

## C. DONALD COMBS, Ph.D.

### Work Address

Vice President and Dean,  
School of Health Professions  
Eastern Virginia Medical School  
P.O. Box 1980  
Norfolk, VA 23501-1980  
Phone (757) 446-6090  
Fax (757) 446-6087

### Home Address

7800 North Shore Road  
Norfolk, VA 23505-1735  
(757) 451-1424

### E-Mail Address

combscd@evms.edu

## EDUCATION

Ph.D. 2002 State Medical and Pharmaceutical University "Nicolae Testemitsanu",  
Chisinau, Republic of Moldova (*Honoris Causa*)  
Ph.D. 1980 University of North Carolina-Chapel Hill, Political Science  
M.A. 1974 Texas Tech University, Political Science  
B.A. 1972 Texas Tech University, Political Science, with *High Honors*  
A.A. 1971 South Plains Community College (*Recipient of 1998 Distinguished Alumnus Award*)

## PROFESSIONAL EXPERIENCE

**2011 To Present** VICE PRESIDENT AND FOUNDING DEAN, SCHOOL OF HEALTH PROFESSIONS,  
and PROFESSOR OF HEALTH PROFESSIONS,  
Eastern Virginia Medical School (EVMS), Norfolk, Virginia.

**2001 To Present** FOUNDING DIRECTOR, NATIONAL CENTER FOR COLLABORATION IN MEDICAL  
MODELING AND SIMULATION,  
Eastern Virginia Medical School and Old Dominion University (ODU), Norfolk, Virginia.

### **Other Ongoing Faculty Appointments:**

**2014 To Present** VISITING PROFESSOR, iLUMENS SIMULATION DEPARTMENT,  
University of Paris Descartes, Paris, France.

**2006 To Present** PROFESSOR OF MODELING, SIMULATION AND VISUALIZATION ENGINEERING,  
Old Dominion University, Norfolk, Virginia.

**2002 To Present** PROFESSOR,  
State Medical and Pharmaceutical University "Nicolae Testemitsanu"  
of the Republic of Moldova, Chisinau, Republic of Moldova.

**2006 To 2011** VICE PROVOST FOR PLANNING AND HEALTH PROFESSIONS, PROFESSOR OF  
HEALTH PROFESSIONS, PROFESSOR OF FAMILY AND COMMUNITY MEDICINE,  
Eastern Virginia Medical School, Norfolk, Virginia.

**1993 To 2006** VICE PRESIDENT FOR PLANNING AND PROGRAM DEVELOPMENT,  
Eastern Virginia Medical School, Norfolk, Virginia.

**1999 To 2003** DIRECTOR OF HEALTH PROFESSIONS PROGRAMS,  
Eastern Virginia Medical School, Norfolk, Virginia.

- 1988 To 1993**            VICE PRESIDENT FOR INSTITUTIONAL ADVANCEMENT,  
Eastern Virginia Medical School, Norfolk, Virginia.
- 1987 To 1988**            ASSOCIATE VICE PRESIDENT FOR INSTITUTIONAL ADVANCEMENT,  
Eastern Virginia Medical School, Norfolk, Virginia.
- 1985 To 1987**            ASSISTANT VICE PRESIDENT FOR ADMINISTRATION AND SERVICES,  
Eastern Virginia Medical School, Norfolk, Virginia. Eastern Virginia Medical School includes, among other programs, the Jones Institute for Reproductive Medicine, the Strelitz Diabetes Institutes, the Center for Pediatric Research, and three affiliated medical group practices – EVMS Medical Group, Pediatric Faculty Associates, and Children’s Specialty Group.
- 1980 To 1985**            DIRECTOR, Health Management Concentration, Master of Public Administration and Master in Urban Studies Degree Programs, Department of Public Administration and Urban Studies, Old Dominion University, and DIRECTOR, Peninsula Area Health Education Center, Hampton, Virginia.
- 1978 To 1981**            ADMINISTRATOR AND SECRETARY/TREASURER,  
Surry Family Health Group, Surry, Virginia.
- 1977 To 1979**            SENIOR PROGRAM ASSOCIATE, Rural Practice Project of the Robert Wood Johnson Foundation, and INSTRUCTOR, Department of Social and Administrative Medicine, University of North Carolina-Chapel Hill, Chapel Hill, North Carolina.
- 1976 To 1977**            VISITING INSTRUCTOR OF PUBLIC ADMINISTRATION,  
North Carolina Central University, Durham, North Carolina.
- 1973 To 1976**            INSTRUCTOR OF POLITICAL SCIENCE,  
Elon College, Elon, North Carolina; University of North Carolina-Chapel Hill, Chapel Hill, North Carolina; and Texas Tech University, Lubbock, Texas and  
RESEARCH ASSOCIATE, Institute for Research in the Social Sciences, University of North Carolina-Chapel Hill, Chapel Hill, North Carolina.
- 1972 To 1973**            RETAIL STORE MANAGER AND ROUTE ACCOUNTANT,  
Bell Dairy Products, Lubbock, Texas.

## **SELECTED ACCOMPLISHMENTS**

### **Planning and Program Development**

On behalf of the EVMS Board of Visitors and the EVMS President, led the EVMS Due Diligence Committee in their initial exploration of a potential merger with the College of William & Mary to establish the William & Mary School of Medicine and simultaneously served as the EVMS Point of Contact for the William and Mary Due Diligence Committee. Subsequent to this effort, currently serve as Co-Chair of the EVMS/College of William & Mary Executive Committee overseeing new collaborative efforts between the two institutions such as the EVMS/College of William & Mary Collaborative Grant Program.

Developed plans for and worked to obtain funding for the \$80 million Education and Research Building project (now Lester Hall), which opened in July 2011, consisting of a new building and renovated space in support of EVMS’ medical education and research programs.

Established, with Dr. Bowen Loftin, the National Center for Collaboration in Medical Modeling and Simulation (NCCMMS) at Eastern Virginia Medical School (EVMS) and Old Dominion University (ODU) and obtained substantial research and development funding (e.g., in September 2003, a four-year, \$15M contract was signed with the Naval Air Systems Command (NAVAIR)). Subsequently, since 2006, the Commonwealth of Virginia has provided core funding of the NCCMMS.

Established a partnership, through the American International Health Alliance (AIHA), with the State Medical and Pharmaceutical University “Nicolae Testemitsanu” (SMPU) and the Botanica District Health Administration in Chisinau, Republic of Moldova, which established two community-based, primary health care clinics and reformed family medicine training programs.

Developed and funded the Eastern Virginia Health Information Infrastructure Project that provides state-of-the-art linkages among the region’s libraries, practicing health professionals, lawyers, economic development organizations, and the Martin Luther King, Jr. Living History and Public Policy Center.

Developed, acquired funding for, and helped to implement the Generalist Physician Initiative to increase the number of medical school graduates entering primary care through a cooperative program among Eastern Virginia Medical School, the University of Virginia, Virginia Commonwealth University, the Joint Commission on Health Care, and the State Council of Higher Education for Virginia.

Planned, developed, and implemented the Master in Public Health degree program, a joint activity of Eastern Virginia Medical School and Old Dominion University.

Developed the plan for, chaired the Board of, and obtained funding for the Virginia Statewide Area Health Education Centers Program, a cooperative endeavor of the University of Virginia, Virginia Commonwealth University, Eastern Virginia Medical School, the Virginia Primary Care Association, the Virginia Department of Health, and eight regional AHECs.

Developed, obtained funding for, and chaired the regional perinatal network (Eastern Virginia Perinatal Council) from 1989 to 2013. The Council worked to reduce the infant mortality rate in eastern Virginia. Membership included over 200 agency representatives among area health departments, hospitals, physician practices, and other human service agencies.

Served as consultant to over 60 regional, national, and international health and human service organizations in the areas of strategic planning, information system design, organizational design and development, human resource management, communications, and health promotion.

Served as a member of a small work group of representatives of the Association of Academic Health Centers and the American International Health Alliance to develop collaborative education and health care programs with Central European and Newly Independent State countries.

Developed, acquired external funding for, and implemented the Eastern Virginia Telemedicine Network, an educational telecommunications system that incorporates broadcast and videoconference capabilities and that serves some twenty sites in eastern Virginia.

Planned, chaired, and delivered the plenary address for the 1996 Annual Meeting of the Association of Academic Health Centers (The Digital Decade: Promise and Peril for the Academic Health Center).

Served as a member of the Naval Postgraduate School faculty team that planned, developed, and implemented the International Health Resource Management Program, an executive education program that has been provided to the health and military leadership of more than forty developing nations. Extensive program involvement has included El Salvador, Uruguay, Bolivia, Nepal, the Republic of Moldova, Macedonia, Bulgaria, and Botswana.

Developed and implemented a strategic planning and assessment process that has guided the growth of Eastern Virginia Medical School, an academic health center employing 400 faculty, 1,500 staff, 1,700 students and operating on an annual budget of \$250 million. This planning process was the subject of two major presentations to national meetings of the AAMC during the 1990s.

Served as the consultant responsible for developing strategic planning programs for the Quillen College of Medicine at East Tennessee State University, and the Department of Preventive Medicine at the University of Kansas.

Implemented school and community-based health promotion programs (healthy behaviors, decision-making skills, living with hypertension, diabetes, and AIDS, etc.) in conjunction with Eastern Virginia Medical School, Old Dominion University, Norfolk State University, Hampton University, Virginia Commonwealth University, and state and local health departments.

Developed and "starred" in the Healthworks program, a thirty-segment televised health education program distributed nationally in the early 1980s.

Developed and administered a comprehensive rural health center serving 20,000 people in rural Virginia and an Area Health Education Center serving over 250,000 people on the Virginia Peninsula.

Co-founded the Virginia Rural Primary Care Association (now the Virginia Community Healthcare Association), which includes 34 community health centers operating within Virginia and Maryland.

Planned and developed building programs, including a 6,000 sq. ft. rural health center and a 60,000 sq. ft. biomedical research and patient care facility (Jones Institute), a 40,000 sq. ft. health sciences library (Brickell Library) and a 100,000 sq. ft. education and research building (Lester Hall).

Developed and implemented in eastern Virginia the Centers for Disease Control and Prevention and Virginia Department of Health-sponsored breast and cervical cancer screening program (Every Woman's Life).

## **Administration**

Developed and helped to implement the \$67 million CHAMPUS Mental Health Demonstration Program in Hampton Roads that was responsible for meeting the comprehensive mental health needs of 220,000 beneficiaries and for reducing program costs by twenty percent. (This program was a partnership between EVMS and Sentara Health System from 1985-1989.)

Designed and developed software (Case Management Medical Information System) used to manage mental health care for the 220,000 CHAMPUS beneficiaries in Hampton Roads as part of the CHAMPUS Mental Health Demonstration Program.

Participated in the development of operating and capital budgets totaling in excess of \$250 million annually as a member of the senior leadership team of Eastern Virginia Medical School.

Initiated a long-range information planning program in the mid-1980s that resulted in new medical practice management and general accounting software and hardware at EVMS.

Served as chair of the successful EVMS self-studies conducted during 1996-1998, 2004-2006 and 2011-2013 for the Liaison Committee on Medical Education (LCME) and for the Southern Association of Colleges and Schools (SACS) in 1998-1999 and 2007-2009.

Revised the human resource policies at EVMS during 1985-1988, e.g., compensation plans, fringe benefits, standards of conduct.

Restructured the health benefits program for EVMS' 1,700 employees during 1985-1988 to expand coverage and to produce a health plan fund surplus replacing previous substantial plan deficits.

### **Resource Development**

Increased net state financial support by more than four hundred percent during 1986-2016 from \$3.5 million to over \$25 million annually.

Served as principal investigator, project director or principal author for proposals that have generated over \$115 million in research, training, and service contracts.

Developed the program plans that served as the basis for the \$66 million fundraising campaign for Eastern Virginia Medical School that ended in 1999.

Conceived, obtained funding for, and helped to develop the Virginia Healthy Start Initiative, a \$2 million per year program to reduce infant mortality in six target areas in Virginia (including the cities of Norfolk and Portsmouth). The initial four-year program was conducted under the auspices of the Virginia Department of Health and ended in March, 2002. Subsequent awards have extended the program through 2014.

Served as the primary EVMS liaison to federal, state, and local legislative and executive boards, the state higher education coordinating agencies, health departments, local municipalities, Chambers of Commerce and local businesses during 1985 to 2013.

Served as the Chair of the 3M Group, which was comprised of the vice-presidents and deans of the state's three academic health centers (University of Virginia, Virginia Commonwealth University, and Eastern Virginia Medical School) and which is focused on the joint development of the state's three academic health centers, from 1995-2007.

### **Research**

Completed over 120 peer-reviewed professional publications, papers, and presentations concerning academic health centers, medical modeling and simulation, primary care, strategic planning, conflict resolution, accreditation, political participation, information systems, minority representation, health care delivery systems, international health, and health promotion.

Served as a peer reviewer for the journals *Annals of Internal Medicine*; *International Journal of Behavioural and Health Care Research*; *JDMS: Journal of Defense Modeling and Simulation-Applications, Methodology, Technology*; *Journal of Biomedical Engineering Research* and *Simulation: Transactions of the Society for Modeling and Simulation International*.

Conducted research on the outcomes of medical modeling and simulation, perinatal care, neural network analysis of health data, the cost of medical education, effective use of information systems, professional regulation, health workforce issues, and methods of community needs assessment for human services planning.

Served 1995-2006 as a member of the national evaluation team for the Kansas Health Foundation's five-year, \$15 million grant to the University of Kansas to develop the Primary Care Physician Education program. This evaluation effort ended in 2006 and provided unprecedented information on cultural change in medicine.

Served as Project Director for a study commissioned by the Virginia Department of Health Professions to determine the appropriate role for state regulation of health professions and occupations.

Served as Project Director for a study funded by the States Initiatives Program of the Pew Charitable Trusts. The study addressed changing roles and responsibilities of health professionals working in three integrated health care delivery systems.

### **CONSULTING EXPERIENCE**

The following list includes a sample of the 60+ health and human services organizations for which I have consulted. Topics included organizational design and development, managerial effectiveness, marketing, communication, strategic planning, and health promotion. This is an abbreviated list designed to provide an overview of my experience in consulting with the public and private sectors. Details can, of course, be provided.

Mayo Clinic Health System, Mankato, Minnesota  
Ministries of Defense and Health, El Salvador, Moldova, Macedonia, Bulgaria, Nepal, and Botswana  
Naval Postgraduate School  
Kansas Health Foundation  
University of Kansas, Department of Preventive Medicine  
East Tennessee State University, Quillen College of Medicine  
Old Dominion University, College of Business and Public Administration  
Norfolk State University  
Hampton University  
Medical College of Virginia  
Portsmouth Community Health Center  
Blue Cross/Blue Shield of Southwest Virginia  
Virginia Department of Health  
Virginia Department of Education  
Virginia Department of Corrections  
Virginia Rural Primary Care Association  
Newport News General Hospital  
Hampton General Hospital  
Virginia Municipal Clerks Association  
Surry County, Virginia  
Downtown Norfolk Development Corporation  
City of Portsmouth, Virginia  
Portsmouth General Hospital Foundation  
Virginia Municipal Finance Officers Association  
Norfolk Redevelopment and Housing Authority  
City of Norfolk, Virginia  
City of Durham, North Carolina  
South Plains Association of Governments, Lubbock, Texas  
South Plains Community Action Agency, Levelland, Texas

### **PROFESSIONAL ACTIVITIES**

#### **Current Commission/Committee Service:**

Society for Simulation in Healthcare, Board of Directors, Treasurer, and Public Affairs and Government Relations Committee, Past Chair  
Southern Association of Colleges and Schools, Review Committee, Chair  
National Modeling and Simulation Coalition, Policy Board, Member

Association of American Medical Colleges, Group on Government Relations, Member  
 Association of American Medical Colleges, Group on Institutional Planning, Member  
 Society for Simulation in Healthcare, Standing Committee for Certification, Accreditation, Technology and Standards, Technology and Standards Subcommittee, Task Force on Research Methodology, Past Member  
 Society for Simulation in Healthcare, Standing Committee for Certification, Accreditation, Technology and Standards, Accreditation Site Visit Chair  
 Old Dominion University Research Foundation Board of Directors, Member  
 U.S. Senator Mark R. Warner, Modeling and Simulation Task Force, Member  
 Virginia Health Innovation Initiative Advisory Committee, Member  
 Virginia Network for Geospatial Health Research (VNGHR), President  
 Hampton Roads Partnership, Vision Hampton Roads: Opportunities Task Force, Health Care Subcommittee, Chair  
 Eastern Virginia Area Health Education Center, Program Advisory Committee, Chair  
 Eastern Virginia Perinatal Council, Chair  
 EVMS-College of William and Mary, Collaborative Initiatives, Executive Committee, Co-Chair  
 EVMS-Old Dominion University, School of Public Health Steering Committee, Co-Chair  
 EVMS, Accreditation Steering Committees (SACS and LCME), Chair  
 EVMS, Brock Institute for Global and Community Health, Executive Committee, Member  
 EVMS, Dean's Executive Council, Member  
 EVMS, Due Diligence Committee for College of William and Mary Merger, Lead  
 EVMS, Information Technology Advisory Council, Member; Telemedicine Sub-Committee, Member  
 EVMS, Senior Management Group, Member

**Former Commission/Committee Service:**

Academic Health CenterNet, Program Advisory Board, Member (1993 – 2000), Chair (1999)  
 American Association of University Administrators, Public Relations Committee, Member  
 Association of Academic Health Centers / United States Department of Health and Human Services, Center for Interdisciplinary, Community-Based Learning, Advisory Committee, Member  
 Association of Academic Health Centers, 1996 Annual Meeting, Program Chair  
 Association of Academic Health Centers, Task Forces on Human Resources for Health and on Leadership and Institutional Values, Member  
 Association of American Medical Colleges, Group on Institutional Planning, National Conference Planning Committee, Member  
 Center for Excellence, Inc., Board of Directors, Member (1982 – 1985)  
 Center for Public-Private Partnerships (CP3), Board of Directors, Member  
 CHAMPUS First Step, Advisory Board, Member (1985 – 1988)  
 Commonwealth Center for Health Policy, Executive Committee, Member (1990 – 1993)  
 EVMS, Administrative Council, Member  
 EVMS Biomedical Research Park Development Committee, Member  
 EVMS, Budget Planning Group, Member  
 EVMS, Education Council, Member  
 EVMS Foundation, Development Committee, Member  
 EVMS Health Services, Planning Committee, Member  
 EVMS Master of Public Health Program, Advisory Committee, Chair  
 EVMS Patent Committee, Member  
 Hampton Roads Chamber of Commerce, Regional Legislative Affairs Committee and Health Care Task Force, Member (1985 – 1996)  
 Hampton Roads Partnership, Vision Hampton Roads: Opportunities Task Force, Health Care Subcommittee, Chair  
 March of Dimes, Eastern Virginia Chapter, Board of Directors, Member (1991 – 1996)  
 Martin Luther King, Jr., Living History and Public Policy Center, Board of Trustees, Member  
 Naval Postgraduate School, International Health Resources Management Advisory Board, Member  
 North Carolina Central University, Department of Public Administration, Curriculum Committee, Member

Old Dominion University (ODU), Dean's Task Force on Strategic Plan Implementation, College of Business and Public Administration, Member  
ODU Dean's Advisory Council, College of Arts and Letters, Member  
ODU Graduate Studies Committee, Chair  
ODU Urban Research and Service Center Advisory Committee, Member  
Perinatal Study Group, Chair (1989 – 1992)  
Rural Practice Network, Inc., Board of Directors, Member (1977 – 1981)  
State Council on Higher Education for Virginia, General Professional Advisory Committee, Member (1986 – 1996)  
Three M (3M) (Leadership from UVA, VCU and EVMS Medical Schools) Group, Chair  
Virginia Area Health Education Center Program, Board of Directors, Member (1991 – 2005), Chair (1992 – 1994), Vice Chair (1995 – 1997)  
Virginia Center for the Advancement of Generalist Medicine, Executive Committee (1992 – 1997)  
Virginia Center for Community Health, Member  
Virginia Center for Patient Safety, Member  
Virginia Consortium for Health IT (Information Technology) Progress (CoHIP), Member  
Virginia Department of Health, Commission on Health Care for All Virginians, Technical Advisory Committee, Medical Technology/Health Outcomes Subcommittee, Member  
Virginia Department of Information Technology, Committee on Telemedicine Policy, Member  
Virginia Governor's Health Information Technology Advisory Committee (HITAC), Member  
Virginia Health Information Technology Interoperability Advisory Committee (HITIAC), Member  
Virginians Improving Patient Care and Safety (VIPCS), Member  
Virginia Joint Commission on Health Care, Task Forces on Health Science Centers and on Teaching Hospitals (3M Group), Member (1992 – 2005), Chair (1996 – 2005)  
Virginia Joint Commission on Health Care for All Virginians, Medical Technology/Health Outcomes Subcommittee Member (1991 – 1993)  
Virginia Statewide Health Education Advisory Committee, Chair, Member of Executive Committee (1982 – 1989)  
Women's Health Virginia, Board of Directors, Member (2000 – 2006)

**Journal Reviewer:**

*Annals of Internal Medicine*

*International Journal of Behavioural and Health Care Research*

*JDMS: Journal of Defense Modeling and Simulation-Applications, Methodology, Technology*

*Journal of Biomedical Engineering Research*

*Simulation: Transactions of the Society for Modeling and Simulation International*

**Research Proposal Reviewer:**

U.S. Department of Defense (DoD): Defense Medical Research and Development Program

**Editorial Board Member:**

*World Journal of Clinical Cases*



## PROFESSIONAL MEMBERSHIPS

Association of American Medical Colleges, (1986 – present)  
Association of Academic Health Centers, (1993 – present)  
American Association of University Administrators, (1986 – present)  
American Hospital Association, (1984 – 1990)  
American Public Health Association, (1974 – present)  
American Society for Public Administration, (1974 – present)  
Council for the Advancement and Support of Education, (1986 – 1991)  
National Area Health Education Centers Organization, (2005 – present)  
Society for Simulation in Healthcare, (2008 – present)

## PROFESSIONAL PUBLICATIONS

### ***Books and Monographs***

Combs, C.D., Sokolowski, J.A. & Banks, C.M. (Eds.). (2016). *The Digital Patient: Advancing Healthcare, Research, and Education*. Hoboken, NJ: John Wiley and Sons.

Combs, C.D. (2003). *Preparing Health Professionals for the Unthinkable*. Washington, DC: Association of Academic Health Centers.

Combs, C.D. (1974). *An Inquiry into Political Loyalty*. Lubbock, TX: Texas Tech University Center for Public Service,

### ***Peer-Reviewed Journal Articles***

Combs, C.D. and Alpino, R.J. (2015). The emerging digital patient: Implications for public health education in the United States. *Moldovan Journal of Health Sciences*, Volume 4(2), 25-35.

Combs, C.D. (2013). Thoughts about the future of modeling and simulation in healthcare and higher education. *Biomedical Engineering Research*, 2(2), 115-121.

Combs, C.D. (2012). ROI: What is it and does it really matter? *MEdSim: The Journal of Healthcare Education, Simulation and Training*, 2, 14-17.

Combs, C.D. (2006). Startling technologies promise to transform medicine. *British Medical Journal*, 333, 1308-1311.

Combs, C.D. and Morrow, R.C. (1994). Community medicine practicum for second-year medical students. *Academic Medicine*, 69(5), 426-427.

Combs, C.D. (1990). A review of the new medicine. *Journal of Management Science and Policy Analysis*, 8(1).

Combs, C.D. (1984). Televised course shows teachers new ways to take health message to the classroom. *Public Health Reports*, 99(4).

Combs, C.D. and Madison, D.L. (1981). Location patterns of recent physician settlers in rural America. *Journal of Community Health*, 6(4).

### ***Book Chapters***

Combs, C.D. (2016). The digital patient. In C.D. Combs, J.A. Sokolowski & C.M. Banks (Eds.), *The Digital Patient: Advancing Healthcare, Research, and Education* (pp. 3-13). Hoboken, NJ: John Wiley and Sons.

- Combs, C.D., and Barham, S.R. (2016). The quantifiable self: Petabyte by petabyte. In C.D. Combs, J.A. Sokolowski & C.M. Banks (Eds.), *The Digital Patient: Advancing Healthcare, Research, and Education* (pp. 63-72). Hoboken, NJ: John Wiley and Sons.
- Combs, C.D., Barham, S.R. and Slood, P.M.A. (2016). Systems biology and health systems complexity: Implications for the digital patient. In C.D. Combs, J.A. Sokolowski & C.M. Banks (Eds.), *The Digital Patient: Advancing Healthcare, Research, and Education* (pp. 73-84). Hoboken, NJ: John Wiley and Sons.
- Combs, C.D. and Sokolowski, J.A. (2016). Realizing the digital patient. In C.D. Combs, J.A. Sokolowski & C.M. Banks (Eds.), *The Digital Patient: Advancing Healthcare, Research, and Education* (pp. 299-304). Hoboken, NJ: John Wiley and Sons.
- Combs, C.D. and Meskó, B. (2015). Disruptive technologies affecting education and their implications for curricular redesign. In S. A. Wartman (Ed.), *Author Commentaries: A Companion Volume for The Transformation of Academic Health Centers: Meeting the Challenges of Healthcare's Changing Landscape*. Association of Academic Health Centers. Amsterdam: Elsevier Academic Press.
- Combs, C.D. and Meskó, B. (2015). Disruptive technologies affecting education and their implications for curricular redesign. In S. A. Wartman (Ed.), *The Transformation of Academic Health Centers: Meeting the Challenges of Healthcare's Changing Landscape*. Association of Academic Health Centers. Amsterdam: Elsevier Academic Press.
- Combs, C.D. (2011). Humans as models. In J. Sokolowski & C. Banks (Eds.), *Fundamentals of Medical and Health Sciences Modeling and Simulation* (pp. 87-108). Hoboken, NJ: John Wiley and Sons.
- Combs, C.D. (2009). Medical modeling and simulation. In J. Sokolowski & C. Banks (Eds.), *Principles of Modeling and Simulation: A Multidisciplinary Approach* (pp. 209-230). Hoboken, NJ: John Wiley and Sons.
- Combs, C.D., (2008). Visualizing the medical modeling and simulation database: Trends in the research literature. In J.D. Westwood et.al. (Eds.), *Medicine Meets Virtual Reality 16: parallel, combinatorial, convergent: NextMed by Design*. Washington, DC: IOS Press.
- Combs, C.D. (2006). Our nation today and in 2020: Are we preparing the health professionals we will need? In D.E. Holmes & K.E. Pryce-Jones (Eds.), *Factors Affecting the Health Workforce*. Washington, DC: Association of Academic Health Centers.
- Combs, C.D. (2005). Tracking the domain: The medical modeling and simulation database. In J.D. Westwood et.al. (Eds.), *Medicine Meets Virtual Reality 13: The Magical Next Becomes the Medical Now*. Washington, DC: IOS Press.
- Combs, C.D. (2003). Analyzing the MMVR research space: Past emphases, future directions. In J.D. Westwood et.al. (Eds.), *Medicine Meets Virtual Reality 11: Next Med: Health Horizon*. Washington, DC: IOS Press.
- Combs, C.D. (1998). Portsmouth community health center. In R.D. Lasker, D.M. Abramson, & G.R. Freedman (Eds.), *Pocket Guide to Cases of Medicine and Public Health Collaboration*. New York: The New York Academy of Medicine.
- Combs, C.D. (1998). Eastern Virginia regional perinatal coordinating council. In R.D. Lasker, D.M. Abramson, & G.R. Freedman (Eds.), *Pocket Guide to Cases of Medicine and Public Health Collaboration*. New York: The New York Academy of Medicine.
- Combs, C.D. (1998). Eastern Virginia MPH program. In R.D. Lasker, D.M. Abramson, & G.R. Freedman (Eds.), *Pocket Guide to Cases of Medicine and Public Health Collaboration*. New York: The New York Academy of Medicine.

- Combs, C.D. (1997). What's in the black box? In D.E. Holmes (Ed.), *The Digital Decade: Promise and Peril for the Academic Health Center*. Washington, DC: Association of Academic Health Centers.
- Combs, C.D. (1996). The Virginia generalist initiative: The effect on medical education. In M. Osterweis, C. McLaughlin, H. Manasse, Jr., and C. Hopper (Eds.), *The U.S. Health Workforce: Power, Politics and Policy*. Washington, DC: Association of Academic Health Centers.
- Combs, C.D. (1994). Commentary on meeting health care needs through workforce reform. In P. Larson, M. Osterweis & E. Rubin (Eds.). *Health Policy Annual IV: Health Workforce Issues for the 21<sup>st</sup> Century*. Washington, DC: Association of Academic Health Centers.
- Combs, C.D. (1994). Commentary on the impact of education on practice patterns. In P. Larson, M. Osterweis & E. Rubin (Eds.). *Health Policy Annual IV: Health Workforce Issues for the 21<sup>st</sup> Century*. Washington, DC: Association of Academic Health Centers.
- Combs, C.D., Pindur, W., Donoghue, K and Cornelius, L. (1992). Workforce 2000: The new management challenge. In D. Hussey (Ed.), *International Review of Strategic Management*, Volume 3.

### **Peer-Reviewed Proceedings Articles**

- Combs, C.D. (2015). The foundation for multi-scale modeling of the digital patient. *Proceedings of the 4<sup>th</sup> International Workshop on Innovative Simulation for Health Care (I-WISH, 2015)*. Note: This paper won the award for best paper at the I-WISH, 2015 workshop.
- Tolk, A., Balci, O., Combs, C.D., Fujimoto, R., Macal, C.M., Nelson, B.L., & Zimmerman, P. (2015). Do we need a national research agenda for modeling and simulation? *Proceedings of the 2015 Winter Simulation Conference (WSC 2015) on Social and Behavioral Simulation*.
- Combs, C.D. (2014). Building the digital patient: Considerations for the next decade. *Proceedings of the 3<sup>rd</sup> International Workshop for Innovation in Simulation for Health Care*.
- Severinghaus, R., Cuper, T., & Combs, C.D. (2012). Modeling drift in the OR: A conceptual framework for research. *Proceedings of the 2012 Conference on Education and Training Modeling and Simulation (ETMS12)*. A part of the 2012 Autumn Simulation Multi-Conference of the Society for Modeling and Simulation International (SCS).
- Severinghaus, R., & Combs, C.D. (2011). Improving patient safety: A model of drift in health care. *Proceedings of the International Conference on Modeling & Applied Simulation (MAS 2011)*.
- Cuper, T., Wilkinson, J., De Leo, G., Combs, C.D., Matson, D., Jones, P., & Alpino, R. (2009). Mobile micro-games for effective health awareness. *Proceedings of the Society for Applied Learning Technology (SALT) Interactive Learning Technologies 2009 Conference*.
- Combs, C.D., & Alpino, R.J. (2009). Telemedicine in the acute care setting: Is it ready for prime time? *Proceedings of the Trauma, Critical Care and Acute Care Surgery 2009 – Point/Counterpoint XXVIII Conference of the American College of Surgeons Committee on Trauma*.
- Combs, C.D., & DiPeppe, R. (2009). Imperatives in the development of medical simulations. *Proceedings of the 2009 Grand Challenges in Modeling and Simulation (GCMS'09)*, 23-29.
- Combs, C.D., & Walia, M.K. (2009). The evolution of medical simulators. In J.D. Westwood et al. (Eds.), *Medicine Meets Virtual Reality 17*, (55-58). Amsterdam: IOS Press.

- Combs, C.D. & Combs, W.C. (2008). An analysis of trends in the medical modeling and simulation research literature. Abstract in *Minimally Invasive Therapy & Allied Technologies*, 17(4), 230-231.
- Combs, C.D. & Combs, W.C. (2008). An analysis of trends in the medical modeling and simulation research literature. *Proceedings of the 20<sup>th</sup> International Conference of the Society for Medical Innovation and Technology*. Niedernhansen, Germany: Society for Medical Innovation and Technology.
- Combs, C.D. (1994). Experience with community-based preceptorships. In E.M. Bobby (Ed.), *Making the Team Work: Proceedings from the Second Congress of Health Professions Educators*. Washington, DC: Association of Academic Health Centers.
- Combs, C.D. (1985). The healthworks strategy. In H. Douglas (Ed.), *Proceedings of the National Society of Allied Health 1985 Annual Meeting*.
- Combs, C.D. (1978). Understanding health in underserved rural areas. *Rural Practice Notes*, April/May.
- Combs, C.D. & Childress, B. (1978). Minority representation in state and local bureaucracies. *Georgia Political Science Association Journal*, Volume 6.
- Combs, C.D. (1977). Controversy and paradigms. *International Interactions*, Volume 4.

#### **TECHNICAL REPORTS**

- Combs, C.D. (2005). The national center for collaboration in medical modeling and simulation. (Technical Report N61339-03-C-0157 - Accession Number ADA434088). Naval Air Warfare Center – Training Systems Division, Orlando, FL. (201 pages).
- Combs, C.D. (2005). 2020: Are we preparing the health professionals that we will need. Health Workforce Policy Forum, Association of Academic Health Centers, Washington, DC.
- Combs, C.D. (1998). Resource briefs: Virginia, the regulation of health professions, and the Pew Commission recommendations. Council on Licensure, Enforcement and Regulation (CLEAR), Lexington, KY.
- Combs, C.D. (1998). Health care workforce regulation and the integrated health care delivery system: Challenges and opportunities. States Initiative Program of the Pew Charitable Trusts, San Francisco, CA.
- Combs, C.D., Reynolds, P.P., Alpino, R.J., & Lundgren, B.S. (1997). Background report on health professions regulation. Board of Health Professions, Commonwealth of Virginia, Richmond, VA.
- Combs, C.D., Pindur, W. & Konefal, M. (1992). Indigent health care in Portsmouth, VA. Portsmouth General Hospital Foundation, Portsmouth VA.
- Combs, C.D. (1986). Case management medical information system: System design and users manual. Eastern Virginia Medical Authority, Norfolk, VA.
- Combs, C.D., Brown, C. & McKinney, M. (1976). Citizen participation in the city of Durham. Durham University Observatory, Durham, NC.
- Combs, C.D. (1975). Human services in the south plains. South Plains Association of Governments, Lubbock, TX.

## OTHER PUBLICATIONS

- Combs, C.D. (2015). Faculty Development Expert's Corner: An unconventional journey to healthcare simulation. In J.C. Palaganas, J.C. Maxworthy, C.A. Epps and M.E. Mancini (Eds.), *Defining Excellence in Simulation Programs* (pp. 548-549). Philadelphia, PA: Wolters Kluwer.
- Combs, C.D. & Regan, P. (2010). Overview of patient participation models: Review of options, issues and state choices. Internal working document prepared for the Legal and Policy Committee of the Virginia Health Information Technology Advisory Committee (HITAC).
- Combs, C.D. (2008). Book review. "Understanding Global Health" by W. Markle, M. Fisher & R. Swego, New York: McGraw Hill, 2007. In *Annals of Internal Medicine*, 149(6), 440.

## EDUCATIONAL MEDIA

- Combs, C.D. & DeWald, D. (1983). Project Healthworks. (A 16 hour educational television program produced and distributed nationally by the Peninsula Area Health Education Center and the Center for Excellence, Inc.). The topics presented were as follows:

"Nutrition-Headlines on Health," a twenty minute televised report.

"Nutrition-Coming to Terms," a twenty minute televised report.

"Nutrition-Fact or Fiction?," a twenty minute televised report.

"Nutrition-Signs and Signals," a twenty minute televised report.

"Nutrition-Methods and Materials," a twenty minute televised report.

"Nutrition-In Your Own Backyard," a twenty minute televised report.

"Nutrition-Who, What, Why?," a twenty minute televised report.

"Nutrition-On the Front Lines," a twenty minute televised report.

"Nutrition-Parents in Action," a twenty minute televised report.

"Fitness-Coming to Terms", a twenty minute televised report.

"Fitness-Fact or Fiction?," a twenty minute televised report.

"Fitness-Signs and Signals," a twenty minute televised report.

"Fitness-Methods and Materials," a twenty minute televised report.

"Fitness-In Your Own Backyard," a twenty minute televised report.

"Fitness-Who, What, Why?," a twenty minute televised report.

"Fitness-On the Front Lines," a twenty minute televised report.

"Fitness-Parents in Action," a twenty minute televised report.

"Substance Abuse-Coming to Terms," a thirty minute televised report.

"Substance Abuse-Fact or Fiction?," a thirty minute televised report.

"Substance Abuse-Signs and Signals," a thirty minute televised report.

"Substance Abuse-Methods and Materials," a thirty minute televised report.

"Substance Abuse-In Your Own Backyard," a thirty minute televised report.

"Substance Abuse-Who, What, Why?," a thirty minute televised report.

"Nutrition-On the Front Lines," a thirty minute televised report.

"Nutrition-Parents in Action," a thirty minute televised report.

"Dental Hygiene-Coming to Terms," a seven minute televised report.

"Dental Hygiene-Fact or Fiction?," a seven minute televised report.

"Dental Hygiene-Signs and Signals," a seven minute televised report.

"Dental Hygiene-Methods and Materials," a seven minute televised report.

"Dental Hygiene-In Your Own Backyard," a seven minute televised report.

"Dental Hygiene-Who, What, Why?," a seven minute televised report.

"Dental Hygiene-On the Front Lines," a seven minute televised report.

"Dental Hygiene-Parents in Action," a seven minute televised report.

"Stress Management-Coming to Terms," a thirty minute televised report.

"Stress Management-Fact or Fiction?," a thirty minute televised report.

"Stress Management-Signs and Signals," a thirty minute televised report.

"Stress Management-Methods and Materials," a thirty minute televised report.

"Stress Management-In Your Own Backyard," a thirty minute televised report.

"Stress Management-Who, What, Why?," a thirty minute televised report.

"Stress Management-On the Front Lines," a thirty minute televised report.

"Stress Management-Parents in Action," a thirty minute televised report.

### **CONFERENCE AND SYMPOSIA ORGANIZER**

Combs, C.D. (Organizer and Moderator). (2016, Jan.). Leadership within context. A panel in the Leadership content category. 16<sup>th</sup> International Meeting on Simulation in Healthcare (IMSH 2016), San Diego, CA.

Combs, C.D. (Moderator). (2015, Apr.). A panel representing the National Modeling and Simulation Coalition. MODSIM World 2015, Virginia Beach, VA.

- Combs, C.D., (Moderator). (2015, Feb.). A panel on Leading the Evolution of Simulation Centers. The 12<sup>th</sup> Asia Pacific Medical Education Conference, Singapore.
- Combs, C.D. (Moderator). (2015, Feb.). A panel on The Potential for Standardized Programming Across Simulation Centers and National Boundaries. The 12<sup>th</sup> Asia Pacific Medical Education Conference, Singapore.
- Combs, C.D. (Moderator). (2014, Dec.). A panel on Improving Patient Safety - Does Simulation Help? The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) 2014, Orlando, FL.
- Combs, C.D. (Moderator). (2014, Aug.). A panel on Curricular Revolutions in Medical Schools. 2014 Healthcare Education, Assessment, Training and Technology (HEATT) Conference, Orlando, FL.
- Combs, C.D. (Moderator). (2013, Dec.). Entering the Commercial Healthcare M&S Market. A Society for Simulation in Healthcare sponsored panel "Special Event". The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) 2013, Orlando, FL.
- Combs, C.D. (Moderator). (2012, Jan.). Simulation as an assessment tool. A pre-conference workshop at the 9<sup>th</sup> Asia Pacific Medical Education Conference (APMEC), themed 'Towards Transformative Education for Healthcare Professionals in the 21<sup>st</sup> Century – Nurturing Lifelong Habits of Mind, Behaviour and Action', Republic of Singapore.
- Combs, C.D. (Co-Chair). (2011, Oct.). Health and medicine conference track. MODSIM World 2011 Conference and Exposition, Virginia Beach, VA.
- Combs, C.D. (Organizer). (2011, Oct.). You use your medical simulation center to also do what? A pre-conference workshop at the MODSIM World 2011 Conference and Exposition, Virginia Beach, VA.

## **PROFESSIONAL PRESENTATIONS**

### ***Keynote Presentations, Plenary Addresses and Other Invited Presentations***

- Combs, C.D. (2016, June). Data analytics, the digital patient and simulation in healthcare. 5<sup>th</sup> Euro Biosensors & Bioelectronics Conference (Euro Biosensors 2016), Valencia, Spain.
- Combs, C.D. (2016, June). Implications of the digital patient for simulation and healthcare. Centro de Simulacao Biomedica, Faculty of Medicine, University of Porto, Porto, Portugal.
- Combs, C.D. (2016, June). Implications of the digital patient for simulation and healthcare. Tecnalia, Parque Tecnologico de Bizkaia, Bilbao, Spain.
- Combs, C.D. (2016, March). Building the digital patient. Issues in Arts and Technology lecture series. University of Texas at Dallas, Dallas, Texas.
- Combs, C.D. (2016, March). Navigating the perfect storm through simulation: Interprofessional practice, big data and Watson. Special Panel on Advancing Continuing Medical Education through the Use of Simulation at the 9<sup>th</sup> Annual Meeting of the Consortium of the American College of Surgeons-Accredited Education Institutes, Chicago, IL.
- Combs, C.D. (2015, Dec.). The digital patient platform. Serious Games in Medicine and Health Conference (SeGaMed 2015), Nice, France.
- Combs, C.D. (2015, Oct.). The Digital Patient and the implications for health professions education. Association of Academic Health Centers International (AAHCI) Regional Meeting, Beijing, China.

- Combs, C.D. (2015, Sep.). The foundation for multi-scale modeling of the digital patient. The 4<sup>th</sup> International Workshop on Innovative Simulation for Healthcare (I-WISH, 2015), Berggeggi, Italy.
- Combs, C.D. (2015, July). Personalized medicine, complexity and the evolving importance of simulation. 2015 Summer Simulation Multi-Conference (SummerSim'15), the Society for Modeling and Simulation International, Chicago, IL.
- Combs, C.D. (2015, June). The digital patient and simulation in healthcare 2025. The Society in Europe for Simulation Applied to Medicine Conference (SESAM 2015), Belfast, Northern Ireland.
- Combs, C.D. (2015, June). The Digital Patient: Implications for simulation, personal healthcare and public health. Asser for Health Centre, University College Cork, Cork, Ireland.
- Combs, C.D. (2015, May). The Emerging Digital Patient: Implications for public health education in the United States. International Conference on Public Health Management in Association with the Tenth Anniversary of the Establishment of the School of Public Health Management, State University of Medicine and Pharmacy of the Republic of Moldova, Chisinau, Republic of Moldova.
- Combs, C.D. (2015, Apr.). The Digital Patient Platform: Advancing healthcare, research and education. ITEC (The International Forum for Military Training, Education and Simulation) 2015, Prague, Czech Republic.
- Combs, C.D. (2015, Apr.). The Digital Patient Platform: A necessary technology for improving patient safety through personalized medicine. ITEC (The International Forum for Military Training, Education and Simulation) 2015, Prague, Czech Republic.
- Combs, C.D. (2014, Dec.) The context of healthcare simulation in the U.S. The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) 2014, Orlando, FL.
- Combs, C.D. (2014, Sep.). Building the digital patient: Considerations for the next decade. The 3<sup>rd</sup> International Workshop for Innovation in Simulation for Health Care, Bordeaux, France.
- Combs, C.D. (Moderator). (2014, Aug.). The curricular revolution in medical schools. Healthcare Education, Assessment, Training and Technology (HEATT) 2014 Conference, Orlando, FL.
- Combs, C.D. (2014, May). It could be otherwise. Commencement Address: Eastern Virginia Medical School, Norfolk, VA.
- Combs, C.D. (2013, Nov.). Developing partnerships with industry: Trials and tribulations. Association of Academic Health Centers International (AAHCI), 1<sup>st</sup> AAHCI Central and Eastern European Regional Meeting, Budapest, Hungary.
- Combs, C.D. (2013, Oct.). The role of senior leadership in curricular integration through simulation. Keynote Presentation: The Second Asia-Pacific Meeting on Simulation in Healthcare (APMSH), Shanghai, People's Republic of China.
- Combs, C.D. (2013, Oct.). Simulation for everyone? The Multi-Disciplinary Simulation and Skills Centre of Queen Elizabeth Hospital, Hong Kong, People's Republic of China.
- Combs, C.D. (2013, Jun.). Developing commercial partnerships in medical simulation to improve health care. The Application of Science to Simulation, Education and Research on Training for Health Professionals (ASSERT) Centre of the University College Cork, Cork, Ireland.
- Combs, C.D. (2013, Jun.). The challenge of diversification. The 19<sup>th</sup> Annual Society in Europe for Simulation Applied to Medicine (SESAM 2013) meeting, Paris, France.



- Combs, C.D. (2013, May). Simulation in medical education. The State Medical and Pharmaceutical University of the Republic of Moldova, Chisinau, Republic of Moldova.
- Combs, C.D. (2013, May). Opportunities for transformation through medical simulation. The NATO Allied Command Transformation meeting of the NATO Modeling and Simulation Forum, Rome, Italy.
- Combs, C.D. (2013, May). Transforming the simulation industry for competition in health and education. The International Training and Education Conference (ITEC 2013), Rome, Italy.
- Combs, C.D. (2012, Sep.). The future of modeling and simulation: Things we should be thinking about. Keynote Presentation: The 2012 MODSIM World Conference and Exposition, Suffolk, VA.
- Combs, C.D. (2012, Jul.). Activities at the National Center for Collaboration in Medical Modeling and Simulation (NCCMMS). The Institute for Bioengineering of Catalonia (IBEC), Barcelona, Spain.
- Combs, C.D. (2012, May). EVMS' Sentara Center for Simulation and Immersive Learning as a cost-effective medical simulation center. The MT3 (Medical Technology, Training & Treatment) 2012 Conference, Orlando, FL.
- Combs, C.D. (2012, Jan.). Shaping the future of medical education through simulation. Keynote Presentation: The 9<sup>th</sup> Asia Pacific Medical Education Conference (APMEC), themed 'Towards Transformative Education for Healthcare Professionals in the 21<sup>st</sup> Century – Nurturing Lifelong Habits of Mind, Behaviour and Action', at National University of Singapore, Republic of Singapore.
- Combs, C.D. (2011, Dec.). Thoughts on medical modeling and simulation and health professions education. The Lockheed Martin Corporation's Healthcare Campaign of Collaboration Healthcare Summit: Engaging the Challenges of Our Nation's Health System, campaign kick-off event at the Lockheed Martin Center for Innovation, Suffolk, VA.
- Combs, C.D. (2011, Oct.). Educating health professionals in the early 21<sup>st</sup> century-the basic driving forces and the role of medical simulation. The 2011 4<sup>th</sup> International Conference on Biomedical Engineering and Informatics, Shanghai, People's Republic of China.
- Combs, C.D. (2011, Jul.). Designing and testing simulations to improve the practice of medicine. The U.S. Department of Education Stakeholders Meeting on Modeling and Simulation, Office of Postsecondary Education, Fund for the Improvement of Postsecondary Education (FIPSE), Washington, DC.
- Combs, C.D. (2011, May). Medical modeling and simulation and health professions education. The Executive Committee of the Hampton Roads Economic Development Alliance (HREDA), Norfolk, VA.
- Combs, C.D. (2011, Feb.). Medical simulation's evolving role in education. The Association of Academic Health Centers International 2<sup>nd</sup> Asia-Pacific Meeting, Sydney, Australia.
- Combs, C.D. (2011, Jan.). Thoughts about the future challenges of medical simulation. The International Meeting on Simulation in Healthcare (IMSH) 2011, New Orleans, LA.
- Combs, C.D. (2010, Nov.). How things are changing in health professions education. The Industry Member meeting of the Virginia Modeling, Analysis and Simulation Center (VMASC), Suffolk, VA.
- Combs, C.D. (2010, Oct.). Thoughts on medical modeling and simulation and health professions education. The TEDx Salon Event at the MODSIM World Conference and Exposition, Hampton, VA.
- Combs, C.D. (2010, Jun.). Medical simulators: Current status and future needs. The 1<sup>st</sup> IEEE International Workshop on Collaborative Modeling & Simulation (CoMets'10), Larissa, Greece.

- Combs, C.D. (2010, Jun.). Medical modeling and simulation at Eastern Virginia Medical School and Old Dominion University. The eastern Virginia U.S. Congressional delegation, Washington, DC.
- Combs, C.D. (2010, Jan.). The challenges of simulation and other emerging technologies for medical and surgical education. The Eastern Virginia Medical School Department of Surgery Grand Rounds Activity, Norfolk, VA.
- Combs, C.D. (2009, Sep.). Strategic decision making. The 2009 Annual Meeting of the Association of Academic Health Centers, Chicago, IL.
- Combs, C.D. (2009, Jul.). Imperatives in the development of medical simulations. The Grand Challenges in Modeling and Simulation 2009 (GCMS'09), International Summer Simulation Multi-conference, Istanbul, Turkey.
- Combs, C.D. (2009, Jun.). Telemedicine in the acute care setting: Is it ready for prime time? The Trauma, Critical Care and Acute Care Surgery 2009 – Point/Counterpoint XXVIII Conference of the American College of Surgeons Committee on Trauma, Baltimore, MD.
- Combs, C.D. (2009, Feb.). The emergence of simulation in medical education. The Association of Academic Health Centers Inaugural Asia-Pacific Meeting: Developing International Partnerships in Academic Medicine, Republic of Singapore.
- Combs, C.D. (2009, Jan.). The evolution of medical simulators. The 2009 Medicine Meets Virtual Reality Conference, Long Beach, CA.
- Combs, C.D. and Alpino, R.J. (2008, Sep.). The evolution of medical modeling and simulation. MODSIM World Conference and Exhibition, Virginia Beach, VA.
- Combs, C.D. and Combs, W.C. (2008, Aug.). An analysis of trends in the medical modeling and simulation research literature. 20<sup>th</sup> International Conference of the Society for Medical Innovation and Technology, Vienna, Austria.
- Combs, C.D. and Combs, W.C. (2008, Jun.). The evolution of medical modeling and simulation. International Summer Simulation Multi-conference, Edinburgh, Scotland.
- Combs, C.D. and Hahn, T.W. (2008, May). Faculty workload: How much effort is needed and how should it be funded? 48<sup>th</sup> Association of Institutional Research Forum, Seattle, WA.
- Combs, C.D. (2007, Sep.). The emerging imperative for medical simulation. Inaugural MODSIM World Conference and Exposition, Virginia Beach, VA.
- Combs, C.D. (2007, Mar.). Assessing emerging technologies in medicine and health. IPSI Conference, Amalfi, Italy.
- Combs, C.D. (2006, Apr.). Emerging technologies. Department of Surgery Grand Rounds, Eastern Virginia Medical School, Norfolk, VA.
- Combs, C.D. (2006, Apr.). Faculty workload: How much effort is needed and how should it be funded? Joint Spring Meeting of the Group on Institutional Planning and the Group on Business Affairs of the Association of American Medical Colleges, Vancouver, British Columbia, Canada.
- Combs, C.D. (2005, Nov.). Forging interdisciplinary collaboration: The medical modeling and simulation database. International IPSI Conference, Venice, Italy.
- Combs, C.D. (2005, Jan.). The medical modeling and simulation database. 2005 Western Simulation Multi-conference, New Orleans, LA.

- Combs, C.D. (2003, May). The general challenges of emergency response. International Health Resource Management Program, Sofia, Bulgaria.
- Combs, C.D. (2003, May). The local medical response system in the U.S. International Health Resource Management Program, Sofia, Bulgaria.
- Combs, C.D. (2003, Apr.). NATO standards for health protection. International Health Resource Management Program, Ohrid, Republic of Macedonia.
- Combs, C.D. (2003, Apr.). Issues of professional competence and accreditation in primary care. International Conference on Training Professionals for Primary Health Care, Chisinau, Republic of Moldova.
- Combs, C.D. (2003, Apr.). Emergency training for the typical public health worker. International Health Resource Management Program, Chisinau, Republic of Moldova.
- Combs, C.D. (2003, Apr.). Framework for training emergency responders in the United States. International Health Resource Management Program, Chisinau, Republic of Moldova.
- Combs, C.D. (2002, Nov.). The broader questions of leadership in responding to HIV/AIDS. Second International Conference on HIV/AIDS, Naval Postgraduate School, Monterey, CA.
- Combs, C.D. (2002, Sep.). Essential issues in emergency response. International Health Resource Management Program, Hincesti, Republic of Moldova.
- Combs, C.D. (2002, Apr.). Enduring and unresolved issues in U.S. healthcare. International Health Resource Management Program for Macedonia, Carlsbad, CA.
- Combs, C.D. (2002, Jun.). Thinking about learning, training and competence in the medical and health professions amidst the threat of terrorism. 2002 Health Care Policy Forum for the Secretary's Primary Care Fellows, U.S. Department of Health and Human Services, Washington, DC.
- Combs, C.D. (2002, May). The changing ecology of medical care. International Health Resource Management Program, Ohrid, Republic of Macedonia.
- Combs, C.D. (2002, May). The role of the military hospital in Macedonia in the context of health reform. International Health Resource Management Program, Ohrid, Republic of Macedonia.
- Combs, C.D. (2002, May). Strategic action planning. A series of presentations for the International Health Resource Management Program, Ohrid, Republic of Macedonia.
- Combs, C.D. (2002, Apr.). Essential concepts underlying the U.S. health system. International Health Resource Management Program for Macedonia, Carlsbad, CA.
- Combs, C.D. (2002, Apr.). Issues of medical care during emergency situations. State Medical and Pharmaceutical University "Nicolae Tesemitsanu" of the Republic of Moldova, Chisinau, Republic of Moldova.
- Combs, C.D. (2002, Apr.). The metropolitan medical response planning process. State Medical and Pharmaceutical University "Nicolae Testemitsanu" of the Republic of Moldova, Chisinau, Republic of Moldova.
- Combs, C.D. (2001, Dec.). The corporate role in fighting AIDS in Africa. First International Conference on HIV/AIDS, Naval Postgraduate School, Monterey, CA.
- Combs, C.D. (2001, Nov.). An overview of the U.S. healthcare system. International Health Resource Management Program, Military Medical Academy, Sofia, Bulgaria.

- Combs, C.D. (2001, Nov.). Clinical guidelines development. International Health Resource Management Program, Military Medical Academy, Sofia, Bulgaria.
- Combs, C.D. (2001, Nov.). The ecology of medical care. International Health Resource Management Program, Military Medical Academy, Sofia, Bulgaria.
- Combs, C.D. (2001, Nov.) An overview of the U.S. healthcare system. International Health Resource Management Program for Macedonia, Norfolk, VA.
- Combs, C.D. (2001, Nov.). Issues in health reform. International Health Resource Management Program for Macedonia, Norfolk, VA.
- Combs, C.D. (2001, Jul.). Strategic planning and performance evaluation. A series of presentations for the International Health Resource Management Program on HIV/AIDS, Gabarrone, Botswana.
- Combs, C.D. (2001, Jun.). Performance outcomes measurement. Scientific Conference of the State Medical and Pharmaceutical University "Nicolae Testemitsanu" of the Republic of Moldova, Chisinau, Republic of Moldova.
- Combs, C.D. (2001, Jun.). Issues in health reform. International Health Resource Management Program, Military Medical Academy, Sofia, Bulgaria.
- Combs, C.D. (2001, Jun.). The role of strategic planning in facilitating civilian-military cooperation in health care. International Health Resource Management Program, Military Medical Academy, Sofia, Bulgaria.
- Combs, C.D. (2001, May). Making strategy work. International Health Resource Management Program, Military Hospital, Skopje, Republic of Macedonia.
- Combs, C.D. (2001, May). Strategic planning for health care reform. International Health Resource Management Program, Military Hospital, Skopje, Republic of Macedonia.
- Combs, C.D. (2000, Dec.). Medical and public health education: Their military and civilian roles. International Health Resource Management Program, Royal Nepal Army Military Hospital, Katmandu, Nepal.
- Combs, C.D. (2000, Nov.). Primary medical services and their role in the development of communities and technologies. Keynote address at the Scientific Conference of the State Medical and Pharmaceutical University "Nicolae Testemitsanu" of the Republic of Moldova, Chisinau, Republic of Moldova.
- Combs, C.D. (1999, Jun.). Virtual surgery: Not! Department of Surgery Grand Rounds, Eastern Virginia Medical School, Norfolk, VA.
- Combs, C.D. (1999, Apr.). Accreditation self-studies as a complement to strategic planning. 1999 Joint Spring Meeting of the Group on Institutional Planning and the Group on Business Affairs of the Association of American Medical Colleges, Vancouver, British Columbia, Canada.
- Combs, C.D. (1998, Apr.). Strategies for survival. Transitions in Health Care Education and Practice Conference, Roanoke, VA.
- Combs, C.D. (1998, Mar.). Effective utilization of information technology. Shaping the Infrastructure of the Health Professions Conference, Budapest, Hungary.
- Combs, C.D. (1998, Feb.). What are information technology's global implications for health? Policy Seminar on Information Technology of the Association of Academic Health Centers, Washington, DC.
- Combs, C.D. (1997, Oct.). The challenge of professional competence. 1997 Conference of the Global Alliance for Transnational Education, Washington, DC.

- Combs, C.D. (1997, Sep.). Virginia, the Pew Commission and the regulation of health professions. Seventeenth Annual Meeting of the Council on Licensure, Enforcement and Regulation (CLEAR), Norfolk, VA.
- Combs, C.D., Gleason, W., Randolph, W., & Goodwin, M. (1997, Apr.). Matching money to mission: A sources and uses of funds methodology for medical schools. Joint Group on Institutional Planning and Group on Business Affairs Spring Meeting of the Association of American Medical Colleges, San Diego, CA.
- Combs, C.D. (1997, Apr.). Why not? Redesigning work in spite of regulation. Annual Research Meeting of the American Association of Health Plans, New Orleans, LA.
- Combs, C.D. (1997, Jan.). The perhaps hand: Linking strategy and productivity. Productivity Measures Colloquium sponsored by the Association of American Medical Colleges, Washington, DC.
- Combs, C.D. (1996, Oct.). What's in the black box? Keynote address for Annual Meeting of the Association of Academic Health Centers, West Palm Beach, FL.
- Combs, C.D. (1996, Sep.). The virtual learning environment of the 21<sup>st</sup> century: Implications for health care. Annual Meeting of the International Association for Continuing Education and Training, Washington, DC.
- Combs, C.D. & Stengel, E. (1996, Jan.). Educating the political partners: Advocacy and medical education. Second Annual Program Meeting of the Robert Wood Johnson Foundation's Generalist Physician Initiative, Key Biscayne, FL.
- Combs, C.D. (1995, Feb.). Reflections on the Virginia generalist initiative. Association of Academic Health Centers' Josiah Macy, Jr. Foundation Health Workforce Policy Project, Washington, DC.
- Combs, C.D. (1995, Jan.). The Virginia generalist initiative. A presentation on the national *Managed Care Roundtable* series broadcast nationally over the Association of Academic Health Center's *CenterNet* network.
- Combs, C.D., Ayres, S.M., & Reynolds, R.E. (1994, Apr.). A collaborative approach to planning and policymaking for academic medicine in Virginia. Spring Meeting of the Group on Institutional Planning of the Association of American Medical Colleges, Seattle, WA.
- Combs, C.D. (1992). Infant mortality as a stimulus for change. American Society for Public Administration National Conference, Chicago, IL.
- Combs, C.D. (1990). The maternal/child health political agenda for the 90's. 1990 Conference of the Virginia Perinatal Association, Richmond, VA.
- Combs, C.D. (1989, Jun.). Enabling health promotion through AHEC's. 5<sup>th</sup> Area Health Education Centers National Workshop, Louisville, KY.
- Combs, C.D. (1987, Sep.). Negotiation skills: The art and the science. 10<sup>th</sup> Annual Virginia Municipal Clerks Conference, Virginia Beach, VA.
- Combs, C.D. (1987, Sep.). The uses of history. 10<sup>th</sup> Annual Virginia Municipal Clerks Conference, Virginia Beach, VA.
- Combs, C.D. (1986, May). Working together to implement change. 1986 Virginia Health Congress, Richmond, VA.
- Combs, C.D. (1985, Jun.). Managerial improvement in probation and parole programs: The quality circle approach. Virginia Probation and Parole Officers Association Annual Conference, Richmond, VA.
- Combs, C.D. (1985, May). Networking: Community resources and television programming. 3<sup>rd</sup> Area Health Education Centers National Workshop, San Antonio, TX.

- Combs, C.D. (1985, May). Surviving in the 1980's: Strategies for programs and finances. 3<sup>rd</sup> Area Health Education Centers National Workshop, San Antonio, TX.
- Combs, C.D. (1985, Apr.). Public health management-Current issues. Urban Affairs Association Annual Conference, Norfolk, VA.
- Combs, C.D. (1985, Mar.). Healthworks-A community-based health promotion strategy. National Society for Allied Health Annual Conference.
- Combs, C.D. (1983, June). Research in the patient care setting. Conference on Research for the Practitioner, Norfolk, VA.
- Combs, C.D. (1982, Aug.). Urban AHEC's contribution to health professions education. 2<sup>nd</sup> Area Health Education Centers National Workshop, Denver, CO.
- Combs, C.D. (1982, May). Beyond cutback management. Annual Meeting of the Urban Affairs Association, Philadelphia, PA.
- Combs, C.D. & Navazio, B. (1978, Aug.). Information disclosure at the Food and Drug Administration. American Society for Public Administration National Conference, Chicago, IL.
- Combs, C.D. (1977, Sep.). Rural service delivery. American Society for Public Administration National Conference, Athens, GA.

***Presentations of Peer-Reviewed Content***

- Severinghaus, R., Cuper, T., & Combs, C.D. (2012, Oct.). Modeling drift in the OR: A conceptual framework for research. The 2012 Conference on Education and Training Modeling and Simulation (ETMS12), part of the 2012 Autumn Simulation Multi-Conference, San Diego, CA.
- Combs, C.D., Severinghaus, R., & Ruzicka, J.P. (2011, Sep.). Modeling drift into errors in health care: A conceptual framework. Poster presentation. The Society for Medical Innovation and Technology (SMIT) Conference, Tel Aviv, Israel.
- Severinghaus, R., & Combs, C.D. (2011, Sep.). Improving patient safety: A model of drift in health care. The International Conference on Modeling & Applied Simulation (MAS 2011), Rome, Italy.
- Combs, C.D., & Pellegrino, T.R. (2009, Dec.). EVMS 2.0: Technology and the QEP. The 2009 Annual Meeting of the Commission on Colleges (CoC) of the Southern Association of Colleges and Schools (SACS), Atlanta, GA.
- Combs, C.D., & Johnson, J.A. (2009, Dec.). Preparing your compliance certification report. The 2009 Annual Meeting of the Commission on Colleges (CoC) of the Southern Association of Colleges and Schools (SACS), Atlanta, GA.
- Combs, C.D., & Lauber, M.C. (2009, Oct.). Benchmark your plans for leading-edge medical education facilities. TRADELINE, Inc. 2009 Academic Medical & Health Science Centers Conference, Boston, MA.
- Combs, C.D. (2008, Jan.). Visualizing the medical modeling and simulation database: A comprehensive analysis of trends in the research literature. Poster presentation. 2008 Medicine Meets Virtual Reality Annual Conference, Long Beach, CA.
- Combs, C.D. (2007, Jan.). Analyzing the MMVR and MMSD research spaces: Understanding rapid growth. Poster presentation. 2007 Medicine Meets Virtual Reality Annual Conference, Long Beach, CA.

Combs, C.D. (2006, Jan.). Simulating the domain of medical modeling and simulation: The medical modeling and simulation database. Poster presentation. 2006 Medicine Meets Virtual Reality Annual Conference, Long Beach, CA.

Combs, C.D. (1999, Jun.). Developing the eastern Virginia telemedicine network: Surprises along the way. ED-MEDIA99 – World Conference on Educational Multimedia, Hypermedia, and Telecommunications of the Association for the Advancement of Computers in Education, Seattle, WA.

### **INVITED PANEL PARTICIPANT**

*Navigating the Perfect Storm through Simulation: Interprofessional Practice, Big Data and Watson.* (2016, March). A presentation to a Special Panel on Advancing Continuing Medical Education through the Use of Simulation during the 9<sup>th</sup> Annual Meeting of the Consortium of American College of Surgeons-accredited Education Institutes in Chicago, IL.

*Fiscal Year 2016 U.S. Department of Defense Joint Program Committee-1 (JPC-1) Medical Decision Aids Peer Review Panel* (2016, Jan.). A panel I Chaired that evaluates the research and development of medical training methods, technologies, systems, and competency assessment tools for the attainment and sustainment of military medical readiness. The panel was held via conference call.

*Passport to the Future.* (2015, Dec.). A panel I moderated at the Serious Games in Medicine and Health Conference (SeGaMed 2015) in Nice, France.

*Do We Need a National Research Agenda for Modeling and Simulation?* (2015, Dec.). A panel at the 2015 Winter Simulation Conference (WSC 2015) on Social and Behavioral Simulation, Huntington Beach, CA.

*The Digital Patient and the Implications for Health Professions Education.* (2015, Oct.). A panel at the Association of Academic Health Centers International (AAHCI) Regional Meeting 2015, Beijing, China.

*Developing Partnerships with Industry: Trials and Tribulations.* (2013, Nov.). A panel on the Internationalization Challenges of Academic Health Centers. The Association of Academic Health Centers International (AAHCI) Inaugural Central and Eastern European Regional Meeting: Collaborative Health Care – Changing Paradigms in Education, Health Care and Research, Budapest, Hungary.

*Senior Leadership in Medical Modeling and Simulation.* (2013, Oct.). Second Asia-Pacific Meeting on Simulation in Healthcare, Shanghai, People's Republic of China.

*Advancing Education through New Media.* (2012, Sep.). The Association of Academic Health Centers' 2012 Annual Meeting, themed 'Leading and Messaging: The Convergence of Management, Communications and New Media', San Francisco, CA.

*Education Simulation and Innovation.* (2012, Mar.). The Association of Academic Health Centers' 2012 International Forum, themed 'Advancing Clinical Translational Research', Washington, DC.

*Innovative Collaborations in Simulation-based Education and Research.* (2012, Jan.). The 12<sup>th</sup> Annual International Meeting on Simulation in Healthcare (IMSH), San Diego, CA.

*Meet the SimPro's: Looking Ahead to 2021: Aligning the Long Views of Healthcare Simulation Leadership and Stakeholders.* (2011, Jan.). The International Meeting on Simulation in Healthcare (IMSH) 2011, New Orleans, LA.

*Meet the SimPro's: Simulation Research Consortia: Benefits and Challenges.* (2011, Jan.). The International Meeting on Simulation in Healthcare (IMSH) 2011, New Orleans, LA.

*Academic Health Center Models.* (2010, May). The Association of Academic Health Centers Inaugural Central and South America Meeting, whose theme was “Academic Health Centers – Models and Value to Society”, São Paulo, Brazil.

*Modeling and Simulation in Health and Medicine.* (2009, Oct.). A Modeling and Simulation in Health and Medicine expert panel at the Virginia Summit on Modeling and Simulation sponsored by U.S. Senator Mark R. Warner, Virginia Beach, VA.

## **PUBLIC SERVICE**

Served as Principal Instructor for an internationally available webinar on “Improving Personal Healthcare Through the Digital Patient” with Antoine Tesniere, M.D., Ph.D., Professor and Scientific Director, iLUMENS Simulation Department, Paris Descartes University (PDU), Paris, France, sponsored by iLUMENS (PDU) and the Sentara Center for Simulation and Immersive Learning at Eastern Virginia Medical School (aired September 23, 2015).

Interviewed by Lasalle Blanks of WVEC-TV (ABC News affiliate in Norfolk, VA) on the Eastern Virginia Medical School’s School of Health Professions for the show “Dialogue” (aired March 23, 2014).

Interviewed by Sandra Parker of WVEC-TV (ABC News affiliate in Norfolk, VA) on medical modeling and simulation applications in education and patient care for the show “Dialogue” (aired February 17, 2013).

Interviewed for the magazine *Informacions* published by the Universitat Politècnica de Catalunya BarcelonaTECH, Barcelona, Spain for the article “Universities Need to Dialogue with Industry to Further Medical Modeling and Simulation” (appeared in the January-February 2013 edition).

Interviewed by Joel Rubin of WVEC-TV (ABC News affiliate in Norfolk, VA) on the National Center for Collaboration in Medical Modeling and Simulation for the show “On the Record with Joel Rubin” (aired December 11, 2005).

Virginia Network for Geospatial Health Research (VNGHR), President

Hampton Roads Partnership, Vision Hampton Roads: Opportunities Task Force, Health Care Subcommittee, Chair



## **GRANT/CONTRACT FUNDING**

### **2015-2016**

\$607,783 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$226,880 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$297,936 from the Virginia Department of Health to operate a Resource Mothers program and engage in consortium development and evaluation programs for the Virginia Healthy Start Initiative. I am the overall Project Director.

\$77,663 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

### **2014-2015**

\$25,000 from the Commonwealth of Virginia-Virginia Economic Development Partnership to conduct international market research for modeling and simulation industry development.

\$607,783 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$224,800 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$492,993 from the Virginia Department of Health to operate a Resource Mothers program and engage in consortium development and evaluation programs for the Virginia Healthy Start Initiative for the period from February 2014 through May 2015. I am the overall Project Director.

\$76,500 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

### **2013-2014**

\$656,406 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$100,000 from the Old Dominion University Research Foundation for promoting the use of modeling and simulation in the medical industry.

\$42,450 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I am the Project Director.

\$224,800 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$324,100 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative as well as to operate an additional Resource Mothers program. I am the overall Project Director.

\$16,615 from the Commonwealth of Virginia for the close-out of the operations (as of 09/30/13) of the Eastern Virginia Perinatal Council. I am the Project Director.

\$77,063 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

## **2012-2013**

\$300,000 from the U.S. Department of Defense and the Virginia Office of the Secretary of Veterans Affairs and Homeland Security for establishing two medical modeling and simulation research laboratory consortia. I am the Project Director.

\$406,406 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$125,000 from the Old Dominion University Research Foundation for promoting the use of modeling and simulation in the medical industry.

\$42,450 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I am the Project Director.

\$224,800 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$341,953 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative as well as to operate an additional Resource Mothers program. I am the overall Project Director.

\$176,765 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I am the Project Director.

\$68,570 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

\$73,610 from the Centers for Disease Control and Prevention and the Virginia Department of Health to provide cardiovascular disease prevention services within the breast and cervical cancer screening program called Every Women's Life. I am the Project Director.

## **2011-2012**

\$300,000 from the U.S. Department of Defense and the Virginia Office of the Secretary of Veterans Affairs and Homeland Security for establishing two medical modeling and simulation research laboratory consortia. I am the Project Director.

\$31,290 from the Old Dominion University Research Foundation for further development of the Medical Modeling and Simulation Database under the auspices of the National Center for Collaboration in Medical Modeling and Simulation (NCCMMS). I am the Project Director.

\$406,406 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$35,375 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I am the Project Director.

\$224,800 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$339,663 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative as well as to operate an additional Resource Mothers program. I am the overall Project Director.

\$175,765 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I am the Project Director.

\$74,261 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

\$72,080 from the Centers for Disease Control and Prevention and the Virginia Department of Health to provide cardiovascular disease prevention services within the breast and cervical cancer screening program called Every Women's Life. I am the Project Director.

## **2010-2011**

\$406,406 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$35,375 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I am the Project Director.

\$247,200 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$340,012 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative as well as to operate an additional Resource Mothers program. I am the overall Project Director.

\$176,765 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I am the Project Director.

\$66,847 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

\$57,514 from the Centers for Disease Control and Prevention and the Virginia Department of Health to provide cardiovascular disease prevention services within the breast and cervical cancer screening program called Every Women's Life. I am the Project Director.

## **2009-2010**

\$562,500 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$35,375 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I am the Project Director.

\$247,200 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$299,317 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative as well as to operate an additional Resource Mothers program. I am the overall Project Director.

\$165,201 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I am the Project Director.

\$55,176 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

## **2008-2009**

\$562,500 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I am the Project Director.

\$35,375 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I am the Project Director.

\$267,520 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I am the Project Director.

\$311,981 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I am the overall Project Director.

\$162,170 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I am the Project Director.

\$55,176 from the federal Health Resources and Services Administration for the annual operation of the Eastern Virginia Area Health Education Center Programs. I am the Project Director.

## **2007-2008**

\$1,500,000 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I was the Project Director.

\$35,375 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$285,440 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$311,981 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$121,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$100,771 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **2006-2007**

\$1,500,000 from the Commonwealth of Virginia for the continued development of research in Medical Modeling and Simulation. I was the Project Director.

\$92,691 from the Office of Naval Research, Arlington, VA, U.S. Department of Defense, for the development of the National Center for Collaboration in Medical Modeling and Simulation. I was the Principal Investigator and Dr. Mark Scerbo of Old Dominion University was the Co-Principal Investigator.

\$35,375 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$256,460 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$323,438 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$121,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$98,675 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **2005-2006**

\$799,183 from the Office of Naval Research, Arlington, VA, U.S. Department of Defense, for the development of the National Center for Collaboration in Medical Modeling and Simulation. I was the Principal Investigator and Dr. Bowen Loftin of Old Dominion University was the Co-Principal Investigator.

\$30,000 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$233,600 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$323,438 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$122,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$98,675 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **2004-2005**

\$486,973 from the Office of Naval Research, Arlington, VA, U.S. Department of Defense, for the development of the National Center for Collaboration in Medical Modeling and Simulation. I was the Principal Investigator and Dr. Bowen Loftin of Old Dominion University was the Co-Principal Investigator.

\$30,000 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$224,000 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$369,000 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$120,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$106,700 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **2003-2004**

\$15,180,812 over four years from the Naval Air Systems Command, Orlando, U.S. Department of Defense, for the development of the National Center for Collaboration in Medical Modeling and Simulation. I was the Principal Investigator and Dr. Bowen Loftin of Old Dominion University served as the Co-Principal Investigator.

\$491,782 from the U.S. Department of Health and Human Services/Health Resources and Services Administration (HRSA) for the Phase II construction of bioelectrics research laboratory space. I was the Project Director.

\$30,000 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$224,000 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$357,260 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$120,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$127,600 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **2002-2003**

\$600,000 from Geo-Centers, Inc., on behalf of the Naval Health Research Center, U.S. Department of Defense, for the development of the National Center for Collaboration in Medical Modeling and Simulation. I was the Principal Investigator and Dr. Bowen Loftin of Old Dominion University served as the Co-Principal Investigator.

\$85,000 from the U.S. Department of Defense, U.S. Army, Telemedicine and Advanced Technology Research Center, to conduct an evaluation of endoscopic and catheter insertion simulations. Dr. Bowen Loftin of Old Dominion University was the Principal Investigator and I served as the Co-Principal Investigator.

\$492,243 from the U.S. Department of Health and Human Services/Health Resources and Services Administration (HRSA) for the Phase I construction of bioelectrics research laboratory space. I was the Project Director.

\$200,000 from the American International Health Alliance (AIHA) to establish a community-based primary health care partnership with the State Medical and Pharmaceutical University of Moldova and the Botanica District Health Administration in Chisinau, Republic of Moldova. I served as the U.S. partnership representative, as the primary U.S. partnership contact person with the American International Health Alliance (AIHA) and as Chair of the partnership's core planning/management team.

\$60,000 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$180,000 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$320,000 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$118,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$165,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **2001-2002**

\$270,000 from the American International Health Alliance (AIHA) to establish a community-based primary health care partnership with the State Medical and Pharmaceutical University of Moldova and the Botanica District Health Administration in Chisinau, Republic of Moldova. I served as the U.S. partnership representative, as the primary U.S. partnership contact person with the American International Health Alliance (AIHA) and as Chair of the partnership's core planning/management team.

\$60,000 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$240,000 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$137,000 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$125,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$275,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **2000-2001**

\$340,000 from the American International Health Alliance (AIHA) to establish a community-based primary health care partnership with the State Medical and Pharmaceutical University of Moldova and the Botanica District Health Administration in Chisinau, Republic of Moldova. I served as the U.S. partnership representative, as the primary U.S. partnership contact person with the American International Health Alliance (AIHA) and as Chair of the partnership's core planning/management team.

\$210,000 from the Virginia Department of Health for the annual operation of the Resource Mothers Program. I was the Project Director.

\$121,600 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$454,000 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$125,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$266,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

## **1999-2000**

\$159,000 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$512,281 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$125,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Perinatal Council. I was the Project Director.

\$400,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.



### **1998-1999**

\$121,000 from the Virginia Health Care Foundation to expand the Eastern Virginia Telemedicine Network. I was the Project Director and Carolyn Riennerth from the Eastern Shore Rural Health System serves as Co-Project Director.

\$146,380 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$646,142 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the overall Project Director.

\$125,000 from the Commonwealth of Virginia for the annual operation of the Regional Perinatal Coordinating Council and Outreach Program. I was the Project Director.

\$401,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

### **1997-1998**

\$120,000 from the Centers for Disease Control and Prevention and the Virginia Department of Health to conduct the breast and cervical cancer screening program called Every Woman's Life. I was the Project Director.

\$660,000 from the Virginia Department of Health to conduct statewide fetal-infant mortality reviews, consortium development, and evaluation programs for the Virginia Healthy Start Initiative. I was the Project Director.

\$159,150 from the Virginia Health Care Foundation to develop the Eastern Virginia Telemedicine Network among EVMS and nine clinical sites on the Eastern Shore of Virginia. I was the Project Director and Carolyn Riennerth of the Eastern Shore Rural Health System serves as Co-Project Director.

\$20,000 from the Pew Health Professions Commission to conduct case studies of the changing roles of health professionals in integrated health care delivery systems. I was the Project Director.

\$90,000 from the Board of Health Professions of the Commonwealth of Virginia to conduct a study to identify the appropriate criteria to be used in determining the need for regulation of health professions and occupations. I was the Project Director.

\$125,000 from the Commonwealth of Virginia for the annual operation of the Regional Perinatal Coordinating Council and Outreach Program. I was the Project Director.

\$401,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

### **1996-1997**

\$86,500 from the Portsmouth General Hospital Foundation to conduct a Community Needs Assessment for Portsmouth, Virginia. I was the Co-Principal Investigator with Dr. Wolfgang Pindur.

\$125,000 from the Commonwealth of Virginia for the annual operation of the Regional Perinatal Coordinating Council and Outreach Program. I was the Project Director.

\$401,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

\$10,000 from the City of Norfolk to implement a multi-disciplinary oral health education and service program for indigent patients. I was the Project Director.

#### **1995-1996**

\$125,000 from the Commonwealth of Virginia for the annual operation of the Regional Perinatal Coordinating Council and Outreach Program. I was the Project Director.

\$400,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

\$40,000 from the Portsmouth General Hospital Foundation to develop and operate a free clinic to serve indigent residents. I was the Project Director.

\$30,000 from the City of Norfolk to implement a multi-disciplinary oral health education and service program for indigent patients. I was the Project Director.

#### **1994-1995**

\$125,000 from the Commonwealth of Virginia for the annual operation of the Regional Perinatal Coordinating Council and Outreach Program. I was the Project Director.

\$420,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

\$80,000 from the Portsmouth General Hospital Foundation to develop and operate a free clinic to serve indigent residents. I was the Project Director.

\$22,000 from the City of Norfolk to implement a multi-disciplinary oral health education and service program for indigent patients. I was the Project Director.

#### **1993-1994**

\$125,000 from the Commonwealth of Virginia for the annual operation of the Regional Perinatal Coordinating Council and Outreach Program. I was the Project Director.

\$200,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

\$80,000 from the Portsmouth General Hospital Foundation to develop and operate a free clinic to serve indigent residents. I was the Project Director.

#### **1992-1993**

\$125,000 from the Commonwealth of Virginia for the annual operation of the Regional Perinatal Coordinating Council and Outreach Program. I was the Project Director.

\$195,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

**1991-1992**

\$220,000 over two years from the U.S. Department of Health and Human Services to operate the Multi-Disciplinary AIDS Migrant Education Program. I was the Project Director.

**1991**

\$105,000 from the Commonwealth of Virginia for the annual operation of the Eastern Virginia Area Health Education Center Programs. I was the Project Director.

\$35,000 from the Portsmouth General Hospital Foundation to study the patterns and causes of teenage pregnancy. I was the Co-Principal Investigator with Dr. Wolfgang Pindur.

**1990**

\$25,000 from the Portsmouth General Hospital Foundation to assess indigent care in Portsmouth. I was the Co-Principal Investigator with Dr. Wolfgang Pindur.

**1985-1989**

\$67,000,000 over three years from OCHAMPUS of the U.S. Department of Defense to operate the CHAMPUS Mental Health Demonstration Program, a case management demonstration program for the 220,000 CHAMPUS beneficiaries living in Hampton Roads. The contract was made with Sentara First Step. I was the principal author of the full proposal and the Project Manager for the \$2,500,000 annual sub-contract with Eastern Virginia Medical School.

**1981-1985**

\$1,000,000 over four years from the U.S. Department of Health and Human Services to operate the Peninsula Area Health Education Center (PAHEC) under a cooperative agreement with the Eastern Virginia Area Health Education Center Programs of EVMS. I was the Project Director.

**1979**

\$75,000 from The Kresge Foundation, \$100,000 from the Garland Gray Foundation, \$50,000 from The Seay Foundation and \$50,000 from the R.H. Kirby Foundation to construct the Surry Family Health Center in Surry, Virginia. The grants were made to the Surry Family Health Group. I was the Project Director.

**1978-1980**

\$500,000 from the Robert Wood Johnson Foundation to develop a rural health center in Surry, Virginia. The grant was made to Surry Family Health Group. I was the Project Director.

**1976**

\$50,000 from the City of Durham, North Carolina to conduct a study of citizen participation in local government. The grant was made to the Durham Urban Observatory. I was the Co-Principal Investigator with Clarence Brown and Michael McKinney.

**FACULTY APPOINTMENTS** (initial faculty appointment date) (*currently held appointments in italics*)

**Eastern Virginia Medical School, Norfolk, VA**

*Professor of Health Professions (with tenure) (2006-Present)*  
Professor of Clinical Family and Community Medicine (1995-2006)  
Associate Professor of Psychiatry and Behavioral Sciences (1987-1991)  
Assistant Professor of Psychiatry and Behavioral Sciences (1985-1987)

**Old Dominion University, Norfolk, VA**

*Adjunct Professor of Modeling, Simulation and Visualization Engineering in the Frank Batten College of Engineering and Technology (2006-Present)*  
Professor in the College of Health Sciences (1991-1997)  
Professor of Public Administration and Urban Studies (1991-1995)  
Associate Professor of Public Administration and Urban Studies (1990–1991)  
Assistant Professor of Public Administration and Urban Affairs (1980–1985)

**University of Paris Descartes, Paris, France**

*Visiting Professor, iLUMENS Simulation Department (2014-Present)*

**Naval Postgraduate School, Monterey, CA**

Senior Fellow (1996-2003)

**State Medical and Pharmaceutical University “Nicolae Testemitsanu” (SMPU), Chisinau, Republic of Moldova**

*Professor (2002-Present)*

**University of North Carolina, Chapel Hill, NC**

Instructor of Social and Administrative Medicine (1977–1979)  
Instructor of Political Science (1975–1977)

**North Carolina Central University, Durham, NC**

Visiting Instructor of Public Administration (1976–1977)

**Elon College, Elon, NC (now Elon University)**

Instructor of Political Science (1975–1976)

**Texas Tech University, Lubbock, TX**

Instructor of Political Science (1973–1974)

**HONORS AND RECOGNITION**

Best Paper Award, 4<sup>th</sup> International Workshop on Innovative Simulation for Health Care, 2015

Eastern Virginia Medical School Dean’s Outstanding Faculty Member Award, 2015

Elected to Membership in *Pi Alpha*, the National Honor Society for Physician Assistants, 2012

Honorary Ph.D. (*Honoris Causa*) from the State Medical and Pharmaceutical University “Nicolae Testemitsanu” (SMPU) in Chisinau, Republic of Moldova, for achievements in the training of medical and public health professionals, 2003

Elected to Membership in *Delta Omega*, an Honor Society for Graduate Studies in Public Health, 2001

Distinguished Alumnus Award, South Plains Community College, Levelland, TX 1998

Recognized in a variety of *Who’s Who* Directories (e.g., Marquis *Who’s Who* in America, Marquis *Who’s Who* of the Asia/Pacific Region, Marquis *Who’s Who* in the World, Marquis *Who’s Who* in American Education, Marquis *Who’s Who* in Science and Engineering, and Marquis *Who’s Who* in Medicine and Healthcare) from 1995 to present

Recipient of Scholarships and Fellowships from the Institute for Research in the Social Sciences, University of North Carolina at Chapel Hill, Texas Tech University, and South Plains Community College

**PERSONAL DATA**

Date of Birth: March 28, 1952  
Marital Status: Married (Pam)  
Children: Two Sons (Cole and Ford)

**REFERENCES**

References will be provided upon request.