

EXECUTIVE SUMMARY

Master of Science in Epidemiology Degree
University of Colorado Denver- Anschutz Medical Campus
Colorado School of Public Health

The Colorado School of Public Health at the University of Colorado Denver proposes offering a Master of Science (M.S.) in Epidemiology degree beginning in academic year 2010-2011. This degree program will train students in the scientific foundations of epidemiology and prepare them to discover new knowledge to improve the health and well-being of the citizens of Colorado, the Rocky Mountain region and the world.

The Colorado School of Public Health (CSPH) opened in July 2008 and is the only School of Public Health in the Rocky Mountain region. The school offers both professional, practice-based degrees (M.P.H., Dr.P.H.) and academic degrees (M.S., Ph.D.), and is dedicated to training the public health workforce in Colorado and the surrounding states. The vision of the school is to inspire academicians, practitioners and students to work collaboratively to assure that all people and communities are healthy and their environments sustainable. The M.S. in Epidemiology degree is an integral part of the CSPH plan to achieve this vision and to become accredited in 2010. This proposal outlines the demand for this program and the feasibility of offering the M.S. in Epidemiology degree.

The public health system in this country is experiencing a severe shortage of trained professionals at the same time public health threats such as chronic diseases, environmental contamination and disruption, and rural and minority health disparities are increasing. Addressing this workforce shortage requires strong academic and professional education programs that will prepare students and working professionals for the ever-increasing challenges facing our public health system. Offering an M.S. in Epidemiology will address the shortage of trained professionals by providing an academic degree in a core public health discipline that is not available anywhere else in the Rocky Mountain region.

The degree programs in the CSPH are being adapted for distance education to better serve the workforce in the region. This is especially important for working professionals whose ability to travel to a campus may be limited. In an effort to extend the accessibility of CSPH programs across the region, classes are offered online, in the evenings, as intensive sessions, and in a variety of locations.

One of the core values of the CSPH is having a culture and behaviors that are ethical, inclusive, creative and sensitive to health disparities. Therefore, all of the school's programs work to build an inclusive, culturally competent institution that trains health professionals who are knowledgeable and respectful of diversity in society and dedicated to ensuring health equity among populations.

The plans for the new Colorado School of Public Health included changing the focus of the school from a primarily research-based institution to a more balanced model which increased the educational programs component of the school. This has allowed faculty more time for teaching and the school to enroll a greater number of students. It is anticipated that tuition revenue will cover all costs of this new degree program.

UNIVERSITY OF COLORADO DENVER
Anschutz Medical Campus
Colorado School of Public Health

PROPOSAL FOR A MASTER OF SCIENCE IN EPIDEMIOLOGY DEGREE
May 2009

Prepared for:

University of Colorado President's Office
University of Colorado Board of Regents
Colorado Commission on Higher Education

A.1. Description of Program

The proposed Master of Science (M.S.) program in epidemiology provides graduate-level training in the causes, distribution, and control of disease in populations, with an emphasis on epidemiologic methods and training in human diseases in populations. This degree is an integral part of the new Colorado School of Public Health (CSPH) academic plan, which proposes to offer both public health practice degrees (M.P.H., Dr.P.H.) and basic science degrees (M.S., Ph.D.), and to become accredited by the Council on Education in Public Health (CEPH) in 2010. The degree provides training in the scientific foundations of epidemiology and prepares individuals to address complex public health issues. Through developing sophisticated analytic and research skills, as well as an understanding of the environmental, social and ethical factors that contribute to health and wellness in the community, scientists trained in this program will be prepared for careers in epidemiologic research, and development and evaluation of new approaches to public health surveillance, risk assessment and epidemic investigation.

Didactic course work is required in epidemiology, biostatistics, public health and ethics. Students also will have didactic training through electives in epidemiology. The culmination of this degree program is a project in the form of a thesis or peer-reviewed, publishable paper.

A.2. Program Goals

The M.S. in Epidemiology is designed to train scientists who can implement and assist with the development of epidemiologic studies that meet the rigors of the scientific community.

Students in the program will:

- Acquire in-depth knowledge of epidemiology, including theory, practice and research
- Develop the ability to analyze public health problems and develop hypotheses to address them
- Develop specific skills in study design, data analysis, biological principles underlying human diseases, and disease assessment and control in populations

- Prepare for jobs in public health organizations, academic institutions and private biomedical companies

B. Concerns to be Addressed

B.1. Bona Fide Need: Student Demand and Workforce Demand

a. Student demand

The target market for the M.S. in Epidemiology degree is students with a bachelor-level education in biology, public health, analytical sciences or other health-related field, and an interest in a research career in epidemiology. Additionally, prospective students may include professionals with degrees in medicine, veterinary medicine, nursing, and other fields. The program will recruit students who seek to develop in-depth knowledge of epidemiology and expand their skills in research, data analysis and study evaluation.

The national shortage of public health professionals is well documented in reports from the Institute of Medicine¹, and the Association of Schools of Public Health (ASPH)². It is important that Colorado train scientists to work in public health in order to retain them for the state's public health workforce. Students that leave the state for their education often do not return after completing the degree, contributing to the shortage of trained professionals in Colorado and the Rocky Mountain region³.

The Colorado School of Public Health Initiative conducted a survey of Colorado's public health workforce in the spring of 2007 to gather information on student interest in public health programs and their perspectives on the new school. Five percent of total respondents and 22% of respondents interested in an M.S. degree indicated an interest in personally pursuing an M.S. in Epidemiology.

Enrollment Projections

Enrollment into the Master of Science in Epidemiology program is projected to be 3-5 new students/year for the first five years. Enrollment projections are provided in Appendix A. Information about assumptions is in section 6.

Applicant Pool

The annual national pool of potential applicants is approximately 678 for the M.S. in Epidemiology degree, based on an estimate derived from 2007 application and enrollment data collected by the ASPH⁴. Epidemiology was the program area receiving the most applications for public health degrees (6784; 21.4% of all applications) in 2007. Approximately 10% of these applications were for a master's degree. In addition to this national applicant pool, there were a number of local respondents to the Colorado workforce survey who indicated an interest in pursuing this M.S. degree now.

¹ Institute of Medicine. 2003. *Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century*. K Gebbie, L Rosenstock, and LM Hernandez, Eds. National Academies Press, Washington, DC, 290 pp.

² Association of Schools of Public Health. *The American Public Health Workforce Shortage: Left Unchecked, Will We Be Protected?* Issue Brief, September 2006, APHA Washington, DC. 12 pp.

³ Colorado Department of Public Health and the Environment. *Colorado Turning Point Initiative*. 2001. J. Berman, ed. 18 pp.

⁴ Association of Schools of Public Health. *2007 Annual Data Report*. Fall 2007. ASPH Washington, D.C. 73 pp.

Working Students

While the M.S. program will attract primarily traditional students, the program will allow working students flexibility in completing the program. The CSPH currently has three of the required courses online (Introduction to Epidemiology, Applied Biostatistics and Foundations of Public Health) and is planning to have several more available in academic year 2009-10. In addition, classes delivered in a condensed timeframe during the summer allow students to commit a shorter block of time to complete a course. The school as a whole is moving its professional programs to a distance format to accommodate students in the region who do not live along the Front Range. This will give working students in the M.S. in Epidemiology program more options for completing the didactic requirements off-site.

Under-represented Groups

Instituting a culture of respect for and inclusion of under-served groups, not just representation, is an underlying value of the CSPH that will enable the school to recruit and retain a diverse student body. Efforts will include promoting diversity on all faculty, staff and student selection committees, and integration of cultural competence training into all facets of the school's programs. Through engagement of students with diverse backgrounds, we endeavor to enhance the quality of not only the Colorado School of Public Health and its programs but the larger institution and community in which we participate.

b. Workforce demand

This is a degree not currently offered in Colorado or the surrounding states and potential students in the workforce would now have the opportunity to pursue a masters-level graduate degree in epidemiology to enhance their public health credentials and skills. There is an increasing demand for individuals with this training locally, nationally, and internationally. Locally, we anticipate this program to fill a critical need for qualified staff scientists at the UC Denver Anschutz Medical Campus and within the expanding biosciences industry along the Front Range. The 2007 Colorado public health workforce survey mentioned above demonstrated a local demand for the proposed degree program and we anticipate receiving applications from the public health workforce in neighboring states that also do not have access to this degree within their universities.

B.2. Role and Mission Criteria

The M.S. in Epidemiology degree is congruent with the statutory mission statement for the University of Colorado Health Sciences Center campus (now AMC) to "offer specialized baccalaureate, first-professional, masters, and doctoral degree programs in health-related disciplines and professions." The field of Epidemiology is the study of the health of populations, and the proposed master's degree is specifically focused on improving the health of communities. Additionally, the proposed degree furthers the campus mission of being "affiliated with the University of Colorado Hospital and other health care facilities that offer settings for education, clinical practice, and basic and applied research." The research projects for this new degree will be conducted in health care and public health facilities in Denver, in other parts of the region and in some cases, nationally and internationally. It is anticipated that these affiliations will benefit these health-related facilities as well as the students in the program. The proposed degree also addresses the

UC Denver role and mission of “excellence in creating, discovering and applying knowledge to improve the health and well-being of Colorado and the world.” The degree will train future members of our public health workforce to discover new ways to prevent and control disease and develop sustainable, healthy environments.

This new program is an integral part of the CSPH mission “to promote the physical, mental, social and environmental health of people and communities in the Rocky Mountain Region and globally.” An M.S. in Epidemiology prepares students to address a wide variety of health-related issues that affect many people as individuals, and therefore can be addressed on a much larger scale at the population level. The CSPH academic plan is to offer both public health practice degrees (M.P.H., Dr.P.H.) and basic science degrees (M.S., Ph.D.) to fulfill our mission, and to become accredited by the Council on Education in Public Health (CEPH). The CSPH faculty is highly qualified to teach and mentor students for these degrees based on their experience with M.S.P.H., M.S. and Ph.D. students over the past 25 years.

B.3. Duplication

This program does not duplicate any degree programs offered within the Colorado School of Public Health or at other educational institutions in the region. The M.S. degree is a research-based degree and is distinct from the M.P.H. in Epidemiology degree offered in the Colorado School of Public Health. The M.P.H. is a professional, applied science degree that prepares students to go into public health practice and implement defined programs and protocols. Course work for the M.P.H. is broad and includes training in all of the core areas of public health (biostatistics, epidemiology, community health, environmental health and health services policy); courses for the M.S. degree focus on providing in-depth knowledge of epidemiology by requiring classes in many specific areas of this discipline rather than across all public health disciplines. Furthermore, the thesis/publishable paper requirement for the M.S. is a research-based project whereas the culminating experience for the M.P.H. is a practice-based project.

A graduate with an M.S. in Epidemiology is trained in epidemiologic theory and methods appropriate for scientific investigations in populations including etiologic studies of disease causation, observational studies of factors influencing human diseases, clinical trials, or evaluation of screening tools to assess disease risk. Graduates with an MPH degree are prepared to implement public health programs in federal, state or local health departments, for community health organizations and for other similar agencies. The focus is on the practice of disease prevention and health promotion. Graduates with an M.S. degree are trained to create new knowledge through research, which is then used by public health agencies to initiate new disease prevention and health promotion programs. Careers chosen by students with an M.S. in epidemiology are most often in academics or research.

Colorado State University offers an M.S. degree in Environmental Health with a specialization in epidemiology. That program differs from the proposed M.S. in Epidemiology in both depth and scope. The CSU program is principally an environmental health program with four required, upper level epidemiology courses (10 credit hours). Available epidemiology electives are limited and not required. The proposed M.S. in Epidemiology at UC Denver requires students to take 18 credit hours in specific areas of

epidemiology and another four credits in epidemiology electives. The curriculum covers a broader range of epidemiology topics and requires more in-depth exposure to analytic and statistical methods in epidemiology. A letter of support from the Head of the Epidemiology Section in the CSU Department of Environmental and Radiological Health Sciences is attached in Appendix B.

B.4. Statutory Requirements

The M.S. in Epidemiology degree program conforms fully to statutory requirements including 23-1-125 C.R.S., the Student's Bill of Rights.

C. Program Quality and Institutional Capacity

C.1. Admission, Transfer and Graduation Standards

a. Admission standards

1. Baccalaureate degree in a scientific field from an accredited college or university, or completion of work equivalent to the baccalaureate or master's degree in a scientific field given at this university. Minimum undergraduate GPA of 3.00 on a 4.00 scale.
2. Differential calculus.
3. Two official copies of all academic transcripts.
4. Reports of Graduate Record Examination (GRE) scores taken within the last five years, or an equivalent measure of the student's preparation to enter graduate study, e.g. an earned M.S./M.A. or Ph.D.; MCAT scores; or completion of at least 12 semester hours of transferable graduate-level coursework at UC Denver.
5. Curriculum vita.
6. Four letters of recommendation from supervisors, professors or other individuals qualified to comment on past performance and the ability to perform graduate work.
7. A short essay (two-page limit) describing the applicant's background, career goals and reasons for applying to the program. Relevant experience and educational coursework are an important factor when considering applicants.
8. Foreign applicants from non-English speaking countries must also submit scores of the Test of English as a Foreign Language (TOEFL) and a financial statement demonstrating support for at least two years of study. The TOEFL requirement is waived if the foreign student completed a baccalaureate or graduate-level degree program at an English-speaking college or university. Foreign physician applicants must take the GRE.
9. The Admissions Committee may request a personal interview to complement the information provided in the application materials.

b. Transfer standards

Transfer students from other accredited graduate programs will be considered under the same criteria as a de novo admission. They will need to meet all of the same

requirements for regular admission. The criteria for accepting transfer graduate credits (maximum 12 semester hours) will include:

- The courses are recommended by the M.S. in Epidemiology program for transfer and approved by the program faculty.
- Grades of B (3.00 on a 4.00 scale) or better were obtained in the courses. No pass/fail or satisfactory/ unsatisfactory grades will be accepted.
- The courses were completed within five years of the time of the student's request for transfer.

c. Admissions Committee

The Admissions Committee for the M.S. in Epidemiology will be comprised of the Program Director, one additional faculty member within the Department of Epidemiology, one faculty member from another department within the CSPH, one community representative with knowledge of the community and private sector needs for graduates, and one representative to the CSPH student council. The program will work to constitute a committee with diverse membership. The goals are to promote a diverse student body as well as recruit and retain students from under-served groups. The committee will review and evaluate all applications in accordance with the admission standards. They will select qualified applicants and assign a graduate advisor to each enrolled student.

d. Academic probation

The GPA of students enrolled in the M.S. program must be 3.00 or above to remain in good standing. Should a student's GPA fall below 3.00, the Graduate School will notify the student in writing that he/she is being placed on academic probation and is required to attain a cumulative GPA of 3.00 or above within the following two semesters. If the student's GPA does not meet this standard by the end of the second semester on probation, the Program Director, CSPH Dean and Associate Dean for Education and Student Affairs will recommend to the Dean of the Graduate School that the student be dismissed from the program. Students may petition the Program Director for an extension of the probation period in the case of extenuating circumstances.

Any student who is dismissed from the Graduate School following unsuccessful academic probation may reapply for admission to the same or a different graduate program after one year and with evidence of better preparation to pursue a graduate degree.

e. Graduation requirements

Students must:

- Complete all required curriculum
- Maintain a 3.00 grade point average
- Pass a cumulative exam given after the first year of coursework
- Complete a thesis or a publishable paper

C. 2. Curriculum Description and Assessment Process

a. Curriculum description

The M.S. in Epidemiology program addresses the public health competencies of this field and will require a total of 38 semester credit hours. Average time to completion of the program is 2.5 years. The credit hours are broken down as follows:

- 18 in required epidemiology core courses
- 9 in required biostatistics courses
- 4 in epidemiology electives
- 2 in a public health core course
- 1 in research ethics
- 4 thesis credits

b. Master of Science in Epidemiology Courses

TOPIC/TITLE	UCDenver COURSE #	CREDITS	
<u>Epidemiology Core Courses</u>			
Introduction to Epidemiology	EPID 6630	3	
Analytical Epidemiology	EPID 6631	3	
Advanced Epidemiology	EPID 6632	3	
Research Methods in Epidemiology	EPID 6626	3	
Epidemiology of Communicable Disease	EPID 6635	3	
Chronic Disease Epidemiology	EPID 6636	3	
Total		18	
<u>Biostatistics Requirements</u>			
Biostatistical Methods I/II	BIOS 6611/6612	6	
SAS Database Design and Management	BIOS 6680	3	
Total		9	
<u>Epidemiology Electives at UC Denver</u>			4 total
Genetic and Molecular Epidemiology	EPID 6639	2	
Clinical Epidemiology	EPID 6629	1	
Injury Epidemiology and Control	EPID 6637	2	
Cancer Prevention and Control	EPID 6622	2	
Cardiovascular Epidemiology	EPID 6638	1	
Introduction to Systematic Reviews	EPID 6646	1	
Public Health Surveillance	EPID 6624	2	
<u>Public Health Competency</u>			
Foundations in Public Health	PUBH 6600	2	
<u>Research Ethics</u>			1 total
Ethics in Research	CLSC 7151	1	

Thesis Credits **4 total**

TOTAL CREDIT HOURS **38**

c. Sample Curriculum

YEAR 1

Introduction to Epidemiology	EPID 6630	3
Biostatistical Methods I	BIOS 6611	3
Foundations in Public Health	PUBH 6600	2
Ethics in Research	CLSC 7151	1
Advanced Epidemiology	EPID 6632	3
Research Methods in Epidemiology	EPID 6626	3
SAS Database Design and Management	BIOS 6680	3
Biostatistical Methods II	BIOS 6612	3
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TOTAL		21

YEAR 2

Analytical Epidemiology	EPID 6631	3
Epidemiology of Communicable Disease	EPID 6635	3
Chronic Disease Epidemiology	EPID 6636	3
Cancer Prevention and Control	EPID 6622	2
Public Health Surveillance	EPID 6624	2
Thesis	EPID	2
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TOTAL		15

YEAR 3 (1 semester)

Thesis	EPID	2
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TOTAL		2

TOTAL CREDIT HOURS **38**

d. Assessment Plan

Student assessment

The student assessment plan for the Master of Science in Epidemiology degree is composed of several tools that will be used to evaluate the goals outlined in section **II.A.2.** Program Goals. Faculty will be encouraged to use assessment techniques and tools provided by the UC Denver Center for Faculty Development for student assessment in coursework. The student's knowledge of his/her chosen focus area, the broader fields of epidemiology and public health, the program competencies and the development of study design and analytic skills used in epidemiology research will be assessed during individual courses and through the comprehensive exam administered at the end of the first year of didactic course work.

The ability to assess public health problems and develop successful approaches to analyzing and solving them will be assessed primarily during the research project phase of the program. Students will be required to identify a public health problem of significance to the community, develop a research hypothesis to address the problem, conduct the study, and analyze and interpret the results.

Program assessment

Program assessment of the M.S. in Epidemiology curriculum and research experience will be accomplished through student evaluations of individual courses and of the program in its entirety. Regular program review will be conducted by the CSPH curriculum committee and will include an evaluation of how well the curriculum addresses the required competencies. Student placement or advancement in professional jobs following degree completion will be tracked as a measure of program outcomes, as will the long-term success of graduates. In addition, input will be sought continuously from current students, graduates, and the public health community about new issues that should be addressed by the curriculum. These indicators of program quality, in addition to periodic assessments conducted by the Council on Education in Public Health (the accrediting body for schools of public health) will be used to modify curriculum and program delivery as necessary. All efforts and rationale for changes will be fully documented in re-accreditation reports.

Academic outcomes assessment of student learning will be conducted through multiple and varied assessments in an ongoing and systematic way across individual students, courses, and at the program level to meet the Higher Learning Commission of the North Central Association's every ten year accreditation review.

C.3. Professional Requirements or Evaluations

a. Professional accreditation

The Colorado School of Public Health will apply to the Council on Education in Public Health (CEPH) for accreditation in 2010. CEPH is an independent agency recognized by the U.S. Department of Education to accredit schools of public health and certain public health programs offered in settings other than schools of public health. Among other criteria, the Council requires that the school demonstrate that there are adequate numbers of faculty available to support the educational programs. The instructional matrix is a component of the documentation that is supplied to this accrediting body so the classes are designed to very clearly support the public health specialization covered by the degree. There are no specific requirements or restrictions on program content, mode of delivery or length of the program.

b. Timetable for completion

Students will have two years to pass the cumulative exam and must complete the thesis or publishable paper and public defense of the project within five years of entering the program. An extension for reason of one year may be granted by the Dean of the Graduate School upon the request of the Program Director. The average program completion time is 2.5 years.

c. Program faculty

The faculty of the Department of Epidemiology within the CSPH will have primary responsibility for program delivery. All of the teaching faculty have graduate-level teaching experience and graduate degrees (primarily terminal degrees) in their field of expertise. The faculty are nationally and internationally recognized educators, researchers and public health practitioners who are currently teaching or practicing in public health-related fields. Teaching faculty vitae are compiled in Appendix E.

Affiliated faculty listed below include clinical faculty and those with primary or secondary appointments from departments within the CSPH and other schools at the Anschutz Medical Campus that may either be involved in teaching or mentoring students in the M.S. program. Vitae of primary faculty are attached.

APPOINTMENT	TITLE	AFFILIATION
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Biostatistics and Informatics

Barnette, J. Jackson, Ph.D.*	Associate Dean, Professor	CSPH
Baron, Anna, Ph.D.*	Professor	CSPH
Carlson, Nichole, Ph.D.	Assistant Professor	CSPH
Fairclough, Diane, Dr.P.H.	Professor	CSPH
Glueck, Debra, Ph.D.*	Assistant Professor	CSPH
Grunwald, Gary, Ph.D.*	Associate Professor	CSPH
Kechris, Katerina, Ph.D.*	Assistant Professor	CSPH
Kittelson, John, Ph.D.*	Associate Professor	CSPH
Lezotte, Dennis, Ph.D.*	Professor (Sec Head)	CSPH
Mark, Steven, MD, ScD	Professor	CSPH
MaWhinney, Sam, Ph.D.*	Associate Professor	CSPH
Ogden, Lorraine, Ph.D.*	Assistant Professor	CSPH

Epidemiology

Abdel-Maksoud, Madiha	Instructor	CSPH
Burns, Emily	Instructor	CSPH
Byers, Tim, MD, M.P.H.*	Professor	CSPH
Dabelea, Dana, MD, Ph.D.*	Assoc Professor	CSPH
DiGuseppi, Carolyn, MD, Ph.D. M.P.H.*	Assoc Professor	CSPH
Fingerlin, Tasha, Ph.D.*	Assist Professor	CSPH
Hamman, Richard, MD, Dr.P.H.*	Dean, Professor	CSPH
Hokanson, John, Ph.D.*	Assoc Prof (Dept Head)	CSPH
Marshall, Julie, Ph.D.*	Professor	CSPH
Morrato, Elaine, Dr.P.H.	Assist Professor	CSPH
Norris, Jill, Ph.D.*	Professor	CSPH
Orton, Heather	Instructor	CSPH
Sontag, Marci, Ph.D.*	Assist Professor	CSPH

Affiliated

Al-Tayyib, Alia	Assist Prof/ Rsch Scientist	CSPH/DPH
Hedegaard, Holly	Assist Clin Prof/ Mgr. EMS	CSPH/CDPHE
Hoffman, Richard	Assoc Professor	CSPH/private consultant
Miller, Lisa, MD, M.S.PH	Assist Professor	CSPH/CDPHE

* May serve as a primary research advisor

Abbreviations:

CDPHE	Colorado Department of Public Health and the Environment
CSPH	Colorado School of Public Health
DPH	Denver Public Health

C.4. Institutional Factors**a. Achieving diversity goals**

The Inclusion, Diversity and Health Equity mission of the Colorado School of Public Health is to build a diverse and representative academic community which recognizes the importance of social and economic justice in relation to health. In partnership with the non-academic community, the CSPH will contribute effectively to the achievement of health equity, leading to the elimination of health disparities. The CSPH will work to build an inclusive, culturally competent institution which includes the environment, policies and procedures, faculty, staff, leadership and student body. The CSPH will work to build an institution that trains culturally competent and sensitive health professionals who are knowledgeable and respectful of diversity in society and dedicated to ensuring health equity among all people. In pursuing this competence it will dedicate itself to engaging communities in a dialogue of mutual and reciprocal learning.

b. Effect of the program on other institutional programs and campuses

Epidemiology is important to many disciplines on the Anschutz Medical Campus including dentistry, medicine, nursing, and pharmacy. Expanding awareness of epidemiology as a scientific discipline within these professions will increase recognition of this field as an important component of biomedical education. Several degree programs at the AMC currently require CSPH epidemiology courses including the Clinical Sciences Ph.D. and the M.P.H. program. It is anticipated that interaction between the professional programs at AMC, academic programs at both AMC and the Downtown campus, and the M.S. in Epidemiology program will enhance the breadth and depth of all programs incorporating this discipline. Graduates of the M.S. in Epidemiology program will become researchers and collaborators for UC Denver's academic institutions.

It is possible that the M.S. in Epidemiology program may compete for a small number of students that apply to the existing M.P.H. in Epidemiology concentration. However, due to the substantial difference in the focus of the two degree programs (research vs. practice) they are more likely to draw from different applicant pools. In addition, given the current differential in enrollment projections between the two programs (the M.P.H. will enroll approximately ten times the number of students as the M.S.) the impact on this M.P.H. concentration will be minimal. The new M.S. is not expected to compete with the CSU M.S. in Environmental Health (epidemiology specialization) since the latter degree is focused on environmental health and does not provide the same level of epidemiology training.

The M.S. in Epidemiology is expected to be an avenue of entry into the Ph.D. in Epidemiology program at UC Denver. After one year of study in the M.S. program, and at the discretion of the Program Director, qualified students can decide to pursue the Ph.D. to attain a higher level of competence in the field. Since all of the students' M.S. coursework is applicable to the Ph.D. degree, the transition is streamlined and no time to

the Ph.D. degree is added by making the choice later. This would be attractive to prospective students who are not certain the Ph.D. is their goal and want the option of moving to the higher-level degree after one year of study in the M.S. program. This approach also gives the Program Director one year to evaluate the potential of the student to be successful in the Ph.D. program and it is anticipated this will have a positive effect on the quality of students in the Ph.D. program.

c. Effect of the program on existing resources

Upon opening in July 2008, the Colorado School of Public Health implemented a five-year plan which ensures the capacity to provide new academic programs as outlined in the school's original request for approval. The school replaced a grant-based financial model with a tuition-based plan that provides support for teaching and mentoring and allows for expansion of the educational programs. Faculty are compensated for teaching and advising students and can now devote more time to the educational programs of the school. Thus far, the plan has proven viable with an incoming class of students that will be roughly 1.5 times the size of incoming classes prior to the school's opening. There will be no new course development specifically for this small number of M.S. in Epidemiology students. New courses offered by the school would be developed to meet degree requirements for multiple CSPH degrees. The cost of advising has been projected and budgeted in Appendix C and a letter from the CSPH Dean attesting to the adequacy of resources for this new program is attached in Appendix B.

d. Formal relationships with institutions

The CSPH, which houses the Department of Epidemiology, is a collaborative school with formal agreements with Colorado State University and the University of Northern Colorado. CSU courses in epidemiology are available to students at UC Denver through this collaboration as well as access to their faculty for guidance. Although the M.S. in Epidemiology would not be a collaborative program with CSU at the outset, there may be opportunities in the future to enhance the program and create efficiencies by formalizing this relationship. UNC does not offer advanced training in epidemiology so the degree would not be a collaborative endeavor with that institution.

The M.S. in Epidemiology program will be governed by the rules and policies of the Graduate School at the University of Colorado Denver.

C.5. Physical Capacity and Needs

The CSPH is located on the UC Denver Anschutz Medical Campus on the third floor of Building 500. This space allocation is approximately 20,000+ square feet. The implementation of the M.S. in Epidemiology program should have minimal impact on existing physical resources such as library holdings, facilities and computers. Office space is not required for these students and the impact on classrooms is small since current class sizes can accommodate the 3-5 new students per year without creating additional sections. Appendix D details space requirements.

Office space

Office space is not required for these students.

Classroom Space

Classrooms, lecture halls, small group learning rooms and computer laboratories for educational programs are located in the education buildings (RC1, EDI, ED II) on the Anschutz Medical Campus. Planning for these facilities included CSPH program expansion space for graduate students as well as a computer laboratory.

C.6. Cost Description and Source of Funds

The M.S. in Epidemiology program is self-supporting with tuition revenue from students in the program. There are no other sources of revenue. The projections are based on the number of students enrolled each year, the number of credit hours taken in each year of the program, and student residency status.

Revenue

The following assumptions were made for the revenue projections:

New student enrollment

- Projected to be three in year one of the program, four in year two, and five thereafter

Residency

- 85% of new enrollees are Colorado residents
- 15% are out-of-state students. Out-of-state students become residents in the second year of their program

Average time to program completion

- 2.5 years

Projected student credit hours

- 21 in year one
- 15 in year two
- 2 in year three
- Total credit hours required for graduation is 38

Tuition

- \$325/SCH for Colorado residents
- \$875/SCH for non-residents

Expenses

Program expenses include faculty advising time and administrative support. Teaching time associated with incorporating these students into existing classes was extremely small and did not contribute to the cost of the program.

Expenses associated with faculty advising time were calculated using the following assumptions:

Thesis advising

- Begins in year two of a student's program and all faculty compensation for the students is provided in this program year. Advising compensation is calculated by determining the ratio of faculty advising time to the total faculty time. This is approximately 5% faculty time per student.

Program administration

- Expenses associated with program administration include an education coordinator at 10% FTE, and an education assistant at 15% FTE in years 1-3 and 25% FTE in years thereafter.

The cost description and source of funds are detailed in Appendix D.

C.7. Other Relevant Information

C.8. Reviewers Comments

The external reviewer's comments are in Appendix F. In response to the suggestions to clarify a number of points in the proposal, the following changes were made:

- It is clarified in the proposal that no new courses must be developed to offer the M.S. in Epidemiology degree.
- More information on the differences between the M.P.H in Epidemiology degree and the M.S. in Epidemiology degree was added including the differences in course work, culminating experiences and career paths.
- The statement that student recruitment into the M.S. program would not significantly impact recruitment into the M.P.H. program is better justified in the proposal.
- The student admissions standard requiring differential calculus was not removed although this was suggested by the reviewer. The two required biostatistics courses for the M.S. program are based on knowledge of differential calculus so this standard cannot be changed.
- The reviewer's suggestion that the Admissions Committee for the M.S. not include a community representative because it would not be a productive use of his/her time was not included in the proposal. The Colorado School of Public Health has experience including multiple members of our diverse community on the M.P.H. Admissions Committee with substantial success. Not only do they contribute their different non-academic and community perspectives but their suggestions for program integration with real-world public health needs have been invaluable.
- The faculty members that will serve as primary research advisors and thesis committee chairs are clarified.

- Additional information on the collaborative relationships between the CSPH partner institutions in relation to this new degree is provided.

Appendices

Appendix A: Enrollment Projection Table

Appendix B: Letters of Support

Appendix C: Projected New Expenses and Revenue for New Program

Appendix D: Physical Capacity Estimates

Appendix E: Teaching Faculty Vitae

Appendix F: External Reviewer's Comments

Appendix A: ENROLLMENT PROJECTIONS

Name of Program: Master of Science in Epidemiology

Name of Institution: Colorado School of Public Health

		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Full Implementation
1-a	In-state Headcount	2.5	6.4	9.7	11.2	11.7	11.7
1-b	Out-of-State Headcount	0.5	0.6	0.8	0.8	0.8	0.8
2	Program Headcount	3.0	7.0	10.5	12.0	12.5	12.5
3-a	In-state FTE	1.8	3.9	5.1	5.6	5.6	5.6
3-b	Out-of-state FTE	0.3	0.4	0.5	0.5	0.5	0.5
4	Program FTE	2.1	4.3	5.6	6.1	6.1	6.1
5	Program Graduates	0.0	0.0	3.0	4.0	5.0	5.0

See Section 6 of the proposal, Cost Description and Source of Funds, for the assumptions used in these calculations.

Jonathan Lurie, UC Denver Director,
Office of Policy & Fiscal Analysis

Date

Signature of Governing Board Information Officer

Date

Appendix B: LETTERS OF SUPPORT

Appendix C: PROJECTED NEW EXPENSES AND REVENUE FOR NEW PROGRAM

I. Expenses¹

		ESTIMATED AMOUNT in DOLLARS				
		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Operating Expenses						
1	Faculty	\$ -	\$ 21,903	\$ 29,204	\$ 36,505	\$ 36,505
2	Financial Aid specific to program	\$0	\$0	\$0	\$0	\$0
3	Instructional Materials	\$ 450	\$ 1,000	\$ 1,500	\$ 1,500	\$ 1,500
4	Program Administration	\$ 13,539	\$ 13,539	\$ 13,539	\$ 17,777	\$ 17,777
5	Rent/Lease	\$0	\$0	\$0	\$0	\$0
6	Laboratory & Other Operating Costs	\$0	\$0	\$0	\$0	\$0
7	Total Operating Expenses	\$ 13,989	\$ 36,442	\$ 44,243	\$ 55,782	\$ 55,782
Program Start-Up Expenses						
8	Capital construction	\$0	\$0	\$0	\$0	\$0
9	Equipment Acquisitions	\$0	\$0	\$0	\$0	\$0
10	Library Acquisitions	\$0	\$0	\$0	\$0	\$0
11	Total Program Start-Up Exp.	\$0	\$0	\$0	\$0	\$0
TOTAL PROGRAM EXPENSES		\$ 13,989	\$ 36,442	\$ 44,243	\$ 55,782	\$ 55,782

¹Per the directions, costs have not been inflated for any of the years subsequent to year 1.

II. Revenue²

		ESTIMATED AMOUNT in DOLLARS				
		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Tuition Revenue						
1	Resident Students	\$ 17,388	\$ 37,830	\$ 49,465	\$ 54,665	\$ 54,990
2	Non-resident Students	\$ 8,313	\$ 11,025	\$ 13,825	\$ 13,825	\$ 13,825
3	Total	\$ 25,700	\$ 48,855	\$ 63,290	\$ 68,490	\$ 68,815
4	Net	\$ 11,711	\$ 12,413	\$ 19,047	\$ 12,708	\$ 13,033

²Revenue has not been inflated for any of the years subsequent to year 1.

II. See proposal Section 6, Cost Description and Source of Funds, for the assumptions used in the cost and revenue calculations.

No new cash revenue will be generated by this new program.

The new program costs will be covered completely by tuition from the students enrolled in the M.S. in Epidemiology program.

III. Dean's Statement

Please see Appendix B for the Dean's statement verifying the adequacy of resources to support the new program.

Appendix D: PHYSICAL CAPACITY ESTIMATES

Name of Program: Master of Science in Epidemiology

Name of Institution: Colorado School of Public Health

Purpose: This table documents the physical capacity of the institution to offer the program and/or the plan for achieving the capacity. Complete A or B.

Part A

I certify that this proposed degree program can be fully implemented and accommodate the enrollment projections provided in this proposal without requiring additional space or renovating existing space during the first five years.

Governing Board Capital Construction Officer

Date

Part B

Table 2. Space, renovation and constructions requirements for the MS in Epidemiology degree program.

ASSIGNABLE SQUARE FEET	TOTAL NEEDED	AVAILABLE	RENOVATION		NEW CONSTRUCTION		LEASE/ RENT	REVENUE SOURCE*
			Immed	Future	Immed	Future		
Classroom	0 new	existing	0	0	0	0	0	0
Instructional Lab	0	0	0	0	0	0	0	0
Offices (shared)	0	0	0	0	0	0	0	0
Study	0	0	0	0	0	0	0	0
Special/ General Use	0	0	0	0	0	0	0	0
Other:	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0

* Capital Construction Fund (CCF), Research Building Revolving Fund (RBRF), Gift (GIFT), Grant (GR), Auxiliary Fund (AUX)

Attach a narrative describing the institutional contingency plan that addresses the space requirements of the proposed program or alternative delivery options, in the event that the request for capital construction or renovation is not approved.

Not applicable.

Roderick Nairn, Ph.D., UC Denver Provost
And Vice Chancellor for Academic and Student Affairs

Date

Governing Board Capital Construction Officer

Date

Appendix E: FACULTY VITAE

BIOGRAPHICAL SKETCH

NAME Al-Tayyib, Alia A	POSITION TITLE Assistant Research Scientist		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
College of William & Mary, Williamsburg, VA	BA	1997	Psychology
University of North Carolina, Chapel Hill, NC	MSPH	2004	Epidemiology
University of North Carolina, Chapel Hill, NC	PhD	2007	Epidemiology

Positions and Honors.

- 1998 to 2007 Social Sciences Analyst, Health Behavior and Measurement Program, RTI International, Washington, DC
- 2007 to date Assistant Research Scientist, Denver Public Health, Denver, CO
- 2008 to date Assistant Professor, Department of Epidemiology, Colorado School of Public Health, Denver, CO

Other Experience and Professional Memberships

- 2002 to date Member, American Sexually Transmitted Diseases Association
- 2002 to 2006 Graduate Research Assistant, Schools of Medicine and Public Health, University of North Carolina, Chapel Hill, NC
- 2004 to 2007 Graduate Teaching Assistant, Schools of Medicine and Public Health, University of North Carolina, Chapel Hill, NC
- 2005 Consultant, Implementing AIDS Prevention and Care Project, Family Health International, Amman, Jordan
- 2006 Intern, Department of HIV/AIDS, World Health Organization, Geneva, Switzerland

Peer-reviewed publications

- Cooley PC, Rogers SM, Turner CF, Al-Tayyib AA, Willis G, Ganapathi L. Using touch screen audio-CASI to obtain data on sensitive topics. *Computers in Human Behavior* 2001; 17: 285-293.
- Al-Tayyib AA, Rogers SM, Gribble JN, Villarroel MA, Turner CF. Effect of low medical literacy on health survey measurements. *American Journal of Public Health* 2002; 92(9): 1478-1480.
- Turner CF, Villarroel MA, Rogers SM, Eggleston EE, Ganapathi L, Roman AM, Al-Tayyib AA. Reducing bias in telephone survey estimates of the prevalence of drug use: A randomized trial of telephone audio-CASI. *Addictions* 2005; 100(10):1432-44.
- Rogers SM, Willis G, Al-Tayyib AA, Villarroel MA, Turner CF, Ganapathi L, Zenilman JM, Jadack R. Audio-computer-assisted interviewing to measure HIV risk behaviors in a clinic population. *Sexually Transmitted Infections* 2005; 81: 501-707.
- Villarroel MA, Turner CF, Eggleston EE, Al-Tayyib AA, Rogers SM, Roman AM, Cooley PC, Gordek H. Same-gender sex in the USA: Impact of T-ACASI on prevalence estimates. *Public Opinion Quarterly* 2006;70(2): 166-196.
- Rogers SM, Miller WC, Turner CF, Ellen JM, Zenilman JM, Rothman RE, Villarroel MA, Al-Tayyib AA, Leone PA, Gaydos C, Ganapathi L, Hobbs MM, Kanouse DE. Concordance of *Chlamydia trachomatis* infections within sexual partnerships. *Sexually Transmitted Infections* 2008; 84:23-28.
- Al-Tayyib AA, Miller WC, Rogers SM, Leone PA, Gesink Law DC, Ford CA, Rothman RE. Evaluation of risk score algorithms for detection of undiagnosed chlamydial and gonococcal infections in an emergency department setting. *Academic Emergency Medicine* 2008; 15(2); 126-134.

Al-Tayyib AA, Miller WC, Rogers SM, Leone PA, Gesink Law DC, Ford CA, Ellen JM. Healthcare access and follow-up of chlamydial and gonococcal infections identified in an emergency department. *Sexually Transmitted Diseases* 2008, 35(6):583-587.

Al-Tayyib AA, McFarlane M, Kachur R, Rietmeijer CA. Finding partners on the Internet: What is the risk for sexually transmitted infections? (*Sexually Transmitted Infections* 2008 Dec 19 [Epub ahead of print])

Turner CF, Al-Tayyib AA, Rogers SM, Eggleston EE, Villarreal MA, Roman AM, Chromy JR, Cooley PC. Improving telephone surveys of sexual behavior (in press, *International Journal of Epidemiology*)

Research Support

Active

Agency: American Sexually Transmitted Diseases Association
 Effective Dates: 07/01/08 – 07/31/10
 Principal Investigator: Alia Al-Tayyib
 Title: Detecting Chlamydial and Gonococcal Infection using Respondent Driven Sampling
 Description: This developmental award supports the adaptation and evaluation of respondent driven sampling as a programmatic approach to enhance existing screening activities for chlamydial and gonococcal infections with a focus on its potential public health utility.
 Role: Principal Investigator

Completed

Agency: NIH/NIAID 5 T32 A107001-28
 Effective Dates: 08/01/05 – 05/31/07
 Principal Investigator: P. Fredrick Sparling
 Title: Training in Sexually Transmitted Diseases and AIDS
 Description: Supports comprehensive training in STD/HIV.
 Role: Pre-doctoral trainee

BIOGRAPHICAL SKETCH

NAME <p style="text-align: center;">J. Jackson Barnette</p>	POSITION TITLE <p style="text-align: center;">Professor and Associate Dean for Education and Student Affairs</p>		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Ohio State University, Columbus, Ohio	BS	1966	Chemistry/ psychology
Ohio State University, Columbus, Ohio	MA	1968	Higher education administration
Ohio State University, Columbus, Ohio	PhD	1972	Education research, development and evaluation

Positions and Honors

1973-78	Assistant Professor of Educational Psychology, Pennsylvania State University, State College, Pennsylvania
	1973-74 Assistant Director, Center for Cooperative Research with Schools (CReWS)
	1974-77 Director, Center for Cooperative Research with Schools
	1977-78 Associate Director, Center for Education Research and Evaluation
Summer 1978	Visiting Assistant Professor, Western Michigan University, Kalamazoo, Michigan
1978-85	Assistant and Associate Professor of Educational Research and Evaluation, University of Virginia, Charlottesville, Virginia
1989-90	Visiting Professor, University of Mississippi, University, Mississippi
1985-90	Associate Professor of Educational Foundations, Memphis State University, Memphis, Tennessee
1990-1997	Professor of Educational Research, University of Alabama, Birmingham, Alabama
1998-2004	Associate Professor, Community and Behavioral Health, University of Iowa, Iowa City, Iowa
	1999-2004 Associate Dean for Education and Student Affairs Director of Master in Public Health Degree Programs Director of Summer Institute
2001-2004	Director, Center for Public Health Program Evaluation
2004 – 2008	Professor of Biostatistics, University of Alabama, Birmingham, Alabama Senior Associate Dean for Academic Affairs Director, MSPH in Clinical Research in Biostatistics,
2008 – Present	Professor, Department of Biostatistics and Informatics, Associate Dean for Education and Student Affairs, University of Colorado Denver, Denver, CO

Honors

1983	American Evaluation Association, President's Prize
1984	Phi Delta Kappa Service Award, University of Virginia
1995	Outstanding Commitment to Teaching Award, University of Alabama National Alumni Association (the highest teaching award at the University)
2000-2001	Fellow, Committee on Institutional Cooperation Academic Leadership Program,
2000	Midsouth Educational Research Association, Outstanding Research Paper
2004	Special Service Award, College of Public Health, University of Iowa
2004	Joy Goodwin Lecturer (invited), College of Veterinary Medicine, Auburn University

- 2006 Invited to represent the DHHS at Launch of the Public Health Foundation of India, Delhi,
- 2008 ASPH/Pfizer Public Health Academy of Distinguished Teachers

Selected peer-reviewed publications

- Hayman, J. & Barnette, J. (1977). The design and implementation of a future-oriented system for identifying national educational information needs. *Educational Planning*, 3, 1-11.
- Noll, R., Willower, D., & Barnette, J. (1977). Teacher self-actualization and pupil control ideology. *The Alberta Journal of Educational Research*, 23, 65-70.
- Barnette, J. & Branca, M. (1977). Learner objectives for a nutrition education curriculum: Part two-factor analysis. *Journal of Nutrition Education*, 10, 65-68.
- Barnette, J., Danielson, L., & Algozzine, R. (1978). DELPHI methodology: An empirical investigation. *Educational Research Quarterly*, 3, 67-73.
- Barnette, J. & Thompson, J. (1979). A descriptive assessment of the effect of evaluation on instruction. *Studies in Educational Evaluation*, 5, 77-86.
- Barnette, J. (1983). Naturalistic study of project interagency linkages: The linkage case study. *Educational Evaluation and Policy Analysis*, 5, 473-483.
- Barnette, J. (1983). Naturalistic approaches to gifted and talented program evaluation. *Journal for the Education of the Gifted*, 7, 26-37.
- Barnette, J. (1987). Review of: Michael H. Agar, *Speaking of ethnography*, Nigel G. Fielding and Jane L. Fielding, *Linking data*, Jerome Kirk and Marc C. Miller, *Reliability and validity in qualitative research*, and Maurice Punch, *The politics and ethics of fieldwork*. (First four books of Sage Qualitative Research Methods Series.). *Educational Studies*, 18, 576-582.
- Ross, S. M., Morrison, G. R., & Barnette, J. (1991). Using electronic study guides as instructional aids in college courses. *Journal of Structural Learning*, 11(1), 53-63.
- Smith, D., Smith, L., & Barnette, J. (1991). Exploring the Development of Leadership Giftedness. *Roeper Review*, 14(1), 7-12.
- Wheeler, J. & Barnette, J. (1994). Accountability practices of Alabama School Counselors. *Alabama Counseling Association Journal*, 20(2), 15-23.
- Barnette, J., Walsh, J., Orletsky, S., & Sattes, B. (1995). Staff development for improved classroom questioning and learning. *Research in the Schools*, 2(1), 1-10.
- Barnette, J. (1996). Responses that may indicate nonattending behaviors in three self-administered educational surveys. *Research in the Schools*, 3(2), 49-59.
- Miller, K. B. & Barnette, J. J. (1997). Perceptions of parental involvement programs in the elementary schools of Alabama. *Community Education Research Digest*, 11(2), 9-13.
- Lacy, B. & Barnette, J. (1997). Support for prayer in schools among appointed and elected Alabama superintendents and school board members. *Research in the Schools*, 4(1), 9-16.
- Nix, T. & Barnette, J. (1998). The data analysis dilemma: Ban or abandon. A review of null hypothesis significance testing. *Research in the Schools*, 5(2), 3-14.
- Nix, T. & Barnette, J. (1998). A review of hypothesis testing revisited: Rejoinder to Thompson, Knapp and Levin. *Research in the Schools*, 5(2), 55-57.
- Barnette, J. (1999). Nonattending respondent effects on the internal consistency of self-administered surveys: A Monte Carlo simulation study. *Educational and Psychological Measurement*, 59(1), 38-46.
- Barnette, J. & Gorham, K. (1999). Evaluation of teacher preparation graduates by NCATE accredited institutions: Techniques and barriers. *Research in the Schools*, 6(2), 55-62.
- Barnette, J. (2000). Effects of stem and Likert response option reversals on survey internal consistency: If you feel the need, there's a better alternative to using those negatively-worded stems. *Educational and Psychological Measurement*, 60(3), 361-370.
- Barnette, J., Kreiter, C., & Schuldt, S. (2000). Student attitudes toward same vs. -sex partnering in practicing physical examination skills. *Evaluation & The Health Professions*, 23(3):361-371.
- Blue, A., Barnette, J., Ferguson, K. & Garr, D. (2001). Evaluation methods for prevention education. *Academic Medicine Supplement*, 75(7):S28-S34.

Barnette, J. (2001). Likert survey primacy effect in the absence or presence of negatively-worded items. *Research in the Schools*, 8(1):77-82.

Barnette, J. & Wallis, A. (2003). Helping evaluators swim with the current: Training evaluators to support mainstreaming. In Barnette, J. & Sanders, J. (Eds.), *Mainstreaming Evaluation*, New Directions for Evaluation, 99, 51-61. Jossey-Bass.

Williams, J. K., Tripp-Reimer, T., Schutte, D., & Barnette, J. (2004). Advancing genetic nursing knowledge. *Nursing Outlook*, 52 (2), 73-79.

Barnette, J. & Wallis, A. (2005). The missing treatment design element: Continuity of treatment multiple post observations are used in time series and repeated measures study designs. *American Journal of Evaluation*, 26(1), 106-123.

Barnette, J. & McLean (2005). Comparative type I error control accuracy of four commonly used pairwise mean comparison procedures when conducted as protected and unprotected tests. *Journal of Modern Applied Statistical Methods*, 4(2), 446-459.

Barnette, J. (2005). ScoreRel CI: Software for computation of confidence intervals of commonly used score reliability coefficients. *Educational and Psychological Measurement*, 65(6), 980-983.

Research Support

Completed

CDC 2004-2005
 South Central Center for Public Health Preparedness
 Role: Advising on education evaluation methods, public health worker certification, and University-based student preparedness education

SAMHSA (Skinstad) 4/1/02-3/31/07
 Prairielands Addiction Technology Transfer Center
 Role: Co-investigator

CDC/NIOSH (Sprince) 7/1/03-6/30/08
 Heartland Center for Occupational Health and Safety
 Role: Center evaluator

HRSA (Atchison) 10/1/01-9/30/06
 Upper Midwest Public Health Training Center
 Role: Co-investigator and evaluator

K30 Clinical Research Training Program (Meeker) 9/15/2002-8/31/2007
 NIH-Center for Complementary and Alternative Medicine
 Role: University of Iowa PI, evaluator

BIOGRAPHICAL SKETCH

NAME <p style="text-align: center;">Anna E. Barón</p>	POSITION TITLE <p style="text-align: center;">Professor of Biostatistics and Informatics</p>		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Rice University, Houston, TX	BA	1977	Mathematical Science
University of Texas, Houston, TX	MS	1980	Biometry
University of Texas, Houston, TX	PhD	1984	Biometry
University of Colorado, Denver, CO	Fellowship	1986-87	Psychiatric epidemiology

Positions and Honors

1977-1978	Graduate Assistant, Biometry Discipline, University of Texas School of Public Health, Houston, Texas.
1978	Research Assistant, Hypertension Detection and Follow-Up Program, University of Texas School of Public Health, Houston, Texas.
1979	Statistician, Summer Internship, The National Center for Health Services Research, Hyattsville, Maryland.
1980-1984	Senior Research Assistant, National Heart and Blood Vessel Research and Demonstration Center, Baylor College of Medicine, Houston, Texas.
1983	Biostatistics Instructor, University of Texas School of Allied Health Sciences, Houston, Texas
1984-1992	Assistant Professor of Biometrics, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado
1987-1996	Adjunct Assistant Professor and Biostatistician, National Center for American Indian and Alaska Native Mental Health Research, Department of Psychiatry, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado
1989-1990	Visiting Biostatistician, Epidemiology Unit, Centro di Riferimento Oncologico (CRO); Aviano (PN), Italy (also May 1992; May 1994 and June 1995)
1992-2004	Associate Professor of Biometrics, with tenure, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado
1996-1997	Acting Head, Section of Biometrics and Biometrics Graduate Program, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, Colorado
1996-1997	Acting Director, Biometrics Graduate Program, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, Colorado
1997-2002	Head, Section of Biometrics, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, Colorado
2002-2006	Head, Section of Biometrics and Informatics, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, Colorado
2004-2008	Professor of Biometrics, with tenure, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado
June-July 2006	Visiting Faculty, Rice University Summer Institute of Statistics, Houston Texas
Sept-Nov 2006	Visiting Scientist, International Agency for Research on Cancer, Lyon France
2008-present	Professor of Biometrics, with tenure, Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Denver, Aurora, Colorado

Honors

1973-1977	Robert H. Ray Memorial Scholarship, Rice University, Houston, Texas
1986-1987	Ford Foundation Minority Postdoctoral Fellowship

- 1989-1990 Research Fellowship funded by National Cancer Institute International Affairs Program, Italian National Research Council, and Centro di Riferimento Oncologico, Aviano (PN), Italy
- 1991 Biometrics Faculty Teaching Award - given by Graduate Students in Biometrics
- 1995 Departmental Teaching Award - given by the Graduate Students in Public Health and Biometrics
- 2001 Departmental Teaching Award - given by the Graduate Students in Public Health and Biometrics

Selected peer-reviewed publications (from over 120)

- Barón, A.E., Freyer, B.S., Fixler, D.E. (1985). Longitudinal Blood Pressures in Blacks, Whites and Mexican Americans During Adolescence and Early Adulthood. American Journal of Epidemiology, 123:809-817.
- Savitz, D.A., Barón, A.E. (1989). Confounder Misclassification; Estimation of Effect and Method for Correction. American Journal of Epidemiology, 129:1062-9-1071.
- Talamini, R., Barón, A.E., Barra, S., Bidoli, E., La Vecchia, C., Negri, E., Serraino, D., and Franceschi, S. (1990). A Case-Control Study of Risk Factors for Renal Cell Cancer in Northern Italy. Cancer Causes and Control, 1:125-131.
- Barón, A.E. (1991). Misclassification Among Methods Used for Multiple Group Discrimination - the Effects of Distributional Properties. Statistics in Medicine, 10:757-766.
- Barón, A.E., Franceschi, S., Barra, S., Talamini, R., and La Vecchia, C.A. (1993). Comparison of the Joint Effects of Alcohol and Smoking on the Risk of Cancer Across Sites in the upper Aero-Digestive Tract. Cancer Epidemiology, Biomarkers and Prevention, 2:519-523.
- Takahashi, K., Kozono, Y., Waldschmidt, T.J., Berthiaume, D., Quigg, R.J., Barón, A.E., and Holers, V.M., (1997). Complement Receptors and Regulatory Proteins in the MRL/lpr Model of Human SLE: Altered Expression During Disease Progression. Journal of Immunology, 159:1557-1569.
- Marshall, G. and Barón, A.E. Linear Discriminant Models for Longitudinal Data (2000). Statistics in Medicine, 19:1969-1981.
- Ruttenber, A.J., Harrison, L.T., Barón, A.E., McClure, D., Glanz J., Quillin, R., O'Neill, J.P., Sullivan, L., Campbell, J., Nicklas, J.A. (2001). *hprt* Mutant Frequencies, Nonpulmonary Malignancies, and domestic Radon Exposure: "Postmortem" Analysis of an Interesting Hypothesis. Environmental and Molecular Mutagenesis, 37:7-16. *
- Fronczak, C.M, Barón, A.E., Chase, P. Ross, C., Brady, H.L., Rewers, M., Eisenbarth, G.S. Hoffman, M., Norris, J.M. (2003). In utero dietary exposures and risk of islet autoimmunity in offspring. Diabetes Care, 26: 3237-42.
- Novins, D.K. and Barón, A.E. (2004). American Indian Substance Use: The Hazards for Substance Use Initiation and Progression for Adolescents Ages 14 to 20. Journal of the American Academy of Child and Adolescent Psychiatry, 43(3):316-24.
- Gottlieb, S.L., Douglas, J.M, Foster, M., Schmid, D.S., Newman, D.R., Barón, A.E., Bolan, G., latesta, M. Malotte, C.K., Zenilman, J., Fishbein, M., Peterman, T.A., Kamb, M.L. for the Project RESPECT Study Group (2004). Incidence of Herpes Simplex Virus Type 2 Infection in Five Sexually Transmitted Disease Clinics and the Effect of HIV/STD Risk-reduction Counseling. J Infectious Diseases, 190(6):1059-67.
- Brown, S.C., Schonbeck, M.F., McClure, D., Barón, A.E., Navidi, W.C., Byers, T., Ruttenber, A.J. (2004). Lung cancer and internal lung doses among plutonium workers at the Rocky Flats Plant: a case-control study. Am J Epidemiol, 160(2):163-172.
- Nieto, Y., Franklin, W.A., Jones, R.B., Bearman, S.I., Pellom, J., Barón, A.E., Shpall, E.J. (2004). Prognostic significance of occult tumor cells in the apheresis products of patients with advanced breast cancer receiving high-dose chemotherapy and autologous hematopoietic progenitor cell support. Biol Blood Marrow Transplant, 10(6):415-425.
- Roche, J., Zeng, C., Barón, AE, Gadgil, S., Gemmill, R.M., Tigaud, I., Thomas, X., Drabkin, H.A. (2004). HOX expression in AML identifies a distinct subset of patients with intermediate cytogenetics. Leukemia, 18(6):1059-63.Witta, S.E., Gustafson, D.L., Pierson, A.S., Menter, A.,

- Holden, S.N., Basche, M., Persky, M., O'Bryant, C.L., Zeng, C., Barón, A.E., Long, M.E., Gibbs, A., Kelly, K., Bunn, P.A., Chan, D.C., Pallansch, P., Eckhardt, S.G. (2004). Phase I and pharmacokinetic study of exisulind and docetaxel in patients with advanced solid tumors. *Clin Cancer Res*, 10(21):7229-37.
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- Nieto, Y., Woods, J., Nawaz, F., Barón, A., Jones, R.B., Shpall, E.J., Nawaz, S. (2007). Prognostic analysis of tumour angiogenesis, determined by microvessel density and expression of vascular endothelial growth factor, in high-risk primary breast cancer patients treated with high-dose chemotherapy. *British Journal of Cancer*, 97(3):391-7.
- Norris, J.M., Yin, X., Lamb, M.M., Barriga, K., Seifert, J., Hoffman, M., Orton, H.D., Barón, A.E., Clare-Salzler, M., Chase, H.P., Szabo, N.J., Erlich, H., Eisenbarth, G.S., Rewers, M. (2007). Omega-3 polyunsaturated fatty acid intake and islet autoimmunity in children at increased risk for type 1 diabetes. *JAMA*, 298(12):1420-8.
- Marshall, G., De La Cruz-Mesía, R., Quintana, F, Barón, A.E. (in press; available online April 10, 2008). Discriminant analysis for longitudinal data with multiple continuous responses and possibly missing data. *Biometrics*. *
- Torkko, K.C., van Bokhoven, A., Mai, P., Beuten, J., Balic, I., Byers, T.E., Hokanson, J.E., Norris, J.M., Barón, A.E., Lucia, M.S., Thompson, I.M., Leach, R.J. (2008). VDR and SRD5A2 polymorphisms combine to increase risk for prostate cancer in both non-Hispanic White and Hispanic White men. *Clinical Cancer Research*. 14(10):3223-9.
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- Lamb, M.M., Yin, X., Barriga, K., Hoffman, M.R., Barón, A.E., Eisenbarth, G.S., Rewers, M., Norris, J.M. (2008). Dietary glycemic index, development of islet autoimmunity, and subsequent progression to type 1 diabetes in young children. *Journal of Clinical Endocrinology & Metabolism*. 93(10):3936-42.
- Andreeff, M., Ruvolo, V., Gadgil, S., Zeng, C., Coombes, K., Chen, W., Kornblau, S., Barón, A.E., Drabkin, H.A. (2008). HOX expression patterns identify a common signature for favorable AML. *Leukemia*. 22(11):2041-7.

Research Support

Active

NICHD (Schenkman) 04/11/03-12/31/09
 Exercise, Physical Function, and Parkinson's Disease
 Role: Biostatistician

NCI (Barón) 5/1/01-4/30/13
 UC Cancer Center Lung SPORE Biostatistics Core
 Role: Core Director since 5/01

NIDDK (Norris) 7/01/97 - 3/31/12
 Nutritional Etiology of Prediabetic Autoimmunity
 Role: Biostatistician

Completed

NIAAA (Novins) 09/15/02 - 9/14/05
 Alcohol Health Disparities in Two Indian Populations
 Role: Biostatistician

NCI (Eckhardt) 8/1/2004-2/28/2005

Overcoming Age-Related Barriers to Early Clinical Trials

Role: Biostatistician

NCI (Bearman) 9/2000-08/2005

Clinical Research in Stem Cell Transplantation

Role: Biostatistician

NCI (Drabkin) 09/01/03- 08/31/06

Quantitative HOX Expression as a Prognostic Marker in AML

Role: Biostatistician

NCI (Franklin) 10/1/2004-9/30/2007

Early Detection Research Network: Biomarkers Development Laboratory

Role: Biostatistician

NCI (Crane) 10/1/03-9/30/2007

Skin Cancer Prevention in a Pediatric Population

Role: Biostatistician

BIOGRAPHICAL SKETCH

NAME Emily K. Burns	POSITION TITLE Instructor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Notre Dame, Notre Dame, IN	BA	1997	Psychology
University of Colorado, Denver, CO	MD	2002	Medicine
University of Colorado, Denver, CO	Residency	2003-04	Physical med and rehabilitation
University of Colorado, Denver, CO	Residency	2004-06	Preventive medicine
University of Colorado, Denver, CO	MSPH	2006	Public health

Positions and Honors

- Jun 2007-present Instructor, Tobacco Program Evaluation Group, Colorado School of Public Health, University of Colorado Denver, Aurora, CO
- Aug 2006-Jun 2007 Senior Professional Research Assistant, Tobacco Program Evaluation Group, University of Colorado at Denver & Health Sciences Center, Aurora, CO
- 2006 Tobacco Policy consultant, American Cancer Society National Governmental Relations Department, Washington D.C.

Honors

- 2007-present National Institutes of Health, Health Disparities Loan Repayment Program Award
- 2002 Willard A. Smith Scholarship (Awarded for scholarship and promise in medicine at the end of medical school)
- 2001 *Alpha Omega Alpha* (top 5 in medical school class were chosen based on academic and extracurricular performance)
- 1997 *Phi Beta Kappa*
- 1993-1997 Joyce Scholarship (full academic scholarship to the University of Notre Dame)

Selected peer-reviewed publications

- Burns, E**, Levinson, AH, Wacker, M, Kimminau, M. Characteristics and self-reported smoking abstinence of phone vs. mail responders in a pilot study. *Social Science Research*, submitted.
- Willett, J, Hood, N, **Burns, E**, Swetlick, J, Wilson, S, Lang, D, Levinson, A. Clinical Fax Referrals to Tobacco Quit Line: Reach, Enrollment, and Participant Characteristics. *American Journal of Preventive Medicine*, in press.
- Burns, E**, Levinson, AH. (2008). Discontinuation of Nicotine Replacement Therapy Among Smoking-Cessation Attempters. *American Journal of Preventive Medicine* 34(3), 212-215.
- Burns, E**, Levinson, AH, Lezotte, D, Prochazka, AV. (2007). Differences in Smoking Cessation between Latinos and Anglos by Duration of Smoking. *Nicotine & Tobacco Research* 9(7), 731-7.
- Levinson A, **Burns E**, et al. Adolescent tobacco use and exposure, Colorado 2001-06. Tobacco Program Evaluation Group, University of Colorado Denver / AMC Cancer Center, 2007.
- Levinson A, **Burns E**, et al. Adult tobacco use and exposure, Colorado 2001-05. Tobacco Program Evaluation Group, University of Colorado Denver / AMC Cancer Center, 2007.

Burns, E, Levinson, A. *Factors contributing to the growing smoking prevalence gap between Latinos and Anglos in Colorado, 2001-2005.* Poster presentation accepted at the NIH Summit: The Science of Eliminating Health Disparities, December 16-18, 2008.

Burns, E, Levinson, A. *Survey mode effects in smoking status assessment.* Paper accepted at the RC33 7th Conference on Social Science Methodology, Naples, Italy, September 2008, not able to attend due to funding limitations.

Burns, E, Levinson, A. *Cessation incidence trends in Colorado: 1990-2005.* Poster presentation at the National Conference on Tobacco or Health, Minneapolis, MN, October 2007.

Burns, E, Levinson, AH. *Reasons for discontinuing NRT: Demographic differences and implications.* Poster presentation at the annual meeting of the Society for Nicotine and Tobacco Research, February 24, 2007.

Research Support

Active

Ohio Quits Evaluation (Levinson) 06/07-06/08

Ohio Tobacco Prevention Foundation

Goals: Assist in design and implementation, and provide evaluation of a novel comprehensive tobacco cessation program.

Role: Co-investigator

Tobacco Program Evaluation Group (Levinson) renewed July 2007-June 2010

Colorado Department of Public Health and Environment

Goals: Provide comprehensive and focused program evaluation of and research on the Colorado State Tobacco Education & Prevention Partnership.

Role: Co-investigator

BIOGRAPHICAL SKETCH

NAME Byers, Tim E	POSITION TITLE Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Ripon College, Ripon WI	B.A.	1969	Chemistry
Indiana University School of Medicine, Indianapolis, IN	M.D.	1973	Medicine
University of Michigan, Ann Arbor, MI	M.P.H.	1980	Public Health

Positions and Employment

- 1974-1976 General Medical Officer, Indian Health Service Hospital, Schurz, NV
- 1976-1977 Physician, Indian Community Clinic, Tacoma, WA
- 1977-1979 Physician, Sound Health (HMO), Tacoma, WA
- 1981-1987 Assistant, Associate Professor, Dept. Social and Preventive Medicine, SUNY, Buffalo, NY
- 1987-1989 Medical Epidemiologist, New Mexico Department of Health, Santa Fe, NM
- 1989-1995 Branch Chief, Division of Nutrition, Centers for Disease Control, Atlanta, GA
- 1995-pres Professor, Department of Preventive Medicine and Biometrics, University of Colorado
Program Leader, University of Colorado Comprehensive Cancer Center
- 1999-pres Associate Director, University of Colorado Comprehensive Cancer Center
- 2000-2005 Member, National Cancer Policy Board (IOM)
- 2002-2005 Vice Chair, Department of Preventive Medicine and Biometrics, UCHSC
- 2003-pres David F and Margaret Turley Grohne Chair in Cancer Prevention and Control
- 2003-pres Member, American Cancer Society National Board of Directors.
- 2005-pres Deputy Director, University of Colorado Comprehensive Cancer Center

Selected peer-reviewed publications (from over 280 since 1982)

- Byers T, Graham S, Swanson M. Parity and colorectal cancer risk in women. *J Natl Cancer Inst* 69:1059-1062, 1982.
- Byers T, Graham S, Rzepka T, Marshall J. Lactation and breast cancer: Evidence for a negative association in premenopausal women. *Am J Epidemiol* 121:664-674, 1985.
- Byers T, Haughey B, Marshall J, Swanson M, Graham S. Diet and lung cancer risk: Findings from the Western New York Diet Study. *Am J Epidemiol* 125:351-363, 1987..
- Byers T. Smoking cessation and the risk of non-respiratory malignancies. 1990 Surgeon General's Report on Smoking and Health, USPHS, Washington, DC, 1990.
- Byers T, Gorsky R. Estimates of costs and effects of screening for colorectal cancer in the United States. *Cancer* 70:1288-1295, 1992.
- Thompson F, Byers T. Dietary assessment resource manual. *J Nutr* 124:2245S-2317S, 1994.
- Byers T. Nutritional risk factors for breast cancer. *Cancer* 74:288-295, 1994.
- Byers T, Mullis R, Anderson J, Dusenbury L, Gorsky R, Kimber C, Krueger K, Kuester S, Mokdad A, Perry G. The costs and effects of a nutritional educational program following work-site cholesterol screening. *Am J Public Health* 85:650-655, 1995.
- Byers T. Body weight and mortality (editorial). *N Engl J Med* 333:723-724, 1995.
- Byers T, Rock C, Hamilton K. Dietary changes after breast cancer: what should we recommend? *Cancer Practice* 1997; 5:317-320.
- Byers T, Levin B, Rothenberger D, Dodd G, Smith R. American Cancer Society guidelines for screening and surveillance for the early detection of colorectal polyps and cancer. *CA Cancer J Clin* 47:154-160, 1997.
- Byers T. Hardened fat, hardened arteries? *N Engl J Med* 337:1544-1545, 1997..
- Byers T, Costanza M, Kattlive H. Screening mammography - when should it stop?" *Cancer Practice* 1997;5:52-54.

- Byers T, Mouchawar J, Marks J, Cady B, Lins N, Swanson GM, Bal DG, Eyre H.. The American Cancer Society goals: How far can cancer rates decline in the U.S. by the year 2015? *Cancer* 86:715-727, 1999.
- The WISEWOMAN writing group (Byers T, lead writer). Preventing cardiovascular disease among women attending screening for breast and cervical cancer: Rationale and design of the WISEWOMAN projects. *Prev Med* 28:496-502, 1999.
- Byers T. The observational epidemiology of changing weight: an appeal for reasons. *Epidemiology* 1999;10:662-4.
- Byers T. Diet, colorectal adenomas, and colorectal cancer. *New Engl J Med* 2000;342:1206-7.
- Brown, J, Byers T, Thompson K, Eldridge B, Doyle C, Williams A. Nutrition during and after cancer treatment: A guide for informed choices by cancer survivors. *CA Cancer J Clin* 51:153-187, 2001.
- Byers T. Food frequency dietary assessment: How bad is good enough? *Am J Epidem* 2001;154:1087-8.
- Innes K, Byers T. Smoking during pregnancy and breast cancer risk in very young women. *Cancer Causes and Control* 2001;12:179-185.
- Byers T, workgroup member and epidemiology subcommittee chair. "Weight Control and Physical Activity" (IARC Handbooks of cancer prevention, volume 6) International Agency for Research on Cancer, Lyon, France, 2002.
- Innes K, Byers T, Marshall J, Baron A, Orleans M, Hamman R. Association of a woman's own birth weight with subsequent risk for gestational diabetes. *JAMA* 2002;287:2534-41.
- Curry S, Byers T, Hewitt M (eds). Fulfilling the potential of cancer prevention and early detection. National Cancer Policy Board (IOM) report to be released 13 February, 2003.
- Innes K, Byers T First pregnancy characteristics and subsequent breast cancer risk among young women. *Int J Cancer* 2004;112:306-311.
- Byers T and Sedjo R. A weight loss trial for breast cancer recurrence: pre-menopausal, post-menopausal, both, or neither? *Cancer Causes Control* 2006;17:1-3.
- Belinsky S, Liechty K,and Byers T. Promoter Hypermethylation of Multiple Genes in Sputum Precedes Lung Cancer Incidence in a High Risk Cohort. *Cancer Res* 2006; 66:3338-44.
- Byers T, Barrera E, Fontham E, et al. A midpoint assessment of the ACS challenge goal to halve the U.S. cancer mortality rates between the years 1990 and 2015. *Cancer* 2006; 107:396-405.
- Byers T. Overweight and mortality among baby boomers -now we're getting personal *N Engl J Med* 2006; 355:758-60.
- Kushi L, Byers T, et al American Cancer Society guidelines on nutrition and physical activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity (*CA Cancer J Clin* 2006;56:254-281).
- Doyle C, Kushi L, Byers T et al Nutrition and Physical Activity During and After Cancer Treatment: An American Cancer Society Guide for Informed Choices *CA Cancer J Clin* 2006;56:323-53.
- Byers T and Sedjo R. A weight loss trial for breast cancer recurrence: pre-menopausal, post-menopausal, both, or neither? *Cancer Causes Control* 2006;17:1-3.
- Byers T. Understanding Cancer Trends. (book chapter) in *Principles and Practice of Oncology, 8th edition*, Vincent DeVita, ed, 2007.
- Byers T, Sedjo R. Public health response to the obesity epidemic – too soon or too late? *J Nutr* 2007;137:488-92.
- Sedjo RL, Byers T, Levin TR, Haffner SM, Saad MF, Tooze JA, D'Agostino RB Jr. Change in body size and the risk of colorectal adenomas. *Cancer Epidemiol Biomarkers Prev*. 2007 Mar;16(3):526-31.
- Cole B, Baron J, Sandler R, ... Byers T, ...Greenberg R A Randomized Trial of Folic Acid for the Prevention of Colorectal Adenomas. *JAMA* 2007; 297:2351-9.
- Sedjo RL, Byers T, Barrera E Jr, Cohen C, Fontham ET, Newman LA, Runowicz CD, Thorson AG, Thun MJ, Ward E, Wender RC, Eyre HJ; ACS Cancer Incidence & Mortality Ends Committee. A midpoint assessment of the American Cancer Society challenge goal to decrease cancer incidence by 25% between 1992 and 2015. *CA Cancer J Clin*. 2007 Nov-Dec;57(6):326-40.
- Byers T, Wolf H, Franklin W, Broderick S, Hirsch F, Barón A, Zeng C, Bunn P, Miller Y, Kennedy T. Sputum cytologic atypia as a predictor of lung cancer: Assessment of latency and histologic specificity. *Cancer Epid Biomarkers Prev* 2008;17;158-162.

“Statins, breast cancer, and an invisible switch?” Byers T. Cancer Epidemiol Biomarkers Prev. 2008. May 17 (e pub ahead of print).

Byers T, Trujillo S, Hines L. Re: Breast cancer incidence, 1980-2006: combined roles of menopausal hormone therapy, screening mammography, and estrogen receptor status J Natl Cancer Inst 2008;100:596.

Research Support

Active

NHI/NCI (Bunn) 02/05-03/10
P30 CA 46934

University of Colorado Cancer Center Support Grant

The Cancer Center Core Grant provides support for cancer research.

Role: Deputy Director.

American Cancer Society (DiGuseppi) 7/00-7/09
PTAPM-105242

Training grant for Preventive Medicine Residency

The goal of this training grant is to prepare Preventive Medicine Board-eligible physicians to work in the field of cancer control.

Role: Primary Mentor.

NIH/NCI (Byers, Schwartz) 09/03-08/09
P20 CA103680

Colorado Program in Aging and Cancer

The purpose of this program is to foster inter-disciplinary and inter-institutional research in cancer and aging in Colorado and the Rocky Mountain Region to develop a new program in the Cancer Center.

Role: Principal Investigator

NIH/NCI (Bunn) 04/03-03/09
P50 CA058187

Specialized Program of Research Excellence in Lung Cancer

The purpose of this SPORE is to translate novel biomarkers of lung cancer risk to clinical studies of cancer risk and chemoprevention.

Role: Co-Investigator

NIH 07/05-06/10

Patient Navigator Research Project

The purpose of this project is to develop and test for efficacy, cost-effectiveness and dissemination, and an exportable and highly innovative patient navigator program across the full spectrum of patient navigation for breast and prostate cancer patients.

Role: Principal Investigator of the DH subcontract

ACS

Understanding and improving breast cancer survivorship in Latinas

7/06-6/09

The purpose of this project is to assess outcomes after breast cancer treatment for Hispanic as compared to Anglo women in Colorado (now named the SUNSHINE Study).

Role: Principal investigator

NIH (NCI) (Espinoza)

Front Range Community Network

5/05-4/10

The purpose of this project is to develop a network of community-based organizations across the Colorado Front Range to address health disparities and applied research issues for Hispanics regarding cancer prevention and control.

Role: Co-investigator

CDPHE Tobacco Tax funds (Byers)
Colorado Colorectal Screening Program 01/06-06/11

This is a long-range project to provide endoscopic screening services to Coloradans without health insurance via the Colorado Community Clinic networks.

Role: PI

Completed

Oncomethylome Sciences (Byers) 1/03-12/08

Genetic hypermethylation and lung cancer risk

The purpose of this study is to conduct a nested case-control study of genetic hypermethylation in sputum as an early indicator of lung cancer risk. This is being conducted in collaboration with the SPORC and investigators in other universities.

Role: Principal investigator

Susan G. Komen Cancer Foundation 07/05-06/08

Cancer Rehabilitation for Low Income and Hispanic Breast Cancer Patients

The purpose of this project is to conduct a large, multi-center trial to test the effectiveness of a comprehensive cancer rehabilitation program to reduce morbidity and improve the quality of life in low income and Hispanic breast cancer survivors.

Role: Principal Investigator

NIH (NCI, RO1) (Byers) 08/01-07/05

5 RO1 CA88007

Insulin Resistance and Adenomas of the Colorectum (IRAsC)

This interactive RO1 grant assessed the relationship between insulin sensitivity and colon adenomas.

Role: Principal Investigator

CDC 10/01-09/05

475/CCU810672

CONCORD Study

Dr. Byers collaborated with the Colorado Cancer Registry in this study in concert with other cancer registries in US and Europe to assess the quality of cancer registry data.

NHI (NCI, P20) (Byers) 09/02-07/05

P20 CA091398

Partnership to Increase Hispanic Cancer Research in Colorado

This was a collaborative project to increase cancer research at Colorado State University at Pueblo through collaborative projects with the University of Colorado Cancer Center.

Role: Principal Investigator

NHI/NICHHD (Daneshgari) 07/02-06/07

R01 HD041162

Population Based Multi-Ethnic Study of Pelvic Disorders

The purpose of this project is to supplement measures made in the SHINE breast cancer study to assess risk factors for urinary disorders in Colorado.

Role: Co-Investigator

BIOGRAPHICAL SKETCH

NAME Nichole E. Carlson	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Minnesota, Minneapolis, MN	B.S.	1996	Math & Statistics
University of Michigan, Ann Arbor, MI	M.S.	1999	Biostatistics
University of Michigan, Ann Arbor, MI	Ph.D.	2003	Biostatistics

Positions and Honors

- 1997 Research Assistant, Department of Biostatistics, University of Michigan, Ann Arbor, Michigan
- 1998-2003 Research Assistant, Department of Biostatistics, University of Michigan, Ann Arbor, Michigan
- 2003-2007 Assistant Professor, Department of Public Health and Preventive Medicine-Division of Biostatistics, Oregon Health and Science University, Portland, Oregon
- 2003-2007 GCRC/OCTRI Biostatistician, Oregon Health and Science University, Portland, Oregon
- 2006-2007 Oregon Alzheimer's Disease Center Data Core leader, Oregon Health and Science University, Portland, Oregon
- 2007-present Assistant Professor, Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Denver, Denver, Colorado

Honors

Rackham Pre-doctoral Fellow, Rackham Graduate School, University of Michigan, May 2002- May 2003

Chairman's award for excellence in teaching, Department of Public Health and Preventive Medicine, May 2007

Selected peer-reviewed publications

1. Harris, TG, DF Battaglia, ME Brown, MB Brown, **NE Carlson**, C Viguie, CY Williams, and FJ Karsch (2000). Prostaglandins mediate the endotoxin-induced suppression of pulsatile gonadotropin-releasing hormone (GnRH) and luteinizing hormone (LH) secretion in the ewe. *Endocrinology*, 141(3): 1050-1058.
2. Young, EA, AR Midgley, **NE Carlson**, and MB Brown (2000). Alteration in the hypothalamic-pituitary-ovarian axis in depressed women. *Archives of General Psychiatry*, 57(12): 1157-1162.
3. Young, EA, **NE Carlson**, and MB Brown (2001). 24-Hour ACTH and cortisol pulsatility in depressed women. *Neuropsychopharmacology*, 25(2): 267-276.
4. Kasa-vubu, JZ, A Barkan, P Olton, T Meckmongkol, **NE Carlson**, and CM Foster (2002). Incomplete modified-fast in obese early pubertal girls leads to an increase in 24-hour GH concentration and a lessening of the circadian pattern in leptin. *Journal of Clinical Endocrinology and Metabolism*, 87(4): 1885-1893.
5. Korszun, A, EA Young, K Singer, **NE Carlson**, MB Brown, and L Crofford (2002). Basal circadian cortisol secretion in women with temporomandibular disorders. *Journal of Dental Research*, 81(4): 279-283.
6. West, CR, **NE Carlson**, JS Lee, A McNeilly, TP Sharma, W Ye, and V Padmanabhan (2002). Acidic mix of FSH isoforms are better facilitators of ovarian follicular maturation and estradiol production than the less acidic. *Endocrinology*, 143(1): 107-116.
7. Kasa-Vubu, JZ, MF Sowers, Y We, **NE Carlson**, and T Meckmongkol (2004). Differences in Endocrine Function with Varying Fitness Capacity in Post-Pubertal Girls across the Weight Spectrum. *Archives of Pediatrics and Adolescent Medicine*, 158: 333-340.
8. Chung, KA, **NE Carlson**, JG Nutt (2005). Short-term paroxetine treatment does not alter the motor response to levodopa in PD. *Neurology*. 64(10):1797-8
9. Beard, T, Choi, D, Farquhar SA, **Carlson NE**, and Michael YL (2006). Measuring the influence of neighborhood

- environment on walking among older adults. *Journal of Aging and Physical Activity* 14(3), 302-12.
10. Sumic, A, Michael YL, **Carlson NE**, Kaye, JA (2007). Physical activity and the risk of dementia in the oldest-old *Journal of Aging and Health* .
 11. Nutt J, Cater J, **Carlson NE** (2007). Effects of Methylphenidate on the Response to Oral Levodopa: A Double-Blind Clinical Trial. *Archives of Neurology* 64:319-323.
 12. Samuels, M, Schuff, K, Carello, P, and **Carlson, NE**. (2007) Quality of life, psychological symptoms, mood, and cognition in L-thyroxine treated hypothyroid subjects. *Thyroid*, 17(3):249-58.
 14. Bowman G, Kaye JA, Moore MM, Waichunas D, **Carlson NE**, Quinn J (2007). Blood brain barrier impairment in Alzheimer's disease: stability and functional significance *Neurology* 68(21):1809-14.
 15. Samuels MH, Schuff KG, **Carlson NE**, Carello P, Janowsky JS. (2007). Health status, mood and cognition in experimentally-induced subclinical hypothyroidism. *J Clin Endocrinol Metab* 92(7):2545-51.
 16. Amanna I, **Carlson NE**, Slifka M (2007). Longitudinal analysis of humoral immunity in individual subjects indicates antigen-specific differences in antibody maintenance. *New England Journal of Medicine* 357(19):1903-1915.
 17. Kaskowitz, A, **Carlson NE**, Nichols M, Edelman A, Jensen J (2007). Online availability of hormonal contraceptives without a health care examination: effect of knowledge and health care screening. *Contraception* 76(4), 273-277.
 18. Kaneshiro B, Jensen JT, **Carlson NE**, Nichols M, Edelman A (2007). The Association of Body Mass Index and Unintended Pregnancy in the US: Results from Cycle 6 of the National Survey of Family Growth. *Contraception* 76: 177-187.
 19. Gunzler SA, Shakil S, **Carlson NE**, Nutt JG, Meshul CK (2007). Low doses of apomorphine transiently reduce locomotor activity in MPTP-treated mice. *Neuroscience Letters*, 428 (2-3):64-7.
 20. Samuels MH, Schuff KG, **Carlson NE**, Carello P, Janowsky JS (2008) Health status, mood and cognition in experimentally-induced subclinical hyperthyroidism *J Clin Endocrinol Metab* (Epub ahead of print).
 21. Howieson D, **Carlson NE**, Moore MM, Wasserman D, Abendroth C, Payne-Murphy J, Kaye J (2008) Trajectory of mild cognitive impairment onset. *Journal of the International Neuropsychological Society*, 14, 192-198.
 22. **Carlson NE**, Moore MM; Dame A; Howieson D; Silbert LE; Quinn, JF; Kaye JA (2008) Trajectories of brain atrophy associated with benign or pathologic brain aging *Neurology* 70(11):828-833.
 23. Gunzler SA, Pavel M, Koudelka C, **Carlson NE**, Nutt JG. (2008) Foot tapping rate as an objective outcome measure for Parkinson's disease clinical trials. *Clinical Neuropharmacology* (in press).
 24. Gunzler SA, Koudelka C, **Carlson NE**, Pavel M, Nutt JG (2008). Effect of low concentrations of apomorphine on parkinsonism in a randomized, placebo-controlled, crossover study. *Archives of Neurology*. 65(2):193-8.
 25. Hammarlund E, Lewis MW, Hanifin JM, Simpson EL, **Carlson NE**, Slifka MK (2008). Traditional smallpox vaccination with reduced risk of inadvertent contact spread by administration of povidone iodine ointment. 26, 430-439 (Epub ahead of print).
 26. Nagel, C, **Carlson NE**, Michael YL (2008). The Relationship Between Neighborhood Built Environment and Walking Activity Among Older Adults. *American Journal of Epidemiology* (accepted)
 27. **Carlson, NE**, Johnson, TD, and MB Brown (2008). A Bayesian approach to bivariately modeling two pulsatile hormones *Biometrics* (accepted).

Research Support

Active

H133A060038 (Harrison-Felix)

10/1/06-9/30/11

National Data and Statistics Center for the Traumatic Brain Injury Model Systems
The goal of the center is to provide data and statistical support for the 15 centers that are collecting data and performing research as part of the TBI Model systems program.
Role: Director Statistics and Methods Core

Completed

R03 (Edelman, A-PI) 10/01/06-9/30/08
NIH

Contraceptive efficacy and body weight: does obesity affect the risk of failure?
The goal of this research is to understand the biological mechanism that results in higher OC failure rates in the obese. In particular, we are studying the pulsatility of the reproductive hormones in obese women. The statistical issues involve fitting and comparing pulsatile hormones between groups of subjects.
Role: Co-Investigator

1 U54RR024140-01 (Orwoll) 9/29/06-7/31/11
NIH/NCRR

Oregon Health and Science University's Oregon Clinical and Translational Research Institute – Biostatistics and Design Program. The major goal of the center is to provide assist clinical and translational investigators in the design, implementation and analysis of clinical studies.
Role: Biostatistician

R21DK062797 (Samuels) 6/30/04-6/30/07
NIH/NIDDK

Neurocognitive effects of subclinical thyroid disease
The major goals of this project are to understand cognitive and mood differences in women with thyroid disease. The statistical aspects of this proposal included repeated measures.
Role: Co-investigator

P30AG008017 (Kaye) 4/1/05-3/31/10
NIH/NIA

Oregon Alzheimer's Disease Center
The major goals of the center is to provide clinical care to Alzheimer's patients and to support research related to cognitive impairment. I directed the core and provided biostatistical support in the design and analysis of the longitudinal data collected at the center.
Role: PI-Biostatistics and Data Core

P60-DK20572 (Herman) 12/1/02-11/30/05
NIH/NIDDK

Michigan Diabetes Research and Training Center -- Biostatistics Core
The director of biostatistics core Morton B Brown was my supervisor. My primary role was to collaborate on research related to diabetes and endocrinology. As part of these collaborations I developed Bayesian approaches to modeling associations between hormones, which involved linear and non-linear hierarchical modeling and development of Markov chain Monte Carlo estimation algorithms.
Role: Graduate Student Research Assistant under the supervision of the DRTC biostatistician

5 M01 RR00042 (Wiley) 12/01/00-11/30/05
NIH/NCRR

Michigan General Clinical Research Center – Biostatistics Core. The director of biostatistics core Morton B Brown was my supervisor. As part of my work I collaborated with investigators studying hormone data. As with the Diabetes Center, as part of these collaborations I developed Bayesian approaches to modeling associations between hormones.
Role: Graduate Student Research Assistant under the supervision of the GCRC biostatistician

BIOGRAPHICAL SKETCH

NAME Dana Dabelea , MD, PhD	POSITION TITLE Associate Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Medicine Timisoara, Romania	M.D.	1984-1990	Medicine
University of Medicine Timisoara, Romania	Residency	1991-1994	Internal Medicine
University of Medicine Timisoara, Romania	Ph.D.	1992-1997	Clinical Sciences
University of Medicine Timisoara, Romania	Residency	1994-1997	Diabetes & Metabolic Diseases
NIDDK, Phoenix, AZ	Fellowship	1997-1999	Diabetes Epidemiology

Positions and Honors

1991-1994	Instructor, Department of Diabetes, University of Medicine, Timsoara, Romania
1994-2001	Assistant Professor, Department of Diabetes, University of Medicine, Timsoara, Romania
1997-1999	Postdoctoral Fellow, Diabetes Epidemiology, National Institutes of Health, Phoenix, AZ
2001-2006	Assistant Professor, Dept. Preventive Medicine & Biometrics, University of Colorado Denver
2006-present	Associate Professor, Dept. Epidemiology, School of Public Health, University of Colorado Denver
2006-present	Director Epidemiology Doctoral Program, University of Colorado Denver
2008-present	Tenure Award, University of Colorado Denver

Honors and National Leadership

1999	NIH Fellows Award for Research Excellence-Epidemiology/Biostatistics 1999 competition
2000	Romanian Society of Atherosclerosis and Lipidology Award
2001	Romanian Diabetes Association Scientific Award
2002-2004	Core Member, "Early Origins of Adult Health" working group for the National Children's Study
2004-2007	Member, Program Committee of the ADA Council on Epidemiology and Statistics
2005-current	Vice-Chair, SEARCH for Diabetes in Youth Study

Selected Peer Reviewed Publications (from over 50)

- Ratner RE, Christophi CA, Metzger BE, Dabelea D, Bennett PH, Pi-Sunyer X, Fowler S, Kahn SE; The Diabetes Prevention Program Research Group. Prevention of Diabetes in Women with a History of Gestational Diabetes: Effects of Metformin and Lifestyle Interventions. JCEM 2008 Epub ahead of print
- Guy J, Ogden L, Wadwa RP, Hamman RF, Mayer-Davis EJ, Liese AD, D'Agostino R Jr, Marcovina S, Dabelea D. Lipid and Lipoprotein Profiles in Youth with and Without Type 1 Diabetes: The SEARCH Case-Control Study. Diabetes Care, 2008 Epub ahead of print
- Mayer-Davis EJ, Ma B, Lawson A, D'Agostino RB, Liese AD, Bell RA, Dabelea D, Dolan L, Pettitt DJ, Rodriguez BL, Williams D; for the SEARCH for Diabetes in Youth Study Group. Cardiovascular Disease Risk Factors in Youth with Type 1 and Type 2 Diabetes: Implications of a Factor Analysis of Clustering. Metab Syndr. Relat Disord. 2008 Epub ahead of print
- West NA, Hamman RF, Mayer-Davis EJ, D'Agostino RB Jr, Marcovina SM, Liese AD, Zeitler PS, Daniels SR, Dabelea D. Cardio-Vascular Risk Factors among Youth with and Without Type 2 Diabetes. Diabetes Care 2008 Epub ahead of print
- Cornier MA, Dabelea D, Hernandez TL, Lindstrom RC, Steig AJ, Stob NR, Van Pelt RE, Wang H, Eckel RH. The Metabolic Syndrome. Endocr. Rev 2008. Epub ahead of print.

- Günther AL, Liese AD, Bell RA, Dabelea D, Lawrence JM, Rodriguez BL, Standiford DA, Mayer-Davis EJ. Association between the dietary approaches to hypertension diet and hypertension in youth with diabetes mellitus. *Hypertension* 2008 Epub ahead of print
- Liese AD, Liu L, Davis C, Standiford D, Waitzfelder B, Dabelea D, Bell R, Williams D, Imperatore G, Lawrence JM. Participation in pediatric epidemiologic research: The SEARCH for Diabetes in Youth experience. *Contemp. Clinical Trials* 2008 Epub ahead of print.
- Dunbar J, Sheeder J, Lezotte D, Dabelea D, Stevens-Simon C Age at Menarche and First Pregnancy Among Psychosocially At-Risk Adolescents; *Am J Public Health*: 2008; 98: 1822-1824
- Lawrence JM, Liese AD, Liu L, Dabelea D, Anderson A, Imperatore G, Bell R Weight-Loss Practices and Weight-Related Issues among Youth with Type 1 or Type 2 Diabetes. *Diabetes Care* 2008 Epub ahead of print
- Pettitt DJ, Lawrence JM, Beyer J, Hillier TA, Liese AD, Mayer-Davis B, Loots B, Imperatore G, Liu L, Dolan LM, Linder B, Dabelea D. Association between Maternal Diabetes In Utero and Age of Offspring's Diagnosis with Type 2 Diabetes. *Diabetes Care*, 2008 31: 2126-2130.
- Maahs DM, Snively BM, Beyer J, Imperatore G, Bell R, Mayer-Davis EJ, Dolan LM, Pettitt DJ, Hirsch I, Rodriguez B, Dabelea D. Birth weight and elevated albumin to creatinine ratio in youth with diabetes: the SEARCH for Diabetes in Youth study. *Pediatr Nephrol*. 2008 23: 2255-2260
- Dabelea D, Mayer-Davis EJ, Lamichhane AP, D'Agostino RB Jr, Liese AD, Vehik KS, Venkat Narayan KM, Zeitler P, Hamman RF. Association of Intrauterine Exposure to Maternal Diabetes and Obesity with Type 2 Diabetes in Youth: The SEARCH Case-Control Study. *Diabetes Care* 2008; 31: 1422-6
- Vehik K, Hamman RF, Lezotte D, Norris JM, Klingensmith GJ, Rewers M, Dabelea D. Trends in High-Risk HLA Susceptibility Genes Among Colorado Youth with Type 1 Diabetes. *Diabetes Care*, 2008; 31: 1392-6
- Snell-Bergeon JK, Dabelea D, Ogden LG, Hokanson JE, Kinney GL, Ehrlich J, Rewers M. Reproductive History and Hormonal Birth Control Use are Associated with Coronary Calcium Progression in Women with Type 1 Diabetes Mellitus. *Journal of Clinical Endocrinology and Metabolism*, 2008; 93: 2142-8
- Rewers A, Klingensmith G, Davis C, Petitti DB, Pihoker C, Rodriguez B, Schwartz ID, Imperatore G, Williams D, Dolan LM, Dabelea D. The Presence of Diabetic Ketoacidosis at Diagnosis of Diabetes Mellitus in Youth: The SEARCH for Diabetes in Youth Study. *Pediatrics*, 2008; 121:1258-66
- Albers JJ, Marcovina SM, Imperatore G, Snively BM, Stafford J, Fujimoto WY, Mayer-Davis EJ, Petitti DB, Pihoker C, Dolan L, Dabelea D. Prevalence and determinants of elevated apolipoprotein B and dense LDL in youth with type 1 and type 2 diabetes: the SEARCH for Diabetes in Youth study. *Journal of Clinical Endocrinology and Metabolism*, 2008; 93:735-742.
- Barnes, M, Curran-Everett D, Hamman RF, Maahs D, Mayer-Davis EJ, D'Agostino RB Jr., West N, Dabelea D. Determinants of Adiponectin Levels in Youth with Type 1 Diabetes, *Diabetic Medicine*, 2008; 25: 365-369.
- Mayer-Davis EJ, Dabelea D, Pande A, D'Agostino RB. Jr, Liese AD, Thomas J, McKeown RE, Hamman RF. Breast Feeding and Type 2 Diabetes in Youth of Three Ethnic Groups: The SEARCH for Diabetes in Youth Case-Control Study. *Diabetes Care*, 2008; 31: 470-475.
- Maahs DM, Snively BM, Bell RA, Dolan L, Hirsch I, Imperatore G, Linder B, Marcovina S, Mayer-Davis EJ, Pettitt DJ, Rodriguez BL, Dabelea D. Higher Prevalence of Elevated Albumin Excretion in Youth with Type 2 than Type 1 Diabetes: The SEARCH for Diabetes in Youth Study. *Diabetes Care*, 2007; 30:2593-2598.
- Dabelea D. The Predisposition to Obesity and Diabetes in Offspring of Diabetic Mothers. *Diabetes Care* 2007; 30 (supplement 2) : S149-174
- Maahs DM, Ogden LG, Snell-Bergeon JK, Kinney GL, Wadwa RP, Hokanson JE, Dabelea D, Kretowski A, Eckel RH, Rewers M. Determinants of Serum Adiponectin in Persons with and without Type 1 Diabetes. *Am J Epid* 2007; 166:731-740
- Dabelea D, D'Agostino R, Jr, Bell R, Johansen JM, Liu LL, Loots B, Marcovina S, Pettitt DJ, Imperatore G, Linder B, Mayer-Davis EJ, Waitzfelder B, for the SEARCH for Diabetes in Youth

- Study. Incidence of Diabetes in Youth in the US: The SEARCH for Diabetes in Youth Study. JAMA 2007; 297: 2714-2724
- Vehik K, Hamman RF, Lezotte D, Klingensmith G, Bloch C, Rewers M, Dabelea D. Increasing Incidence of Type 1 Diabetes in 0-17 Year-Old Colorado Youth. Diabetes Care 2007 30: 503-509
- Florez JC, Jablonski KA, Kahn SE, Franks PW, Dabelea D, Hamman RF, Knowler WC, Nathan DM, Altshuler D. Type 2 Diabetes-Associated Missense Polymorphisms KCNJ11 E23K and ABCC8 A1369S Influence Progression to Diabetes and Response to Interventions in the Diabetes Prevention Program. Diabetes. 2007 Feb; 56; 531-536.
- Dabelea D, D'Agostino RB Jr, Mayer-Davis EJ, Pettitt DJ, Imperatore GA, Dolan LM, Pihoker C, Hillier TA, Marcovina SM, Linder B, Ruggiero AM, Hamman RF. Testing the Accelerator Hypothesis: Body Size, Beta-Cell Function, and Age at Onset of Type 1 (Autoimmune) Diabetes. Diabetes Care, 2006; 29: 290-295.
- Mayer-Davis EJ, Nichols M, Liese A, Bell R, Dabelea D, Johansen J, Pihoker C, Rodriguez B, Thomas J, Williams DE. Dietary Intake Among Youth With Diabetes: the SEARCH for Diabetes in Youth Study. Journal of American Dietetic Association, 2006;106:689-697.
- Maahs DM, Ogden LG, Kinney GL, Wadwa P, Snell-Bergeon JK, Dabelea D, Hokanson JE, Ehrlich J, Eckel RH, Rewers M. Low plasma adiponectin levels predict progression of coronary artery calcification. Circulation. 2005;111:747-53.
- Dabelea D, Snell-Bergeon JK, Hartsfield CL, Bischoff KJ, Hamman RF, McDuffie RS: Increasing Prevalence of Gestational Diabetes (GDM) Over Time and by Birth Cohort: Kaiser Permanente of Colorado GDM Screening Program. Diabetes Care Diabetes Care 2005; 29: 579-584.
- Snell-Bergeon J, Hokanson JE, Kinney G, Dabelea D, Eckel RH, Ehrlich J, Ogden LG, Rewers M: Measurement of Abdominal Fat by CT Compared to Waist Circumference and BMI in Explaining the Presence of Coronary Calcium. International Journal of Obesity, 2004, 28: 1594-1599.
- The SEARCH Study Group: SEARCH for Diabetes in Youth: a Multicenter Study of Prevalence, Incidence and Classification of Diabetes Mellitus in Youth. Controlled Clinical Trials 2004, 25: 458-471.
- Dabelea D, Kinney G, Snell-Bergeon JK, Hokanson JE, Eckel RH, Ehrlich J, Garg S, Hamman RF, Rewers M. The Effect of Type 1 Diabetes on the Gender Difference in Coronary Artery Calcification: A Role for Insulin Resistance? The Coronary Artery Calcification in Type 1 Diabetes (CACTI) Study. Diabetes, 2003;52:2833-2839.
- Lindsay RS, Dabelea D, Roumanin J, Hanson RL, Bennett PH, Knowler WC: Paternal Diabetes is associated with low birth weight: the potential role of genetic effects in the low birth weight hypothesis. Diabetes 2000;49:445-49.
- Dabelea D, Hanson RL, Lindsay RS, Pettitt DJ, Imperatore G, Gabir MM, Roumain J, Bennett PH, Knowler WC: Intrauterine Exposure to Diabetes Conveys Risks for Type 2 Diabetes and Obesity: A Study of Discordant Sib-ships. Diabetes 2000;40:2208-11.
- Dabelea D, Knowler WC, Pettitt DJ: Effect of Diabetes in pregnancy on the offspring: follow-up research in the Pima Indians. The Journal of Maternal-Fetal Medicine 2000;9:83-88.
- Dabelea D, Palmer JP, Bennett PH, Pettitt DJ, Knowler WC: Absence of glutamic acid decarboxylase antibodies in Pima Indian children with diabetes mellitus. Diabetologia 1999;42:1265.
- Dabelea D, Pettitt DJ, Hanson RL, Imperatore G, Bennett PH, Knowler WC: Birth weight, type II diabetes, and insulin resistance in Pima Indian children and young adults. Diabetes Care 1999;22:944-50.
- Dabelea D, Hanson RL, Bennett PH, Roumain J, Knowler WC, Pettitt DJ: Increasing prevalence of type II diabetes in American Indian children. Diabetologia 1998;41(8):904-10.

Research Support

Active

1 U01 DP000247 (Dabelea)

9/14/00-6/30/010

CDC: SEARCH for Diabetes in Youth², Colorado Center

This study is one of six centers designated by CDC to set-up a national registry of childhood diabetes.

Role: Principal Investigator

R01 DK059184 (Dabelea)

9/30/02 - 7/31/09

NIDDK: Defining Diabetes in Youth (DDY)-no cost extension

This study adds controls to the SEARCH for Diabetes in Youth grant in Colorado and South Carolina, to explore etiologic risk factors for childhood Type 2 diabetes, along with cardiovascular risk factors.

Role: Principal Investigator

R01 DK068001 (Dabelea)

9/14/05 - 6/30/10

NIDDK: Exploring the Fetal Origins Hypothesis in Diverse Youth

This study aims: 1) to explore in parallel the long-term consequences of two fetal exposures on childhood obesity phenotypes and 2) to assess potential mechanisms responsible for these effects.

Role: Principal Investigator

Contract No. HHSN275200800018C (Dabelea)

9/26-2008-9/25/2013

National Children's Study

Role: Study Center Principal Investigator

RO1 U01-DK048375 (Hamman)

08/20/94-01/31/10

NIDDK: Diabetes Prevention Program Outcomes Study (DPPOS)

The DPPOS is a long-term follow-up of the Diabetes Prevention Program to determine the duration of prevention of diabetes, cardiovascular disease among persons originally randomized to DPP

Role: Co-Investigator

RO1 1R01 DK077131 (Liese)

1/15/2007 - 12/31/2009

NIDDK: Spatial epidemiology of diabetes in the SEARCH for Diabetes in Youth Study

This ancillary study to SEARCH aims to (1) describe and map the spatial distribution of incident pediatric diabetes; (2) evaluate the association of diabetes incidence with geographic and neighborhood characteristics.

Role: PI of subcontract

R01DK077949 (Mayer-Davis)

1/1/2008-12/31/2011

NIDDK: SEARCH Nutrition Ancillary Study (SNAS)

The overall goal of the SEARCH Nutrition Ancillary Study (SNAS) is to examine associations of nutritional factors with 1) the progression of insulin secretion defects, and 2) the presence of CVD risk factors in youth with T1DM. These two aspects of the metabolic status of youth with T1DM are key determinants of long-term risk for serious complications of DM.

Role: PI of subcontract

JDRF 9-2007-1700 (Bell)
SEARCH Monogenic Diabetes in Youth
Role: PI of subcontract

7/1/2008-6/30/2009

R01 DK077659 (Lawlor)

9/30/06-8/31/10

NIDDK: Maternal overnutrition and offspring fat mass, metabolic and vascular function

This project will study the effects of maternal obesity, weight gain and diet during pregnancy on offspring fat mass, fat distribution, vascular and metabolic function. This will be done in a large, population-based cohort of children recruited before birth and followed up to the present day, the Avon Longitudinal Study of Parents and Children (ALSPAC).

Role: Consultant

BIOGRAPHICAL SKETCH

NAME Carolyn G. DiGuseppi, MD, MPH, PhD		POSITION TITLE Professor of Epidemiology; Residency Program Dir	
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Virginia, Charlottesville, VA	BA	1979	Biol, Psych, Envi Sci
University of Virginia, Charlottesville, VA	MD	1983	Medicine
Children's Orthopedic Hosp Med Ctr, Seattle, WA	Residency	1983-6	Pediatrics
University of Washington, Seattle, WA	Residency	1986-8	Preventive Medicine
University of Washington, Seattle, WA	Fellowship	1986-8	Maternal & Child Health
University of Washington, Seattle, WA	MPH	1988	Epidemiology
Univ. College London, U of London, London, UK	PhD	2002	Epidemiology

Positions and Honors

- 1987 – 1988 Research Associate, Harborview Injury Prevention and Research Center, Seattle, WA
- 1988 – 1991 Assistant Professor of Pediatrics, Children's National Medical Center, Washington, DC
- 1991 – 1995 Science Advisor, Office of Disease Prevention & Health Promotion, US DHHS, Washington, DC
- 1995 – 1996 Senior Health Policy Analyst, Agency for Healthcare Research and Quality, Rockville, MD
- 1996 – 2000 Senior Research Fellow, Department of Paediatric Epidemiology and Biostatistics, Institute of Child Health, University College London, London, UK
- 2000 – 2008 Associate Professor of Preventive Medicine and Biometrics, University of Colorado at Denver and Health Sciences Center, Denver, CO
- 2001 -- Director, Preventive Medicine Residency Training Program, UCD, Denver, CO
- 2008 -- Professor of Epidemiology and Community & Behavioral Health, Colorado School of Public Health, University of Colorado Denver (UCD), Denver, CO

Other Relevant Experience

- 1999 – 2000 Member, Injuries Health Improvem't Program, Camden & Islington Health Authority, London, UK
- 2000 -- Co-Editor, Cochrane Injuries Review Group, Cochrane Collaboration
- 2000 -- Editorial Board, *Archives of Pediatrics and Adolescent Medicine*
- 2002 – Associate Director for Research, Colorado Injury Control Research Center
- 2003 – 2007 Member, National Center for Injury Prevention and Control Initial Review Group (Federal Advisory Committee), Centers for Disease Control and Prevention
- 2007 -- Chair, Structural Deficiencies Workgroup, Healthy Housing Expert Panel, National Center for Environmental Health, CDC, and National Center for Healthy Housing

Honors

- 1994 Special Recognition Award (Individual), U.S. Public Health Service
- 1995 Special Recognition Award (Group), U.S. Public Health Service
- 1996 Unit Commendation, Public Health Branch Grant Review Team, HRSA
- 2003 Excellence in Teaching Award, Dept. of Prev. Medicine & Biometrics, UCD School of Medicine

Peer-reviewed publications

- DiGuseppi CG, Rivara FP, Koepsell TD, Polissar L. Bicycle helmet use by children. Evaluation of a community-wide helmet campaign. *JAMA* 1989;262:2256-61.
- Rivara FP, DiGuseppi C, Thompson RS, Calonge N. Risk of injury to children less than 5 years of age in day care versus home care settings. *Pediatrics* 1989;84:1011-6.
- DiGuseppi CG, Rivara FP, Koepsell TD. Attitudes toward bicycle helmet ownership and use by school-age children. *Am J Dis Child* 1990;144:83-6.
- DiGuseppi C, Roberts I, Li L. Influence of changing travel patterns on child death rates from injury: trend analysis. *BMJ* 1997;314:710-3.

- DiGiuseppi C, Roberts I. Injury mortality among children and teenagers in England & Wales. *Inj Prev* 1997; 3:47-9.
- DiGiuseppi C, Li L, Roberts I. Influence of travel patterns on mortality from injury among teenagers in England and Wales, 1985-95: trend analysis. *BMJ* 1998;316:904-5.
- DiGiuseppi C, Roberts I, Li L. Smoke alarm ownership and house fire death rates in children. *J Epidemiol Community Health* 1998;52:760-1.
- DiGiuseppi C, Roberts I, Li L, Allen D. Determinants of car travel on daily journeys to school: cross-sectional survey of primary school children. *BMJ* 1998;316:1426-8.
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- Crume T, DiGiuseppi C, Byers T, Sirotnak A, Garrett C. Underascertainment of child maltreatment fatalities by death certificates, 1990-1998. *Pediatrics* 2002;110:e18.
- DiGiuseppi C, Roberts I, Wade A, et al. Incidence of fires and related injuries after giving out free smoke alarms: cluster randomised controlled trial. *BMJ* 2002;325:995-7.
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- Mytton JA, DiGiuseppi C, Gough DA, et al. School-based secondary prevention programmes for preventing violence: update. *Cochrane Database Syst Rev* 2006, Issue 3. Art. No.: CD004606.
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- recurrent suicidal behavior? An ecological analysis. *Suicide Life-Threat Behav* 2006;36(4):409-17.
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- Reimann C, Hayes EB, DiGuseppi C, et al. Epidemiology of neuroinvasive arboviral disease in the United States, 1999—2007. *Am J Trop Med Hyg* 2008;79(6):974-9.
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Research Support

Active

- | | | |
|--|-----------------|-----------------|
| HHSN275200800018C | PI: Dabelea D | 10/1/08-9/30/13 |
| NIH/National Institute of Child Health and Human Development | | |
| National Children's Study Douglas County, CO | | |
| Goal: The goal of the National Children's Study is to investigate how genetic and environmental factors influence childhood health and disease. This project will recruit and enroll subjects and collect information and genetic, biological and environmental samples from women and children in Douglas County, CO. | | |
| Role: Evaluator (evaluate project activities in relation to project goals and objectives) | | |
| R49/CCR811509 | PI: DiGuseppi C | 8/1/09-7/31/12 |
| CDC/National Center for Injury Prevention and Control | | |
| Evaluating Population-Based Approaches to Suicide Prevention through Systematic Reviews | | |
| Goal: This project will systematically review and summarize evidence regarding selected population-based approaches to suicide prevention. | | |
| Role: Principal Investigator | | |
| R49/CCR811509 | PI: DiGuseppi C | 8/1/07-7/31/12 |
| CDC/National Center for Injury Prevention and Control | | |
| Marketing Fall Prevention Classes to Older Adults in Faith-Based Congregations: Cluster RCT | | |

R49/CCR811509

PI: DiGuseppi, C

9/30/01-7/31/07

Centers for Disease Control and Prevention

Prevention of Alcohol-Impaired Driving: Register Of Controlled Trials

Goal: This project developed a register of controlled evaluation studies of measures to prevent alcohol- and drug-impaired driving, to facilitate the conduct of systematic reviews and policy and program development.

Role: Principal Investigator

BIOGRAPHICAL SKETCH

NAME Diane L Fairclough	POSITION TITLE Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Bucknell University	B.S.	1973	Chemistry
Virginia Polytechnic Institute	M.S.	1975	Biochemistry
University of North Carolina	M.S.P.H.	1980	Biostatistics
University of North Carolina	Dr.P.H.	1984	Biostatistics

Positions and Honors

- 1973-1976 Graduate Teaching and Research Assistant/ Biochemistry Research Technician, Department of Biochemistry, Virginia Polytechnic Institute, Blacksburg, VA.
- 1976-1979 Project Coordinator (Clinical Research), Norwich-Eaton Pharmaceutical Co., Norwich, NY.
- 1979-1984 Graduate Research Assistant. Biostatistics, University of North Carolina, Chapel Hill, NC.
- 1985-1992 Assistant Member/Associate Member (1992), Department of Biostatistics, St. Jude Children's Research Hospital, Memphis, TN.
- 1993- 1996 Faculty Lecturer, Division of Biostatistics, Dana-Farber Cancer Institute, Boston, MA, and Department of Biostatistics, Harvard School of Public Health.
- 1996-2001 Scientist/Senior Scientist, Center for Research Methodology & Biometrics, AMC Cancer Research Center, Denver, CO.
- 2002- Professor, Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver. (Visiting Professor during 2002)

Other Experience and Professional Memberships

- 1988-1992 Assistant Professor, Department of Biostatistics and Epidemiology, University of Tennessee, Memphis, TN.
- 1996-2001 Associate Professor Adjoint, Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver.
- 1997-2002 Board of Directors, International Society for Quality of Life Research.
- 1998-2000 Executive Committee, American Statistical Association-Section on Statistical Consulting (CNSL)
- 1999-2000 Scientific Program Committee Chair, 2000 International Society for Quality of Life Research (ISOQOL)
- 2000 FDA QOL subcommittee of the Oncology Drug Advisory Committee (ODAC)
- 2000-2001 Editorial Board, Journal of Pediatric Psychology.
- 2000-2006 Associate Editor, Quality of Life Research.
- 2002-2005 Treasurer, International Society for Quality of Life Research.
- 2003-2005 Editorial Board, Clinical Trials

Honors

- 1984 Biometrics Society Student Paper Award. The effects of assumptions about covariance structure on WLS analysis of incomplete longitudinal data.
- 1998 Clinical/Affiliated Faculty Award Department of Preventive Medicine, UCHSC

Selected Peer-reviewed publications (159 total)

Fairclough DL, Helms RW. A mixed linear model with linear covariance structure: a sensitivity analysis of maximum likelihood estimators. J Stat Comp Simul 25:205-236, 1986.

- Fairclough DL, Pierni WC, Ridgeway GJ, Schwertman NC. A Monte Carlo comparison of smoothing, scoring and E-M algorithms for dispersion matrix estimation with incomplete growth curve data. *J Stat Comp Simul* 43:77-92. 1992.
- Fairclough DL, Schwertman NC. Estimation of a positive definite general dispersion matrix from repeated measures with missing data: A Monte Carlo comparison of the EM algorithm, smoothing, and use of complete data vectors. *J Statist Comput Simul* 50:21-27, 1994.
- Fairclough DL, Cella DF. A cooperative group report on quality of life research: Lessons learned. Eastern Cooperative Oncology Group (ECOG). *J Natl Cancer Inst* 1996; 40:73-75.
- Fairclough DL, Gelber R. "Statistical Issues and Considerations" in *Quality of Life and Pharmacoeconomics in Clinical Trials*. ed Spiker B., Raven Press. 427-435, 1996.
- Fairclough DL. Quality of life in cancer clinical trials: Now that we have the data, what do we do? *JASS* 1996; 4(4):253-269.
- Fairclough DL, Cella DF. Functional assessment of cancer therapy (FACT-G): Non-response to individual questions. *Quality of Life Research* 1996; 5:321-329.
- Fairclough DL. Summary measures and statistics for comparison of quality of life in a clinical trial of cancer therapy. *Stat Med* 1997; 16:1197-1209.
- Hayman JA, Fairclough DL, Harris JR, Weeks JC. Patient preferences concerning the trade-off between the risks and benefits of routine radiation therapy after conservative surgery for early-stage breast cancer. *J Clin Oncol* 15(3):1252-1260, 1997.
- Fairclough DL, Peterson H, Chang V. Why are missing quality of life data a problem in clinical trials of therapy for cancer? *Statist Med* 1998; 17:667-677.
- Fairclough DL, Peterson HF, Cella D, Bonomi P. Comparison of several model-based methods for analyzing incomplete quality of life data in cancer clinical trials. *Statist Med* 1998; 17:781-796.
- Fairclough DL, Fetting JH, Cella D, Wonson W, Moinpour CM. Quality of life and quality adjusted survival for breast cancer patients receiving adjuvant therapy. *Quality of Life Research* 8:723-731, 1999.
- Emanuel EJ, Fairclough DL, Emanuel LL. Attitudes and desires related to euthanasia and physician-assisted suicide among terminally ill patients and their caregivers. *JAMA* 284(19):2460-2468, 2000.
- Lee SJ, Fairclough D, Antin JH, Weeks JC. Discrepancies between patient and physician estimates for the success of stem cell transplantation. *JAMA*. Feb 28;285(8):1034-8, 2001.
- Cella D, Eton DT, Fairclough DL, Bonomi P, Heyes AE, Silberman C, Wolf MK, Johnson DH. "What is a clinically meaningful change on the Functional Assessment of Cancer Therapy- Lung (FACT-L) Questionnaire? Results from Eastern Cooperative Oncology Group (ECOG) Study 5592. *J Clin Epi*.35:285-295, 2002.
- Sloan J, Aaronson N, Cappelleri J, Fairclough D, Varricchio C, and the Clinical Significance Consensus Meeting Group. Assessing the clinical significance of single items relative to summated scores. *Mayo Clinic Proc* 2002, 77: 479-487.
- Sahler OJZ, Varni JW, Fairclough DL, et al. Problem Solving Skills Training for Mothers of Children with Newly Diagnosed Cancer; A Randomized Trial. *J Dev Behav Pediatr* 23:77-86,2002.
- Wendler D, Martinez RA, Fairclough D, Sunderland T, Emanuel E. Views of Potential Subject toward Proposed Regulations for Clinical Research with Adults Unable to Consent. *Am J Psychiatry* 2002: 585-591.
- Fairclough DL, Gagnon DD, Zagari MJ, Marschner N, Dicato M. Evaluation of quality of life in a clinical trial with nonrandom dropout: The effect of epoetin alfa in anemic cancer patients. *Quality of Life Research* 12: 1013-1027, 2003.
- Fairclough DL, Gagnon D, Popadopoulos G. Planning Analyses Of Quality-Of-Life Study: A Case Example With Migraine Prophylaxis. *Journal of Biopharmaceutical Statistics*. 14: 31-51, 2004.
- Fairclough DL. Patient reported outcomes as endpoints in clinical research. *Statistical Methods in Medical Research*. 2004 13: 115-138.
- Kutner JS, Bryant LL, Beaty BL, Fairclough DL. Symptom Distress and Quality of Life Assessment at the End of Life: The Role of Proxy Response. *Journal of Pain and Symptom Management*, 32(4):300-310, 2006
- Wang XS, Fairclough DL, Liao Z, Komaki R, Chang JY, Mobley GM, Cleeland CS. Longitudinal study of the relationship between chemoradiation therapy for non-small-cell lung cancer and patient symptoms. *J Clin Oncol*. 2006 Sep 20;24(27):4485-91

Fairclough DL, Thijs H, Huang IC, Finnern HW, Wu AW. Handling missing quality of life data in HIV clinical trials: what is practical? *Qual Life Res.* 2008 Feb;17(1):61-73. Epub 2007 Dec 11.

Research Support

Active

1 R01 MH077770-01A2 (Szigethy)

3/1/2008 - 2/28/2013

NIMH

Reducing Depressive Symptoms in Physically Ill Youth

To conduct a randomized trial to compare a newly developed CBT approach with narrative, social skills, and family educational components to supportive, non-directive therapy in youth with IBD & clinically-significant depression at three time points.

Role: Biostatistician

1 DP2 OD001210-01 NIH Director's Innovators Award (Szigethy) 9/28/2007 - 9/27/2012

NIMH

Understanding & Treating Neuropsychiatric Symptoms of Pediatric Physical Illness

To examine brain regions that underlie emotional and cognitive processing in youth with active IBD and depression using brain functional magnetic resonance imaging compared to youth with IBD and no depression, and normal controls.

Role: Biostatistician

1 R01 HL088198-01 (Blair)

04/01/2008 – 03/31/2011

NIH/NHLBI

The Association between Providers' Ethnic/Racial Biases and Hypertension Control

The major goals of this project are to measure healthcare providers' implicit and explicit biases toward African Americans and Latinos, and examine the degree to which those biases are associated with ethnic/racial disparities in hypertensive patients' perceptions, disease management and health outcomes.

Role: Investigator/Biostatistician

1K07CA108565-01A2 (Parry)

04/01/2006 – 03/31/2011

The National Cancer Institute

Quality of Life and Service Needs of Adult Leukemia and Lymphoma Survivors

To assess the quality of life and ongoing service needs of adult leukemia and lymphoma survivors and design an intervention based on this data. The project will focus on re-entry issues from a lifespan developmental perspective.

Role: Mentor/Biostatistician

R01 CA108752-01A2 (Schultz)

08/25/2006 – 06/30/2011

NIH

Transplantation of G-CSF Stimulated Marrow vs Blood

The goal of this research is perform a phase III trial comparing G-CSF stimulated bone marrow versus peripheral blood as a donor source for HLA-identical related donor BMT in a multi-institutional trial. We will evaluate the impact of the two donor sources on the biological of chronic GVHD, health economics and QOL.

Role: Biostatistician for QOL component

U01 RFA-CA-05-019 (Raich)

07/01/2005–06/30/2010

NCI

Improving Patient Outcomes Through System Navigation

The goal of this program is to develop and conduct a patient navigation program from the point of an abnormal screening test to treatment for breast, colorectal, or prostate cancer.

Role: Biostatistician

[Pending Number] (Bayliss)

8/1/2008 –7/31/2010

AHRQ

The effect of incident comorbidities on guideline-concordant chronic disease care

The objective of this investigation is to assess the initial and ongoing effects of new onset depression, treatable cancer, and exacerbations of pulmonary disease on guideline-concordant care for the diabetes over a 6-year time period. Based on our findings, we will propose specific adaptations to existing diabetes care guidelines that will be amenable to further investigation. We will also identify a subgroup of patients at risk for poor health outcomes who may benefit from such adapted guidelines.

Role: Investigator/Biostatistician

RCA131875A (Pentz)

7/1/08 to 6/30/10

NCI/ NINR

Family Decision Making in Pediatric Bone Marrow Transplant

The goal of this project is to develop a grounded theory of how families make the dual decisions for one child to undergo a bone marrow transplant and a sibling to be the donor.

Role: Co-Investigator/Biostatistician

5 R01 CA098217-03 (Gerhardt)

07/01/2005–06/30/2010

NIH/NCI

Sibling and Parent Bereavement from Childhood Cancer

The proposed research will be a systematic evaluation of siblings and parents of children who have recently died from cancer. Results will begin to identify subgroups at risk for psychosocial difficulties (e.g. Adolescents) and mechanism for maladjustment (e.g. stressful life events).

Role: Investigator/Biostatistician

SB-35832-N (Sills)

07/01/2007–06/30/2009

American Lung Association Social Behavioral Research Grant

The Association between Emergency Department Resources and Pediatric Asthma-Related Quality Indicators

This proposal seeks to improve quality-of-care for children treated in the emergency department (ED) for acute asthma exacerbations. Through enhancing our understanding of change-amenable, systems-level factors associated with variations in quality of pediatric asthma care in an ED setting, we propose to effect timely, quality-based improvements in the way EDs deliver acute asthma care.

Role: Biostatistician

1 R01 HS016418-01A1 (Sills)

06/01/2007–05/31/2009

Agency for Healthcare Research and Quality

Emergency Department overcrowding and quality of acute asthma care for children

This project seeks to develop and test pediatric quality measures for children treated in the emergency department for asthma. Through developing these measures in an electronic medical record system, the investigators lay the groundwork for monitoring and improving the quality of care for acute pediatric asthma exacerbations through use of health information technology.

Role: Biostatistician

Completed

RSGPB-03-098-01-PBP (Vannatta)

07/01/2003–06/30/2008

ACS

Psychosocial Outcomes Of Pediatric Brain Tumor Survivors

School aged (8-15 years) children who have completed treatment for BT at one of four pediatric oncology centers will be identified. For each of these children, a comparison peer of the same race, gender, and age (COMP) will be recruited from their class at school. Identical data will be obtained for all participants from multiple sources in classrooms (teacher, peer, self-report) and homes (mother, father, and child-report) to allow tests of group differences in social, emotional, behavioral, and family functioning. Analyses will examine group differences as well as test models about the mechanisms that mediate differences in child and parent outcomes.

Role: Co- Investigator/Biostatistician/Director of Data Management

[No award number] (Sills) 07/01/2007–06/30/2008
 Riggs Family/ Emergency Medicine Foundation Health Policy Research Grant
 Emergency Department Overcrowding and Quality of Acute Asthma Care for Children with Acute Long-Bone Fractures
 The study models the association between emergency department overcrowding and several process and outcome measures of pediatric acute asthma care quality.
 Role: Biostatistician

RO1 (Sahler) 09/19/2003–08/31/2007
 NIH/NCI
 Problem-Solving Training in Childhood Cancer
 Investigate the efficacy of problem-solving skills training of newly diagnosed children with cancer for mothers with three intervention arms: Time and Attention Control, Standard Maternal Problem-Solving Training and Maternal Problem-Solving Training supplemented with PDA.
 Role: Co-Investigator/Biostatistician/Director of Data Management

1 R21 CA115311-01 (Kutner) 09/12/2005–09/12/2007
 National Cancer Institute (NCI)
 Use of Health Information Technology (HIT) to Improve Symptom Management in Advanced Cancer
 The objective of this multisite study is to evaluate the feasibility of use of health information technology (telephony and internet) for improving symptom management for persons with advanced cancer receiving care in the home hospice setting.
 Role: Biostatistician

HSA290200500371(Steiner, PI) 09/10/2005–06/30/2006
 Agency for Healthcare Research and Quality
 Medical management of congestive heart failure and the effectiveness of isosorbide dinitrate and hydralazine. (DEClDE Network Task order #1)
 The goal of this project was to assess the impact of isosorbide dinitrate and hydralazine on hospitalization and death in VA patients.
 Role: Biostatistician

1R01 AT1006-01A2 (Kutner) 05/01/2003–04/31/2006
 NIH NCCAM
 Efficacy of Massage Therapy at the End of Life
 The goal of this application is to evaluate the efficacy of massage therapy for alleviation of symptom distress and improvement of quality of life for patients with advanced cancer. This will be a multi-site randomized clinical trial comparing massage therapy plus usual hospice care with a control group receiving "sham" massage therapy plus usual hospice care. The study will be conducted in a community-based hospice/palliative care research network.
 Role: Co-Investigator/Biostatistician

BIOGRAPHICAL SKETCH

NAME Tasha E. Fingerlin	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Concordia College, Seward, Nebraska	BS	1997	Secondary Education (Mathematics & Biology)
University of Michigan, Ann Arbor, Michigan	MS	1999	Biostatistics
University of Michigan, Ann Arbor, Michigan	PhD	2003	Epidemiology

Positions and Honors

1997-1998	Graduate Student Instructor, Department of Biostatistics, University of Michigan
1998-2003	Graduate Research Assistant, Department of Biostatistics, University of Michigan
2004-2008	Assistant Professor, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado at Denver and Health Sciences Center
2008-present	Assistant Professor, Department of Epidemiology, Colorado School of Public Health, University of Colorado Denver (Dept. of Preventive Medicine and Biometrics became the CSPH in 2008)

Honors and Awards

1993-1997	Board of Regents Full Tuition Scholarship, Concordia College, Seward, Nebraska
1997	Outstanding Student Teacher Award, Concordia College, Seward, Nebraska
1999-2002	National Institutes of Health Genome Science Pre-Doctoral Traineeship

Selected peer-reviewed publications

- Janz NK, Clark NM, Dodge JA, Schork MA, Mosca L, and Fingerlin TE. (1999) The impact of a disease-management program on the symptom experience of older women with heart disease. *Women Health*. 30: 1-24.
- Clark NM, Janz NK, Dodge JA, Schork MA, Fingerlin TE, Wheeler JR, Liang J, Keteyian SJ, and Santinga JT. (2000) Changes in functional health status of older women with heart disease: evaluation of a program based on self-regulation. *J Gerontol B Psychol Sci Soc Sci*. 55: S117-26.
- Ghosh S, Watanabe RM, Valle TT, Hauser ER, Magnuson VL, Langefeld CD, Ally DS, Mohlke KL, Silander K, Kohtamaki K, Chines P, Balow J, Birznieks G, Chang J, Eldridge W, Erdos MR, Karanjawala ZE, Knapp JI, Kudelko K, Martin C, Morales-Mena A, Musick A, Musick T, Pfahl C, Porter R, Rayman JB, Rha D, Segal L, Shapiro S, Sharaf R, Shurtleff B, So A, Tannenbaum J, Te C, Tovar J, Unni A, Welch C, Whiten R, Witt A, Blaschak-Harvan J, Douglas JA, Duren WL, Epstein MP, Fingerlin TE, Kaleta HS, Lange EM, Li C, McEachin RC, Stringham HM, Trager E, White PP, Eriksson J, Toivanen L, Vidgren G, Nylund SJ, Tuomilehto-Wolf E, Ross EH, Demirchyan E, Hagopian WA, Buchanan TA, Tuomilehto J, Bergman RN, Collins FS, and Boehnke M. (2000) The Finland-United States investigation of non-insulin-dependent diabetes mellitus genetics (FUSION) study. I. An autosomal genome scan for genes that predispose to type 2 diabetes. *Am J Hum Genet*. 67:1174-85
- Watanabe RM, Ghosh S, Langefeld CD, Valle TT, Hauser ER, Magnuson VL, Mohlke KL, Silander K, Ally DS, Chines P, Blaschak-Harvan J, Douglas JA, Duren WL, Epstein MP, Fingerlin TE, Kaleta HS, Lange EM, Li C, McEachin RC, Stringham HM, Trager E, White PP, Balow Jr. J, Birznieks G, Chang J, and Eldridge W. (2000) The Finland-United States investigation of non-insulin-dependent diabetes mellitus genetics (FUSION) study. II. An autosomal genome scan for diabetes-related quantitative-trait loci. *Am J Hum Genet* 67: 1186-200.
- Janz NK, Janevic MR, Dodge JA, Fingerlin TE, Schork MA, Mosca LJ, and Clark NM. (2001) Factors influencing quality of life in older women with heart disease. *Med Care*. 39: 588-98.

- Fingerlin TE, Erdos MR, Watanabe RM, Wiles KR, Stringham HM, Mohlke KL, Silander K, Valle TT, Buchanan TA, Tuomilehto J, Bergman RN, Boehnke M, and Collins FS. (2002) Variation in three single nucleotide polymorphisms in the calpain-10 gene not associated with type 2 diabetes in a large Finnish cohort. *Diabetes* 51: 1644-8.
- Mohlke KL, Erdos MR, Scott LJ, Fingerlin TE, Jackson AU, Silander K, Hollstein P, Boehnke M, Collins FS (2002) High-throughput screening for evidence of association by using mass spectrometry genotyping on DNA pools. *PNAS* 99:16928-16933.
- Fingerlin TE, Boehnke M, Abecasis GR (2004) Increasing the power and efficiency of disease-marker case-control association studies using allele-sharing information. *Am J Hum Genet* 74:432-443.
- Silander K, Scott LJ, Valle TT, Mohlke KL, Stringham HM, Wiles KR, Duren WL, Doheny KF, Pugh EW, Chines P, Narisu N, White PP, Fingerlin TE, Jackson AU, Li C, Ghosh S, Magnuson VL, Colby K, Erdos MR, Hill JE, Hollstein P, Humphreys KM, Kasad RA, Lambert J, Lazaridis KN, Lin G, Morales-Mena A, Patzkowski K, Pfahl C, Porter R, Rha D, Segal L, Suh YD, Tovar J, Unni A, Welch C, Douglas JA, Epstein MP, Hauser ER, Hagopian W, Buchanan TA, Watanabe RM, Bergman RN, Tuomilehto J, Collins FS, Boehnke M; Finland-United States Investigation of NIDDM Genetics (FUSION) (2004) A large set of Finnish affected sibling pair families with type 2 diabetes suggests susceptibility loci on chromosomes 6, 11, and 14. *Diabetes* 53:821-829.
- Silander S, Mohlke KL, Scott LJ, Peck EC, Hollstein P, Skol AD, Jackson AU, Deloukas P, Hunt S, Stavrides G, Chines PS, Erdos MR, Narisu N, Conneely KN, Li C, Fingerlin TE, Dhanjal SK, Valle TT, Bergman RN, Tuomilehto J, Watanabe RM, Boehnke M, and Collins FS (2004) Genetic variation near the Hepatocyte Nuclear Factor-4 Alpha gene predicts susceptibility to type 2 diabetes. *Diabetes* 53: 1141-1149.
- Hanna, GL, Fingerlin TE, Himle JA, Boehnke M (2005) Complex Segregation Analysis of Obsessive-Compulsive Disorder in Families with Pediatric Probands. *Human Heredity* 60:1-9.
- Fingerlin TE, Abecasis GR, Boehnke, M (2006) Using Sex-Averaged Genetic Maps in Multipoint Linkage Analysis When Identity-by-Descent Status is Incompletely Known. *Genetic Epidemiology* 30:384-396.
- Tsuchiya T, Schwarz PE, Bosque-Plata LD, Geoffrey Hayes M, Dina C, Froguel P, Wayne Towers G, Fischer S, Temelkova-Kurktschiev T, Rietzsch H, Graessler J, Vcelak J, Palyzova D, Selisko T, Bendlova B, Schulze J, Julius U, Hanefeld M, Weedon MN, Evans JC, Frayling TM, Hattersley AT, Orho-Melander M, Groop L, Malecki MT, Hansen T, Pedersen O, Fingerlin TE, Boehnke M, Hanis CL, Cox NJ, Bell GI (2006) Association of the calpain-10 gene with type 2 diabetes in Europeans: Results of pooled and meta-analyses. *Mol Genet Metab* 89:174-184.
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- Nelson, TL, Fingerlin, TE, Moss, L, Barmada, MM, Ferrell, RE, Norris, JM. Association of the peroxisome proliferator-activated receptor γ gene (PPAR- γ) with type 2 diabetes varies by physical activity among Non-Hispanic Whites from Colorado. *Metabolism* 56:388-393.
- Nelson TL, Fingerlin, TE, Moss, L, Barmada, MM, Ferrell, RE, Norris, JM. The PPAR gamma Pro12Ala polymorphism is not associated with body mass index or waist circumference among Hispanics from Colorado. *Annals of Nutrition and Metabolism* 51:252-257.
- Jonth AC, Silveira L, Fingerlin TE, Sato H, Luby JC, Welsh KI, Rose CS, Newman LS, du Bois RM, Maier LA; ACCESS Group. (2007) TGF-beta 1 variants in chronic beryllium disease and sarcoidosis. *J Immunol.* 179:4255-4262.
- Spritz RA, Arnold TD, Buonocore S, Carter D, Fingerlin TE, Odero WW, Wambani JO, Tenge RK, Weatherley-White RC. (2007) Distribution of orofacial clefts and frequent occurrence of an unusual cleft variant in the Rift Valley of Kenya. *Cleft Palate Craniofac J.* 44:374-377.

- Aly TA, Baschal EE, Jahromi MM, Fernando MS, Babu SR, Fingerlin TE, Kretowski A, Erlich HA, Fain PR, Rewers MJ, Eisenbarth GS. 2007 Analysis of SNPs Identifies Major Type 1A Diabetes Locus Telomeric of the MHC. *Diabetes* 57:770-776.
- Black MH, Fingerlin TE, Allayee H, Zhang W, Xiang AH, Trigo E, Hartiala J, Lehtinen AB, Haffner SM, Bergman RN, McEachin RC, Kjos SL, Lawrence JM, Buchanan TA, Watanabe RM (2008) Evidence of Interaction between Peroxisome Proliferator-Activated Receptor- γ 2 (PPARG2) and Hepatocyte Nuclear Factor-4 α (HNF4A) Contributing to Variation in insulin sensitivity in Mexican Americans *Diabetes* 57:1048-1056.
- Wasfi YS, Silveira LJ, Jonth A, Hokanson JE, Fingerlin T, Sato H, Parsons CE, Lympany P, Welsh K, du Bois RM, Newman LS, Maier LA; the ACCESS Research Group (2008) Fas promoter polymorphisms: genetic predisposition to sarcoidosis in African-Americans. *Tissue Antigens* 72:39-48.
- O'Donnell CI, Glueck CJ, Fingerlin TE, Glueck DH (2008) A likelihood model that accounts for censoring due to fetal loss can accurately test the effects of maternal and fetal genotype on the probability of miscarriage. *Human Heredity* In press.
- Meng J and Fingerlin TE. (2008) Linear models for multiple single nucleotide polymorphisms with quantitative traits in unrelated individuals. *Ann Zool Fennici* In press.
- Engelman CD, Fingerlin TE, Langefeld CD, Hicks PJ, Rich SS, Wagenknecht LE, Bowden DW, Norris JM. (2008) Genetic and environmental determinants of 25-hydroxyvitamin D and 1,25-dihydroxyvitamin D levels in Hispanic and African Americans. *J Clin Endocrinol Metab*. In press.

Research Support

Active

IRAS family study, R01-HL61019 (PI: J.M. Norris)

1/05 - 12/09

NIH-NHLBI

The major goal of this project is to identify 1) the genetic and environmental determinants of insulin sensitivity, and visceral adiposity; and 2) the extent to which insulin sensitivity, and visceral obesity share genetic and environmental influences.

Shared Genetic Susceptibility in CBD and Sarcoidosis, 1 R21 HL081766-01A2 (PI: L. A. Maier)

7/07 - 01/09

NIEHS

The purpose of this project is to use genome-wide association techniques to identify genetic susceptibility variants that predispose to chronic beryllium disease and sarcoidosis. Dr. Fingerlin co-directs the design phases and directs the statistical analyses of these genetic studies.

Electrophysiology of Sensory Gating in Schizophrenia, R01 MH38321-22 (P.I. R. M. Freedman)

10/1/06-06/30/09

NIMH

The purpose of this project is to identify the appropriate molecular and neurobiological targets for intervention into sensory gating disturbance, a persistent neurocognitive feature of schizophrenia. Dr. Fingerlin directs the statistical design and analyses of the linkage disequilibrium mapping portion of the project.

Genomic Signatures for Idiopathic Interstitial Pneumonia, R01-HL095393

9/24/08-7/31/12

NHLBI

The overarching goal of this project is to combine genetic and genomic findings from patients with idiopathic interstitial pneumonia (IIP) to develop and validate phenotypically anchored molecular signatures that serve to refine the diagnostic criteria for this group of complex diseases. Dr. Fingerlin directs the genetic epidemiology portion of the study.

Completed

Beryllium: Exposure, Immune and Genetic Mechanisms 1 P01 ES011810-01 (P.I. L. Newman)

08/01/02-07/31/07

NIEHS

Core C

The major goals of this project are to determine the interaction of beryllium exposure variables and genetic factors leading to immune reactivity to beryllium and to CBD.

Role: Co-PI

Effects of vitamin D genes on measures of insulin secretion, insulin sensitivity and adiposity

ADA 7-04-RA-83 (P.I. J.M. Norris)

7/04-6/06

American Diabetes Association

The purpose of this study is to examine the association between the vitamin D-related genes, such as vitamin D receptor, Cyp1alpha, and vitamin D binding protein and insulin secretion, insulin sensitivity and adiposity, and how this association may be modified by physical activity in Hispanic-American and African-American Families in the IRAS Family Study.

Role: Co-I

Structure and Function of TSP1 in Acute Lung Injury RO1 HL071618-01A2 (P.I. J.P. Maloney)

2/05-1/10

NHLBI

The purpose of this project is to identify and characterize the function of single nucleotide polymorphisms in the thrombospondin 1 gene that are associated with acute lung injury during sepsis. Dr. Fingerlin directs the statistical analyses of the case-control genetic studies.

Genes in the IKK β /NF- κ B pathway and insulin resistance 1-06-JF-17 (P.I.: T.E. Fingerlin)

1/06-12/08

American Diabetes Association

The purpose of this project is to examine the association between genes in the IKK β /NF- κ B pathway and glucose homeostasis traits and markers of inflammation in the IRAS Family Study.

BIOGRAPHICAL SKETCH

NAME Deborah H. Glueck	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Harvard College, Cambridge, MA	AB	1989	Mathematics
University of North Carolina, Chapel Hill, NC	MS	1991	Biostatistics
University of North Carolina, Chapel Hill, NC	PhD	1996	Biostatistics

Positions

- 1994-1996 Graduate Research Assistant, University of North Carolina at Chapel Hill, Chapel Hill, NC
- 1996-1998 Post-doctoral Fellow, Agency for Health Care Policy and Research Grant Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, Piscataway, NJ
- 1991-present Assistant Professor, Department of Biostatistics and Informatics, University of Colorado Denver, Denver, CO

Selected peer-reviewed publications

1. Shugars DC, Smith MS, **Glueck DH**, Nantermet PV, Seillier-Moiseiwitsch F, Swanstrom R. Analysis of Human Immunodeficiency Virus Type 1 nef Gene Sequences Present in Vivo. *Journal of Virology*, Volume 67, Number 8, p. 4639-4650, August (1993).
2. Beard DV, Molina PL, Muller KE, Denelsbeck KM, Hemminger BM, Perry JR, Braeuning MP, **Glueck DH**, Bidgood WD, Mauro M, Semelka RC, Willms AS, Warshauer D, Pisano ED. Stacked-Metaphor Workstation versus Film Alternator for Interpretation of Serial Chest CT Examinations. *Radiology*. (1995).
3. Pisano ED, Chandramouli J, Hemminger BM, DeLuca M, **Glueck DH**, Johnston RE, Muller K, Braeuning MP, Pizer S. Does Intensity Windowing Improve the Detection of Simulated Calcifications in Dense Mammograms? *Journal of Digital Imaging* 10(2): 79-84, (1997).
4. Pisano ED, Chandramouli J, Hemminger BM, **Glueck DH**, Johnston RE, Muller K, Braeuning MP, Puff D, Garrett W, Pizer S. The effect of intensity windowing on the detection of simulated masses embedded in dense portions of digitized mammograms in a laboratory setting. *Journal of Digital Imaging*. November: 10(4):174-182, (1997),
5. **Glueck DH** and Muller KE, "On the Trace of a Wishart," *Communications in Statistics: Theory and Methods*, 27, 2137-2141, (1998)
6. **Glueck DH** and Muller KE "Correction to: 'On the Trace of a Wishart,'" *Communications in Statistics: Theory and Methods*, 31(1),159-160, (2002).
7. Rich DQ, Yiin L-M, Rhoads GG, **Glueck DH**, Weisel C, Liroy PJ "A Field Comparison of Two Methods for Sampling Lead in Household Dust: The LWW Sampler and the HUD Dust Wipe". *Journal of Exposure Analysis and Environmental Epidemiology*. September, (1999).
8. **Glueck DH** and Muller KE, "On the expected values of sequences of functions," *Communications in Statistics: Theory and Methods*, 30(2), 363-369 (2001).

9. Kosmiski LA, Kuritzkes DR, Lichtenstein KA, **Glueck DH**, Gourley PJ, Stamm ER, Scherzinger AL, Eckel RH. Fat distribution and metabolic changes are strongly correlated and energy expenditure is increased in the HIV lipodystrophy syndrome. *AIDS* 15:1993-2000, 2001.
10. Horton TJ, Miller EM, **Glueck DH**, and Tench K. "No effect of menstrual cycle phase on glucose kinetics and fuel oxidation during moderate-intensity exercise," *American Journal of Physiology, Endocrinology and Metabolism*, 282:E752-E762, (2002).
11. Donato AJ, Tench K, **Glueck DH**, Seals DR, Eskurza I and Tanaka H. "Declines in physiological functional capacity with age: a longitudinal study in peak swimming performance," *Journal of Applied Physiology*, 94: 764-769, (2003).
12. **Glueck DH** and Muller KE "Adjusting Power for a Baseline Covariate in Linear Models." Volume 22, pages 2535-2551, *Statistics in Medicine* (2003)
13. Fortna A, Kim Y, MacLaren E, Marshall K, Hahn G, Meltesen L, Brenton M, Hink R, Burgers S, Hernandez-Boussard T, Karimpour-Fard A, **Glueck DH**, McGavran L, Berry R, Pollack J, Sikela J. "Lineage-Specific Gene Duplication and Loss in Human and Great Ape Evolution", *PLOS Biology*, Volume 2, Issue 7, 0937-0954, July (2004).
14. Regan E, Flannelly J, Bowler R, Tran K, Nicks M, Duda Carbone B, **Glueck DH**, Heijnen H, Mason R, Crapo J. "Extracellular Superoxide Dismutase and Oxidant Damage in Osteoarthritis", *Arthritis and Rheumatism*. Volume 52, No. 11, pp 3479-3491, November, (2005).
15. Leslie KK, Stein M-P, Kumar NS, Dai D, Stephens J, Wandinger-Ness A., **Glueck DH**. "Progesterone receptor isoform identification and subcellular localization in endometrial cancer", *Gynecologic Oncology*, 96, 32-41, (2005).
16. Bodkin AW, Carollo JJ, **Glueck DH**. "Home-Based Treadmill Training in Ambulatory Children with Cerebral Palsy: A Randomized Controlled Trial." *Dev Med Child Neurol*. 48 (Suppl 106): 22; 2006.
17. Thams M and **Glueck DH**. "Business Needs and Graduate School Offerings in Marketing". 2007 marketing educators association conference proceedings. Building Knowledge and Skills in the 21st century: fulfilling the mission of marketing education. Volume 31. pages 126-129.
18. **Glueck DH**, Lamb MM, Lewin JM, Pisano ED. Two-modality mammography may confer an advantage over either full-field digital mammography or screen-film mammography. *Acad Radiol*. 2007 Jun;14(6):670-6
19. **Glueck DH**, Karimpour-Fard A, Mandel J, Hunter L, Muller KE. Fast computation by block permanents of cumulative distribution functions of order statistics from several populations. *Communications in Statistics- Theory and Methods*. Volume 37 Issue 18 2008 2815-2824.
20. **Glueck DH**, Muller KE, Karimpour-Fard A, Hunter L. Expected power for the false discovery rate with independence. *Communications in Statistics- Theory and Methods*, Volume 37, Issue 12, 1855-1866, 2008
21. **Glueck DH**, Mandel J, Karimpour-Fard A, Hunter L, and Muller, KE. (2008) "Exact Calculations of Average Power for the Benjamini-Hochberg Procedure," *The International Journal of Biostatistics*: Vol. 4: Iss. 1, Article 1.
22. O'Donnell CI, Glueck CJ, Fingerlin TE, **Glueck DH**. A likelihood model that accounts for censoring due to fetal loss can accurately test the effects of maternal and fetal genotype on the probability of miscarriage. *Human Heredity*, 2008 Oct 17;67(1):57-65.

23. Glueck DH. (2008) [Review of the book *Sample size calculations in clinical research, Second Edition*] *Biometrics* 64: 1307-8.
24. Glueck DH, Lamb MM, O'Donnell, Ringham BM, Brinton JT, Muller KE, Lewin JM, Alonzo TA, Pisano ED. Bias in trials comparing paired continuous tests can cause researchers to choose the wrong screening modality. *BMC Medical Research Methodology*. 2009; 9(4).
25. Glueck DH, Karimpour-Fard A, Mandel J, Muller KE. On probabilities for separating sets of order statistics. To appear in *Statistics*, 2009.

Research Support

Active

5K07CA088811-05 (Glueck) 7/1/2001- 8/31/2009
 National Cancer Institute, NIH
Power and Sample Size Methods for Mammography Trials
 Role: Principal Investigator

Completed

R21 CA76508 (Leslie) 7/1/78 – 6/30/01
 NIH
Novel mechanism for tamoxifen induced endometrial atypia
 The goals of this grant were to perform a prospective trial in women taking tamoxifen for breast cancer. These patients underwent endometrial biopsies and ultrasonographic evaluation of the endometrium. These results were correlated with pathologic and molecular markers for endometrial growth disorders.
 Role: Statistician

3 M01 RR00051-39S1 (Krugman) 12/1/78 – 11/30/01
 NIH
Adult Clinical Research Center
 Role: General Clinical Research Center Statistician

5 P30 CA46934-13 (Bunn) 3/1/88 - 5/30/00
 NIH
University of Colorado Cancer Center Biostatistics Core.
 Role: Statistician

BIOGRAPHICAL SKETCH

NAME Gary K. Grunwald	POSITION TITLE Associate Professor, Biostatistics		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Colorado School of Mines, Golden, CO	B.Sc.	1976	Applied Math
University of Oregon, Eugene, OR	M.S.	1978	Mathematics
University of Washington, Seattle, WA	Ph.D.	1987	Statistics

Positions and Honors

9/1983-8/1984	Statistical consultant, Research and Development Division, Weyerhaeuser Company, Tacoma, WA
9/1981-8/1983,	Teaching/Research assistant, Department of Statistics, University of Washington, Seattle, WA
9/84-8/87	
9/87-3/88	Temporary Lecturer, Department of Management Science, Univ of Washington, Seattle, WA
3/1988-6/1996	Lecturer, Statistics Department, University of Melbourne, Melbourne, Australia
9/96 to 6/97	Visiting Scientist, Geophysical Statistics Project, National Center for Atmospheric Research, Boulder, CO
7/97-6/02	Assistant Professor, Biostatistics, UCD, Denver, CO
7/02-present	Associate Professor, Biostatistics, UCD, Denver, CO
7/05-present	Director, Biostatistics MS & PhD programs, UCD, Denver, CO

Selected peer-reviewed publications (selected from over 70)

1. **Grunwald GK**, Raftery AE, Guttorp P. (1993) Time series of continuous proportions. *Journal of the Royal Statistical Society, Series B*, 55:103-116.
2. **Grunwald GK**, Guttorp P, Raftery AE. (1993) Prediction rules for exponential family state space models. *Journal of the Royal Statistical Society, Series B*, 55:937-943.
3. Ng MP, **Grunwald GK**. (1997) Non-linear regression analysis of the joint-regression model, *Biometrics*, 53:1366-1372.
4. **Grunwald GK**, Hamza K, Hyndman RJ. (1997) Some properties and generalizations of Bayesian time series models. *Journal of the Royal Statistical Society, Series B*, 59: 615-626.
5. **Grunwald GK**, Hyndman RJ. (1998) Smoothing non-Gaussian time series with autoregressive structure. *Computational Statistics and Data Analysis*, 28:171-191.
6. **Grunwald GK**, Jones RH. (2000) Markov models for time series with mixed distribution. *Environmetrics*, 11:327-339.
7. Hyndman RJ, **Grunwald GK**. (2000) Generalized additive modeling of mixed distribution Markov models with application to Melbourne's rainfall. *Australian and New Zealand Journal of Statistics*, 42:145-158.
8. **Grunwald GK**, Hyndman RJ, Tedesco LM, Tweedie RL. (2000) Non-Gaussian conditional linear AR(1) models. *Australian and New Zealand Journal of Statistics*, 42:479-495.
9. Shepard TY, Weil KW, Sharp TS, **Grunwald GK**, Bell ML, Hill JO, Eckel RH. (2001) Occasional physical inactivity combined with a high-fat diet may be important in the development and maintenance of obesity in human subjects. *American Journal of Clinical Nutrition*, 73:703-708.
10. **Grunwald GK**, Seagle HM, Peters JC, Hill JO. (2001) Quantifying and separating the effects of macronutrient composition and non-macronutrients on energy density. *British Journal of Nutrition*, 86:265-276.

11. Gardner SC, **Grunwald GK**, Rumsfeld JS, Mackenzie T, Gao D, Perlin JB, McDonald G, Shroyer AL. (2001) Risk factors for intermediate-term survival following coronary artery bypass graft surgery. *Annals of Thoracic Surgery*, 72:2033-2037.
 12. Tooze JA, **Grunwald GK**, Jones RH. (2002) Analysis of repeated measures data with clumping at zero. *Statistical Methods in Medical Research*, 11:341-355.
 13. Miller LA, **Grunwald GK**, Johnson SL, Krebs NF. (2002) Disease severity at time of referral for pediatric failure to thrive and obesity: time for a paradigm shift? *Journal of Pediatrics*, 141:121-124.
 14. Rumsfeld JS, Magid DJ, Plomondon ME, Sales AE, **Grunwald GK**, Every NR, Spertus JA. (2003) History of depression, angina, and quality of life after acute coronary syndromes. *American Heart Journal*, 145:493-499.
 15. Gao D, **Grunwald GK**, Rumsfeld JS, Mackenzie T, McDonald G, Perlin J, Grover, F, Shroyer ALW (2003). Variation in the Effects of Mortality Risk Factors Over Time Following Coronary Artery Bypass Graft Surgery. *Annals of Thoracic Surgery*, 75:74-81.
 16. **Grunwald GK**, Melanson EL, Forster JE, Seagle HM, Sharp TA, Hill JO. (2003) Comparison of methods for achieving 24-hour energy balance in a whole-room indirect calorimeter. *Obesity Research*, 11:752-759.
- Sharp TA, **Grunwald GK**, Giltinan KEK, King DL, Jatkauskas CJ, Hill JO. (2003) Association of anthropometric measures with risk of diabetes and cardiovascular disease in Hispanic and Caucasian adolescents. *Preventive Medicine*, 37:611-616.
- Kosmiski LA, Kuritzkes DR, Sharp TA, Hamilton JT, Lichtenstein KA, Mosca CL, **Grunwald GK**, Eckel RH, Hill JO. (2003) Total energy expenditure and carbohydrate oxidation are increased in the human immunodeficiency lipodystrophy syndrome. *Metabolism*, 52:620-625.
- Krebs NF, Hambidge KM, Westcott JE, Miller LV, Sian L, Bell ML, **Grunwald GK**. (2003) Exchangeable zinc pool size in infants is related to key variables of zinc homeostasis. *Journal of Nutrition*. 133(Suppl 1):1498S-501S.
- Best AC, Lynch AM, Bozic CM, Miller D, **Grunwald GK**, Lynch DA. (2003) Quantitative CT indexes in idiopathic pulmonary fibrosis: relationship with physiologic impairment. *Radiology*, 228:407-414.
- Grunwald GK**, Sullivan DK, Hise M, Donnelly JE, Jacobsen DJ, Johnson SL, Hill JO. (2003) Number of days, number of subjects, and sources of variation in longitudinal intervention or cross-over feeding trials with multiple days of measurement. *British Journal of Nutrition*, 90:1087-1095.
- Gardner SL, **Grunwald GK**, Rumsfeld, JS, Cleveland JC, Schooley LM, Gao D, Grover FL, McDonald GO, Shroyer AL. (2004) Comparison of short-term mortality risk factors for valve replacement versus coronary artery bypass graft surgery. *Annals of Thoracic Surgery*, 77:549-556.
- Hambidge KM, Huffer JW, Raboy V, **Grunwald GK**, Westcott JL, Sian L, Miller LV, Dorsch JA, Krebs NF. (2004) Zinc absorption from low phytate hybrids of maize and their wild-type isohybrids. *American Journal of Clinical Nutrition*, 79:1053-9.
- Ho MP, Masoudi FA, Peterson ED, **Grunwald GK**, Sales AE, Hammermeister KE, Rumsfeld JS. (2004) Cardiology management improves secondary prevention measures among patients with coronary artery disease. *Journal of the American College of Cardiology*, 43:1517-1523.
- Cornier MA, **Grunwald GK**, Johnson SL, Bessesen DH. (2004) Effects of short-term overfeeding on hunger, satiety, and energy intake in thin and reduced-obese individuals. *Appetite*, 43:253-259.
- Mosca CL, Marshall JA, **Grunwald GK**, Cornier MA, Baxter J. (2004) Insulin resistance as a modifier of the relationship between dietary fat intake and weight gain. *International Journal of Obesity*, 28:803-812.
- Bell ML, **Grunwald GK**. (2004) Mixed models for the analysis of replicated spatial point patterns. *Biostatistics*, 5:633-648.
- Donahoo WT, Bessesen DH, Higbee DE, Lei S, **Grunwald GK**, Higgins J. (2004) Serum lithium concentration can be used to assess dietary compliance in adults. *Journal of Nutrition*, 134:3133-3136.
- Melanson EL, Sharp TA, Seagle HM, Donahoo WT, **Grunwald GK**, Peters JC, Hamilton JT, Hill JO. (2005) Twenty-four-hour metabolic responses to resistance exercise in women. *Journal of Strength and Conditioning Research*, 19:61-66.
- Meng J, Thongngarm T, Nakajima M, Yamashita N, Ohat K, Bates CA, **Grunwald GK**, Rosenwasser LJ. (2005) Association of transforming growth factor-beta1 single nucleotide polymorphism C-

509T with allergy and immunological activities. *International Archives of Allergy and Immunology*, 138:151-160.

Nelson SK, Bose SK, **Grunwald GK**, Myhill P, McCord JM. (2006) The induction of human superoxide dismutase and catalase in vivo: a fundamentally new approach to antioxidant therapy. *Free Radicals in Biology and Medicine*, 40:341-7.

Gao D, **Grunwald GK**, Rumsfeld JS, Schooley LM, Mackenzie T, Shroyer ALW. (2006) Time-varying risk factors for long-term mortality after coronary artery bypass graft surgery. *Annals of Thoracic Surgery*, 81:793-399.

Rumsfeld JS, Magid DJ, Peterson ED, Plomondon ME, Petersen LA, **Grunwald GK**, Every N, Sales AE. (2006) Outcomes after acute coronary syndrome admission to primary versus tertiary Veterans Affairs medical centers: The Veterans Affairs Access to Cardiology study. *American Heart Journal*, 151:32-38.

Mazariegos M, Hambidge KM, Krebs NF, Westcott JE, Lei S, **Grunwald GK**, Campos R, Barahona B, Raboy V, Solomons NW. (2006) Zinc absorption in Guatemalan schoolchildren fed normal or low-phytate maize. *American Journal of Clinical Nutrition*, 83:59-64.

Jones RH, Xu S, **Grunwald GK**. (2006) Continuous time Markov models for binary longitudinal data. *Biometrical Journal*, 40:411-419.

Horton TJ, **Grunwald GK**, Lavelly J, Donahoo WT. (2006) Glucose kinetics differ between women and men, during exercise and after exercise. *Journal of Applied Physiology*, 100:1883-1894.

Xu S, Jones RH, **Grunwald GK**. (2007) Analysis of longitudinal count data with serial correlation. *Biometrical Journal*, 49:1-12.

Wagner BD, **Grunwald GK**, Rumsfeld JS, Hill JO, Ho M, Wyatt HR, Shroyer ALW. (2007) Relationship of body mass index with outcomes after coronary artery bypass graft surgery. *Annals of Thoracic Surgery*, 84:10-16.

Research Support

2 P30 DK048520 Hill (PI)
NIH/NIDDK

9/15/05 – 07/31/2010

Colorado Clinical Nutrition Research Unit

This is a center grant to foster collaborative, multidisciplinary research in nutrition among NIH funded nutrition researchers. The grant supports core laboratories and a pilot project program.

Role: Biostatistician & Collaborator

CICSP-X Shroyer (PI)

10/01/2007 - 09/30/2009

Veterans Administration Headquarters

The goal of this project is to optimize the cardiac surgery programs of the Veterans Health Administration through quality improvement initiatives of patient care.

Role: Director, Biostatistics division

BIOGRAPHICAL SKETCH

NAME	POSITION/ TITLE		
Richard F. Hamman	Professor and Chair Founding Dean, Colorado School of Public Health		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Michigan State University, East Lansing, MI	BS	1968	Biochemistry
Case Western Reserve, Sch. of Med., Cleveland, OH	MD	1972	
University of Washington, Seattle, WA		1972-73	Intern in Medicine
The Johns Hopkins Univ. Sch. of Hygiene & Public Health	MPH	1976	
The Johns Hopkins Univ. Sch. of Hygiene & Public Health, Preventive Medicine Residency, Baltimore, MD		1975-77	Epidemiology
The Johns Hopkins Univ. Sch. of Hygiene & Public Health	Dr PH	1978	Epidemiology

Positions and Honors

1973-1975 Epidemiology and Field Studies, National Institute of Health, Phoenix, AZ
 1981-1983 Member, NIH Epidemiology and Disease Control Study Section
 1982-1986 Member, National Diabetes Data Group
 Member, National Diabetes Advisory Board
 1991-1994 Steering Committee Chair, Insulin Resistance Atherosclerosis Study (IRAS)
 Kelly West Award, American Diabetes Association
 1998-1999 Interim Director, Colorado Health Outcomes Program
 1998-2003 Vice Chair, Diabetes Prevention Program (DPP) Outcomes Study (DPPOS)

Teaching Experience

1979-1983 Assistant Professor, Department of Preventive Medicine and Biometrics,
 University of
 Colorado Health Sciences Center
 Associate Professor, Department of Preventive Medicine and Biometrics, UCHSC
 1989-present Chair, Department of Preventive Medicine and Biometrics, UCHSC
 1992-present Professor, Department of Preventive Medicine and Biometrics, UCHSC
 2006 Director, Colorado School of Public Health Initiative (to develop a
 collaborative School in Colorado)
 2007-present Founding Dean, Colorado School of Public Health

Selected peer-reviewed publications (from over 215)

The Writing Group for the SEARCH for Diabetes in Youth Study Group: Incidence of Diabetes
 in Youth in the United States. *JAMA* 297:2716-2724, 2007
 Lachin JM, Christophi CA, Edelstein SL, Ehrman DA, Hamman RF, Kahn SE, Knowler WC,
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 Florez JC, Jablonski KA, Kahn SE, Franks PW, Dabelea D, Hamman RF, Knowler WC, Nathan
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- The Diabetes Prevention Program Research Group: Prevention of Type 2 Diabetes With Troglitazone in the Diabetes Prevention Program. *Diabetes* 54:1150-1156, 2005
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- Diabetes Prevention Program Research Group: Within-Trial Cost-Effectiveness of Lifestyle Intervention or Metformin for the Primary Prevention of Type 2 Diabetes. *Diab.Care* 26:2518-2523, 2003
- The Look AHEAD Research Group: Look AHEAD (Action for Health in Diabetes): design and methods for a clinical trial of weight loss for the prevention of cardiovascular disease in type 2 diabetes. *Cont Clin Trials* 24:610-628, 2003
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- The Diabetes Prevention Program Research Group: Effects of Withdrawal From Metformin on the Development of Diabetes in the Diabetes Prevention Program. *Diab.Care* 26:977, 2003
- The Diabetes Prevention Program Research Group: Hypertension, insulin, and proinsulin in participants with impaired glucose tolerance. *Hypertension* 40:679-686, 2002
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- Bryant LL, Shetterly SM, Baxter J, Hamman RF: Modifiable risks of incident functional dependence in Hispanic and non-Hispanic white elders: the San Luis Valley Health and Aging Study. *Gerontologist.* 42:690-697, 2002
- Hamman RF: Prevention of Type 2 Diabetes Mellitus. In *The Evidence Base for Diabetes Care*. Williams RL, Tuomilehto J, Herman WH, Eds. London, John Wiley and Sons, 2002
- Innes KE, Byers TE, Marshall JA, Baron A, Orleans M, Hamman RF: Association of a woman's own birth weight with subsequent risk for gestational diabetes.[erratum appears in JAMA 2002 Jun 26;287(24):3212]. *JAMA.* 287:2534-2541, 2002
- Knowler WC, Barrett-Connor E, Fowler SE, Hamman RF, Lachin JM, Walker EA, Nathan DM: Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med* 346:393-403, 2002
- Rewers A, Chase HP, Mackenzie T, Walravens P, Roback M, Rewers M, Hamman RF, Klingensmith G: Predictors of acute complications in children with type 1 diabetes. *J.A.M.A.* 287:2511-2518, 2002

Research Support

Active

Project Number: U01-DK048375

Funding Source: NIDDK

Title: Diabetes Prevention Program Outcomes Study (DPPOS)

Principal Investigator: Hamman, Richard

Period: 08/20/94 – 01/31/09

Project Description: The Diabetes Prevention Program Outcomes Study (DPPOS) is a long-term follow-up of the Diabetes Prevention Program (DPP) to determine the duration of prevention of diabetes, cardiovascular disease and risk factors among persons originally randomized to DPP.

Project Number: U01-DP000247

Funding Source: CDC/NIDDK

Project Title: SEARCH for Diabetes in Youth 2: Colorado Center

Principal Investigator: Dabelea, Dana

Investigator: Hamman, Richard

Period: 09/30/05-09/29/10

Project Description: This study is one of six centers designated by DCD to set-up a national registry of childhood diabetes. Researchers will ascertain, register, characterize, and conduct follow-up of diabetes in youth aged 0-19 with an emphasis on Type 1a (autoimmune), Type 2 and other forms of diabetes in the Western United States.

Project Number: R01 DK077131

Funding Source: NIH NIDDK

Project Title: Spatial Epidemiology of Diabetes in the SEARCH for Diabetes in Youth Study

Principal Investigator: Angela Leise

Period: 1/5/07 – 12/31/09

Project Description: This study will be an ancillary investigation to SEARCH study and will explore the geographic variation of diabetes incidence across the populations of the SEARCH project.

Project Number: 5 R01 DK068001

Funding Source: NIH NIDDK

Project Title: Exploring Perinatal Outcomes among Children (EPOCH)

Principal Investigator: Dana Dabelea

Investigator: Richard Hamman

Period: 9/14/06 – 6/30/10

Project Description: The proposed project is a prospective study proposing to enroll a total of 810 eight to eleven-year old offspring of diabetic pregnancies (exposed group-1), offspring of non-diabetic pregnancies with intrauterine growth restraint (exposed group-2), and control children (unexposed group), as well as their biological mothers (810), in three ethnic groups (non-Hispanic whites, Hispanics, and African-Americans). Comparison of exposed and unexposed groups will allow assessment and disentangling of the effects of exposure to diabetes mellitus in utero and intrauterine growth restraint on body size, fat patterning and insulin resistance markers and features later in childhood. The proposed research should also help understand whether these exposures have direct biological influences or are mediated through lifestyle choices. Such studies could ultimately lead to the development of strategies for early life prevention of future chronic disorders.

Project Number: HHSN27500800018C

Funding Source: NIH NICHD

Project Title: National Children's Study – Douglas County Base Location and Denver County Option Location

Principal Investigator: Dana Dabelea

Period: 9/26/08 – 9/25/14

Project Description: The National Children's Study is a multi-year research study that will examine the effects of environmental influences on the health and development of more than 100,000 children across the United States, following them from before birth until age 21. The goal of the Study is to improve the health and well-being of children.

Project Number: R01-DK059184

Funding Source: NIH NIDDK

Project Title: Defining Diabetes in Youth (DDY)

Principal Investigator: Dana Dabelea

Period: 09/29/02 – 7/31/08

Project Description: This is an ancillary study to SEARCH, which will add controls in both South Carolina (E Mayer-Davis, PI) and Colorado to investigate the role of risk factors for Type 2 diabetes in youth aged 10-19. Statistical analysis will be provided by Wake Forest University (R. D'Agostino, PI), and laboratory analysis will be conducted at the U of Washington (S. Marcovina, PI).

Completed (in the past 3 years)

Project Number: R18 DK064997

Funding Source: NIH NIDDK

Project Title: Family-based prevention of diabetes and its complications

Principal Investigator: Julie Marshall

Period: 09/01/03 – 08/31/08

Project Description: This application proposes a randomized controlled trial to test the effectiveness of a family visit program compared to usual care to increase physical activity and fruit and vegetable consumption, decrease saturated fat and increase the percent of participants achieving Diabetes Quality Improvement Project criteria for self-management. By targeting families of people with diabetes, this intervention will address the prevention continuum (primary prevention in family members without diabetes, secondary prevention identifying family members with previously undiagnosed diabetes, and tertiary prevention of diabetes complications).

Project Number: 1 R01-MH68126

Funding Source: NIMH

Project Title: Exploring Diabetes and Depression in Youth (EDDY)

Principal Investigator: McKeown, Robert, University of South Carolina, School of Public Health

Investigator: Hamman, Richard

Period: 09/30/02 - 08/31/07

Project Description: This is an ancillary study to SEARCH, which will add detailed measures of depressions, social functioning, and diabetes impact to cases aged 10-19 in the Denver metro area.

BIOGRAPHICAL SKETCH

NAME Holly Hedegaard	POSITION TITLE Manager, Emergency Medical Services Division Director, CO violent death and trauma registries		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Univ of CA, Santa Barbara, Santa Barbara, CA	BA	1977	Biochemistry/Molecular Biology
Univ of CA, Santa Barbara, Santa Barbara, CA	MA	1979	Biochemistry/Molecular Biology
Univ of Colorado Health Sciences Ctr, Denver, CO	MD	1988	Medicine
Univ of Colorado Health Sciences Ctr, Denver, CO	Residency	1988-91	General surgery
Univ of Colorado Health Sciences Ctr, Denver, CO	Residency	1992-94	Preventive medicine
Univ of Colorado Health Sciences Ctr, Denver, CO	MSPH	1994	Public health

Positions and Honors

Colorado Department of Public Health and Environment (CDPHE), Denver, Colorado.

2007-2009	Manager, Emergency Medical Services/Trauma Data Program, Health Facilities and Emergency Medical Services Division,
1995-2007	Injury/Medical Epidemiologist, Prevention Services Division,
2003-2009	Director, Colorado Violent Death Reporting System,
1997-2009	Director, Colorado Trauma Registry,
2003-2006	Manager, Injury, Suicide and Violence Prevention Section,
1996-2007	Manager, Injury Epidemiology Program,
1994	Chronic Disease Epidemiologist, Division of Prevention Programs,
2000-2009	Co-chair, Institutional Review Board (IRB), 2001-2005; Member,
2004-2009	Member, Colorado Children's Trust Fund Advisory Board,
2006-2009	Member, Colorado Child Fatality Prevention System Board
1991-1994	Clinical Assistant, Department of Surgery, Presbyterian/St. Luke's Hospital, Denver, CO
1991-1992	Clinical Instructor, Employee and Student Health Clinic, University of Colorado Health Sciences Center (UCHSC), Denver, CO
1980-1984	Research Assistant, National Jewish Center for Immunology and Respiratory Medicine, Denver, CO

Honors

2006	Ellen R. Schmidt Award, State and Territorial Injury Prevention Directors Association
1993	Student Research Award, Epidemiology Exchange, UCHSC, Department of Preventive Medicine/Biometrics
1989	Outstanding Surgical Intern, UCHSC, Department of Surgery
1988	Denver Academy of Surgery Award, UCHSC, School of Medicine
1987	Alpha Omega Alpha, UCHSC, School of Medicine
1986	Student Honors and Research Committee Award, UCHSC, School of Medicine
1977	Phi Beta Kappa, UCSB, Santa Barbara, CA

Teaching Experience

1996-2009	Assistant Clinical Professor, Department of Preventive Medicine/Biometrics, UCHSC, Denver, CO
1995	Clinical Instructor, Department of Preventive Medicine/Biometrics, UCHSC, Denver, CO
1992-1995	Clinical Instructor, Department of Surgery, UCHSC, Denver, CO

Selected peer-reviewed publications

- Bass R, Hedegaard HB, Dillehay L, Moffett A and Englesberg E. The A, ASC and L systems for the transport of amino acids in Chinese Hamster Ovary cells (CHO-K1). *J. Biol. Chem.* 256:10259-10266. 1981.
- Pabst MJ, Hedegaard HB and Johnston RB. Cultured human monocytes require exposure to bacterial products to maintain an optimal oxygen radical response. *J. Immunol.* 128:123-128. 1982.
- Speer CP, Pabst MJ, Hedegaard HB, Rest RF and Johnston RF. Enhanced release of oxygen metabolites by monocyte-derived macrophages exposed to proteolytic enzymes: Activity of neutrophil elastase and cathepsin G. *J. Immunol.* 133:2151-2156. 1984.
- Edwards CK, Hedegaard HB, Zlotnick A, Gangadharam PR, Johnston RB and Pabst MJ. Chronic infection due to *Mycobacterium intracellulare* in mice: Association with macrophage release of prostaglandin E2 and reversal by injection of indomethacin, muramyl dipeptide, or gamma interferon. *J. Immunol.* 136:1820-1827. 1986.
- Hedegaard HB, Davidson AJ and Wright RA. Factors associated with screening mammography in low-income women. *Amer. J. Prev. Med.* 12: 51-56. 1996.
- Plomondon M, Glazner JE, Marine WM, and Hedegaard HB. Modeling hospital costs of firearm-related injuries: the effects of injury characteristics and payer source. Submitted to *JAMA*, June 1997.
- Hedegaard HB, Wake M, and Hoffman RE. Firearm-related injury surveillance in Colorado. *Amer. J. Prev. Med.* 15 (3S): 38-45. 1998.
- Nuss R, Hedegaard HB, Riske B, Hoffman RE, and Manco-Johnson M. Medical care for haemophilia. *Haemophilia.* 4(6): 806-11.1998.
- Unintentional and undetermined poisoning deaths – 11 states, 1990-2001. *Morbidity and Mortality Weekly Report* 53(11): 233-238. 2004.
- Rewers A, Hedegaard HB, Lezotte D, Meng CK, Battan FK, Emery K, Hamman RF. Childhood femur fractures, associated injuries and sociodemographic risk factors. A population-based study. *Pediatrics Electronic Pages* <http://pediatrics.aappublications.org>. 2005.
- Powell V, Barber CW, Hedegaard HB, et al. Using National Violent Death Reporting System data for suicide prevention: promising practices in seven states. *Injury Prevention* 12 (11): ii28-ii31. 2006.
- Cothren C, Moore EE, Hedegaard HB and Meng CK. Epidemiology of Urban Trauma Deaths: A Comprehensive Reassessment 10 Years Later. *World Journal of Surgery.* 31 (7): 1507-1511. 2006.
- Gabella BA, Mangione EJ, Hedegaard HB and Kelly JP. Comparison of nursing home residents with and without traumatic brain injury: Use of the Minimum Data Set. *The Journal of Head Trauma Rehabilitation.* 22(6): 368-376. 2007.
- Strategies to improve external cause-of-injury coding in state-based hospital discharge and emergency department data systems. *Morbidity and Mortality Weekly Report*, 57(RR01);1-15. 2008.

Chapters

- Hedegaard HB and Pabst MJ. Preservation of superoxide anion-generating capacity on cultured human monocytes by treatment with muramyl dipeptide or lipopolysaccharide. In: *Immunomodulation by Microbial Products and Related Synthetic Compounds*. Yamamura Y and Kotani S, eds. Elsevier Science Publishing Co. 1981. pp 205-208.
- Pabst MJ, Cummings NA, Hedegaard HB and Johnston RB. Human macrophages may be normally "primed" for a strong oxygen radical response. In: *Biological Response Modifiers in Human Oncology and Immunology*. Klein T, Specter S, Friedman H and Szentivanyi A, eds. Plenum Publishing Corp. 1983. pp 215-221.
- Johnston RB, Pabst MJ, Speer CP, Hedegaard HB, Rest RF and Bryant SM. Enhancement of the oxidative metabolic response of macrophages by proteolytic enzymes. In: *Mononuclear Phagocytes in Inflammation*. van Furth R, ed. Martinus Nijhof, The Hague. 1985. pp 445-451.
- Hedegaard HB and Staerkel R. Cancer: Genetic versus acquired. In: *Surgical Debates III*. Harken AH, ed. B.C. Decker, Inc. 1990. pp 133-156.

Hedegaard HB and van Stiegmann G. Esophageal varices and portal hypertension. In: Surgical Secrets. Abernathy CM and Abernathy BB, eds. Hanley and Belfus. 1992. pp 125-130.

Research Support

Active

National Violent Death Reporting System, 2003-2009, CDC

Colorado Trauma Registry, 1997-2009, state funds

Emergency Medical Services Data System, 2000-2009, state funds, and federal funds from the National Highway Traffic Safety Administration and the EMS for Children Program at HRSA

Core Injury Surveillance and Prevention, 2005-2009, CDC

Completed

Enhanced Injury Surveillance, 2000-2005, CDC

Comparison of trauma registry and hospital discharge data supplement, 2003-2004, CDC

Traumatic Brain Injury Surveillance supplement, 2002-2003, CDC

Spinal Cord Injury Surveillance supplement, 2000-2002, CDC

Firearm Injury Surveillance, 1994-1997, CDC

BIOGRAPHICAL SKETCH

NAME Richard E. Hoffman	POSITION TITLE Associate professor adjoint		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Stanford University, Stanford, CA	BA	1971	Biological sciences
University of Texas, Dallas TX	MD	1975	Medicine
Centers for Disease Control in NM		1978-80	Epidemic intelligence service
Duke University, Durham, NC	Residency	1980-82	Family medicine
Johns Hopkins University, Baltimore, MD	MPH	1983	Epidemiology

Positions and Honors

July 1976 to June 1978	General Medical Officer, National Health Service Corps, U.S. Public Health Service; Saguache and Center, CO.
June 1983	Locum tenens in family practice in Seward, Alaska and in emergency room care in Homer, AL.
1983 -1985	Medical Epidemiologist, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, GA.
1985	Attending physician, public health well child clinics in Vienna and Fulton, MO.
1985 - 1986	Medical Epidemiologist, Center for Environmental Health and Injury Control, Centers for Disease Control and Prevention.
1986 - 2001	State Epidemiologist (February 1987 to August 2001), Colorado Department of Public Health and Environment (CDPHE); Chief Medical Officer (May 1998 to August 2001); Chief, Communicable Disease Control (1986-87); Colorado TB Control Officer (1986-1998).
1994- present	Associate Professor (Adjoint), Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, CO (now the Colorado School of Public Health).
Oct 2001 - present	Medical Epidemiologist and Consultant in public health science, law, and policy.
Jan-Feb 2003	For two months served as the Interim CEO and President of Planned Parenthood of the Rocky Mountains.

Honors

1982	Resident Research Award of the North Carolina Academy of Family Physicians
1983	Johns Hopkins University Chapter of Delta Omega, National Honorary Public Health Society
1987	The Secretary's Recognition Award, U.S. Department of Health and Human Services, to the CDC/CEHIC Dioxin Serum-Adipose Study Group
1988	Regional Director's Citation, Region VIII, U.S. Department of Health and Human Services
1988	Employee of the Month, Colorado Department of Health
1990	Cited for Outstanding Achievement in support of the Colorado Head Injury Foundation
1991	University of Colorado Department of Preventive Medicine and Biometrics Clinical/Affiliated Faculty Award
1997	Group Recognition Award of the Food and Drug Administration, U.S. DHHS Colorado Department of Public Health and Environment Star Performer award
2000	Colorado Department of Public Health and Environment Star Performer award
2001	Colorado Department of Public Health and Environment Star Performer award Colorado Public Health Association Lifetime Achievement Award

- 2002 Co-winner, The Alexander D. Langmuir Award of the CDC
- 2003 Florence Rena Sabin Award, University of Colorado Health Sciences Center
National Epidemiology Award, Council of State and Territorial Epidemiologists

Selected peer-reviewed publications

- Civan MM, Hoffman RE. Effect of aldosterone on electrical resistance of toad bladder. *Am J Physiol* 1971; 220:324-328.
- Hoffman RE, Mann JM, Calderone J, et al. Acute fluoride poisoning in a New Mexico elementary school. *Pediatrics* 1980; 65:897-900.
- CDC. Type F infant botulism. *MMWR* 1980; 29: 85-86.
- Frank JA, Hoffman RE, Mann JM, et al. Imported measles--a potential control problem. *JAMA* 1981; 245:264-266.
- Mann JM, Martin S, Hoffman RE, et al. Patient recovery from type-A botulism: morbidity assessment following a large outbreak. *Am J Pub Health* 1981; 71:266-269.
- Mann JM, Hoffman RE, Rollag OJ, et al. The advent of human diploid cell rabies vaccine: impact on vaccine utilization in New Mexico. *Am J Pub Health* 1981; 71:423-424.
- Mann JM, Preblud SR, Hoffman RE, et al. Assessing risks of rubella infection during pregnancy: a standardized approach. *JAMA* 1981; 245:1647-1652
- Hoffman RE, Pincomb BJ, Skeels MR, et al. Type F infant botulism. *Am J Dis Children* 1982; 136:270-271
- Hoffman RE, Zack MM, Davis LE, et al. Increased incidence and prevalence of multiple sclerosis in Los Alamos County, New Mexico. *Neurology* 1981; 31:1489-1492.
- Mann JM, Francis DP, Hoffman RE, et al. Assessment of immunoglobulin use for hepatitis A control in New Mexico. *Public Health Reports* 1982; 97:516-520.
- Lapham SC, Weber SF, Burkhart MJ, Hoffman RE, et al. Risk factors for victimization during the 1980 riot at the Penitentiary of New Mexico. *Am J Epidemiology* 1984; 119:218-226.
- Hoffman RE. The use of epidemiologic data in the courts. *Am J Epidemiology* 1984; 120:190-202.
- Hoffman RE, Stehr-Green PA, Webb KW, et al. Health effects of long-term exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *JAMA* 1986; 255:2031-2038.
- Patterson DG, Hoffman RE, Needham LL, et al. Levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin in adipose tissue of exposed and control persons in Missouri. An interim report. *JAMA* 1986; 256:2683-2686.
- Hoffman RE. Tracking 1990 objectives for injury prevention with the 1985 National Health Interview Survey. *Public Health Reports* 1986; 101:581-586.
- CDC. Fatality at waterslide amusement park--Utah. *MMWR* 1986; 35:429-30.
- Stehr-Green PA, Andrews JS, Hoffman RE, et al. An overview of the Missouri Dioxin Studies. *Arch Environmental Health* 1988; 43:174-177.
- Stockbauer JW, Hoffman RE, Schramm WF, and Edmonds LD. Reproductive outcomes of mothers potentially exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *Am J Epidemiology* 1988; 128:410-419.
- Meiklejohn G, Hoffman RE, and Graves P. Effectiveness of influenza vaccine when given during an outbreak of influenza A/H3N2 in a nursing home. *J of the Am Geriatric Society*, 1989; 37:407-410.
- Hoffman RE, Valway SD, Wolf FC, Raevsky C, et al. Comparison of AIDS and HIV antibody surveillance data in Colorado. *J of Acquired Immune Deficiency Syndromes*, 1989; 2:194-200.
- Andrews JS, Garrett WA, Patterson DG, Needham LL, Roberts DW, Bagby JR, Anderson JE, Hoffman RE, and Schramm W. 2,3,7,8-tetrachlorodibenzo-p-dioxin levels in adipose tissue

- of persons with no known exposure and in exposed persons. *Chemosphere* 1989; 18:499-506.
- Stehr-Green PA, Naylor PH, and Hoffman RE. Diminished thymosin alpha-1 levels in persons exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin. *J of Toxicology and Environmental Health* 1989; 28:285-295.
- Hoffman RE and Shillam PJ. The use of hygiene, cohorting, and antimicrobial therapy to control an outbreak of shigellosis. *Am J of Diseases of Children*, 1990; 144:219-221.
- Dean AG, Yip R, and Hoffman RE. High incidence of mild acute mountain sickness in conference attendees at 10,000 foot altitude. *J of Wilderness Medicine*, 1990; 1:86-92.
- Matte TD, Hoffman RE, Rosenman KD, Stanbury M. Surveillance of occupational asthma under the SENSOR model. *Chest* 1990; 98: 5 Supplement; 173S-178S.
- Hoffman RE, Wolf FC, Wood RC, Raevsky C, and Vernon TM. Confidential versus anonymous human immunodeficiency virus antibody testing. *Western J of Medicine* 1990; 152:75.
- Hersch BS, Markowitz LE, Hoffman RE, et al. A measles outbreak at a college with a prematriculation immunization requirement. *Am J of Public Health* 1991; 81:360-4.
- Hoffman RE, Wood RC, and Kreiss K. Investigation of building-related asthma in Denver office workers. *Am J Public Health* 1993; 83:89-93.
- Spencer NE, Hoffman RE, Raevsky CA, et al. Partner notification for human immunodeficiency virus infection in Colorado: Results across index case groups and costs. *Internat J of STD & AIDS* 1993; 4:26-32.
- Cook M, Chappell WR, Hoffman RE, and Mangione E. Assessment of blood lead levels in children living in a historic mining and smelting community. *Am J of Epidemiology* 1993; 4:447-455.
- Miller L, Beebe JL, Butler JC, Martin W, Benson R, Hoffman RE, and Fields B. Use of polymerase chain reaction in an epidemiologic investigation of Pontiac Fever. *J Infectious Diseases* 1993; 168:769-72.
- Hoffman RE, Henderson NA, O'Keefe K, and Wood RC. Occupational exposure to HIV-infected blood by Denver police officers. *Am J Epidemiology* 1994; 139:910-917.
- Miller LA, Hoffman RE, Baron AE, Marine WM and Melinkovich P. Risk factors for delayed immunization against measles, mumps, and rubella in Colorado two-year olds. *Pediatrics* 1994; 94:213-219.
- Hoffman RE, Spencer NE, and Miller LA. Comparison of partner notification at anonymous and confidential HIV test sites in Colorado. *J Acq Imm Deficiency Syndromes Human Retrovirology* 1995; 8:406-410.
- Dalton C, Hoffman RE, Pape J. Iguana-associated salmonellosis in children. *Pediatric Infect Dis J* 1995; 14:319-320.
- Gabella B, Reiner KL, Hoffman RE, Cook M, and Stallones L. Relationship of helmet use and head injuries among motorcycle crash victims in El Paso County, Colorado, 1989-1990. *Accid Anal and Prev.* 1995; 27:363-369.
- Hoxworth TL, Hoffman RE, Cohn DL, and Davidson AJ. Anonymous HIV testing: Does it attract clients who would not seek confidential testing? *AIDS & Public Policy J* 1994; 9:182-188.
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- Nuss R, Hedegaard H, Riske B, Hoffman R, and Manco-Johnson M. Medical care for persons with hemophilia. *Haemophilia* 1998; 4:806-811.
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- Nuss R, Hoffman R, and Hammond L. ED visits by males with hemophilia. *Am J Emerg Med* 2002; 20:74-78.
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- Hoffman RE. Preparing for a bioterrorist attack: Legal and administrative strategies. *Emerging Infectious Diseases* 2003; 9:241-5.
- Hoffman RE, Greenblatt J, Matyas BT, et al. Preventing foodborne illness: A national assessment of capacity in state and territorial health agencies. *Emerging Infectious Diseases* 2005; 11:11-16.
- Lemmings J, Robinson L, Hoffman R, et al. Assessing capacity for surveillance, prevention, and control of West Nile Virus infection—United States, 1999 and 2004. *MMWR* 2006; 55:150-153.
- Kreiss K, Esfahan RS, Antao V, Odenchantz J, Lezotte DC, and Hoffman RE. Risk factors for asthma among cosmetology professionals in Colorado. *J Occupational Environmental Medicine* 2006; 48:1062-1069.
- Reimann CA, Hayes EB, DiGuseppi C, Hoffman R, et al. Epidemiology of neuroinvasive arboviral disease in the United States, 1999-2007. *Am J Top Med Hyg* 2008; 79(6): 974-979.

BIOGRAPHICAL SKETCH

NAME Hokanson, John E.	POSITION TITLE Associate Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of California at San Diego, CA	BA	1979	Biology
University of Hawaii at Manoa, HI	MPH	1981	Epidemiology
University of Washington, Seattle, WA	PhD	1998	Epidemiology

Positions and Honors

1981-82	Epidemiologist, Hawaii State Health Department, Honolulu, Hawaii
1983-1998	Research Scientist, Division of Metabolism, Endocrinology, and Nutrition, University of Washington, Seattle, Washington
1998-1999	Post Doctoral Fellow, Division of Metabolism, Endocrinology, and Nutrition, University of Washington, Seattle, Washington
1999-2005	Assistant Professor, Dept of Preventive Medicine & Biometrics, School of Medicine, UCHSC, Denver, CO
2005-2008	Associate Professor, Dept of Preventive Medicine & Biometrics, School of Medicine UCDHSC, Denver, CO
2006-2008	Head, Epidemiology and Community Health, Dept of Preventive Medicine & Biometrics, School of Medicine, UCDHSC, Denver CO
2008-	Associate Professor, Dept of Epidemiology, Colorado School of Public Health, UCD, Denver, CO
2008-	Chair, Department of Epidemiology, Colorado School of Public Health, UCD, Denver, CO

Societies

1993-	Fellow, Council on Arteriosclerosis, American Heart Association
1999-	Professional Member, Council on Epidemiology & Statistics American Diabetes Association
1999-	Member, American Society of Human Genetics

Honors

2002	Roger R. Williams Memorial Award for Genetic Epidemiology and the Prevention and Treatment of Atherosclerosis. American Heart Association Council on Epidemiology and Prevention
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Selected peer-reviewed publications

1. Austin, M.A., Pairitz-Jarvik, G., Hokanson, J.E., Edwards, K.: Complex segregation analysis of LDL peak particle diameter. *Genet Epidemiol.* 10:599-604, 1993.
2. Fujimoto, W.F., Abbate, S.L., Kahn, S.E., Hokanson, J.E., Brunzell, J.D.: The visceral adiposity syndrome in Japanese-American men. *Obesity Res.* 2:364-371, 1994.
3. Hokanson, J.E. Krauss, R.M., Albers, J.J., Austin, M.A., Brunzell, J.D.: Low density lipoprotein physical and chemical properties in familial combined hyperlipidemia. *Arterioscler Thromb Vasc Biol.* 15:452-459, 1995.
4. Purnell, J.Q., Marcovina, S.M., Hokanson, J.E., Kennedy, H., Cleary, P.A., Steffes, M.W., Brunzell, J.D.: Effect of intensive diabetes therapy on Lp(a), ApoB, and lipoprotein cholesterol distribution in the Diabetes Control and Complication Trial. *Diabetes.* 44:1218-1226, 1995.
5. Hokanson, J.E., Austin, M.A.: Plasma triglyceride is a risk factor for cardiovascular disease independent of HDL cholesterol. A meta-analysis of population-based prospective studies. *J Cardio Risk.* 3:213-219, 1995.
6. Capell, W.H., Zambon, A., Austin, M.A., Brunzell, J.D., Hokanson, J.E.: Compositional differences of low density lipoprotein (LDL) particles in normal subjects with LDL subclass phenotype A and LDL subclass phenotype B. *Arterio Thromb Vasc Biol.* 16:1040-1046, 1996.
7. O'Brien, K.D., Alpers, C.E., Hokanson, J.E., Wang, S., Chait, A.: Oxidation-specific epitopes in human coronary atherosclerosis are not limited to oxidized low-density-lipoprotein. *Circulation*

- 94:1216-1225, 1996.
8. Nevin, DN., Zambon, A., Furlong, CE., Richter, RJ., Humbert, R., Hokanson, JE., Brunzell, JD.: Paraoxonase genotypes, lipoprotein lipase activity and high density lipoproteins. *Arterio Thromb Vasc Biol.* 16:1243-1246, 1996.
 9. Hokanson, J.E.: Lipoprotein lipase gene variants and risk of coronary disease: A quantitative analysis of population-based studies. *Int J Clin Res.* 27:24-34, 1997.
 10. Zambon, A., Deeb, S.S., Hokanson, J.E., Brown, B. G., Brunzell, J.D.: Common variants in the promoter of the hepatic lipase gene are associated with lower levels of hepatic lipase activity, buoyant LDL and higher HDL₂ cholesterol. *Arterioscler Thromb Vasc Biol.* 18: 1723-1729, 1998.
 11. Purnell, J.Q., Hokanson, J.E., Marcovina, S.M., Cleary, P.A., Steffes, M.W., Brunzell, J.D.: Effect of excessive weight gain with intensive therapy of type 1 diabetes on lipid levels and blood pressure. *JAMA.* 280(2): 140-46. 1998.
 12. Brunzell, J.D., Hokanson, J.E.: The dyslipidemia of central obesity and insulin resistance. *Diabetes Care* 22(3):C10-13. 1999.
 13. Sibley, S.D., Hokanson, J.E., Steffes, M.W., Purnell, J.Q., Marcovina, S.M., Cleary, P.A., Brunzell, J.D.: Increased small-dense low-density and intermediate-density lipoproteins with albuminuria in type I diabetes. *Diabetes Care.* 22(7):1165-1170. 1999.
 14. Zambon, A., Hokanson, JE., Brown, BG., Brunzell, JD.: Evidence for a new pathophysiological mechanism for coronary artery disease regression: Hepatic lipase mediated changes in LDL density. *Circulation.* 99: 1959-1964, 1999.
 15. Hokanson, J.E., Brunzell, J.D., Jarvik, G.P., Wijmsman, E.M., Austin, M.A.: Linkage of low-density lipoprotein size to the lipoprotein lipase gene in heterozygous lipoprotein lipase deficiency. *Am. J. Hum. Genet.* 64: 608-618, 1999.
 16. Carr, M.C., Hokanson, J.E., Deeb, S.S., Mitchell, E.S., Brunzell, J.D.: A hepatic lipase gene promoter polymorphism attenuates the increase in hepatic lipase activity with increasing intraabdominal fat in women. *Arterioscler Thromb Vasc Biol.* 19:2696-2700. 1999.
 17. Hokanson, J.E.: Functional variants in the lipoprotein lipase gene and risk of cardiovascular disease. *Curr Opin Lipidol* 10: 393-399. 1999.
 18. Murdoch, S., Carr, M., Hokanson, J., Brunzell, J., Albers, J.: PLTP Activity in Premenopausal Women: Relationship with Lipoprotein Lipase, HDL, LDL, Body Fat and Insulin Resistance. *J Lipid Res* 41(2):237-44, 2000.
 19. Carr, MC., Kim, KH., Zambon, A., Mitchell, ES., Woods, NF, Casazza, CP., Purnell, JQ., Hokanson, JE., Brunzell, JD., Schwartz, RS.: Changes in LDL density across the menopausal transition. *J Investig Med* 48(4):245-50, 2000
 20. Zambon, A., Deeb, S., Brown, G., Hokanson, J., Brunzell, J.: A Common Hepatic Lipase Gene Promoter Variant Determines Clinical Response to Intensive Lipid Lowering Treatment. *Circulation* 103:792-98, 2001.
 21. Carr, M.C., Hokanson, J.E., Zambon, A., Deeb, S.S., Barrett, P.H.R., Purnell, J.Q., Brunzell, J.D.: Intraabdominal fat accounts for a portion of the gender differences in hepatic lipase activity and LDL/HDL heterogeneity. *J Clin Endocrinol Metab.* 165:6:2284-2288, 2001.
 22. Hokanson, J.E., Cheng, S., Snell-Bergeon, S.K., Fijal, B.A., Grow, M.A., Erlich, H.A., Ehrlich, J., Eckel, R.H., Rewers, M.: A common polymorphism in the hepatic lipase gene (LIPC-480C>T) is associated with an increase in coronary calcification in Type 1 Diabetes. *Diabetes.* 51 (4) 1208-1213. 2002.
 23. Hink, R.L., Hokanson, J.E., Long J.C., Goldman, D., Shah, I., Sikela, J.M.: Investigation of DUSP8 and CALCA genes in Alcohol Dependence. *Addiction Biology.* 8:301-309. 2003
 24. Bergman, R.N., Zaccaro, D.J., Watanabe, R.M., Haffner, S.M., Saad, M.F., Norris, J.M., Wagerknecht, L.E., Hokanson, J.E., Rotter, J.I., Rich, S.S.: Minimal Model-Based Insulin Sensitivity Has Greater Heritability and a Different Genetic Basis Than Homeostasis Model Assesment or Fasting Insulin. *Diabetes.* 52:2168-2174. 2003
 25. Purnell, J.Q., Dev, R.K., Steffes, M.W., Cleary, P.A., Palmer, J.P., Hirsch, I.B., Hokanson, J.E., Brunzell, J.D.: Relationship of family history of type-2 diabetes and hypoglycemia to weight gain and lipids with intensive and conventional therapy in the Diabetes Control and Complications Trial. *Diabetes.* 52(10): 2623-9. 2003

26. Hokanson, J.E., Langefeld, C.D., Mitchell, B.D., Lange, L.A., Goff, D.C., Haffner, S.M., Saad, M.F., Rotter, J.I.: Pleiotropy and heterogeneity in the expression of antherogenic lipoproteins: The IRAS family study. *Hum Heredity*, 55(1) 46-50. 2003
27. Dabelea, D., Kinney, G., Snell-Bergeon, J.K., Hokanson, J.E., Eckel, R.H., Ehrlich, J., Garg, S., Hamman, R.F., Rewers, M.: The effect of type 1 diabetes on the gender difference in coronary artery calcification: A role for insulin resistance? *Diabetes*. 52(11): 2833-9. 2003
28. Snell-Bergeon, J.K., Hokanson, J.E., Eckel, R.H., Ehrlich, J., Quaife, R., Garg, S., Jensen, L., Rewers, M.: Progression of coronary artery calcification in type 1 diabetes: The importance of glycemic control. *Diabetes Care*. 26(10): 2923-8. 2003
29. Hokanson, J.E., Kamboh, M.I., Scarborough, S., Eckel, R.H., Hamman, R.F.: Effects of the Hepatic Lipase Gene and Physical Activity on Coronary Heart Disease Risk. *Am.J.Epidemiol.* 158(9): 836-43. 2003.
30. Hokanson, J.E., Mackenzie, T., Kinney, G., Snell-Bergeon, J.K., Ehrlich, J., Eckel, R.H., Rewers, M.: Evaluating changes in coronary artery calcium: An analytical approach that accounts for inter-scan variability. *AJR Am. J. Roentgenol.* 182:1327-1332. 2004
31. Langefeld, C.D., Wagenknecht, L.E., Rotter, J.I., Williams, A.H., Hokanson, J.E., Saad, M.F., Bowden, D.W., Haffner, S.M., Norris, J.M., Rich, S.S., Mitchell, B.D.: Linkage of the metabolic syndrome to 1q23-q31 in Hispanic families: The IRAS family study. *Diabetes*. 53(4):1170-1174. 2004
32. Mitchell, B.D., Zaccaro, D., Wagenknecht, L.E., Scherzinger, A.L., Bergman, R.N., Haffner, S.M., Hokanson, J., Norris, J.M., Rotter, J.L., Saad, M.F.: Insulin sensitivity, body fat distribution, and family diabetes history: the IRAS Family Study. *Obes Res*. 12(5):881-9. 2004
33. Snell-Bergeon J.K., Hokanson J.E., Kinney G.L., Dabelea D., Ehrlich J., Eckel R.H., Ogden L., Rewers M.: Measurement of Abdominal Fat by CT Compared to Waist Circumference and BMI in Explaining the Presence of Coronary Calcium. *Int J Obes Relat Metab Disord*. 2004.
34. Maahs, D.M., Kinney, G.L., Wadwa, P., Snell-Bergeon, J.K., Dabelea, D., Hokanson, J.E., Ehrlich, J., Garg, S., Eckel, R.H., Rewers, M.: Hypertension prevalence, awareness, treatment, and control in an adult type 1 diabetes population and a comparable general population. *Diabetes Care*. 28(2):301-6. 2005.
35. Maahs, D.M., Ogden, L.G., Kinney G.L., Wadwa, P., Snell-Bergeon, J.K., Dabelea, D., Hokanson, J.E., Ehrlich, J., Eckel, R.H., Rewers, M.: Low Plasma Adiponectin Levels Predict Progression of Coronary Artery Calcification. *Circulation*. 111(6):747-53. 2005.
36. Wadwa RP, Kinney GL, Maahs DM, Snell-Bergeon J, Hokanson JE, Garg SK, Eckel RH, Rewers M. Awareness and treatment of dyslipidemia in young adults with type 1 diabetes. *Diabetes Care*. 28(5):1051-6. 2005.
37. Mehrotra, R., Budoff, M., Hokanson J.E., Ipp, E., Takasu, J., Adler, S. Progression Of Coronary Artery Calcification in Diabetics With and Without Chronic Kidney Disease. *Kidney International*. 68: 1258-1266. 2005.
38. Calverley DC, Baldermann LV, Heldt ML, Kinney GL, Hokanson JE. Increased platelet Fc receptor expression in diabetes is limited to those with type 2 disease and low LDL cholesterol levels. *Atherosclerosis* 185, 173-176. 2005.
39. Zambon A, Brown BG, Hokanson JE, Motulsky AG, Brunzell JD: Genetically determined Apo B levels and peak LDL density predict angiographic response to lipid-lowering therapy. *Journal of Internal Medicine*. 259:401-409, 2006.
40. Goodarzi MO, Taylor KD, Guo X, Hokanson JE, Haffner SM, Cui J, Chen Y-DI, Wagenknecht LE, Bergman RN, Rotter JI: Haplotypes in the lipoprotein lipase gene influence fasting insulin and the discover of a new risk haplotype: The Insulin Resistance Atherosclerosis Study. *J Clin Endocrinol Metab*. 92 (1): 293-96. 2007.
41. Kretowski A, Hokanson JE, McFann K, Kinney GL, Snell-Bergeon JK, Maahs DM, Wadwa RP, Eckel RH, Ogden LG, Garg SK, Li J, Cheng S, Erlich HA, Rewers M.: The apolipoprotein A-IV Gln360His polymorphism predicts progression of coronary artery calcification in patients with type 1 diabetes.. *Diabetologia* 2006 49(8):1946-54.
42. McClure DL, Valuck RJ, Glanz M, Hokanson JE: Statin and statin/fibrate use were significantly associated with increased myositis risk in a managed care population. *J. Clinical Epidemiol*. 2006.
43. Hokanson JE, Kinney GL, Cheng S, Snell-Bergeon JK, Erlich HA, Rewers M. Susceptibility to Type 1 Diabetes is associated with ApoCIII gene haplotypes. *Diabetes*. 55:834-838, 2006.

44. McClure DL, Valuck RJ, Glanz M, Hokanson JE.: Systematic review and meta-analysis of clinically relevant adverse events from HMG CoA reductase inhibitor trials worldwide from 1982 to present. *Pharmacoepidemiol Drug Saf.* 16 (2): 132-43. 2007.
45. Kretowski A, McFann K, Hokanson JE, Maahs DM , Kinney GL, Snell-Bergeon JK, Wadwa RP, Eckel RH, Ogden LG, Garg SK, Li J, Cheng S, Erlich HA, Rewers M.: Polymorphisms of The Renin-Angiotensin System Genes Predict Progression of Subclinical Coronary Atherosclerosis. *Diabetes.* 56 (3): 863-71. 2007.
46. Sontag MK, Corey M, Hokanson JE, Marshall JA, Sommer SS, Zerbe GO, Accurso FJ.: Genetic and physiologic correlates of longitudinal immunoreactive trypsinogen decline in infants with cystic fibrosis identified through newborn screening. *J Pediatr.*149(5):650-657. 2006.

Research Support

Active

R01 HL61753 (Rewers) 9/1/99- 6/30/09
 NIH, NHLBI
 Subclinical Heart Disease in Insulin-Dependent Diabetes
 To apply EBCT to study coronary artery calcification and associated risk factors in 800 IDDM patients and 600 appropriated controls twice over a 3-year follow-up period

RO1 HL61019 (Norris) 07/1/99-12/31/2009

NIH, NHLBI
 Insulin Resistance Atherosclerosis Family Study
 A genome wide analysis of insulin resistance traits in Hispanics and African-Americans.

R01 HL080630-01A1 (Razzaghi) 02/01/06 – 01/31/09
 NIH, NHLBI
 Role of Endothelial Lipase in Atherosclerosis
 To determine the role of the endothelial lipase gene in coronary atherosclerosis.

1R01HL089897-01A1 (Crapo, PI) 9/30/07 – 9/29/13
 NIH
 (1 of 2) Genetic Epidemiology of COPD: Genome-Wide Analysis
 The genome wide analysis center will carry out detailed analysis of SNP's and COPD and COPD subtypes.

1 R01 HL089856-01A1 (Silverman, PI) 9/30/07 – 9/29/13
 NIH
 (2 of 2) Genetic Epidemiology of COPD: Genome-Wide Analysis
 The genome wide analysis center will carry out detailed analysis of SNP's and COPD and COPD subtypes.

Completed

R01 HL079611-01 (Rewers, PI) 09/30/04 – 09/29/08
 NIH, NIDDK
 Determinants of Accelerated CVD in Type 1 Diabetes
 To further explore novel risk factors for CVD and their relationship to the accelerated atherosclerosis experienced by patients with type 1 diabetes.

OE FHA EPI09000003 (Hokanson, PI) 7/1/08 – 12/30/08
 Colorado Department of Public Health and Environment
 Epidemiologic Study of HIV Drug Resistance in Colorado
 The purpose of this project is to provide a link between surveillance data and HIV prevention and treatment through analysis of HIV drug resistance trends locally and across the state.

RO1 DK61886-01 (Accurso) 9/30/01- 8/31/2005

NIH, NIDDK

Determinants of Early Pancreatic Injury in Cystic Fibrosis

This grant funds examination of modifier genes of early pancreatic injury in cystic fibrosis.

PO PPG04000164 (Hokanson) 2004 - 2005

Colorado Department of Public Health and the Environment

CDPHE Breast Cancer Study

Determinants of interval breast cancers in Colorado.

BIOGRAPHICAL SKETCH

NAME Katherina J. Kechris-Mays	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of California, Los Angeles	B.S.	1997	Applied Mathematics
University of California, Berkeley	M.A.	1999	Statistics
University of California, Berkeley	Ph.D.	2003	Statistics
University of California, San Francisco	Post-Doctoral Fellow	2003-2005	Computational Biology

Positions and Honors

- 1998-2003 Graduate Research Assistant, Teaching Assistant and Statistical Consultant, Department of Statistics, UC Berkeley.
- 2003-2005 Post-Doctoral Fellow, Department of Biochemistry and Biophysics, Center for Bioinformatics and Molecular Biostatistics, UCSF.
- 2006-present Assistant Professor, Department of Preventive Medicine and Biometrics and Core Faculty, Computational Bioscience Program, University of Colorado Denver, School of Medicine.

Honors

- 1997 Sherwood Prize in Mathematics, Department of Mathematics, UCLA.
- 1997 *Summa cum laude*, UCLA.
- 1999-2002 National Science Foundation Graduate Research Fellowship.
- 2002-2003 National Science Foundation VIGRE (Vertical Integration of Research and Education in the Mathematical Sciences) Fellowship, Department of Statistics, UC Berkeley.
- 2003 Evelyn Fix Memorial Medal and Citation, Department of Statistics, UC Berkeley.
- 2003-2005 Alfred P. Sloan Foundation/U.S. Department of Energy Post-Doctoral Fellowship in Computational Molecular Biology/Bioinformatics.
- 2008 University of Colorado Denver Nominee Microsoft Research New Faculty Fellowship Grant.

Selected Peer-Reviewed Publications

- P. Bickel, **K. Kechris**, P. Spector, G. Wedemayer and A. Glazer (2002). Finding “important” sites in proteins. *Proceedings of the National Academy of Sciences, USA*, 99:14764-14771.
- K. Kechris**, E. van Zwet, P. Bickel and M. Eisen (2004). Detecting DNA regulatory motifs by incorporating positional trends in information content. *Genome Biology*, 5:R50.
- E. van Zwet, **K. Kechris**, P. Bickel and M. Eisen (2005). Estimating motifs under order restrictions. *Statistical Applications in Genetics and Molecular Biology*, Vol. 4: No. 1, Article 1.
- Klebes, A. Sustar, **K. Kechris**, H. Li, G. Schubiger and T. Kornberg (2005). Regulation of cellular plasticity in *Drosophila* imaginal disc cells by the Polycomb group, trithorax group and *lama* genes. *Development*, 132:3753-3765.
- K. Kechris**, J. Lin, P. Bickel and A. Glazer (2006). Quantitative Exploration of the Occurrence of Lateral Gene Transfer Using Nitrogen Fixation Genes as a Case Study. *Proceedings of the National Academy of Sciences, USA*, 103: 9584-9589.
- C. Washenberger, J.-Q. Han, **K. Kechris**, B.K. Jha, R. Silverman and D. Barton. (2007) Hepatitis C Virus RNA: Dinucleotide Frequencies and Cleavage by RNase L. *Virus Research* 130:85-95.

- H. Kim, **K. Kechris** and L. Hunter (2007) Mining Discriminative Distance Context of Transcription Factor Binding Sites on ChIP Enriched Regions. *Lecture Notes in Computer Science: International Symposium on Bioinformatics Research and Applications, ISBRA 2007 Proceedings*, pg 338-349.
- S. Bhave, C. Hornbaker, T. Phang, L. Saba, R. Lapadat, **K. Kechris**, J. Gaydos, D. McGoldrick, A. Dolbey, S. Leach, B. Soriano, A. Ellington, E. Ellington, K. Jones, J. Mangion, J. Belknap, R. Williams, L. Hunter, P. Hoffman and B. Tabakoff (2007). The PhenoGen informatics website: Tools for analyses of complex traits. *BMC Genetics* 8:59.
- W. Hu, L. Saba, **K. Kechris**, S. Bhave, P. Hoffman and B. Tabakoff (2008). Genomic insights into acute alcohol tolerance. *Journal of Pharmacology And Experimental Therapeutics*, 326: 792-800.
- B. Tabakoff, L. Saba, **K. Kechris**, W. Hu, S. Bhave, D. Finn, N. Grahame and P. Hoffman (2008). The genomic determinants of alcohol preference in mice. *Mammalian Genome*, 19:352-65.
- K. Kechris***, Y.-H. Yang* and R.-F. Yeh (2008) Prediction of alternatively skipped exons and splicing enhancers from exon junction arrays. *BMC Genomics* 9:551. (*these authors contributed equally)
- K. Kechris** and H. Li. (2008) c-REDUCE: Incorporating sequence conservation to detect motifs that correlate with expression. *BMC Bioinformatics*, 9:506.

Research Support

Active

K01 AA016922-01 Katherina Kechris-Mays (PI) 9/15/2007 – 9/14/2012
NIH/NIAAA

Genomic Regulatory Sequence Analysis for Alcohol-Related Phenotypes

The goal of this work is to study mammalian model systems to identify genomic regulatory sequences that contribute to transcriptional changes in alcohol-related behaviors.

Role: Principal Investigator

T15 HL86386-01 Nichole Reisdorph (PI) 9/1/2006 - 8/31/2009
NIH/NHLBI

Genomics and Proteomics Hands-On Workshop: From Sample Preparation to Data Analysis

The goals are to build a curriculum enabling outcome-structured learning in proteomics and genomics technologies, provide novel training experiences using hands-on techniques and an established model by experienced investigators and educators, disseminate educational materials such that knowledge and information can be used to benefit a wide variety of audiences, and provide and/or act as portal for collaborative opportunities for both young and established investigators.

Role: Board of Directors, Instructor

T15 LM009451-01 Lawrence Hunter (PI) 7/01/2007-6/30/2012
NIH/NLM

Computational Bioscience Program Training Grant

This program is designed to provide graduate students and post-doctoral fellows training in both computational methods and molecular biology, an intimate familiarity with the science and technology that synthesizes the two, and the skills necessary to pioneer novel computational approaches to significant biomedical questions.

Role: Program Core Faculty

BIOGRAPHICAL SKETCH

NAME John M. Kittelson	POSITION TITLE Associate Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Pomona College, Claremont, CA	BA	1977	Biology
University of Minnesota, Minneapolis, MN	MS	1987	Statistics
University of Arizona, Tucson, AZ	PhD	1996	Statistics

Positions and Honors

2006-present	Director, Colorado Biostatistics Consortium, University of Colorado Denver, Denver CO
2005-present	Associate Professor, Department of Biostatistics and Informatics, University of Colorado Denver, Denver CO
2001-2005	Assistant Professor, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, CO
2001	Associate Professor with tenure, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, CO
1999-2000	Assistant Professor with tenure, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center, Denver, CO
1996-1999	Assistant Professor, Department of Preventive and Social Medicine, University of Otago, Dunedin, New Zealand
1987-1995	Senior Biostatistician, Arizona Cancer Center, University of Arizona, Tucson, AZ
1980-1987	Biologist, Environmental Resources Branch, U.S. Corps of Engineers, St. Paul, MN
1978-1979	Teacher, U.S. Peace Corps, Apia, Western Samoa

Honors

Selected peer-reviewed publications

- Shimm, D., **Kittelson, J.**, Oleson, J., Aristizabal, S., Barlow, L., Cetas, T. Interstitial Thermoradiotherapy: Thermal Dosimetry and Clinical Results. *Int. J. Radiat. Oncol. Biol. Phys.* V.18:383-387 (1990).
- Wilder, R., **Kittelson, J.**, Shimm, D. Basal Cell Carcinoma Treated with Radiation Therapy. *Cancer* Vol. 68, pp 2134-2137 (1990).
- Yanes, G.A., Obbens, E., **Kittelson, J.** Assessment of Cancer Pain in Outpatients Undergoing Radiation Therapy. *Pain Suppl.* 5:S164 (1990).
- Nagle, R., Brawer, M., **Kittelson, J.**, Clark, V. Phenotypic Relationships of Prostatic Intraepithelial Neoplasia To Invasive Prostatic Carcinoma. *Am. J. Pathology* V.138:119-128 (1991).
- Wilder, R., Shimm, D., **Kittelson, J.**, Rogoff, E., Cassady, J. Recurrent Basal Cell Carcinoma Treated With Radiation Therapy. *Arch. Dermatology* Vol. 127, pp 1668-1672 (1991).
- Wilder, R., Buatti, J., **Kittelson, J.**, Shimm, D., Harari, P., Rogoff, E., Cassady, J. Pterygium Treated With Excision and Postoperative Beta Irradiation. *Int. J. Radiat. Oncol. Biol. Phys.* V.23:533-537 (1992).
- Stea, B., **Kittelson, J.**, Cassady, J., Hamilton, A., Guthkelch, N., Lulu, B., Obbens, E., Rossman, K., Shapiro, W., Shetter, A., Cetas, T. Treatment of Malignant Gliomas With Interstitial Irradiation and Hyperthermia. *Int. J. Radiat. Oncol. Biol. Phys.* V.24:657-667 (1992).
- Mack, C., Stea, B., **Kittelson, J.**, Shimm, D., Sneed, P., Phillips, T., Swift, P., Luk, K., Stauffer, P., Chan, K., Steeves, R., Cassady, J., Cetas, T. Interstitial Thermoradiotherapy with Ferromagnetic Implants for Locally Advanced and Recurrent Neoplasms. *Int. J. Radiat. Oncol. Biol. Phys.* V.27:109-115 (1993).

- Powell, W., Knox, J., Navre, M., Grogan, T., **Kittelson, J.**, Nagle, R., Bowden, G.T. Expression of the Metalloproteinase Matrilysin in DU-145 Cells Increases Their Invasive Potential In Severe Combined Immunodeficient Mice. *Cancer Res.* V.53:417-422 (1993).
- Makar, R., Mason, A., **Kittelson, J.**, Bowden, G.T., Cress, A., Nagle, R. Immunohistochemical Analysis of Cathepsin D in Prostate Carcinoma. *Modern Pathology* V.7:747-751 (1994).
- Stea, B., Rossman, K., **Kittelson, J.**, Lulu, B., Shetter, A., Cassady, J.R., Hamilton, A. A Comparison of Survival Between Radiosurgery and Sterotactic Implants for Malignant Astrocytomas. *Acta Neurochir.* V.62:47-54 (1994).
- Stea, B., Rossman, K., **Kittelson, J.**, Shetter, A., Hamilton, A., Cassady, J.R. Interstitial Irradiation Versus Interstitial Thermoradiotherapy for Supratentorial Malignant Gliomas: A Comparative Survival Analysis. *Int. J. Radiat. Oncol. Biol. Phys.* V.30:591-600 (1994).
- Leigh, B., Stea, B., Cassady, J.R., **Kittelson, J.**, Cetas, T. Clinical Hyperthermia With a New Device: The Current Sheet Applicator. *Int. J. Radiat. Oncol. Biol. Phys.* V.30:945-951 (1994).
- Tsang, T., Chu, Y., Powell, M., **Kittelson, J.**, Mead-Tollin, L., Bos, T., Hendrix, M., Bowden, G.T. V-*jun* Oncogene Suppressed Both Porbol Ester Induced Cell Invasion and Stromelysin Gene Expression in a Mouse Papilloma Cell Line. *Cancer Res.* V.54:882-886 (1994).
- Toglia, A., **Kittelson, J.**, Roemer, R., Hodak, J., Carter L. Cerebral bloodflow in and around spontaneous malignant gliomas. *Int. J. Hyperthermia.* V.4:461-476 (1996).
- Feinberg, W.M., Erickson, L.P., Bruck, D., **Kittelson, J.M.** Hemostatic markers in acute ischemic stroke: Association with stroke type, severity, and outcome. *Stroke* V.27(8):1296-1300 (1996).
- Emerson, S.S., **Kittelson, J.M.** A computationally simpler algorithm for the UMVUE of a normal mean following a group sequential test. *Biometrics* V.53(1):365-9 (1997).
- Molteno, A.C.B., Bosma, N.J., **Kittelson, J.M.** Otago Glaucoma Surgery outcome study. Long-term result of trabeculectomy 1976-1995. *Ophthalmology* V.106(9) 1742-1750 (1999).
- Kittelson, J.M.**, Emerson, S.S. A unifying family of group sequential test designs. *Biometrics* V.55(3) 874-882 (1999).
- Kay, I.P., **Kittelson, J.M.**, Stewart, R.A.H. Relationship between duration and intensity of first exercise and 'warm-up' in ischaemic heart disease. *Heart* 17-21 (2000).
- Stewart, R.A.H., **Kittelson, J.M.**, Kay, I.P. Statistical methods to improve the precision of the treadmill exercise test. *J. American College of Cardiology* V.36(4): 1274-79 (2000).
- Kay, I.P., **Kittelson, J.M.**, Stewart, R.A.H. Collateral recruitment and "warm-up" after first exercise in ischemic heart disease. *American Heart Journal* V.140(1): 121-5 (2000).
- Eberhart-Phillips, **J.**, **Kittelson, J.M.** Meningococcal vaccine (letter). *New Zealand Medical Journal* V.114(1139):413 (2001).
- Jones, S.L., **Kittelson, J.M.**, Cowan, J.O., Flannery, E.M., Hancox, R.J., McLachlan, C.R., Taylor, D.R. The predictive value of exhaled nitric oxide measurements in assessing changes in asthma control. *Am. J. of Respiratory and Critical Care Medicine* V.164(5):738-743 (2001).
- Delahunt, B., **Kittelson, J.M.**, McCredie, M.R.E., Reeve, A.E., Stewart, J.H., Bilous, A.M. Prognostic importance of tumor size for localized conventional (clear cell) renal cell carcinoma. Assessment of TNM T1 and T2 tumor categories and comparison with other prognostic parameters. *Cancer* V.94(3):658-664 (2002).
- Kittelson, J.M.**, Kieser, J.A., Buckingham, D.M., Herbison, G.P. Weighing evidence: quantitative measures of the importance of bite mark evidence. *J. Forensic Odonto-Stomatology* V.20(2):31-37 (2002).
- Varella-Garcia, M., **Kittelson, J.**, Schulte, A.P., Vu, K.O., Wolf, H.J., Zeng, C., Hirsch, F.R., Byers, T., Franklin, W.A. Multi-target interphase fluorescence in situ hybridization assay increases sensitivity of sputum cytology as a predictor of lung cancer. *Cancer Detection and Prevention.* V28(4):244-51 (2004).
- Perreault, L., Lavelly, J.M., **Kittelson, J.M.**, Horton, T.J. Gender differences in lipoprotein lipase activity after acute exercise. *Obes Res* V12(2):241-249 (2004).
- Kittelson, J.M.**, Sharples, K., Emerson, S.S. Group Sequential Clinical Trials for Longitudinal Data with Analyses Using Summary Statistics. *Statistics in Medicine* V24(16):2457-75 (2005).
- Alonzo, T.A., **Kittelson, J.M.** A novel design for estimating relative accuracy of screening tests when complete disease verification is not feasible. *Biometrics* 62(2):605-12 (2006).
- Merrick DT, **Kittelson J.** Winterhalder R, Kotantoulas G, Ingeberg S, Keith R, Kennedy T, Miller Y, Franklin W, Hirsch F. Analysis of C-erb-B1 (EGFR) and C-erb-B2 (HER2) expression in bronchial

dysplasia: Evaluation of potential targets for chemoprevention for lung cancer. *Clinical Cancer Research* 12(7 pt 1):2281-8 (2006).

- Quan D, Hammack BN, **Kittelson JM**, Gilden D. Improvement of postherpetic neuralgia after treatment with intravenous acyclovir followed by oral valacyclovir. *Archives of Neurology* 63(7):940-2 (2006).
- Jankowski CM, Gozansky WS, Schwartz RS, Dal DJ, **Kittelson JM**, Scott SM, VanPelt RE, Kohrt WM. Effects of dehydroepiandrosterone replacement therapy on bone mineral density in older adults: a randomized, controlled trial. *J Clin Endocrinol Metab.* 2006 Aug;91(8):2986-93.
- Bhatia SS, Majka DS, **Kittelson JM**, Parrish LA, Ferucci ED, Deane KD, Arend WP, Rewers M, Holers VM, Norris JM. Rheumatoid factor positivity is inversely associated with oral contraceptive use in women without rheumatoid arthritis. *Ann Rheum Dis.* 2007 Feb; 66(2):267-9.
- Emerson, S.S., **Kittelson, J.M.**, Gillen, D.L. Bayesian evaluation of group sequential clinical trial designs. *Statistics in Medicine*, 2007 Mar; 26(7):1431-49.
- Emerson, S.S., **Kittelson, J.M.**, Gillen, D.L. Frequentist evaluation of group sequential clinical trial designs. *Statistics in Medicine*, 2007, 26:5047-5080.
- Miller YE, Blatchford P, Hyun DF, Keith RL, Kennedy TC, Wolf H, Byers T, Bunn PA Jr, Lewis MT, Franklin WA, Hirsch FR, **Kittelson J**. Bronchial epithelial Ki-67 index is related to histology, smoking, and gender, but not lung cancer or chronic obstructive pulmonary disease. *Cancer Epidemiol Biomarkers Prev.* (2007) 16(11):2425-31.
- Jha A, Weintraub A, Allshouse A, Morey C, Cusic C, **Kittelson J**, Harrison-Felix C, Whiteneck G, Gerber D. A randomized trial of moda⁻nil for the treatment of fatigue and excessive daytime sleepiness in individuals with chronic traumatic brain injury. *J Head Trauma Rehabil* (2008) 23(1):52-63.

Research Support

Active

1UL1RR025780-01; PI: Ronald J Sokol, MD 5/19/08 to 4/30/13
Clinical Translational Research Institute
Role: Director: Biostatistics, Epidemiology, and Research Design Program

NIH R18DK064991-01; PI: Julie Marshall, PhD 09/2003 to 08/2008
Family-based prevention of diabetes and its complications. Randomized trial of diabetes prevention interventions.
Role: Lead statistician.

1K12HD057022-01; PI: Judith Regensteiner, PhD 6/30/2007-5/31/2012
Building Interdisciplinary Careers in Women's Health.
NIH/NICHD: BIRCWH K-12 training grant to foster interdisciplinary careers in women's health
Role: Biostatistician. Provide biostatistics mentorship for BIRCWH trainees and support for study design and data analysis.

BIOGRAPHICAL SKETCH

NAME <p style="text-align: center;">Dennis C. Lezotte</p>	POSITION TITLE <p style="text-align: center;">Professor and Chairman Department of Biostatistics and Informatics</p>		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Western Michigan University, Kalamazoo, MI	B.A.	1969	Mathematics
State University of New York, Buffalo, NY	MA	1973	Biostatistics
State University of New York, Buffalo, NY	PhD	1975	Biostatistics

Positions and Honors

1976	Assistant Research Scientist in Statistics, University of Florida, Gainesville, Florida
1976 - 1981	Assistant Research Scientist in Pathology, University of Florida, Gainesville, Florida
1981 - 1987	Assistant Professor, Department of Preventive Medicine and Biometrics, University of Colorado, School of Medicine, Denver, Colorado.
1985 - 1989	Director, Medical Computing Center, School of Medicine University of Colorado Health Sciences Center, Denver Colorado
1987 - 1995	Associate Professor of Biometrics. Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado
1993 - 2002	Section Head of Medical Informatics, School of Medicine, Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center
1994 - Present	Principle Investigator, Burn Model Systems / National Data Coordinating Center.
1995 - Present	Professor of Biostatistics, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado
2004 - Present	Director, Bioinformatics PhD Program, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Health Sciences Center, Denver, Colorado
2006 - 2008	Head, Section of Biostatistics and Informatics, Department of Preventive Medicine and Biostatistics, University of Colorado Health Sciences Center, Denver Colorado.
2008 – Present	Professor and Chair, Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Denver

Honors

- UCHSC Faculty Assembly President, 2005-2007
- UC Faculty Council Member, 2004-Present
- UCHSC Faculty Assembly President –elect, 2003-2004
- School of Medicine Faculty Senate President, 1998-1999
- Chancellor’s Teaching Recognition Award, UCHSC 1996.
- Graduate School Faculty Appointment, UCHSC. (since 1982)
- Department of Preventive Medicine and Biometrics Award for Excellence in Teaching, 1994.

Selected Peer-reviewed publications

1. Bailey, E.J., Barton, P., Lezotte, D, Lowenstein, S, Dart RC. “The Effect of FDA Approval of a Generic Competitor to Oxycontin®, Oxycodone HCL Controlled Release Tablets, on the Abuse of

- Oxycodone Drug and Alcohol Dependence. *Drug and Alcohol Dependence*, vol 84, issue 2, pp182-187, 2006.
2. Kreiss, K., Esfahani, R., Antao, V., Odencrantz, J., Lezotte, D., Hoffman, RE., "Risk Factors for Asthma Among Cosmetology Professionals in Colorado. *JOEM*, vol 48, number 10, pp1062-1069, October 2006.
 3. Smyk-Pearson, S, Tester, IA, Lezotte, DL, Sasaki, AW, Lewinsohn, DM, Rosen, HR. "Differential Antigenic Hierarchy Associated with Spontaneous Recovery from Hepatitis C Virus Infection: Implications for Vaccine Design". *The Journal of Infectious Diseases*, volume 194, pages 454–463, 2006
 4. Holavanahalli, R., Hayes, M., Minhajuddin, A., Lezotte, D., Engrav, L., Fauerbach, J., Helm, P., Kowalske, K. "Profile of Patients Lost to Follow-up in the Burn Injury Rehabilitation Model Systems' Longitudinal Database". *J. Burn Care and Research*, vol. 27, no. 5, pp 703-12, September 2006.
 5. Sheeder, J., Stevens-Simon, C., Lezotte, D., Glazner, J., Scott, S. "Cervicitis: To Treat or Not To Treat? The Role of Patient Preferences and Decision Analysis". *Journal of Adolescent Health*, vol 39, issue 6, pp 887-892, 2006.
 6. Lipscomb HJ, Glazner JE, Bondy J, Guarini K, Lezotte DC. "Injuries from slips and trips in construction" *Applied Ergonomics*, vol 37, issue 3, pp 267-274, 2006.
 7. Cooper SL, Lezotte D, Jacobellis J, DiGuseppi C. "Does Availability of Mental Health Resources Prevent Recurrent Suicidal Behavior? An Ecological Analysis." *Suicide and Life-Threatening Behavior*, v36 n4 p409-417 Aug 2006
 8. Klein, M, Lezotte, D., Fauerbach, J., Herndon, D., Kowalske, K., Carrougher, G., deLateur, B., Holivanahalli, R., Esselman, P., SanAgustin, T., Engrav, L. "The NIDRR Burn Model System Database: A Tool for the Multi-center Study of the Outcome of Burn Injury." *J. Burn Care and Research*, vol. 28, no. 1, pp 84-96, January 2007
 9. Fauerbach JA, McKibben J, Bienvenu OJ, Magyar-Russell G, Smith MT, Holavanahalli R, Patterson DR, Wiechman SA, Blakeney P, Lezotte D. "Psychological Distress after Major Burn Injury". *Psychosomatic Medicine*, vol 69, pp 473-482, 2007.
 10. Vehik K, Hamman RF, Lezotte DC, Norris JM, Klingensmith G, Bloch C, Rewers M, Dabelea D. "Increasing Incidence of Type 1 Diabetes in 0- to 17-Year-Old Colorado Youth". *Diabetes Care* vol 30 pp503-509, 2007.
 11. Kaufman MS, Graham CC, Lezotte D, Fauerbach JA, Gabriel V, Engrav LH, Esselman P. "Burns as a result of assault: associated risk factors, injury characteristics, and outcomes." *J Burn Care Res.* vol 28, no 1, pp 21-8, 2007
 12. Olson AL, Swigris JJ, Lezotte DC, Norris JM, Wilson CG, Brown KK.. "Mortality from Pulmonary Fibrosis Increased in the United States from 1992 to 2003", *Am. J. Respir. Crit. Care Med.*, vol 176, no3, pp 277-284, 2007.
 13. M. H. Serghiou; M. W. Rose; F. S. Pidcock; P. C. Esselman; L. H. Engrav; K. J. Kowalske; D. C. Lezotte. The WeeFIM [R] instrument - A paediatric measure of functional independence to predict longitudinal recovery of paediatric burn patients. *Developmental Neurorehabilitation*, Informa Healthcare <http://www.informaworld.com/10.1080/17518420701520644>, 2007
 14. Edwards RR, Magyar-Russell G, Thombs B, Smith MT, Holavanahalli RK, Patterson DR, Blakeney P, Lezotte DC, Haythornthwaite JA, Fauerbach JA. "Acute pain at discharge from hospitalization is a prospective predictor of long-term suicidal ideation after burn injury." *Archives of Physical Medicine*, vol 88, issue 12, supplement 2 pp S36-S42, 2007.
 15. Esselman PC, Wiechman Askay S, Carrougher GJ, Lezotte DC, Holavanahalli RK, Magyar-Russell G, Fauerbach JA, Engrav LH. "Barriers to return to work after burn injuries." *Archives of Physical Medicine*, vol 88, issue 12, supplement 2 pp S50-S56, December 2007.

16. Lezotte DC, Hills RA, Heltshe SL, Holavanahalli RK, Fauerbach JA, Blakeney P, Klein MB, Engrav LH. "Assets and liabilities of the Burn Model System data model: a comparison with the National Burn Registry." Archives of Physical Medicine, vol 88, issue 12, supplement 2 pp S7-S17, December 2007.
17. Burns, EK, Levinson, AH, Lezotte, DC, Prochazka, AV. "Differences in Smoking Duration Between Latinos and Anglos." Nicotine and Tobacco Research, vol 9, no 7, pp 731-737, 2007.
18. Kast, KR, Berg, R, Deas, A, Lezotte, DC, Crane, LA. "Colorado Dental Practitioners' Attitudes and Practices Regarding Tobacco-Use Prevention Activities for 8- Through 12-Year-Old Patients." J Am Dent Assoc, vol 139, no 4, 467-475, 2008.
19. Dunbar, J, Sheeder, J, Lezotte, DC, Dabelea, D, Stevens-Simon, C. "Age at Menarche and First Pregnancy Among Psychosocially At-Risk Adolescents" AmJPH, vol 98, no 10, pp 1822-1824, 2008.
20. Vehik, K, Hamman, RF, Lezotte, DC, Norris, JM, Klingensmith, GJ, Rewers, M, Dabelea, D. "Trends in High-Risk HLA Susceptibility Genes among Colorado Youth with Type 1 Diabetes." Diabetes Care vol 31, pp 1392-1396, 2008.
21. Smith, MT, Klick, B, Kozachik, S, Edwards, RE, Holavanahalli, R, Wiechman, S, Blakeney, P, Lezotte, DC, Fauerbach, J. "Sleep onset insomnia symptoms during hospitalization for major burn injury predict chronic pain." Pain, vol 138, no 3, pp 497-506, 2008.
22. Duke JK, Dellavalle R, DiGuseppi C, Lezotte DC. "Cox-2 Inhibitors in the Prevention of Melanoma (Protocol)." Cochrane Database of Systematic Reviews, Issue 3. Art. No.: CD007283. DOI: 10.1002/14651858.CD007283, 2008.
23. Barbera, AF, Imani, F, Becker, T, Lezotte, DC, Hobbins, JC. "Anatomic relationship between the pubic symphysis and ischial spines and its clinical significance in the assessment of fetal head engagement and station during labor ." Ultrasound in Obstetrics and Gynecology, vol 33, no 3, pp 320 – 325, 2009.
24. Barbera,, AF, Pombar, X, Perugino, G, Lezotte,DC, Hobbins, JC. "A new method to assess fetal head descent in labor with transperineal ultrasound." Ultrasound in Obstetrics and Gynecology, vol 33 , no 3, pp 313 – 319, 2009
25. Vanabbema, ML, Lezotte,DC, "Plasma 25,OH vitamin D Levels are not Associated with Rheumatoid Arthritis-Related Auto-antibodies in Individuals at Elevated Risk for Rheumatoid Arthritis." Journal of Rheumatology, *in press*.

Research Support

Active

H133A070006 (Lezotte) 10/01/07-09/30/12
 Department of Education/NIDRR
 National Database Coordinating Center for Burn Model Systems (BMS/DCC)
 To maintain a four center longitudinal database of patients seen and treated at one of the Model Systems for Burn Injury Care and Rehabilitation and to provide study design and analytical support for conducting collaborative clinical and outcomes research at these Model systems supported by NIDRR research grants.
 Role: Center Director

Completed

H133A30015 (Lezotte) 10/01/02-09/30/07
 Department of Education/NIDRR
 National Database Coordinating Center for Burn Model Systems (BMS/DCC)
 To maintain a four center longitudinal database of patients seen and treated at one of the Model Systems for Burn Injury Care and Rehabilitation and provide study design and analytical support for

conducting collaborative clinical and outcomes research at these Model systems supported by NIDRR research grants.

Colorado Tobacco Research Program (Niermeyer) 11/01/03-06/30/05

CDPHE

Low Birth Weight in Colorado: The Interaction of Smoking and Altitude

The major goals of this project are to examine the role of chronic hypoxia and uterine blood flow on intrauterine growth, and the physiological mechanisms responsible for intrauterine growth retardation.

R01 OH03613-01A2 (Glazner) 09/30/02-09/29/05

CDC/NIOSH

Surveillance Research Methods on Construction Injury

The principal goals of this study are to assess occupational injuries and hazards on a long-term construction project and to develop a prospective surveillance database capable of supporting case-based and rate-based analysis.

BIOGRAPHICAL SKETCH

NAME	POSITION TITLE		
Steven D. Mark	Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Massachusetts Institute of Technology, Cambridge, MA	BS	1974	
Washington University School of Medicine, St. Louis, MO	MD	1980	Medicine
Barnes-Jewish Hospital, Washington University, St. Louis, MO	Residency	1982-84	
Harvard School of Public Health, Boston, MA	MS	1987	Epidemiology
Harvard School of Public Health, Boston, MA	MS	1990	Biostatistics
Harvard School of Public Health, Boston, MA	ScD	1991	Epidemiology

Positions and Honors

Academic Appointments

1980-1981	Instructor in Pathology, Stanford University Medical Center, Palo Alto, California
1981-1984	Instructor in Medicine, Washington University, School of Medicine, St. Louis, Missouri
1986-1987	National Research Service Award Fellow in Environmental Epidemiology, Department of Epidemiology, Harvard School of Public Health, Boston, Massachusetts
1987-1988	Instructor, Department of Medicine, Harvard Medical School, Boston, Massachusetts
1988-1991	National Research Service Award Fellow in Cancer Epidemiology, Department of Epidemiology, Harvard School of Public Health, Boston, Massachusetts
2005-Present	Professor, Dept. of Preventive Medicine and Biometrics, University of Colorado at Denver and Health Sciences Center, Denver, Colorado

Hospital Appointments

1980-1981	Department of Pathology, Stanford Medical Center Hospital, Palo Alto, California
1981-1984	Department of Medicine, Jewish Hospital, St. Louis, Missouri
1984-1986	Staff Physician, Somerville Hospital Somerville, Massachusetts
1984-1986	Department of Medicine, Somerville Hospital, Somerville, Massachusetts
1985-1986	Staff Physician, New England Baptist Hospital, Boston, Massachusetts
1985-1986	Department of Medicine, New England Baptist Hospital, Boston, Massachusetts
1987-1989	Staff Physician, West Roxbury Veteran's Administration Hospital, Boston, Massachusetts
1987-1989	Department of Medicine, Harvard Medical School, West Roxbury Veteran's Administration Hospital, Boston, Massachusetts

National Institutes of Health

1991-1996	Research Officer, National Institutes of Health, National Cancer Institute, Biostatistics Branch, Epidemiologic Methods Section
1996-2005	Senior Research Investigator, National Institutes of Health, National Cancer Institute, Biostatistics Branch, Epidemiologic Methods Section

Public Health Service

1991-1993	Lieutenant Commander, United States Public Health Service
1993-2004	Commander, United States Public Health Service
2005	Captain, United States Public Health Service

Honors

1974	Boit Manuscript Prize for Excellence in English Composition, Massachusetts Institute of Technology
1978	Dr. Robert Carter Medical School Prize for Excellence in Medicine
1979	Dr. Robert Carter Medical School Prize for Excellence in Medicine
1979	Alpha Omega Alpha
1994	National Institutes of Health Director's Award
1996	United States Public Health Service Commendation Medal
1998	Bicentennial Unit Commendation

Selected peer-reviewed publications

1. Lage JM, Driscoll SG, Yavner DL, Olivier AP, **Mark SD**, Weinberg DS. Hydatidiform moles: application of flow cytometry in diagnosis. *Am J Clin Pathol* 1988;89:596-600.
2. Rice LW, Berkowitz RS, **Mark SD**, Yavner DL, Lage JM. Epithelial ovarian tumors of low malignant potential. *Gynecol Oncol* 1990;39:195-8.
3. Robins JM, **Mark SD**, Newey WK. Estimating exposure effects by modeling the expectation of exposure conditional on confounders. *Biometrics* 1992;48:479-95.
4. Lage JM, Weinberg DS, Huettner PC, **Mark SD**. Flow cytometric analysis of nuclear DNA content in ovarian tumors: association of ploidy with tumor type, histologic grade, and clinical stage. *Cancer* 1992;69:2668-75.
5. Lage JM, **Mark SD**, Roberts DJ, Berkowitz RS, Goldstein DP, Bernstein MR. A flow cytometric study of 137 fresh hydropic placentas: correlation between types of hydatidiform moles and nuclear DNA ploidy. *Obstet Gynecol* 1992;79:403-10.
6. **Mark SD**, Robins JM. Estimating the causal effect of smoking cessation while correcting for non-compliance in the Multiple Risk Factor Intervention Trial. *Controlled Clin Trials* 1993;14:79-97.
7. **Mark SD**, Robins JM. Estimating the causal effect of smoking cessation using a rank preserving structural failure time model in the presence of confounding factors. *Stat Med* 1993;12:1605-28.
8. Li JY, Taylor PR, Li B, Dawsey S, Wang GQ, Ershow AG, Guo W, Liu SF, Yang CS, Shen Q, Wang W, **Mark SD**, Zou XN, Greenwald P, Wu YP, Blot WJ. Nutrition intervention trials in Linxian, China: multiple vitamin/mineral supplementation, cancer incidence, and disease-specific mortality among adults with esophageal dysplasia. *J Natl Cancer Inst* 1993;85:1492-8.
9. **Mark SD**, Liu SF, Li JY, Gail MH, Shen Q, Dawsey SM, Liu F, Taylor PR, Li B, Blot WJ. The effect of vitamin and mineral supplementation on esophageal cytology: results from the Linxian Dysplasia Trial. *Int J Cancer* 1994;57:162-6.
10. **Mark SD**, Gail MH. A comparison of likelihood-based and marginal estimating equation methods for analyzing repeat ordered categorical responses with missing data: application to an intervention trial of vitamin prophylaxis for oesophageal dysplasia. *Stat Med* 1994;13:479-93.
11. Dawsey SM, Wang GQ, Taylor PR, Li JY, Blot WJ, Li B, Lewin KJ, Liu FS, **Mark SD**, Yu Y, Yang CS. Effects of nutritional intervention on the prevalence of histologic dysplasia and early cancer of the esophagus and stomach: results from the dysplasia trial in Linxian, China. *Cancer Epidemiology Biomarkers and Prevention* 1994;3:167-72.
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Research Support

Support was through the NIH Intra-mural system.

Completed

Fiscal year 2002

Budget for fiscal year: \$250,000

Project names:

1. Nutrition Intervention Trial Follow-up Study.
2. Prospective studies of the association of biological markers and incident esophageal and gastric cancer in the NIT cohort.
3. Statistical methodology.

Fiscal year 2003

Budget for fiscal year: \$250,000.

Project names:

1. Nutrition Intervention Trial Follow-up Study.
2. Prospective studies of the association of biological markers and incident esophageal and gastric cancer in the NIT cohort.
3. Statistical methodology.

Fiscal year 2004

Budget for fiscal year: \$250,000

Project names:

1. Nutrition Intervention Trial Follow-up Study.
2. Prospective studies of the association of biological markers and incident esophageal and gastric cancer in the NIT cohort.
3. Statistical methodology.

Fiscal year 2005

Budget for fiscal year: \$175,000.

Project names:

1. Nutrition Intervention Trial Follow-up Study.
2. Prospective studies of the association of biological markers and incident esophageal and gastric cancer in the NIT cohort.
3. Statistical methodology.

BIOGRAPHICAL SKETCH

NAME Julie A. Marshall	POSITION TITLE Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE)	YEAR(s)	FIELD OF STUDY
Colorado State University, Ft. Collins, CO	BS	1973	Microbiology
University of Hawaii School of Public Health, Oahu, HI	MS	1975	Public Health
University of Washington School of Public Health Seattle, WA	PhD	1987	Epidemiology

Positions and Honors

1976-78	Coordinator of Data Management/Analysis, Cervical Cancer Screening, Cancer Ctr of Hawaii
1978-80 Medicine	Research Assistant, Dept of Preventive Medicine, University of Colorado School of Medicine
1980-82	Instructor, Dept of Preventive Medicine, University of Colorado School of Medicine
1982-83	Leave of absence from Univ of Colorado, Graduate student in Epidemiology, Univ of Washington
1983-85	Instructor, Dept. of Preventive Medicine & Biometrics, University of Colorado School of Medicine
1985-88	Senior Instructor, Dept of Prev Medicine & Biometrics, University of Colorado School of Medicine
1989-90	Visiting Fellow, Natl Ctr for Epidemiol and Pop Hlth, Australia National Univ, Canberra, Australia
1987-	Member, Center for Human Nutrition, University of Colorado School of Medicine
1988-97	Assistant Professor, Dept of Prev Medicine and Biometrics. Univ of Colorado School of Medicine
1989-	Faculty Affiliate, Department of Food Science & Human Nutrition, Colorado State University
1997-05	Associate Professor, Dept of Prev Medicine & Biometrics, Univ of Colorado School of Medicine
2005-08	Professor, Dept of Prev Medicine and Biometrics, Univ of Colorado School of Medicine
2008-	Professor, Depts of Epidemiology and Community and Behavioral Health, Univ of Colorado Denver, Colorado School of Public Health

Honors

1972	Institute of Telecommunication Sciences, Superior Performance Award
1973	Colorado State University, Graduated with Honors
1973-75	East-West Center Population Institute, Hawaii, Degree Scholar Award
1986	Society for Epidemiological Research, Student Workshop Participant, NCI funded

Selected peer-reviewed publications

- Hamman RF, Marshall JA, Baxter J, Kahn LR, Mayer EJ, Orleans M, Murphy JR, Lezotte DC, Methods and prevalence of non-insulin dependent diabetes mellitus in a biethnic Colorado population: The San Luis Valley Diabetes Study. *Am J Epidemiol* 129(2): 295-311, 1989.
- Marshall JA, Hamman RF, Baxter J. High fat, low carbohydrate diet, and the onset of non-insulin-dependent diabetes mellitus: The San Luis Valley Diabetes Study. *Am J Epidemiol* 134(6):590-603,1991.
- Boyko E, Keane EM, Marshall JA, Hamman RF. High insulin and C-peptide concentrations in a Hispanic population at high risk for NIDDM. The San Luis Valley Diabetes Study. *Diabetes* 40(4):509-15,1991.

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- Rewers MJ, Shetterly SM, Hoag S, Baxter J, Marshall JA, Hamman RF. Is the risk of coronary heart disease lower in Hispanics than in non-Hispanic whites? The San Luis Valley Diabetes Study. *Ethnicity & Disease* 3:44-54,1993.
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- Marshall JA. (Invited) Commentary: Does glycemic control of Type II diabetes suffice to control diabetic dyslipidemia? *Diabetes Spectrum* 6:380-2,1993.
- Shetterly S, Marshall JA, Baxter J, Hamman RF. Waist-to-hip ratio measurement location influences associations with measures of glucose and lipid metabolism: The San Luis Valley Diabetes Study. *Ann of Epidemiol* 3:295-9,1993.
- Marshall JA, Hoag S, Shetterly S, Hamman RF. Dietary fat predicts conversion from impaired glucose tolerance to non-insulin-dependent diabetes mellitus: The San Luis Valley Diabetes Study. *Diabetes Care* 17(1):50-56,1994.
- Shetterly SM, Rewers MJ, Hamman RF, Marshall JA. Patterns and predictors of hypertension incidence among Hispanics and non-Hispanic whites: The San Luis Valley Diabetes Study. *J Hypertension* 12:1095-102,1994.
- Hoag S, Marshall JA, Jones RH, Hamman RF. High fasting insulin levels associated with lower rates of weight gain in individuals with normal glucose tolerance: The San Luis Valley Diabetes Study. *Int J Obesity*, 19:175-80,1995.
- Lopez TK, Marshall JA, Shetterly SM, Baxter J, Hamman RF. Ethnic differences in micronutrient intakes in a rural biethnic population. *Am J Prev Med*, 11:301-5,1995.
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- Belansky ES, Romaniello C, Morin C, Uyeki T, Sawyer RL, Scarbro S, Crane L, Auld GW, Hamman RF, Marshall JA. Dissemination of a school-based nutrition and physical activity program in a low income, rural community, Submitted to *Journal of Nutrition Education and Behavior*, 38:106-13,2006.

- Sontag MK, Corey M, Hokanson JE, Marshall JA, Sommer SS, Zerbe GO, Accurso FJ. Genetic and physiologic correlates of longitudinal immunoreactive trypsinogen decline in infants with cystic fibrosis identified through newborn screening. *Journal of Pediatrics* 149:650-7,2006.
- Nelson TL, Bessesen DH, Marshall JA. Relationship of abdominal obesity measured by DXA and waist circumference with insulin sensitivity in Hispanic and Non-Hispanic White individuals: The San Luis Valley Diabetes Study. *Diabetes/Metabolism Research and Reviews*, 24(1):33-40,2007
- Gattshall ML, Shoup JA, Marshall JA, Crane LA, Estabrooks PA. Validation of a Survey Instrument to Assess Home Environments for Physical Activity and Healthy Eating in Overweight Children. *International J Behavior, Nutrition and Physical Activity* 5(1):3-, 2008.
- Marshall JA. Planning for an Education Evaluation. In Holden DJ and Zimmerman MA (Eds) *A Practical Guide to Program Evaluation Planning: Theory and Case Examples* Sage Publications Inc. CA. 2008
- Belansky ES, Cutforth N, DeLong E, Ross C, Scarbro S, Gilbert L, Beatty B, Marshall JA. Early Impact of the Federally Mandated Local Wellness Policy on Physical Activity in Rural, Low Income Elementary Schools. *Journal of Public Health Policy*, in press.

C. Research Support.

Active

CDC (Marshall, P.I.) 09/30/98-09/29/2004, 9/30/2004-9/29/2009

Rocky Mountain Prevention Research Center

One of 33 CDC funded prevention research centers nationwide housed at UCD CSPH and partnering with six counties in the San Luis Valley of southern Colorado to promote healthy lifestyles in rural communities. Activities include community based prevention research, education and training, communication and dissemination and policy research in the areas of physical activity and nutrition in school-age children, their intergenerational families and communities. Center Director

NIH/NIDDK (Marshall, P.I.) 09/01/03-08/31/08

Family-based Prevention of Diabetes & its Complications

A randomized controlled effectiveness trial of a family visit program in families that include at least one family member with diabetes. The intervention is designed to address the prevention continuum (primary prevention of diabetes in family members without diabetes, secondary prevention identifying family members with previously undiagnosed diabetes, and tertiary prevention of diabetes complications).

CDC U48 DP000054-02 SIP 9 (Bryant, P.I.) 09/30/05-09/29/09

Network for Cardiovascular Health Intervention and Translation

Develop a research agenda across PRCs for community based prevention research in cardiovascular health. Co-investigator

CDC K01 (Leiferman, P.I.) 9/1/07-8/31/10

My Baby, My Move: A Perinatal Physical Activity Intervention

Career development award developing and pilot testing a physical activity intervention in pregnant women directed at prevention of excess weight gain during pregnancy and prevention of post-partum depression Primary Mentor

NIH/NCRR (Sokol, P.I.) 5/19/08-3/31/13

Clinical Translational Sciences Award

The CTSA program will create a definable academic home for the discipline of clinical and translational science. The award supports infrastructure for innovative and translational research (staff scientist community engagement – 25%)

Completed

CDC (Marshall, P.I.) 09/30/99-09/29/2002 carry-over through
9/29/2003
SLV Family Nutrition & Activity Intervention
A family-based intervention to increase fruit/vegetable intake, decrease fat intake & increase physical activity.

CDC K01 EH000066-01 (Litt, P.I.) 09/30/04-09/29/07

Community Design and Health: Starting from the Ground Up
Community gardening, an intervention being studied for its potential to promote public health through increased physical activity, nutrition and social engagement. (Primary Mentor)

RWJF (Belansky, P.I.) 06/15/06-06/14/08
Healthy Eating Research: Building Evidence to Prevent Childhood Obesity
Identify and evaluate environmental and policy features related to healthy eating among elementary schools located throughout low-income, Hispanic and non-Hispanic white urban and rural Colorado. (Principal Investigator yr 1, Co-investigator yr 2)

NIH/NIDDK K01 (Nelson, P.I.) 07/01/03-06/30/08
Gene-Environment Interactions in Obesity and Diabetes
Career development award in genetic epidemiology. (Co-Primary Mentor)

BIOGRAPHICAL SKETCH

NAME Samantha MaWhinney, Sc.D.	POSITION TITLE Associate Professor, Department of Biostatistics		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Utah, Salt Lake City, UT	B.S.	1987	Mathematics
Harvard University, Boston, MA	M.S.	1989	Biostatistics
Harvard University, Boston, MA	Sc.D	1991	Biostatistics
IINSERM, Paris, France	Res Fellow	1991-1992	Biostatistics
Harvard University, Boston, MA	Post-Doc Fellow	1992-1994	Biostatistics

Positions

- 1992 – 1994 Senior Statistician, AIDS Clinical Trial Group, Harvard School of Public Health, Boston, MA
- 1994 – 2001 Assistant Professor, Department of Preventive Medicine and Biometrics (PMB), University of Colorado Health Sciences Center, Denver, CO
- 2001 –2008 Associate Professor, Department of PMB, University of Colorado, Denver, CO
- 2008 – Associate Professor, Department of Biostatistics, Colorado School of Public Health, Denver, CO

Selected peer-reviewed publications

1. Pagano, M., De Gruttola, V., **MaWhinney, S.** and Tu, X.M. The HIV epidemic in New York City; projecting AIDS incidence and prevalence. In *Statistical Methodology for the Study of the AIDS Epidemic*, K. Dietz, V. Farewell and N.P. Jewell, editors, 1992, Birkhauser-Boston, Boston.
2. **MaWhinney S**, Pagano M and Thomas PA. Age at AIDS diagnosis for children with perinatally-acquired HIV. *JAIDS*, 1993;6(10):1139-44.
3. Pagano M, Tu XM, DeGruttola V and **MaWhinney S**. Regression analysis of censored and truncated data: estimating reporting delay distributions and AIDS incidence from surveillance data. *Biometrics*, 1994;50(4):1203-14.
4. **MaWhinney S** and Pagano M. Distribution of the latency period for perinatally acquired AIDS. *Stat Med*, 1994; 13, 2031-42.
5. **MaWhinney S**, Pagano M.and Bellocco R. AIDS incidence projections using regression decomposition. In *Modeling the AIDS Epidemic*, E.H. Kaplan and M. Brandeau eds, Raven Press, New York, 1994; 275-85.
6. Gelber RD, Lindsey JC and **MaWhinney, S**. Clinical trials to reduce the risk of maternal-infant transmission of HIV infection (ACTG 076). In: *AIDS Clinical Trials*, DM Finkelstein and DA Schoenfeld eds. New York, Wiley, 1995.
7. Uherova, P., Connick, E., **MaWhinney, S.**, Schlichtemeier R., Schooley, R.T., Kuritzkes, D.R. “In vitro effect of interleukin-12 on antigen-specific lymphoproliferative responses from persons infected with Human Immunodeficiency Virus Type 1”. *Journal of Infectious Disease*, 1996; Vol. 174, 483-489.
8. Anderson RM, Donnelly CA, Ferguson NM, Woolhouse MJ, Watt, CJ, Udy HJ, **MaWhinney S**, et.al. “Transmission dynamics and epidemiology of BSE in British cattle”. *Nature* 1996;382 (6594):779-88.
9. Wheat J, **MaWhinney S**, Hafner R, et al. Treatment of Histoplasmosis with Fluconazole in patients with AIDS (ACTG 174). *American Journal of Medicine* 1997;103, 223-32.
10. McFarland E, Harding P, **MaWhinney S**, Schooley RT and Kuritzkes DR. “In vitro effects of IL-12 on HIV-1-specific CTL lines from HIV-1-infected children”. *J Immunol.* 1998;161:513-519.
11. Donnelly, C.A., **MaWhinney, S.**, Anderson, R.M., Epidemiology of BSE in British cattle. *Journal of Ecosystem Health*, 1999, 5(3): 164-173.

12. Campbell, T., Fitzpatrick, L., **MaWhinney, S.**, Zhang, X. and Schooley, R.T. Human Herpesvirus 8 (Kaposi's Sarcoma-associated herpesvirus) viremia in human immunodeficiency virus type 1 (HIV-1) infected men. *Journal of AIDS*, 1999, 22(4):333-340.
13. **MaWhinney S**, Brown ER, Malcolm J, et.al. Identification of risk factors for increased cost, charges and length of stay for cardiac patients: an application of the Cox proportional hazards model. *Ann Thorac Surg*, 2000;70:702-10.
14. Campbell TB, Borok M, Gwanzura L, **MaWhinney S**, White IE, Ndemera B, Gudza I, Fitzpatrick L and Schooley RT. Relationship of Kaposi's sarcoma-associated herpesvirus peripheral blood virus load and Kaposi's sarcoma clinical stage. *AIDS*. 2000;14:2109-16.
15. *Brown ER, **MaWhinney S**, Jones RH, Kafadar K, Young B. Using bivariate smoothing splines to model the impact of multiple treatment changes on longitudinal immunological markers in HIV patients. *Stat Med.*, 2001;20:2489-2504.
16. Connick E, Schlichtemeier RL, Purner MB, Schneider KM, Anderson DM, **MaWhinney S**, Campbell TB, Kuritzkes DR, Douglas Jr. JM, Judson FN, Schooley RT. HIV-1 specific memory cytotoxic T lymphocytes in recent HIV-1 seroconverters and their relationship to virus load. *J Infect Dis*. 2001;184:1465-9.
17. Marshall G, Warner BA, **MaWhinney S** and Hammermeister K. Prospective prediction in the presence of missing data. *Stat Med*. 2002, 21:561-70.
18. McFarland EJ, Harding PA, Striebich CC, **MaWhinney S**, Kuritzkes DR, and Kotzin BL. Clonal CD8+ expansions in peripheral blood from HIV-1-infected children. *J Infect Dis*. 2002; 186:477-85.
19. Stoeckli TC, **MaWhinney S**, Uy J, Duan C, Lu J, Shugarts D and Kuritzkes DR. Phenotypic and genotypic analysis of biologically cloned HIV-1 isolates from patients treated with zidovudine and lamivudine. *Antimicrobial Agents and Chemotherapy*. 2002; 46(12): 4000-3.
20. Barron MA, Blyveis N, Palmer BE, **MaWhinney S** and Wilson CC. Influence of plasma viremia on defects in number and immunophenotype of blood dendritic cell subsets in HIV 1-infected individuals. *J Infect Dis*. 2003; 187:26-37.
21. Folkvord JM, Anderson DA, Arya J, **MaWhinney S** and Connick E. Microanatomic Relationships Between CD8+ Cells and HIV-1-Producing Cells in Human Lymphoid Tissue in Vivo. *JAIDS*. 2003; 32:469-476.
22. Weinberg A, Wohl DA, **MaWhinney S**, et. al. CMV-Specific INF-g production is associated with protection against CMV reactivation in HIV-infected Patients on HAART. *AIDS*. 2003. 17.
23. Wilson CC, McKinney D, Anders M, **MaWhinney S**, Forster J, Crimi C, Southwood S, Sette A, Chesnut R, Newman MJ and Livingston BL. Development of a DNA Vaccine Designed to Induce Cytotoxic T Lymphocyte Responses to Multiple Conserved Epitopes in HIV-1. *J Immunol*. 2003 Nov 15;171:5611-23.
24. *Zeng C, **MaWhinney S**, Baron A, McFarland B. *J Immuno Meth*. Evaluating elispot summary measures with criteria for obtaining reliable estimates. 2005; 297:97-108.
25. Connick L, **MaWhinney S**, Wilson C and Campbell T. Challenges in the Study of HIV-1 Seroconverters. *Clinical Infectious Diseases*. 2005 40(9):1355-7.
26. **MaWhinney S**, Pape EJ, Forster JE, Anderson CA, Bosque P and Miller MW. Human Prion Disease and Relative Risk Associated with Chronic Wasting Disease. *Emerg Infect Dis*. 2006, 12 (10). 1527-1535.
27. Sailer CA, Pott GB, Dinarello CA, **MaWhinney S**, Forster JE, Larson-Duran JK, Landay A, et. al. Whole- blood interleukin-18 level during early HIV-1 infection is associated with reduced CXCR4 coreceptor expression and IFN-g levels. *J Infect Dis* 195: 734-8.
28. Meditz, AL Borok M, **MaWhinney S**, Gudza I, Ndemera B, Gwanzura L, Campbell TB, Gender differences in AIDS-associated Kaposi Sarcoma in Harare, Zimbabwe. *JAIDS*. 44(3):306-308.
29. Connick E, Matilla T, Folkvord JM, Schlichtemeier R, Meditz AL, McCarter MD, **MaWhinney S**, Hage A, White C and Skinner PJ. Cytotoxic T Cells (CTL) Fail to Accumulate at Sites of HIV-1 Replication in Lymphoid Tissue. *J Immunol*. 2007. 178: 6975-6983.
30. Al-Harathi L, **MaWhinney S**, Connick E, et al. Immunophenotypic alterations in acute and early HIV infection. *Clinical Immunology*. 2007, 125 (3): 299-308.
31. Dillon SM, Robertson KB, Pan SC, **MaWhinney S**, et.al. Plasmacytoid and myeloid dendritic cells with a partial activation phenotype accumulate in lymphoid tissue during asymptomatic, chronic Human Immunodeficiency Virus Type 1 infection. *JAIDS*. 2008. 48 (1): 1-12.

32. Wilson CC, Newman, MJ, Livingston BD, **MaWhinney S**, et. al. A. Clinical Phase 1 Safety and Immunogenicity Testing of an Epitope-based DNA Vaccine in HIV-1-infected Subjects Receiving Highly Active Antiretroviral Therapy. *Clinical and Vaccine Immunology (CVI)*. 2008. 15 (6): 986-994.
33. Anderson PL, King TM, Zheng JH, **MaWhinney S**. Cytokine and sex hormone effects on zidovudine- and lamivudine-triphosphate concentrations in vitro. *J Antimicrob Chemother. In press*.

Research Support

Active

U01 AI 41536-04S2 (Connick)

7/1/03-6/1/09

NIH/NIAID

Immunopathogenesis of Acute HIV-1 Infection

This grant is to study the pathogenesis and therapy of individuals with primary HIV infection. These are supplemental funds provided by the NIAID for ongoing management of patients on active protocols of the AIEDRP.

1 P30 AI054907 (Campbell)

05/15/03-04/30/09

NIH/NIAID

University of Colorado Center for AIDS Research

This application supports research related to HIV infection and its complications at the University of Colorado and collaborating sites.

R01 AI064029-02 (Anderson)

3/15/05-2/28/10

NIH/NIAID

Sex- and disease-dependent nucleoside analog toxicity

The major goals of the project are to compare the intracellular concentrations of nucleoside analog triphosphates in men versus women and subjects with according to HIV disease status (healthy volunteers, advanced HIV, versus less-advanced HIV). High intracellular concentrations will be correlated with markers of toxicity.

R21 HD051450 (Connick)

09/28/06-

08/31/09

NIH/NIAID

Sex Differences in Plasma HIV-1 RNA Concentrations

This is a project to investigate whether either sex differences in CCR5 expression and/or sex differences in intracellular production of HIV-1 RNA account for sex differences in plasma HIV-1 RNA concentrations.

Completed

(MaWhinney)

9/17/07-9/16/08

NSF

Sabbatical grant: Statistical Methodology and Applications to HIV/AIDS Immunologic and Virologic Outcomes

BIOGRAPHICAL SKETCH

NAME Lisa A. Miller	POSITION TITLE Division Director, Disease Control and Environmental Epidemiology		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Minnesota, Minneapolis, MN	BS	1985	Consumer Food Science
University of Minnesota, Minneapolis, MN	MD	1989	Medicine
Univ of CO Health Sciences Ctr, Denver, CO	MSPH	1993	Public Health
Univ of CO Health Sciences Ctr, Denver, CO	Residency	1991-93	General Preventive Medicine

Positions and Honors

- 4/03-present Division Director, Disease Control and Environmental Epidemiology Division, Colorado Department of Public Health and Environment, Denver, CO
- 11/97-present Medical Director, Colorado Responds to Children with Special Needs, Colorado Department of Public Health and Environment, Denver, CO
- 8/01-1/02 Acting Chief Medical Officer and Acting State Epidemiologist, Colorado Department of Public Health and Environment, Denver, CO
- 11/93-11/97 Medical Epidemiologist, Colorado Department of Public Health and Environment, Denver, CO
- 3/93-8/93 Medical Epidemiologist/Preventive Medicine Resident, University of Colorado Health Sciences Center, Denver, CO
- 3/92-2/93 Medical Epidemiologist/Preventive Medicine Resident, Colorado Department of Health, Denver, CO
- 9/91-2/92 Research Physician/Preventive Medicine Resident, Denver Public Health Disease Control, Denver, CO

Honors

Medical School -Alpha Omega Alpha
College- National Merit Scholarship Finalist

Teaching Experience

Adjoint Assistant Professor, University of Colorado Denver, Department of Pediatrics

Adjoint Assistant Professor University of Colorado Denver, Colorado School of Public Health Department of Epidemiology

Selected peer-reviewed publications

"Phenotypes, Proliferative Responses, and Suppressor Function of Lung Lymphocytes during *Toxoplasma gondii* Pneumonia in mice" Pomeroy C, Miller L, McFarling L, Kennedy C, Filice GA. J Infect Dis 1991; 164:1227-123 1.

"The Future of Calcium Channel Blocker Therapy in Diabetes Mellitus" Savage S, Miller LA, Shrier, RW. J Cardiovasc Pharm, 1991;18(S 1):19-24.

"The Effect of HIV Counseling/Testing on STD Incidence and Sexual Behavior in an STD Clinic" (poster) American Public Health Association Meeting, Washington D.C., 1992.

"Denver's Increase in HIV Counseling after Magic Johnson's HIV Disclosure" (letter) Cohn DL, Miller LA, Yamaguichi KJ, Douglas JM. Am J Public Health 1992;82:1692.

- "Use of Polymerase Chain Reaction in an Epidemiologic Investigation of Pontiac Fever" Miller LA, Beebe JL, Butler JC, Martin W, Benson R, Hoffman RE, Fields BS. *J Infect Dis* 1993; 168:769-772.
- "Comparison of anonymous and confidential HIV test sites: Colorado, 1990-1992" Hoffman R, Cohn D, Hoxworth T, Miller L, Guilfoile A, Hamman R, et al. IXth International Conference on AIDS, Berlin, 1993.
- "Risk Factors for Delayed Immunization against Measles, Mumps, and Rubella in Colorado Two-Year Olds" Miller LA, Hoffman RE, Baron AE, Marine W, Melinkovich P. *Pediatrics* 1994;94:213-219.
- "Carbon Monoxide Poisoning - Weld County, Colorado, 1993" Cook M, Miller L, Hoffman R, Clem B, et al. *Morbidity and Mortality Weekly Report* 1994;43:765-767.
- "Comparison of Partner Notification at Anonymous and Confidential HIV Test Sites in Colorado" Hoffman RE, Spencer NE, Miller LA. *JAIDS* 1995;8:406-410.
- "Surveillance for fetal alcohol syndrome in Colorado" Miller LA, Shaikh T, Stanton C, Montgomery Rickard R, Keefer S, Hoffman R. *Public Health Reports* 1995;10:690-697.
- "Climatic and environmental patterns associated with Hantavirus Pulmonary Syndrome, Four Corners region, United States" Engelthaler DM, Mosley DG, Cheek JE, Levy CE, Komatsu KK, Ettestad P, Davis T, Tanda DT, Miller L, Frampton JW, Porter R, Bryan RT. *Emerging Infectious Diseases* 1999; 5:87-94.
- "Abscesses due to *Mycobacterium abscessus* linked to injection of unapproved alternative medication" Galil K, Miller LA, Yakrus MA, Wallace RJ, Mosley DB, England B, Huitt G, McNeil MM, Perkins BA. *Emerging Infectious Diseases* 1999; 5:681-687.
- "Neural tube defects surveillance: a national survey" Miller LA, Kirby RS. *Teratology* 2000; 1/2: 28-32.
- "Knowledge and use of folic acid supplementation: a study of Colorado women whose pregnancies were affected by a fetal neural tube defect" Callender ES, Rickard R, Miller L, Rinsky-Eng J. *Clinic Invest Med* 2001; 24:124-128.
- "A multiple source methodology for the surveillance of fetal alcohol syndrome -- the fetal alcohol syndrome surveillance network (FASSNet)" Hymbaugh K, Miller LA, Druschel CM, Podvin DW, Meaney FJ, Boyle CA, and the FASSNet Team. *Teratology* 2002; 66:S41-S49.
- "Knowledge, use and education regarding folic acid supplementation: continuation study of women in Colorado who had a pregnancy affected by a neural tube defect." Rinsky-Eng J, Miller LA, *Teratology* 2002; 66: S29-S31.
- "A comparison of fetal alcohol syndrome surveillance network and birth defects surveillance methodology in determining prevalence rates of fetal alcohol syndrome." Meaney FJ, Miller LA; FASSNet Team. *Birth Defects Res Part A Clin Mol Teratol.* 2003 Sep;67(9):819-22.
- "The muscular dystrophy surveillance tracking and research network (MD STARnet): Surveillance methodology." Miller LA, Romitti PA, Cunniff C, Druschel C, Mathews KD, Meaney FJ, Matthews D, Kantamneni J, Feng ZF, Zemblidge N, Miller TM, Andrews J, Fox D, Ciafaloni E, Pandya S, Montgomery A, Kenneson A. *Birth Defects Res Part A Clin Mol Teratol.* 2006 Nov;76(11):793-97.
- "The epidemiology of autism spectrum disorders." Newschaffer CJ, Croen LA, Daniels J, Giarelli E, Grether JK, Levy SE, Mandell DS, Miller LA, Pinto-Martin J, Reaven J, Reynolds AM, Rice CE, Schendel D, and Windham GC. *Annu. Rev. Public Health.* 2007 28:21.1-21.24.

BIOGRAPHICAL SKETCH

NAME Morrato, Elaine Hornberger	POSITION TITLE Assistant Professor of Pediatrics; Health Systems, Policy & Management; and Clinical Pharmacy		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Purdue University	B.S.	1988	Biology (Honors)
Johns Hopkins University	M.P.H.	2003	Public Health
Johns Hopkins University	Dr.P.H.	2006	Epidemiology
University of Colorado Denver	Fellowship	2004-2006	Pharmaceutical Outcomes Research

Positions and Honors

- 1988-1992 Scientist, U.S. Professional Oral Care Product Development, Procter & Gamble, Cincinnati, OH.
- 1992-1993 Senior Scientist, North America National Product Launch Leader, Metamucil, Gastrointestinal Product Development, Procter & Gamble, Cincinnati, OH.
- 1993-1994 Senior Scientist, Global Market Research Team Leader, Over-the Counter Cholesterol-Lowering Drugs, Health Care Product Development, Procter & Gamble, Cincinnati, OH.
- 1994-1997 Section Head, North American Technical Brand Manager, Gastrointestinal and Antibiotic Drugs, Pharmaceutical Division, Procter & Gamble, Cincinnati, OH.
- 1996-1997 Section Head, U.S. Launch Team Leader, Anti-Ulcer Drug, Pharmaceutical Division, Procter & Gamble, Cincinnati, OH.
- 1997-2000 Section Head, Global Phase IIIb/IV Project Leader, Cardiac Technical Brand Manager, Pharmaceutical Division, Procter & Gamble, Cincinnati, OH.
- 2000-2002 Section Head, Global Phase III Project Leader, Cardiovascular New Drug Development, Pharmaceutical Division, Procter & Gamble, Cincinnati, OH.
- 2000-2002 Section Head, Global Risk Management Team Leader, Cardiovascular New Drug Development, Pharmaceutical Division, Procter & Gamble, Cincinnati, OH.
- 2004-2005 Vice President, Health Care New Business Development, Pharmaceutical and Wellness Market Research Services, Information Resources, Inc., Chicago, IL.
- 2006- Assist. Professor in Pediatrics, School of Medicine, University of Colorado Denver, Aurora, CO
- 2006- Assist. Professor in Clinical Pharmacy, School of Pharmacy, University of Colorado Denver, Aurora, CO.
- 2006- Assist. Professor in Health Systems, Management & Policy, School of Public Health, University of Colorado Denver, Aurora, CO.

Other Experience and Professional Memberships

- 2002-2003 Student Research Associate, Office of Drug Safety, U.S. Food and Drug Administration, Rockville, MD.
- 2006-2007 Co-Chair, Policy Advocacy Working Group, Retrospective Database Special Interest Group, International Society for Pharmacoeconomics and Outcomes Research
- 2007-present American Diabetes Association
- 2004-present International Society for Pharmacoepidemiology
- 2006-present Sr Methodologist, Children's Outcomes Research Program, Children's Hospital, Aurora, CO.
- 2007-present Consultant to the Risk Communication Advisory Committee, U.S. Food and Drug Administration, Rockville, MD.

- 2008 Scientific and Advisory Review Committee (SARC) of The Children's Hospital (TCH) Clinical Translational Research Center (CTRC) of the Colorado Clinical Translational Sciences Institute (CCTSI)
- 2008 Board Certification in Public Health, National Board of Public Health Examiners

Honors

- 2006 Delta Omega Honorary Society in Public Health
- 2003 Master of Public Health Capstone Award for Outstanding Achievement, Johns Hopkins, Bloomberg School of Public Health
- 1987 Phi Beta Kappa, Purdue University

Selected peer-reviewed publications

- Sullivan PW, Morrato EH, Ghushchyan V, Wyatt HR, Hill JO. Obesity, inactivity and the prevalence of diabetes and diabetes-related cardiovascular comorbidities in the U.S., 2000-2002. *Diabetes Care*. 2005; 28(7): 1599-1603.
- Morrato EH, Hill JO, Wyatt HR, Ghushchyan V, Sullivan PW. Are health care professionals advising patients with diabetes or at-risk for developing diabetes to exercise more? *Diabetes Care*. 2006 Mar;29(3):543-8.
- McCullum M, Ellis SL, Morrato EH, Sullivan PW. Prevalence of multiple cardiovascular risk factors in U.S. adults with diabetes. *Current Medical Research and Opinion*. 2006; 22(4): 1031-1034.
- Morrato EH, Dodd S, Oderda G, Haxby DG, Allen R, Valuck RJ. Prevalence, utilization patterns and predictors of antipsychotic polypharmacy: experience from a Multi-State Medicaid Population (1998-2003). *Clinical Therapeutics*. 2007. Jan;29(1):183-95.
- Morrato EH, Staffa JA. Effectiveness of risk management plans: a case study of pemoline using pharmacy claims data. *Pharmacoepidemiology and Drug Safety*. 2007 16(1):104-12.; doi 10.1002/pds.1279.
- Morrato EH, Hill JO, Wyatt HR, Ghushchyan V, Sullivan PW. Physical activity in U.S. Adults with diabetes and at-risk for developing diabetes, 2003. *Diabetes Care*. 2007 Feb;30(2):203-9.
- Libby AM, Brent DJ, Morrato EH, Orton HD, Allen R, Valuck RJ. Pediatric depression treatment declines after FDA advisory on suicidality risk of SSRI antidepressants. *Am J Psychiatry*. 2007; 164: 884-891.
- Valuck RJ, Libby AM, Orton HD, Morrato EH, Allen RR, Ross J, Baldessarini RJ. Spillover effects on treatment of adult depression in primary care after FDA Advisory on risk of pediatric suicidality with SSRIs. *Am J Psychiatry*. 2007 Aug; 164(8):1198-1205.
- Valuck RJ, Morrato EH, Dodd S, Oderda G, Haxby DG, Allen RR. How expensive is antipsychotic polypharmacy? Experience from five state Medicaid programs. *Current Medical Research and Opinion*. 2007; 23(10): 2567-2576.
- Morrato EH, Elias M, Gericke, C. Population-based data for evidence-based health policy decisions: lessons from three examples of setting and evaluating national health policy in Australia, the UK, and USA. *Journal of Public Health*. 2007; doi:10.1093/pubmed/fdm065.
- Morrato EH, Libby AM, Orton HD, deGruy III, FV, Brent DA, Allen RR, Valuck RJ. Frequency of provider contact after FDA warning on suicidal risk of antidepressants in children. *Am J Psychiatry*. 2007; 10.1176/appi.ajp.2007.07010205).
- Morrato EH, Newcomer JW, Allen RR, Valuck RJ. Prevalence of baseline serum glucose and lipid testing in users of second-generation antipsychotic drugs: A retrospective, population based study of Medicaid claims data. *J Clin Psychiatry*. 2008; 69(2):316-22.
- Dillon P, Hammermeister K, Morrato EH, Kempe A, Oldham K, Moss L, Marchildon M, Ziegler M, Steeger J, Rowell K, Shiloach M, Henderson W. Developing a NSQIP module to measure outcomes in children's surgical care: opportunity and challenge *Semin in Pediatr Surg* May 2008; 17(2): 131-40.
- Morrato EH, Dillon P, Ziegler MM. Surgical outcomes research: A progression from performance audits, to assessment of administrative databases, to prospective risk-adjusted analysis. How far have we come? *Curr Opin Pediatr* June 1, 2008; 20(3): 320-325.

Morrato EH, Curbow B, Crum R, Nowels C, Feinleib, M. Communicating drug risk to physicians: challenges and opportunities. *International J of Risk & Safety in Medicine* 2008; 20(3): 143-154.

Morrato EH, Cuffel B, Newcomer JW, Lombard I, Kamat S, Barron J. Metabolic risk status and second-generation antipsychotic drug selection: A retrospective study of commercially insured patients. *Journal of Clinical Psychopharmacology*; 2009; 29(1): (in press).

Research Support

Active

Investigator-initiated research grant, Dillon (PI) 9/07 – 8/10
American College of Surgeons
The Children's Hospital (Denver, CO)
Pediatric National Surgical Quality Improvement Program (NSQIP)
National registry of pediatric surgical admissions and 30-day mortality and morbidity outcomes. Risk-adjusted outcomes will be used to identify quality improvement priorities.
Role: Co-Investigator

Investigator-initiated research grant, Kempe (PI) 9/06 – 12/11
The Children's Hospital Research Institute

Completed

Investigator-initiated research grant, Morrato (PI) 9/06 – 12/08
Pfizer, Inc.

Impact of an FDA warning on metabolic screening for patients receiving atypical antipsychotic drugs. Retrospective cohort study evaluating the impact of FDA diabetes warnings and Consensus recommendations from the American Diabetes Association-American Psychiatric Association Consensus on glucose and lipid testing in commercially-insured and Medicaid patients initiating second-generation antipsychotic drugs.
Role: Principal Investigator

Children's Outcome Research Program

Evaluation of surgical outcomes in general and orthopedic pediatric surgery using national population-based administrative datasets and qualitative and survey research methods. Findings will be used to identify opportunities to reduce disparities in surgical outcomes.
Role: Co-Investigator

MO1-RR00069 Morrato (PI) 10/07 – 9/08
NCRR, NIH
Additional support from the Procter & Gamble Company
and Delta Dental Foundation Frontier Center

Periodontal Health in Adolescents with Type 1 Diabetes Mellitus

Prospective cohort study investigating the prevalence of gingivitis and periodontitis, the frequency and type of oral hygiene behavior, and the level of periodontal health knowledge in adolescents (ages 12-19 years) with type 1 diabetes mellitus in comparison to similar youth without diabetes. A secondary objective is to investigate the correlation between periodontal health and levels of systemic inflammation markers and cardiovascular risk factors.
Role: Principal Investigator

U54 Albino (PI) 10/07 – 9/08
NIDCR, NIH
Center for Native Oral Health Research (CNOHR)
Community-based participatory research to reduce oral health disparities, specifically Early Childhood Caries, in American Indians.
Role: Consultant

Summer Epidemiology Program Fund Morrato (PI) 11/05 - 12/06
Johns Hopkins Bloomberg School of Public Health
Drug Risk Communication: Physician Perceptions
Qualitative research interviews exploring physician perceptions of how drug safety risk is communicated and sources of information they use to stay up-to-date on drug safety knowledge. Antidepressant case examples were used to evaluate the impact risk communication had on specific prescribing patterns and clinical care.
Role: Principal Investigator

Investigator-initiated research grant Valuck (PI) 5/06 - 11/06
Eli Lilly and Company
Impact of the FDA Black Box Warning for Antidepressants
Retrospective cohort study investigating the impact of FDA suicidality warnings on use of antidepressant drugs on depression care in pediatric and adult patients with major depression disorder using administrative claims data from a national database of managed care plans.
Role: Co-Investigator

BIOGRAPHICAL SKETCH

NAME Tracy L Nelson	POSITION TITLE Associate Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Colorado State University, Fort Collins, CO	B.S.	1991	Sports Medicine
University of Northern Colorado, Greeley, CO	M.P.H.	1993	Public Health
The Pennsylvania State University, Univ. Park, PA	Ph.D.	1998	Biobehavioral Health
The University of North Carolina, Chapel Hill, NC	Post-doctoral	1999	Cardiovascular Epidemiology

Positions and Honors:

1991-93	Graduate Research Assistant, Department of Community Health and Nutrition, University of Northern Colorado
1992-93	Community Health Educator, American Heart Association, Colorado Affiliate
1994-98	Graduate Research Assistant, Department of Biobehavioral Health, The Pennsylvania State University
1997	Teaching Assistant, Department of Biobehavioral Health, The Pennsylvania State University
1998-99	NHLBI Post-doctoral Fellow, Department of Epidemiology, Cardiovascular Epidemiology, School of Public Health, University of North Carolina at Chapel Hill
1999-2005	Assistant Professor, Department of Health and Exercise Science, Colorado State University
2005 -	Associate Professor, Department of Health and Exercise Science, Colorado State University
2001-2007	Adjunct, Assistant Professor, Department of Preventive Medicine and Biometrics, University of Colorado at Denver and Health Sciences Center
2007-2008	Adjunct, Associate Professor, Department of Preventive Medicine and Biometrics, University of Colorado at Denver and Health Sciences Center
2008-	Associate Professor, Colorado School of Public Health

Honors:

1995-98	Institutional National Research Service Award (NCHHD Pre-doctoral) in Biobehavioral Health, The Pennsylvania State University
1998-99	Institutional National Research Service Award (NHLBI Post-doctoral) in Cardiovascular Epidemiology, The University of North Carolina at Chapel Hill
2000	Inducted into Phi Kappa Phi Honor Society (Faculty Initiate)
2003	"Excellence in Education" Teaching award presented by CSU Athletic Department
2004	Tenure Track Faculty Scholarly Excellence Award – College of Applied Human Sciences - CSU

B. Selected Peer-Reviewed Publications:

1. Vogler, GP., Tang, W., **Nelson, TL.**, Hofer, SM., Grant, JD., Tarantino, LM., & Fernandez, JR. (1997). A Multivariate Model for the Analysis of Sibship Covariance Structure using Marker Information and Multiple Quantitative Traits. *Genetic Epidemiology* 14: 921-926.

2. **Nelson, TL.**, Vogler, GP., Pedersen, NL, & Hong, Y. (1999). Implications of Body Fat Distribution in an Older Twin Population. *Journal of Gerontology: Medical Sciences* 54A(9), M446.
3. **Nelson TL.**, Palmer, RF., Pedersen, NL., and Miles, TP. (1999). Psychological and Behavioral Predictors of Body Fat Distribution: Age and Gender Effects. *Obesity Research*, 7(2), 199-207.
4. **Nelson, TL.**, Vogler, GP., Pedersen, NL., & Miles, TP. (1999). Genetic and Environmental Influences on Waist-Hip Ratio and Waist Circumference in an Older Swedish Twin Population. *International Journal of Obesity*, 23, 449-455.
5. **Nelson, TL.**, Vogler, GP., Pedersen, NL., and Miles, TP (2000). Genetic and Environmental Influences on Body Fat Distribution, Insulin Resistance and CVD: Are the Influences Shared? *Twin Research* 3(1), 43-50.
6. **Nelson TL.**, Hunt K., Rosamond, W., & Ammerman, A. (2002). Obesity and Associated CVD Risk Factors in a Population of Low-Income Women: The North Carolina WISEWOMAN Project. *Preventive Medicine* 35(1), 1-6.
7. **Nelson TL.**, Dwayne T. Brandon, Sebrina A. Wiggins, & Keith E. Whitfield. (2002). Genetic and Environmental Influences on Body Fat Measures among African American Twins. *Obesity Research*, 10 (8), 733-739.
8. **Nelson, TL**, Palmer, RF, Pedersen, NL (2004). The Metabolic Syndrome Mediates the Relationship Between Cynical Hostility and Cardiovascular Disease. *Experimental Aging Research*, 30(2)163-167.
9. **Nelson, TL**, Hickey MS (2004). Acute Changes in Dietary Omega 3 Fatty Acids Lower Soluble Interleukin 6 Receptor in Healthy Adult Normal Weight and Overweight Males. *Cytokine* 26, 191-201.
10. **Nelson, TL**, Brandon, DT, Wiggins, SA and Whitfield, KE (2006) Genetic and environmental influences on body fat and blood pressure in African-American adult twins. *International Journal of Obesity*, 30(2), 243-250.
11. **Nelson, TL**, Fingerlin, TE, Moss, L, Barmada, MM, Ferrell, RE, Norris, JM (2007). Association of the peroxisome proliferator-activated receptor γ gene (PPAR- γ) with type 2 diabetes varies by physical activity among Non-Hispanic Whites from Colorado. *Metabolism* 56, 388-393.
12. **Nelson, TL**, Fingerlin, TE, Moss, L, Barmada, MM, Ferrell, RE, Norris, JM (2007). The peroxisome proliferator-activated receptor gamma coactivator-1 alpha gene (PGC-1 α) is not associated with type 2 diabetes mellitus or body mass index among Hispanic or Non-Hispanic Whites from Colorado. *Experimental and Clinical Endocrinology & Diabetes* 115(4):268-75.
13. Whitfield, K.E., King, G., Moller, S., Edwards, C., **Nelson, T.**, & Vandenberg, D (2007). Concordance rates for smoking among African American twins. *Journal of the National Medical Association*; 99(3):213-7.
14. **Nelson TL**, Fingerlin, TE, Moss, L, Barmada, MM, Ferrell, RE, Norris, JM (2007).The PPAR gamma Pro12Ala polymorphism is not associated with body mass index or waist circumference among Hispanics from Colorado. *Annals of Nutrition and Metabolism*; 51(3):252-257
15. **Nelson, TL**, Stevens, J, Hickey MS. (2007). Inflammatory markers are not altered by an eight week dietary alpha-linolenic acid intervention in healthy abdominally obese adult males and females. *Cytokine*; 38(2),101-6.

16. **Nelson, TL**, James R. Stevens & Matthew S. Hickey. (2007). Adiponectin levels are reduced, independent of polymorphisms in the adiponectin gene, after supplementation with α -linolenic acid among healthy adults. *Metabolism*; 56(9), 1209-15

17. **Nelson, TL**, Daniel H Bessesen and Julie A. Marshall. (2008). Relationship of abdominal obesity measured by DXA and waist circumference with insulin sensitivity in Hispanic and non-Hispanic White individuals: The San Luis Valley Diabetes Study. *Diabetes Metabolism Research and Reviews*; 24(1)33-40.

C. Research Support

Active

Grant-in-Aid Nelson (PI) 1/01/09 – 12/31/11
American Heart Association
Association of the Lp-PLA₂ gene with cardiovascular mortality among Hispanics and Non-Hispanic whites
This study aims to investigate genetic variability in the Lp-PLA₂ gene (*PLA2G7*) and its association with levels of Lp-PLA₂. We will also investigate the genes longitudinal association with cardiovascular mortality.

1 K01 DK064647-01 Nelson (PI) 7/01/03 – 6/30/08* (extended
6/30/09) no-cost
NIH-NIDDK
extension
Gene-Environment interactions in obesity and diabetes
This study aims to investigate gene-environment interactions in the development of obesity and diabetes in Hispanics and non-Hispanic whites.

COL 00762 Nelson (PI) 07/01/06-06/30/09
USDA-Colorado State University Agricultural Experiment Station
Effect of dietary fat type on emerging cardiovascular risk factors in individuals with impaired glucose tolerance or type 2 diabetes.
This study aims to investigate the role of dietary alpha-linolenic acid, eicosapentaenoic acid, docosahexaenoic acid on measures of flow mediated dilation and subclinical inflammation in a pre-diabetic population

Completed

Beginning Grant-in-Aid Nelson (PI) 1/1/03-12/31/04
American Heart Association
Effect of dietary fat on inflammation, endothelial function, and insulin resistance in Hispanics and non-Hispanic whites.
This study aims to investigate the role of dietary alpha-linolenic acid on endothelial function and subclinical inflammation in a biethnic population

COL 00762 Nelson (PI) 07/01/02-06/30/05
USDA-Colorado Agricultural Experiment Station
Effect of dietary fat type on cardiovascular risk factors in human obesity
This study aims to investigate the role of dietary alpha-linolenic acid on subclinical inflammation in obese humans.

BIOGRAPHICAL SKETCH

NAME Norris, Jill M., Ph.D.	POSITION TITLE Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Colgate University, Hamilton, NY	B.A.	1982-86	Biology
Univ. of Pittsburgh Graduate School of Public Health, Pittsburgh, PA	MPH	1986-88	Epidemiology
Univ. of Pittsburgh GSPH, Pittsburgh, PA	PhD	1988-90	Epidemiology

Positions and Honors

1990-97	Assistant Professor, University of Colorado Health Sciences Center (UCDHSC), Department of Preventive Medicine and Biometrics
1992-2002	Director, Doctoral Program in Epidemiology, University of Colorado Health Sciences Center
1997-2004	Associate Professor, University of Colorado Health Sciences Center, Department of Preventive Medicine and Biometrics
2000	Visiting Scientist, Genetic Epidemiological Methods, INSERM U155 (Dr. F. Clerget-Darpoux)
2000-current	Director, Genetic Epidemiology Program, UCDHSC
2002-2006	Head, Section of Epidemiology and Community Health, Department of Preventive Medicine and Biometrics
2004-current	Professor, University of Colorado Health Sciences Center, Department of Preventive Medicine and Biometrics, Now: Colorado School of Public Health, University of Colorado
Colorado	Denver, Department of Epidemiology

Honors

1986	Phi Beta Kappa Honor Society
1987-1990	National Research Service Award Pre-doctoral Fellowship
1988	Delta Omega Public Health Honor Society (Omicron Chapter)
1990	Society for Epidemiological Research Student Workshop
1996	American Diabetes Association Golden Ball Honoree
2000	Recipient of INSERM Poste Orange Fellowship
2008	University of Colorado Graduate School Dean's Mentoring Award

Selected peer-reviewed publications

Norris JM, Barriga K, Klingensmith G, Hoffman M, Eisenbarth GS, Erlich H, Rewers M. Timing of Cereal exposure in infancy affects risk of Islet Autoimmunity. The Diabetes Autoimmunity Study in the Young. *JAMA* 2003;290:1713-20.

Norris JM, Langefeld CD, Scherzinger AL, Rich SS, Bookman E, Beck SR, Saad MF, Haffner SM, Bergman RN, Bowden DW, Wagenknecht LE. Quantitative Trait Loci for Abdominal Fat and BMI in Hispanic-Americans and African-Americans: The IRAS Family Study. *Int J Obesity* 2005; 29: 67-77

Rich SS, Bowden DW, Haffner SM, **Norris JM**, Saad MF, Mitchell BD, Rotter JI, Langefeld CD, Hedrick CC, Wagenknecht LE, Bergman RN. A genome scan for fasting insulin and fasting glucose identifies a quantitative trait locus on chromosome 17p. The Insulin Resistance Atherosclerosis Study (IRAS) Family Study. *Diabetes* 2005;54:290-295.

Norris JM, Barriga K, Hoffenberg EJ, Taki I, Miao D, Haas JE, Emery LM, Sokol RJ, Erlich HA, Eisenbarth GS, Rewers M. Risk of celiac disease autoimmunity and timing of gluten introduction in the diet of infants at increased risk of disease. *JAMA* 2005;293:2343-51.

Steck AK, Bugawan TL, Valdes AM, Emery LM, Blair A, **Norris JM**, Redondo MJ, Babu SR, Erlich HA, Eisenbarth GS, Rewers MJ. Association of non-HLA genes with type 1 diabetes autoimmunity. *Diabetes* 2005;54:2482-6.

Aly TA, Ide A, Humphrey K, Barker JM, Steck A, Erlich HA, Yu L, Miao D, Redondo MJ, McFann K, Roberts CM, Babu SR, **Norris JM**, Eisenbarth GS, Rewers MJ. Genetic prediction of autoimmunity: initial oligogenic prediction of anti-islet autoimmunity amongst DR3/DR4-DQ8 relatives of patients with type 1A diabetes. *J Autoimmunity* 2005;25:40-45.

Poole JA, Barriga K, Leung DYM, Hoffman M, Eisenbarth GS, Rewers M, **Norris JM**. Timing of initial exposure to cereal grains and the risk of wheat allergy. *Pediatrics* 2006;117:2175-82.

Guo X, Saad MF, Langefeld CD, Williams AH, Cui J, Taylor KD, **Norris JM**, Jinagouda S, Darwin CH, Mitchell BD, Bergman RN, Sutton B, Chen Y-DI, Wagenknecht LE, Bowden DW, Rotter RI. Genome-wide linkage of plasma adiponectin reveals a major locus on chromosome 3q distinct from the adiponectin structural gene. *Diabetes* 2006;55:1723-30.

Stene LC, Honeyman MC, Hoffenberg EJ, Haas JE, Sokol RJ, Emery L, Taki I, **Norris JM**, Erlich HA, Eisenbarth GS, Rewers M. Rotavirus infection frequency and risk of celiac disease autoimmunity in early childhood: a longitudinal study. *Am J Gastroenterol* 2006;101:2333-2340.

Stene LC, Barriga K, Hoffman M, Kean J, Klingensmith G, **Norris JM**, Erlich HA, Eisenbarth GS, Rewers M. Normal but increasing HbA1c levels predict progression from islet autoimmunity to overt Type 1 diabetes: Diabetes Autoimmunity Study in the Young (DAISY). *Pediatric Diabetes* 2006;7:247-53.

Bhatia SS, Majka DS, Kittelson JM, Parrish LA, Ferucci ED, Deane KD, Arend WP, Rewers M, Holers VM, **Norris JM**. Rheumatoid factor seropositivity in a normal population is inversely associated with oral contraceptive use. *Ann Rheum Dis* 2007;66:267-9.

Young K, Parrish L, Zerbe G, Rewers M, Deane K, Holers VM, **Norris JM**. Perinatal and Early Childhood Risk Factors Associated with Rheumatoid Factor Positivity in a Healthy Paediatric Population. *Ann Rheum Dis* 2007;66:179-183.

Nelson TL, Fingerlin TE, Moss L, Barmada MM, Ferrell RE, **Norris JM**. The peroxisome proliferator-activated receptor gamma coactivator-1 alpha gene (PGC-1 α) is not associated with type 2 diabetes mellitus among Hispanic or Non-Hispanic whites from Colorado. *Exp Clin Endocrin Diab* 2007;115:268-75.

Nelson TL, Fingerlin TE, Moss L, Barmada MM, Ferrell RE, **Norris JM**. Association of the peroxisome proliferator-activated receptor- γ gene (PPAR- γ) with type 2 diabetes varies by physical activity among Non-Hispanic Whites from Colorado. *Metabolism Clin Exp* 2007;56:388-393.

Nelson TL, Fingerlin TE, Moss L, Barmada MM, Ferrell RE, **Norris JM**. The PPARgamma Pro12Ala polymorphism is not associated with body mass index or waist circumference among Hispanics from Colorado. *Ann Nutr Metab* 2007;51:252-7.

Norris JM, Yin X, Lamb MM, Barriga K, Seifert J, Hoffman M, Orton H, Baron A, Clare-Salzler M, Chase HP, Szabo NJ, Erlich H, Eisenbarth GS, Rewers M. Omega-3 polyunsaturated fatty acid intake and islet autoimmunity in children at increased risk for type 1 diabetes: The Diabetes Autoimmunity Study in the Young. *JAMA* 2007: 298:1420-28.

Majka DS, Deane KD, Parrish LA, Baron AE, Walker CW, Rubertone MV, Gilliland WR, **Norris JM**, Holers VM. The duration of pre-clinical rheumatoid arthritis-related autoantibody positivity increases in subjects with older age at time of disease diagnosis. *Ann Rheum Disease* 2008;67:801-7.

U01-DK63821	Rewers (PI)	10/02 - 09/12
NIH-NIDDK		
Environmental Causes of Type 1 Diabetes		
The major goal of this project is to identify the environmental causes of type 1 diabetes autoimmunity and type 1 diabetes itself. This site is one of 6 sites around the world that will be following high risk children from birth.		
Role: Co-Chair of the Dietary Data Collection Committee		
R01-HL61019	Norris (PI)	07/99 - 12/09
NIH-NHLBI		
IRAS Family Study		
The major goal of this project is to identify 1) the genetic and environmental determinants of insulin sensitivity, and visceral adiposity; and 2) the extent to which insulin sensitivity, and visceral obesity share genetic and environmental influences.		
Role: Principal Investigator		
R01-DK068001	Dabelea (PI)	07/05 - 06/10
NIH-NIDDK		
Exploring the Fetal Origins Hypothesis among Diverse Youth		
The major goal of this study is to examine the effect of <i>in utero</i> exposure to diabetes on risk of obesity and diabetes in children and adolescents.		
Role: Investigator		
R01-AR051394	Holers (PI)	07/05 - 06/10
NIH-NIAMS		
RA-related autoantibodies in healthy FDR of RA Patients		
The major goal of this study is to measure the prevalence and risk factors for the appearance of RA-related autoantibodies in high risk adults.		
Role: Co-investigator		
U19-AI50864	Holers (PI)	10/01 – 08/11
RA associated autoimmunity in high risk populations		
This is project #2 in an NIH Cooperative Study Group in Autoimmune Disease Prevention, U19-AI50864 (Eisenbarth, PI). The goal is to determine the age-specific prevalence of autoimmunity associated with rheumatoid arthritis, and to determine predictors of this autoimmunity.		
Role: Co-Investigator of the project and responsible for study design, study conduct, and analysis/interpretation/presentation of the data.		

BIOGRAPHICAL SKETCH

NAME Lorraine G. Ogden	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Princeton University, Princeton, NJ	BA	1993	Psychology
University of Pittsburgh, Pittsburgh, PA	MS	1996	Biostatistics
Tulane University, New Orleans, LA	PhD	2002	Biostatistics

Positions and Honors

1993-1994	Research Assistant, Department of Psychology, Princeton University, Princeton, NJ
1994-1996	Research Associate, Department of Family and Psychosocial Studies, Western Psychiatric Institute and Clinic, Pittsburgh, PA
1996	Teaching Assistant, Department of Biostatistics, University of Pittsburgh Graduate School of Public Health, Pittsburgh, PA
1997-1998	Teaching Assistant, Department of Biostatistics, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
1998-1999	Course Instructor – Introduction to BMDP, Department of Biostatistics, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
1998-2000	Course Instructor – Introduction to SAS, Department of Biostatistics, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
1998-2001	Biostatistician, Department of Epidemiology, Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
2002-Present	Assistant Professor, Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Denver (formerly Department of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center) Aurora, CO

Honors

2008	Excellence in Teaching Award, Department of Preventive Medicine and Biometrics, School of Medicine, University of Colorado Denver
2003	Delta Omega Honorary Society in Public Health (Eta Chapter)
2000	Dean of School of Public Health and Tropical Medicine Award for Excellence in Research and Presentation by a Public Health Doctoral Student

Selected peer-reviewed publications

1. Haas GL, **Garratt LS**, Sweeney JA. Delay to first antipsychotic medication in schizophrenia: impact on symptomatology and clinical course of illness. Journal of Psychiatric Research 1998; 32(3-4):151-159.
2. He J, **Ogden LG**, Vupputuri S, Bazzano LA, Loria CM & Whelton PK. Dietary sodium intake and subsequent risk of cardiovascular diseases in overweight adults. JAMA 1999; 282(1):2027-2034.
3. **Ogden LG**, He J, Lydick E, & Whelton PK. Long-term absolute benefit of lowering blood pressure in hypertensive patients according to the JNC VI risk stratification. Hypertension 2000; 35: 539-543.
4. He J, **Ogden LG**, Bazzano LA, Vupputuri S, Loria C, Whelton PK. Risk factors for congestive heart failure in U.S. men and women: NHANES I Epidemiologic Follow-Up Study. Archives of Internal Medicine 2001; 161:996-1002.
5. Bazzano LA, He J, **Ogden LG**, Loria C, Vupputuri S, Myers L, Whelton PK. Dietary potassium intake and risk of stroke in US men and women: NHANES I Epidemiologic Follow-up Study. Stroke 2001; 32: 1473-1480.

6. Bazzano LA, He J, **Ogden LG**, Loria C, Vupputuri S, Myers L, Whelton PK. Legume consumption and risk of coronary heart disease in U.S. men and women: NHANES I Epidemiologic Follow-Up Study. Archives of Internal Medicine 2001; 161: 2573-2578.
7. Xin X, He J, Frontini MG, **Ogden LG**, Matsamai OI, Whelton PK. Effects of alcohol reduction on blood pressure: A meta-analysis of randomized controlled trials. Hypertension 2001; 38: 1112-1117.
8. Chen J, He J, **Ogden LG**, Batuman V, Whelton PK. Relationship of serum antioxidant vitamins to serum creatinine in the US population. American Journal of Kidney Disease 2002; 39(3): 460-468.
9. Bazzano LA, He J, **Ogden LG**, Vupputuri S, Loria C, Myers L, Whelton PK. Dietary intake of folate and risk of stroke in US men and women: NHANES I Epidemiologic Follow-up Study. Stroke 2002; 33: 1183-1189.
10. Bazzano LA, He J, **Ogden LG**, Loria CM, Vupputuri S, Myers L, Whelton PK. Agreement on nutrient intake between the databases of the First National Health and Nutrition Examination Survey and the ESHA Food Processor. American Journal of Epidemiology 2002; 156(1): 78-85.
11. Bazzano LA, He J, **Ogden LG**, Vupputuri S, Loria C, Myers L, Sherwin RW, Whelton PK. Fruit and vegetable intake and risk of cardiovascular disease in US adults: the first National Health and Nutrition Examination Survey Epidemiologic Follow-Up Study (NHEFS). American Journal of Clinical Nutrition 2002; 76(1): 93-99.
12. He J, **Ogden LG**, Bazzano LA, Vupputuri S, Loria C, Whelton PK. Dietary sodium intake and incidence of congestive heart failure in overweight US men and women: NHANES I Epidemiologic Follow-up Study. Archives of Internal Medicine; 2002; 162(14): 1619-1624.
13. Bazzano LA, He J, **Ogden LG**, Loria CM, Whelton PK. Dietary fiber intake and reduced risk of coronary heart disease in US men and women: The National Health and Nutrition Examination Survey I Epidemiologic Follow-Up Study. Archives of Internal Medicine; 2003; 163: 1897-1904.
14. Sackett HM, Maier LA, Silveira LJ, Mroz MM, **Ogden LG**, Murphy JR, Newman LS. Beryllium medical surveillance at a former nuclear weapons facility during cleanup operations. Journal of Occupational & Environmental Medicine 2004; 46(9): 953-961.
15. Snell-Bergeon JK, Hokanson JE, Kinney GL, Dabelea D, Ehrlich J, Eckel RJ, **Ogden L**, Rewers M. Measurement of abdominal fat by CT compared to waist circumference and BMI in explaining the presence of coronary calcium. International Journal of Obesity and Related Metabolic Disorders 2004; 28(12): 1594-1599.
16. Maahs DM, **Ogden LG**, Kinney GL, Wadwa P, Snell-Bergeon JK, Dabelea D, Hokanson JE, Ehrlich J, Eckel RH, Rewers M. Low plasma adiponectin levels predict progression of coronary artery calcification. Circulation 2005; 111: 747-753.
17. Hedlund TE, Maroni PD, Ferucci PG, Dayton R, Barnes S, Jones K, Moore, R, **Ogden LG**, Wahala K, Sackett HM, Gray KJ. Long-term dietary habits affect soy isoflavone metabolism and accumulation in prostatic fluid in Caucasian men. J Nutr 2005; 135(6): 1400-1406.
18. Ziegler TR, **Ogden LG**, Singleton KD, Luo M, Fernandez-Estivariz C, Griffith DP, Galloway JR, Wischmeyer PE. Parenteral glutamine increases serum heat shock protein 70 in critically ill patients. Intensive Care Medicine 2005; 31(8): 1079-1086.
19. Choudhuri JA, **Ogden LG**, Rutenber AJ, Thomas DSK, Todd JK, Simoes EAF. Effect of altitude on hospitalizations for respiratory syncytial virus infection. Pediatrics 2006; 117(2): 349-356.
20. Wadwa RP, Kinney GL, **Ogden L**, Snell-Bergeon JK, Maahs DM, Cornell E, Tracy RP, Rewers M. Soluble Interleukin-2 receptor as a marker for progression of coronary artery calcification in type 1 diabetes. International Journal of Biochemistry and Cell Biology 2006; 38: 996-1003.
21. Hedlund TE, van Bokhoven A, Johannes WU, Nordeen SK, **Ogden LG**. Prostatic fluid concentrations of isoflavonoids in soy consumers are sufficient to inhibit growth of benign and malignant prostatic epithelial cells in vitro. Prostate 2006; 66(5): 557-566.
22. Kretowski A, Hokanson JE, McFann K, Kinney GL, Snell-Bergeon JK, Maahs DM, Wadwa RP, Eckel RH, **Ogden LG**, Garg SK, Li J, Cheng S, Erlich HA, Rewers M. The apolipoprotein A-IV Gln360His polymorphism predicts progression of coronary artery calcification in patients with type 1 diabetes. Diabetologia 2006; 49(8): 1946-1954.

23. Kretowski A, McFann K, Hokanson JE, Maahs D, Kinney G, Snell-Bergeon JS, Wadwa P, Eckel RH, **Ogden L**, Garg S, Cheng C, Erlich HA, Rewers M. Polymorphisms of the Renin-Angiotensin system genes predict progression of subclinical coronary atherosclerosis. Diabetes 2007; 56: 863-871.
24. Maahs DM, **Ogden LG**, Snell-Bergeon JK, Kinney GL, Wadwa P, Hokanson JE, Dabelea D, Kretowski A, Eckel RH, Rewers M. Determinants of serum adiponectin in persons with and without Type 1 Diabetes. American Journal of Epidemiology 2007; doi: 10.1093/aje/kwm125
25. Maahs DM, Snell-Bergeon JK, Kinney GL, Wadwa RP, Garg S, **Ogden LG**, Rewers MR. ACE/ARB treatment in type 1 diabetes subjects with albuminuria is associated with lower odds of progression of coronary artery calcification. Journal of Diabetes and Its Complications 2007; 21(5): 273-279 .
26. Kinsella EO, Crane LA, **Ogden LG**, Stevens-Simon C. Characteristics of adolescent women who stop using contraception after use at first sexual intercourse. Journal of Pediatric and Adolescent Gynecology 2007; 20(2): 73-81.
27. Rodarmel SJ, Wyatt HR, Stroebele N, Smith SM, **Ogden LG**, Hill JO. Small changes in dietary sugar and physical activity as an approach to preventing excessive weight gain: the America On the Move Family Study. Pediatrics 2007; 120(4): e869-879.
28. Niccolai LM, **Ogden LG**, Muehlenbein CE, Dziura JD, Vazquez M, Shapiro ED. Methodological issues in design and analysis of a matched case-control study of a vaccine's effectiveness. Journal of Clinical Epidemiology 2007; 60(11): 1127-1131.
29. Maahs DM, **Ogden LG**, Kretowski A, Snell-Bergeon JK, Kinney GL, Berl T, Rewers M. Serum cystatin C predicts progression of subclinical atherosclerosis in persons with type 1 diabetes. Diabetes 2007; 56(11): 2774-2779.
30. Heber D, Seeram NP, Wyatt H, Henning SM, Zhang Y, **Ogden LG**, Dreher M, Hill JO. Safety and antioxidant activity of pomegranate ellagitannin-enriched polyphenol extract dietary supplement in overweight individuals with increased waist size. Journal of Agricultural & Food Chemistry 2007; 55: 10050-10054 .
31. Catenacci VA, **Ogden LG**, Stuht J, Phelan S, Wing RR, Hill JO, Wyatt HR. Physical activity patterns in the National Weight Control Registry. Obesity 2008; 16(1): 153-161.
32. Guy J, **Ogden L**, Wadwa RP, Hamman RF, Mayer-Davis EJ, Liese A, D'Agostino Jr. R, Marcovina S, Dabelea D. Lipid and Lipoprotein Profiles in Youth with and Without Type 1 Diabetes: The SEARCH Case-Control Study. Diabetes Care 2009; 32(3):416-420.
33. Snell-Bergeon JK, Dabelea D, **Ogden LG**, Hokanson JE, Kinney GL, Ehrlich J, Rewers M. Reproductive history and hormonal birth control use are associated with coronary calcium progression in women with type 1 diabetes mellitus. Journal of Clinical Endocrinology & Metabolism (in press).
34. Pratte KA, Baron AE, **Ogden LG**, Hassell KL, Rewers M, Hokanson JE. Plasminogen activator inhibitor-1 is associated with coronary artery calcium in type 1 diabetes. J Diabetes and Complications (in press).
35. Snell-Bergeon JK, Maahs DM, **Ogden LG**, Kinney GL, Hokanson JE, Schiffer E, Rewers M, Mischak H. Evaluation of urinary biomarkers for coronary artery disease, diabetes, and diabetic kidney disease. Diabetes Technology and Therapeutics (in press).
36. Snell-Bergeon JK, Chartier-Logan C, Maahs DM, **Ogden LG**, Hokanson JE, Kinney GL, Eckel RH, Ehrlich J, Rewers M. Adults with type 1 diabetes eat a high fat, atherogenic diet which is associated with coronary artery calcium. Diabetologia. (in press).
37. Stroebele N, **Ogden LG**, Hill JO. Do calorie-controlled portion sizes of snacks reduce energy intake? Appetite (in press).

Research Support

Active

R01DK071692 (Wyatt)

08/01/06-07/31/11

NIH-NIDDK

Using the Energy Gap to Prevent Weight Regain

Role: Co-Investigator

R01 DK068001 (Dabelea) 09/14/05-06/30/10
NIH-NIDDK
Exploring the Fetal Origins Hypothesis among Diverse Youth
Role: Co-Investigator
Completed

R37DK042549 (Hill) 5/01/1990-7/31/08
Funding Source: NIH/NIDDK
Diet and Physical Activity Interactions in Obesity
Role: Statistician

R01 HL061753 (Rewers) 9/1/99-6/30/08
NIH, NHLBI
Coronary Artery Calcification in Type 1 Diabetes
Role: Co-Investigator

R01 HL079611 (Rewers) 10/1/04-08/31/08
NIH, NHLBI
Determinants of Accelerated CVD in Type 1 Diabetes
Role: Co-Investigator

PN200310-245 (Hill) 1/01/2004 – 7/31/2006
McNeil Nutritionals
The Effectiveness of a Fiber Drink on Satiety and Weight Loss
Role: Statistician

M01 RR00051 (Krugman) 4/01/2002 – 3/31/2007
NIH/NCRR
General Clinical Research Center
Role: Statistician

BIOGRAPHICAL SKETCH

NAME Orton, Heather D.	POSITION TITLE Instructor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Colorado at Colorado Springs, Colorado Springs, CO	B.S.	1994	Applied Math/ Psychology
University of Colorado Denver, Denver, CO	M.S.	2002	Biostatistics
University of Colorado Denver, Denver, CO	Ph.D.	2008	Epidemiology

Positions and Honors

1995	Software engineer/analyst, CTA Incorporated, Colorado Springs, CO
1995-1997	Statistical Analyst/Researcher, Colorado Women's Cancer Control Initiative, Colorado Department of Public Health and Environment, Denver, CO
1997-2000	Statistical Analyst, Colorado Responds to Children with Special Needs, Colorado Department of Public Health and Environment, Denver, CO
2000-2008	Statistical Analyst, American Indian and Alaska Native Programs, University of Colorado Denver, School of Medicine, Department of Psychiatry, Denver, CO
2009-present	Instructor, Centers for American Indian and Alaska Native Health, University of Colorado Denver, School of Public Health, Department of Epidemiology, Aurora, CO

Honors and Awards

1999-2000	Maurice-Davies Award (Masters Student of the Year, Department of Preventive Medicine and Biometrics)
2004-2005	Colorado Department of Public Health and Environment (Denver, CO) Graduate Fellowship

Selected peer-reviewed publications

1. Orton H, Rickard R and Gabella B. Capture-recapture estimation using statistical software. *Epidemiology* 1999 Sep; 10(5): 563-4.
2. Orton H, Rickard R, Miller L. Using active medical record review and capture-recapture methods to investigate live birth prevalence of Down syndrome in Colorado. *Teratology* 2001; 64 suppl 1: S14-9.
3. Libby, A.M., Cuellar, A., Snowden, L.R., & Orton, H.D. (2002) Substitution in a Medicaid mental health carve-out: services and costs. *Journal of Health Care Finance, Summer*, 28(4), 11-23.
4. Libby, A.M., Sills, M.R., Thurston, N.K. & Orton, H.D. (2002) Costs of childhood physical abuse: comparing inflicted and unintentional head injuries. *Pediatrics* July 2003; 112(1): 58-65.
5. Beals, J., Novins, D.K., Spicer, P., Orton, H.D., Manson, S.M. & the AI-SUPERPFP Team. (2004) Challenges in operationalizing the DSM-IV clinical significance criteria. *Archives of General Psychiatry*, 61(12): 1197-1207.
6. Libby, A.M., Orton, H.D., Novins, D., Spicer, P., Buchwald, D. Manson, S.M. (2004) Childhood physical abuse and lifetime alcohol and drug disorders for two American Indian tribes. *Journal of Studies on Alcohol* January 2004; 65:74-83.

7. Libby, A.M., Orton, H.D., Novins, D., Beals, J., D. Manson, S.M. (2005) Childhood physical abuse and lifetime depressive and anxiety disorders in two American Indian tribes. *Psychological Medicine*, 35(3):329-340.
8. Libby, A.M., Coen, A.S., Price, D.A., Silverman, K., Orton, H.D. (2005) Inside the Black Box: what constitutes a day in a residential treatment centre? *International Journal of Social Welfare*, 14: 176-183.
9. Sills, M.R., Libby, A.M., & Orton, H.D. (2005) Pre-Hospital and In-Hospital Mortality: A Comparison of Inflicted and Unintentional Traumatic Brain Injuries. *Archives of Pediatric and Adolescent Medicine*, 159: 665-670.
10. Libby, A.M., Orton, H.D., Stover, S.K., and Riggs, P.D. (2005) What Came First, Major Depression or Substance Use Disorder? Clinical Characteristics and Substance Use Comparing Teens in a Treatment Cohort. *Addictive Behaviors*, 30:1649-1662.
11. Libby, A.M., Orton, H.D., Barth R.P., Webb, M.B., Burns, B.J., Wood, P., and Spicer, P. (2006) Alcohol, Drug and Mental Health Specialty Treatment Services by Race/Ethnicity: A National Study of Children and Parents Involved with Child Welfare. *American Journal of Public Health*, 96 (4): 628-631.
12. Shore, J., Beals, J., Orton, H., Buchwald, D. (2006) Comorbidity of alcohol abuse and dependence with medical conditions in 2 American Indian Reservation Communities. *Alcoholism: Clinical and Experimental Research*, 30(4): 649-655.
13. Shore, J., Savin, D., Orton, H., Beals, J., Manson, S. (2007) Diagnostic Reliability of Telepsychiatry in American Indian Veterans. *American Journal of Psychiatry*, 164: 115-118.
14. Libby, A.M., Orton, H.D., Barth R.P., Webb, M.B., Burns, B.J., Wood, P., and Spicer, P. (2007) Mental Health and Substance Abuse Services to Parents of Children Involved with Child Welfare: A Study of Racial and Ethnic Differences for American Indian Parents. *Administration and Policy in Mental Health and Mental Health Services Research*, 34(2): 150-159.
Published online:
<http://www.springerlink.com/content/001q336267263154/?p=a58c6e364c8e4d44b80f83af87f151f3&pi=6>
15. Libby, A.M., Brent, D.A., Morrato, E.H., Orton, H.D., Allen, R.R., Valuck, R. J. (2007) Pediatric Depression Treatment Declines After FDA Advisory on Antidepressants for Risk of Suicidality. *American Journal of Psychiatry*, 164(6): 884-91.
16. Libby, A.M., Orton, H.D., Barth, R.P., Burns, B.J. (2007) Alcohol, drug and mental health service need for caregivers and children involved with child welfare. In: Haskins R, Wulczyn F, Webb MB, eds. *Child Protection: Using Research to Improve Policy and Practice*. Washington, DC: Brookings Institution Press.
17. Valuck, R.J., Libby, A.M., Morrato, E.H., Orton, H.D., Allen, R., Baldessarini, R. (2007) Spillover Effects on Adult Depression Treatment in Primary Care After FDA Advisory on Suicidality Risk of SSRI Antidepressants Targeting Pediatric Patients with MDD. *American Journal of Psychiatry*, 164(8):1198 - 1205.
18. Norris JM, Yin X, Lamb MM, Barriga K, Seifert J, Hoffman M, Orton HD, Baron AE, Clare-Salzler M, Chase HP, Szabo NJ, Erlich H, Eisenbarth GS, Rewers M (2007) Omega-3 polyunsaturated fatty acid intake and islet autoimmunity in children at increased risk for type 1 diabetes. *JAMA*. 298(12):1420-8.
19. O'Connell JM, Novins DK, Beals J, Whitesell N, Libby AM, Orton HD, Croy CD, and the AI-SUPERFPF Team (2007) Childhood characteristics associated with stage of substance use of American Indians: Family background, traumatic experiences, and childhood behaviors. *Addictive Behaviors*, 32(12):3142-52.

20. Morrato, E.H., Libby, A.M., Orton, H.D., deGruy, F.V. III, Brent, D.A., Allen, R, Valuck, R.J. (2008). Frequency of Provider Contact After FDA Advisory on Risk of Pediatric Suicidality With SSRIs. *American Journal of Psychiatry*, 165(1): 42-50.
21. Libby, A.M., Orton, H.D., Beals, J., Buchwald, D. Manson, S.M. (2008) Childhood abuse and later parenting outcomes in two American Indian tribes. *Child Abuse and Neglect*, 32(2): 195-211.
22. Orton, H.D., Szabo, N.J., Clare-Salzler, M., Norris, J.M. (2008) Comparison between omega-3 and omega-6 polyunsaturated fatty acid intakes as assessed by a food frequency questionnaire and erythrocyte membrane fatty acid composition in young children. *European Journal of Clinical Nutrition*, 62(6): 733-738.
23. Orton, H.D., Riggs, P.D., Libby, A.M. (2008) Prevalence and characteristics of depression and substance use in a U.S. child welfare sample. *Children and Youth Services Review*, early online publication: http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V98-4V42J2C-3&_user=418620&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000019840&_version=1&_urlVersion=0&_userid=418620&md5=7c0f3053adcb39ef115b0c6dd56ea7bf

Research Support

Completed

DHHS ACF 90PH0012/01 Libby (PI) 10/01/2006 – 02/29/2009

The Epidemiology of Depression and Substance Use: Adolescents in Child Welfare

This project conducts secondary analysis of a nationally representative longitudinal sample of youth involved with Child Welfare and their caregivers to characterize the patterns and development of mental health, alcohol and drug problems among adolescents involved with Child Welfare systems.

Role: Project Manager

Agency for Healthcare Research and Quality (AHRQ), 09/07 - 12/08
National Institutes of Health (NIH) Pace (PI)

The Distributed Ambulatory Research in Therapeutics Network (DARTNet)

The major goal of this project is to build a prototype federated network of electronic health record (EHR) data from eight organizations representing over 200 clinicians and over 350,000 patients (i.e., the Distributed Ambulatory Research in Therapeutics Network, or DARTNet). The prototype system will be used to explore how currently available EHR data can be used to supplement data from large administrative datasets in order to better answer questions concerning the safety and effectiveness of medications and medical devices, including use of point of care data collection techniques.

Role: Statistician

American Foundation for Suicide Prevention (AFSP) 07/07 - 08/08
Distinguished Investigator Award Valuck (PI)

Impact of Antidepressant Discontinuation on Risk of Suicide Attempt

The major goal of this project is to quantify differential rates of suicide attempt among users of antidepressant drugs in relation to phase of drug therapy (pre-drug therapy, initiation phase, titration phase, continuation/maintenance phase, discontinuation/tapering phase, and 'off' periods). Relative risks of suicide attempt by phase of therapy will be generated and compared with previous empirical findings.

Role: Statistician

NIDA R01 DA017803 Beals (PI)

7/01/2004 – 06/30/2007

Chronic Stressors and Drug Abuse Problems in Two American Indian Populations

The major goal of this project is to examine the relationship between chronic stressors such as poverty and violence and drug use and disorders in two American Indian populations that permit cultural variation.

Role: Data Analyst.

NIMH R01 MH067871 Snowden (PI)

9/01/2004 – 08/31/2007

Ethnic minority children in public mental health.

This project examines the use of psychiatric emergency services by youth in California's public specialty mental health system from 1998-2001, and assesses the relationship between continuity of care in the community, ethnicity, and foster care status relative to crisis care. Role: Statistician.

01-1068 Libby (PI)

9/01/2001 – 08/31/2004

California Health Care Foundation
Mental Health Care and Foster Care System Interaction.

The major goal of this project is to examine the utilization of public sector specialty mental health care and child welfare out-of-home (foster care) services by California children 1998-2001.

Role: Data Analyst.

RWJ047400 Spicer (PI)

03/01/2003 – 02/28/2006

Robert Wood Johnson Foundation Substance Abuse
Research Projects

Substance Abuse and American Indian Child Welfare.

Analyze national data to explore substance abuse needs of American Indian/Alaska Native parents involved with child welfare compared to other racial/ethnic groups.

Role: Data Analyst.

NIDA R01 DA13176 Riggs (PI)

7/01/1999 – 06/30/2006

Treating Depression in Substance Dependent Teens

This is a 16-week randomized placebo-controlled trial of fluoxetine vs. placebo treatment for depression plus cognitive behavioral therapy (individual, weekly) for substance abuse in adolescents with DSM IV conduct disorder, major depression and substance use disorders, examining safety/efficacy, SUD outcomes for depression treatment responders, as well as costs and cost effectiveness.

Role: Data Analyst.

BIOGRAPHICAL SKETCH

NAME		POSITION TITLE		
Reynolds, Stephen J.		Professor		
INSTITUTION AND LOCATION		DEGREE	YEAR(s)	FIELD OF STUDY
Carleton College, Northfield, MN		BA	1977	Chemistry
University of Minnesota, Minneapolis, MN		MS	1983	Environmental Health
University of Minnesota, Minneapolis, MN		PhD	1990	Environmental Health

Positions and Honors

1989-1991	National Health & Safety Coordinator/Senior Industrial Hygienist, Delta Environmental Consultants, Inc.
1991-1999	Assistant Professor (1991-96), Associate Professor (1996-99), Dept of Preventive Medicine and Environ Health, College of Medicine, The University of Iowa, Iowa City, IA
1993-2001	Associate Director for Laboratory Operations, Institute for Rural and Environ Health, The University of Iowa
1994-2001	Director, Industrial Hygiene Core (1994-2001), Center Deputy Director (1995-97), Center Director (1997-2001), Great Plains Center for Agricultural Health, The University of Iowa
1995-2001	Director, Environ Assessment Facility, Environ Health Sci Res Ctr, The University of Iowa
1995-2001	Director, Industrial Hygiene Program, Div of Occup and Environ Health, The University of Iowa
1997-2001	Director, WorkSafe Iowa, The University of Iowa
1999-2001	Associate Professor, Dept of Occup and Environ Health, College of Public Health, The University of Iowa
2000-2001	Professor, Dept of Occup and Environ Health, College of Public Health, The University of Iowa
2001-2002	Assoc. Professor, Dept of Env. Rad. Health Sci., College Veterinary Medicine, Colorado State University
2001-2002	Deputy Director, High Plains Intermountain Center for Agricultural Health and Safety
2002-	Director, High Plains Intermountain Center for Agricultural Health and Safety
2002-	Adjunct Professor, University of Saskatchewan, College of Medicine
2003-	Professor, Department of Environmental and Radiological Health Sciences, Colorado State University
2005-	Head, Occupational and Environmental Health Section, Department of Environmental and Radiological Health Sciences, Colorado State University
2007	Deputy Director Mountain and Plains Education Research Center

Other Experience and Professional Memberships

1988-	Certified Industrial Hygienist, # 4121
1992-2001	IA-IL Chapter of AIHA (Treasurer, 1993-94; President Elect, 1994-95; President, 1995-96; Past President, 1996-97, Board Member);
1996-2001	Member, Iowa Governor's Occupational Safety and Health Advisory Council
1996-	AIHA International Affairs Committee (Secretary 2002, Vice Chair 2003, Chair 2004-05, Past Chair 2006) (Subcommittee for Central and Eastern Europe -Vice Chair, 1997-1998, Chair, 1998-2000); International Task Force – 2006.

1997- 2007 ACGIH Agricultural Safety and Health Committee, Member
 1999- 2007 ACGIH Bioaerosol Committee, Member
 1999-2003 Board of Directors, Farm Safety for Just Kids,
 1999- Peer reviewer for: AIHA Journal; Indoor Air; Environ Sci Technol; J Occup Environ Hyg (Ed Advisory Board), J Agromedicine (Ed Board) Ann Agric Environ Med (International Ed Review Board.); J Preclinical Clinical Med (Ed. Review Board)
 1999- Grant Reviewer for: National Research Council, Office of International Affairs, CRSP Grants Program, CDC/NIOSH Training Grants
 2002 CDC/NIOSH National Childrens Agricultural Center, National Construction Centers, ERCs (Chair).

Honors

2008 – 2011 American Conference of Governmental Industrial Hygienists - Vice Chair Elect, Vice Chair, Chair, Past Chair
 2007 Fulbright Senior Scholar – Occupational and Environmental Medicine in Armenia
 2005 AIHA Outstanding Committee Award, Chair International Affairs Committee
 1999 Senior Engineer/Scientist of the Year, Quad City Engineering and Science Council (representing 34 professional engineering and related associations in the region, Iowa)
 1998 Iowa Governor's Award for Volunteerism, Iowa
 1994 Elected to Membership, Delta Omega Honorary Public Health Society
 1994 – 1996 National Academy of Sciences Young Investigator Program
 1993 – 1996 Special Emphasis Research Career Award (SERCA) Recipient, US PHS

Selected peer-reviewed publications

(Selected from a total of 80 peer reviewed articles)

1. **Reynolds SJ**, Donham KJ, Whitten P, Merchant JA, Burmeister LF, Popendorf WJ. Longitudinal evaluation of dose-response relationships for environmental exposures and pulmonary function in swine production workers. Am J Ind Med 1996;29:33-40.
2. **Reynolds SJ**, Fuortes LJ, Garrels RL, Whitten P, Sprince NL. Lead poisoning among construction workers renovating a previously delead bridge. Am J Ind Med 1997;31:319-323.
3. **Reynolds SJ**, Etre L, Thorne PS, Whitten P, Selim M, Popendorf WJ. Laboratory comparison of vacuum, OSHA, and HUD sampling methods for lead in household dust. AIHA J 1997;58:439-446.
4. Thorne PS, **Reynolds SJ**, Milton DK, Bloebaum PD, Zhang X, Whitten P, Burmeister LF. Field evaluation of endotoxin air sampling assay methods. AIHA J 1997;58:792-799.
5. **Reynolds SJ**, Merchant JA, Stromquist AM, Burmeister LF, Taylor C, Lewis MQ, Kelly KM. Keokuk County Rural Health Study: self reported use of pesticides and protective equipment. J Agric Saf Health Special Issue 1998;1:67-77.
6. Etre LA, **Reynolds SJ**, Burmeister L, Whitten P, Gergely R. An evaluation of the effectiveness of lead paint hazard reduction when conducted by homeowners and landlords. Appl Occup Environ Hyg 1999;14(8):522-529.
7. Mahar S, **Reynolds SJ**, Thorne PS. Worker exposures to particulates, endotoxins, and bioaerosols in two refuse-derived fuel plants. AIHA J 1999;60:679-683.
8. Bauer EP, Romitti PA, **Reynolds SJ**. Evaluation of reports of periconceptual occupational exposure: Maternal-assessed versus industrial hygiene-assessed exposure. Am J Ind Med 1999;36:573-578.
9. Jones ML, **Reynolds SJ**, Burmeister LF, Lewis MQ, Whitten PS, Zwerling C. Application of a subjective health and safety rating system to Iowa farm operations. Appl Occup Environ Hyg 1999;14(12):852-867.

10. **Reynolds SJ**, Seem R, Fuortes LJ, Sprince NL, Johnson J, Walkner L, Clarke W, Whitten P. Prevalence of elevated blood leads and exposure to lead in construction trades in Iowa and Illinois. *Am J Ind Med* 1999;36:307-316.
11. Donham KJ, Cumro D, **Reynolds SJ**, Merchant JA. Dose-response relationships between occupational aerosol exposures and cross-shift declines of lung function in poultry workers: recommendations for exposure limits. *J Occup Environ Med* 2000;42(3):260-269.
12. **Reynolds SJ**, Groves W. Effectiveness of roll-over protective structures in reducing farm tractor fatalities. *Am J Prev Med* 2000;18(4S):63-69.
13. Johnson JC, **Reynolds SJ**, Fuortes LJ, Clarke WR. Lead exposure among workers renovating a previously de-lead bridge: comparison of trades, work tasks. *AIHA J* 2000;61(6):815-19.
14. **Reynolds SJ**, Black DW, Borin SS, Breuer G, Burmeister LF, Fuortes LJ, Smith TF, Stein MA, Subramanian P, Thorne PS, Whitten P. Indoor environmental quality in six commercial office buildings in the midwest U.S. *Appl Occup Environ Health* 2001;16(11):1065-1077.
15. Merchant JA, Zwerling C, Burmeister LF, **Reynolds SJ**, Stromquist AM, Kelly KM. Chronic disease and injury in an agricultural county: the Keokuk County Rural Health Cohort Study. *J Rural Health* 2002;18(4):521-535.
16. Donham KJ, Cumro D, **Reynolds SJ**. Synergistic effects of dust and ammonia on the occupational health effects of poultry production workers. *J Agromedicine* 2002;8(2):57-76.
17. **Reynolds SJ**, Thorne PS, Donham KJ, Croteau EA, Kelly KM, Lewis D, Whitmer M, Heederik DJJ, Douwes J, Connaughton I, Koch S, Malmberg P, Larsson BM, Milton DK. Interlaboratory comparison of endotoxin assays using agricultural dusts. *AIHA J* 2002;63(4):430-438.
18. Rautiainen RH, **Reynolds SJ**. Mortality and morbidity in agriculture in the United States. *J Agric Saf Health* 2002;8(3):259-276.
19. Kirychuk SP, Senthilselvan A, Dosman JA, Jurio V, Feddes JJR, Willson P, Classen H, **Reynolds SJ**, Guenter W, Hurst TS. Respiratory symptoms and lung function in poultry confinement workers in Western Canada. *Can Respir J* 2003;10 (7): 375-380.
20. Groves WA, **Reynolds SJ**. Prototype sampling system for measuring workplace protection factors for gases and vapors. *Appl Occup Environ Hyg* 2003;18(5):1-9.
21. Park HS, **Reynolds SJ**, Kelly KM, Stromquist AM, Burmeister LF, Zwerling C, Merchant JA. Characterization of agricultural tasks performed by youth in the Keokuk County Rural Health Study. *Appl Occup Environ Hyg* 2003;18(6):1-12.
22. Taylor JR, O'Shaughnessy PO, **Reynolds SJ**. Estimating personal exposures based upon mass balance material usage rates: validation of a ventilation model in a spray paint booth. *J Occup Environ Hyg* 2004;1(4): 213-221.
23. **Reynolds SJ**, Milton DK, Heederik D, Thorne PS, Donham KJ, Croteau EA, Kelly KM, Douwes J, Lewis D, Whitmer M, Connaughton I, Koch S, Malmberg P, Larsson BM, Deddens J, Saraf A, Larsson L. Interlaboratory evaluation of endotoxin analyses in agricultural dusts - comparison of LAL assay and mass spectrometry. *J Environ Monit* 2005;7,1371-1377.
24. Curwin BD, Hein MJ, Sanderson WT, Barr DB, Heederik D, **Reynolds SJ**, Ward EM, Alavanja MC. Urinary and handwipe pesticide levels among farmers and non-farmers in Iowa. *J Expo Anal Environ Epidemiol* 2005;1-9.
25. Curwin B, Hein MJ, Sanderson WT, Nishioka MG, **Reynolds SJ**, Ward WM, Alavanja MC. Pesticide contamination inside farm and non-farm homes. *J Occup Environ Hyg* 2005;2(7):357-367.
26. Merchant JA, Naleway AL, Svendsen ER, Kelley KM, Burmeister LF, Stromquist AM, Taylor CD, Thorne PS, **Reynolds SJ**, Sanderson WT, Chrischilles EA. Asthma and farm

exposures - a cohort of rural Iowa children. Environ Health Perspect 2005;113(3):350-356.

27. O'Shaughnessy PT, Lo J, Golla V, Nakatsu J, Tillery MI, **Reynolds SJ**, Comparison of Aerosol Samplers Relative to the Inhalable and Respirable Collection Criteria. JOEH 4:237-245, 2007.
28. Tadevosyan A, **Reynolds SJ**, Kelly KM, Fuortes L, Mairapetyan A, Tadevosyan N, Petrosyan M, Beglaryan S, Organochlorine Pesticide Residues in Breast Milk in Armenia. J Clinical and PreClinical Medicine (1):84-88, 2007.
29. **Reynolds SJ**, Tadevosyan A, Fuortes L, Merchant JA, Stromquist AM, Burmeister LF, Taylor C, Kelly KM. Keokuk County Rural Health Study: Self-reported Use of Agricultural Chemicals and Protective Equipment. JAgromedicine 12(3) 45-55, 2007.

C. Research Support

Active

2U50-OH008085-04A1 Reynolds (PI)
CDC/NIOSH

08/1/07 - 08/31/11

High Plains Intermountain Center for Occupational Health and Safety-Administrative Core)
Conduct research, education, outreach, prevention and intervention to reduce illness, injury, and fatalities among agricultural population in Federal Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming).

Role: Principal Investigator / Director – responsible for overall leadership and implementation

2U50-OH008085-04A1 Reynolds (PI)
CDC/NIOSH

08/1/07 - 08/31/11

HICAHS – Prospective Study of Occupational Lung Disease and Endotoxin Exposure in New Dairy Workers

Research – Study of endotoxin adaptation response, measuring progression of pulmonary and immune responses relative to exposure and genetic factors.

Role: Principal Investigator / Director – responsible for overall leadership and implementation

1T42OH009229-01 Reynolds (PI at CSU) [Lee Newman, PI at UCDHSC]
CDC/NIOSH

07/1/07 - 06/30/10

Mountain and Plains Education Research Center

Graduate training support for occupational medicine, industrial hygiene, ergonomics, health physics, and occupational health psychology. Continuing education and outreach.

Role: Principal Investigator at CSU / Center Deputy Director– responsible for overall leadership and implementation, and Director of Industrial Hygiene Program.

BIOGRAPHICAL SKETCH

NAME Marci K. Sontag	POSITION TITLE Assistant Professor		
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Denver, Denver, CO	B.S.	1990 – 1994	Mathematics
University of Colorado, Denver, CO	M.S.	1994 –1996	Biometrics
University of Colorado, Denver, CO	Ph.D.	1997 – 2004	Analytic Health Sciences - Epidemiology

Positions and Employment

The University of Colorado Health Sciences Center and The Children's Hospital, Denver, Colorado

1996-1998	Professional Research Assistant
1998-2004	Senior Professional Research Assistant
2004-2007	Instructor, Preventive Medicine and Biometrics
2007 - present	Assistant Professor, Epidemiology, Colorado School of Public Health, University of Colorado Denver, Denver, Colorado

Committee Work

State of Colorado Newborn Screening Advisory Committee – Member	January 2000 – present
Mountain West Cystic Fibrosis Consortium Steering Committee – Chair	June 2000 – present October 2006 - present
Cystic Fibrosis Foundation Therapeutics Development Network Research Coordinator Committee – Chair	October 1999 – April 2002 April 2000 – April 2002
Cystic Fibrosis Foundation National Patient Registry Committee – Member	July 2003 – Present

Selected peer-reviewed publications

1. Sondheimer J, Cadnapaphornchai M, Narcewicz M, Sontag M, Zerbe G. Predicting the duration of dependence on parenteral nutrition after neonatal intestinal resection. *J Pediatr.* 1998 Jan; 132(1): 80-84.
2. Erskine JM, Lingard CD, Sontag MK, Accurso FJ. Enteral nutrition for patients with cystic fibrosis: comparison of a semi-elemental and nonelemental formula. *J Pediatr*132(2):265-269, 1998.
3. Krebs NF, Sontag M, Accurso FJ, Hambidge KM. Low plasma zinc concentrations in young infants with cystic fibrosis. *J Pediatr* 1998 Dec;133(6):761-4
4. Feranchak AP, Sontag MK, Wagener JS, Hammond KB, Accurso FJ, and Sokol RJ. Prospective, long-term study of fat-soluble vitamin status in children with cystic fibrosis identified by newborn screen. *J.Pediatr.* 135 (5):601-610, 1999.
5. Oermann CM, Sockrider MM, Giles D, Sontag MK, Accurso FJ, Castile RG. Comparison of high-frequency chest wall oscillation and oscillating positive expiratory pressure in the home management of cystic fibrosis: a pilot study. *Pediatr Pulmonol* Nov;32(5):372-7, 2001.
6. Sagel SD, Kapsner R, Osberg I, Sontag MK, Accurso FJ. Airway inflammation in children with cystic fibrosis and healthy children assessed by sputum induction. *Am J Respir Crit Care Med* 15;164(8 Pt 1):1425-31, 2001.
7. Sagel SD, Sontag MK, Wagener JS, Kapsner RK, Osberg I, Accurso, FJ. Induced sputum inflammatory measures correlate with lung function in children with cystic fibrosis. *J Pediatr* 2002 Dec;141(6):811-7.
8. Maselli JH, Sontag MK, Norris JM, MacKenzie T, Wagener JS, Accurso, FJ. Risk Factors for Initial

Acquisition of *Pseudomonas aeruginosa* in Children with Cystic Fibrosis identified by Newborn Screening. *Pediatr Pulmonol*. 2003;35:257-62.

9. Wooldridge JL, Deutsch GH, Sontag MK, Osberg I, Chase DR, Silkoff PE, Wagener JS, Abman SH, Accurso FJ. NO pathway in CF and non-CF children. *Pediatr Pulmonol*. 37 (4):338-350, 2004.
10. Rodman DM, Polis JM, Heltshe SL, Sontag MK, Chacon C, Rodman RV, Brayshaw SJ, Huitt GA, Iseman MD, Saavedra MT, Taussig LM, Wagener JS, Accurso FJ, Nick JA.. Late diagnosis defines a unique population of long-term survivors of cystic fibrosis. *Am J Respir Crit Care Med*. 2005 Mar 15;171(6):621-6.
11. Sontag MK, Hammond KB, Zielenski J, Wagener JS, and Accurso FJ. Immunoreactive Trypsinogen Based Newborn Screening for Cystic Fibrosis in Colorado: Recall Rate, Genotyping and Borderline Sweat Test results. *J Pediatr*. 2005 Sep;147(3 Suppl):S83-8.
12. Accurso FJ, Sontag MK, Wagener JS. Complications associated with symptomatic diagnosis in infants with cystic fibrosis. *J Pediatr*. 2005 Sep;147(3 Suppl):S37-41.
13. Sontag MK, Corey M, Hokanson JE, Marshall JA, Sommer SS, Zerbe GO, Accurso FJ. Genetic and physiologic correlates of longitudinal immunoreactive trypsinogen decline in infants with cystic fibrosis identified through newborn screening.. *J Pediatr*. 2006 Nov;149(5):650-657.
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Appendix F: EXTERNAL REVIEWER'S COMMENTS

Comments on University of Colorado Denver "Proposal for a Master of Science in Epidemiology Degree"

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The description of the plans for a Master of Science degree program at the Colorado School of Public Health are very well defined, reflecting careful thought regarding all aspects of the issue. The market for graduates, source of students, resource needs from faculty, and finances have all been considered and the resulting proposal is compelling. The academic content of the program is central, and the course requirements are consistent with the stated intent of the program and the roles for the graduates of the program. I see no significant deficiencies or limitations in the proposal, but do offer some points for consideration in regard to clarity:

- 1) Given the justifiably modest volume of students, 3-5 per year, it seems questionable whether this track will justify and support entire new courses. Perhaps all the courses that comprise the program are already in place for other degree students, but some clarification on that point would be reassuring. For example, to offer a summer curriculum to serve these students alone would be inefficient.
- 2) The distinction between the MS in Epidemiology and the MPH in Epidemiology (or is it a generalist MPH or a concentration in epidemiology?) could be sharpened. The exact course tradeoffs should be noted, i.e., MS does NOT require the following, but DOES require these beyond what the MPH involves. Also, differences in the thesis requirements might be indicated.
- 3) The argument that this will not simply siphon off a few students each year from the large MPH program might be developed further. It was not clear why that would not be the case, i.e., that you are tapping a distinct market from those who are drawn to the MPH. In my experience, there is a spectrum of research vs. practice orientation, and the MS will draw the most research oriented. This may not be a bad situation, tailoring the program towards a distinct audience, but it might affect revenue projections.
- 4) Under "Admission Standards," requiring Differential Calculus seems a bit extreme. Perhaps "evidence of proficiency in mathematics" or something to that effect would be wiser.
- 5) Engaging community representatives on the Admissions Committee may not be the best idea for either the representative who serves or the program. There are many ways in which such individuals can be of help but it's not clear that this structured, administrative activity is one of them.
- 6) In listing the Program Faculty, you might make a distinction between those who you consider to be qualified as primary research advisors and those who would likely play a supporting role. If all are considered candidates to provide such guidance, that's fine, but you should clarify what it means other than serving as a resource.
- 7) In noting on page 12 the relationships with Colorado State University and University of Northern Colorado, it is not clear what role they would play exactly – providing faculty, research opportunities and placements, etc.