

FRANK G. FOX, JR.

Education

- 1977** Ph.D., University of Washington, Seattle, WA
(Economics)
- 1972** M.A., University of Washington, Seattle, WA
(Economics)
- 1970** B.A., University of Washington, Seattle, WA
(Economics)

Professional Experience

May 1996 - Present **HealthTrends, Shoreline, WA**

Principal

Direct work with health care organizations in the development and implementation of actions to improve performance. This work is principally quantitative analysis and simulation modeling.

Projects include demand and financial modeling, including future year budget forecasts and business plan development; statistical survey research and analysis; strategic plan development; asset and program/service valuation, including physician practices and other businesses; new business development; joint ventures; compilation and analysis of information defining internal and market actions; medical staff development plans; technology acquisition/implementation; and expert consultation with clients regarding quantitative analysis and modeling, including evaluation of new technology. Significant expert testimony consultations regarding statistical and health care economics. Engagements have included:

- Development of demand and financial models for organization business planning and future year budgets. Includes developing databases and preparing models that simultaneously link “dependent” and “independent” variables that combined simulate utilization and financial projections. Includes preparing sensitivity analyses to test the effect of changes in key model variables on projected outcomes
- Development of financial statements, including income and expense, cash flow, asset depreciation and balance sheets. These schedules are used to define prior performance and model future growth. Includes engagements assisting small business “start-up” operations, including serving as chief financial officer, but in a consultant role
- Expert consultation regarding statistical/mathematical issues associated with clients’

surveys and other sampling work

- Primary and secondary survey research. Includes formulating best research design, developing survey questionnaires, utilizing in-person or other survey approach(es), preparing statistical analysis of survey responses and report preparation
- Preparation of volume and financial performance models for free-standing emergency departments, urgent care centers, medical clinics, imaging centers and ambulatory surgery centers. Includes preparation of demand and revenue forecasts by type of service, program or physician sub-specialty. Also includes estimation of direct and indirect expenses of business operations, including FTE (“full-time equivalent”) employment forecasts and capital expenditure modeling. Designed to identify key performance statistics and provide risk analysis of alternative utilization, reimbursement and expense scenarios
- Preparation of demand and financial models to define, evaluate and model demand and financial performance for new programs and technologies, e.g., transplantation programs including liver and pancreas transplantation; Gamma Knife program; PET scanner; minimally invasive surgery; and transcranial magnetic stimulation (“TMS”).
- Preparation of demand and financial models to evaluate current performance and prepare service/program forecasts. Representative projects include: imaging centers, including forecasts for all key modalities; emergency services; cardiac services; obstetrics and women’s services; sleep lab; oncology programs, including medical oncology and radiation therapy; and ambulatory surgery centers.
- Preparation of medical staff development plans, including integration of quantitative estimates of demand by specialty, current and projected supply, financial modeling, and qualitative interview research. Designed to assist organizations’ alignment/integration with physicians.
- Preparation of performance analyses, where client benchmarks are established and performance, measured. Examples include emergency department physicians, or practicing physicians in a single or multi-specialty clinic. Work has included development and implementation of “production-based” compensation models.
- Preparation of valuation studies, which require assessment of “fair market value.” This has included contractual arrangements, where buyers must meet fair market value standard for federal statutes. It has also included preparation of fair market value estimates of physician practices.
- Preparation of strategic plans, including market demographic and economic profiles, organization performance data across key services/programs, including portfolio analysis, competitor analysis, and identification and prioritization of goals, strategies and implementation actions.
- Preparation of marketplace statistics on population, utilization and market share figures to assist organizations’ strategic planning and marketing programs
- Expert testimony as a statistician, health economist, economist and healthcare planner in a significant number of courts-of-law. This includes deposition and expert testimony in the following: (1) Florida, Federal District Court, 1985; (2) Oregon Federal District Court

(2006); (3) Seattle WA Superior Court (2004); (4) in eighteen separate Washington Department of Health Administrative Law Judge (“DOH ALJ”) Hearings—one in 2004, 2008, 2010, two cases in 2011, two cases in 2012, two cases in 2013, four cases in 2014, one case in 2015, two cases in 2016, and two in 2018; and (5) in two hearings before the Alaska Office of Administrative Hearings, one in 2016 and another in 2017. I have been deposed as an expert in six cases; one in 2012, one in 2014, two in 2015 and two in 2018; these cases were settled before trial, except one in 2018, which is scheduled for trial later this year. I have also acted as an expert consultant in the following cases: (1) numerous cases involving the acute care bed need methodology required by the Washington Department of Health under the certificate-of-need rules; (2) an anti-trust case in Oregon (2008); (3) ambulatory surgery center certificate-of-need cases in Washington; (4) kidney dialysis certificate-of-need cases in Washington; (5) nursing home and hospice certificate-of-need cases in Washington; (7) numerous class action lawsuits regarding insurance companies’ denials of mandated benefits; and (7) and two cases for the Washington Attorney General’s office.

- Preparation of Certificate of Need applications. Projects have included: (1) the development and operation of freestanding ambulatory surgery centers;(2) the purchase and sale of two hospitals in Eastern Washington in Spring 2003; (3) the development and operation of St. Anthony Hospital in Gig Harbor Washington in Fall 2003; (4) the development of a liver transplant program for Swedish Health Services in Seattle WA in Summer 2003; (5) the preparation of 3 kidney dialysis center applications in Spokane County, WA in fall 2003; (6) the preparation of a kidney dialysis center application in Clark County, WA in spring 2005; (7) the development and operation of a new hospital—Swedish Issaquah Hospital--in Issaquah Washington, submitted in 2004; (8) the development and operation of a freestanding hospital in Eugene Oregon, submitted in December 2005; (9) the expansion of acute care beds for St. Francis Hospital, Federal Way, WA submitted in late Fall 2006; (10) the build-out of a hospital tower and the expansion of licensed capacity by 166 acute care beds for Providence Regional Medical Center in Everett WA this represented the largest expansion project in Washington CN history), also submitted in late Fall 2006; (11) the preparation of a certificate of need application for a 152-bed expansion and 21-bed NICU expansion for Sacred Heart Medical Center in Spokane WA, completed in February 2009; (12 & 13) the preparation of two certificate of need applications for percutaneous coronary intervention (PCI) programs at Stevens Hospital, Edmonds WA and Valley Medical Center, Renton WA—both applications were submitted in February 2009; (14) the preparation of a certificate-of-need application for a 27-bed NICU expansion Kadlec Medical Center, Richland WA, submitted in August 2009; (15) preparation of a certificate of need application for a 114-bed expansion project for Kadlec Medical Center, Richland WA, submitted November 2009; (16) preparation of a certificate of need application for a new 58-bed hospital in the Southeast Planning Area, submitted in December 2009; (17) preparation of a certificate of need request for Swedish Health Services’ Lease of Stevens Hospital in Edmonds WA, submitted in May 2010; (18) preparation of a certificate of need for a 25-bed expansion of Mary Bridge Children’s Hospital, submitted in July 2010; (19) preparation of a certificate of need request for pancreatic transplantation at Sacred Heart Medical Center; (20) preparation of a certificate-of-need request for a 20-bed expansion of Tacoma General Hospital’s Neonatal Intensive Care Unit (“NICU”); (21) preparation of a certificate-of-need request for a 4-bed expansion of Tacoma General Hospital’s Intermediate Care Nursery (“ICN”); (22) preparation of a certificate-of-need request for a 16-bed Intermediate Care Nursery (“ICN”) at Swedish/Issaquah, submitted in January 2011; (23) preparation of a certificate-of-need request to operate an elective percutaneous coronary intervention

(“PCI) program at Swedish/Issaquah; (24) preparation of a certificate-of-need request for an 11-bed expansion of Good Samaritan Hospital, submitted in June 2011; (25) preparation of a certificate of need for a 20-bed expansion of Mary Bridge Children’s Hospital, submitted in October, 2011; (26) preparation of a certificate-of-need request for an ambulatory surgery center in Gig Harbor, Washington, submitted October 2011 (27) preparation of a certificate-of-need request for a new 30-bed psychiatric hospital in Everett, Washington, submitted November 2011; (28) preparation of a certificate-of-need request to operate an elective percutaneous coronary intervention (“PCI) program at Swedish/First Hill, submitted in February 2012; (29) preparation of a certificate-of-need request for an additional Level I rehabilitation beds at Providence St. Peter Hospital, submitted in March 2012; (30) preparation of a certificate-of-need request to lease Wenatchee Valley Hospital, submitted in September 2012; (31) preparation of a certificate-of-need request to lease United General Hospital, submitted November 2012; (32) preparation of a certificate of need to operate an ambulatory surgery facility, submitted in July, 2013; (33) preparation of a certificate of need application to operate three additional Level I rehabilitation bed at PeaceHealth St. Joseph Medical Center, Bellingham Washington, September 2013; (34) preparation of a certificate of need application to operate a kidney dialysis facility, submitted in January 2014; (35) preparation of a certificate of need to operate an ambulatory surgery facility, submitted in February 2014; (36) preparation of a certificate-of-need request for a new 34-bed psychiatric hospital in Monroe, Washington, submitted November 2013; (37) preparation of a certificate of need to operate a kidney dialysis facility, submitted in May 2014; (38) preparation of a certificate of need for Level I rehabilitation beds for Wenatchee Valley Hospital, submitted November 2014; (39 and 40) preparation of two separate certificate of need applications to operate kidney dialysis facilities in different planning areas, submitted in November 2014; (41) preparation of a certificate of need application for a 120 bed psychiatric hospital, Tacoma Washington, submitted December 2014; (42) preparation of a certificate of need application to operate a kidney dialysis facility in Pierce County, submitted in February 2015; (43) preparation of a certificate of need application for an ambulatory surgery center for Swedish Health Services and Proliance, submitted in March 2015; (44) preparation of a certificate of need application for a 100-bed psychiatric hospital, Spokane County, submitted in June 2015; (45) preparation of a certificate of need to operate an ambulatory surgery center in Bellevue in East King Planning Area (2015); (46) preparation of a certificate of need to operate an ambulatory surgery center in Issaquah in East King Planning Area (2015); (47) preparation of a certificate of need to operate an ambulatory surgery center in Seattle in the North King Planning Area (2015); (48) preparation and submittal of a certificate of need application for MultiCare Good Samaritan Hospital for additional Level I rehabilitation beds (2015); (49) preparation and submittal of a certificate of need application for MultiCare Good Samaritan Hospital for additional acute care beds (2015); (50) preparation and submittal of a 100-bed psychiatric hospital certificate of need (Oregon) (2016); (51) preparation and submittal of a certificate of need to operate a kidney dialysis facility in Pierce County (2016); (52) preparation and submittal of a certificate of need to operate an 85-bed psychiatric hospital in Thurston County (2016); (53) preparation of a certificate of need to operate an ambulatory surgery center in Everett in the Central Snohomish Planning Area (2016); (54) preparation of a certificate of need to operate an ambulatory surgery center in the Grant County Planning Area (2016); (55) preparation of a certificate of need to operate an ambulatory surgery center in Okanogan County Planning Area (2016); (56) preparation of a certificate of need for approval of the purchase of Deaconess Hospital in the Spokane Planning Area (2017); (57) preparation of a certificate of need for approval of the purchase of Valley Hospital in the Spokane Planning Area (2017); (58) preparation of a certificate of need to operate an ambulatory

surgery center in the Spokane County Planning Area (2017); (59) preparation of a certificate of need to operate an ambulatory surgery center in Central King County Planning Area (2017); (60) preparation and submittal of a certificate of need to expand a kidney dialysis facility in Grays Harbor County (2017); (61) preparation and submittal of a certificate of need to relocate and expand a kidney dialysis facility in Grant County (2017); (62) preparation and submittal of a certificate of need to operate an ambulatory surgery center in the East King Planning Area (2017); (63) preparation and submittal of a certificate of need to expand MultiCare Tacoma General Hospital's Level IV Neonatal Intensive Care Unit (NICU) (2018); (64, 65, 66, 67,68, 69) preparation and submittal of six separate certificates of need to expand kidney dialysis facilities in Pierce County (2018); (70 & 71) preparation and submittal of certificates of need to expand kidney dialysis facilities in Thurston County (2018); (72) preparation and submittal of a certificate of need to establish a kidney dialysis facility in Clark County (2018); (73) preparation and submittal of a certificate of need to expand a kidney dialysis facility in Grant County; (74) preparation and submittal of a certificate of need to develop a kidney dialysis facility in King County (2018); (75) preparation and submittal of a certificate of need to develop a kidney dialysis facility in Cowlitz County (2018); (76) preparation and submittal of a certificate of need to expand a kidney dialysis facility in Adams County (2018); (77) preparation and submittal of a certificate of need to expand a kidney dialysis facility in Okanogan Count (2018); (78) preparation and submittal of a certificate of need to expand a kidney dialysis facility in Mason County (2018); (79) preparation and submittal of a certificate of need to expand a kidney dialysis facility Thurston County (2019); (80) preparation and submittal of a certificate of need to develop a kidney dialysis facility in King County (2019); (81) preparation and submittal of a certificate of need to expand a kidney dialysis facility (Benton County (2019); (82) preparation and submittal of a certificate of need to operate an ambulatory surgery center in the East King Planning Area (2019); and (83) preparation and submittal of a 100-bed psychiatric hospital certificate of need (Oregon) (2019).

- These projects included preparation of detailed utilization and financial performance models, including income and expense, cash flow statements, asset depreciation schedules and balance sheets. They also included preparation and submittal of complete applications to Washington Department of Health.
- All certificate of need applications have received approval from the Department of Health with the exception of #18, #23, #28, #34, #37, #39, #40, #42, 50 (Oregon), 51.
- Applications listed above as #72-75, 78-83 and pending.

July 2001-July 2002 ClearMedical, Bellevue WA

Vice President, Finance and Chief Financial Officer

Financial stewardship for ClearMedical, Inc. This included developing and properly using financial reports and performance information, in aggregate, and at the product/service level, to monitor and improve company performance. Performance was measured for contribution margin, cash flow and return on investment. As the company's financial leader, responsible for daily fiscal activities and longer term financial viability and growth. Responsibilities included:

- Preparation of weekly and monthly financial reports for the chief executive officer, the Board of Directors, and other members of the executive team. Financial reports include income and expense statements, cash flow and balance sheet statements. These reports were compiled for year-to-date and annualized estimates.
- Preparation of monthly departmental budgets, then monitoring actual expenditures against budget estimates. Also responsible for budget forecasts, used to guide departmental growth.
- Preparation of 5 year forecast models to estimate financial performance and resource requirements.
- Correct daily operation of accounts payable and accounts receivable activities, as well as company payroll and other routine financial operations
- Monitoring company performance against financial performance forecasts and “key performance indicators” (KPIs) included in the Strategic Plan. This included implementing corrective actions to better assure actual performance matches forecasts and benchmarks.
- Monitoring overall company performance against its Strategic Plan, as defined by performance benchmarks. Responsible for providing annual revisions/updates to the ClearMedical Strategic Plan.

1993 - April 1996 Franciscan Health System (FHS), Aston, PA

Vice President, Research and Development

Responsible for FHS research and development. This included all research to support focused technology and other studies. Selected studies included:

- Stereotactic breast biopsy technology
- Minimally invasive surgery technology
- Advanced healthcare practitioners
- Alternative medicine (healing/wholistic medicine)
- Genetic engineering
- Patient-focused care

Responsible for leadership and staff support to the FHS Technology Steering Committee, a multidisciplinary group, including numerous physicians, that had responsibility for identifying and making technology implementation recommendations across FHS.

Responsible for strategic planning, including the compilation of information, the development of market goals and strategies, and the preparation of focused strategic plans. This also included seminars and workshops to prepare and present plans.

Responsible for compilation, analysis and presentation of quantitative and qualitative information on FHS products, services and markets, including:

- Utilization forecast models, by service line, for each FHS hospital, to model the effect of managed care.
- The development of emergency department care delivery models.
- The development of an ambulatory surgery model.
- Preparation of market share and service line projections.

Responsible for service and program integration/consolidation across 3 FHS-West hospitals, including outsourcing all transcription, saving \$750,000 annually, and consolidating laboratory services, saving \$3 million over five years.

Responsible for the development and implementation of a Community Health Model for FHS organizations.

1988 - 1993 Franciscan Health Services - Washington, Tacoma, WA

Vice President, Research and Development

Responsible for new product and service identification and development, including the development of a research process, the Technology Model, which was later implemented throughout Franciscan Health System.

Studies included:

- Magnetic resonance imaging
- Laser technologies
- Imaging, including ultrasound, SPECT cameras and CT
- Continuous quality improvement models
- Optical disk technologies
- Flow cytometry equipment

Responsible for the feasibility study, design and implementation of a MRI service at 4 FHS-West hospitals, including:

- Business and operations plan development
- Acquisition of three MRI systems and service contracts, which represented over \$8 million in capital and operating expenses
- Recruitment of staff, and day-to-day operational responsibility for the MRI department with an annual budget of \$4 million, for two years

1985 - 1988 Franciscan Health Services - Washington, Tacoma, WA

Director, Planning and Research

Responsible for utilization and financial projections for numerous program/services, as key elements of business plan preparation.

Responsible for all regulatory interface, including all certificate-of-need applications, and work with local and state planning agencies.

Responsible for all utilization and service area forecasts and competitor analysis for annual hospital strategic plans and budgets.

Responsible for all primary and secondary market research, including both internal survey projects, e.g., patient satisfaction surveys, and external research, e.g., large, community-wide, surveys.

1984-1985 Washington State Hospital Commission, Olympia, WA

Associate Director, Program Planning and Research

Responsible for technical and staff management of Program Planning and Research Division for the Hospital Commission, including:

- Design, development and management of the Commission Hospital Abstract Reporting System (CHARS), which is still used to compile and analyze patient discharge data from every hospital in the state.
- Design and development of target revenue estimates for statewide hospital revenues, required by the Washington Legislature. This task required compilation and analysis of very large data sets containing cost and revenue data for each Washington hospital.
- Development and implementation of charity care definitions and policies across all Washington hospitals.
- Management of Hospital Commission Certificate-of-Need reviews.

1983 SysteMetrics, Inc., Santa Barbara, CA

Senior Health Care Economist

Responsible for acquisition/development of health care data and forecasting models.

1977-1983 HDR Systems, Santa Barbara, CA

Senior Economist/Project Manager

Project management of numerous military studies. Responsibilities included proposal preparation, study definition, milestone and budget scheduling. This included: Publication scheduling and deadlines; assignment and coordination of interdisciplinary staff input; and technical review and edit.

Developed and implemented econometric forecasting models. These models forecast key economic and demographic parameters, e.g., employment/unemployment, wage levels, and population, for a defined geographic region.

Responsible for development and analysis of other economic technical studies, including development and use of regional inter-industry (input-output) models.

1971-1977 **University of Washington, Seattle, WA**

Instructor

Taught courses in micro and macroeconomics.

Computer Language Experience

Statistical Analysis System (SAS)

Statistical Package for the Social Sciences (SPSS)

STATA

Access

Honors and Awards

Phi Beta Kappa

Omicron Delta Epsilon (Economics Honor Society)

Magna Cum Laude Graduate

Memberships

American Hospital Association

American College of Health Executives

Washington State Hospital Association

Published Articles and Presentations

Publications

“Developing A Model for Technology Assessment,” Frank Fox, Ph.D. and Ellen Barron, Health Progress, pages 50-58, January-February 1993.

“Linking Technology with Strategic and Financial Plans: A Case Study of Franciscan Health System,” Frank Fox, Ph.D. and Ellen Barron, American Hospital Association, Hospital Technology Special Report, Volume 14, Number 11, September 1995.

Presentations

“Assessing Marketplace Impact of Future Clinical Technologies,” Technology and Healthcare Marketing--Future Vision Conference, The Alliance for Healthcare Strategy and Marketing, November 10-12, 1996.

“Smart Technology,” Real Solutions for Healthcare Materials Management—Annual

Conference, American Society for Healthcare Materials Management, August 11-13, 1996.

“Smart Technology,” 16th Annual Meeting—Strategy Forum, Society for Healthcare Planning and Marketing, American Hospital Association, April 24-27, 1994.

Mailing Address:

E-Mail: fgf19702@aol.com

Business: 511 NW 162nd
Shoreline WA 98177

Telephone: (206) 366-1550