotiation tables, it should be clear that an industry which controls the capital to meet the demands being legislated and provided in extended benefit coverages will be able to negotiate its fair share of the financial needs associated with meeting such demands. Demonstrating that technology is available to meet these demands in a cost effective manner will cause a better negotiation in regard to the associated financial needs. The inefficient system could be judged an unreasonable system, therefore, it experiences unreasonable costs. A system with a technology that meets demand in an efficient manner demonstrates that its financial needs in providing care are reasonable, therefore, payable. An Automated Multitest System will maximize existing capital and medical manpower. Productivity is rewarded by third party payers. If you do more, you can earn more under current major financial arrangements with major third party payers.

PREADMISSION TESTING

There is substantial evidence that an effective preadmission testing system that delivers a completed history and test results to a patient's medical record on day of admission reduces length of stay from a range of one-third day to two days, depending on medical condition. All hospitals would like to admit they are capable of achieving preadmission testing in a timely and effective manner. However, traditional systems of data collection and correlation into the patient's medical record on day of admission is extremely difficult, if not impossible to achieve without substantial automation as provided by Automated Multitest Systems.

PATIENT, PHYSICIAN AND HOSPITAL BENEFITS

Research indicates that users state a Multitest System:

1) Provides the attending physician and hospital medical staff with a detailed patient health profile at the time of admission.
2) Reduces needless bed occupancy by processing patient tests more efficiently and rapidly.
3) Assists the physician in identification and classification of patients in terms of those who are sick and those who are relatively well.
4) Enables early detection of illness or abnormalities in both inpatients and outpatients before symptoms appear.
5) Provides detailed, uniformly formatted records of the multitest process including the patient's history for the medical record.
6) Stores health data in machine language for statistical studies and research aimed at
improving health care and reducing hospital costs.

7) Provides the technology required to process great numbers of people through periodic health assessments, employment and retirement examinations, new patient workups, etc.

8) Provides periodic health assessments to people deprived of such examination because of economic reasons.

9) Fills in physicians and para-medical agencies with an awareness of a technology to aim them in pursuing preventative medicine in the community.

10) Provides a basis of follow-up on individuals suspected of having disease in need of treatment.

11) Develops a pool of para-medical personnel trained in interacting with computers for medical purposes. These persons become very useful for proceeding into the more complex medical technology of the future.

12) Provides a base on which indices of health can be developed.

13) Positions the hospital to stand ready with a technology and personnel talent to meet legislative demands and those of major health care insurers that put emphasis on preventive practices and maintenance of good health through comprehensive periodic tests, examinations and checkups.

14) Places the hospital in control of highly productive capital equipment which substantially increases patient processing volumes, particularly on the outpatient level. The hospital that controls capital of these dimensions controls negotiation and competes with other health care providers unable to process patients as effectively.

15) Instills a sense of orderliness and confidence in patient's mind and he/she processes through a complex of history questions and tests in a single area of approximately 3,000 square feet in 108 minutes.

16) Incorporates usual medical staff orders into standing orders which present a hierarchical format for review by appropriate medical personnel.

FIVE YEAR FINANCIAL PROJECTION

The financial considerations involved in securing a Multitest Center are based on a five year inpatient and outpatient market projection. The six major areas covered are:

1) Inpatient and outpatient market volumes.

2) Total financial needs.

3) Incremental cash outlays.

4) Pricing strategies.

5) Cost containment and savings projections.

CONCLUSIONS

This is effectively an internal management report in a format reflective of proper medical and financial planning toward the consideration of securing a Multitest System. Increasing demand for health care services with the trend toward greater outpatient services, especially in the area of periodic examinations and increasing pressure on hospitals and physicians to be more productive with limited dollars causes The Swedish Medical Center and its Medical Staff to seriously consider Automated Multitesting as a proven technology to meet such demand.

The Multitest System will substantially improve current inpatient admission procedures and provide a technology to meet growing demand for outpatient services. Centralizing the computer's location at The Swedish Medical Center will provide a potential for satellite terminals in other hospitals, physician offices, and other health agencies. These satellite operations, such as the Med/Stat System, could provide further usage of the System beyond the inpatient and outpatient projections presented in this report. The Med/Stat System would generate additional revenues to impact on the most fixed and semi-variable costs of the Multitest Center further contributing to cost containment. Med/Stat System implementation could further maximize the efficiency of the Center.

However, in keeping with the conservative financial projections presented, no revenues were projected from a Med/Stat System.

All financial needs required by the Multitest Center were projected for a five year period. The conservative projections were presented in detail in order to clearly present the financial requirements of the Center. Front-end financing costs were included in order to be as comprehensive as possible. Assuming that all inpatient and outpatient volumes are met and with full recognition of inflationary pressures on the health care industry, it was determined that in the first year and the fifth year, the average daily price to price paying inpatients would minimally increase by 5c over current prices between the first year ($2.93) and fifth year ($2.98). To cost paying third parties, the cost increase to inpatients would minimally increase by 4% (first year $2.49, fifth year $2.53). Relating these costs to procedures performed in the time frame and report format indicated surely demonstrates high productivity, outstanding cost containment and substantial contribution to lowering inflationary pressures. For example, volume increased 68% between the first and fifth years while costs increased only 5c.

A shorter length of stay through a timely and comprehensive admission data base which generates better physician patient care planning after admission actually reduces health care costs for that patient and places the hospital and the physician in better
position to meet new demands from other patients. Productivity rewards the hospital and physician since more patients cared for will produce greater incomes in absolute dollars. Negotiating processes for "ceilinged" health care industry dollars are greatly improved by a regional medical center which demonstrates productive technology that it controls with its medical staff.

Audits of health care industry systems will be accelerated. Questioning the system questions the cost. If the system is highly productive and meeting demand, then the cost must be considered reasonable. The Multitest Center is a proven effective system. The hospital and medical staff must not place themselves in a position where they attempt to meet demand they have no control over by processing patients through less than efficient traditional systems when technology is available.