

Curriculum Vitae

Name: Stephen Miller Downs

Current Position: Associate Professor of Pediatrics
Director of Children's Health Services Research
Indiana University School of Medicine
Associate Director for Decision Sciences
Regenstrief Institute for Health Care

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Education

<u>Dates of Attendance</u>	<u>School and Major</u>	<u>Degree & Date</u>
Sept 1976 - June 1980	University of Colorado Department of Molecular, Cellular, and Developmental Biology; and Department of Chemistry	B.A. 1980
Sept 1980 - June 1986	Stanford University School of Medicine	M.D. 1986
June 1984 - June 1986	Stanford University Medical Information Sciences Program	M.S. 1986
Oct 1985 - June 1986	National Library of Medicine Training Fellowship in Medical Informatics	
June 1986 - June 1989	University of North Carolina Pediatric Internship and Residency University of North Carolina Hospitals	
July 1989 - July 1991	Fellow, Robert Wood Johnson Clinical Scholars Program, University of North Carolina School of Medicine. Research Areas: Decision analysis and medical informatics applications in pediatric care.	

Academic Honors

2000 Finalist (co-author), Diana Forsythe Award
for work at the intersection of medical informatics and the social sciences.

Academic Honors (Continued)

1998	Elected to the Society for Pediatric Research
1998	University of North Carolina, Biomedical Engineering Teaching Award
1997	Nominated, Best Theoretical Paper American Medical Informatics Association Fall Symposium, Nashville, TN
1996 DC	Co-Author, Best Theoretical Paper American Medical Informatics Association Fall Symposium, Washington,
1989	The Dr. E. C. Curnen, Jr. Book Award for Compassion and Skill in Medicine University of North Carolina
1989,1990,1991	The Research Merit Award University of North Carolina, Department of Pediatrics
1987,1988	Resident Research Award University of North Carolina, Department of Pediatrics
1987	Campbell W. McMillan Pediatric Intern Award University of North Carolina
1980	Summa cum laude-- Molecular, Cellular, and Developmental Biology University of Colorado
1980	Jacob Van Ek Award for Academic Excellence University of Colorado
1979	Phi Beta Kappa

Research, Academic, & Professional Experience

2001-present	Associate Professor of Pediatrics Director of Children's Health Services Research Indiana University School of Medicine
2001-present	Associate Director for Decision Sciences Regenstrief Institute for Health Care
1999-2001	Associate Professor, Health Policy and Administration (adjunct) School of Public Health, University of North Carolina
1996-2001	Director, Medical Informatics Training Program Department of Biomedical Engineering, University of North Carolina
1999-2001	Associate Professor of Biomedical Engineering University of North Carolina
1999-2001	Associate Professor of Pediatrics Division of Community Pediatrics University of North Carolina

Research, Academic, & Professional Experience (continued)

1994-1999	Assistant Professor of Biomedical Engineering University of North Carolina
1992-1999	Assistant Professor of Pediatrics Division of Community Pediatrics University of North Carolina
1991-Present	Consultant, American Academy of Pediatrics Task Force on Quality Assurance, Development of Practice Parameters
1991-1996	Consultant, Health Technology Associates, Inc., Washington, DC, Cost-Effectiveness and Decision Analysis
1991-1992	Program Chair, Health Policy Track, 1992 Annual Symposium on Computer Applications in Medical Care.
1991-1992	Visiting Clinical Assistant Professor Division of Community Pediatrics University of North Carolina
1984 - 1986	Research Assistant, Department of Computer Science Stanford University Supervisor: Robert L. Blum Research Subject: Computer generation and display of clinical summaries from a large, time-oriented database.

Licensure and Certification

National Board of Medical Examiners		
Part I	Passed	Sept. 1982
Part II	Passed	April 1985
Part III	Passed	March 1987
North Carolina Board of Medical Examiners License # R03902		June 24, 1989
Certified American Board of Pediatrics		July 1989

Memberships

Society for Medical Decision Making
Member Education Committee

American Medical Informatics Association
Member Clinical Computing Working Group

Ambulatory Pediatric Association

Society for Pediatric Research

Editorial Experience

Editor, Health Care Administration Track, *Sixteenth Annual Symposium on Computer Applications in Medical Care*, Mark E. Frisse, MD, Ed. 1993, McGraw-Hill, Inc., New York.

Review Committees

- 1999 Study Section (ad hoc), Agency for Health Care Policy and Research, Small Business Grant Phase II Awards
- 1998 National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health
- 1997 National Library of Medicine, National Institutes of Health, National Research Service Awards grant review committee.
- 1997 Federal Agency for Health Care Policy and Research, Small Grant Awards Review Committee

Administrative Activities

- 1991-1993 Education Advisory Committee, Division of Community Pediatrics, University of North Carolina
- 1991-1994 Clinical Services Advisory Committee, Division of Community Pediatrics, University of North Carolina
- 1991-1999 Continuous Quality Improvement Sub-committee, Division of Community Pediatrics, University of North Carolina
- 1991-1999 Continuous Quality Improvement Committee, Department of Pediatrics, University of North Carolina
- 1995-1996 Clinical Database Sub-committee, Office of Information Services, University of North Carolina
- 1992-1993 Task Force on Educational Applications of Computers in Medicine (TEAM), Dean's Office, University of North Carolina
- 1996 Community Medical Education Curriculum Planning Committee, University of North Carolina School of Medicine
- 1995-1997 Clinical Outcomes Advisory Committee (COAC), UNC Hospitals
- 1996-present Admissions Committee, Department of Biomedical Engineering
- 1996-present Curriculum Committee, Department of Biomedical Engineering
- 1997 Clinical Noting Committee, University of North Carolina
- 1997-1999 Managed Care Systems Group, University of North Carolina
- 1999 North Carolina Children's Hospital Task Force; Chair, Information Systems subcommittee
- 2000-2001 University of North Carolina Office of Medical Education, Educational Technology Advisory Committee.

Other Activities

- 1995-1996 Member Health and Safety Advisory Committee, Chapel Hill-Carrboro Schools
- 1995-1996 Member Drug Abuse Task Force, Chapel Hill-Carrboro Schools
- 1993-present Medical Student Advisor, University of North Carolina School of Medicine
- 1993-1998 Faculty Preceptor, Community Health Project for UNC medical students

Invited Talks

- August 2, 1990 Decision Analysis: Clinical Practice, Health Policy, and Research
Medicine/Pediatrics Combined Grand Rounds
University of North Carolina at Chapel Hill
- October 17, 1990 Decision Analysis and Occult Bacteremia

Pediatric Grand Rounds, Wake Memorial Hospital
Raleigh, North Carolina

Invited Talks (continued)

- June 5, 1991 Decision Analysis and Occult Bacteremia
Pediatric Grand Rounds, Moses Cone Hospital
Greensboro, North Carolina
- Sept 17, 1992 Decision Sciences and Clinical Practice
North Carolina Pediatric Society Annual Meeting
Atlantic Beach, North Carolina
- Feb 4, 1993 Peering at Peer Review and Reading the Readership:
Medical Literature Meets Clinical Practice
Medicine/Pediatrics Combined Grand Rounds
University of North Carolina at Chapel Hill
- Feb 26, 1993 Bayesian Networks for Clinical Decision Support, Medical Data
Management, and Machine Learning
Departmental Seminar, Biomedical Engineering
University of North Carolina at Chapel Hill
- Sept 7, 1993 Management of the Febrile Infant.
AHEC Pediatric Education Lectures, Wilmington, NC
- October 1994 Fever Without Source
Mountaintop Medical Assembly, Waynesville, NC
- October 1994 Failure to Thrive
Mountaintop Medical Assembly, Waynesville, NC
- March 8, 1996 Decision analysis: Principals and Practice
Pediatric Emergency Medicine Fellowship Conference
Miami Children's Hospital, Miami, FL
- October 26, 1996 Decision analysis: Principals and Practice
Epidemiology Section, American Academy of Pediatrics Annual Meeting
Boston, MA
- January 8, 1997 Screening Tests in Pediatrics, Area Health Education Center Continuing Medical
Education Lecture, Nash County Hospital, Rocky Mount, NC.
- May 7, 1997 Improving Quality of Pediatric Primary Care Practice: Office Systems for Prevention
Wilson Memorial Hospital, Wilson, NC
- June 25, 1997 Decision Analysis, Policy American College of Obstetrics and Gynecology
Leadership Program in Women's Health, Chapel Hill, NC.
- Sept 1, 1998 Childhood Injury Prevention: An Approach fo t Primary Care Physicians
Grand Rounds, Minneapolis Childrens Hospital, Minneapolis, MN
- Sept 1, 1998 Childhood Injury Prevention: An Approach fo t Primary Care Physicians
Grand Rounds, Saint Paul Childrens Hospital, Saint Paul, MN
- February 18, 1999 The Child Health Improvement Program: Computer Supported Preventive Care
Pediatric Grand Rounds, University of North Carolina at Chapel Hill

Invited Talks (continued)

- Nov 19-20, 1999 Medical Informatics Symposium, Gazi University, Ankara, Turkey
 “History of Medical Informatics in the US”
 “The Use of Computer-based Tracking and Reminder Systems”
 “Decision Analysis”
- January 6-7, 2000 “X things that clinical, health services and public health researchers
 need to know about informatics”
 Medical Informatics and Health Services Research: Bridging the Gap, a seminar
 jointly sponsored by the National Library of Medicine and
 the Agency for Healthcare Research and Quality
- March 29, 2000 “Managing Infants at Risk for UTI: The Data Behind the AAP Guidelines”
 Pediatric Grand Rounds, WakeMed, Raleigh, NC

Teaching Experience

- 2001-present Faculty, Medical Informatics Core Curriculum
 Regenstrief Institute for Health Care, Indianapolis, IN
- 1996-2001 Director, Medical Informatics Training Program
 Department of Biomedical Engineering, University of North Carolina
- 1997-2001 Course Director, Evaluation Methods in Medical Informatics Course (BMME 270)
 Department of Biomedical Engineering, University of North Carolina
- 1992-2001 Course Director, Clinical Reasoning and Decision Making Course (BMME 271)
 Department of Biomedical Engineering, University of North Carolina
- 1995-1997 Faculty, Medical Practice and the Community
 course for 1st and 2nd year medical students
 University of North Carolina
- 1994-1999 Clinical Instructor for Pediatric Nurse Practitioner Students
 School of Nursing, UNC, Chapel Hill, NC.
- 1993-1996 Graduate student research advisor, School of Public Health,
 University of North Carolina
- 1994 Workshop leader, Decision Analysis: Principles and Practice.
 National Meeting of the Ambulatory Pediatric Association
- 1993 Course Director, Utility Theory Course,
 National meeting of the Society for Medical Decision Making
- 1992-1996 Core Faculty, Medical Informatics Training Program, Department of Biomedical
 Engineering, University of North Carolina School of Medicine
- 1992 Workshop leader, Decision Analysis: Principles and Practice.
 SM Downs and TA Lieu, National Meeting of the Ambulatory Pediatric Association
- 1992-2001 Instructor, Methods in Clinical Research, post-graduate course,
 University of North Carolina

Teaching Experience (continued)

1991-1992	Faculty, International Clinical Epidemiology Network (INCLIN) Fellowship, University of North Carolina, Chapel Hill
1990,1991	Faculty, basic decision analysis course National meeting of the Society for Medical Decision Making
1990-2001	Faculty, core curriculum, Robert Wood Johnson Clinical Scholars Program, University of North Carolina, Chapel Hill
1990-1998	Faculty, medical student course in Clinical Epidemiology University of North Carolina School of Medicine
1989 - 2001	Clinical Instructor, pediatric clinics, wards, and nursery University of North Carolina Hospitals
1989 - 1991	Clinical Instructor, pediatric intensive care unit University of North Carolina Hospitals

Grant SupportPrincipal Investigator

<u>Dates</u>	<u>Title and Grantor</u>	<u>Total Direct Costs</u>	<u>% Effort</u>
1993-1994	American Academy of Pediatrics: Contract to Develop the Practice Parameter for the Management of Children with Urinary Tract Infection (UTI)	\$18,500	15%
1993-1994	University of North Carolina Hospitals: The Pediatric Health Maintenance System	\$21,940	
1993-1994	University of North Carolina: Enhancing the General Pediatric Clerkship with Computer Based Patient Simulations	\$3680	
1993-1998	American Academy of Pediatrics: Contract to Develop the Practice Parameter for the Management of Children with Fever without Source	\$56,849	10%
1995	University of North Carolina: Junior Faculty Development Award	\$3000	
1995	Orange County Partnership for Young Children: Computer-based Preventive Services Tracking to Improve Health and Well-being of Young Children	\$50,000	15%
1995	Contract with UNC Hospitals to Install the Child Health Improvement Program at UNC	\$15,000	
1996-1998	National Institutes of Health: Decision Analytic Evaluation of Computer-based Clinical Simulations	\$100,000	15%
1996-1999	Federal Agency for Health Care Policy and Research: Evaluating Computer Decision Support for Preventive Care	\$623,276	15%
1997-2002	National Institutes of Health: Duke-UNC Training Program in Medical Informatics	\$2,395,622	30%
1998-2003	Robert Wood Johnson Foundation: Computer Supported Preventive Care	\$240,000	40%
2000-2001	Program on Health Outcomes: Palm Computing for Adolescent Health	\$24,856	10%

Co-Investigator

1994-1996	National Institutes of Health: Information and Cognition in Medical Education	\$774,096.	15%
1997	North Carolina Department of Health and Human Services: North Carolina Immunization Registry	\$180,000	10%

Journal Articles & Papers

- Downs, S.M. A Program for Automated Summarization of On-Line Medical Records [Master's thesis]. Knowledge Systems Laboratory, Stanford University, Technical Report KSL-86-44, June, 1986. 64 pages.
- Downs, S.M., M.G. Walker, R.L. Blum. Automated Summarization of On-Line Medical Records. Pp. 800-804 in *Fifth World Conference on Medical Informatics, Medinfo 86**. North-Holland Publishing Company, 1986.
- Wiederhold, G.C.M., M.G. Walker, R.L. Blum, S.M. Downs. Acquisition of Knowledge from Data. Pp. 74-84 in *Proceedings of the International Symposium on Methodologies for Intelligent Systems*, Z.W.Ras and M. Zemankova (editors), Knoxville, Tennessee, October, 1986.
- Wiederhold, G.C.M., M.G. Walker, R.L. Blum, S.M. Downs, and I. deZegher-Geets. Acquisition of Medical Knowledge from Medical Records. In *Proceedings of Benutzergruppenseminar, Medizin Systems*, Munich, Germany, October 1987. (Page numbers not available)
- Griffith, L.M., S.M. Downs, J.A. Spudich. Myosin Light Chain Kinase and Myosin Light Chain Phosphatase from *Dictyostelium*: Effects of Reversible Phosphorylation on Myosin Structure and Function. *Journal of Cell Biology**, May 1987, Vol 104, p.1309.
- Downs SM, McNutt RA, Margolis PA. The Management of infants at risk for occult bacteremia: A decision analysis. *Journal of Pediatrics**, 1991; Vol 118, p. 11.
- Garrison HG, Downs SM, McNutt RA, Griggs TR. A cost-effectiveness analysis of pediatric intraosseous infusion as a prehospital skill. *Prehospital and Disaster Medicine**, 1992; Vol 7(3): p. 221.
- Ingram DL, Downs SM, McNutt RA, RESOLVE, a Macintosh-based generic decision tree program, in *Proceedings of the Seventeenth Annual Symposium on Computer Applications in Medical Care.**, p. 947, 1993, McGraw-Hill.
- O'Meara JJ, McNutt RA, Evans AT, Moore SW, Downs SM, A decision analysis of streptokinase plus heparin as compared with heparin alone for deep-vein thrombosis, *N Engl J Med**, 94, 330:1864-1869.
- Lohr JA, Downs SM, Dudley S, Donowitz LG, Hospital-acquired urinary tract infections in the pediatric patient: a prospective study. *Pediatr Infect Dis J,** 1994. 13(1): p. 8-12.
- Downs SM, Klein JD, Clinical preventive services efficacy and adolescents' risky behaviors, *Arch Pediatrics and Adol Med**, 1995; 149:374-379.
- Downs SM, Loda F, Garfunkel JM, Duration of hospital stay for apparently healthy newborn infants (editorial). *Journal of Pediatrics*, 1995; 127: 736-737.
- Downs SM, Arbanas JM, Cohen LR, Computer supported preventive services for children, in *Proceedings of the Nineteenth Annual Symposium on Computer Applications in Medical Care.**, p. 962, 1995, Hanley & Belfus, Inc..
- Friedman FP, Wildemuth BM, Muriuki M, Gant P, Downs SM, Twarog RG, deBliet R, A comparison of hypertext and boolean access to biomedical information, in *Proceedings of the 1996 American Medical Informatics Association Fall Symposium.**, Washington, DC Cimino JJ, Ed. 1996, Hanley and Belfus, Inc, Philadelphia. (Winner, award for Best Theoretical Paper)

Journal Articles & Papers (continued)

O'Brien PR, Downs SM, Loonsk J, Prototype of DAAT (Decision Analysis Aid Tool); an aid to medical decision making over the world wide web, in *Proceedings of the 1996 American Medical Informatics Association Fall Symposium**, Washington, DC Cimino JJ, Ed. 1996, Hanley and Belfus, Inc, Philadelphia.

Strauss, M.J., Khanna V, Koenig, J. D. Downs, S. M. Goldberg, S. H., *et al.*, *The cost of treating genital warts*. International Journal of Dermatology, 1996. 35(5): p. 340-8

Cohen LR, Runyan CW, Downs SM, Bowling MJ, Pediatric injury prevention counseling priorities. *Pediatrics* *; 1997; 99:704-710.

Downs SM, Friedman CP, Marasigan F, Gartner G, A decision analytic method for scoring performance on Computer-based patient simulations, in *Proceedings of the 1997 American Medical Informatics Association Fall Symposium**, Nashville, TN. Masys DR, Ed. 1997, Hanley and Belfus, Inc, Philadelphia. (Nominated, Best Theoretical Paper)

Wildemuth, B. M.; Friedman, C. P.; Downs, S. M. (June 1998). Hypertext versus Boolean access to biomedical information: A comparison of effectiveness, efficiency, and user preferences. *ACM Transactions on Computer-Human Interaction**, 5(2), 156-183.

Kemper, A.R., W.C. Bordley, and S.M. Downs, *Cost-effectiveness analysis of lead poisoning screening strategies following the 1997 guidelines of the Centers for Disease Control and Prevention*. Archives of Pediatrics & Adolescent Medicine*, 1998. 152(12): p. 1202-8.

Rendina MC, Downs SM, Carrasco N, Loonsk J, Bose C. *Effect of telemedicine on health outcomes in 87 infants requiring neonatal intensive care*. Telemedicine Journal*, 1998. 4(4): p. 345-51.

American Academy of Pediatrics. Committee on Quality Improvement. Subcommittee on Urinary Tract Infection, Practice parameter: the diagnosis, treatment, and evaluation of the initial urinary tract infection in febrile infants and young children. *Pediatrics**, 1999. 103(4 Pt 1):843-52.

Downs, S.M., *Technical report: urinary tract infections in febrile infants and young children. The Urinary Tract Subcommittee of the American Academy of Pediatrics Committee on Quality Improvement*. Pediatrics*, 1999. 103(4): p. e54.

Rosen AB, Fowler VG Jr, Corey GR, Downs SM, Biddle AK, Li J, et al. *Cost-effectiveness of transesophageal echocardiography to determine the duration of therapy for intravascular catheter-associated Staphylococcus aureus bacteremia*. Annals of Internal Medicine*, 1999. 130(10): p. 810-20.

Downs SM. Diagnostic testing strategies in childhood urinary tract infections. *Pediatric Annals*, 1999. 28(11): p. 670-6.

Alex R. Kemper, Peter A. Margolis, Stephen M. Downs, and W. Clayton Bordley, A Systematic Review of Vision Screening Tests for the Detection of Amblyopia Pediatrics* 1999; 104: 1220-1222.

Bennett; Jonathan E., Walton Sumner II, MD; Stephen M. Downs, MD, MS; David M. Jaffe, MD, Parents' Utilities for Outcomes of Occult Bacteremia. Arch Pediatr Adolesc Med*. 2000;154:43-48

Kemper AR, Downs SM. A Cost-effectiveness Analysis of Newborn Hearing Screening Strategies. Arch Pediatr Adolesc Med.* 2000;154:484-488.

Journal Articles & Papers (continued)

Travers DA, Downs SM, Comparing user acceptance of a computer system in two pediatric offices: A qualitative study. Proceedings of the American Medical Informatics Association 2000 Annual Symposium.* Nov 4-8, 2000, JM Overhage (ed), American Medical Informatics Association, Bethesda. (Finalist, Diana Forsythe Award for work at the intersection of medical informatics and the social sciences.)

Downs SM, Wallace MY, Mining association rules from a pediatric primary care decision support system. Proceedings of the American Medical Informatics Association 2000 Annual Symposium.* Nov 4-8, 2000, JM Overhage (ed), American Medical Informatics Association, Bethesda.

Barrios LC, Runyan CW, Downs SM, Bowling JM, Pediatric injury prevention counseling: an observational study of process and content. *Patient Education and Counseling*,* 2000; 44:141-9.

Rosen AB, Tsai JS, Downs SM, Variations in Risk Attitude by Race and Gender. *Medical Decision Making*, In Press

(* Peer reviewed)

Book Chapters

Margolis PA, Downs SM, Diagnostic Strategies and Clinical Decision Making, in *Practical Strategies in Pediatric Diagnosis and Therapy*. Kliegman RM, Nieder M, Super D Eds. 1996 by W.B. Saunders, Philadelphia.

Friedman, C. and S. Downs, *Alternatives to current practice: Decision theoretic methods*, in *Computer Based Examinations for Board Certification*, Mancall, et al, Editors. 1996, American Board of Medical Specialties: Everston.

Lohr JA, Downs SM, Schlager TA, Urinary Tract Infections, in *Principles and Practice of Pediatric Infectious Diseases*, Lon SS, Pickering LK, Prober CG, Eds. 1997, Churchill Livingstone, Inc, New York.

Published Abstracts

Kuczmariski, E.R., L.M. Griffith, S.M. Downs, and J.A. Spudich, Phosphorylation of Dictyostelium Myosin. *Biophysical Journal*, Feb 1982, Vol 32, #2, Part 2, p. 189a.

Griffith, L.M., S. M. Downs, M.P. Sheetz, J.A. Spudich, Purification of Dictyostelium Myosin Light Chain Phosphatase and Comparison of Rates of Phosphorylated and Dephosphorylated Myosin. *Journal of Cell Biology*, Nov 1983, Vol 97, #5, Part 2, p. 264a.

Jimison, H.B., S.M. Downs. The Design of an interactive Computer Aid for Medical Decision Making. *Medical Decision Making* Oct-Dec 1986, Vol 6, No 4, p. 277.

Downs SM, Margolis PA, McNutt RA. A decision analytic approach to the management of febrile infants without apparent focus of bacterial infection. *Medical Decision Making* 1989; Vol. 9, No. 4, p. 320.

Downs SM, McNutt RA, Margolis PA. Decision analysis, epidemiology, and occult bacteremia. *The Robert Wood Johnson Clinical Scholars Program 1990 National Meeting*, 1990; p. 18.

Downs SM, McNutt RA. Utility assessment of short term and permanent clinical outcomes. *The Robert Wood Johnson Clinical Scholars Program 1991 National Meeting*, 1991; p. 21.

Published Abstracts (continued)

- Garrison HG, Downs SM, McNutt RA, Griggs TR. Determining when pediatric intraosseous infusion should be incorporated as a prehospital skill: A decision analysis. *Prehospital and Disaster Medicine*, 1991; vol 6, p. 385.
- Downs SM, McNutt RA. Preferences for short term and permanent clinical outcomes *American Journal of Diseases in Children* ,1992, vol 146, p. 481.
- Downs SM, Klein JD. Clinical Preventive Service Efficacy and Adolescents' Risky Behaviors. *American Journal of Diseases in Children* ,1992; vol 146, P. 485.
- Downs SM, Freed GL, McNutt RA. How Original Articles Affect Clinical Practice. *Pediatric Research*, 1992; vol 31, p. 122A.
- Downs SM, McNutt RA. Utility assessment of short term and permanent clinical outcomes. *Medical Decision Making*, 1992; vol 12, P 324.
- O'Meara JJ, McNutt RA, Moore SL, Downs SM, Evans AT. Streptokinase for deep-vein thrombosis: Letting patient preferences guide our guidelines. *Medical Decision Making*, 1992; vol 12, P 328.
- Downs SM, Freed GL, McNutt RA. How decision analysis articles affect clinical practice [abstract]. *Medical Decision Making*, 1992; vol 12, P 328.
- O'Meara JJ, McNutt RA, Moore SL, Downs SM, Evans AT. The power of meta-analysis and decision analysis to change the mind of physicians: A pilot study. *Medical Decision Making*, 1992; vol 12, P 328.
- Cohen LR, Downs SM, Runyan CW, Clinically-based childhood injury prevention: A decision analysis to prioritize childhood injury prevention. American Public Health Association. Washington, DC: November, 1994. Presented by LR Cohen.
- Cohen LR, Runyan CW, Downs SM, Bowling JM, Pediatric Injury Prevention: A Delphi study of experts' priorities. 1996, *Proceedings of the American Public Health Association* , New York City.
- Downs SM, Friedman CP, Marasigan F, A decision analytic method for scoring performance on computerized patient simulations. *Medical Decision Making*, 1996; vol. 16, p. 458.
- Downs SM, Arbanas JM ,Cohen LR, Theodore AG, Morris MR, Computer supported preventive care for children. in Proceedings of the 38th Annual Meeting of the Ambulatory Pediatric Association, 1998, New Orleans.
- Kemper AR, Downs SM, Bordley, Cost-effectiveness analysis of lead poisoning screening in children. in Proceedings of the 38th Annual Meeting of the Ambulatory Pediatric Association, 1998, New Orleans.
- Bennett JE, Downs SM, Sumner WM, Jaffe DM, Parents' utilities for outcomes of occult bacteremia. in Proceedings of the 38th Annual Meeting of the Ambulatory Pediatric Association, 1998, New Orleans.
- Liu GL, Downs SM. A cost-effectiveness analysis of the rotavirus vaccine: considerations of possible associated risks of intussusception. Abstract 1213, presented Sunday, May 14th at the Year 2000 PAS/AAP Joint Meeting in Boston, MA.

Presentations at National Meetings

Downs SM, Margolis PA, McNutt RA. A decision analytic approach to the management of febrile infants without apparent focus of bacterial infection. Presented at the 1989 National Meeting of the Society for Medical Decision Making

Downs SM, McNutt RA, Margolis PA. Decision analysis, epidemiology, and occult bacteremia. Presented at The Robert Wood Johnson Clinical Scholars Program 1990 National Meeting, 1990.

Downs SM, McNutt RA. Utility assessment of short term and permanent clinical outcomes. Presented at The Robert Wood Johnson Clinical Scholars Program 1991 National Meeting, 1991.

Garrison HG, Downs SM, McNutt RA, Griggs TR. Determining when pediatric intraosseous infusion should be incorporated as a prehospital skill: A decision analysis Presented at the 7th Annual Scientific Assembly of the National Association of EMS Physicians

Downs SM, McNutt RA. Preferences for short term and permanent clinical outcomes Presented at the 1992 National Meeting of the Ambulatory Pediatric Association

Downs SM, Klein JD. Clinical Preventive Service Efficacy and Adolescents' Risky Behaviors. Presented at the 1992 National Meeting of the Ambulatory Pediatric Association

Downs SM, Freed GL, McNutt RA. How Original Articles Affect Clinical Practice. Presented at the 1992 National Meeting of the Society for Pediatric Research

Downs SM, McNutt RA. Utility assessment of short term and permanent clinical outcomes. Presented at the Fourteenth Annual Meeting of the Society for Medical Decision Making

Downs SM, Freed GL, McNutt RA. How decision analysis articles affect clinical practice. Presented at the Fourteenth Annual Meeting of the Society for Medical Decision Making

Downs SM, Friedman CP, Marasigan F, A decision analytic method for scoring performance on computerized patient simulations. Presented at the Eighteenth Annual Meeting of the Society for Medical Decision Making, Toronto, Canada, 1996

Downs SM, Friedman CP, Marasigan F, Gartner G, A decision analytic method for scoring performance on Computer-based patient simulations. Presented at the 1997 American Medical Informatics Association Fall Symposium, Nashville, TN

Downs SM, Arbanas JM, Cohen LR, Theodore AG, Morris MR, Computer supported preventive care for children. Presented at the 38th Annual Meeting of the Ambulatory Pediatric Association, 1998, New Orleans, LA.

Downs SM, Wallace MY, Mining association rules from a pediatric primary care decision support system. Presented at the American Medical Informatics Association 2000 Annual Symposium. Nov 4-8, 2000, Las Angeles, CA.