

## Resource Management and Scheduling: Managing Basic Costs

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Health care organizations recognize that effective management of staff resources is critical to their success. Staffing typically commands 60 to 80 percent of a provider organization's total budget. Allocating staff resources to deliver consistent, cost-effective, quality care is a tough challenge.

In the following interview, Michael Meisel, president and CEO of RES-Q Healthcare Systems, comments on the evolution and direction of these systems. Since 1987, Meisel has directed the development, sales and support of software applications for resource management and staff scheduling.

**Q: During the 1980s, what features and functions did users, especially in hospital settings, look for in scheduling systems? What were the main business problems they were trying to solve?**

**A:** During the 1980s, hospitals, in particular nursing departments, were just beginning to assess how computers might help them effectively schedule staff. In fact, until the middle of that decade, less than 200 hospital-based employee scheduling systems were installed in the U.S. Then in the late 1980s, when the severe nursing shortage reached crisis proportions, hospitals frantically scrambled for solutions to reduce the resources required to provide adequate staffing for their units.

Back then, nurse managers were looking for the basics -- the ability to create a schedule to meet core staffing requirements and to evenly distribute staffing coverage across the week and for all shifts. Of course, they also wanted to reduce the amount of time spent managing the scheduling process itself.

**Q: In the past 10-15 years, how have users' demands changed?**

**A:** They still want to achieve balanced schedules that meet basic staffing needs, but now coverage is not the only issue. To meet demands to more effectively manage resources, and to cope with budget constraints, cost has become a much more important component of the scheduling process, along with skill competencies and workload balancing.

**Q: So, has budgeting become integrated with staffing in employee resource management systems?**

**A:** Yes. Users demand that systems provide the tools to predict staffing needs and adjust for skill-level mix and associated costs as patient volume and workloads change. They have to be able to cost out scheduling and staffing decisions in real time as well as forecast staffing needs and costs for future budgeting.

**Q: How has the increasing pace of mergers and consolidation and the development of new types of health care delivery systems affected resource management and staffing systems?**

**A:** It would be difficult to overstate the impact. To keep pace, systems have evolved from single-department products to true enterprise-wide applications in order to unify staffing and scheduling -- and thereby manage

labor resources and costs -- across entire health care organizations. So, solutions must support enterprise-wide functionality and have the underlying technology to scale up as health care organizations grow ever larger.

***Q: Have changing regulatory requirements made an impact on scheduling systems?***

**A:** Accreditation requirements certainly have. According to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), you have to have current competency assessments for all staff. Thus, in resource management and scheduling systems today, we have to integrate information on employee competencies and credentials as well as automate tracking of information on employees' continuing education. Systems have to be able to show users whether various staffing scenarios are not only cost-effective but also whether they meet JCAHO standards. This has evolved into an entirely new feature set integrated within resource management and scheduling solutions.

***Q: Have decision support and reporting requirements become more important?***

**A:** Absolutely. Again, 10-15 years ago, the basic requirement of resource management systems was to produce balanced staffing schedules. Today, data analysis and reporting, both in real time as well as for retrospective and prospective analysis, are critical requirements. Health care organizations now use resource management and scheduling systems to decrease overtime, minimize the use of expensive outside staffing resources and maximize the use of intra-staff and cross-facility floating. Decision support features in scheduling systems help users effectively manage labor resources and reduce costs enterprise-wide.

***Q: Can you cite examples of such cost savings?***

**A:** Many of our clients have achieved real dollar savings through productivity gains and time savings. Improving staff allocation reduces overtime and outside agency costs, often resulting in thousands of dollars in savings each month. In addition, the automation provided by resource scheduling applications typically saves in excess of 200 hours per pay period by reducing the amount of time spent in manual schedule preparation and modification, timecard verification and staff certification compliance.

***Q: Over time, have the users changed too? Do different types of health care professionals now access scheduling applications?***

**A:** As computers have become more readily accessible with the advent of networking technology and decreasing hardware costs, more and more organizations are realizing the benefits of computerized employee and patient scheduling applications. These systems are no longer limited to the nursing or surgery department. Centralized scheduling is becoming the "one-stop shop" for all appointment and resource scheduling throughout entire health care organizations. Surgeons are viewing their upcoming surgery schedule online and booking their own cases into pre-defined blocks of time. Even support departments, such as dietary and environmental services, are scheduling their employees in the same system once dedicated only to nursing.

***Q: What have been some of the most difficult hurdles in implementing scheduling systems?***

**A:** As with any system of this magnitude, there are now so many features available to the user that many systems are often underutilized. I call this the "word processor syndrome." While most of us use word processing applications to type letters and so forth, how many of us truly utilize all of the available features such as desktop publishing and mail-merge? The bottom line is that a well-defined project plan and progressive education and training are the key factors in successfully implementing a scheduling system. Ongoing training and system reviews are also critical to ensure that users are getting the maximum benefit from these comprehensive resource management tools.

***Q: What are your clients saying about the future direction of resource management and scheduling systems?***

**A:** They are asking for systems that provide tools to make informed scheduling decisions by predictively showing them both the clinical and financial impact of decisions in an environment shaped by constantly shifting resource demands as well as ever increasing organizational size and complexity.

In addition, as health care delivery becomes more integrated across the entire continuum of patient care, there is a tremendous need to secure the productivity gains and cost reductions from the application of resource management and scheduling systems in ambulatory settings. In particular, I believe that these solutions will have substantial benefits for physician group practices and integrated delivery systems as they seek to effectively manage staff resources. These solutions can help them deliver cost-effective, quality care and thereby manage value.

**Q: *Are clients demanding integration with other health care information system applications?***

**A:** Since the scheduling process touches on so many aspects of health care delivery -- from patient appointments for offices visits, lab tests and operative procedures to the scheduling of caregivers, equipment and other resources necessary for the orderly and efficient care of the patient -- scheduling must be an integral component of any clinical management application and tightly integrated with the entire patient care delivery process.

**Q: *Which specific features of scheduling applications are especially important in clinical management systems?***

**A:** Clinical systems need to integrate the management of the entire patient care process with the business process of health care, and scheduling applications can ensure that all resources required to deliver the appropriate care are available at the right time in the right place. This requires that the scheduling system identify and resolve resource conflicts, handle resource or task precedence (e.g., the results of a lab test or a patient-centered outcomes survey required prior to a patient's office visit), and provide a predictive view of resource utilization for planning future needs. In addition, resource costing is a key element. By providing both resource availability and cost information, it is now possible to manage the patient care process in order to maximize resource utilization while maintaining the lowest possible cost.