tion of managed care, and negotiated contracts as well as a number of other factors all have an impact on an individual hospital's margin. Surgeons should be fully cognizant of their significant influence in the marketplace.

► This excellent study differs from many others in its category because actual dollars collected are reported. The reader will immediately understand why some services with limited educational responsibility within a medical school framework get relatively more hospital resources (eg, neurosurgery) than those services with the bulk of medical school educational responsibility (eg, general surgery). In the days of plenty, to maintain a balanced educational experience, surgical chairs knew that some services would be chronic money losers, not because the faculty members weren't working but because reimbursement for their work was poor. Cross-subsidization occurred within the departmental structure, and no hospital money was needed to meet the annual departmental budget. No longer is this the case; consequently, the job of a department chair is very different than in the recent past. Many are now middle managers with little autonomy. Dependence on hospital revenue to meet the medical school mission can create tension between the hospital and the medical school and within divisions in a department in which cross-subsidization is no longer possible. Compounding this issue is the ever-increasing salaries of academic surgeons. The chair has 2 important means of managing a department: money and space. In the new paradigm, more loyalty could easily be given to the hospital than to the department; likewise, the dean is caught between the need for money from the hospital mission (often responding to an outside board of directors who are bottom-line–oriented—check out hospital administrators salaries and incentive programs) and the educational mission of the medical school. The educational health care systems that figure this new paradigm out and can cooperate will be the strong ones of the future. It is an excellent opportunity for second-tier systems to rise to the top. It will be interesting to see if any rise to the challenge or continue to function in the way that made them second tier.

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The Impact of Aviation-Based Teamwork Training on the Attitudes of Health-Care Professionals

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Background.—Both the Institute of Medicine and the Agency for Healthcare Research and Quality suggest patient safety can be enhanced by implementing aviation Crew Resource Management (CRM) in health care. CRM emphasizes six key areas: managing fatigue, creating and managing teams, recognizing adverse situations (red flags), cross-checking and communication, decision making, and performance feedback. This study evaluates participant reactions and attitudes to CRM training.

Study Design.—From April 22, 2003, to December 11, 2003, clinical teams from the trauma unit, emergency department, operative services, cardiac catheterization laboratory, and administration underwent an 8-hour training course. Participants completed an 11-question End-of-Course Critique (ECC), designed to assess the perceived need for training and usefulness of CRM skill sets. The Human Factors Attitude Survey contains 23 items and is administered on the same day both pre- and posttraining. It measures attitudinal shifts toward the six training modules and CRM.

Results.—Of the 489 participants undergoing CRM training during the study period, 463 (95%) completed the ECC and 338 (69%) completed the Human Factors Attitude Survey. The demographics of the group included 288 (59%) nurses and technicians, 104 (21%) physicians, and 97 (20%) administrative personnel. Responses to the ECC were very positive for all questions, and 95% of respondents agreed or strongly agreed CRM training would reduce errors in their practice. Responses to the Human Factors Attitude Survey indicated that the training had a positive impact on 20 of the 23 items ($p < 0.01$).

Conclusions.—CRM training improves attitudes toward fatigue management, team building, communication, recognizing adverse events, team decision making, and performance feedback. Participants agreed that CRM training will reduce errors and improve patient safety.

► It is a little scary that this type of training is relatively new in the airline industry, and the public will be surprised that it is not part of the fabric of the operative experience. The concept that the surgeon is the "captain of the ship" and responsible for anything that goes wrong is no longer true. There was a time when I knew every facet of the patient's course in real-time and was the central repository for all information. In the new health care paradigm, I am forced to rely on other health care providers not always directly under my control to ensure that "all is well" in the perioperative period. Communication and a willingness to speak up are now of utmost importance for patient safety as the care of the patient becomes more diffused in the team atmosphere. I still practice the "old style" of medicine and insist as much as possible to have all the data at my fingertips. In the new paradigm when physician lifestyle and limited work hours take on more importance, the knowledge of the patient's situation may be fragmented among several health care providers. Hopefully, they will communicate! Especially if I am the patient!

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