



Davies Award Executive Summaries:
Maimonides Medical Center 2002 Davies Organizational Award Winner

In 1996, Maimonides executive management made a commitment – and allocated the resources – for a strong information environment that would improve the quality of care, increase patient satisfaction, reduce costs, and position the hospital for future growth and initiatives. The result is Maimonides Access Clinical System (MACS), a CPR system that has transformed the delivery of health care at Maimonides and serves as a model for other large hospitals nationwide. Located in southwest Brooklyn, New York, Maimonides Medical Center is a not-for-profit, voluntary hospital and the third-largest independent teaching hospital in the country. With more than 2.8 million people, Brooklyn is the most densely populated borough of New York City and is distinguished by its mosaic of ethnic enclaves residing over an area of 70 square miles. The Maimonides staff speaks more than 45 languages to support health care services for this diverse patient population.

Clinical Goals and Performance:

When Maimonides set out on its mission to develop a leading edge CPR system, the vision was clear: to improve the quality and effectiveness of patient care by providing real time access to comprehensive clinical information wherever and whenever needed. Benefits have been remarkable. The medical center has seen:

- a 68% decrease in medication processing time,
- a 55% decrease in medication discrepancies, and
- a 58% reduction in problem medication orders.
- Duplication of ancillary orders has decreased by 20% overall, including a 48% reduction in duplicate laboratory/chemistry tests.
- Over a seven-year period, accessibility of clinical data has improved time of diagnosis and treatment, contributing to a 2.21 day (30.4%) reduction in average length of patient stay.
- Ambulatory care CPR: improved regulatory compliance for the current problem list from 67% to 97%; allergy documentation 88% to 100%

Maimonides has invested in considerable upfront costs to set up each CPR application to maximize value and ease of use. For example: the Emergency Department's workload had increased by 32% to 77,188 visits annually. To accommodate this growth, the Chairman of Emergency Medicine focused efforts to reduce turnaround time of all patients from triage to discharge. To improve turnaround time, the CPR in the ED revised daily workflow of physicians, nurses, and clerical staff. On each PC workstation throughout the department, the current status of the patient is apparent using colorful icons for different types of information, including: length of stay, status of orders and results, allergies, location of the patient (including areas outside the department), registration status, and admission or discharge disposition.

Financial Goals and Performance:

These improvements have enabled 32,168 additional in-patients to be served by the medical center, representing over \$50 million in increased revenue, one-quarter of which is attributable to the CPR.

- Maimonides CPR solution has achieved a 9.4% ROI, a 3.84 year payback, and positive net cash flow by year four. Partially contributing to this ROI has been capital reimbursement, grant awards, and partial revenue from the medical center's length of stay reduction as well as new revenue from decision support.
- \$10.5 million savings over five years from PACS: film, film jackets, transcription, and reduced hardware and software maintenance.