

BENCHMARKING AND OPERATIONAL DIAGNOSTIC ASSESSMENT

THE AMS FLEXIBLE APPROACH

For over 30 years, Applied Management Systems, Inc. (AMS) has provided management solutions to more than 300 hospitals nationwide. Through the years we have developed several ways to approach issues utilizing a variety of specialized and experienced staff.

Problems may become apparent when trend statistics indicate a change; when a specific department is experiencing difficulties; or when complaints surface from department employees, other departments, physicians or patients. Whatever the scenario, AMS takes a flexible, customized approach to solving the problem.

DESCRIPTION OF OPTIONS

1. Benchmarking - a brief comparative analysis of all cost centers

Problem scenarios: Hospital management suspects it has an inappropriate distribution of labor resources but cannot easily identify a particular area or department.... A hospital believes it is adequately staffed, but requires an outside objective review to corroborate its staffing level for internal or external purposes.... A hospital is under immediate pressure to reduce staff and needs to identify opportunities.

IMPLEMENTATION OPTIONS

An AMS solution can involve one or more of the following three services, depending on the project's specific nature

1. Benchmarking

A brief comparative analysis of all cost centers.

2. Operational Diagnostic

A short-term evaluation of all cost centers and departments

3. Productivity and Quality Indices

A long-term process to evaluate, monitor changes and improve productivity

Solution: AMS recommends a Benchmarking Analysis to compare current staffing levels to optimum levels in our proprietary comparative data base. This involves review of actual and budgeted workload indicators (volume statistics) and labor resources for the current fiscal year. The analysis does not include discussions with department managers regarding systems or staffing issues.

The methodology utilized to complete a Benchmarking Analysis is as follows:

Step 1. Meet with Hospital Senior Managers. This meeting provides the opportunity for senior management to review the project approach and provides

AMS staff the opportunity to obtain information regarding hospital operational characteristics. Specific target areas can also be identified at this time.

Step 2. Completion of the AMS Benchmarking Data Collection Form. The hospital provides the following department-specific data in a spreadsheet file:

- a. Actual year-to-date workload statistics such as patient days, admissions, CAP units, radiology procedures, etc.
- b. Budgeted FTEs and workload statistics
- c. Actual year-to-date worked and paid hours.

Step 3. Application of the AMS Benchmarking Methodology. AMS compares department-specific data to optimal ranges to identify variances. All variances (over or under staffing) are documented.

Step 4. Meet with Senior Management to Review Preliminary Findings. This meeting provides senior management with the opportunity to review the Benchmarking results prior to the preparation of the final report. Variances are discussed and verified. Preliminary results are forwarded to the hospital for review prior to meeting with senior management.

Step 5. Preparation and Presentation of a Final Report. AMS prepares a brief report outlining the results of the analysis and presents it to senior management.

2. Operational Diagnostic - a short-term evaluation of all cost centers and departments

Problem scenario: When a hospital experiences changing volume and service demands, the institution's physical plant and resources feel the strains. Departmental managers flood administration with requests for staff, equipment, etc. The hospital may run at a deficit. Are these requests needed? Are the departments using the most efficient and appropriate systems?

Solution: In such a situation, AMS recommends development of a management systems strategy that provides the hospital with an assessment of current departmental operations including systems and staffing

BENCHMARKING TIMETABLE

The total calendar time to complete a Benchmarking Analysis is typically one to two months

Step	Elapsed Week
1. Meet w/ senior management	1
2. Complete data spread sheet	2
3. Conduct analysis	4
4. Review preliminary findings	5
5. Prepare and present report	6

levels. This assessment—or Operational Diagnostic—provides an overview of current service delivery systems and associated staffing. It also allows us to assess if modification of those systems is possible and if opportunities exist to improve operating effectiveness.

The Operational Diagnostic serves as a cornerstone for the development of departmental productivity standards for selected departments. A typical group of departments studied in an Operational Diagnostic follows:

Ancillary

- Cardiac Services
- CT Scan
- Diagnostic Radiology
- EKG
- Emergency Room
- Laboratory
- Nuclear Medicine
- Operating Room
- Pharmacy
- Physical Therapy
- Post Anesthesia Care Unit
- Pulmonary Services
- Renal Dialysis
- Ultrasound

General

- Central Service
- Food Services
- Housekeeping
- Laundry & Linen
- Maintenance/Plant Operations
- Materials
- Medical Records

Nursing

Medical/Surgical Units
ICU
CCU
Other Specialty Units

Finance

Information Systems
Patient Accounting
Patient Registration

Using workload standards, comparative data and AMS' previous experience in similar institutions, AMS identifies areas of potential economies of staff expense and system improvements. A typical methodology follows:

Step 1. Preliminary Orientation and Education Sessions. AMS conducts one session with the senior team to review the methodology, and to discuss the approach for the dissemination of results. This allows the senior team to review project goals and objectives and discuss department idiosyncrasies.

AMS also conducts an orientation session for the department managers to introduce them to the concepts and use of the methodology. This session highlights the methodologies and stresses how the resultant information can be used to assist them in management of their departments.

Step 2. Distribution of Department Questionnaires. Department questionnaires are distributed to individual department managers in order to capture specific statistical and operational data for AMS analysis prior to initial on-site interviews. To enhance this process and to help meet project target dates, deadlines are established for the completion of questionnaires. A hospital coordinator is identified to help with collection of questionnaires.

Step 3. Initial Department Interviews. Individual manager interviews focus on a review of the data and related analysis from the questionnaires. Interviews vary in length depending on department size and complexity. Upon conclusion of these meetings, AMS staff review the initial FTE requirement analysis with the department and obtain a good working understanding of the operation of the department.

OPERATIONAL DIAGNOSTIC TIMEFRAME

The timeframe for conducting an operational audit is dependent upon the size of the hospital and the number of departments involved. Projects range from three to four months

The timeframe for a 200-300 bed hospital project that examines the departments outlined in the text is approximated below

<u>Step</u>	<u>Elapsed weeks</u>
1. Management education	1
2. Distribution of department questionnaires	2
Return questionnaires	4
3. Initial department interviews	5
4. Analysis and development of recommendations	8
5. Follow-up department meetings	10
6. Documentation of findings and recommendations	12
Presentation	14

Step 4. Analysis and Development of Recommendations. Following review of questionnaires and initial department meetings, AMS staff finalize their analyses of staffing and department systems and develop appropriate recommendations.

Step 5. Follow-up Department Meetings. A second series of meetings within each department includes review of findings and recommendations to ensure that managers understand our analysis, rationale, and recommendations and to assist in formulating implementation plans. In the event that some managers do not agree with our findings, we document differences of opinion to provide senior management with the two views.

Step 6. Documentation of Findings and Recommendations. AMS conducts a senior team meeting to discuss findings and recommendations, and to suggest strategies for individual departments. Upon the completion of this meeting, findings and recommendations are documented in a report complete with

executive summary and individual department summaries.

3. Productivity and Quality Indices - a long-term process to evaluate, monitor changes and improve productivity

Problem scenario: In response to changing utilization rates and increased reimbursement limitations, a hospital needs to develop and implement a system to measure, report and improve productivity. In this new era, strategic decisions regarding service expansions or reductions must be made cognizant of costs, revenues and competition. These productivity improvements must be made without jeopardizing the hospital's high quality of care.

Solution: Management of a hospital requires strict attention to the monitoring and control of hospital resources, and the largest single resource in any hospital is personnel. In order to make the most effective use of this expensive resource, hospital management must be able to define required staffing and monitor actual versus required staffing on a continuous and timely basis.

AMS ensures that any productivity project plan works in concert with current hospital initiatives such as TQM, right-sizing, product costing, patient acuity monitoring, and management information systems. The plan usually consists of six phases with the standard development phase often divided into subgroups. A typical approach is as follows:

Phase 1: Manager Education and Training Program. AMS recognizes the need for a hospital to involve and educate management in all facets of the productivity process. To prepare all levels of management to deal with general productivity issues and productivity monitoring, AMS conducts a series of educational programs. These sessions have been well received in many hospitals and have been given as part of an AHA-sponsored national series on productivity. It is important that managers understand the concepts discussed in future phases of this effort. Sessions can be tailored to the attendees needs.

Senior Management Orientation. This session brings together hospital senior management to review issues specific to both the hospital (such as union activity, data sources, and responsibility assignments) and to the project (timetable, staff assignment,

schedule, etc.). At this session, the educational program to be presented to line managers is reviewed. Finally, the relationship of the productivity effort to other hospital efforts (such as cost accounting, patient classification, mergers, right-sizing, etc.) is discussed.

Introduction. At this session the project is introduced to the managers by senior management. The principal AMS consultant is introduced, project goals and objectives are detailed and the schedule of activities are reviewed. AMS and hospital management respond to any questions that line managers may have.

Overview of Productivity. In this session AMS staff present an overview of productivity issues (what is productivity; role of the line manager in productivity; and hospital's productivity goals); review the tools and techniques utilized in quantifying workload and developing standards (such as work measurement, flow analysis, statistical monitoring); and discuss how to utilize the information in daily departmental management. This session is presented twice for convenience of the line managers. Sessions can be tailored to specific groups and/or divisions such as nursing, support services, or administration.

Phase 2: Implementation of AMS Database Management System. The implementation of the AMS Database Management System requires some initial set-up. The sources of information that drive the system must be scrutinized and report structures must be created to be consistent with the hospital's organizational structure. System implementation includes:

Conduct instructional sessions for appropriate hospital personnel. Sessions for the coordinator and data entry clerk concentrate on the appropriate ways of collecting and reporting the necessary statistics and generating the productivity reports.

Develop the hospital's reporting format. The organizational structure is reviewed in order to customize the reporting formats to meet your specific needs.

Identify statistics to be monitored. AMS staff develop key statistics for each department through discussions with department heads and administration. These statistics should reflect those activities that represent the major portion of a department's workload and any activity

that administration may want to track. As many as 13 statistics may be reported for each cost center.

Review current policies for statistic collection. AMS reviews the current procedure for collecting departmental activity statistics and recommends changes and/or makes additions to the current statistical data base as necessary.

Review current payroll reporting system. The payroll reporting system is tested for compatibility with sound productivity reporting of this phase.

Phase 3: Information Flow Analysis. AMS works with the hospital and department administration to document current information flows as related to productivity and statistical monitoring. Areas of investigation include:

- ❖ Definitions
- ❖ Unit of count
- ❖ Flow/source
- ❖ Discrepancy documentation
- ❖ Corporate statistical policy.

As part of this effort, the charge structure is reviewed to ensure that workload and charge reporting are interfaced. As appropriate, AMS recommends charge structure revisions. When complete, the hospital has a commonality of information and confidence in the data base. The statistical information is incorporated, as appropriate, into the productivity reporting system.

Phase 4: Standards Development: AMS develops workload standards in the departments detailed in *Table 1. Standards Development Plan*. This requires extensive involvement with the cost center managers to review department specifics, develop charge-based activity standards, and review the application of productivity concepts in the ongoing management of their area.

The methodologies utilized vary from department to department. Departments are ranked as requiring low, moderate, or a high level of AMS involvement. The degree of involvement depends on the complexity of the area; availability, source, and accuracy of existing standards (e.g. patient acuity system); and the future plans for detailed analysis. The outcome is a workload standard or set of standards tied to a workload statistic(s). These standards, while unique to the hospital, are

Input baseline data. All necessary data, including organizational report formats, key activity indicators, payroll data and benchmarking ranges is compiled, prepared, and entered.

Analysis and debugging of initial reports. AMS analyzes initial reports for completeness and accuracy, and makes necessary corrections prior to distribution.

Final report and presentation. AMS generates a report to signal the completion

based on nationally utilized procedure level standards developed through detailed time studies. As each department's standards are developed, they are added to the productivity reporting system.

Phase 5: Ongoing Support and System Maintenance. The system maintenance phase is a continuous monthly program with the AMS consultant on site one day per month. During this visit, the following occurs.

Meet with department managers. Discussion centers on monthly reports, interpreting results, correcting system problems, and incorporating standards adjustments.

Train/educate new department managers. Training is provided to new users on the mechanics of the system and use of the data. The ongoing monthly reports are processed by the hospital, with assistance provided by AMS. The reporting system is designed to enable the hospital to generate its own reports using existing microcomputer capabilities. If desired, AMS can provide additional support with the generation of monthly reports, interpretation of data, and implementation assistance.

Phase 6: Project Management and Office Support. This phase is designed to manage, control, and support the project. The majority of the time allocated to this phase is spent at AMS corporate offices in project/quality control, preparing and editing of the department reports, and general project management.

PRODUCTIVITY AND QUALITY INDICES

Table 1

Department	Proposed Type of Labor Standards	Typical AMS Involvement Level
1. Business Office	Dept. Statistics	Medium
2. Cardiovascular Svcs	Charge Level	Medium
3. Central Registration	Dept. Statistics	Medium
4. Day Surgery Unit	Dept. Statistics	Medium
5. Emergency/OPD	Charge Level	High
6. Environmental Svcs	Dept. Statistics	High
7. Food Services	Dept. Statistics	Medium
8. Inpatient Nursing ¹	Patient Class	Medium
9. Labor & Delivery ¹	Charge Level	Medium
10. Laboratory	Billed Tests	High
11. Laundry	Dept. Statistics	Low
12. Materials Mgt.	Dept. Statistics	High
13. Medical Records	Dept. Statistics	High
14. Operating Room	OR Case Min.	Medium
15. PACU	RR Minutes	Medium
16. Patient Accounts	Dept. Statistics	High
17. Pharmacy	Unit Doses	Medium
18. Physical Therapy	Charge Level	High
19. Plant Operations	Dept. Statistics	Low
20. Radiology	Charge Level	High
21. Social Service	Dept. Statistics	Low
22. Speech/Hearing/Lang	Charge Level	Medium

Patient Classification/Acuity Monitoring Systems typically serve as the basis for the standards development effort in these area

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