

- Stephen K. Plume, M.D., Professor of Surgery and of Community and Family Medicine, Dartmouth Medical School

B.A. Harvard University, 1964.

M.D. University of Rochester, 1969.

Internship in Surgery, Strong Memorial Hospital, Cambridge, MA, 1969-1970.

Residency in Surgery, University of Rochester, Rochester, NY, 1970-1975.

Fellow in Cardiovascular and Thoracic Surgery, University of Toronto, 1975-1977

Cardiothoracic Surgeon, DHMC and Concord Hospital

Teaching roles at CECS:

Masters Degree: Lecturer in Healthcare Improvement Leadership Development and Statistical Process Control

Research Interests: Dr. Plume's long-standing interest in understanding and improving systems of care and an increasing awareness of outcomes research led to the founding, with Gerald O'Connor, of the Northern New England Cardiovascular Disease Study Group. Experience gained from participating in this multi-center, multi-disciplinary effort to understand and reduce variation in cardiac surgery practices and outcomes proved useful in the effort to focus and coordinate a large, geographically dispersed multispecialty group practice.

Dr. Plume served as President of Dartmouth-Hitchcock Clinic from 1990 to 2000, after serving as Chief of Cardiothoracic Surgery at Dartmouth-Hitchcock Medical Center from 1979 to 1990. In addition to clinical, research and leadership responsibilities, Dr. Plume has served as consultant to institutions wishing to improve clinical services, and to others wishing to understand alternatives for organizing group practices.

Representative Publications (related to the evaluative clinical sciences)

1. Nugent WC, Maislen EL, O'Connor GT, Marrin CAS, Plume SK. "Pericardial Flap Prevents Sternal Wound Complications." Arch Surg 123:636, 1988.
2. O'Connor GT, Olmstead EM, Coffin LH, Maloney CT, Morton JR, Plume SK, Malenka DJ, Diehl MJ, for the Northern New England Cardiovascular Disease Study Group. "Gender and in-hospital mortality associated with coronary artery bypass grafting." Circulation, 83: 723, 1991.
3. O'Connor GT, Plume SK, Olmstead EM, Coffin LH, Morton JR, Maloney CT, Nowicki ER, Tryzlaar JF, Hernandez F, Adrian L, Casey KJ, Soule DN, Marrin CAS, Nugent WC, Charlesworth DC, Clough R, Katz S, Leavitt B, Wennberg JE, for the Northern New England Cardiovascular Disease Study Group. "A Regional Prospective Study of In-Hospital Mortality Associated with Coronary Artery Bypass Grafting." JAMA 266: 803-809, 1991.

4. O'Connor GT, Plume SK, Olmstead EM, Coffin LH, Morton JR, Maloney CT, Nowicki ER, Levy DG, Tryzelaar JF, Hernandez F, Adrian L, Casey KJ, Bundy D, Soule DN, Marrin CAS, Nugent WC, Charlesworth DC, Clough R, Katz S, Leavitt BJ, Wennberg JE, for the Northern New England Cardiovascular Disease Study Group. "Multivariate Prediction of In-Hospital Mortality Associated With Coronary Artery Bypass Grafting." *Circulation* 85; (6): 2110-2118, 1992.
5. O'Connor GT, Plume SK, Wennberg JE. "Regional Organization for Outcomes Research." *Ann NY Acad Sci* 703: 44-51, 1993.
6. O'Connor GT, Plume SK, Olmstead EM, Morton J, Maloney C, Nugent W, Hernandez F, Jr., Clough R, Leavitt B, Coffin L, Marrion C, Wennberg D, Birkmeyer J, Charlesworth D, Malenka D, Quinton H, Kasper J, for the Northern New England Cardiovascular Disease Study Group. "A Regional Intervention to Improve the Hospital Mortality Associated With Coronary Artery Bypass Graft Surgery." *JAMA*, 275:841-846, 1996.
7. Nelson EC, Mohr JJ, Batalden PB, Plume SK. "Improving Health Care, Part 1: The Clinical Value Compass." *The Joint Commission Journal on Quality Improvement*, 22: 243-258, 1996.
8. Batalden PB, Mohr JJ, Nelson EC, Plume SK, Baker GR, Wasson JH, Stoltz PK, Splaine ME, Wisniewski JJ. "Continually Improving the Health and Value of Health Care for a Population of Patients: The Panel Management Process." *Quality Management in Health Care*, 5 (3) 41-51, 1997.
9. Nelson EC, Splaine ME, Batalden PB, Plume SK. "Building Measurement and Data Collection into Medical Practice." *Ann Int Med*, 128 (6) 460-466, 1998.
10. Nelson EC, Splaine ME, Godfrey MM, Kahn V, Hess AM, Batalden P, Plume SK. "Using Data to Improve Medical Practice by Measuring Processes and Outcomes of Care." *Journal of Quality Improvement*, 26 (12):667-685, December 2000.
11. Plume, SK. "A Healthcare Systems Leadership Perspective on Organizational Challenges Posed by Genomics." *Frontiers of Health Services Management*, 17(3): 29-33, Spring 2001.
12. Plume SK, O'Connor GT, Olmstead EM. "Changes in patients undergoing coronary artery bypass grafting: 1987-1990, updated in 2000." *Ann Thorac Surg*, 72(1): 314-315, 2001.